



HN

~~My production,~~  
~~my machine,~~  
~~my issues.~~  
*My business!*

#SubscriptionModel

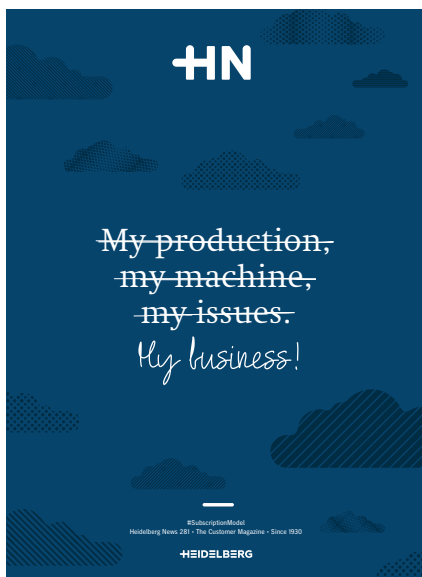
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HEIDELBERG



26

Fantastic growth with the ICS 670 inline printing system – packaging printer Al Mawrid in the Persian Gulf



34

Interview with Robert Dembinski on Lensing Druck's experiences with the subscription model from Heidelberg



42

Machine for growth – how pharmaceutical specialist Rondo is using Primefire 106 to put new business ideas into practice

# Contents

## 04 News

Trends and innovations from the world of print

## 06 Think tank for the future

The new Heidelberg Innovation Center

## 10 World market leader turns 70

Happy birthday to Stahlfolder!

## 12 Good plan

Planning strategic shifts with the Business Model Canvas

## 15 Fresh options for surface finishing

Tactile coatings for inline effects

## 16 From niche product to major success

LED UV as a growth driver

## 19 Folding cartons from the cloud

boxuni – new platform from Heidelberg for packaging printers

## 20 Fitness app for print shops

Digital Services – what they can do and what they offer

## 24 Sophistication made simple

Performance at a click – Heidelberg Assistant

## 26 An oasis of success

Al Mawrid Printing in Sharjah

## 32 Productivity beats price

How much presses should really cost

## 34 "I'm a fan of the model"

How Lensing Druck is benefiting from the subscription model

## 40 Turbocharge

The new CutStar 162 in operation at Saxoprint

## 42 That all-important competitive edge

Rondo achieves supply on demand with Primefire 106

## 46 Better hold and shinier gloss

Process stability for inline finishing with FoilStar Cure

## 47 A compact model that packs a punch

More compact gluing – the new Diana Go

## 48 Yes, I do!

Order free of charge right now – the Versafire Wedding Kit

## 50 Competition

## 51 Printing in ...

Printing throughout the world. In this edition – Poland

## 51 Imprint



Heidelberg  
online



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# Productivity and creativity make for a powerful partnership

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*More powerful machines and increased digitization are set to double productivity in the printing industry over the next ten years. In the light of rising prices for resources and ever shorter print runs, this is also essential because margins are increasingly moving into processes. In this edition, find out how print shops can use the new subscription model from Heidelberg to unleash their full productivity: We talk to Robert Dembinski from Lensing Druck about the benefits of this model, which provides machinery, consumables and services from Heidelberg.*

*However, productivity is just one answer to the many different challenges involved in the digital transformation. Creative startups or established players with innovative business models are showing they won't settle for being 10 percent better but want to be 100 percent different, too. Some are successfully positioning themselves in niche sectors this way, while others are looking to revolutionize whole markets. So, more than ever, there is a pressing need to pursue bold approaches and think ahead. Take the next step for yourself, with the Business Model Canvas enclosed with this issue. This tool will help you develop new business concepts and scrutinize the key success factors. You'll find plenty of ideas in this magazine as well as innovative technology to put them into practice.*

*We hope you enjoy reading this edition!*

Let us know how you like HN.  
We look forward to reading your comments and suggestions.

@ [heidelberg.news@heidelberg.com](mailto:heidelberg.news@heidelberg.com)



## Bags from blankets

Every single bag from Sag+Sal is hand-made, robust and unique, with its own past printed onto it. What exactly sets them apart? They're made from used offset blankets and instead of being stitched are folded from a single piece and held together with bookbinding screws.

Print shops usually throw out used blankets, which are made of a water-repellent rubber and fabric blend. Printing engineers Andjelko Artic and Rupert Jensch felt this was a terrible waste and made the decision in 2009 to establish their upcycling factory in Berlin. The blankets, which have primarily been used in UV printing, have completed up to half a million passes by the time the two engineers select them and reshape them by hand. Offset blanket bags from Sag+Sal are available as messenger bags and handbags in various sizes. Custom-made models are also available.



## Wash up faster, start printing sooner

**Washup devices from Heidelberg cut unproductive waiting times and get print shops ready for the next job faster.** / Still washing up or already printing again? For print shops, there's a great deal of money riding on the answer. After all, having lots of different jobs means more washup operations – and a great deal of unproductive time. Smart, user-friendly washup devices ensure greater productivity.

In many cases, the functions of these systems can cut washup time by up to 50 percent thanks to parallel washup processes using separate washup devices. Blankets and impression cylinders can be cleaned simultaneously. "The most frequent makeready process is washing blankets. The washup devices for blankets are extremely fast and efficient, saving print shops a lot of time," says Arnd Westermann, a product manager at Heidelberg.

The automatic deep cleaning of the Speedmaster XL 106 delivers additional benefits, first and foremost for packaging printers. This is because, when working with spot colors or switching between contrasting colors (such as dark blue to yellow), they can clean the inking rollers even more thoroughly with a special washup solution, thus cutting the washup time. What's more, the machine no longer needs to be stopped to add washing paste.

Faster washing is only possible with a Speedmaster XL 106 equipped with Hycolor Multidrive. "Thanks to Hycolor Multidrive, the inking and dampening units run independently of the main drive. As a result, inking units can be washed while changing printing and coating plates or washing blankets and impression cylinders," says Westermann. This reduces makeready times from 15 to five minutes.

Intelligent programs are already helping to keep the consumption of washup solution very low. Yet even cleaner results are possible, as all washup devices can also be used with washup solutions that are biodegradable and protect the environment.

Find out more in this Expert Talk:

 [heidelberg.com/en/smart-wash](https://heidelberg.com/en/smart-wash)

## Joining forces to fight climate change

Heidelberg customers can offset the greenhouse gases generated during the production of their presses by purchasing the "equipment CO<sub>2</sub>-neutral" certificate from Heidelberg. This isn't just good for the environment – it is also a clear sign that the holder takes its responsibilities seriously. Since October 2018, the revenues from emission credits have been invested in the Soddo reforestation project in Ethiopia, organized by the nongovernmental organization World Vision. The project is certified to the Gold Standard and promotes not only biodiversity and climate protection but also key UN Sustainable Development Goals such as local involvement in decision-making and regional development.

Local communities have already planted more than 48,000 trees and are looking after degraded forest land and young saplings on an area of 1,236 acres (500 hectares) in the highlands of Mount Damota near the city of Soddo. Investing in a certificate – costing approximately 0.3 percent of the purchase price for a press – also reaps rewards for a print shop's image. The printing unit guards are labeled "CO<sub>2</sub> neutral" and the company can use the "equipment CO<sub>2</sub>-neutral" logo in its communications.

It's never too late to protect the environment.  
Retrofit your press to go CO<sub>2</sub>-free:

 [heidelberg.com/en/co2-neutral](https://heidelberg.com/en/co2-neutral)



In the highlands of Mount Damota, Soddo residents have now planted over 48,000 new trees while also nurturing damaged ones.

# Think tank for the printing industry of the future

At the new Heidelberg Innovation Center in Wiesloch, over 1,000 employees – including around 750 engineers and developers – are working on how to meet future customer needs. We take a look at the world's most advanced printing industry research center.

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Head of R&D Frank Kropp sits in his office and looks out at what he has helped build over the past few years – the Heidelberg Innovation Center (or IVC for short). His room is fully glazed, and outside he can see the teams' workstations. "I don't notice I'm in an enclosed space at all," he says. "Our new working environment creates a sense of togetherness."

This atmosphere is enhanced by the 13 completely transparent office units, which can each accommodate some 80 people. Like a small but sprawling settlement, they are spread out across the former assembly hall that houses the IVC. In addition to the workstations, there are also various types of seating for meetings or communication, break areas with kitchens for making coffee, and outdoor work spaces, all of which ensure everyone has what they need at any given moment. Apart from a few exceptions, the Innovation Center has no individual offices. "We made a conscious decision not to include these so as to minimize hierarchies and enable agile working practices on a level playing field."

#### THE FUTURE OF THE PRINTING INDUSTRY UNDER ONE ROOF

The world's most advanced printing industry research center cost around 56 million U.S. dollars (50 m. euros). Kropp and his team started off by looking at how new work pioneers like Google do things and asked themselves: What suits us and how do we want to work in the future?

The planning and construction phase took about three years. At the end of last year, staff finally moved from the previous Heidelberg site to the former assembly hall in Wiesloch-Walldorf, directly at the heart of the site. Some 660 truckloads were needed to move approximately 8,000 boxes and 1,500 computers to the new Innovation Center. It now serves as a link between the Print Media Center, where products are demonstrated to customers using actual applications, and production – it is a place where around 1,000 employees from various disciplines work on the printing industry of the future.

The cutting-edge open-plan offices help with this work, driving forward creativity and agility. "Playing around with a problem on your own doesn't work anymore. The industry has become far too complex and dynamic," explains Kropp. The new center is intended to boost the spirit of innovation and thus plug gaps in automation, make production resources for print shops more efficient and meet special requirements more quickly. "The purpose of our think tank is to ensure we continue



The printing industry's most advanced research center provides space for around 750 engineers and developers.





Continuous communication, focused working and cutting-edge expertise are the key ingredients in shaping the printing industry of the future at the Innovation Center, covering more than 320,000 square feet (30,000 sq. m) of floorspace.



to build on our technology leadership in the future – and that includes the digitization of the print media industry,” says Heidelberg CEO Rainer Hundsdörfer.

For Kropp, this includes constantly communicating with colleagues. Working in close proximity to co-workers within an open infrastructure makes it much easier to discuss questions directly with all contacts as opposed to sending each other time-consuming e-mails. Employees also come to his office more regularly than before. “Our brief discussions help us make faster progress, and the volume of e-mails has fallen significantly,” he says.

