



Future of Print Media Industry – Smart Print Shop

Year-End Press Conference

Stephan Plenz | Wiesloch-Walldorf, December 2, 2015





Individualization of consumer products find its place in daily life.

Installation 4-color Jetmaster in „mymuesli“-Shop in Heidelberg.

Digital 4D Printing

- Beyond label – direct print on objects
- Beyond PMI – new customers
- Use cases “Bottles” / „Ball“ / „Car“

- Flexible and efficient creation of individualized concepts
- Substitution of processes with high requirements of resources and materials
- Modular systems for unique requirements for consumer goods, industries and service providers

Multiple Dimension



InPrint 2015: launch of Jetmaster Dimension 4c.

For a broad range of individualized color applications.

- Jetmaster Dimension for 4D printing
- A modular four-color press based on state-of-the-art inkjet technology combined with high-precision robotics
- Directly print cost-effectively on spherical or cylindrical objects
- With a diameter of ten to 300 millimeters
- In a resolution of 360 dpi
- With up to four colors and opaque white or a protective coating



InPrint 2015: the marketplace of ideas.

High customer interest.

- World premier: Heidelberg first presents Jetmaster Dimension for 4D color printing
- 4,000 visitors
- Many high-quality leads from different industries
- Attractive appearance
- Live production of >300 personalized objects for interested customers
- Next step: Jetmaster Dimension 1000





Print media: growing versatility.

Product portfolio and manufacturing are changing.



One consequence ... Consolidation of the print media industry.

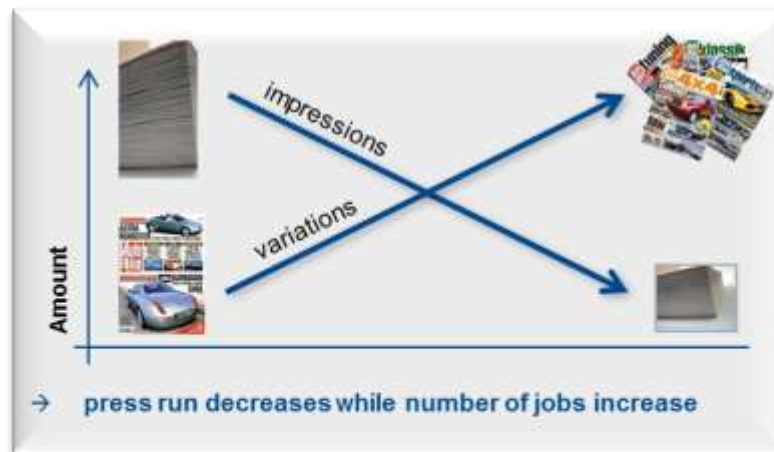


From a small handcraft....



... to industrial enterprises

What are the ongoing trends in the global printing market?



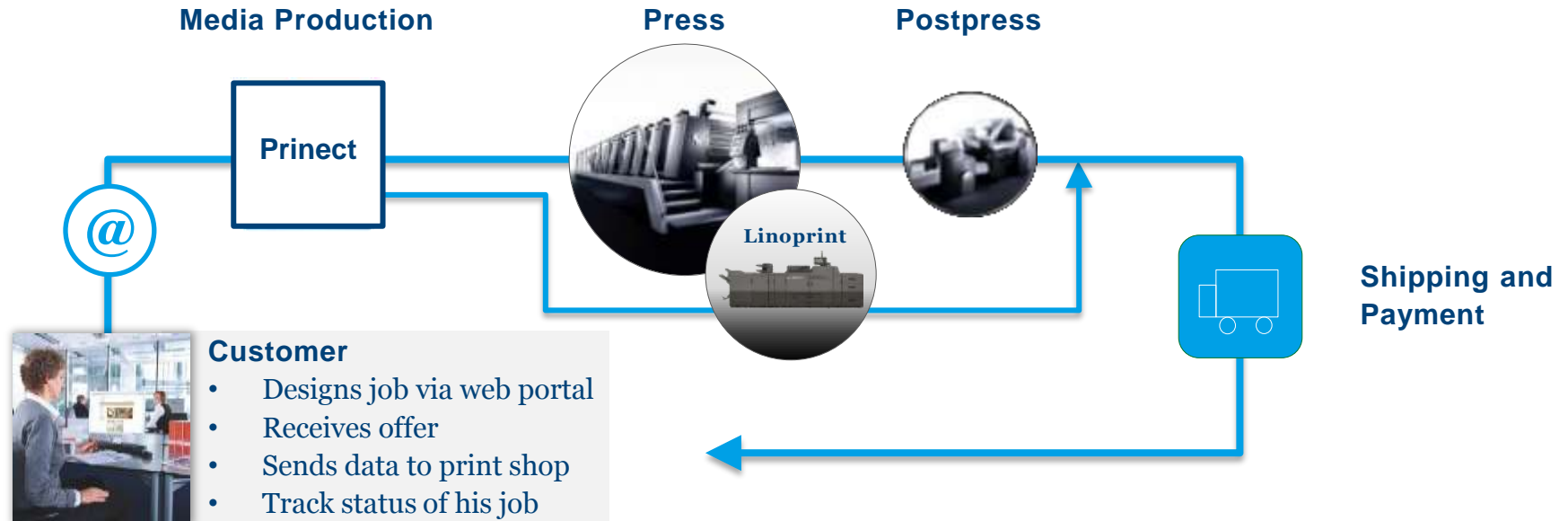
Until 1995, communication in print production was entirely walk, talk and paper.



