



KOENIG & BAUER

Capital Markets Day 2023

09 October 2023

Radebeul, Germany

we're on it.

Agenda 09 October

09/10/2023

Day 1 – Monday

until 06:00 pm

Arrival & Registration

06:00 – 06:05 pm

Welcome | Ralf Sammeck

06:05 – 06:20 pm

Intro CMD 2023: Growth areas | Dr. Stephen Kimmich

06:20 – 07:00 pm

Live Demo: 360° packaging workflow | Ralf Sammeck

07:00 – 10:30 pm

Dinner



Ralf Sammeck

Member of the Board
CEO Koenig & Bauer Sheetfed
Chief Digital Officer



Welcome to our Capital Markets Day 23

in Radebeul



Dr Stephen Kimmich

Member of the Board
CFO Koenig & Bauer AG

Our communicated goals

2023

1,3 Mrd. € turnover
3% EBIT

2025

1,5 Mrd. € turnover
6-7% EBIT

Mid-
term

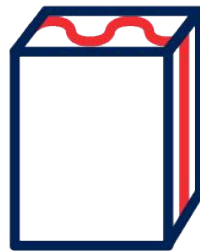
1,8 Mrd. € turnover
8-9% EBIT



We have
six main areas of growth
on the way to our mid-term goals.

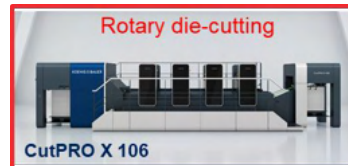
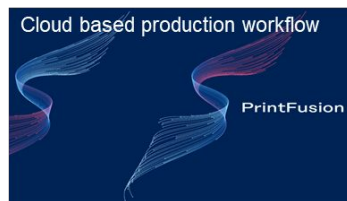
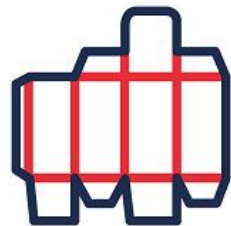
Main areas of growth

Corrugated



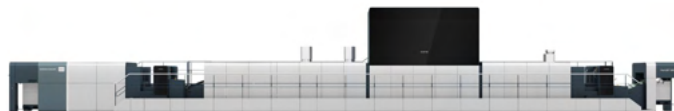
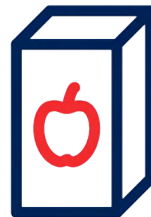
Main areas of growth

Postpress



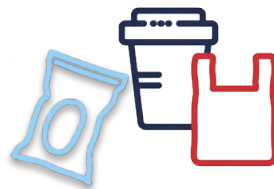
Main areas of growth

Digital Printing



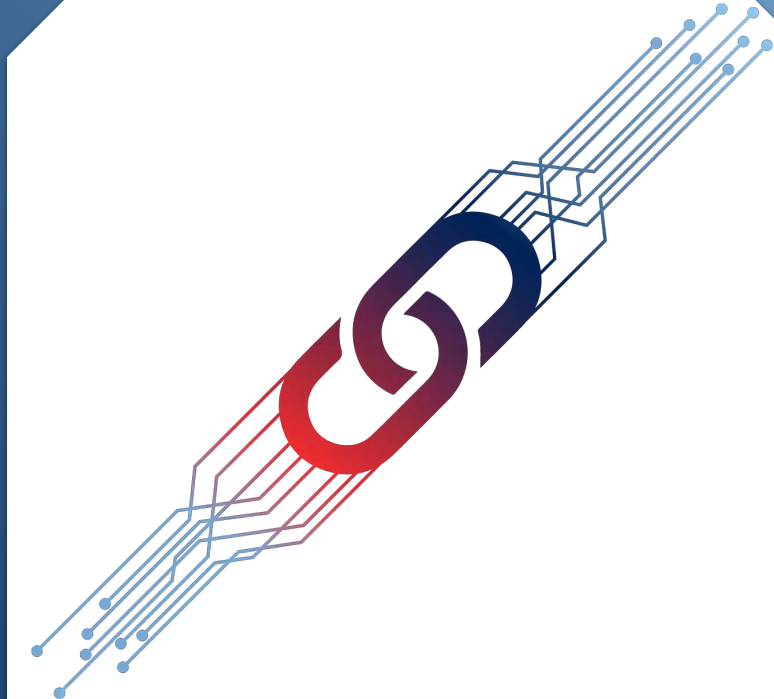
Main areas of growth

Flexible Printing



Main areas of growth

Digital Business Models



Main areas of growth

Consum- ables



Successful partnerships



Digital Printing - RotaJet

KOENIG & BAUER | **durst**

Digital Printing - VariJet / CorruJet



Digital Printing - Corrugated Pre-Print

CELMACCH

Corrugated - Post-Print

HYBRID
SOFTWARE
GROUP

Digitalisation - Software & Workflow



Digitalisation - Big Data

Veracity Protocol

Authentication & Security



Security Printing



Battery Dry-Coating

Agenda 10 October

10/10/2023

Day 2 – Tuesday

until 09:20 am

Arrival & Registration & Welcome | Lena Landenberger

09:20 – 10:15 am

Koenig & Bauer Strategy & drupa preview | Dr Andreas Pleßke

10:15 – 10:45 am

Break

10:45 – 12:00 am

Live-Demo VariJET | Ralf Sammeck

12:00 – 01:00 pm

Lunch

01:00 – 02:30 pm

Growth Area 1: Corrugated | Hannah Potrawa

Growth Area 2: RotaJET

Growth Area 3: Flexo

] | Oliver Baar

Growth Area 4: Digital Business | Sandra Wagner

02:30 – 03:30 pm

Wrap-up and Q&A session | Dr Andreas Pleßke | Dr Stephen Kimmich | Ralf Sammeck

Farewell | Lena Landenberger



Ralf Sammeck

CEO Koenig & Bauer Sheetfed
Chief Digital Officer

Partnership with HYBRID Software

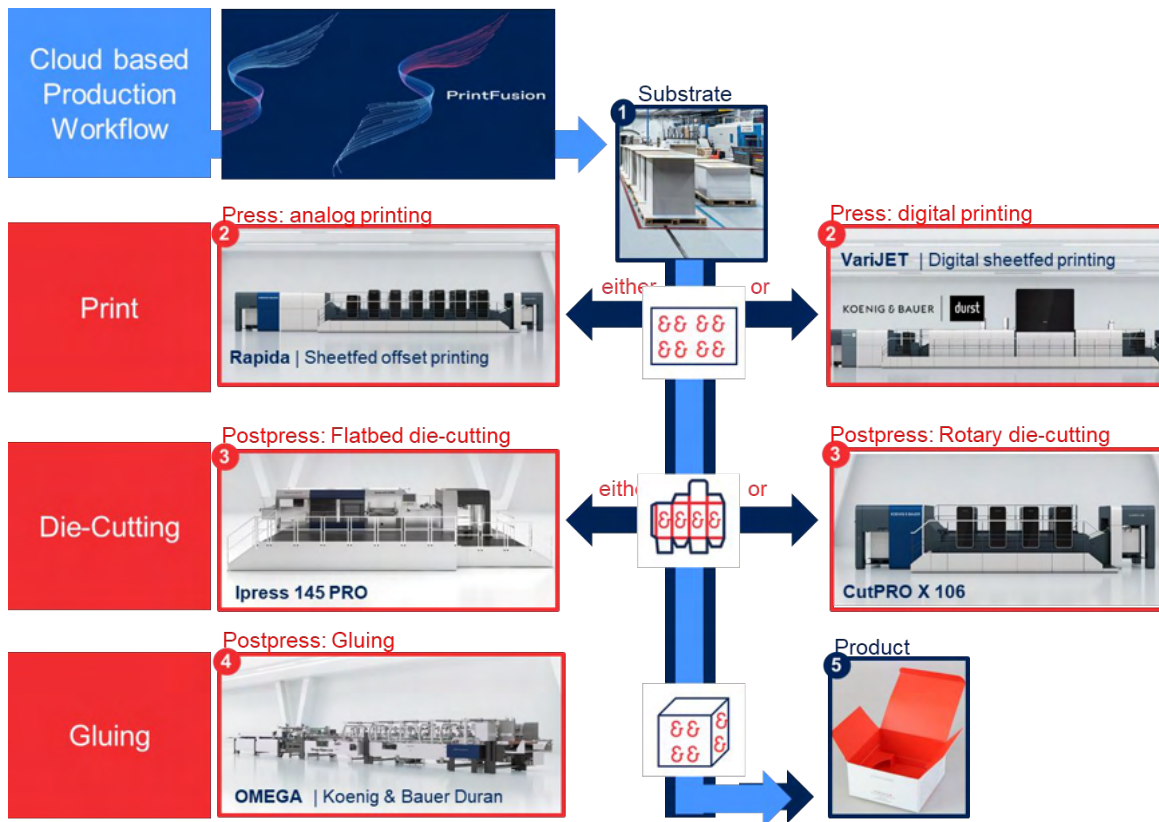
Exclusive and innovative solution for packaging workflow

Main benefits:

- **Cloud-based production workflow**
- **Integration of Rapida presses into your individual business processes**
- **Increased efficiency in prepress and press**
- **Short makeready times at the press**



360° packaging workflow



19





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Dr Andreas Pleßke

Speaker of the Board
CEO Koenig & Bauer AG

**FUTURE
is
decided
NOW**



Exceeding Print

Corporate strategy based on the most important megatrends

sustainable

- Regulation and end-customer choices drive sustainability in packaging
- Substrate - Ink - Energy
- Sustainable printing processes
- Even more efficient machines
- Non-ecological packaging can be replaced, waste can be reduced and resource-saving processes can be pushed forward
- Roadmap for complete CO₂ neutrality in own production plants from 2030 onwards

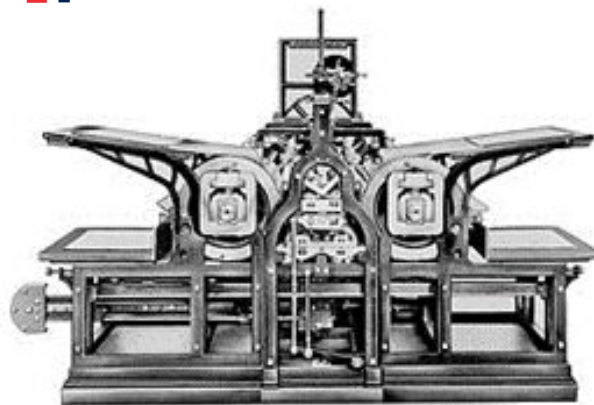
digital

- Digital transformation of the printing industry: networking machines, capturing and analysing data and controlling processes efficiently
- Transparent, data-driven processes are the starting point for greater efficiency and profitability
- High degree of automation
 - Efficiency
 - Operational simplification
- **Total cost of Process vs Capex**

modular

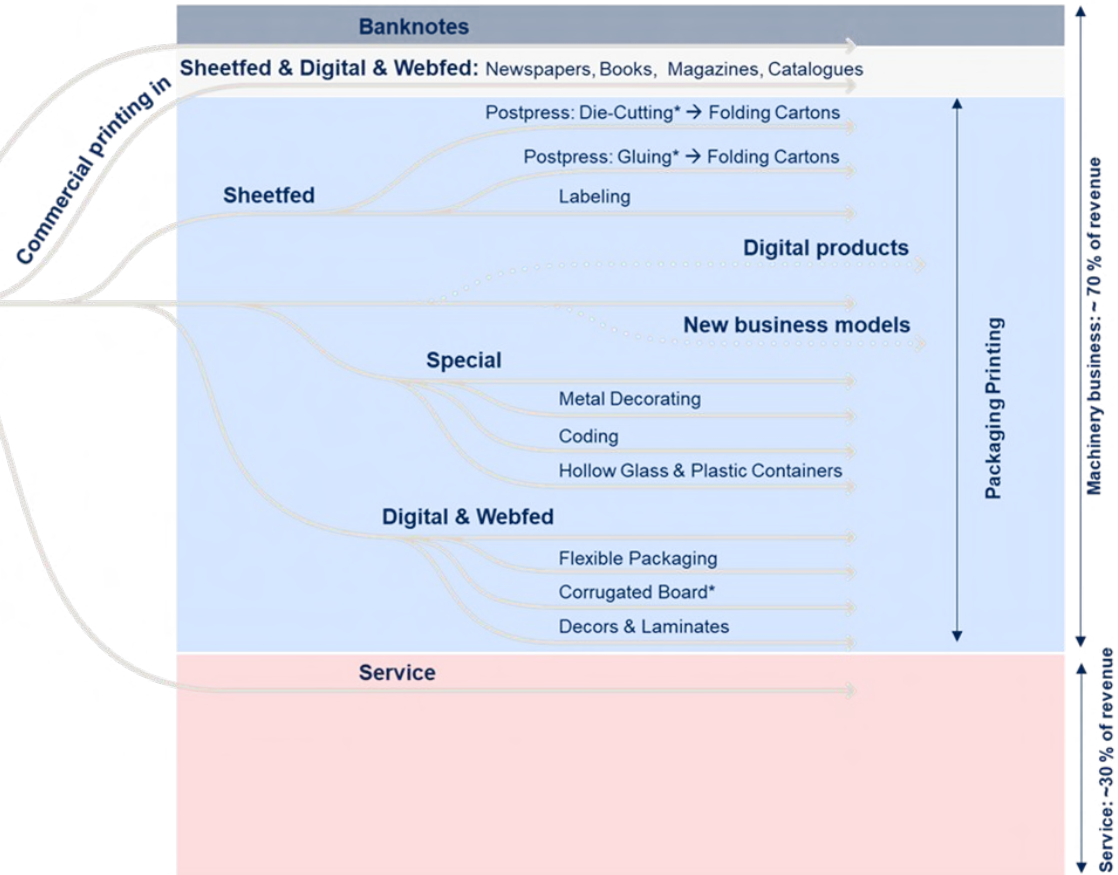
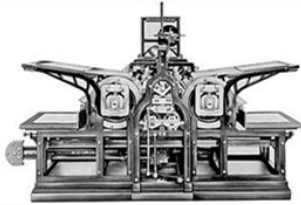
- Main driver for decreasing production cost & improving time to market
- Modular and standardised systems in hard- and software
- Flexibility and efficiency benefits as well as cost-saving potentials
- **Complete production systems vs. standalone machines**

Metamore[e]phosis
is
in
our
DNA.



Metamor[e]phosis

is
in
our
DNA.



The advantage of know-how in all industrial printing processes onto any substrates:

What will orange juice packaging look like in the future?



Plastic Free



Compostable



Recycled

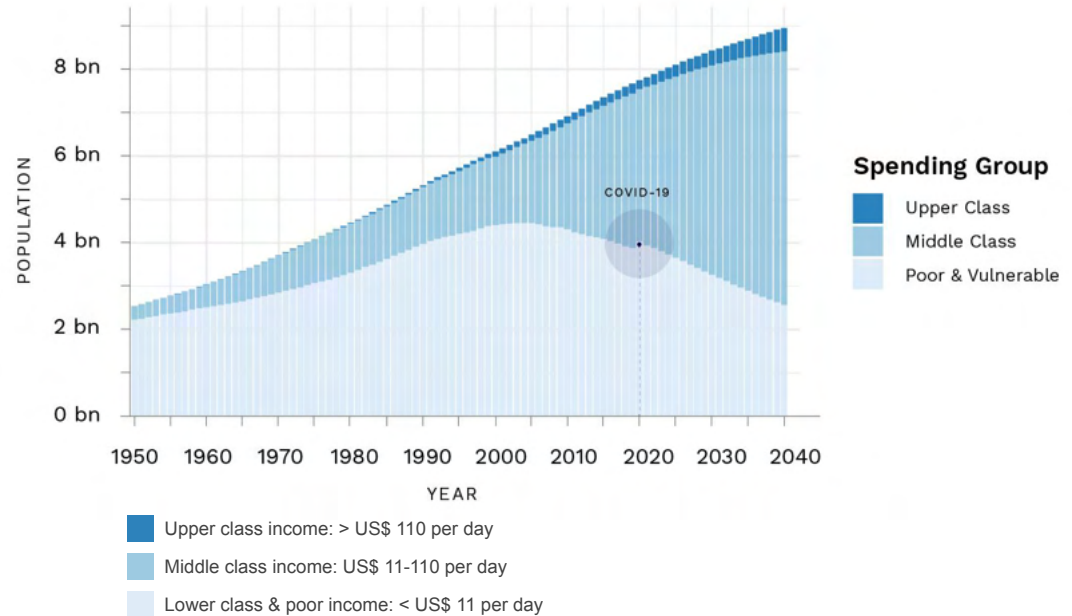


Bio Degradable



The driver of decorated packaging: middle class population growth

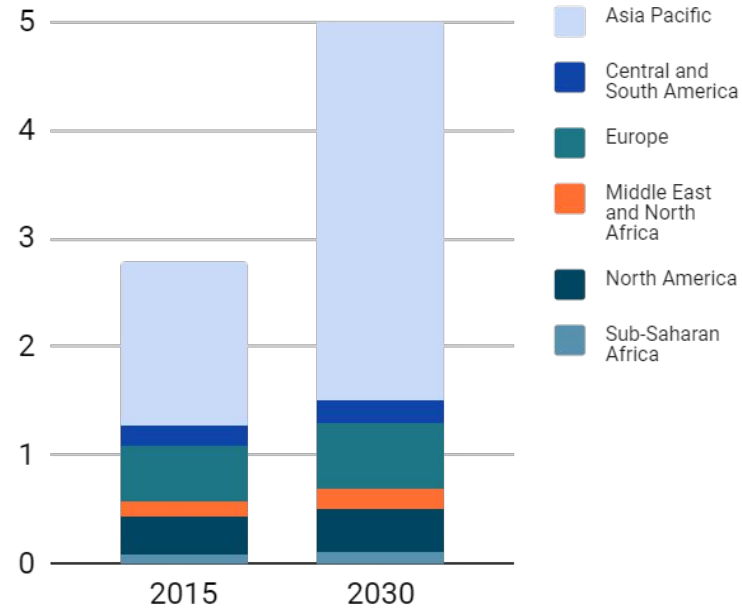
World Population from 1950 to 2040



The amount of people with an income >20.000\$

- will primarily consume packaged food, beverages and other goods
- and will steadily grow