#### INNOVATIONS WITH QUANTIFIABLE ADDED VALUE

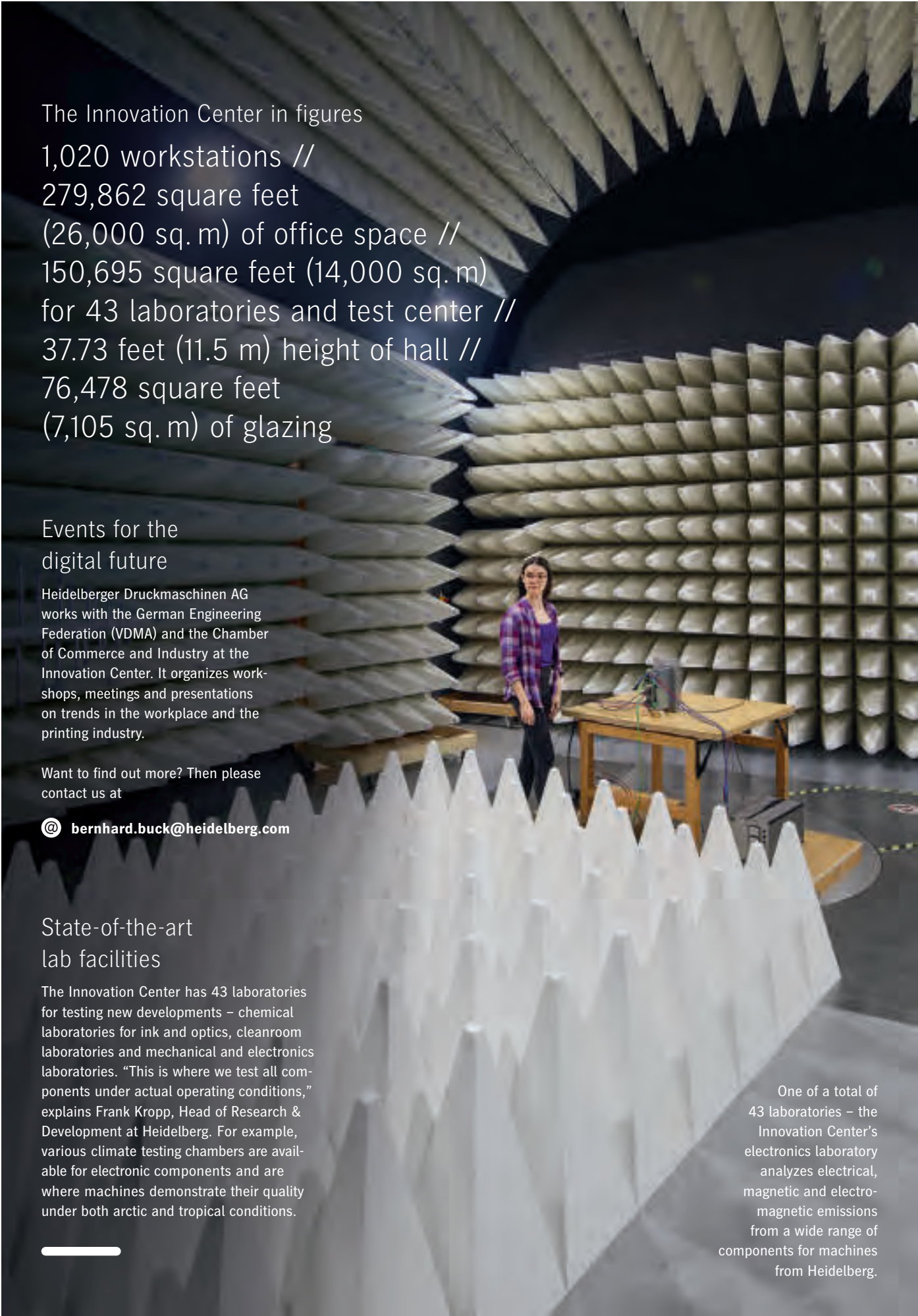
However, the IVC is not just designed to optimize and speed up internal thought and development processes but also aims to intensify collaboration with customers. “The packaging sector in particular has many needs and specific requirements, which we can discuss together directly here at the Innovation Center and in so doing develop tangible product innovations,” adds Kropp. The best example is Saxoprint, a Dresden-based online print shop that Heidelberg worked closely with to develop the CutStar 162, the world’s first large-format roll sheeter. In combination with the eight-color Speedmaster XL 162 perfecting press and an equally new lightweight paper kit, the CutStar 162 has virtually doubled the print shop’s performance levels. “Our innovations focus on the industry’s current challenges and are developed with the aim of delivering our customers clear and quantifiable added value,” says Kropp proudly. The IVC provides the ideal conditions for doing just that.

Take a tour of the Innovation Center with Kerstin Haase in our short film:



[heidelberg.com/ivz-video](http://heidelberg.com/ivz-video)



A woman in a plaid shirt and dark pants stands in the center of a large anechoic chamber. The walls, floor, and ceiling are covered with numerous grey, pyramidal-shaped electromagnetic absorbers designed to eliminate reflections. A wooden workbench with electronic equipment is visible to her right. The lighting is soft, highlighting the texture of the absorbers.

The Innovation Center in figures  
1,020 workstations //  
279,862 square feet  
(26,000 sq. m) of office space //  
150,695 square feet (14,000 sq. m)  
for 43 laboratories and test center //  
37.73 feet (11.5 m) height of hall //  
76,478 square feet  
(7,105 sq. m) of glazing

### Events for the digital future

Heidelberger Druckmaschinen AG works with the German Engineering Federation (VDMA) and the Chamber of Commerce and Industry at the Innovation Center. It organizes workshops, meetings and presentations on trends in the workplace and the printing industry.

Want to find out more? Then please contact us at

@ [bernhard.buck@heidelberg.com](mailto:bernhard.buck@heidelberg.com)

### State-of-the-art lab facilities

The Innovation Center has 43 laboratories for testing new developments – chemical laboratories for ink and optics, cleanroom laboratories and mechanical and electronics laboratories. “This is where we test all components under actual operating conditions,” explains Frank Kropp, Head of Research & Development at Heidelberg. For example, various climate testing chambers are available for electronic components and are where machines demonstrate their quality under both arctic and tropical conditions.

One of a total of 43 laboratories – the Innovation Center’s electronics laboratory analyzes electrical, magnetic and electro-magnetic emissions from a wide range of components for machines from Heidelberg.



# World market leader turns 70

When the machine manufacturer Kurt Stahl from Germany's Swabia region built his first folding machine 70 years ago, he laid the foundations for a unique success story. The machine, named after him, quickly became the market leader.



The first model, with its manual sheet alignment, a maximum of two buckle plates and cross-fold units, was light years away from today's folding machines. These devices, in line with the Push to Stop philosophy at Heidelberg, produce multiple signatures at up to 16,000 sheets an hour without the need for manual intervention. Yet it is precisely these many advances that have made the Stahlfolder so successful. Take, for example, the "Stahl Variabel", which became a bestseller in the 1960s thanks to its various working widths.

In the years that followed, the level of automation rose, which also increased productivity and user-friendliness. Milestones include the electronic folding knife, launched with the KC series, and the presentation of PC-controlled presetting at drupa 1986. At drupa 1995, Stahl unveiled the TD/KD series, the first digitally controlled folding machine using CAN bus technology. In 2004, Heidelberg launched the Stahlfolder TH/KH generation of folding machines, which is based on an end-to-end platform and raised the bar once again, as the new MCT control platform opened up new automation possibilities.

The Stahlfolder KH 82 then became the market's first fully automated combination folding machine with, for the first time, speeds of 755 feet/min (230 m/min). With over 400 machines installed worldwide, the Stahlfolder KH 82 is the most successful automated combination folding machine. The biggest quantum leap

in productivity was achieved by the Stahlfolder models TH 82-P and KH 82-P thanks to the patented shingled folding principle. This enables productivity gains of over 50 percent without increasing the running speed. The machines output up to 16,000 sheets per hour for signatures in A4 format, with running speeds of 525 feet/minute (160 m/min.). This ensures the best possible folding quality even at these peak speeds.

To celebrate the anniversary, Heidelberg is offering its most successful automated combination folding machine, the Stahlfolder KH 82, as a limited-edition anniversary version with a discount of over 20,000 U.S. dollars (25,000 euros) off the regular sales price.\*

Further information on the anniversary campaigns is available here:

 [heidelberg.com/stahlfolder/70years](https://heidelberg.com/stahlfolder/70years)

The discount granted relates to the net sales price and depends on the availability of the offering in the respective country. Consequently, it is only valid in participating countries and for the specified machine. The discounts may therefore also vary according to country. This page does not constitute a contractual offer and is solely for the purpose of providing non-binding information. Please contact your local Heidelberg branch for binding information. The offer is limited in time and quantity.



## Milestones

**1949** / Kurt Stahl and Adolf I. Döpfert establish Stahl & Co. Maschinenfabrik Ludwigsburg

**1954** / The first folding machines exhibited at drupa use a manual feeder and, depending on the model, are fitted with up to two buckle plates and up to two cross-fold units

**1960** / First model to enjoy major success, the “Stahl Variabel” with working widths of 22.83, 28.35, 33.86 and 39.37 inches (58, 72, 86 and 100 cm)

**1982** / 492 feet/min (150 m/min) maximum folding speed (Flex-O-Mat)

**1984** / The KC “Compact” combination folding machine with electronic folding knife is unveiled

**1988** / Top Cat buckle plate folding machine reaches speed of 656 feet/min (200 m/min)

**2000** / Heidelberger Druckmaschinen AG takes over Stahl. Folding machines bearing the Stahlfolder name are showcased for the first time at drupa

**2004** / Market launch of the Stahlfolder TH/KH series, of which more than 3,500 machines have been supplied to date

**2008** / drupa presentation of the Stahlfolder KH 82 with fully automated cross-fold unit

**2012** / drupa presentation of the PFX feeder with the “shingled sheet alignment” function

**2016** / drupa launch of the new generation of Stahlfolder TH/KH 82-P machines with patented solutions for “shingled folding”

**2018** / Push to Stop production without the need for manual intervention by the operator (Stahlfolder TH/KH 82-P)



Key partners



Key activities



Value propositions

# Good plan

If you're serious about opening up new areas of business but don't want to end up out of your depth, you need a watertight concept. The Business Model Canvas helps transform raw ideas into a self-supporting business model.

Sometimes all it takes to attract new customers and stimulate sales is a minor correction to your existing business model or a smart investment. But which new ideas or investments are really good? What are the success factors that really matter? And are additional resources needed that only become clear when you take a closer look?

The Business Model Canvas answers these questions and many others (see supplement to this edition of HN). The planning method was the brainchild of Swiss entrepreneur, lecturer and author Alexander Osterwalder and is used to describe business models. What works in other industries also helps print shops think through and deal with all the difficult questions that crop up when changing direction or repositioning a business in a step-by-step process. At a glance, companies can see whether they have taken all the key points into account and whether their plan can ultimately succeed.

## IDENTIFYING AND HARNESSING EXISTING POTENTIAL

There is always scope to do more business in the sector, particularly if print shops leverage their outstanding process know-how for more than just straightforward printing and start to think outside the box – for example, by specifically offering

their production engineering know-how as a service. There is an opportunity to do just that right now, because agencies are once again increasingly withdrawing to their core business of creative services. What they are leaving behind is open territory that print shops can move back into and market to customers at a profit – all for a minimal outlay.

There are lots of ideas along these lines floating around, and the Business Model Canvas can be used to develop them into a self-supporting business model. The planning method centers on a type of business wallpaper (canvas) divided into nine sections. Each section represents a key factor to be taken into account – from key activities and the value proposition to costs and partners that may be required. Various questions need to be answered for each factor. For instance, could a partnership with Heidelberg based on the subscription model make sense? What are the benefits? What are the drawbacks? By dealing with each item in the matrix one by one, print shops can gradually implement an idea.

## THINKING THINGS THROUGH AGAIN AND AGAIN

The best way to fill in the sections is to work as a team and use post-its, as these can be moved, swapped and linked to each other.



Cost structures



## Customer relationships



## Customer segments

POSTER  
ENCLOSED

Once all the sections have been completed, the team has a coherent picture that can be refined in further rounds. It can easily take ten to twelve rounds before the plan finally takes shape and a marketable model starts to develop.

There is one thing in particular that businesses should bear in mind – the Business Model Canvas is no substitute for a business plan, which banks insist upon for financing. So why make double the work if the traditional business plan needs to be drawn up anyway in the end? It's quite simple – working with the Business Model Canvas is the ideal preparation for drawing up a business plan that may be required. The final “picture” on the canvas is the result of an interactive process that has been continuously reviewed, checked and expanded. The results can be formulated in a business plan, and the initial hurdles on the way to repositioning are thus overcome.