- Hardly any electronic communication between production stages
- Only few printers used MIS systems to control their print orders
- Heidelberg with prepress RIPs and press control systems

Print shop ready for digitized age?

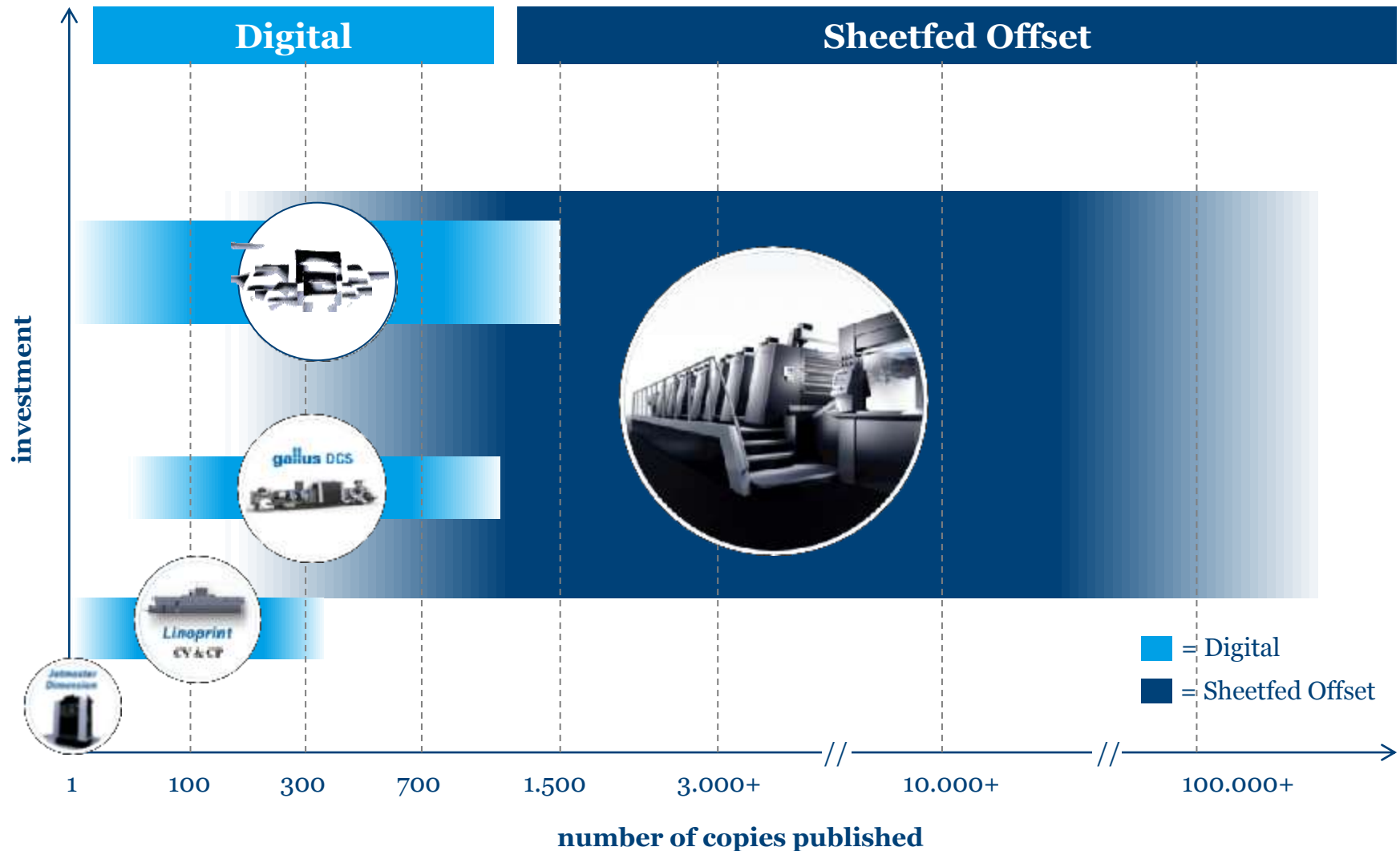
Prinect integration along the entire value chain and across company borders