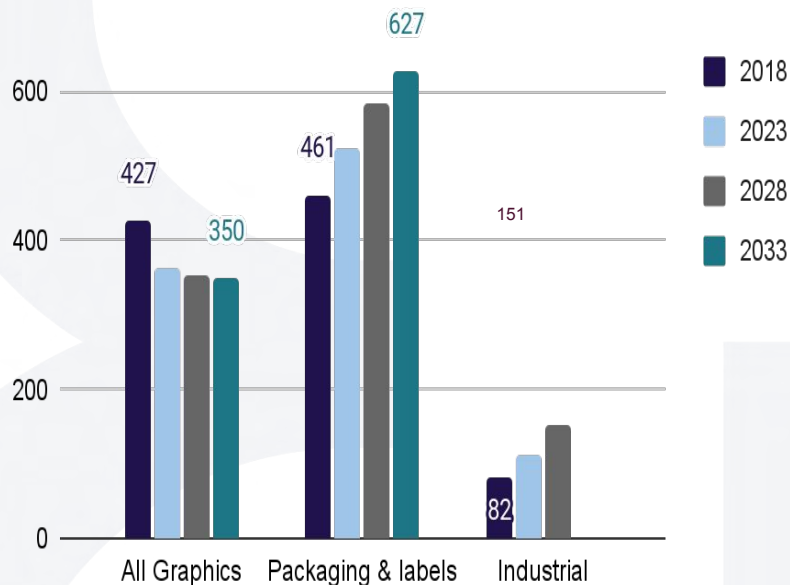
Size of the global middle class in 2015 to 2030 in billions of people













Source: Brookings Institution 2021

Packaging and industrial decoration will grow, graphical printing will decline

Global printing, printed packaging and industrial decoration 2018-2033
(in US\$ billion, constant 2020 value and exchange rates)



- **Graphical printing** (newspapers, magazines, catalogues, commercial printing etc.) declining in value and volume in most parts of the world
- **Printed packaging** for e.g. folding carton, corrugated, flexible packaging and others will increase in value and volume in most parts of the world

	Value	Volume	
<i>Graphics</i>	↘	↘	 
<i>Packaging & label</i>	↗	↗	      
<i>Industrial decoration</i>	↗	↗	

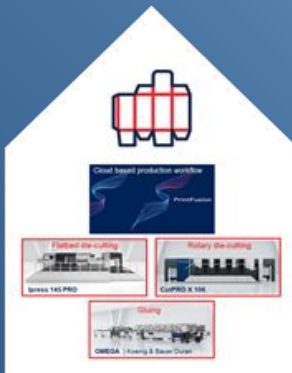
Main areas of growth

Presented
by:
Hannah
Potrawa



Corrugated

Presented
by:
Ralf
Sammeck



Postpress

Presented
by:
Ralf
Sammeck



Digital Printing

Presented
by:
Oliver
Baar



Flexible Printing

Presented
by:
Sandra
Wagner



Digital Business Models

Presented
by:
Dr
Stephen
Kimmich



Consumables

Challenges

Economic downturn

Inflation

EU Regulations

Energy costs

Skilled Worker shortage

Geo-Political constraints



We may not have a crystal ball - but ...

Exceeding Print

**Taking off with Digital/Software
business models**

**Modular Systems in Hard- and
Software**

Supply Chain Processes

Internationalization

**Vocational School and
new fields of education**



... Successful partnerships



Presented by: Dr Stephen Kimmich

KOENIG & BAUER | **durst**

Presented by: Ralf Sammeck



Presented by: Dr Stephen Kimmich

CELMACCH

Presented by: Hannah Potrawa

**HYBRID
SOFTWARE
GROUP**

Presented by: Ralf Sammeck



Presented by: Sandra Wagner

Veracity Protocol



Partnership with Veracity Protocol

- Digital technologies for authentication and connection of printed products
- Next step toward digital innovations in the high-security sector
- Development of solutions for authentication of printed products
- Authentication without changing the surface composition



Partnership with GIETZ

- Joint improvement and development of OVD (Optically Variable Devices) application platforms for banknote printers
- The technologies developed under the new partnership will be marketed by Koenig & Bauer Banknote Solutions worldwide (with the exception of Japan)



Partnership with VW

- **Pressure in the truest sense of the word**
- **~ 60-100 ton per meter pressure with Intaglio machine (Banknote)**



Facts & Figures

- **World's largest trade show for the print media industry**
- **Trade show has been held in Düsseldorf every 4 to 5 years since 1951**
- **Last physical drupa in 2016 with 260.000 visitors from 188 nations and 157.911 m² exhibition space with Claus-Bolza-Schünemann as drupa president**
- **Current booking status:**
 - **Exhibitors from 46 nations**
 - **133.243 m² booked area**





**See
You
@
our
drupa
Capital
Markets
Day 24**

29 May 2024

... and where
will
we be in
2045?



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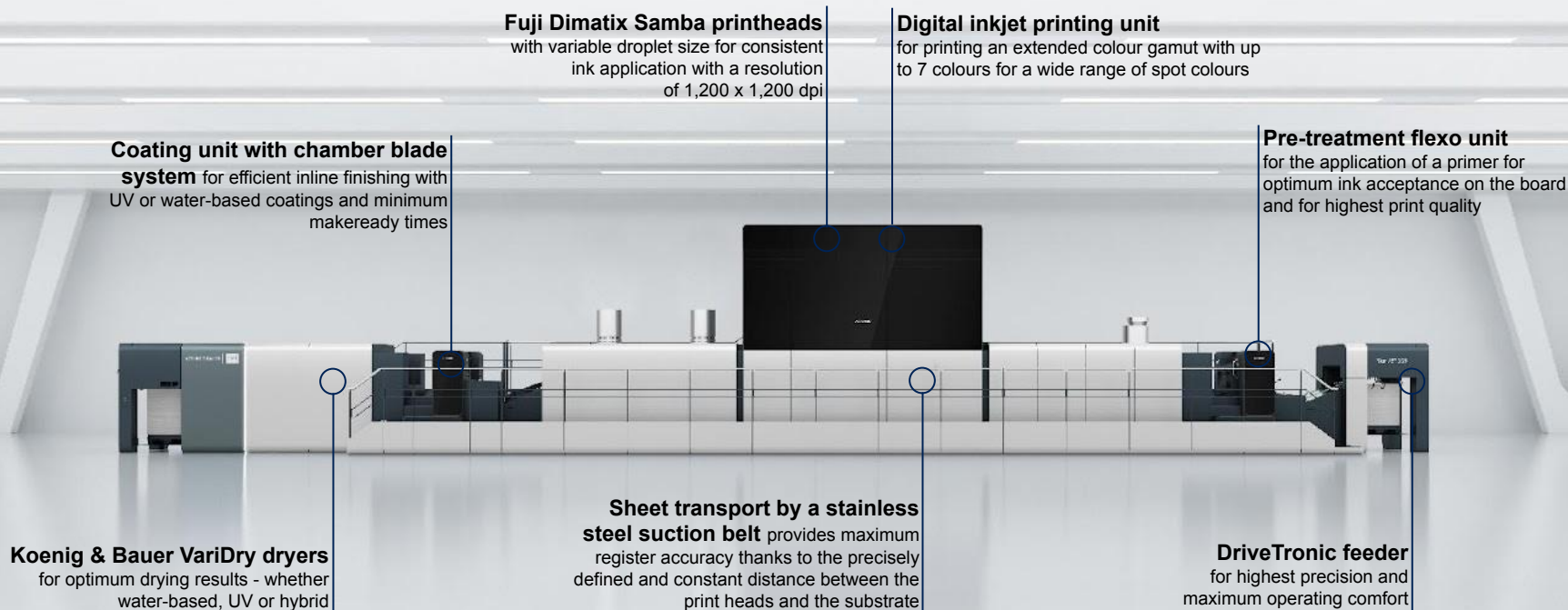


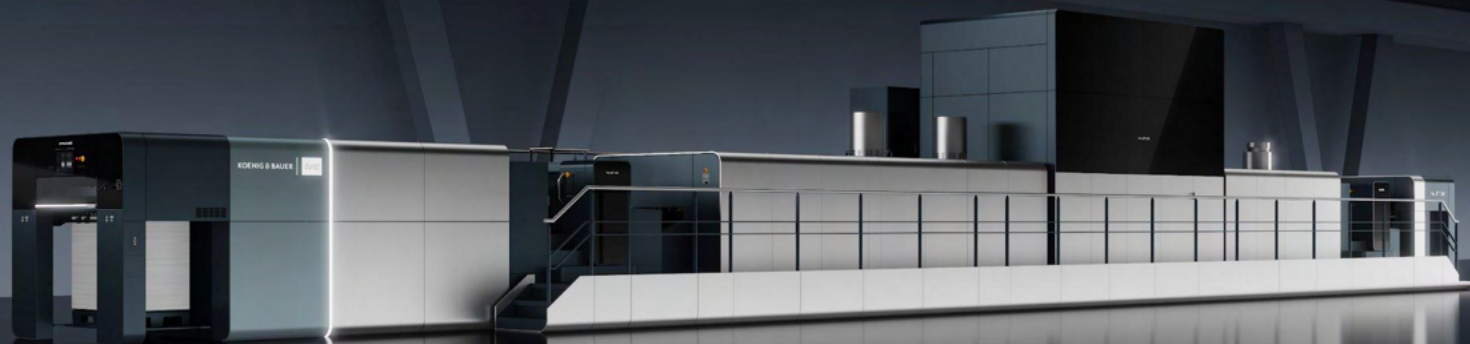
Ralf Sammeck

Member of the Board
CEO Koenig & Bauer Sheetfed
Chief Digital Officer

VariJET 106 | Technology

Digital printing system with water-based inkjet technology





... Let's see the VariJET LIVE
now...