“By switching to LED UV printing, we’re now successfully producing special applications that are not available from any online print shop.”

### Peter Wiesendanger

Managing Director, Wiesendanger medien GmbH,  
Murnau, Germany

“Our recipe for success is based on authenticity and our wide-ranging portfolio. At the same time, we have made a name for ourselves as a niche supplier. On the one hand, our customers like to use our lettershop department's services to produce mailings. On the other hand, we specialize in printing on plastics.

In 2017, in a move designed to increase our flexibility and efficiency even further, we opted to invest in a five-color Speedmaster SX 52 press with coating unit. The press can be operated either with full-UV or LED UV inks, making us much more flexible when it comes to printing plastics. This means we can now also produce special applications such as mouse pads, mats and high-end gift boxes. Above all, though, our plan to successfully position ourselves on this niche market has paid off. We enjoy strong customer loyalty because the products call for a great deal of advice and support. What's more, there are only a few suppliers with a comparable portfolio. In that context, investing in the press was also an investment in our future.”

Want to find out more? Then get in touch:

@ [sebastian.schwarz@heidelberg.com](mailto:sebastian.schwarz@heidelberg.com)



### Customer relationships



“As a small envelope printing business, we’re now as cost-efficient as a large company.”

#### Markus Bieler

Bieler Kuvert Druck AG, Wollerau, Switzerland

“We specialize in printing envelopes, but we also offer business stationery. Two years ago, we decided to expand our business and looked for a press that would meet the toughest quality requirements while also boosting our productivity. In April 2017, we found exactly the right machine – the four-color Speedmaster SX 52 LED UV.

Ever since, we’ve been operating to the high cost-efficiency standards that are essential in envelope printing, and we’ve achieved outstanding print results. We benefit from the first-class quality of the inking and dampening system and the high register accuracy, which makes it easy for us to print motifs running off the edge on both sides. We achieve print results of consistently good quality, even in the case of small graphic, image and text elements, and now print some 50 million envelopes a year.”



### Customer segments



“Our business depends on optimum quality and short delivery times. We’re now practically unbeatable.”

#### Eric Brechbühl

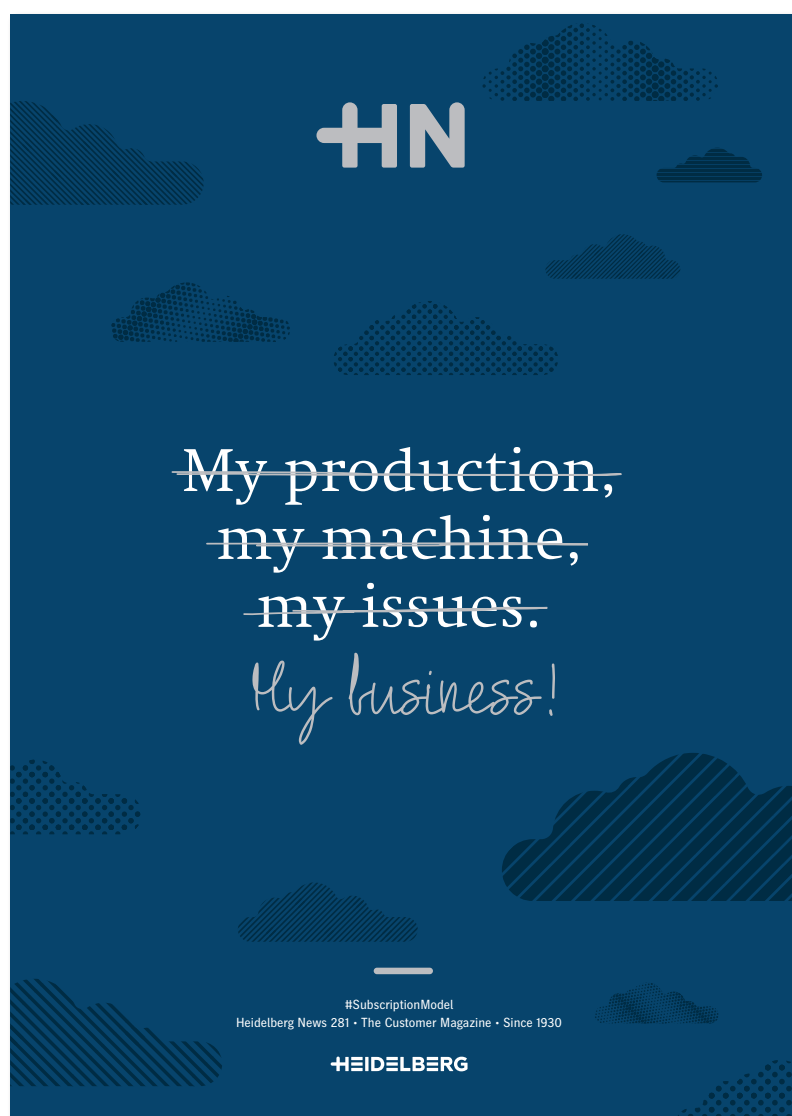
Druckerei Gessler.Zwahlen, St-Blaise, Switzerland

“Many of our customers come from the watch industry. High expectations in terms of print quality and short delivery times are the norm for us. In late 2017, in response to growing customer demand for a wider range of substrates, we started printing on a four-color Speedmaster SX 52 press with UV technology and LED drying that is unique in the western part of Switzerland and has given us a number of competitive advantages.

For example, we can print on virtually any material to the highest quality standards, and we use Saphira consumables, which are perfectly coordinated with the press and are appropriately certified. What’s more, we’re doing something good for the environment, because the LED UV process saves energy and doesn’t generate any ozone. However, the biggest improvement for us is that we’re able to send printed jobs to postpress immediately, without any delay. This makes us practically unbeatable when it comes to delivery times.”







# Fresh options for surface finishing

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## **“Tactile Coatings” – the new all-in-one package for surface finishing with a textured coating /**

Up till now, if you wanted to give print products a tactile finish by applying a textured coating, the only option was to use screen printing, but now the same effect can be achieved with offset printing. The all-in-one Tactile Coatings package means offset print shops can now use this method out of the box to stand out from the competition with new surface finishing ideas. Tactile Coatings is only available as an all-in-one solution and consists of a screen roller developed by Heidelberg, appropriate Saphira coatings and the necessary application know-how, which saves users from having to perform costly test runs themselves. A specialist from Heidelberg provides on-site support and shows how the technology can be implemented with process stability.

Surface finishing is carried out either inline with a dual-coating press or in two passes with a UV-compatible conventional chambered blade system. Tactile Coatings is ideal for print shops looking for an easy way to expand their portfolio with an interesting surface finishing option. For example, it can be used to simulate complex embossing. Surface textures can also be produced inline on folding cartons, brochures and magazine covers – as is the case with this edition of Heidelberg News. You can feel the tactile effect for yourself in the textured coating applied to the clouds on the cover page.

Would you like to learn more about this application and how you can implement it in your pressroom? Feel free to get in touch:

@ [application-support@heidelberg.com](mailto:application-support@heidelberg.com)

You can also find even more haptic effects here:

+ [heidelberg.com/de/touch](https://heidelberg.com/de/touch)





# From niche product to major success

Launched as a technology for four-color commercial printing, LED UV is conquering more and more market segments and offers print shops great potential to stand out from the crowd. The number of applications where the LED printing method and its special characteristics deliver a competitive edge and measurable productivity increases is growing constantly.

Fully booked application specialists and a wide range of printing test inquiries mean the demonstration press at the Heidelberg Print Media Center in Wiesloch-Walldorf hardly ever stops. “Companies can come here and, for a modest outlay, get a good idea of whether the LED process can offer benefits for their business model and requirements and make them more competitive. The reduced waiting times and lower heat transfer for producing thermosensitive PE or PP materials compared to UV lamps are attractive to label and packaging printers,” explains Martin Zibold, Product Manager Sheetfed.

## ENHANCED PRINT RESULTS AND SHORTER THROUGHPUT TIMES

At the heart of the technology from Heidelberg is the DryStar LED dryer system, developed in-house, and the development and approval of appropriate consumables. LED UV opens up new possibilities for ensuring and enhancing quality and productivity.

DryStar LED is the only LED UV system on the market that is fully integrated into the user interface of the Prinect Press Center. This high level of automation enables setup times that are virtually identical to those in conventional printing, with the big advantage that the printed sheets are dry and can be transferred directly to postpress. “Production is easier to plan, delivery times are shorter, less space is needed for interim storage and less capital is tied up for semi-finished products – everything is faster,” says Zibold. But that’s by no means everything. For example, LED UV delivers benefits in particular for uncoated substrates, which are in ever greater demand, as the inks are cured before they can be absorbed into the substrate. This results in more saturated colors and high-contrast images.

## INCREASED VARIETY IN APPLICATIONS

The benefits of LED UV are proving popular: “We’ve already installed over 1,000 printing units at customer sites,” Zibold reports. It is interesting to note






## What lies ahead for LED inks?

European Printing Inks Association (EuPIA) guidelines relating to LED inks are currently transforming the market in Europe in particular. Substances suspected of being harmful to health must be replaced, which is generating high demand for these alternatives. Moreover, many are produced in China, which makes it more costly for ink manufacturers to purchase the necessary items – all the more since the Chinese now also recognize the importance of environmentally friendly production processes.

Despite these changes on the market, LED still has advantages over conventional production. As a full-service provider, Heidelberg ensures in-house monitoring and testing of all modifications to formulations, which means Saphira products still deliver consistently high quality.

 [heidelberg.com/en/uv](http://heidelberg.com/en/uv)



that a growing number of users come from the label and luxury packaging sector. Some 50 printing units with the Heidelberg LED UV system are already being used at in-mold label manufacturers. However, folding carton printers are also harnessing the benefits for printing nonabsorbent materials. “Nothing is too complex for us, whether it’s lightweight paper for the pharmaceutical industry or cold foil applications in the label and packaging sector. Customers benefit from our more than 10 years of experience in LED applications. Opaque white, Pantone, gold and silver are now also available as low-migration inks at affordable prices,” comments Zibold.

### FURTHER GROWTH

Ink manufacturers and Heidelberg are continuously enhancing inks and coatings to further optimize their application, cost-effectiveness, price, recycling, de-inkability and sustainability. Heidelberg is also focusing on the efficiency, investment costs and areas of application of the DryStar LED system so it can push forward its dry sheet concept. “LED technology and the associated application technology are set to continue their dynamic development and show significant growth in the years ahead,” says Zibold confidently.

Order the cost-free print sample booklet containing a wide range of LE UV and LED UV effects:



[heidelberg.com/en/sample-book-uv](http://heidelberg.com/en/sample-book-uv)

Video with Peter Wiesendanger from Wiesendanger Druck



[heidelberg.com/en/testimonial-wiesendanger](http://heidelberg.com/en/testimonial-wiesendanger)



# Folding cartons from the cloud

Heidelberg boxuni platform opens up new opportunities for packaging printers, designers and print buyers

Offering a design portal, a Web shop and a complete digital production line for folding carton printing, boxuni is the world's first cloud-based web-to-pack platform and marks the start of a new online business model for the packaging industry at Heidelberg.

Buyers, designers and packaging printers will find boxuni has everything they need to make light work of designing, ordering and printing customized folding cartons. The platform currently gives designers access to some 12,000 pre-prepared folding carton designs that they can adapt as required using a tool kit and then have converted into print-ready files. "Buying folding cartons is easy with boxuni, so it's equally appealing to packaging buyers. They can adjust the carton size with just a few clicks of their mouse, use templates to perfect the design and then order their folding cartons in the required material, even in the shortest of runs," explains Jürgen Grimm, Head of Software Solutions at Heidelberg.

