Future of Print Media Industry – Roadmap to drupa 2016

Pre-drupa Press Conference
Harald Weimer | Heidelberg, February 18, 2016
What are the ongoing trends in the global printing market?

- Increased demand for application know-how
- The market demands more standardization
- Press run decreases while number of jobs increase
- Need of flexibility and uptime to match shipping targets
Our customers are changing, too...

From a small craftsman....

... to an industrial enterprise
Hallmarks of our industry!

→ Individualization or hybridization of products (linking of production and services)
→ Providing additional services
→ Integration of customers and partners into business processes and value chain
→ Embedded systems as well as (partly) autonomous machines
→ Increasing interconnectivity

= Digitized World
What are general success factors for our customers?

- Business Innovation
- Operational Excellence
Industry Standard to measure efficiency: Overall Equipment Effectiveness (OEE)

OEE influenced by Press options (red = Prinect Inpress Control)

Similar cluster of presses, but still wide spread of OEE!

What are the OEE influencers?
Overall Equipment Effectiveness: 
Its about smart analytics

The Overall Equipment Effectiveness (OEE) provides a set of indicators which are used in many industries throughout the world. Finally the OEE combines all areas which influence productivity into one index:

\[ OEE = [\text{Time Index}] \times [\text{Speed Index}] \times [\text{Quality Index}] \]

\[ [\text{Time Index}] = \frac{[\text{Printing Time}]}{[\text{Available Time}]} \]

\[ [\text{Speed Index}] = \frac{[\text{Average Running Speed}]}{[\text{Maximum Running Speed}]} \]

\[ [\text{Quality Index}] = \frac{[\text{Net Impressions}]}{[\text{Gross Impressions}]} \]
Overall equipment effectiveness.

Driving factors.

Utilize OEE as key indicator to maximize output and/or minimizing efforts!

Overall Equipment Effectiveness

<table>
<thead>
<tr>
<th>Time Index</th>
<th>Speed Index</th>
<th>Quality Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimize Make-Ready</td>
<td>Substrate quality</td>
<td>Eliminate waste with</td>
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<tr>
<td>Eliminate waiting time</td>
<td>Material preparation</td>
<td>optimized presetting's</td>
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<tr>
<td>Reduce unscheduled downtime</td>
<td>Machine maintenance</td>
<td>Quality as requested</td>
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<td></td>
<td></td>
<td>Avoid overproduction</td>
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Knowledge
Consumables
Substrate
Technology
Culture
Leadership
More than machines
Heidelberg: partner for a digitized world.

Smart Services
Ready for Industry 4.0
Heidelberg SystemService.
The answer to customers’ service needs.

Our customers want …

• Maximum availability and productivity
• Minimized and known service costs
• Optimum quality
• High resale value

Our assets are …

• Largest service network in the print media industry:
  • 3,000 Systemservice experts worldwide
  • Worldwide logistics network with 4 hubs in Germany, the USA and Asia
• Most sophisticated Remote Services capabilities with more than 25,000 devices and Prinect modules connected delivering online Big Data for predictive analysis
• Comprehensive product portfolio
Heidelberg SystemService.
A comprehensive portfolio for greater performance.

**Technical Services**
- Installation
- Relocation
- Maintenance
- Cleaning
- Remote Support
- Repair
- Original Parts
- Overhauling

**Performance Services**
- Evaluation
- Color Management
- Training
- Upgrades
- Remote Monitoring
- Performance Plus

**Service Agreements**

**On-Demand**
- One-Time Service

**Point-of-Sales Agreements**
- For new equipment

**Heidelberg Partner Program**
- For installed equipment

**Performance Agreements**
- For increased productivity
Remote Monitoring. Unique in the printing industry.

With the most advanced built-in Remote Service technology and the state-of-the-art Big Data analytics platform we are able to offer with Remote Monitoring a predictive service to provide highest machine uptime:

• Predictable production schedule thanks to early detection of failure indicators
• Reduced downtime thanks to intelligent combination of tasks in one service call
• Fast and precise failure analysis
• Regular conference calls to monitor machine status
Remote Monitoring.
Higher uptime thanks to predictive service.

Capture
Continuous data collection (~ 500 million data records per machine per year)

Analyze
System algorithms detect irregularities and propose aggregated tasks for predicted failures

Fulfill
Expert creates intelligent task list and plans execution:
• Remotely
• Next planned visit
• Immediate on-site call (exception)

Report
Transparency:
• monthly data review
• service report
• regular conference calls
Performance Plus.
A new approach to boost customers’ performance.

Heidelberg has developed a unique service to unleash customers’ full potential.

Performance Plus is not just for one machine or system but for the entire print shop – a new, integrated approach where we don’t just advise customers but also guide and support them during implementation, from the minute an order is received through to billing.
Performance Plus.
Implementation & structure.

