Ever increasing speed

Logistical process optimization
Dear Readers,

A few weeks ago, along with our US team, I attended the International Association of Plastics Distribution annual convention in Chicago. The IAPD brings together distributors, fabricators, manufacturers and service providers. One particular presentation, “Where Will We Be in 2032?” very much impressed me.

The presenter was Mark Kramer, the long-time CEO of a large US distributor group. Mark will be retiring at year end and he used his opportunity at the podium to bid farewell to “his industry” with some pearls of wisdom for “our future.” Early in his career, Mark served as a U.S. Navy officer. While a refined sense of humor was clearly present in his IAPD speech, there was also a serious message at its core: the impact and opportunity of digitalization.

Mark first discussed social media platforms and their influence. He anticipates in fifteen years, “everyone will think they know everything.” In his view, Twitter, Facebook, and others will increasingly dominate public opinion to the point that any balanced debate of facts will be suppressed into the background. Anyone following current political affairs is already aware of this impending trend.

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Keeping the goods flowing

Nufringen: process optimisation in logistics

When it comes to logistics in the stock shapes division, new buildings, modern plant technology and qualified skilled personnel have paved the way for further growth in the largest business segment at the Nufringen site. "Revised key figures systems, consistent project management and improved internal communication have all boosted efficiency in recent years," says Kai Faller, Head of Global Supply Chain Management in the Shapes division.

Specialists use a variety of terms and key figures, such as delivery reliability, delivery performance and delivery times, to describe the effectiveness of logistics operations. Operation is also based on such KPIs at the Nufringen site. "We are able to supply 95 percent of our European customers with their goods within 48 hours. Likewise, we supply overseas customers by air and sea freight within specified time frames."

The heart of logistics

The ERP changeover also resulted in changes to the logistics control centre in the new building. Here, Mike Guadagnino is responsible for planning and managing customer orders together with his colleagues. He calls this area "the heart of logistics" because the warehouse management system is maintained in the control centre, with close communication with the neighbouring logistics departments. There are further interfaces for stock shape production, for quality management and for sales.

Process transparency was increased significantly by integrating a loading module into the warehouse management system. "As all the work steps are controlled by scanning the packages, we can track the material flow at any time and correct it if need be," explains Florian Maiwaldt, who managed the project. "Now we are always aware of the current processing state of a customer delivery, from an order being released and picked right through to the packing and loading stations," he adds.

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The timing of the lorries has been optimised according to the pearl necklace principle: since they began to specify fixed collection times, the throughput times have got shorter. Direct data transfer to the forwarding companies enables shipments to be permanently tracked. "Because we work closely with our transport providers, we are able to react quickly to external issues," says the Head of Dispatch Logistics, Rainer Grzelka. "We are able to supply 95 percent of our European customers with their goods within 48 hours. Likewise, we supply overseas customers by air and sea freight within specified time frames."

Outgoing goods with delivery guarantee

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Kai Faller is aiming for further process optimisation: "At the moment we are working on moving away from being a pure logistics service provider and towards integrated management of the supply chain," says the Industrial Engineer. "For us, this means that in the future we will map both the material and information flow, from incoming goods right through to the end customer."

Variety of materials in the incoming Goods department

With increasing volumes of goods to be handled, ensuring a smooth material flow poses a challenge for internal logistics. This affects all departments, including the raw materials warehouse. Each day, lorries deliver plastic granules to the incoming Goods department for supplying the production divisions in Nufringen. The polymers which are processed in large quantities are mainly temporarily stored in silos, the remainder are packed in sacks or in Octabins. The variety of basic plastics and the compounds produced in Nufringen gives rise to a continuing need for individual containers, whose storage and transport must be organised. Following on from continuous improvements that had already been made in previous years as part of the EVI programme, the storage location management system was integrated in the new ERP system. "Since then it has been possible to transfer driving jobs directly to the forklift truck terminals via SAP and WLAN," beams Team Leader Gerald Wilhelm.