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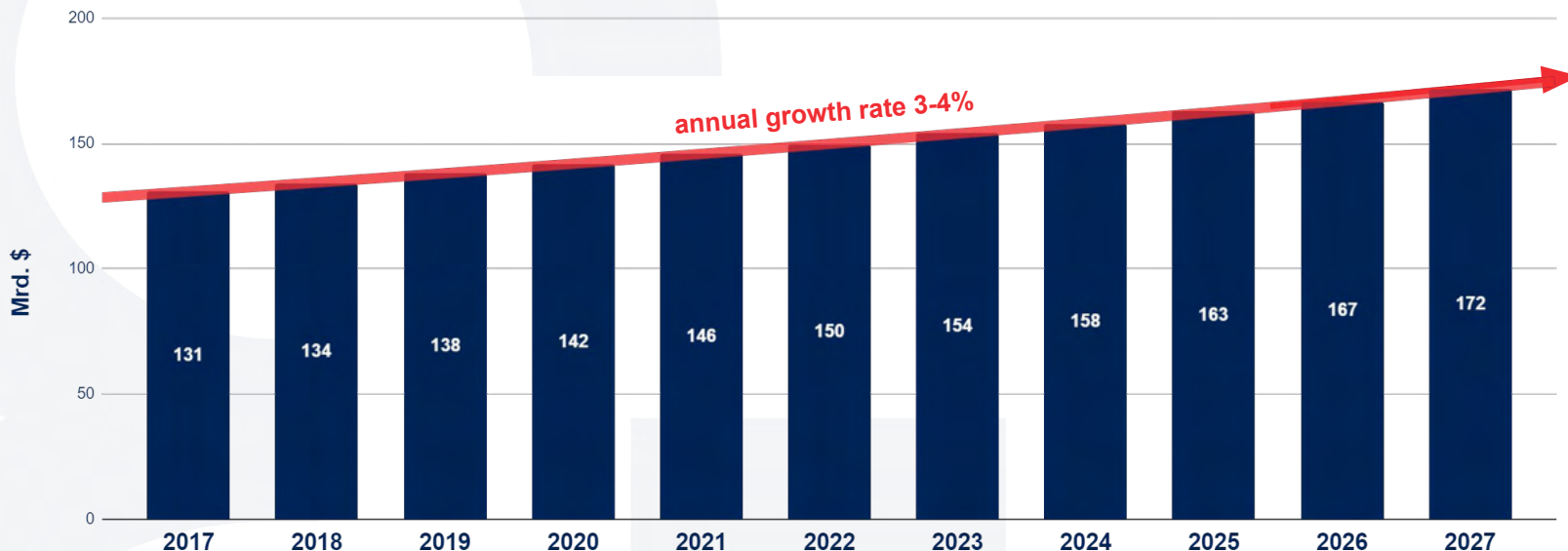
Farewell | Lena Landenberger



Hannah Potrawa
Director Corrugated

Corrugated Board Packaging Market value development

Source: Smithers 2022

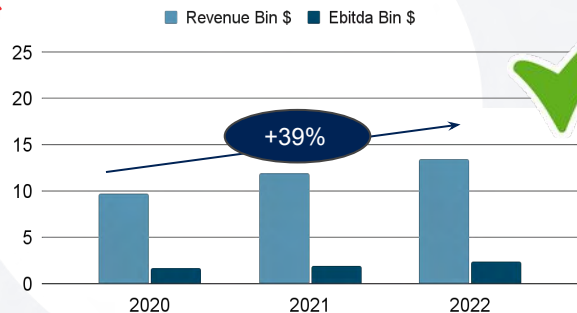


Worldwide experts expect an increase of appr. 18% between 2021 and 2027

... whose development in recent years show the growth

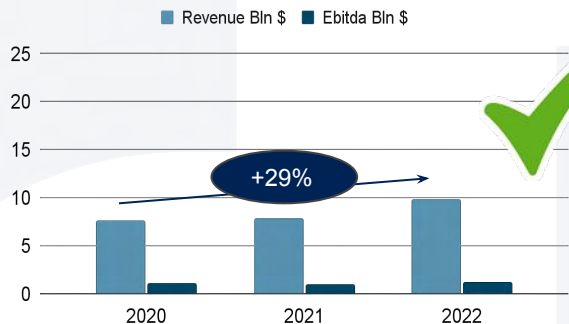
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Smurfit Kappa



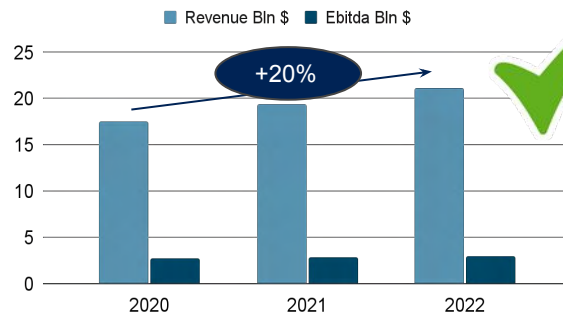
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DS Smith

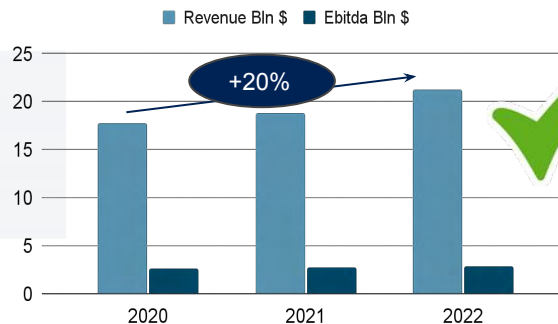


3

International Paper



Westrock



Koenig & Bauer in the Corrugated Market

Timeline

KOENIG & BAUER | CELMACCH

CELMACCH

Celmacch developed its first flexo printer with movable units in Desenzano del Garda

2019

Celmacch and **K&B** joined their forces: K&B purchased **49%** of the shared in order to reinforce its position in the corrugated market

2023

1993

K&B installed the first CorruCUT at Klingele in Delmenhorst



2022

Reinforced **sales structure** to be ready for new challenges



We combine the best of two worlds

KOENIG & BAUER

200 years of experience in the
printing industry

International Sales and Service

 **CELMACCH®**

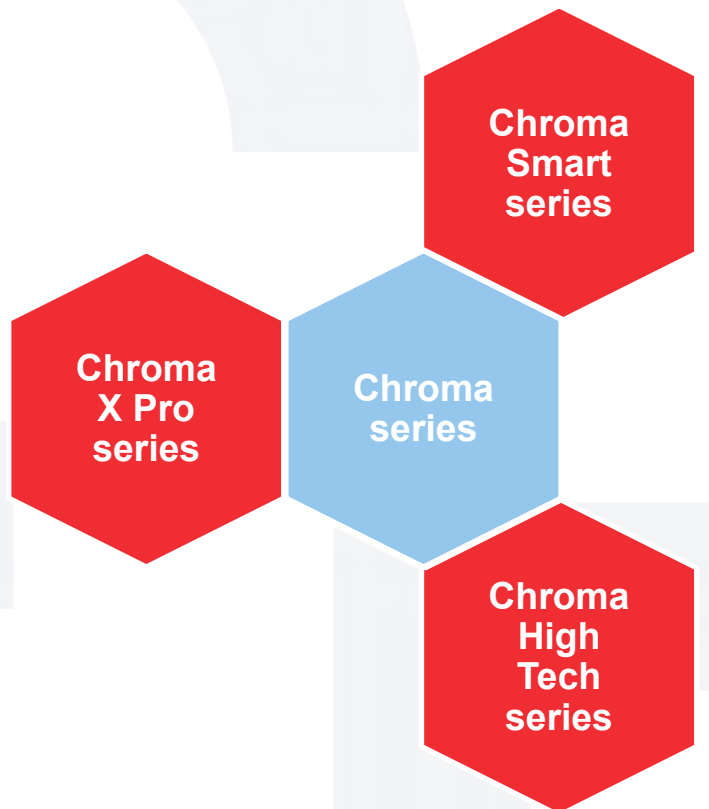
40 years of experience in the
corrugated board industry

