

2030
PRINT SMART -
OR PREPARE TO DIE!

Dominik Haacke | Chief Commercial Officer



PREPARE TO DIE

DIGITALIZATION & TRANSFORMATION

Hey!
Behind you!
A three-headed monkey!

PRINTER



SUSTAINABILITY

DISRUPTION

MARKET



TO P***

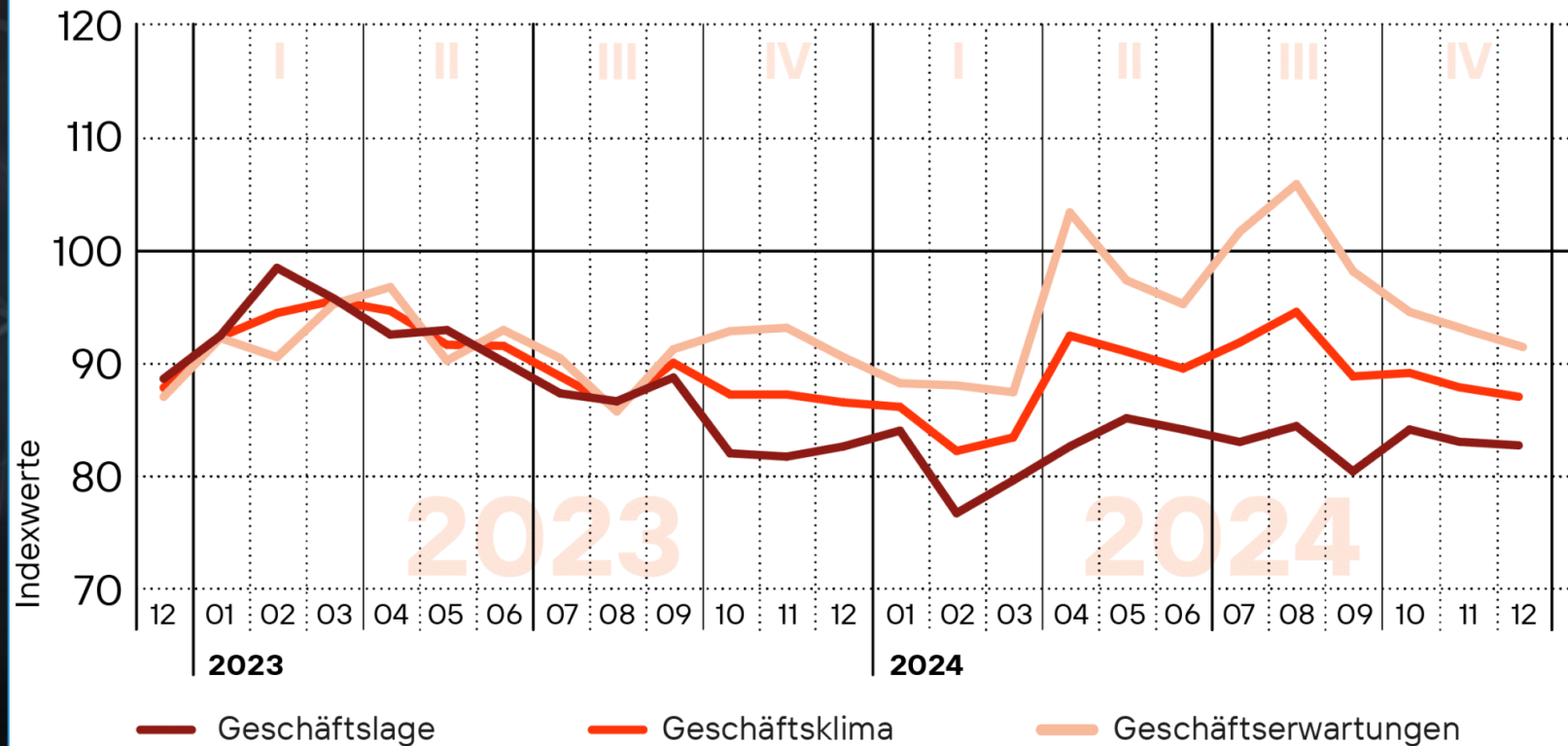


MARKET

Konjunkturelle Lage der deutschen Druckindustrie 12/2024

Indexwerte (2015=100), saisonbereinigt • Berechnung/Grafik: BVDM, Quelle: ifo-Konjunkturtest

Bundesverband
Druck+Medien
DEUTSCHLAND



December 2024::

Business climate continues its downward trend towards the end of the year

Stagnation?

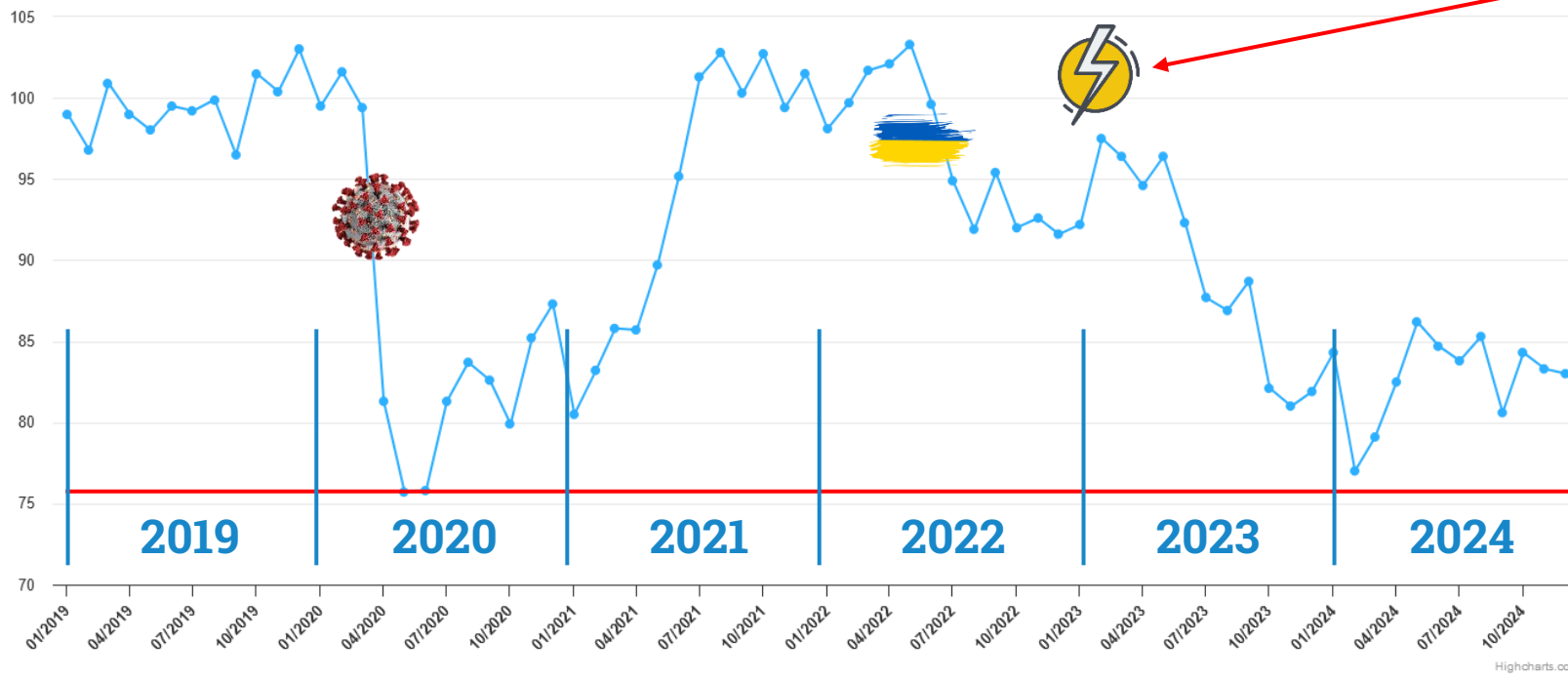
Source: <https://www.print.de/allgemein/druckindustrie-im-dezember-2024-geschaeftsklima-index-faellt/> / <https://www.vdmnw.de/impressum>