In the Outgoing Goods department, the packages, which all feature barcodes, are uniquely identified using handheld scanners. In this way, this successful project has even reduced the error rate in dispatch logistics. The layout of the unheated warehouse has been rearranged so that the shipments intended for specific recipients can be compiled in defined storage spaces. Before the lorry arrives, the team in the Order Processing department has created the shipping documents and dealt with the customs procedures for export.

The commissioning of the modern plant technology for the expansion of the Shapes division four years ago was a huge leap forward for internal logistics at the Nufringen site: in the high-bay warehouse, the inflow and outflow of plastic stock shapes is mainly automatic. Smoother transport can be carried out efficiently with the aid of computer-controlled conveying systems while the picking system is paperless.

The management team in the logistics department of the Shapes division (from left to right): Mike Guadagnino (Team Leader Logistics Control Centre), Florian Maiwaldt (Special Consultant Plant Technology & Logistics Projects), Rainer Grzelka (Head of Dispatch Logistics), Dieter Scharf (Head of Intralogistics), Kai Faller (Head of Global Supply Chain Management) and Gerald Wilhelm (Team Leader Control Centre Raw Materials Warehouse/Incoming Goods)
Interview with Wilfried Ensinger to mark 40 years of insulbar

„At our first trade fair in 1978, even our competitors were sending customers who had tricky problems to solve over to our stand.“

With the development of insulating profiles made of polyamide, Wilfried Ensinger laid the foundation stone for the effective insulation of metal windows, doors and facades back in 1977. During the decades that followed, the company drove forward the field of thermal insulation with a string of inventions and patents. In this interview, Wilfried Ensinger throws light on the history of insulbar’s evolution.

Mr Ensinger, what was it that drew your attention as a plastics engineer to the subject of energy efficiency in the construction industry? The enormous energy savings potential. At the beginning of the seventies – I remember this very precisely – I had a very large oil tank installed in my house. In those days, we still paid under ten cents for a litre of crude oil tank installed in my house. In those days, we still paid under ten cents for a litre of crude oil. In those days, we still paid under ten cents for a litre of crude oil. Energy costs just kept going up. Was the world of metal window construction a good grounding in preparation for this?

There was a movement towards the idea of improving thermal separation. But system manufacturers encountered major problems with the plastic solutions. By the time the component went for anodizing or stone enamelling the elements had become deformed or no longer sat perfectly. Why do you think people had confidence in a solution that came from a newcomer? We were the only provider capable of supplying glass fibre reinforced plastic products to the required degree of precision. With our extruded semi-finished products, we achieved far narrower tolerances than would have been possible with machined plastics. And word got around. At our first trade fair in 1978, even our competitors were sending customers who had tricky problems to solve over to our stand. What was your suggestion for window, door and façade construction?

Turning theory into practice: How was the invention of the first prototypes through to the series manufacturing stage? Back in the mid seventies, we planned and nullified the first prototypes out of a panel. We threaded these into the guides in the aluminium profiles and they fitted just fine. But the aim was for the assembly to be permanently seated without wobbling. As well as friction locking, positive locking was also required. So I filed a toothed section into the aluminium guide. The significantly better thrust this created proved a compelling argument. What challenges did you face from the first applications to the series manufacturing stage?

So you paved the way for the rolling and knurling method in widespread use today? Yes, this wasn’t the commonly used method beforehand. However, if the profile is simply pushed in, even the smallest tolerances can add up to significant weak spots. By knurling and rolling, these can be minimized. In the presence of the ifh Rosenheim and the Federal Institute for Materials Research and Testing, we extensively tested the new type of assembly. Turning theory into practice: How was the insulating profile tested?