- Prinect smart integration covers print buyer integration, MIS and media production and digital workflow.
- Isolated, optimized production cells work together in a fully integrated, automated, and optimized production flow.
- Prinect integration extends beyond the boundaries of a print shop and includes customers and services.

Product portfolio in digital and offset.

Integration is key.



Heidelberg: concentrate on what matters.
Excellence in all details.



Speedmaster: a fully automated and integrated printing system.



- A Speedmaster is an autonomous, high-tech production working cell meeting most criteria used in today's definitions of smart factory integration.
- A Speedmaster is a cyber physical system.



Speedmaster press: a cyber physical system.

- *Human-machine work cell*
- *Integrated* via JDF network
- Production *data analysis* with color workflow and Analyze Point
- *Autonomously* making production decisions
- Delivering *real-time data*
- Connecting to the *cloud* for OEE benchmarking
- Connecting to *internet* service network for Remote Monitoring
- Using *simulation* in the Prinect color and paper stretch compensation workflows



Automatic
Plate Change



Automatic ink
supply



Automatic foil
supply



Inline
measurement



Inline inspection



Increasing ease of use – more time for the essentials.



Automation in daily life and new businesses





Increasing ease of use – more time for the essentials.



Automation in daily life and new businesses



Heidelberg's digital presses are part of the integration.



- A Linoprint is an autonomous, high-tech production working cell including digital prepress and digital finishing
- The Prinect DFE connects to Prinect Smart Integration



Prinect DFE



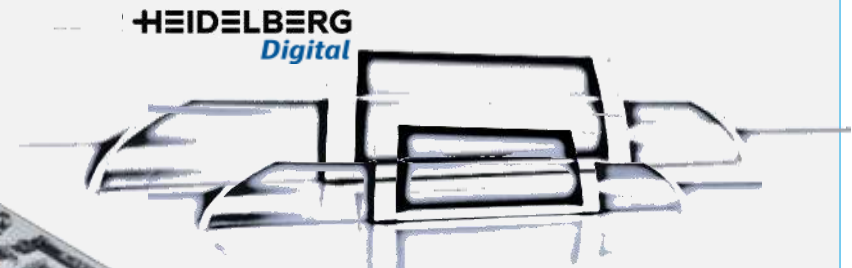
Easy integration of digital systems in one workflow

Prinect DFE: common platform for all Heidelberg digital printing systems

Commercial Value

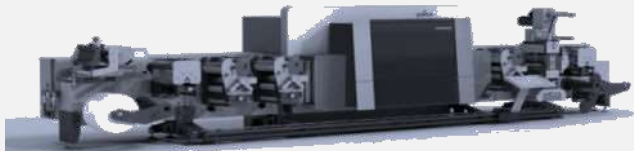


Packaging & Commercial Peak Performance



Digital Label Peak Performance

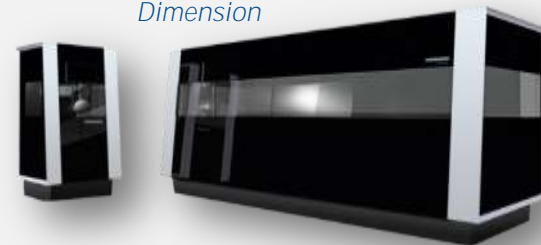
gallus
Gallus DCS 340



Prinect

4D Object Decoration

HEIDELBERG
Jetmaster
Dimension



Heidelberg's system for flexible & individualized short runs.