BUSINESS PERFORMANCE OVER THE LAST 6 YEARS

Einflussfaktoren im Zeitverlauf

Werte für Druckindustrie (Geschäftslage)



**DISRUPTION-
accelerator!**



Source: mediaprint solutions GmbH



DISRUPTION



1993
Internet



1995
E-Commerce



1998
E-Book-Reader



2002
Onlineprint



2004
Social Media



2007
Smart-Phone



2010
Tablet



2019
Virtual Reality



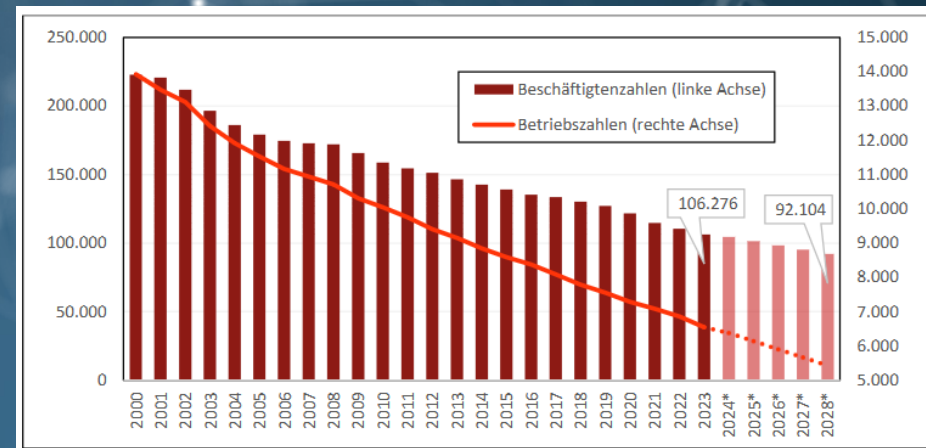
2022
Gen AI

22.6 BILLION

2009

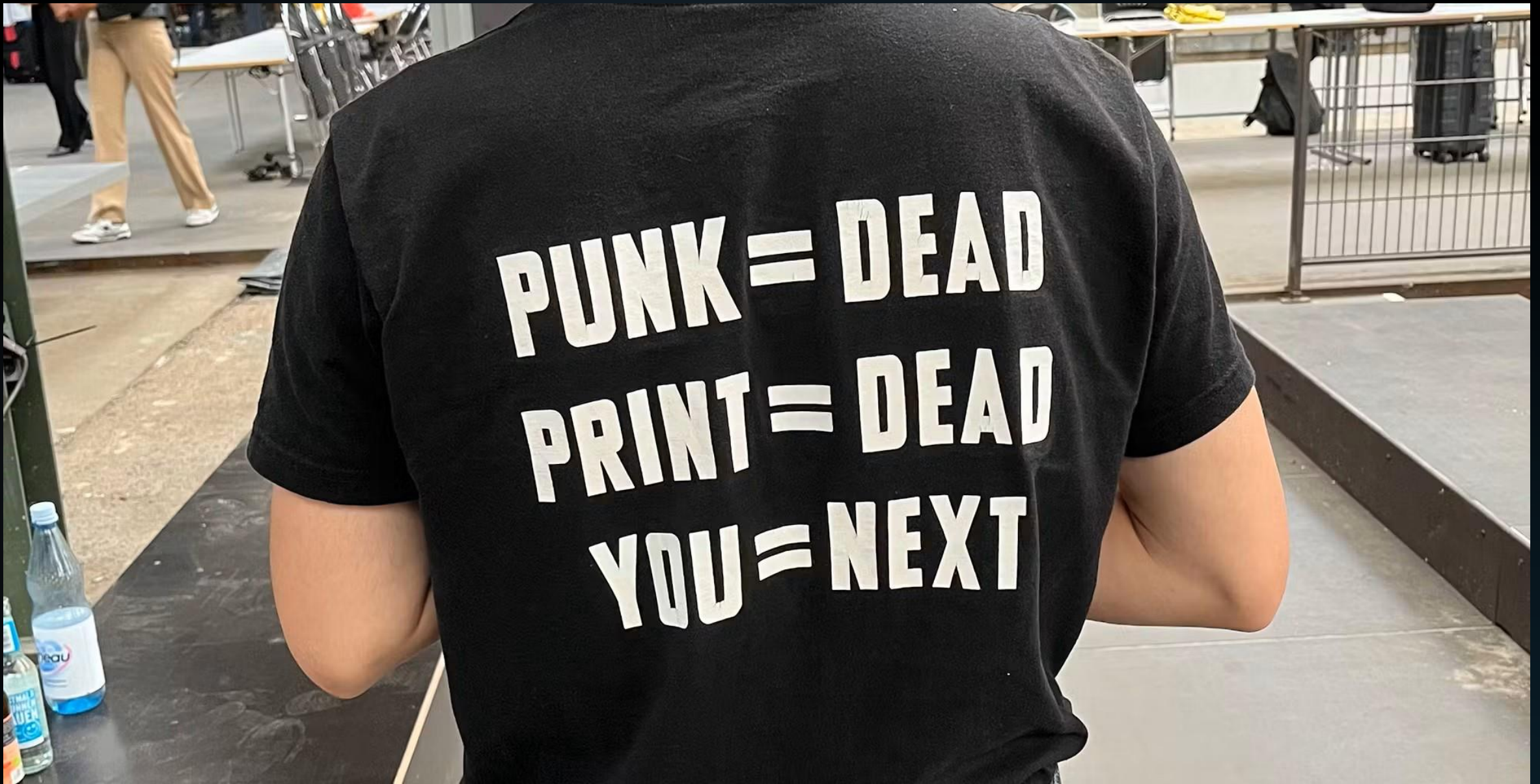
17.6 BILLION

2023



Source:
Bundesverband Druck
und Medien e.V.