Working in cooperation with BASF, we also tested the compatibility of the plastic with almost 70 different substances and processes which commonly occur in the construction of windows. Your first customer was then your development associate Wicona, today a premium brand of the Sapa Group. That’s right, we went into series production in 1977 for Wicona. This type of partnership tends to open doors: The whole of the industry was keen to use our solution. This meant that our business grew rapidly, naturally offering individually adjusted profiles. In 1980 we opened our factory in Cham, where we have been series producing our insulating profiles under the insulbar brand ever since.

How big was Ensinger when insulbar was launched, and what was the extent of the development department?

Oh, I took care of development and tooling for many years myself – up until the introduction of the hollow chamber in 1995. I spent long hours at the drawing board, including Saturdays and Sundays. Initially, the product was further developed by our application engineers. When things took off with Insulbar, it was almost like founding another company – and its rapid expansion meant we experienced growth pains.

Was there already an export market or were insulating bars for metal construction mainly something taken up by the German market?

In the German-speaking countries, expectations are high. This gave us and the industry a good grounding in preparation for export. Soon, we had customers in Italy, Spain, France and the UK. Meanwhile, the importance of energy efficiency is on the rise in the USA and China, too. There is plenty of potential yet to be uncovered!

The complete interview is available at insulbar.com.
A warm welcome

Employees who have joined Ensinger:

Nufringen
- Apprenticeship in Compounds
  - Steffen Bühler
  - Roberto Ferro
  - Viktor Gassert
  - Waldemar Schweizer
  - Murat Yilmaz
- Facility Management
  - Pedro Miguel Dinis Soares

Ergenzingen
- Apprenticeship in Compounds
  - Steffen Glaser
  - Arntor Halimi
  - Tim Marquardt
  - Jannik Mau
  - Dominik Rudolph
  - Julian Willmann

Cham
- Apprenticeship in Compounds
  - Johannes Maier
  - Anna Roll
  - Julian Schweitzer

Ravensburg
- Apprenticeship in Compounds
  - Christoph Serwuschok

Insulbar®
- Yvonne Goppel

Shapes
- Maximilian Attenberger
- Selina Beser
- Johannes Steli

Tooling
- Fabian Bürgler

Apprenticeship
- Industrial management assistant
  - Marina Pavlovic
- Specialist for Warehouse Logistics
  - Tobias Jentzsch

Industrial Profiles and Tubes
- Waldemar Janzen

Facility Management
- Pedro Miguel Dinis Soares

Apprenticeship in Industrial Profiles and Tubes
- Waldemar Janzen

Apprenticeship in Shapes
- Carola Götze
- Christoph Kopitzki

Apprenticeship in Tooling
- Anna Roll
- Julian Schweitzer

Bachelor programme in Mechanical engineering / Plastics technology
- Sandro Hodosi
- Sebastian Bach

Bachelor programme in Industrial engineering and management
- Evelyn Widmaier

Bachelor of Science in Business Informatics / Application Management
- Nils Niemann

Main office
- Kerstin Jagemann

Machining
- Michael Haller

Outstanding trainees

Process mechanics in Nufringen and Cham are “best in state” and “best apprentice”

- Those completing their training programmes at the Nufringen, Ergenzingen and Cham locations regularly pass their final Chambers of Industry and Commerce exams with flying colours.
- This year junior staff in the industrial and commercial professions were especially successful, particularly three process mechanics fresh from their training in plastics and rubber technology:
  - Axel Philippin has been awarded the accolade “best in state” in his apprenticeship occupation by the Baden-Württemberg Chambers of Industry and Commerce.
  - David Wittmann has received the state prize of the Oberfranken government district for his exceptional academic achievements.
  - Marco Steudle is “best apprentice” of the Oberpfalz (Regensburg Chambers of Industry and Commerce) test district.

- Within the Company, these top achievements were also honoured with the Wilfried Ensinger prize. Other students who received this honour were Lisa Marie König (specialist in warehouse logistics).