Since 2012 approx. 700 units sold – further growth with new products.

Digital Commercial Value

- Digital toner sheetfed printing systems
- Growth and transition for customers
- A supplement to offset

- Linoprint CV, the versatile printing system for new applications with opaque white, varnish, etc.
- Linoprint CP, a real alternative to Indigo / iGen (performance, quality and operating cycle).
- New Prinect digital front end offers a high degree of functionality – independently and with Prinect.

Linoprint CV



Linoprint CP





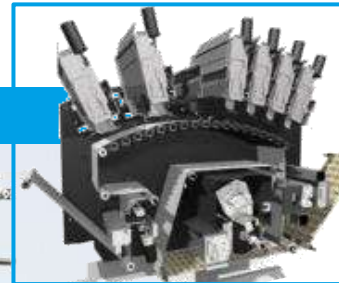
Gallus DCS 340: new benchmark in combining print quality, flexibility and productivity in digital converting

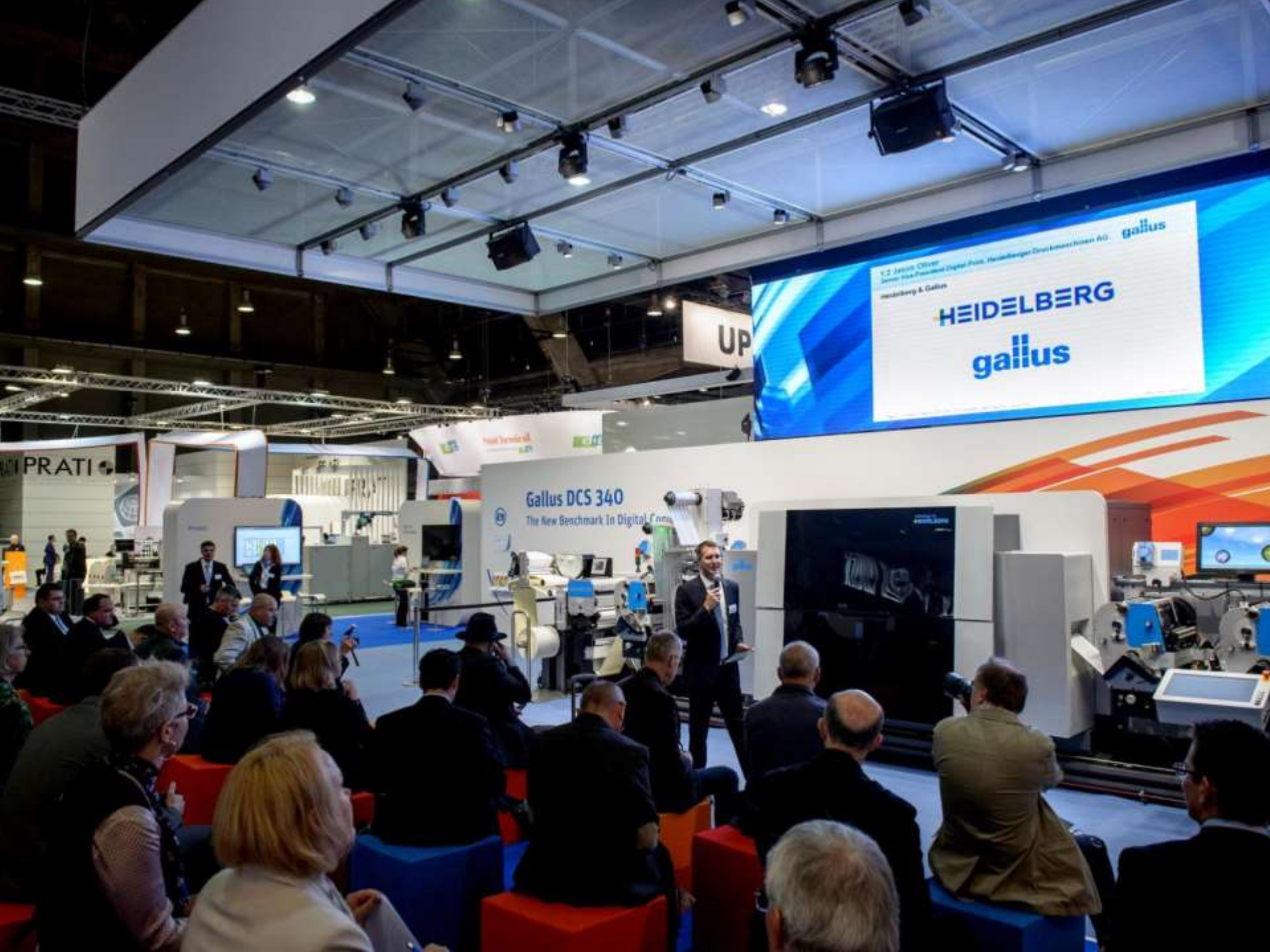
Digital Label

- Offset quality to inkjet packaging
- New R2R system Sept. 2014
- Labels & foils
- HDM + Gallus +Fuji