The company's Chinese production partner Xianjunlong is currently responsible for printing, using the Primefire 106 digital printing system to produce the packaging that has been designed and ordered online. This is because boxuni is still at the beta stage. Only at the next stage will further print shops in China and beyond be able to incorporate their products and services into boxuni. There are also plenty of good reasons for them to do just that. Besides providing new business opportunities for packaging printers, who can print the folding cartons ordered through boxuni, the cloud platform also enables them to benefit from highly automated, standardized processes that ensure cost-effective production with less waste.

"Print shops can use boxuni to achieve the speed, agility and efficiency that is required nowadays to keep up with the most pressing market trends and customer needs," underlines Grimm.



# Fitness app for print shops

Digital Services help print shops increase their performance and availability efficiently. After all, using data intelligently helps uncover scope for improvement and systematically enhance business success by putting in place appropriate measures.

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Never before have companies been able to access so much data about their print shop, and never before has it been so important to utilize this data to boost competitiveness with efficient processes that make better use of capacity. That is exactly what Digital Services from Heidelberg do, transforming big data into smart data that customers can leverage to optimize the way they run their print shop. Customers don't need to collect the data themselves, or even process it – Heidelberg takes care of all that. The same applies to providing technologies such as business analytics that help harness the potential for improvement – without needing any IT know-how. Customers can access Digital Services around the clock via the online platform Heidelberg Assistant.

Performance Services from Heidelberg give print shops an overview of their current key performance indicators (KPIs) such as net productivity, makeready times and paper waste. "The KPIs create transparency for production and business. Customers can see where they are right now and where they can do better," explains Marc Spreen, Product Manager for Digital Services.

For example, if the makeready times on a press are very high, Prinect Smart BI helps identify this and work out what the causes are, such as operators, the sequencing of

print jobs or some other shortcoming. Depending on the results of the analysis, customers can use Digital Training to help operators handle the press more effectively. Alternatively, they can take out performance consulting services from Heidelberg – online, over the phone or onsite – so they can identify and clear bottlenecks in production. The second line of approach in Digital Services is availability. If the KPIs show, for instance, that the downtime on a machine is too high, Predictive Monitoring or Technical Availability can be used to reduce unplanned stoppages.

Digital Services from Heidelberg are being continuously expanded and their performance constantly improved. For example, Digital Training will also cover prepress and postpress in the future. Customers who take out Prinect Smart BI are provided with the KPIs and are also advised on how they could improve them. Predictive Monitoring, meanwhile, ensures faults can be identified even earlier and more comprehensively by monitoring customer machines in real time and returning refined analyses. "We don't just want our customers to get better all the time, we also want to get better and better at supporting them, too," comments Ibrahim Celik, Product Manager Performance Services at Heidelberg.



## PERFORMANCE SERVICES

Using KPIs such as overall equipment effectiveness (OEE) and the net productivity of all machines gives customers oversight of the performance levels in their print shop at all times. They can identify problem areas early on and take action, either on their own or, if they wish, with support from Heidelberg. If customers use Online Advisement services, an expert will work with them either over the phone or via E-mail to analyze data and suggest specific measures for how the print shop can achieve their set objectives, whether cost savings or improvements in production, for example. Progress is checked every month and measures are adapted accordingly. Alternatively, customers can utilize Onsite Evaluation, when the adviser will inspect the production processes, the level of knowledge among operators and the overall performance of production over the course of a shift. Customers then receive an action plan they can put in place on their own or with support from Heidelberg Business Consulting as part of an implementation project. ➔







### PREDICTIVE MONITORING

Predictive Monitoring increases machine availability and cuts costs. Unlike conventional monitoring, which only allows print shops to react to incidents that have already happened, Predictive Monitoring uses data samples to forecast future failures even before a fault or unplanned downtime has occurred. Appropriate measures can then be put in place in advance, thereby ensuring production continues to run smoothly. This involves service experts monitoring the status of customer machines – including connected peripherals and color measuring equipment – around the clock.

A press will use sensors to send approximately 500 million items of data a year about its status to a big data analysis platform. If values deviate from a set normal range, the service expert is automatically notified. The specialist then analyzes the data and initiates any follow-up measures that may be required. This expert decides whether the issue can be resolved remotely or processed during the next planned service appointment, or whether it requires immediate onsite action.



### PRINECT SMART BI

Prinect Smart BI gives print shops valuable insight into all business processes, from the initial point of contact with the customer through to invoicing, so that the right decisions can be made to improve business success.

Prinect Smart BI gathers and processes business and production data to produce meaningful KPIs. As a result, the senior management, sales and production teams can study performance diagrams showing

them the main developments in their area at a glance, whether sales quotas, productivity or capacity utilization. If there are any anomalies such as an increase in paper waste, they can access additional information with a single click, for example the amount of waste for each press, shift and operator and for different jobs. This gives them a means of identifying the underlying problem and developing appropriate solutions.

Prinect Smart BI also offers a way to identify and utilize business opportunities early on. For example, KPIs such as customers, prices, profit margins and products can be easily linked together and evaluated. This reveals which products, sectors and customers are profitable, which products could be used to push through higher prices and with which customers.



### DIGITAL TRAINING

Digital Training makes the expertise of Heidelberg available online. This printing-specific know-how about applications and press operation can be accessed anytime, anywhere, so that product quality and productivity can be improved – at all sites and across various markets.

Experienced specialist staff can query the know-how they need to complete a specific task, whether making a nonroutine adjustment or carrying out nonstandard maintenance work on the press, for example. A video will then show them exactly what they need to do. Junior staff or staff stepping in from another area can use the practical training modules as a complement to face-to-face training from Heidelberg to further extend their skills. Using the multimedia training units, they can systematically build up or expand their know-how and skills relating to the core issues of printing materials, consumables, presses and procedures.



### TECHNICAL AVAILABILITY

This service helps print shops boost the technical availability of their press. As an add-on to Predictive Monitoring, it posts monthly KPIs in Heidelberg Assistant that show how long the press has been in operational mode and whether there were any unscheduled downtimes. Customers can seek the support of an expert via Online Advisement, who will leverage the technical data to produce recommendations on how to increase availability. Furthermore, there is also an option to contractually agree a guaranteed availability level. Heidelberg will then pledge that the customer will attain a specific degree of availability and put in place the necessary measures to achieve or surpass this target.

Want to find out more?  
Then please contact us at

@ [ibrahim.celik@heidelberg.com](mailto:ibrahim.celik@heidelberg.com) or  
[marc.spreen@heidelberg.com](mailto:marc.spreen@heidelberg.com)

# Sophistication made simple

Gathering together performance data, manually monitoring the maintenance status, laboriously managing invoices and contracts on paper – that's all a thing of the past in a few simple clicks, thanks to the Heidelberg Assistant.

Over 1,400 users from more than 800 print shops already use the Heidelberg Assistant, which launched around 18 months ago. And with good reason, as the digital customer portal simplifies and speeds up workflows in administration, production, management and procurement. Managers and staff enjoy dedicated online access 24/7 on their PC, smartphone or tablet to all the information and services they need to ensure efficient operations.

Take accounts staff, for example. They can get an instant overview of all contracts with Heidelberg, services used and the associated invoices. And while the Heidelberg Assistant ensures purchasing staff find the right parts and consumables in the eShop straight away, the production team increases machine availability and performance, thanks to rapid access to expert knowledge, up-to-date service notifications, training materials and predictive maintenance messages.

What's more, the Heidelberg Assistant is also a valuable strategic sparring partner for management, as it always has up-to-date key figures for corporate control. The software offers a quick, user-friendly way to find answers to questions such as: Which service engineer is coming and when? Or: What is the capacity utilization

on my machines? Users can see all processes in real time and track them seamlessly across departments, shifts and sites. This creates transparency and simplifies communication, both internally and with Heidelberg.

And, best of all, the basic version of the Heidelberg Assistant is free of charge and is constantly being enhanced. Furthermore, premium services, such as comprehensive data analyses and inventory management for consumables by Heidelberg, can also be booked on a flexible basis to extend the range of functions.

You can register directly for the Heidelberg Assistant here:

 [heidelberg.com/en/registry-hda](https://heidelberg.com/en/registry-hda)

Further information on the Heidelberg Assistant is available here:

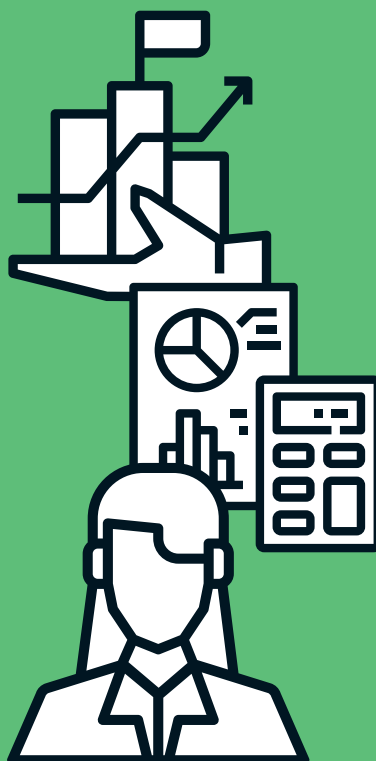
 [heidelberg.com/en/hda](https://heidelberg.com/en/hda)





## Identifying and harnessing potential

“We already guessed we still had scope to raise net productivity. But until now we’ve never been able to say exactly where the problems are. The Heidelberg Assistant finally gives us clarity, because it shows us where we could make improvements. It gives me clear diagrams showing the performance parameters I want for each machine in the pressroom – for example, makeready, auxiliary and throughput times, paper waste and the number of printed sheets, either over time or in comparison with our other machines, and even across sites. Now we can identify at a glance the machines with disproportionately long makeready times. And we can take targeted steps and monitor our success.”



## Boosting productivity

“The digital service messages have increased our machine availability even further, because even without in-depth technical knowledge, we can send a detailed description to Heidelberg if we suspect a fault. To do this, we simply take photos and videos of the relevant machine component on a smartphone and attach the files to the message, which is sent directly to the team of experts at Heidelberg. While the issue is being investigated, we’re kept continuously up to date via the Heidelberg Assistant and can even communicate interactively with the Heidelberg expert within the message. In the event of a planned call-out, Heidelberg inserts the agreed date directly into our maintenance calendar. This ensures we no longer miss any appointments and enables us to optimize planning for the machine.”



## Smarter shopping

“The great thing is I get a clear list of all our machines in the Heidelberg Assistant and I can jump to the eShop based on a specific machine. The system knows from my user ID which ones we’ve installed. I only need to click on the relevant machine and I can see the corresponding consumables and wear parts. Then I select what I’m looking for – and that’s it. It’s fast and paperless. Above all, though, the entire ordering process is completely transparent. From ordering through to billing, all transactions are easy to find for accounts and controlling.”

### Heidelberg Assistant is available in the following countries:

Currently Germany, Switzerland, the United States, Canada, Japan, Poland, Austria, Australia/New Zealand, Slovakia and the Czech Republic. France, Great Britain, Sweden, Denmark and other countries in Asia are planned.

# An oasis of success

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The journey of the Al Mawrid print shop in the United Arab Emirates starts with a clear vision of the future. The company paved the way for its growth 20 years ago, when it decided to specialize in packaging printing. To this day, it continues to forge ahead.