Evaluate
- Data
- Observations
- Evaluations

Design
- Find Potential
- Calculate
- Project Plan
- Determine
- Savings
- Business Case

Implement
- Value Stream Map
- Classroom Training
- Workshops
- On Press Training
- Production Support

Sustain
- Target Setting
- KPIs
- Tracking Progress
- Monthly Reviews
- Calculate Savings

Audits
- Continuous Training
- KPIs
- Monthly Reviews
Die Buch- und Offsetdruckerei Häuser KG

Mr. Heiko Mazur
Die Buch- und Offsetdruckerei Häuser KG

Inhaber Günter Mazur und Heiko Mazur

Mr. Heiko Mazur
Owner and General Manager
Company information

- Family owned since 1922
- Online platform „www.DruckDiscount24.de established in 2003
- Today production site of 10,500 m²
- 207 employees

- **Special Know How to handle more than 1000 jobs per day**

Machine park (excerpt)
- 4 Speedmaster XL 105 / XL 106 (40 inch)
- 2 Speedmaster in format 74 (29 inch)
- 3 Speedmaster in format 52 (20 inch) - two with Anicolor inking unit
- Prinect Workflow
- Digital printing

- **We offer everything – from idea to shipping**
Druckhaus Weppert
Mr. Norbert Hettrich
Mr. Norbert Hettrich
President & CEO
COMPANY INFORMATION

ABOUT US

» Headquarters in Schweinfurt, Bavaria, Germany
» Family owned business, founded in 1839
» Manufacturing facilities: 3 subsidiaries - ca. 10,000 m²
» Number of employees: 180

VISION

» Provide high standard quality printed products at a very affordable price

GROWTH STRATEGY

» Provide marketing solutions through product expansion
» Extend potential target markets: geographical markets, dedicated products,…
» Target product innovations according to market needs

SUCCESS STRATEGY

» Deploy automated processes throughout the production chain and workflow
» Make personalization a standard
» Offer standardized products and services
» Provide very low up to high quantities per order but produce in standardized, high volume processes
is a web-portal offering business and micro-business companies a wide range of products they can print at a very affordable price (more than 1.000.000 products in portfolio).

offers business and micro-business companies a free, easy-to-use and trusty web-solution that enables them to design and personalize a very wide range of products.

is a web-portal offering subsidiaries and franchise companies individual though corporate-uniform business office products, like business paper, brochures, business cards,…

for dedicated offline businesses, specialized in individualized print-solutions and trustful fulfillment.
Mr. Heiko Mazur
Owner and General Manager,
Häuser KG

Mr. Norbert Hettrich
President & CEO,
Druckhaus Weppert
Our benefits with Remote Monitoring

Service hours per month over the complete machine park – 2014/2015

- Service hours reduced by 20%
- Predictive Maintenance helps reducing unplanned interventions from before 50% close to zero
- Dedicated Service Key Account from Heidelberg helps us to
  - increase transparency
  - effectively execute tasks according to their priorities
  - reduce downtimes by combining tasks
  - measure target accomplishments
Performance Plus Project

- Well structured and methodical approach to analyze areas for improvement:
  - Process analysis via Value Stream Mapping (VSM)
  - Include employees in the change process
  - Combined approach to define further processes based on Lean principles
  - Ensure the sustainability through training and frequent reviews

- Current results:
  - Transparent processes
  - Increased willingness of change with all employees
  - Orientation of production based on customer demand, through flexible work hour models

- Our expectation:
  - Sustainable increase in productivity by 15 to 20%
  - Waste reduction of 5 to 10%
Our benefits with Performance Plus

- Performance increase of 13% after 6 Month
- High acceptance of Heidelberg’s Performance Plus team pushed our employees for further and continuous improvement
- Experience of Heidelberg team helped to identify unique improvement areas
Remote Monitoring:

- 150 participating machines
- Started in 5 countries
- Increase of uptime up to 10%

Performance Plus:

- Over 30 projects
- Started in 7 countries
- Performance improvement up to 40%
- Potential savings up to 200,000 Euro p.a.

10 premium contracts with uptime guarantee
Time for questions.

Mr. Heiko Mazur  
Owner and General Manager,  
Häuser KG

Mr. Norbert Hettrich  
President & CEO,  
Druckhaus Weppert
Heidelberg: partner for a digitized world

Smart Collaboration
Ready for Industry 4.0
Customer’s expectation for interaction in the digitized age is changing

→ Extend personal on-site and telephone assistance with 7x24 eCommerce
→ Create and track service requests online
→ Access to expert know-how and transparency of achievements of performance services

Our commitment:

Provide state-of-the-art ways to collaborate efficiently.

In all regards. Today and tomorrow.
New Heidelberg eShop – 24x7 supply for your print shop with modern user interface optimized for all devices.