Established name in Europe

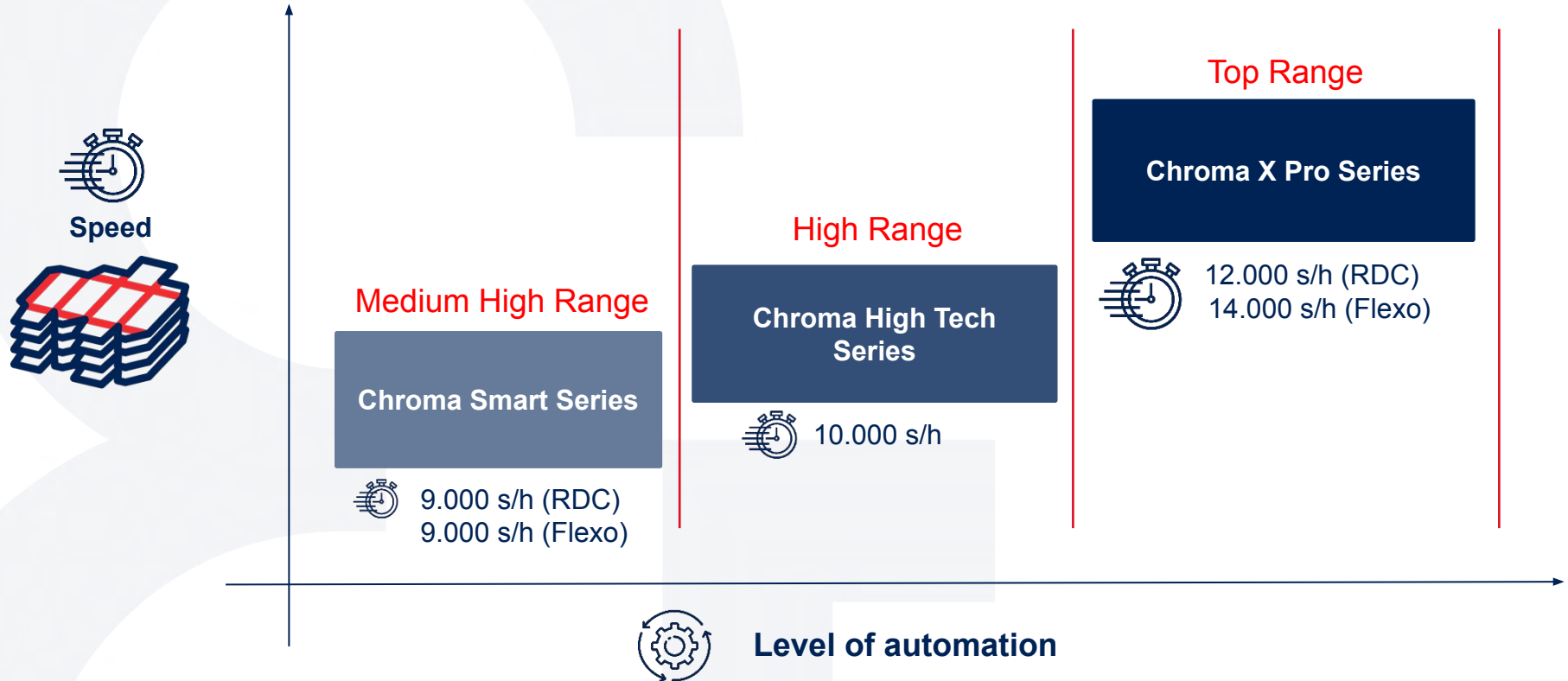
KOENIG & BAUER | CELMACCH

Our products

Koenig & Bauer Celmacch's Product Range



Products Positioning



There are many trends with impact on the corrugated market

Four main requirements on corrugated packaging



Economic Focus

Corrugated is a cost effective packaging solution able to ensure that the product is safe.



Reduce Waste

Corrugated packaging is easily customizable to eliminate material waste.



Security

Corrugated is creating by using different fluting to keep content safe and secure.



Recyclable

Best recycling rate, fibers can be recycled up to 5/7 times. Nearly 81% is recycled.



8.000.000 €

Stepping on two trends of the moment: automation and set-up times reduction

Presettable
RDC

+

Easy job
change

+

Prepared
printing units

=

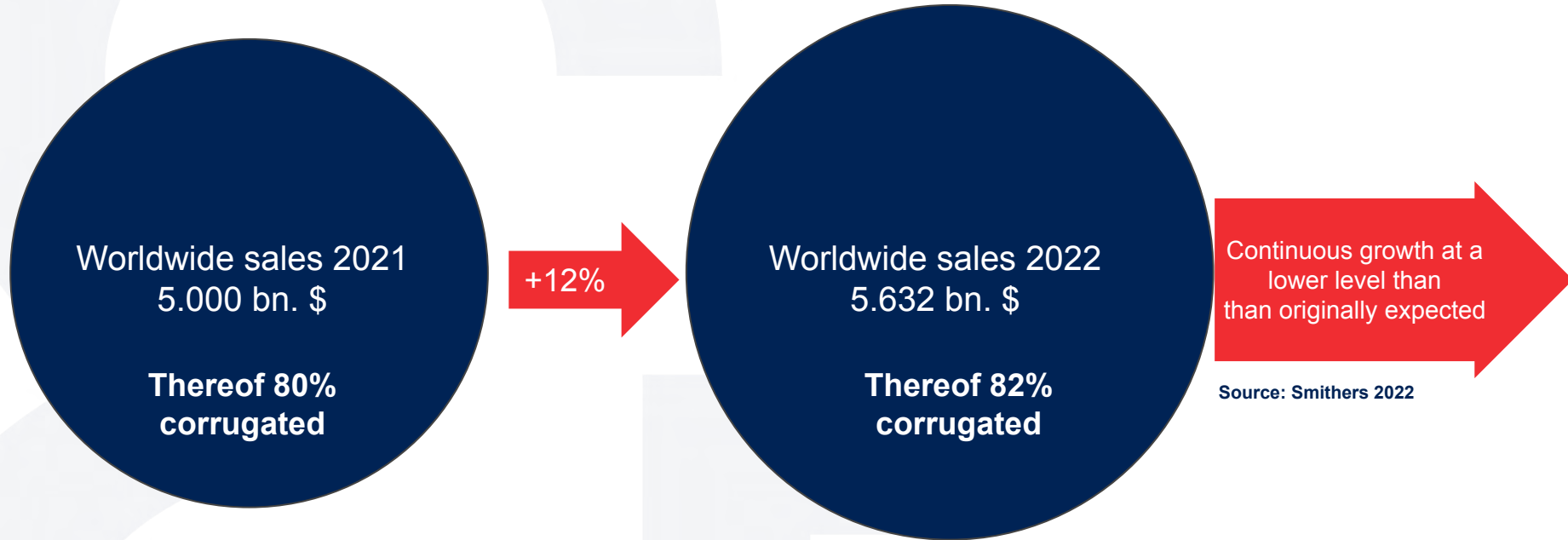
time saving of 10 min/change over

=

Up to 8.000.000 € per anno

E-commerce is moving the whole corrugated industry

E-commerce sales keeps growing



One of the trends driving e-commerce is two side printing



The new Chroma 2S Technology is our answer for two side printing



Top Printing unit



Bottom Printing unit



Oliver Baar

Director Product Management - Commercial

AGENDA

- 1. Packaging trends in application**
- 2. RotaJET: applications and layouts**
- 3. CI Flexo**

Packaging trends in application: liquid packaging

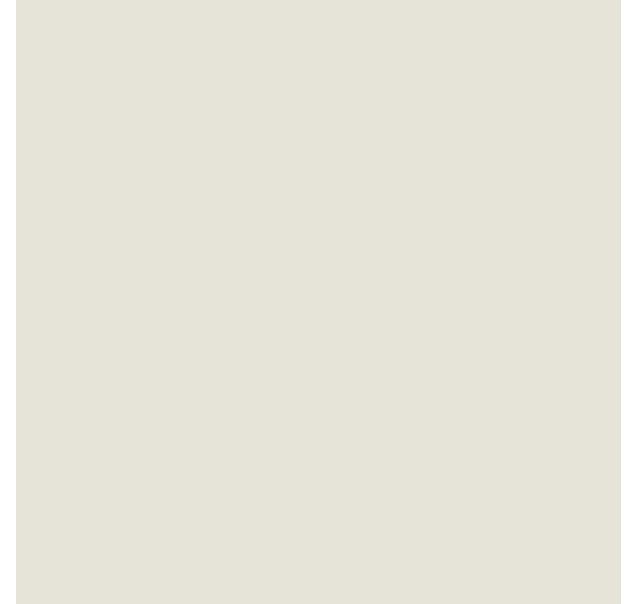
1 **Without PRINT:** Boring; undefined package (BBB)



2 **PRINT:** Branding; definition of a product



3 **Individual PRINT:** Seasonal packaging



Campagne - Online!