- Wilfried Ensinger prizes are awarded in Nufringen (left to right): Sven Heidinger (Head of Personnel), Sven Birk (Commercial/technical Trainer), Mike Guadagnino (Trainer for specialists in warehouse logistics), Heinz Lehmann (Commercial/technical Trainer), Lisa Marie König, Julius Mull, Wilfried Ensinger, Axel Philippin, Tobias Lehrer, Dr. Ömer Soluk and Miriam Fiedler (Head of Personnel Development and Training).

- Wilfried Ensinger prizes and Chambers of Industry and Commerce certificates are awarded in Cham (from left to right): Stefan Schmitz (process mechanic), Kerstin Janke, Edith Holzberger (Chair of the Wilfried and Martha Ensinger Foundation), Wilfried Ensinger, Andreas Alsfasser (Head of the Technical Management Service Center), Michael Jokisch (Head of the Training Workshop), Jenska Braun (Personnel Assistant), David Wittmann, Jörg Graf (Deputy Head of the Training Workshop), Marco Steudle and Werner Bach (Works Council).

- Helmut Ensinger (left) has been named Baden-Württemberg’s top trainee in the vocational profession of Process Mechanic for Plastics and Rubber Technology. The Chamber of Commerce invited the trainees voted the State’s best candidates in their individual fields to the Rottweil Power Station to receive their awards. Ralf Grammel (right) is the tutor in charge of training process mechanics in the injection moulding plant.

- Tobias Lehrer (tool mechanic) and Kerstin Janker, Julia Mull and Ömer Soluk (all process mechanics). The Company founder and benefactor congratulated the prize-winners and thanked all those who had supported and encouraged those completing their training programmes during the course of their training.
Fitted kitchens with purist handle-less furniture fronts have been in vogue for some years. Furniture fittings from Blum ensure that cabinets and drawers open and close with maximum convenience. Engineering plastics play a key role in keeping things moving effortlessly. Ensinger is commissioned by Blum to manufacture different precision components for hinge, lift and drawer systems using injection moulding.

Whether wall-mounted or base cabinets in kitchens, bathrooms, hallways, bedrooms or living rooms – the family firm Julius Blum based in Höchst on the shores of Lake Constance in Austria develops, produces and sells innovative lift, hinge and drawer systems designed for maximum convenience in every area of the home, and also develops suitable electrical and mechanical movement technologies. This is an application in which metals and high-performance plastics work perfectly in tandem.

Two family firms working in partnership
Because the fittings are required to withstand serious loads in practical application, particularly to cope with heavily laden full-extension drawers, clearly the injection mouldings manufactured in large quantities have to provide a high level of fitting accuracy. Blum, which was founded back in 1952 and employs a workforce of 7300 worldwide, takes a far broader approach to the issue of quality than merely the products themselves. When looking for a partner with many years of experience in the injection moulding of thermoplastics, the specialists from Blum encountered a very similar approach to quality at Ensinger – a characteristic which could be considered universal among medium-sized family-owned businesses.

Electric drives for enhanced convenience
In its injection moulding factory in Rottenburg-Ergenzingen, Ensinger now produces a range of different components under contract to Blum. These include a roller carriage for a drawer runner, a return unit for furniture hinges, as well as housings and buffers for soft-close systems. Ensinger also produces the motor retainer for the electric Servo Drive system. Once installed, the simple exertion of light pressure on the furniture front prompts the relevant drawer to open with a quiet, smooth action. Servo Drive can also be actuated by pressure from a knee or elbow. This is a particularly handy feature in a busy kitchen – not only when it comes to disposing of waste. It is just this type of invention that has lent Blum an excellent reputation among kitchen manufacturers and interior architects. Worldwide, the fittings specialist holds around 2,600 patents. Around four per cent of its annual turnover is ploughed back into research and development. So it’s no coincidence that Blum is among the international market leaders in its field today.
Job done!