More than 2,900 miles (4,800 kilometers) by air from Heidelberg lies Sharjah in the United Arab Emirates. Nestled amid gleaming new skyscrapers and hotels, just a few minutes from the beach, is the 185,000-square-foot (17,000-sq. m) site of the Al Mawrid print shop. The company's main products include luxury packaging and sophisticated folding cartons for big-name cosmetics, tobacco products and foodstuffs. However, this was not always the case.

#### A JOURNEY INTO THE UNKNOWN

Established in 1976 as the in-house print shop of the Thomsun Group, the main products printed at Al Mawrid were initially labels and sleeves for audio and video cassettes. T.K. Babukutty, who has been running the print shop since 1985, casts his

mind back: "In the first 20 years, we primarily manufactured stationery and small promotional items on one- and two-color presses." The company made pretty much anything and everything without targeting any particular segment.

Shortly after that, rapid growth in demand from customers in the tobacco industry pointed to a new direction. Consequently, some 20 years after it was established, Al Mawrid chose to specialize in packaging printing. It was a decision that provided the ideal impetus for success and growth. Even in those early days, the company was using Heidelberg presses, such as a five-color Speedmaster CD 102. Babukutty is certain that the outstanding quality of the machines, excellent





“The ICS 670 inline printing system enables us to ensure our customers are protected against counterfeiting by printing holograms and other security features.”

**K. V. Thomas**

Managing Director, Thomsun Group

➔ service and availability of spare parts gave his company a competitive edge. This is why Al Mawrid has continued to use exclusively Heidelberg machinery in its production operations to this day.

#### CONSISTENT FOCUS ON PACKAGING PRINTING

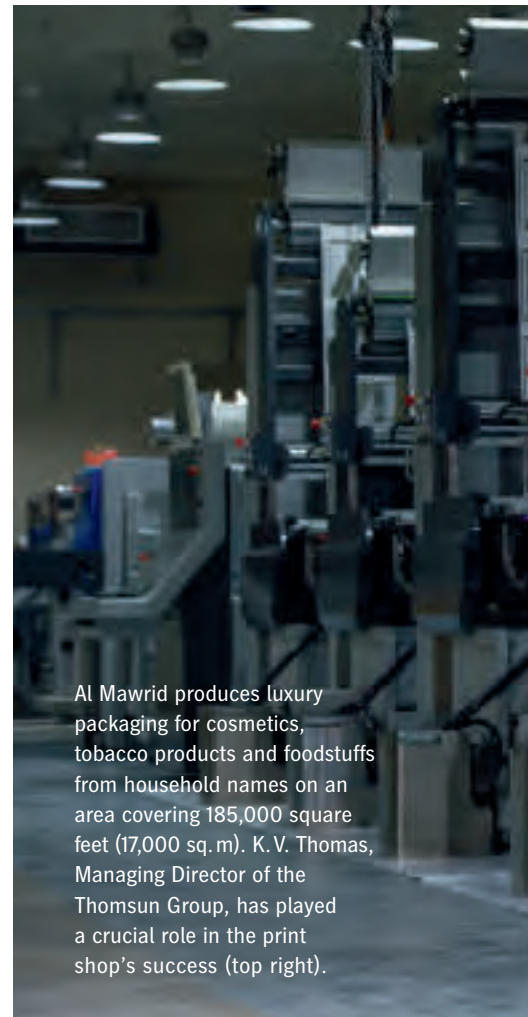
The decision to specialize in packaging printing quickly turned out to be the right move, and in 2005 Al Mawrid built an additional building with plenty of space for production operations and storage facilities. Customer inquiries continued to drive further growth at the company, and new presses such as a Speedmaster CD 74-4 LX, CD 102-LYX, SM 102-8-P and SM 52-4 were installed. “We’ve also expanded a lot in prepress and postpress, which has helped us further improve our position as a packaging printer,” Babukutty recounts.

When the cigarette business was booming in the early 2000s, the print shop made a further courageous decision and invested approximately 5 million dollars (4.5 million euros) in an ICS 670 inline printing system from Heidelberg in 2012. The configuration of this highly automated machine includes a roll unwinder, two gravure units and a cold foil module. The press and surface-finishing machine also features seven hi-def flexographic printing modules and the FCL 670 inline flatbed die-cutter. “This press

opened the door to the fast-growing market segment of highly finished premium product packaging because it enabled us to offer our customers a whole range of special applications on a very flexible and efficient basis,” explains the General Manager.

For example, Al Mawrid manufactures special cartons for the food industry made from heat- and cold-resistant material that can be used in an oven and stored in a freezer. Babukutty also views the modular concept of the ICS 670 from Heidelberg as another distinct advantage. “Thanks to the Easy Value Add platform, we have no problems replacing or retrofitting modules. That gives us enormous flexibility, because we can respond to new market trends and customer requirements in next to no time.”

K. V. Thomas, Managing Director of the Thomsun Group, is also very happy with the investment. “We work for international customers who set globally standardized quality requirements for their manufacturers,” he points out. “Using this machine system from Heidelberg gives us the opportunity to play in the big league and ensure our customers are protected against counterfeiting by printing holograms and other security features,” continues Thomas, adding: “We also recouped our investment in the press long ago, because it enables us to change between orders



Al Mawrid produces luxury packaging for cosmetics, tobacco products and foodstuffs from household names on an area covering 185,000 square feet (17,000 sq. m). K. V. Thomas, Managing Director of the Thomsun Group, has played a crucial role in the print shop's success (top right).







## Founder and business navigator: K. V. Thomas

Without him, Al Mawrid might not exist today: K. V. Thomas began his career in a leading publishing house in the UAE. His first job with the printing press offered him opportunities to learn about printing technology together with insights into the huge potential the industry had to offer.

In 1977, Thomas and his partner V. T. John launched music cassettes under the brand Thomsun. The brand soon expanded throughout the Middle East, Far East, Europe, and the USA, with distributors for every region and manufacturing in Dubai. The flourishing business never took his mind off the printing industry. In 1978, he resigned his job to negotiate with the ownership and buy the commercial division of the printing press. This marked the birth of Al Mawrid Printing Press in 1978, which has been a distinguished name in printing ever since. Apart from forecasting the growing commercial printing requirements in the country, there was also an indigenous requirement that led to the establishment of this printing press. The ability to utilize all available resources in the perfect mix is the magic of any successful entrepreneur, and Thomas was no different. His burgeoning cassette business led to huge requirements for printing the labels and covers for the cassettes, and this integration helped both businesses to grow concurrently.

His determination and management skills laid down a strong structure for Al Mawrid, which grew as the leading printing press in the region. The new millennium witnessed the expansion of Al Mawrid into the packaging industry, foreseeing a proliferating manufacturing sector in the country. Along with the capital investment over forty years and a team of skilled and hard-working personnel, Al Mawrid has become the leading printing and packaging company in the Middle East and a premier choice of all leading companies in the region. Today, Al Mawrid and the co-divisions of the Thomsun Group together aim at offering a comprehensive solution ranging from brand development and designing through to printing and promotion for any corporate house in the world. Employing more than 700 staff, it is the biggest design and production house in the region.



## Al Mawrid and Heidelberg – a shared journey

Maximum efficiency in folding carton manufacture: To increase specialization in its operations, the Al Mawrid print shop uses several ICS 670 machines from Heidelberg Web Carton Converting (HWCC). As a manufacturer of folding carton printing presses, HWCC has built crucial bridges for the print shop in a niche market in the United Arab Emirates.

HWCC, which is based in Weiden, Germany, is the web converting division of Heidelberger Druckmaschinen AG. Through its integrated inline solutions, HWCC enhances the leading position of Heidelberg on the packaging market. With the broadest sales and service network in the entire sector and the most customer installations on the market, HWCC can call on extensive experience and comprehensive application expertise. All this means HWCC is ideally placed to help packaging printers take on new challenges and exceed customer expectations by far.

Watched by Managing Director T.K. Babukutty (top left) and Production Manager J.S. Ninan (bottom right), over 360 employees handle some 100 orders a day. Since 2016, the company has been using a number of Speedmaster XL 106 presses and machines from MK Masterworks, along with two ICS 670 inline printing systems from Heidelberg.







“The market has changed a lot. Straightforward packaging printing is a thing of the past.”

**T. K. Babukutty**

Managing Director, Al Mawrid Printing

➔ without stopping the press and delivers high production speeds with absolute reliability.”

Today, the print shop has more than 150 big-name customers in and around the United Arab Emirates, including many prestigious companies. Due to rising demand, the next major milestone for Al Mawrid came in 2018, when the print shop invested in another ICS 670 inline printing system, two Speedmaster XL 106 and three MK Masterworks machines. Like the first machine, the new ICS 670 is also configured with a combined flexographic and gravure printing system and various inline surface-finishing modules. Not only has the print shop benefited from flexible production operations, it has also, and most importantly, significantly reduced production throughput times.

#### A GROWING WORKFORCE

Over 360 members of staff at the company handle some 100 orders a day, seeing them through from prepress, planning and printing to postpress, quality control and packaging.

Most people who join the team at Al Mawrid stay there, and, at just two percent, staff turnover barely registers. Babukutty feels a deep connection to the company, too. When the father of two came from India in 1985 to take on the top job at the print shop, it had just 15 members of staff. Through his philosophy of quality, service and teamwork, he has succeeded in creating an environment that is appealing and innovative, including for the people who work there.

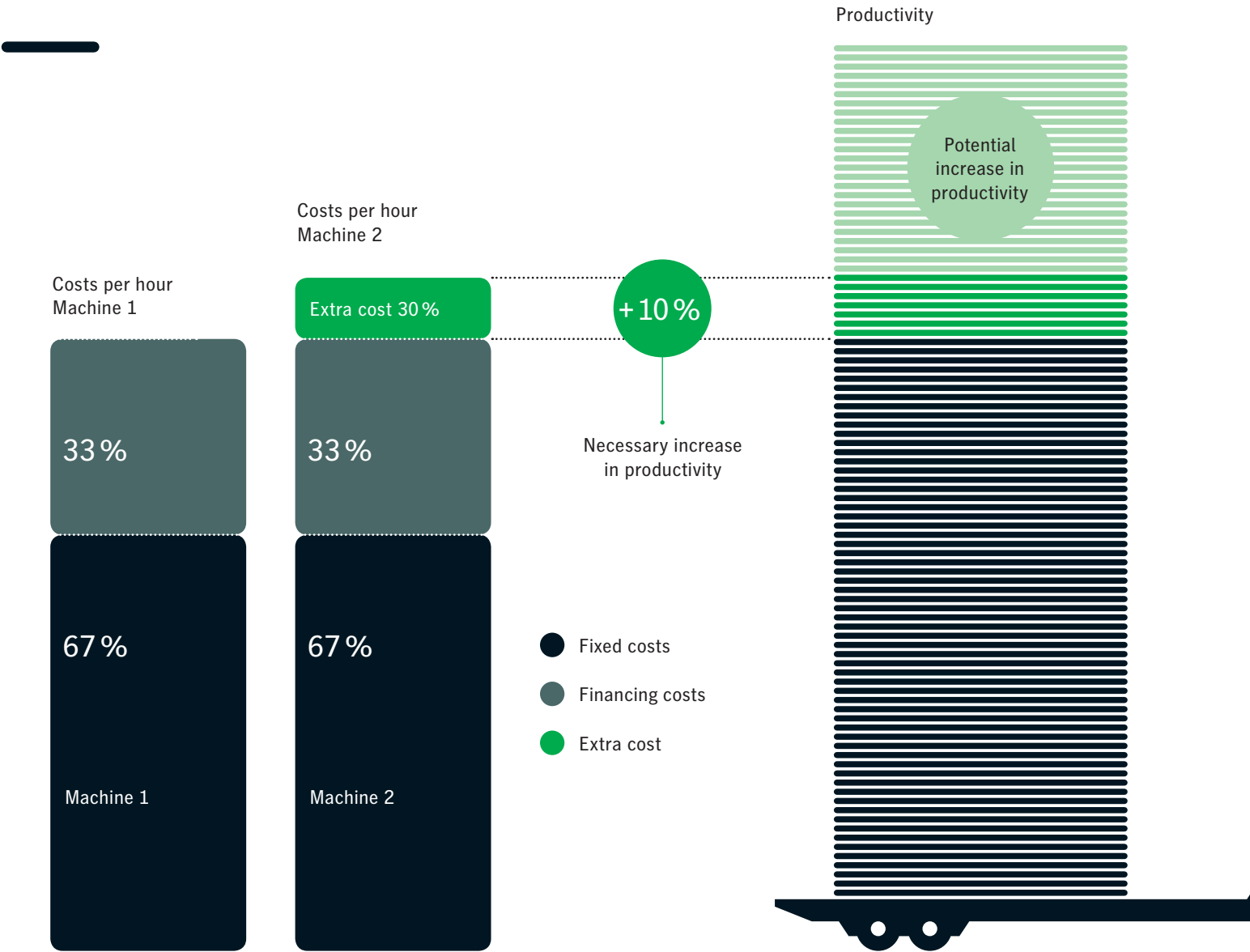
#### A CHANGING MARKET

The market is booming. Global sales in packaging printing are rising by more than five percent per year. The packaging and label market currently accounts for around a third of total sales for the entire printing market – some 250 billion US dollars (223 billion euros) worldwide in 2017. Products that can be personalized and maximum surface-finishing quality are leading the way.