Packaging trends in application:

1 Regionalisation, rules & diversity in the cigarette market



2 Variable data generation e.g. in E-Commerce and beyond



3 Smart connected packaging



Packaging trends in application:

4 Smaller batches / shorter runs



5 Versioning and customizing



Trends & potentials in digital printing

RotaJET as partner and enabler in digital printing



PRINTER

Efficiency and Sustainability

- no printing plate or plate making process, water, clichés...
- no isopropanol (no dedicated insurance, no negative effects on health)
- **lower storage cost (production just-in-time + shipping = NO print & pray)**
- lower staff assignment



BRAND OWNER

Brand loyalty / differentiation

- **higher customer loyalty e.g. customized product features (distinguishing features)**
- track and measure customer activity thanks smart / connected product features (Smart Packaging)
- faster reaction to trends



INDUSTRIAL TRENDS

Flexibility, promptness and traceability

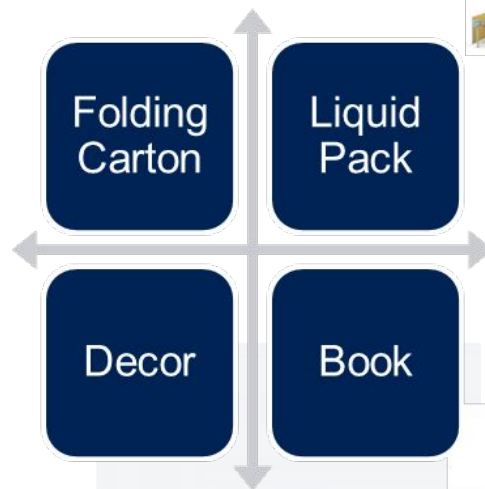
- regionalisation
- rules & regulation (shocking pictures)
- time-2-market
- smaller batches
- **diversity**
- **customization**
- Track & Trace (barcodes, QR,...)
- Shortening the supply chain
Brand becomes digital printer
- connected packaging

AGENDA

1. Packaging trends in application
2. **RotaJET: applications and layouts**
3. CI Flexo

Trends & potentials in digital printing

The answer - RotaJET



Applications & Layouts - Packaging / FC

Variety of applications

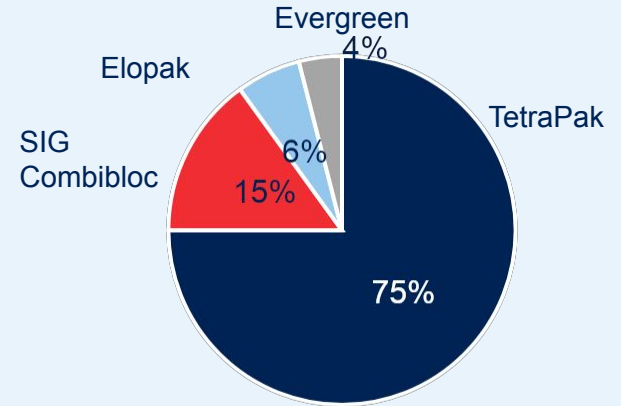


RotaJET variants

Liquid packaging

Market shares Beverage cartons

(Extract without Asia and Latam)



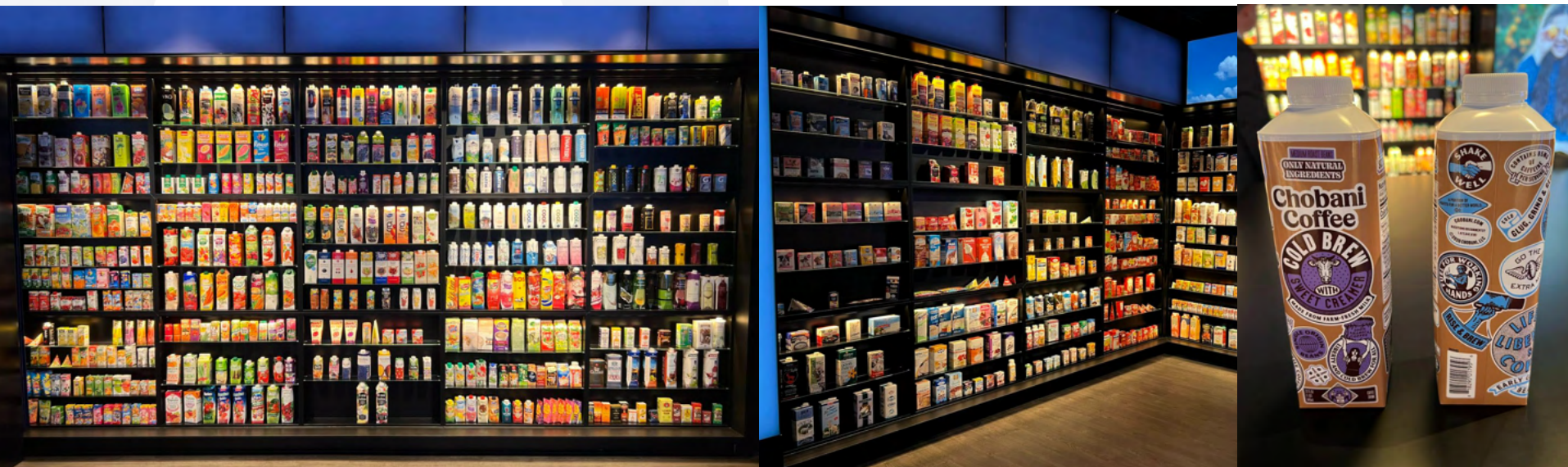
- approx. >250 billion packagings p.a.
- multi-layer packagings (carton, plastic, w. aluminium)
- different productions / techniques
- TetraPak with 52 sites (193 mio packs, 2022)
- K&B with projects with the largest suppliers Tetra Pak, SIG Combibloc, Evergreen, Elopak and Lami Pak (largest Chinese supplier)

Quelle: L, N & P / D&W (2020) / TetraPak

KOENIG & BAUER

Liquid Packaging

Part of the Tetra Pak product line



2% of the product variety
of Tetra Pak

AGENDA

1. Packaging trends in application
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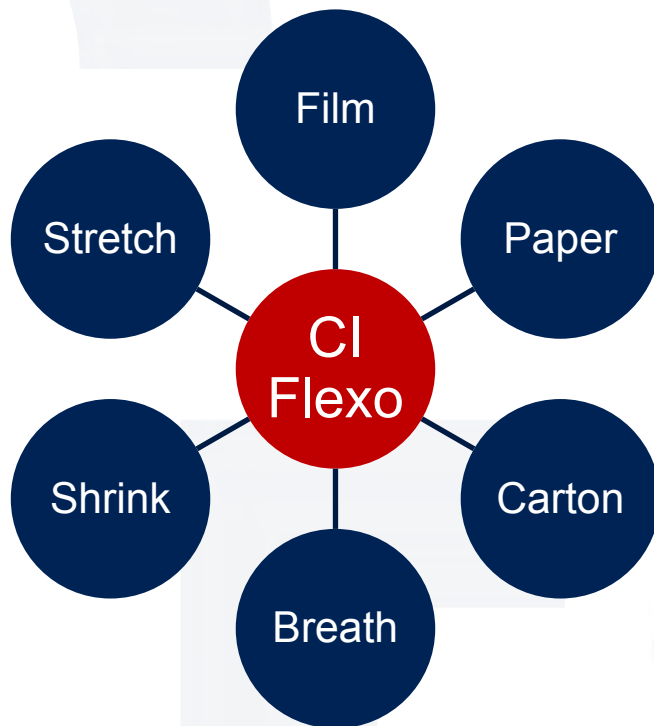
Koenig & Bauer - CI-Flexo Product Range

Segments and applications



Product Range:

- We cover from entry level up to high volume
- We cover all substrates and applications
- We cover from standard presses up to special solutions



KOENIG & BAUER



Koenig & Bauer DIGITAL
**Transform today to
exceed tomorrow.**

#ReadyForTomorrow

we're on it.

Transform today to exceed tomorrow.

#ready for tomorrow



Sandra Wagner

VP Digitalisation

Koenig & Bauer, Digital Unit

How are we defining our digital strategy?

**It's about using digital technologies
to change the business model and
provide new revenues and
business areas.**

Koenig & Bauer DIGITAL

Solutions within our universe

Sustainability Goals

VisuEnergy X

is the energy management system (EnMS) for the printing and packaging industry.

→ Focus on CO² reduction and energy savings

Data-Driven Decisions

Kyana Connect & Analytics

is the real-time data cloud-based solution for the printing and packaging industry.

→ Focus on Production Performance & Efficiency

Community & Service

myKyana

is the eco-system for the printing and packaging industry.