DISRUPTION

“
WE WILL SEE THAT PRINT
WILL PLAY A BIG PART IN THE
WAY WE ALL EXPERIENCE
THE WORLD.”



Steve Watson | Director at Stack Magazines

„The real death of print” 04/24



DISRUPTION

THE PRINTING INDUSTRY IS THE
ONLY INDUSTRY THAT CURATES THE
DIGITAL FLICKER OF INFORMATION AND
TRANSFERS IT PROFESSIONALLY INTO
THE ANALOG WORLD - TANGIBLE,
PERMANENT, VALUABLE AND **TRUSTWORTHY.**

Dominik Haacke



SUSTAINABILITY



EUROPEAN GREEN DEAL



SUSTAINABILITY

"Sustainability belongs in the core business. Not in marketing. Or as a new book puts it: a company without a sustainability strategy has no strategy."

Katharina Reuter, BNW

ENVIRONMENT

ESG

GOVERNANCE

SOCIAL





**MORE SUSTAINABILITY
WITH DIGITALIZATION
DUAL TRANSFORMATION**

THE MONKEY DISTRACTS US!

SUSTAINABILITY

DISRUPTION

MARKET



DIGITALIZATION

IS

TRANSFORMATION



DIGITALI ZATION



New mindset



Online first



Project management



Change management



Networking



Agility



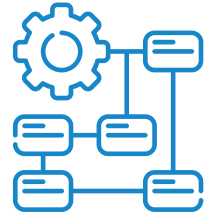
System infrastructure



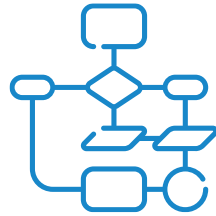
**Setup of the
mediaprint smartfactory**



DIGITALI ZATION



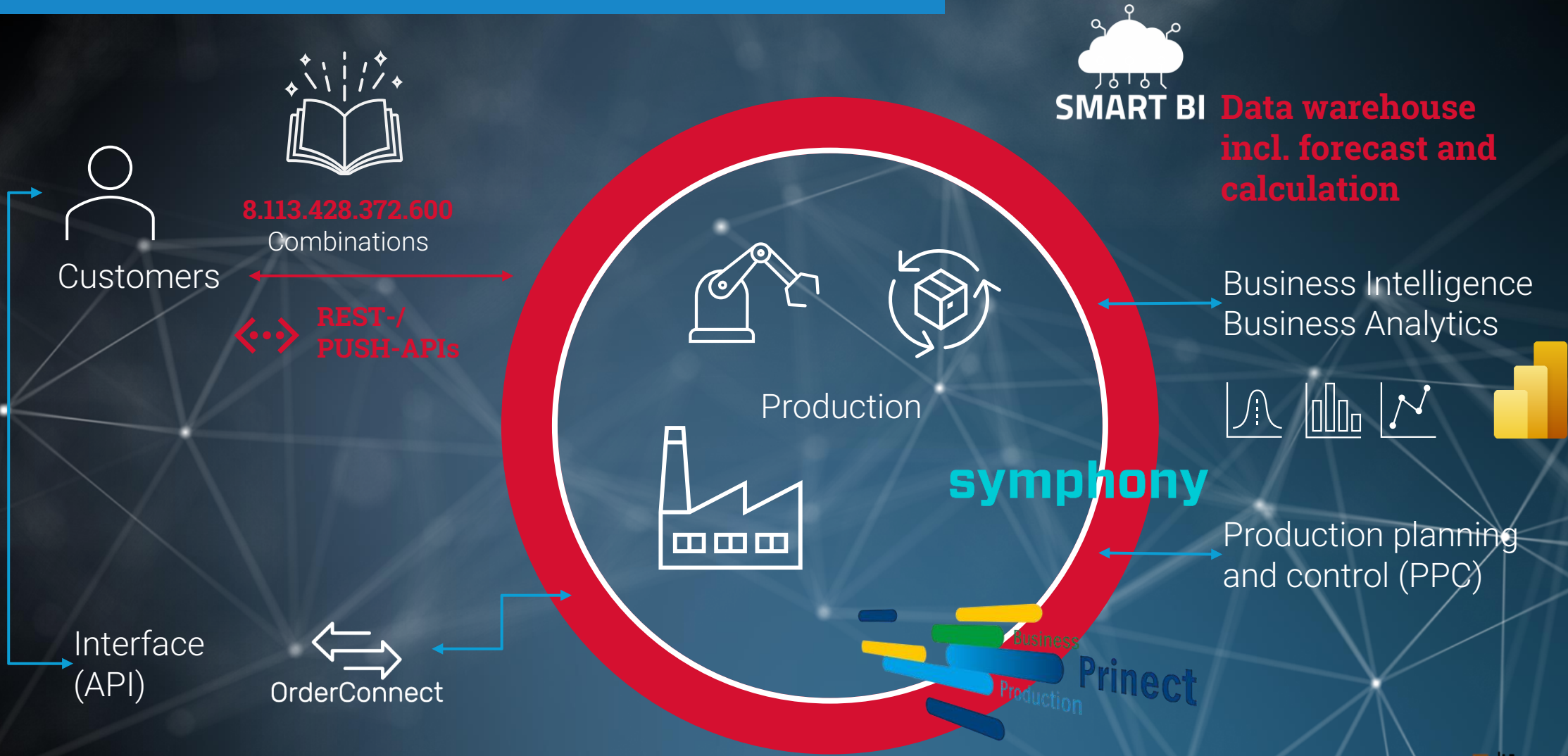
Project management



System infrastructure



SYSTEM INFRASTRUCTURE



SYSTEM INFRASTRUCTURE



Veröffentlichte Produkte

Produkt	Auftragspositionen	Kalkulierte Produktvarianten	Erlaubte Produktvarianten
Bücher	277.674	39.947	8.113.326.737.280
Buch-Hardcover-Fadenheftung Buch Hardcover 2-teilig mit Fadenheftung	37.310	13.871	156.081.961.728
Buch-Hardcover-Fadenheftung-Schutzumschlag Buch Hardcover 3-teilig mit Fadenheftung und Schutzumschlag	0	16	2.218.779.408.384
Buch-Hardcover-Klebebindung Buch Hardcover 2-teilig Klebebindung	42.460	8.624	429.563.490.048
Buch-Hardcover-Klebebindung-Schutzumschlag Buch Hardcover 3-teilig Klebebindung mit Schutzumschlag	0	13	5.304.745.442.304
Buch-Softcover-Fadenheftung Buch Softcover 2-teilig mit Fadenheftung	20.172	5.457	1.296.206.976
Buch-Softcover-Klebebindung Buch Softcover 2-teilig Klebebindung	177.732	11.966	2.860.227.840
Hefte	33.405	5.348	101.635.320
Heft Heft 2-teilig	14.757	3.744	101.417.472
Heft-Selfcover Heft - Selfcover	18.648	1.604	217.848
alle	311.079	45.295	8.113.428.372.600