- UV inkjet: 8-color capability to cover Pantone gamut
- Resolution: 1,200 × 1,200 dpi native
- Speed: 50m/min, regardless of number of colors or resolution
- Inline finishing: from file to the finished label in one pass

Gallus DCS 340





UP

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Heidelberg & Gallus

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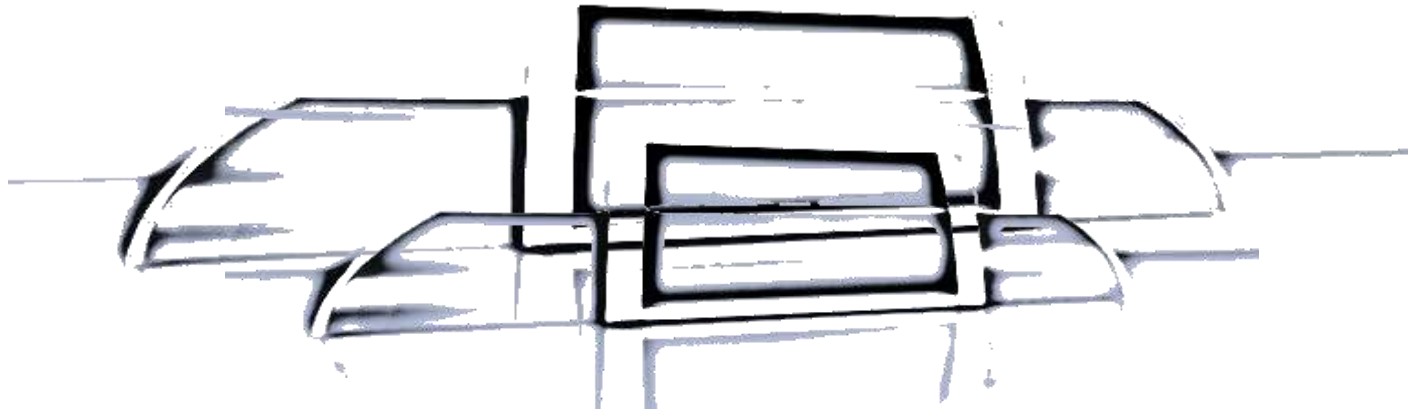
Heidelberg

Gallus DCS 340
The New Benchmark In Digital Color

PRATI

Industrial digital print for packaging and commercial. **First presentation @ drupa 2016.**

- Industrial digital inkjet printing up to B1 format size
- Drop-on-demand inkjet technology (DoD) for high quality requirements
- Workflow integration with Prinect (digital front end)
- Technology cooperation with Fujifilm
- Synerjetix



Prinect smart integration connects. From print buyers to the print shop.