→ Focus on customer needs, support and digital solutions

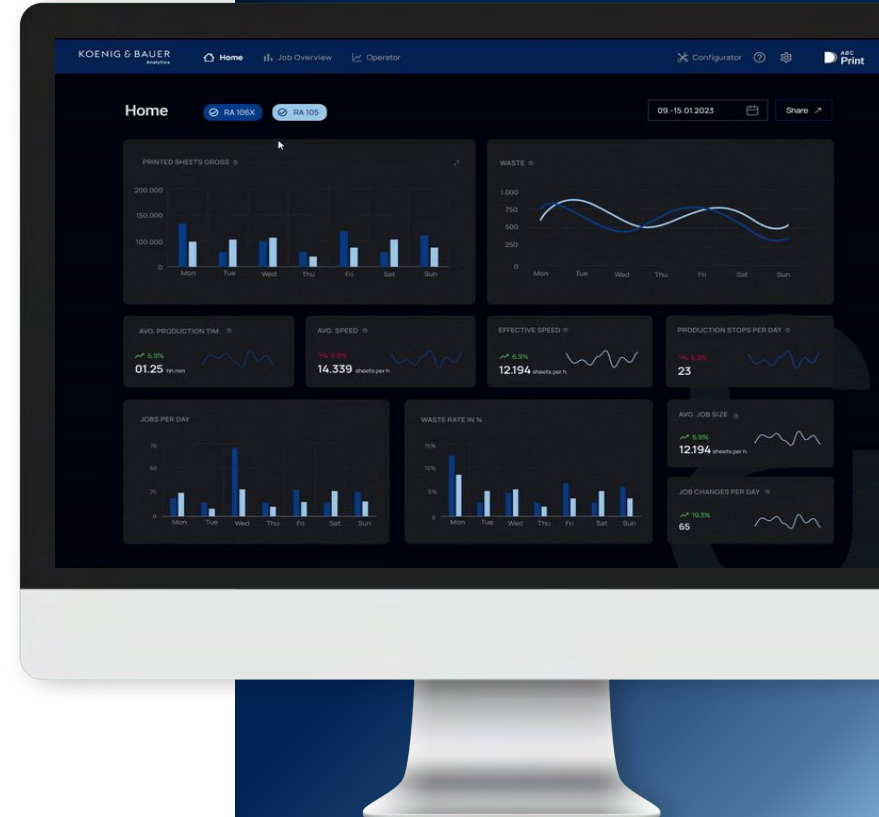
Kyana Analytics

Production data analysis tool

Extensive analysis of your production

- BI-applications enable **insights into optimisation potential** in the production process
- Comprehensive **dashboards** of machine operating and order data
- **Comparisons of machines** between each other and across sites
- More certainty in **decision making** through **data-based insights**
- Intuitive und individuelle **design of user interfaces**

#readyfortomorrow



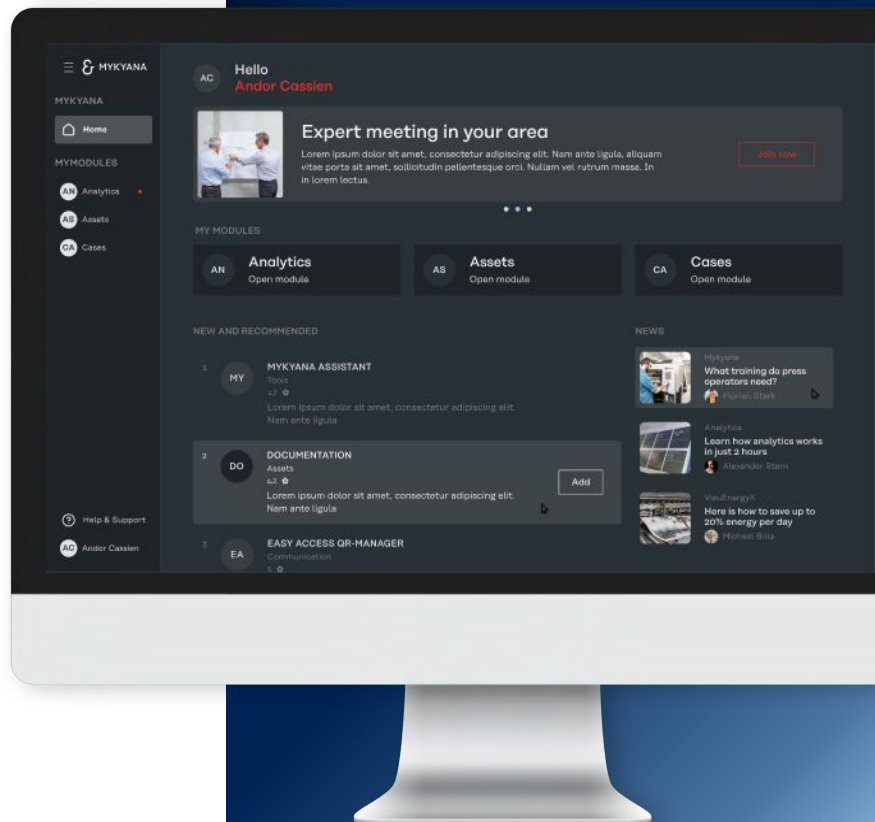
myKyana

Customer portal

Insights, digital solutions and support

- **Customer Contact Point**
center of an expanding digital ecosystem
- **E-Commerce**
serves as an additional sales channel for digital products and offerings/services as well as parts
- **Partner-Community**
One-stop-shop for complementary products (2024)
- **Trusted Advisor**
supports core business and strategic partnerships

#readyfortomorrow

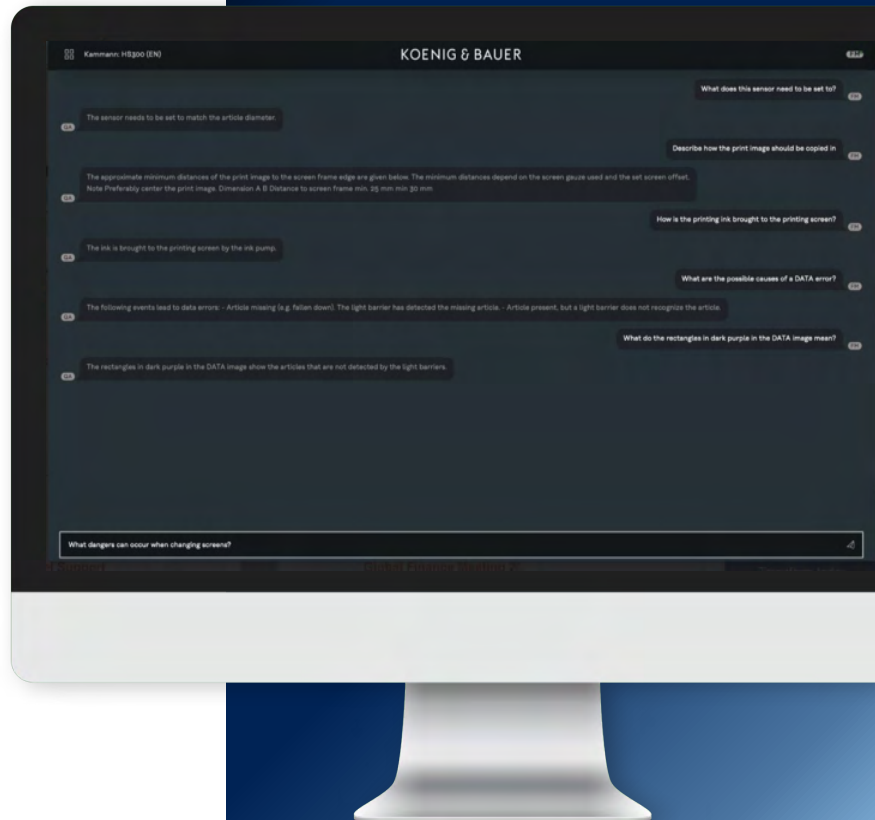


Coming soon

Pipeline of the digital universe

- **LLM-based 1st Level Support**
Prototype is ready and customer testing started
- **Loyalty & “Credit” Program** in evaluation, especially for partner community
- **Digital Twin for customers** in preparation, strong link to our Modularity Strategy
- More features for **Analytics and VisuEnergy**
- **AI-based intelligence** in Analytics for better prediction and support