Stellen

25 Ergebnisse gefunden.

Stelle	Druck	Rüsten	Minimale Größe eines Sets	Geschwindigkeitsstufen	Minimale Grammatur	Maximale Grammatur	Maximale Breite	Maximale Höhe	Maximale Eingabelöhe	Mindestmenge pro Auftragsposition	Produktionszeiten
Bogendruck Canon iX3200	Canon iX3200	1 min je Wechsel von Papiervariante	1 Klicks	132,00 Klicks/min 147,00 Klicks/min	60 g/m ²	350 g/m ²	460 mm	320 mm	1.200 mm	1 Stück	Express Standard
Bogendruck Canon Titan 6330	Canon varioPrint 6330 Titan TP	1 min je Wechsel von Papiervariante	1 Klicks	156,00 Klicks/min 316,00 Klicks/min	60 g/m ²	200 g/m ²	450 mm	320 mm	1.200 mm	1 Stück	Express Standard
Bogendruck Ir...	Xerox iRelease										

2010 - 2020



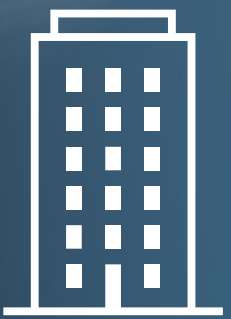
Online printer
„E-Commerce“



Consumers
Micro business



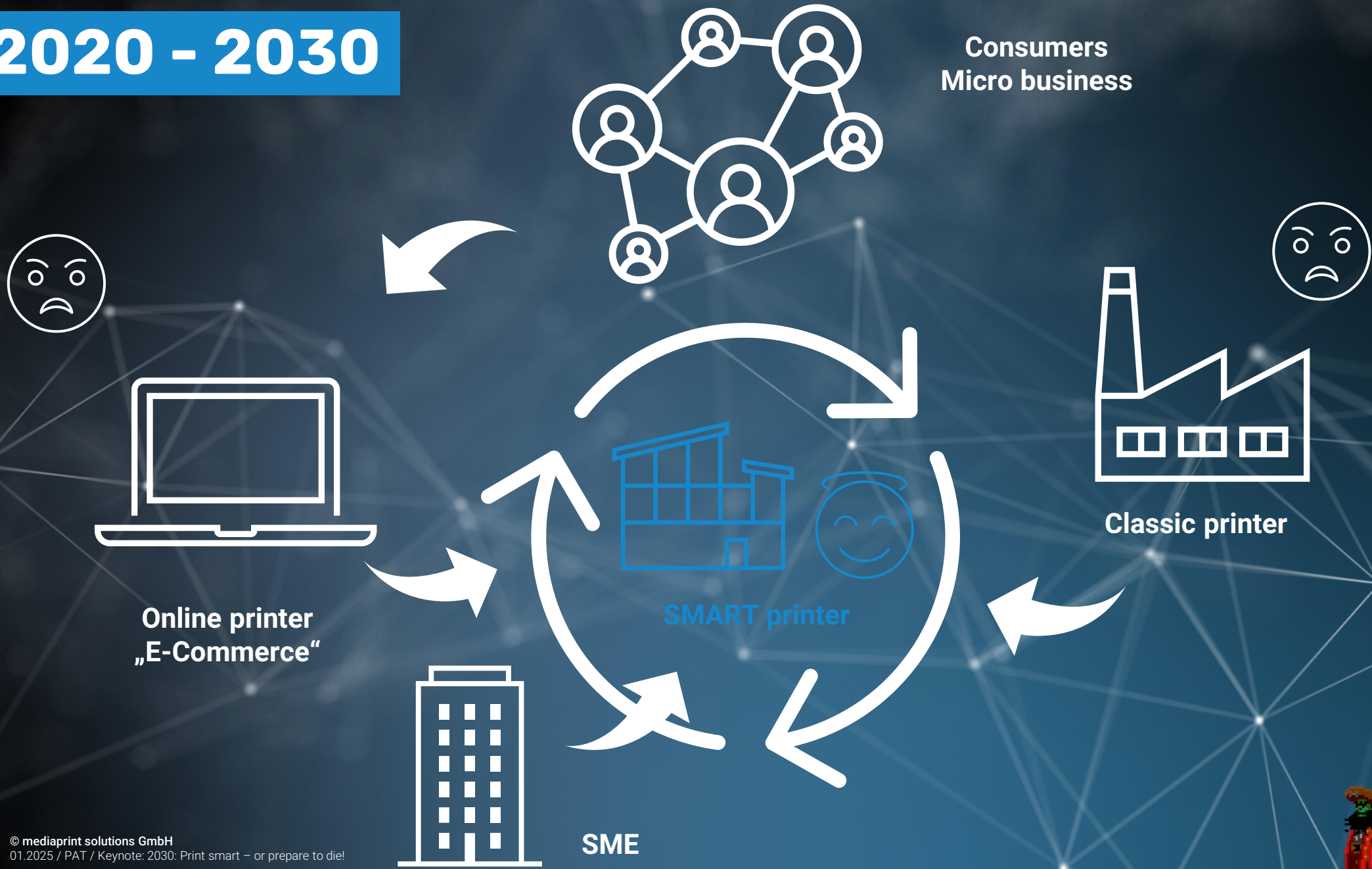
Classic printer

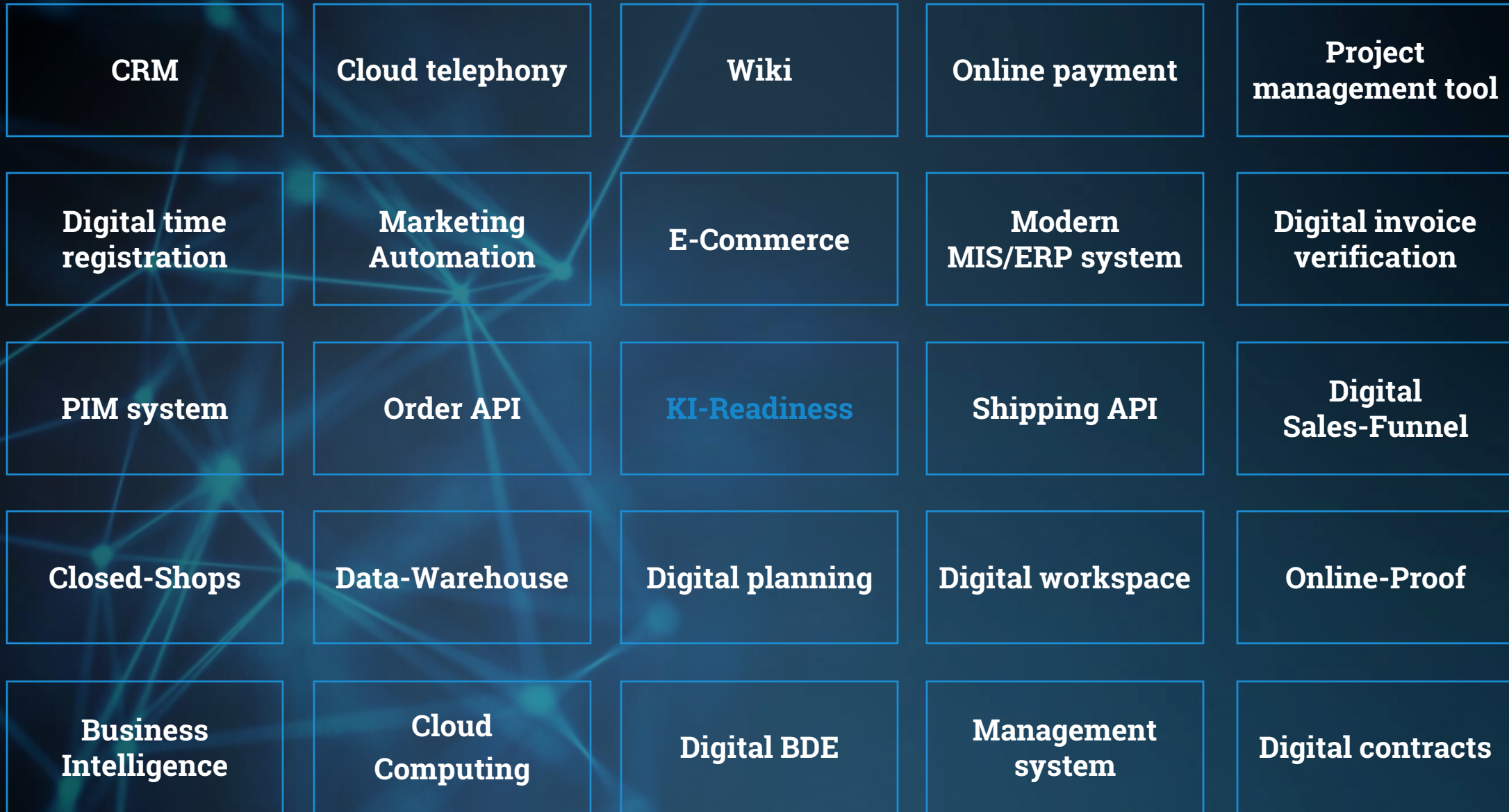


SME



2020 - 2030





30 NOVEMBER 2022

**ARTIFICIAL INTELLIGENCE
HAS NOT ONLY BEEN A TOPIC
SINCE CHAT GPT**





CO-PILOTS / ASSISTANCE SYSTEMS

- Adobe Photoshop
- Microsoft Copilot
- Chat GPT
- Heidelberger Druckmaschinen
- Müller Martini
Connex Info Cloud



AI IN YOUR COMPANY