- Prepress, press and postpress are connected through the JDF network.
- MIS is connected with production through the JDF network.
- Print buyers are connected to the print shop through Neo7even web solutions.
- Digital process information is forwarded with the print products along the entire production chain and amended as processing continues.
- Individual production steps are independent but connecting automatically and autonomously based on the JDF information.



Prinect tools for the digitized world.

Future is now.

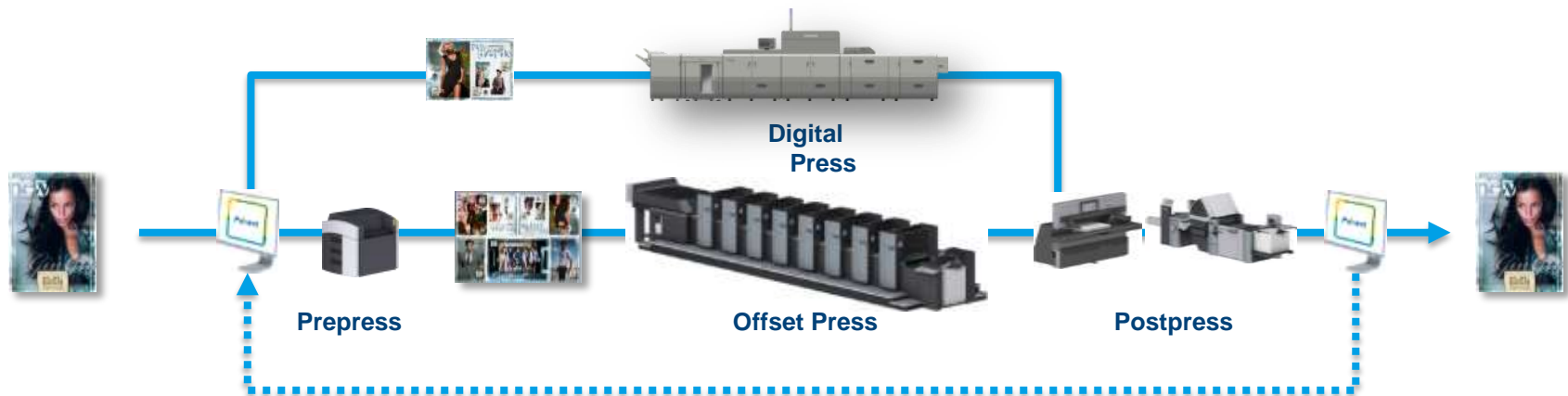
- Prinect Smart Automation makes autonomous process decisions by adapting processing steps based on production information (MIS, JDF, PDF).
- Prinect Automatic Paper Stretch Compensation – the software to compensate the paper stretching when imaging the first plates.
- Prinect Portal apps with comprehensive functionality for print buyers allow full order handling including appropriate production management.
- Prinect web shop for automated sales of print products.

Prinect Smart Automation.

Autonomously selects the appropriate process.

Selection of print process and processing of order data depends on product information:

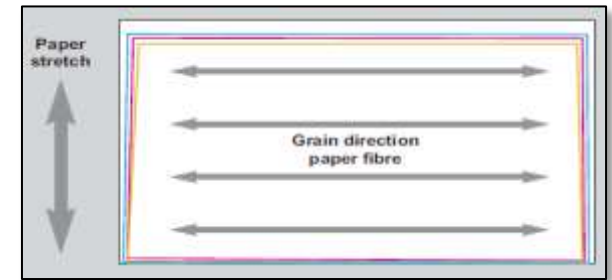
- Number of printed copies
- Number of pages
- Print colors
- Format
-



Automatic paper stretch compensation

An example for efficiency gain by simulation

- The stretching behavior of paper types is described in a complex software model depending on paper, color, ink, ink coverage, press, etc.
- This model is used to simulate the effects of paper stretching for each plate before imaging.
- The results of this calculation allow modification of plate imaging data accordingly before imaging.