Although the USA, China and the EU still account for the biggest market shares, sales in emerging markets are growing out of proportion. One area Al Mawrid specializes in is carton displays that are used to present products at the point of sale. “The market has changed a lot. Straightforward packaging printing is a thing of the past,” says Babukutty. “Nowadays it’s all about maximum quality, innovative products and specific customer requirements. The only way we can cut through the competition is by using the very latest technologies.” The print shop recently began using Prinect Production Workflow from Heidelberg to manage and automate prepress processes. Indeed, the company’s greater focus on digitization, process optimization and productivity shows that its journey is far from over – Al Mawrid is heading for the future.

# Productivity beats price

Investing in a new press has consequences for the entire business, so careful selection is vital. In particular, it is important to take a close look at the purchase price. Staying competitive means being productive – and productivity pays off faster than many people think.



This graphic compares the machine costs per hour of two machines. An extra cost of 30 percent for machine 2 means the overall machine costs per hour are just 10 percent higher. In other words, the print shop only needs to produce 10 percent more jobs, not 30 percent, to compensate for a 30 percent higher machine price. If it does indeed achieve a 30 percent higher output, the printing costs drop by 15 percent (costs of 110 percent with an output of 130 percent).



Trying to boost profits by spending less on capital assets can actually end up losing a company money. “During price negotiations, I’m regularly asked how the higher cost of a Speedmaster pays off. I’m often told that if the price is 10 percent higher, then productivity has to be 10 percent higher, too – but that’s wrong,” explains André Strunk, Product Manager Sheetfed. “The financing costs only make up a fraction of the fixed costs. The vital factor is productivity, which ensures a short payback period for the press. And as a rule of thumb, an increase in productivity of just 10 percent is all it takes to cover a 30 percent higher investment,” he continues.

Productivity does not refer to temporary peak outputs or world records over a period of one hour, but rather the performance actually achieved over a month, a year or the entire service life. The printing speed reached and the level of automation play a key role in this regard, but operator ergonomics and order management are also becoming increasingly important. Speedmaster presses from Heidelberg have the edge here, as demonstrated, for example, by the latest performance data – peak values of up to 90 million printed sheets in

just one year on a Speedmaster XL 106 and a Speedmaster SX 102 in Japan printing no fewer than 350 million sheets in just under six years.

Remarketed equipment is another way of evaluating the productivity actually achieved. “If you compare the impression counts for remarketed equipment on various Web portals, for example, you’ll see that Speedmaster presses from Heidelberg have a higher output on average,” says Rainer Wolf, Head of Product Management Sheetfed.

A study by Smithers Pira confirms this fact. An analysis of over 400 pre-owned presses from five manufacturers produced a clear result – Speedmaster presses from Heidelberg printed far more sheets. In the 70×100 format class, for example, other manufacturers’ machines only achieved 73.5 percent of the output of Heidelberg presses on average. “This means the performance of Speedmaster presses is 36 percent better. The difference is greater still for the 50×70 format, with Heidelberg presses printing around twice as many sheets each year,” Wolf reveals.

The Smithers Pira study also investigated how this difference in productivity affects unit costs. Once again, the results are clear – the printing costs for a Speedmaster XL 106 that in this case represented a 27 percent higher investment were over 11 percent lower than for other manufacturers. “The numbers add up here, too, because productivity ultimately beats price,” says Wolf.

Large businesses are far from the only ones to benefit from higher productivity. Smaller print shops also need to become more productive to survive on the market. Presses that are more productive can cope with production peaks and minimize costs for overtime, additional shifts and higher weekend rates. What’s more, it is often possible to replace several older presses with just one new one.

#### **PUSH TO STOP MAKES ALL THE DIFFERENCE**

Intelligent machine control is the key, supporting operators at precisely the points at which they become a bottleneck. However, it all starts much earlier in the process – at the prepress stage and with the management information system (MIS). Digitally networked processes are far easier to automate and optimize than analog ones.

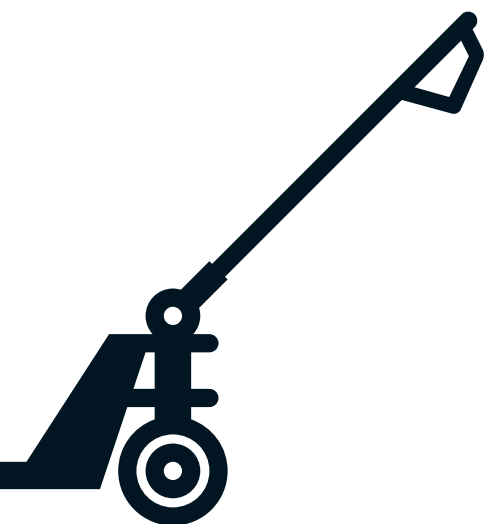
With the Push to Stop concept, Heidelberg has transformed industrial print production with sheetfed offset presses and created a clear vision. Processes have previously been actively planned, started and completed by operators, but the press and intelligent Prinect software will take over these tasks in the future. Job sequences running on a fully autonomous basis and navigated makeready processes for more complex job changes are now a reality. Numerous assistance systems free up operators and ensure optimum performance is the norm rather than the exception. “As the market leader in sheetfed offset, Heidelberg stands for quality and productivity. State-of-the-art technology and intelligent software deliver significant productivity benefits that quickly pay off and make our customers more competitive,” sums up Strunk.

Here’s what our customers have to say about productivity:

 [heidelberg.com/en/productivity](https://heidelberg.com/en/productivity)

There’s even a white paper on the subject. You can download the report and white paper by Smithers Pira free of charge here:

 [heidelberg.com/en/whitepaper-smitherspira](https://heidelberg.com/en/whitepaper-smitherspira)



# “I am a fan of the model”

When it comes to the subscription model, Lensing Druck is one of the pioneers. The decision was a smart move, remarks Robert Dembinski, Managing Director of Lensing Druck, in this interview. He also explains the model's positive side effects and why it can be a real ace up the sleeve for print shops.

## **Mr. Dembinski, how do you wish to be perceived on the market as a company?**

**Robert Dembinski:** As the most innovative, state-of-the-art printing operation in North Rhine-Westphalia (Germany). That might sound a bit like patting ourselves on the back, but it's how we would like people to see us and what we aim toward. That's why we set great store in always working with the very latest equipment available on the market.

## **Is that why you opted for the subscription model?**

It's our great fortune to have a publishing house as our parent company. However, the subscription model was still of interest to us, as we are constantly considering how to keep on optimizing our printing operations. And the full package from Heidelberg fitted the bill precisely.

## **How did you hear about it?**

At the end of 2017, we wanted to acquire a new press and gathered various offers. Heidelberg presented this model to us, which at that time wasn't yet on the market. The concept immediately made sense to us, and so we became the first offset print shop in Germany to sign up.

## **What makes the model so appealing to you?**

It's the perfect way for us to boost our performance. I'm certain we wouldn't have achieved the same level of improvement simply by purchasing a press – certainly not in this short time.

## **Why not?**

Besides the new Speedmaster XL 106, the key to boosting our performance was the Performance Plus consultancy concept included in the contract. We benefited immensely from this because the new Speedmaster XL 106 requires an entirely different working method if you want to get the best out of its fully automated capabilities. To enable





Robert Dembinski aims to work with the very latest equipment at all times. That's why the Managing Director of Lensing Druck is a keen fan of the subscription model from Heidelberg.





Quality control on the Speedmaster XL 106. In combination with Performance Plus, Lensing Druck has cut makeready times on the new press by some 40 percent.

“The subscription model is of interest to us, as we are constantly considering how to keep on optimizing our printing operations.”

**Robert Dembinski**

Managing Director of Lensing Druck

➔ us to achieve this, the experts at Heidelberg analyzed all the processes, going into fine detail in each and every aspect. For example, the printers' foot routes, and how the paper or printing plates reach the presses. Heidelberg mapped the routes and coordinated each with minute precision, basically choreographing the whole thing – even the waste disposal. That's exactly what we wanted, to push our productivity to its limits and be on a par with the best.

#### How do you know who's the best?

Because Heidelberg knows and shares that knowledge with us. Once a month, we hold a conference call and get all the figures we need. For example, we see how our makeready

times compare to other companies using the same machines. And we immediately identify the points in the process where we still have some catching up to do.

#### Where have you been able to significantly improve your processes?


Some of the changes were small – but had a major effect. We wouldn't have necessarily hit upon these ourselves. For instance, already bending the plates at the prepress stage and taking them to the press so the printers no longer have to fetch them themselves. Or setting up a buffer for paper in front of the press so printers don't have to walk so far for this, either.

It really is worth checking every single step during the makeready process and optimizing it as appropriate. Even if we end up gaining just ten seconds from a particular optimization, this still adds up to several hours over the course of approx. 15,000 plate changes per year.

In total, we have succeeded in reducing our makeready times by around 40 percent thanks to the various optimizations. Incidentally, Performance Plus has also had a positive effect on the productivity of our other machines.







## Lensing Druck – full service for speed

Lensing Druck is owned by Lensing Media, the second-largest newspaper publisher in the Ruhr region of Germany and home to tradition-steeped newspapers such as “Ruhrnachrichten”. Heinrich Lensing founded the publishing house in 1870. His son, Lambert Lensing, was a newspaper publisher who went on to enter the German Bundestag and also helped draft the constitution adopted by the Federal Republic in 1949.

In the 1970s and ‘80s, the publishing house took over further regional newspapers, ventured into radio broadcasting and launched its own private postal delivery service. Lensing Druck has been a firm part of the organization, which has been family-run for more than a century, since the start.

The acquisition of Druckerei Hitzegrad in early 2015 marked a milestone, after which the company pooled its sheetfed offset and digital printing operations at a new site in the Kley district of Dortmund.

Lensing Druck currently employs 120 staff at its 64,500 square-foot (6,000 sq.m) production facility. At its heart is a printing press from Heidelberg – a nine-color Speedmaster XL 106 with coating unit. Lensing prints between 65 and 70 million sheets a year on average. The approximately 4,500 orders stem only partly from the publishing house itself.