- KI Readiness?
<https://werner.dfki.de/readinesscheck>
- **Digitisation strategy!**

**ARTIFICIAL
INTELLIGENCE
IN ACTION?**





Bundesministerium
für Wirtschaft
und Energie



ALLIANZ
Industrie 4.0
BADEN-WÜRTTEMBERG | 



POTENTIALS OF ARTIFICIAL INTELLIGENCE IN THE MANUFACTURING INDUSTRY

07/2018

<https://www.bmwk.de/>



KI IN PRODUCTION - BASICS, PROCEDURE, FIELDS OF APPLICATION

05/2019

<https://www.i40-bw.de/>





ARTIFICIAL INTELLIGENCE IN THE MEDIUM-SIZED BUSINESS SECTOR

12/2023

<https://www.mittelstand-digital.de/>



ARTIFICIAL INTELLIGENCE FROM A CORPORATE PERSPECTIVE

01/2024

www.iao.fraunhofer.de



AI IS NOT EQUAL TO AI

Field of application	Maintenance	Digital assistance systems	Quality management and control	Logistics	Process optimisation and control	Automation technology	Resource planning	Product and process development
Tool group								
Text and language processing	😊	😄	😊	😄	😞	😞	😞	😊
Knowledge representation and semantics	😊	😄	😞	😞	😊	😞	😊	😄
Image and sound processing	😄	😄	😄	😄	😊	😄	😞	😊
Action planning and optimisation	😞	😞	😞	😄	😄	😄	😄	😊
Multidimensional pattern recognition	😄	😊	😄	😄	😄	😊	😄	😄
Emotion recognition and intention analysis	😞	😊	😞	😊	😞	😊	😞	😞