Key date: April 1st - ERP system changeover in the German locations
– by Dr. Erwin Schuster (CIO) and Jochen Genterczewsky (ERP Project Manager)

On April 1, 2017, a Saturday, the time had finally arrived: Go-Live weekend at Ensinger GmbH. In keeping with the plan drawn up at the start of the TECAspeed IT project more than two years ago, this day was marked out for the grand switchover from BaaN to SAP in the German locations. The existing ERP system had already been blocked for operational activity since the Friday afternoon, marking the start of work on the cut-over which continued over the whole of the weekend. Alongside the Project Management, Service Center IT and key users, the company’s external consultants were also involved full time. In total, almost 70 specialists were at work. Added to this specialist team, hard-working assistants were fully engaged throughout the company supporting key users in their respective divisions. A big thank-you to everyone involved! How were this number of specialists coordinating key users in their respective divisions? A big thank-you to everyone involved! How were this number of specialists coordinated over a single weekend? It goes with-being.

No go-live without its challenges
For the go-live, this extended to changeover of the various interfaces, for instance connection to the in-house production and warehousing systems. All interfaces were technically migrated, subjected to intensive testing and optimized for SAP. Immediately after the go-live, our on-site support service kicked in. The key users changed back to their specific divisions, IT and specialist advisors were distributed across the Nufringen, Cham and Ergenzingen locations. This marked the transition of the TECAspeed project to the next project phase: Optimization. The optimization phase entailed intensive troubleshooting, optimization of processes and master data, as well as continuation of team training by the key users. This phase – which focused particularly on the first three months (this part is designated the stabilization phase) – will run until the end of the year.

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Where do we go from here? While the optimization phase is still on-going, the project team will be counting down to the international rollout. Initial workshops are already taking place in the international subsidiaries. And of course no ERP system is ever really finished: new modules are continuously being introduced and existing solutions improved. However, clear priority is attached to positive completion of the optimization phase.

Consistent international e-mail addresses
Whether you’re in Germany, Brazil or China – at Ensinger everything revolves around plastics. So it can only be an advantage for internet users who do not know the Company and its sphere of activity to gain an idea, right from the very first contact, of what products and what services the Ensinger brand stands for. Our new international domain name is the logical upshot of this notion, since ensingerplastics.com combines the Company name with the type of materials we work with. In the meantime the new home page of our website brings together the websites of numerous subsidiaries and foreign branches as well as Ensinger GmbH (see impulse 1/2017). “Since the majority of the old web addresses such as ensinger-online.com, ensinger.co.uk and ensinger.pl have recently been replaced by the new domain name, a Company-wide conversion of e-mail accounts is the obvious next step,” explains Rupert Holzer, Head of Infrastructure and IT Service Center. Based on the international standard, the address style of e-mail address will in the long term be firstname.secondname@ensingerplastics.com for all staff in the Group.

So within the Ensinger GmbH company, anyone@de.ensinger-online.com will become andy.anyone@ensingerplastics.com. As Rupert Holzer explains, the technical and organisational preparations have already been completed. Within the GmbH, the implementation is scheduled to take place by January 2018. Customers do not need to change addresses, straight away because in the transitional stage Ensinger will be running the former e-mail addresses in parallel for a minimum of six months.

What was your experience of the preparation of the go-live deadline and the weeks that followed?
It was obvious to us that demands on our time would increase again this year. And this proved to be correct, since even in the early phase of the ERP project, the IT advisers and key users had given their attention to the adjustment of master data. As a precautionary measure, as early as the end of 2016, we in the Injection Moulding plant had created detailed delivery plans for the time following the go-live deadline. This meant that in the Injection Moulding Division we were able to enter, produce and deliver the majority of orders straight away in the first week after the introduction of SAP.

How important is the collaboration with key users from other divisions and service centers?
Over the course of time we have become a fully committed community: we exchange ideas for solutions and offer each other mutual help. We are all pulling together. Particularly during the stressful introductory phase, it was invaluable that a divisional mindset didn’t exist any more. Whenever a department said that it was at times overwhelmed before or after system migration, key users who still had unused capacity offered them technical and operational support.