Customer benefits

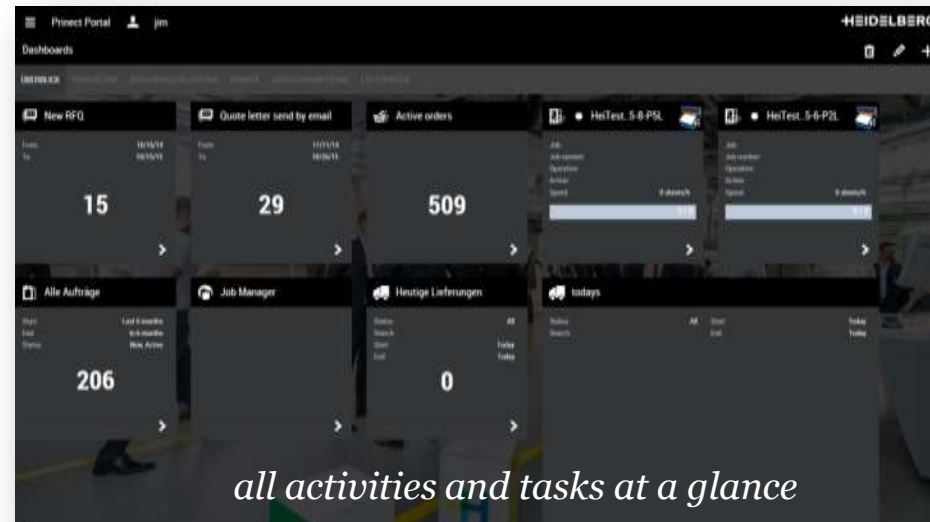
- Saving of printing plate sets by avoiding at least one set of plates per compensated job.
- Saves make-ready times by avoiding manual adjustment of register or manual compensation.
- Saves waste by compensating before the first sheet is printed.



Princt Portal: the new browser-based tool to handle and manage print orders

New browser-based tool for all workflow steps:

- Request for quote, ordering, stock withdrawal, job tracking
- Create quote and estimate
- Approval workflow of content layout
- View detailed production status
- Get delivery, invoice and analysis
- Keep customer and project overview



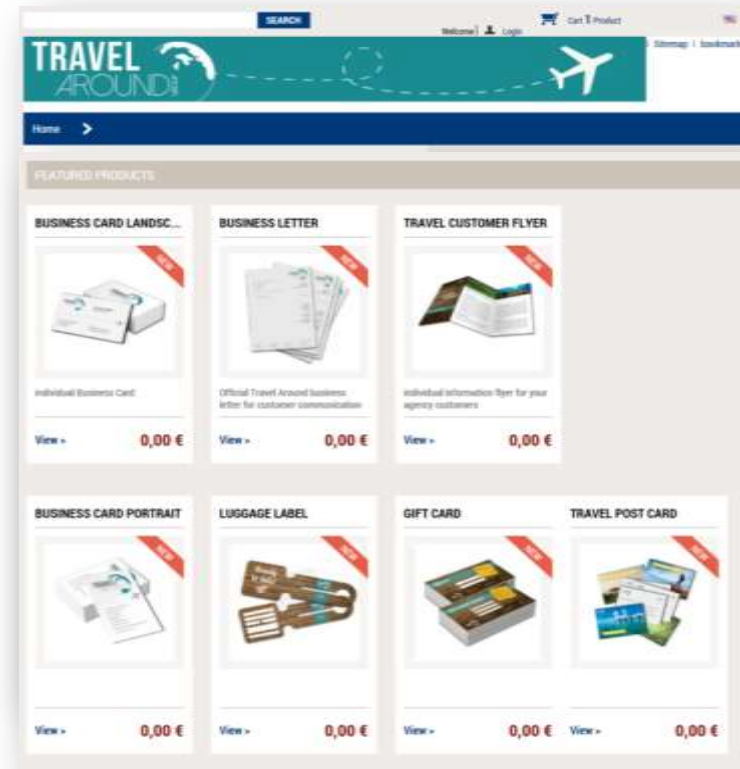
Roles and rights control for all functions

- Print buyer, sales rep, order manager, production operator, other

Prinect web shop



- For the immediate start
- For standard products and processes
- SaaS solution
- Integration into Prinect workflow, fully automated order management and production



Heidelberg: partner for a digitized world



Thank you. Time for questions.



Stephan Plenz