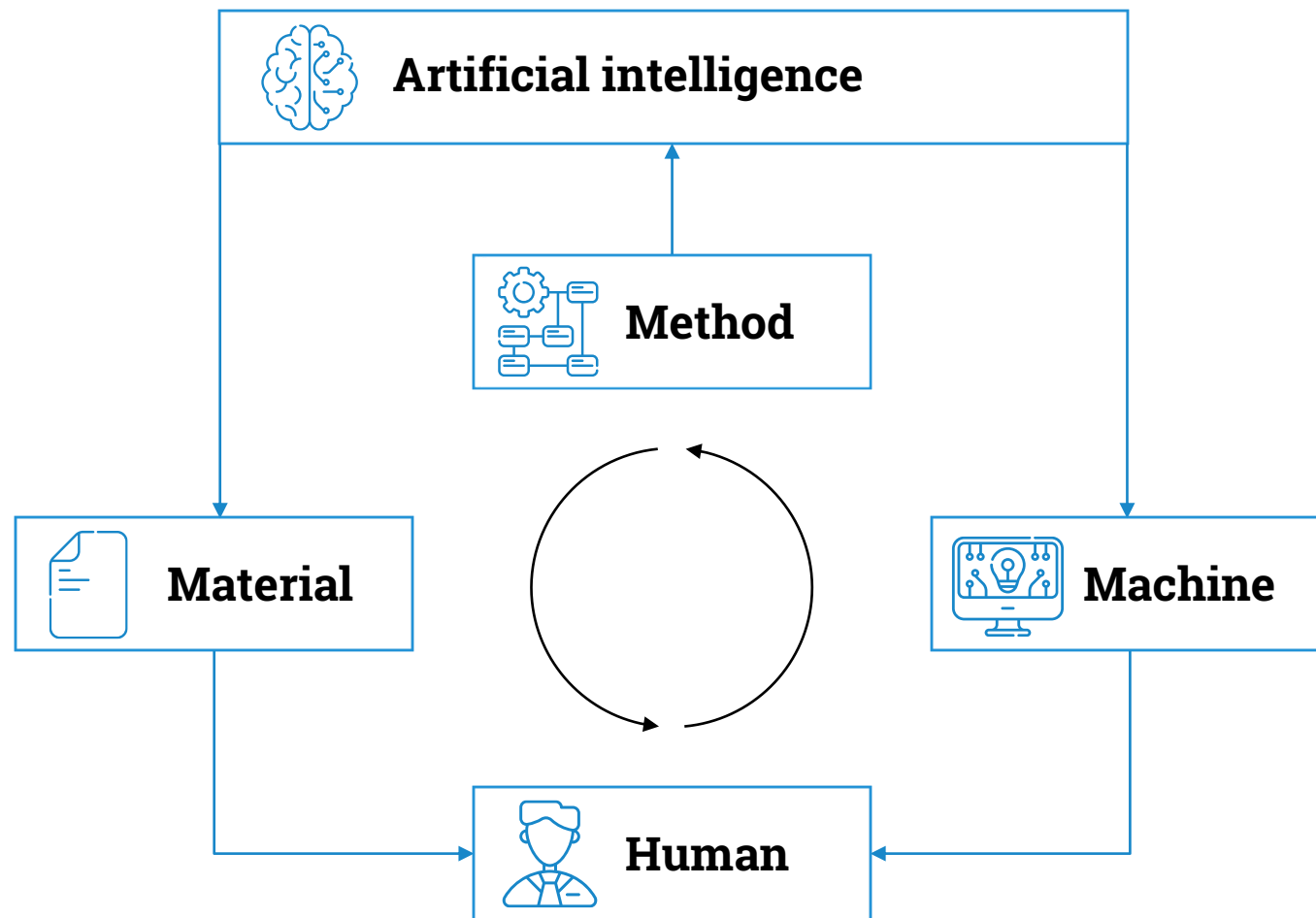
AI IS A COMPONENT IN THE DIGITALISATION PROCESS



WHICH FOCUS HAS MEDIAPRINT SET

Field of application	Maintenance	Digital assistance systems	Quality management and control	Logistics	Process optimisation and control	Automation technology	Resource planning	Product and process development
Tool group								
Text and language processing	😊	😄	😊	😄	😞	😞	😞	😊
Knowledge representation and semantics	😊	😄	😞	😞	😊	😞	😊	😄
Image and sound processing	😄	😄	😄	😄	😊	😄	😞	😊
Action planning and optimisation	😞	😞	😞	😄	😄	😄	😄	😊
Multidimensional pattern recognition	😄	😊	😄	😄	😄	😊	😄	😄
Emotion recognition and intention analysis	😞	😊	😞	😊	😞	😊	😞	😞





4M OF THE PRODUCTION PROCESSES

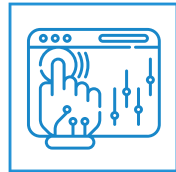
THE PATH TO FOLLOW

1



**DATA
STRATEGY**

2



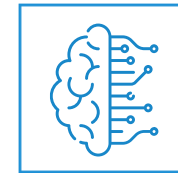
**DATA
ENGINEERING**

3



**BUSINESS
INTELLIGENCE &
ANALYTICS**

4

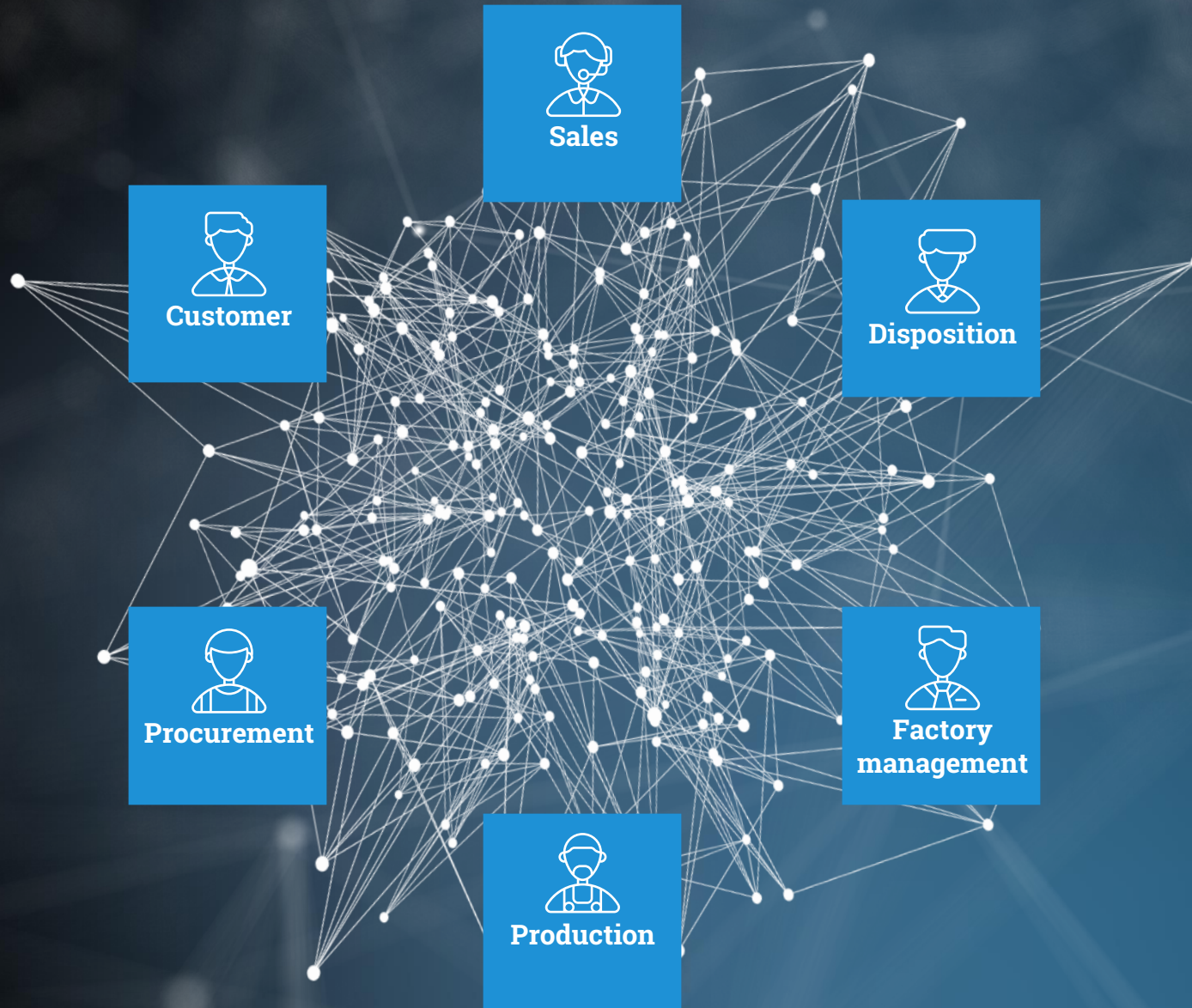


**MACHINE
LEARNING**

SMART BI CENTRAL DATA WAREHOUSE



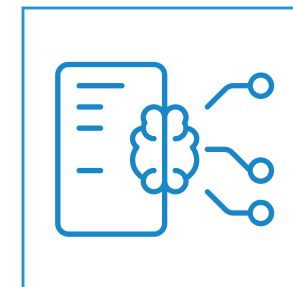
PROCESS PARTICIPANTS



All process participants have access to Smart BI and their own meaningful views.