#readyfortomorrow



Business model

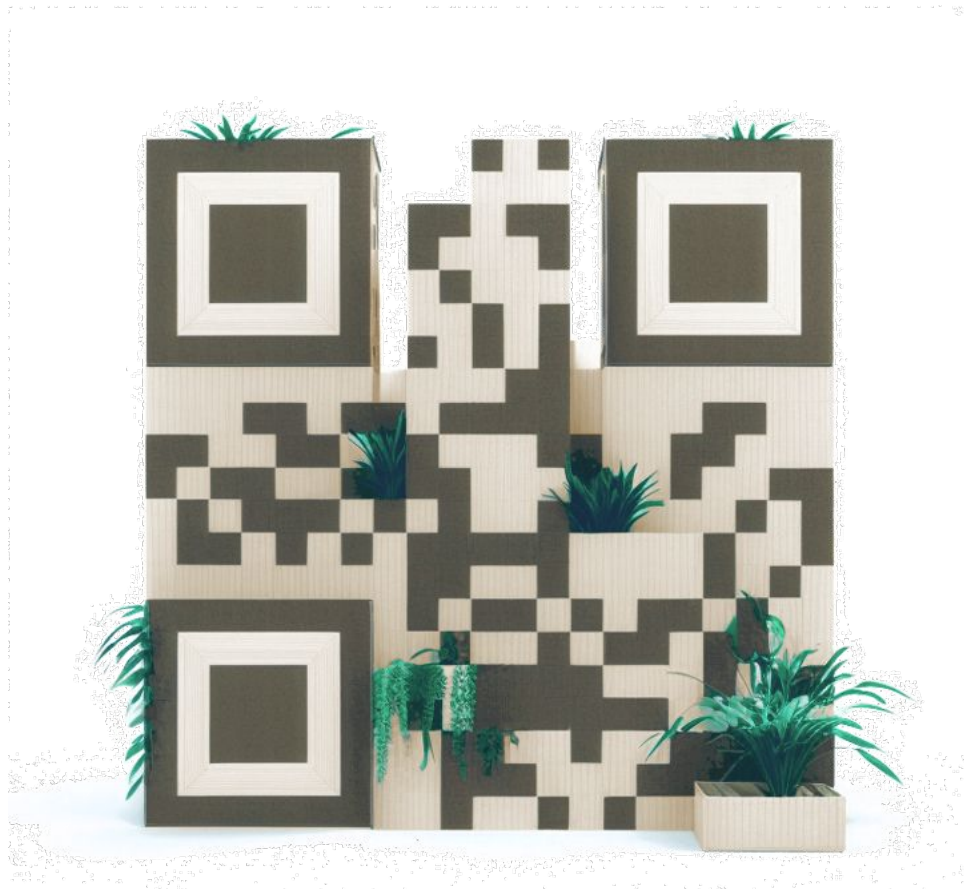
SaaS-based solutions

**SaaS is key to build up
constant revenue
streams**

- All digital products are only SaaS based
- Available via e-commerce in our myKyana eco-system and via classic contact points
- Subscription is managed automatically inside our systems
- Customers like the flexibility of SaaS-based pricing

Project “follow”

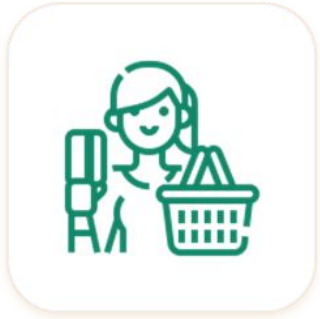
**Potential for the future
linked to our core business**



Simplify **packaging** - Amplify engagement

follow

Consumer connect, emerging EU regulations and sustainability demands are creating a challenging environment.



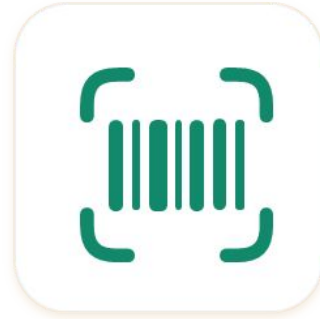
Brand owners want to have more insights and provide a unique shopping experience to their consumers.



Packaging design should inspire consumers while both being **sustainable** and act as brand ambassador.



EU Green Deal requires full, digital traceability of individual products till 2027 (DPP), requiring professional tag management

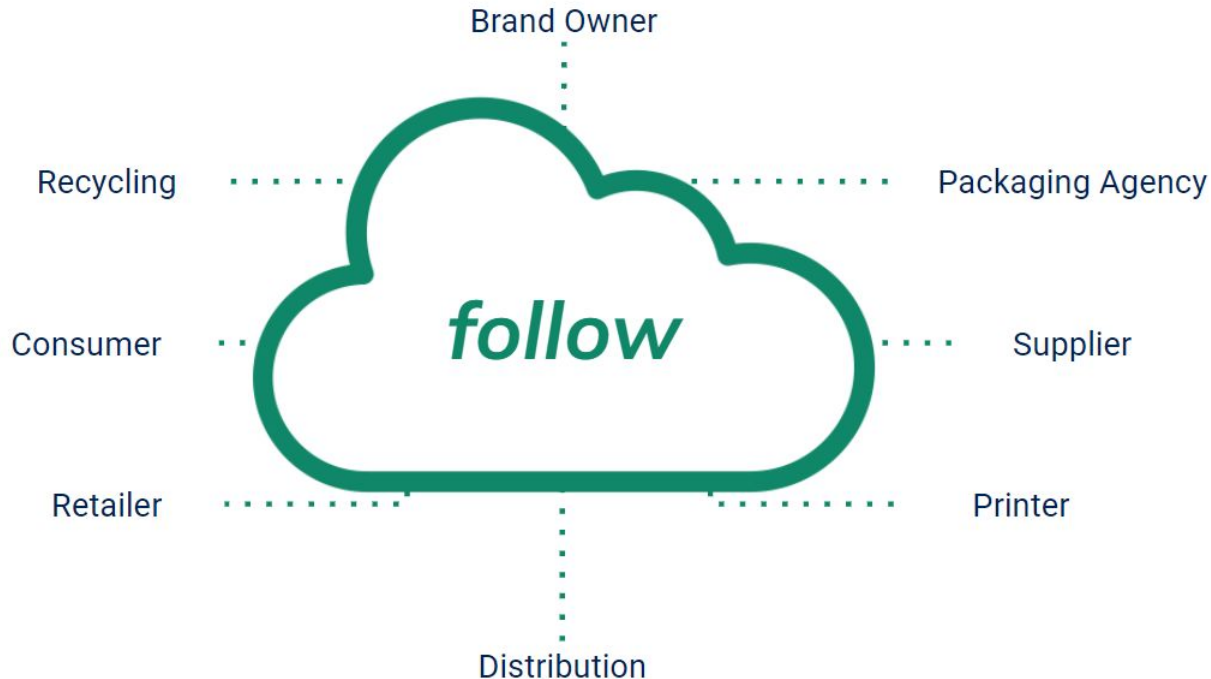


GS1 is driving **barcode replacement** through 2d-Matrix Codes (QR) by 2027 latest (Project Sunrise)

Product and Business Model

Real-Time Interaction with “follow”

Cloud-based platform



For Brand Owners & Printers

Set-up **Digital Twins**, assign **dynamic QR codes** and integrate lasting consumer interaction through **AR technology** easily into your existing processes



Personalize each product interaction and enlarge your packaging space



Boost consumer trust and comply with latest regulatory demands



Gain valuable consumer insights

For Consumers

Enrich each and every shopping journey through your **personal, smart shopping assistant** effortlessly scanning your surrounding and product selection wherever you are



Highlight nutrition details catering to your personal health requirements



Unlock full product transparency and trust for sustainability ratings



Never miss a buck for the bang

Summary

**Printing and it's extension
with digital technology is the
future**

The **THREE** most important key messages

of our presentation

1.

Physical packages and digital solutions will merge and become a unique and personal brand experience.

Mainly driven because of e-commerce, digital printing technology and fast improving digitalisation technology.

2.

These new business will generate new markets and clients, even a complete new economy (Metaverse) could be possible.

3.

We have a strong background and unique skills in printing technology and know the packaging market. Further, we are building up our digitalisation knowledge.

The combination of print and digital technology will be a game changer.

KOENIG & BAUER



Koenig & Bauer AG

Friedrich-Koenig-Straße 4
97080 Würzburg

Follow our transformation journey

 Koenig & Bauer DIGITAL

digitalisation.koenig-bauer.com

we're on it.

Agenda 10. October

10/10/2023

Day 2 – Tuesday

until 09:20 am

Arrival & Registration & Welcome | Lena Landenberger

09:20 – 10:15 am

Koenig & Bauer Strategy & drupa preview | Dr Andreas Pleßke

10:15 – 10:45 am

Break

10:45 – 12:00 am

Live-Demo VariJET | Ralf Sammeck

12:00 – 01:00 pm

Lunch

01:00 – 02:30 pm

Growth Area 1: Corrugated | Hannah Potrawa

Growth Area 2: RotaJET

Growth Area 3: Flexo

] | Oliver Baar

Growth Area 4: Digital Business | Sandra Wagner

02:30 – 03:30 pm

Wrap-up and Q&A session | Dr Andreas Pleßke | Dr Stephen Kimmich | Ralf Sammeck

Farewell | Lena Landenberger



Dr Andreas Pleßke | CEO

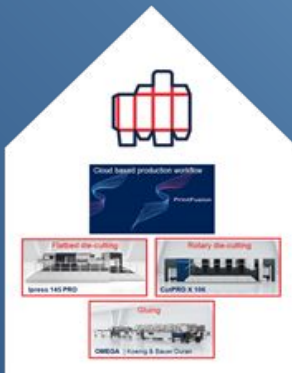
Dr Stephen Kimmich | CFO

Ralf Sammeck | CDO

Main areas of growth



Corrugated



Postpress



Digital Printing



Flexible Printing



Digital Business Models



Consumables

Q&A

A woman with short blonde hair is shown in profile, wearing a white VR headset. She is looking upwards and to the right. The background is a solid light blue, with a dark blue, particle-filled area on the left side. The particles are small, white, and irregularly shaped, resembling dust or digital data points. The overall mood is futuristic and technological.

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we're on it.