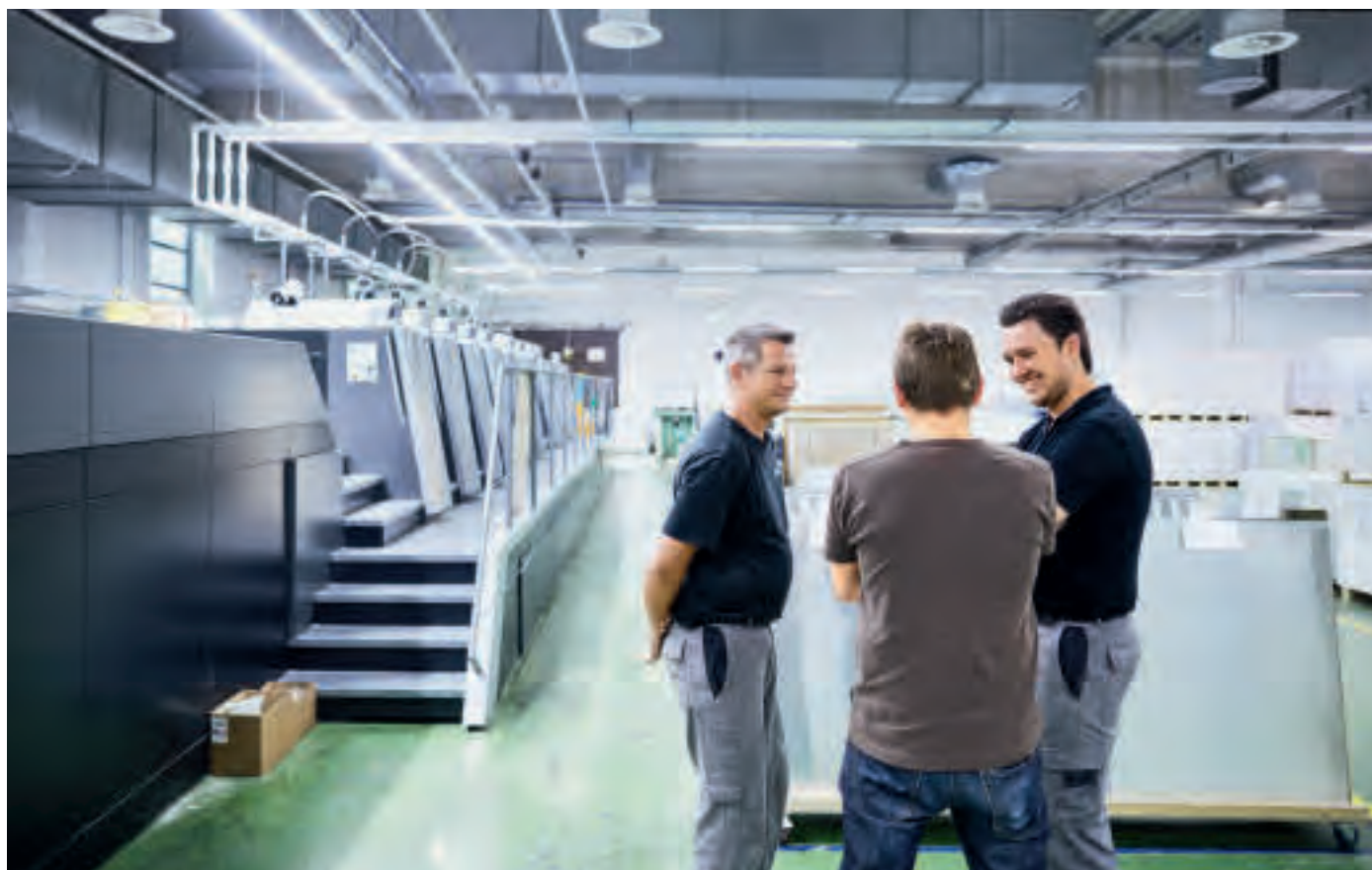
It also prints brochures, art catalogs, magazines and books for customers in cultural, association and publishing spheres, industry and the public sector.

Lensing Druck provides a complete range of media services that extends beyond conventional printing to include converting, logistics and lettershop services. The print shop intends to harness its potential even more effectively in the future. Firstly, by focusing more heavily on cross-selling effects and closer collaboration with publishing sales; secondly, by optimizing the productivity of its machinery. The subscription model from Heidelberg is a key lever in this respect.









Pushing productivity to the limit – to get the best out of the fully automated capabilities of the Speedmaster XL 106 in the print shop, experts at Heidelberg analyzed all the processes while also optimizing the printers' foot routes.



#### How?

In some cases, our printers work on both the Speedmaster and other presses. They of course apply the new method learned on the Speedmaster to working on other presses as well. As a result, our ten-year-old press supplied by a competitor is now 15 to 20 percent more productive.

#### How do you now rate the subscription model?

We said from the start that we wanted to be leading innovators and achieve maximum performance. This model enables us to do just that. Not only are we operating the latest Heidelberg press, but at maximum productivity. Ultimately, it doesn't matter whether I own the press. The arrangement just has to be profitable – which it is. This makes me a fan of the subscription model.

Apart from that, the full package has really helped us streamline our complex processes, and our outlay has been greatly reduced. For example, it has radically simplified our entire ordering process, as Heidelberg provides everything we need for printing and even performs all the logistics. So the model pays dividends for us in many respects.

#### If you were the managing director of a smaller company, would you still opt for this model?

I would need to weigh things up in detail. I consider the model only partially suitable for smaller businesses, as they might not be able to sell the extra capacity it creates, which they would need to. It's important to me that printing businesses, whatever their size, don't rely purely on their own expertise, but are receptive to the knowledge possessed by external partners such as Heidelberg. Even experienced printers can still learn things this way. No element of the printing process is beyond improvement.

#### What improvements are you currently working on to boost your productivity even further?

By now, we're already very well placed, technologically. But there are certain points we can still refine even further, such as in setup waste and production speed. We can see where potential still lies in the graphic overview of benchmarks provided by Heidelberg, which lists the key parameters of more than one hundred other machines. And I would not be a good managing director if I didn't aim to be among the best.

This video explains how Heidelberg Subscription works:

[heidelberg.com/en/video-subscription](https://heidelberg.com/en/video-subscription)





# Turbocharging the very large format

New equipment highlights such as the CutStar 162 and a highly productive lightweight paper kit are improving large-format efficiency by nearly 100 percent at Heidelberg. Online printer Saxoprint, which recently starting using a Speedmaster XL 162 with this new equipment, is just one of the companies to benefit.

Customers from all over Europe place orders with Saxoprint. Every order is different, which also means a wide range of substrates are used. The online print shop prides itself on offering flawless quality at good prices with short delivery times. Industrialized processes and state-of-the-art equipment mean the German company based in Dresden completes around 5,000 jobs every day. Orders arriving at the Web shop are combined in mixed forms and split between six giant large-format Heidelberg presses, including Saxoprint's latest acquisition – a Speedmaster XL 162 eight-color press with perfecting device and several world firsts.

For example, Saxoprint's press is the first one anywhere in the world to be equipped with the new CutStar 162 roll sheeter, which can handle rolls of paper weighing up to 3.2 metric tons and now also combines the cost benefits of web offset with the flexibility of sheetfed offset in the very large format. In addition to benefiting from less expensive roll-fed stock, however, Saxoprint is also eliminating a process step, because the excellent cutting quality of the CutStar 162 – with tolerances of less than 0.012 inches (0.3 millimeters) – means sheets can go directly to postpress. No jogging is required. Another reason for this is the impressive delivery quality of the double gripper, which also means space no longer needs to be left clear on the sheet for sheet travel and sheet brakes. The advantage of this is that areas that were previously not available for printing can now be put to productive use, because more jobs fit on one mixed form.

Another new feature of the press is an enhanced lightweight paper kit, which makes production more stable – even with tricky materials. The paper remains stable as it travels through the press, including at higher speeds, so up to 1,500 more sheets per hour can be printed on all kinds of materials without having to waste time searching for the correct parameter settings. Fully automatic, optimized plate changes speed things up further still. All the old plates are discarded first and the new ones are then moved into position – also in a fully automated process. This saves around 40 seconds. What's more, washing is now more flexible and can take place either before, between or after plate changes, as required by the customer. Shorter makeready times, fewer interruptions and a higher production speed make the newly installed Speedmaster XL 162 almost twice as efficient as presses with the standard configuration.

The Speedmaster XL 162 with UV equipment also benefits from a number of innovations. For example, LED technology is now available for this model, too. In addition, a CAN bus interface ensures all key functions can be operated directly from the machine console.

Watch how Saxoprint uses the Speedmaster XL 162 and CutStar 162 for production:

▶ [heidelberg.com/testimonial-saxoprint](https://heidelberg.com/testimonial-saxoprint)

Flexibility writ large – with the CutStar sheeter for the Speedmaster XL 162, Managing Director of Saxoprint, Klaus Sauer, can now choose between sheet- or roll-fed stock for production in 7B format.





# That all-important competitive edge

Instead of playing catch-up in response to changing demands, Rondo AG is forging ahead of the market. By installing the Primefire 106 from Heidelberg, the Swiss-based pharmaceutical packaging specialist (which operates a total of four sites in Europe and North America) has made its folding carton production operations so streamlined and flexible that it can use highly promising services such as supply on demand and variable data printing to unlock additional growth potential.

The pace of change is growing ever faster, and the pharmaceutical industry is no exception. The increasing personalization of medicine has prompted trends toward packs in various different sizes and an increasing number of language and country-specific versions. All these factors mean reduced run lengths. At the same time, pharmaceutical manufacturers are also supplying their medicines within markedly tighter timeframes than just a few years ago and are thus demanding maximum agility from packaging printers. "Orders are being placed at ever shorter notice and with a growing range of variants," explains Joachim Hoeltz, CEO of Rondo AG.

## **SUPPLY-ON-DEMAND SERVICE FOR SHORT RUNS**

Rondo, based in Allschwil near Basel, has therefore used process automation and data links to customers' ERP systems to boost production chain response times and has offered a supply-on-demand service for short runs since 2017. For example, each

week the company produces around 200 jobs with runs of between 100 and 5,000 sheets for an international pharmaceuticals company on a just-in-time basis. Rondo completes production within five days of receiving an order – from creating and planning the print jobs and splitting them between the production lines to printing, die cutting and gluing, including a quality inspection, and delivering the folding cartons to the customer. Printing is performed in a conventional offset process on a Speedmaster XL 105 perfecting press with coating units from Heidelberg.

However, processes considered to be "on-demand" today can be viewed as too slow tomorrow. That's why production was bolstered last year with the Primefire 106 industrial digital printing system from Heidelberg. The reason for this lies in current developments. According to Hoeltz, run lengths in the supply-on-demand segment fell another 20 percent last year alone, to an average of 2,500 sheets. This trend shows no signs of stopping, with

Rondo anticipating more batch sizes of between 100 and a maximum 2,000 sheets with even shorter delivery times. Faced with such run lengths, even heavily streamlined offset production operations reach their limits. "The Primefire system enables us to expand and future-proof our supply-on-demand service and our market position," Hoeltz insists. The system also offers a varied range of possibilities for customization and serialization.

## **OPTIMUM PRINT QUALITY, INCLUDING FOR SPOT COLORS**

Rondo has been working hard on digital printing for a number of years. However, attempts to move into this technology had always failed due to the pharmaceutical industry's extremely strict requirements in relation to product safety and protection against counterfeiting, for example. "We tested numerous digital presses extensively, but ultimately only the Primefire 106 won us over completely. As far as printing quality is concerned, the press even surpassed our expectations.