CORE GOAL

Transparency and process simplification



PROCESSPARTICIPANTS IN DETAIL

- Forecast can be uploaded and downloaded via Excel
- Customers only need to enter total quantities per week (algorithm calculates: paper/format/circulation structure/...)
- Actual quantities of the past are recorded



Customer

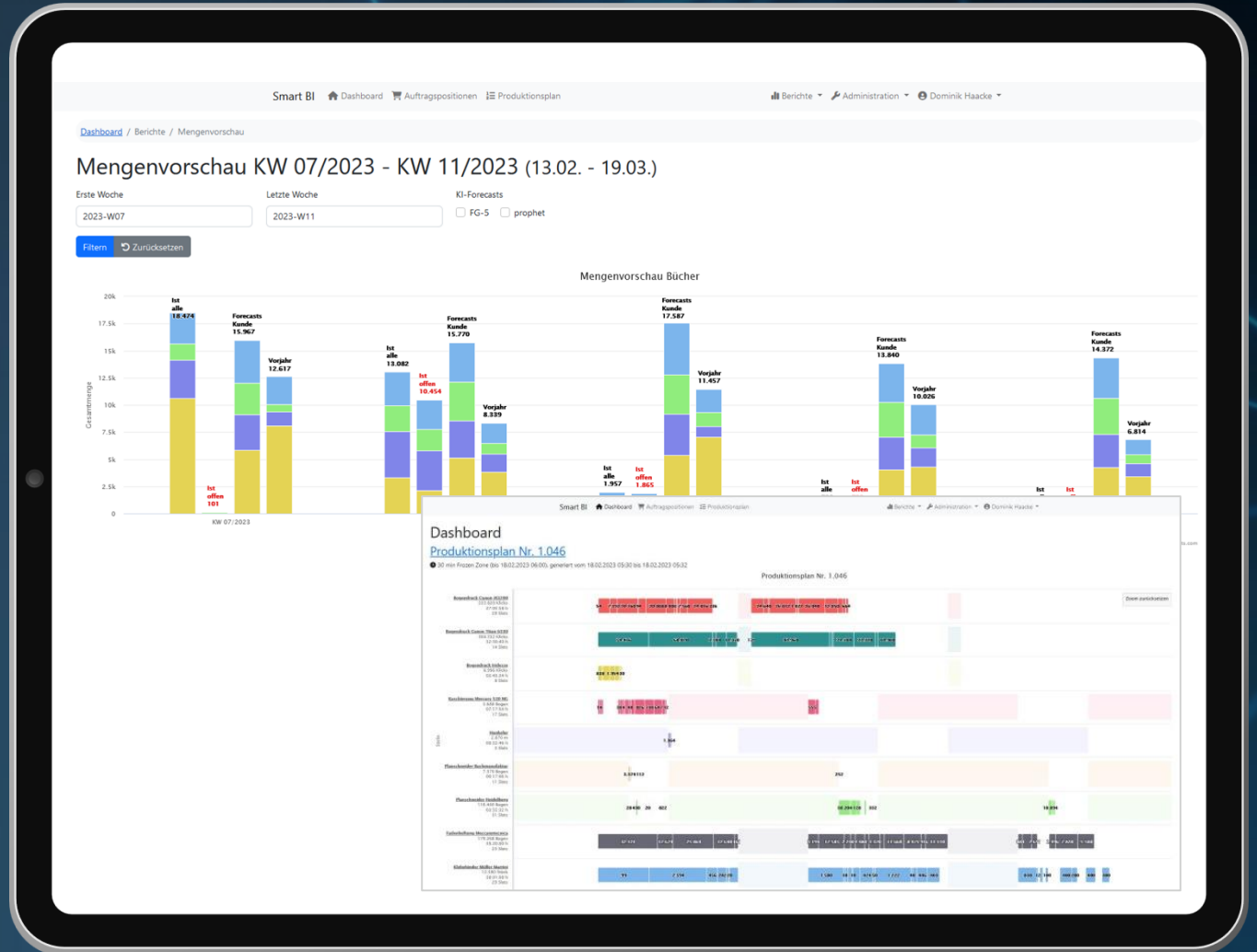


PROCESSPARTICIPANTS IN DETAIL

- View no longer only into the 'now', but also into the 'future'
- Planning now possible over weeks and not just days
- Direct link to production planning



Disposition



PROCESSPARTICIPANTS IN DETAIL

- Materials are no longer purchased solely on the basis of the reorder point
- Material can be planned for the long term (bundling effects/routes)
- Bullwhip effects can be avoided as far as possible



Procurement

Smart BI | Dashboard | Auftragspositionen | Produktionsplan | Berichte | Administration | Dominik Haacke

Dashboard / Berichte / Papierverbrauch

Papierverbrauch in kg KW 07/2023 - KW 20/2023 (13.02. - 21.05.)