What have you personally learned from the TECAspeed project?
In January 2015 at the start of my first key user training, I never expected to be able to accumulate the necessary know-how in such a relatively short time. It was hard at the beginning, but a few months later I was able to take on a part of the user training in the Injection Moulding and Thermix Divisions myself. Working on TECAspeed has been really rewarding, and not just because I have learned such a lot in terms of technical knowledge and method. I have really enjoyed the team working, the collaboration, and the project management too. I wouldn’t have missed this ERP project for the world, however stressful it might sometimes have been.

“A committed community”

Ulrike Reichardt (3rd from right in this group photo, front row) is one of the 50 key users who have taken on a leading role in the ERP project TECAspeed. Ulrike Reichardt manages the introduction of SAP to Sales and Logistics in the Injection Moulding plant in Rottenburg-Ergenzingen. In her role as Assistant to the Division Manager, she is also responsible for divisional controlling at the location. She talks to the editor of impulse, giving us her view from the user’s perspective.

Continued...
Construction projects in Germany

Combined production and logistics hall

The planning authorities in Cham have given the green light to the proposed resolution for Ensinger’s new building project. As soon as the project is approved by the district administration, work can begin on construction of the planned production and logistics hall on the site in the Altenmarkt industrial zone. Building work is set to start in the spring, and be completed by the end of 2018. The new hall will substantially expand the space Ensinger has available for its compounding facilities and also its logistical operations. Currently, material processing takes place in one building, which it will be used by the Machined Parts Division in the future. Nylon casting will also occupy a part of the storage and provisioning area in the new building.

“Every division of the company will benefit directly or indirectly from the new hall and optimization of the logistics area, which is why the implementation of the building project represents a liberating move for the Cham factory,” says Andreas Ahsfasser, who as Head of Technical Management has already coordinated a number of construction projects at the site. “With this expansion project, Ensinger is not only addressing its current requirement, but also gaining reserve space for further organic growth in Cham.” The new building represents an investment of around 12 million Euro. Added to this will be infrastructure costs such as investment in new conveying technology, in a new power supply system and outdoor facilities.

Additional four-storey building in Nufringen

Building plans are far advanced in Nufringen too: in the south-eastern section of the Company premises an additional building will be constructed in the coming year to house the Technical Management, Toolmaking and Training Departments. Ensinger is planning a four-storey building with a total floor area of 2,500 square metres.

The ground floor has been designed with a height of more than 6 metres so that it can be used for cranes, and will be linked with both existing halls. The upper floors will have a modular construction and will contain new offices and meeting rooms to provide space for other Service Centres and Divisions at this location.

Graduation 2017

The first cohort of students have passed their final exams in Nimo

The Viktor Frankl New Dimension Secondary School in the Nigerian village of Nimo was officially opened in the year 2011. This summer for the first time, the most senior students were able to take their final exams at this secondary school. 31 graduates can now gain the university entrance qualification meeting the standards of the West African Examination Council (WAEC).

With the support of the church, the construction of both the Viktor Frankl School and the Unity Model Primary School located on the same plot was largely made possible by means of private donations. The Ensinger Foundation has been supporting the school project for two decades, and has also funded a borehole for drinking water and the purchase of medical equipment in Nimo.

Both these well-appointed schools have become models for success, not least thanks to their dedicated and well-qualified teaching staff. Several students have recently won cups in competitions for speaking, mathematics and essay writing. Those who are not aiming for university admission can gain a vocational qualification at the secondary school.

Further information: ensinger-stiftung.de
When constructing a modern building like the head office of measurement equipment manufacturer Testo, aluminium windows, doors and facades are a popular option. Benefits of this material are its light weight, stability, durability and weather resistance. Large facades and sash widths can only be achieved using aluminium windows. But: metals are extremely conductive. Valuable energy is being lost through the frame. Preventing this from happening is where we – Ensinger – come in. A new video illustrates how thermal separation works.

How to insulate aluminium windows

ensingerplastics.com

goo.gl/6EGZdT