- Personalized access for registered customers
- Exclusive prices
- Quantity Discounts
- Free delivery
- In-depth product information
- Safety sheets and application know-how on your fingertip
- Shopping lists
- One click to order
Heidelberg eShop – Leverage today’s strong position to redefine eCommerce for the PMI supply.

Today: 24x7 access for registered customers to broad consumables portfolio including Heidelberg Saphira brand to...

80,000 orders per year in 26 countries

Next steps:
- Open shop without registration incl. credit card payment for instant shopping
- Continuous extension of product portfolio
- More countries: Heidelberg eShop in China - August 2016
There is one more thing.

There are...
more than 10,000 machines and 15,000 Prinect modules connected

There is...
Big Data combined with central analytical and predictive logic to provide the base for Heidelberg’s
• Performance Benchmarking
• Remote Monitoring
• Performance Plus

There are...
more than 3,000 technicians providing these services today

It is one of the biggest knowledge sources of the Print Media Industry

The Heidelberg Cloud
And now we open it for our customers.

Personal access for Heidelberg customers

- Expert know-how on your fingertip
- Transparency about availability and performance of your print shop

Heidelberg Assistant
The Heidelberg Assistant.
Heidelberg Assistant will enhance the eShop with further functionalities.

Smart shopping powered by Heidelberg Cloud:
- Offer only fitting products for printer as search results
- Predict optimal order size based on consumption of machines
- Notify customer, if reorder is due considering consumption and delivery time
- Orders generated by machines as semi/full-automated process
- Recommend wear and tear parts according operation time of machines
Heidelberg Assistant – service and support at your fingertip.

Service and Support powered by Heidelberg Cloud:

- Access to expert know-how
- Create and track service requests online
- Notification about maintenance dates
- Suggestions for predictive maintenance actions
- Recommendations for performance improvements and visualization of performance trends
Heidelberg:
Partner for a digitized world.

Smart Print Shop
Ready for Industry 4.0
Stahlfolder product portfolio.
Fitting all customer needs.

Each customer finds the machine that fits best to his needs in Heidelberg’s offering – the strongest portfolio of folding machines in the entire industry is clearly structured and consequently adapted to performance classes and customer needs.

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Application:

- Industrialized production of signatures

Customer benefit:

- Up to 50% increase of output at highest process reliability with shingled processing of sheets
- Increased quality with constant productivity for production of sensitive paper
- No special folding types / schemes necessary

Trend:

- Integration via Prinect Postpress Manager for further optimization of make-ready
Heidelberg @ drupa.

Simply Smart
Heidelberg @ drupa
Preferred supplier in the digitized world

Smart Services
Smart Collaboration
Smart Print Shop

Simply Smart

Time to concentrate on what matters!
Smart Areas in hall 1

- Smart Print Shop
- Smart Services
- Smart Collaboration
Our partner in hall 1

Partner

A Masterwork Machinery Co., Ltd.
B DRAABE
C SüdLeasing GmbH
D Heidelberg Remarketed Equipment
E VR-Leasing AG
F BNP Paribas S.A.
G Fujifilm Holdings K.K.
H Stora Enso Paper
I Société Générale S.A.
J Steinemann
K POLAR-Mohr
L Heidelberg
Exhibits in hall 1

- Suprasetter 106 with mAuto Pallet Leader
- Speedmaster XL 106-6+LYYL
- Speedmaster XL 106-8+P LED
- Speedmaster CX 102-5+L
- Inkjet System
- Jetmaster Dimension 250-4
- Linoprint CV
- Linoprint CP
- Heidelberg DCS 340
- Stahlfolder KH 82-P
- Stahlfolder TH 82-P
- Stahlfolder CH 56
- Duplex Press MK21060SER
- Diana Eye 55
- Diana Smart 115
- Diana Smart 55
- EasyMatrix 106CS
- Powermatrix 106CSB
- Digiset ECO
- POLAR Cutter D 80 ECO
- POLAR Cutter D 115 PLUS
- POLAR High-Speed Cutter N 78 PLUS
- POLAR Digicut PRO
- POLAR CuttingSystem 200 PACE
- POLAR CuttingSystem 200
- POLAR LabelSystem DC-11 PLUS
- Steinemann dmax

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Heidelberg and partners in hall 1
Expert Lab and Expert Stations
Heidelberg and partners in hall 1

Expert Lab and Expert Stations

Together with our partner we will address different focal points in hall 1, such as:
- Development of key technologies
- Financing solutions
- Material handling
- Environmental challenges
and more.

**Expert Stations** are used to display our partners offering in detail.

The **Expert Lab** offers space to explore the interplay of Heidelberg with partners on various key aspects.
drupa is extended to Wiesloch-Walldorf. Full range of portfolio for commercial/packaging print.
Thank you. Time for questions.

Harald Weimer