➔ The color reproduction and stability and the register are outstanding. The print image is comparable with that of offset printing,” explains Giovanni De Luca, Director Operations for Switzerland at Rondo.

Spot colors play a critical role in the pharmaceutical sector due to the importance of protecting against counterfeiting and ensuring products are not mixed up. Using seven-color separation, the Primefire 106 covers around 90 percent of the Pantone color space, while maintaining high color fidelity across different materials and run lengths. “We can generate a reliably reproducible print image at any time to ensure zero-error production,” De Luca says. By eliminating variables such as blankets and printing plates, the direct imaging process automatically prevents color fluctuations. At the same time, there are no makeready times for job changes that involve spot colors.

“Thanks to Primefire, we have an excellent mix in our print production. The press complements the Speedmaster XL 105 perfectly due to the B1 format. We can select the appropriate machine according to job requirements,” emphasizes Hoeltz. Rondo can produce runs under 1,200 sheets and jobs with very short delivery times on Primefire, with the Speedmaster taking care of longer runs. Data-controlled automated processes cut makeready times for Primefire to virtually zero. Makeready times and downtimes only occur when changing material or coating plates and performing calibration, which Rondo carries out every 2,000 sheets due to the strict quality requirements.

#### **DYNAMIC CODING AND INLINE SHEET INSPECTION**

Rondo is currently working with Heidelberg to optimize Primefire for the pharmaceutical sector. “Our market is highly specialized due to the numerous regulations,” De Luca says. Along with Heidelberg and Primefire, it aims to be a trailblazer on the pharmaceutical market.

The ongoing field tests are focusing on extended serialization options such as dynamic codes and inline sheet inspection. Data for creating the codes is handled via the digital front end of Primefire. The codes are in some cases generated individually for each folding carton, based on all types of data such as packing and

expiration dates and batch numbers. In inline sheet inspection for zero-error production, a camera compares the printed sheet with the prepress PDF while documenting the inspection results at the same time.

Rondo is very happy. “The Primefire 106 gives us the perfect production environment to process very short runs down to a batch size of just one reliably and cost-effectively,” declares Hoeltz. This is crucial for further growth in the supply-on-demand segment. What’s more, Rondo will be able to use Primefire to create specific security features such as ‘China Code’ inline and offer new services for serialization and coding. The company is well positioned for the future, giving it once again that all-important competitive edge.

Watch the Primefire 106 in action at Rondo here:

▶ [heidelberg.com/en/testimonial-rondo](https://heidelberg.com/en/testimonial-rondo)





## Better hold & shinier gloss

The new FoilStar Cure ensures process stability for inline cold foil finishing in UV label printing


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Inline finishing with cold foil is bang on trend. After all, this method doesn't just create striking effects on packaging – it is also much faster, more flexible and more cost-effective than hot foil. Cold foil is also more suitable for recycling than metalized film-laminated PET packaging, as the aluminum pigments that transfer onto the substrate are easier to remove in the disposal process.

However, although global consumption of cold foil is rising, the technology has so far barely made any headway in sheetfed in-mold and blow-mold labeling. This is due to insufficient process stability, which is an irritating problem for print shops and their customers. FoilStar Cure from Heidelberg primarily resolves this issue by using dedicated LED UV cold foil adhesives and inks and Dry Star LED UV dryers. Heidelberg has optimized web guidance on the FoilStar,

which can be retrofitted to any appropriately configured press, so that the foil web stays on the impression cylinder for longer. This results in pigments that are more adhesive and glossier, and high process stability, which opens up new possibilities for in-mold label printers in particular.

Learn more about the cold foil packaging trend in our Expert Talk:

 [heidelberg.com/en/experttalk-cold-foil](https://heidelberg.com/en/experttalk-cold-foil)

# FoilStar Cure







# A compact model that packs a punch

The perfect way to get started in packaging – the new compact Diana Go folder gluer

The Diana Go 85 folder gluer from MK Masterwork, which is sold exclusively by Heidelberg, is a flexible, compact and productive solution. It is the ideal choice for commercial and packaging printers looking to enter the packaging sector or expand their production capacity. This is because, although it has a small footprint, with a total length of 32 feet (9.8 m), this new model with a short layout is packed with proven Diana technology.

For example, the Diana Go produces straight-line and lock-bottom cartons as well as envelopes and CD jackets at a speed of 820 feet (250 m) per minute (with the option of 984 feet (300 m) per minute). It also processes cartons in widths from 2.95 to 33.46 inches (75 to 850 mm) and grammages from 7.05 to 21.16 ounces (200 to 600 g). Users can upgrade the Diana Go with gluing, monitoring and ejection

systems depending on their requirements. The Diana Go is easy and intuitive to operate, offers self-explanatory menu navigation and features a touchscreen interface. What's more, it also impresses with short makeready times – for instance, it takes less than 60 seconds to change a belt.

The technical specifications and full list of features for Diana Go can be found here:

 [heidelberg.com/en/diana-go](https://heidelberg.com/en/diana-go)

# Diana Go







# Yes, I do!

The Versafire Wedding Kit from Heidelberg offers fresh inspiration for everything from invitations to thank-you cards. Its seven example applications illustrate the diverse range of print options Versafire opens up for all things wedding-related.

## YES, I DO!

Order your Versafire  
Wedding Kit free of charge at  
[www.heidelberg.com/  
en/weddingkit](http://www.heidelberg.com/en/weddingkit)

A wedding is an unforgettable experience and one of the best days in the happy couple's lives. A great deal of time, money and nerves is invested in this special day. What counts is the "perfect day and occasion", and couples attach particular importance to quality, individuality and storytelling. From deciding who to invite and choosing a menu to drawing up a seating plan and sending thank-you cards, "print shops can provide their customers with all-round support for this important occasion – for example, with on-trend invitation cards and personalized place cards," says Laura Sturm, Content Manager at Heidelberg. "Our Versafire Wedding Kit shows what a comprehensive wedding concept with print products can look like."

"The kit uses finished products to demonstrate the varied range of possibilities with Versafire and is designed to give print shops inspiration and a tool they can use in their dealings with customers," explains Sturm. "The copper-colored 'thank-you' box, for example, which the couple can fill with a chocolate or other gift and send to guests as a small gesture of thanks, is pre-cut and can be easily assembled."

From transparent paper to uncoated, structured paper, the Wedding Kit also demonstrates printing on various materials. The thank-you card, for instance, illustrates the "white first" technology of Versafire EV. In this application, parts of the material are covered with white as the fifth color before CMYK, which means that the metallic effect of the paper comes through particularly strongly on other elements. "Versafire makes it easy to personalize and enhance all products, for instance with a coating," adds Marc Schmitz, Product Manager Versafire. "The Wedding Kit shows that print shops can fulfill customers' unusual requests – and help make 'their' very special day truly perfect."

The Wedding Kit contains seven wedding-related applications and can be ordered free of charge.

You can find further information on Versafire digital presses at:

 [heidelberg.com/versafire](http://heidelberg.com/versafire)



# Be in it to win it!

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Even faster, even sleeker and finally with a USB port – take part for your chance to win a latest-generation iPad Pro 11" from Apple.

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Just visit our website [heidelberg.com/hn/lottery](https://heidelberg.com/hn/lottery) and let us know what topics you'd like to see us cover in one of the next editions of Heidelberg News.

First prize is a sparkling iPad Pro, Apple's new premium tablet with 256 GB memory, face recognition (Face ID) and gesture control. We're also giving away three stylish office bags from the Berlin design label Sag+Sal made from recycled offset blankets.

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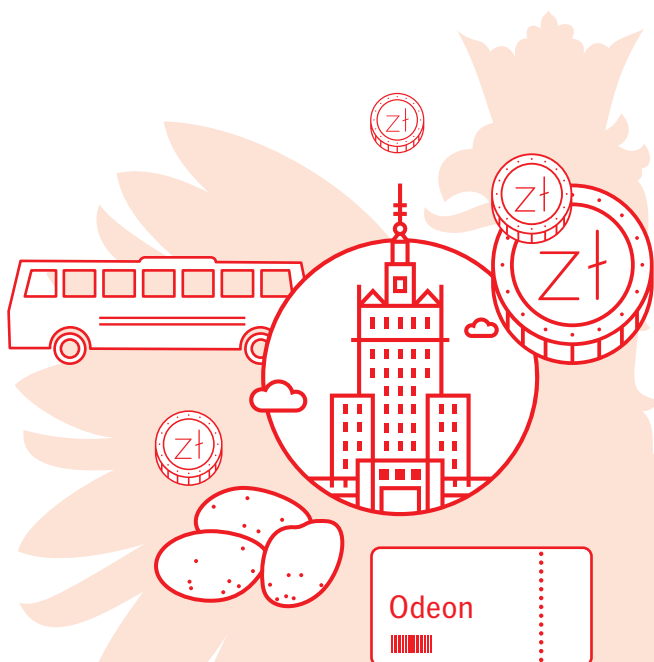
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# Printing in ... Poland

What's printing like throughout the world? In this series of articles, we report on various countries, focusing on the local situation in the industry and the working lives of printers. We start off with Poland.

## Poland in figures

Population: 38 million  
 Currency: Złoty  
 Economic growth: 5.1 percent (2018)  
 Consumer purchasing power:  
 Approx. 92.5 billion U.S. dollars (83 b. euros)  
 Print shops: Approx. 8,800  
 Industry sales:  
 Approx. 4.5 billion U.S. dollars (4 b. euros)  
 Unemployment rate: 3.8 percent

## The cost of living in Poland

Bus ride: Approx. 0.84 U.S. dollars (0.75 euros)  
 Rent: Approx. 479 U.S. dollars (430 euros)  
 (one-bedroom apartment, city center)  
 2.2 lbs (1 kg) of potatoes:  
 Approx. 0.49 U.S. dollars (0.44 euros)  
 Local beer (16.9 U.S. fluid ounces, 0.5 l):  
 Approx. 0.78 U.S. dollars (0.70 euros)  
 Movie ticket: Approx. 6.51 U.S. dollars (5.84 euros)

High sales of consumer goods mean high volumes of printing. Poland's print shops, particularly in economic centers such as Warsaw and Kraków, could tell a thing or two about this, especially as the country has for a number of years experienced one economic boom after another. In 2018, its GDP grew by a record-breaking 5.1 percent.

Poland's printing industry is also benefiting from the highly dynamic economy, almost doubling its sales in the last ten years. While the country is not immune to the decline of newspaper and commercial printing, demand for paper packaging is set to rise by 31 percent between 2016 and 2030, according to the Polish Chamber of Packaging.

In 2017, offset presses worth 71 million U.S. dollars (63.7 m. euros) were imported into Poland – the figure was just 48 million U.S. dollars (43 m. euros) the previous year. More than half of these presses came from Germany. A total of 8,800 companies operate in the Polish printing industry. These are primarily very small businesses with fewer than nine employees.

Aspiring printers complete three years of training, with half the time spent at a vocational school and the other half in a company. A fully trained printer earns around 1,000 U.S. dollars (900 euros) a month on average. That doesn't seem much, but it is on a par with earnings in comparable sectors. What's more, prices are comparatively low. The rent for a one-bedroom, city-center apartment is approximately 475 U.S. dollars (430 euros), a monthly ticket for local public transportation is around 23 U.S. dollars (21 euros), and a three-course meal at a mid-range restaurant comes to around 13 U.S. dollars (12 euros).

## Imprint

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