Erste Woche: 2023-W07 | Letzte Woche: 2023-W20 | Forecast: Forecasts Kunde | Papierformat: alle

Filtern | Zurücksetzen

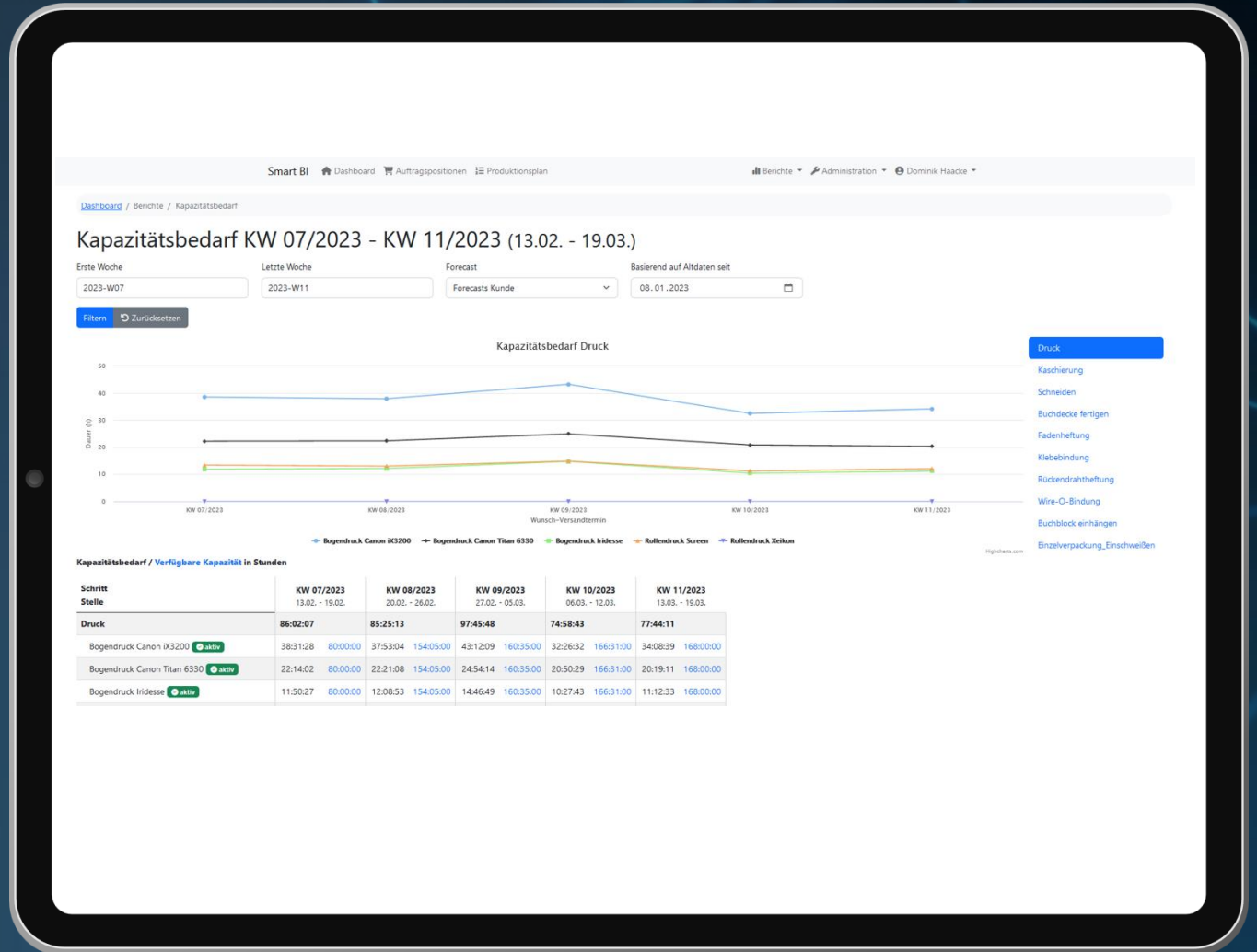
Papier	Papierformat	Laufrichtung	Bestand	KW 07/2023 13.02. - 19.02.	KW 08/2023 20.02. - 26.02.	KW 09/2023 27.02. - 05.03.	KW 10/2023 06.03. - 12.03.	KW 11/2023 13.03. - 19.03.	KW 12/2023 20.03. - 26.03.	KW 13/2023 27.03. - 02.04.	KW 14/2023 03.04. - 09.04.	KW 15/2023 10.04. - 16.04.	KW 16/2023 17.04. - 23.04.	KW 17/2023 24.04. - 30.04.	KW 18/2023 01.05. - 07.05.	KW 19/2023 08.05. - 14.05.	KW 20/2023 15.05. - 21.05.
90 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70	26.70
90 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	SB	0	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
100 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65	6.65
100 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	SB	0	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65	1.65
115 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	83.68	85.82	108.49	79.12	84.03	100.10	78.80	82.44	94.89	81.94				
115 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	SB	0	26.40	25.76	26.76	24.78	25.45	27.71	27.10	25.00	27.38	26.23				
115 g/m ² Bilderdruckpapier glänzend	Rolle 450 mm		0	126.84	125.46	128.49	123.46	124.85	130.11	127.84	124.20	129.23	126.17				
135 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	68.34	75.42	89.69	67.19	70.40	80.48	66.89	68.72	77.30	70.61				
135 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	SB	0	58.41	50.90	62.91	40.77	44.92	55.37	57.46	59.63	64.02	57.77				
135 g/m ² Bilderdruckpapier glänzend	Rolle 450 mm		0	314.33	308.99	360.64	287.82	297.08	342.66	302.72	301.10	334.57	316.74				
150 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92	64.92
150 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	SB	0	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90	7.90
170 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	101.75	102.61	126.96	95.06	99.27	121.05	97.89	100.86	115.56	98.13				
170 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	SB	0	40.13	43.19	49.18	35.34	35.44	50.82	40.26	48.63	45.52	64.09				
170 g/m ² Bilderdruckpapier glänzend	Rolle 450 mm		0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200 g/m ² Bilderdruckpapier glänzend	Bogen 450 x 320 mm (SRA3)	BB	0	32.42	32.36	32.55	32.37	32.42	32.40	32.31	32.35	32.40	32.46				

PROCESSPARTICIPANTS IN DETAIL

- Reported quantities are automatically converted into capacity requirements (e.g. peak seasons)
- Long-term personnel and machine planning possible
- Short-term adjustments to customer forecasts are directly visible for the cost centres



**Factory
management**



PROCESSPARTICIPANTS IN DETAIL

- Rapid adjustment of customer forecast
- Better compliance with the required SLAs and delivery dates
- Information, documentation, transparency - without consultation



Sales

Smart BI [Dashboard](#) [Auftragspositionen](#) [Produktionsplan](#)

[Dashboard](#) / [Berichte](#) / Durchschnittliche Produktionszeit

Durchschnittliche Produktionszeit in Tagen

Filtern

Produkt	Letzte 4 Wochen 16.01.2023 - 12.02.2023	Letzte 12 Wochen 21.11.2022 - 12.02.2023	Letzte 26 Wochen 15.08.2022 - 12.02.2023	Letzte 52 Wochen 14.02.2022 - 12.02.2023	Individueller Zeitraum 23.01.2022 - 20.02.2022
Bücher					
davon Buch-Hardcover-Fadenheftung	6,78	8,39	8,02	7,80	8,89
davon Buch-Hardcover-Klebebindung	4,51	5,63	5,70	5,75	5,59
davon Buch-Softcover-Fadenheftung	5,45	5,59	5,92	6,34	10,59
davon Buch-Softcover-Klebebindung	2,31	2,47	2,74	3,21	3,19
davon Buch-Softcover-offene-Fadenheftung	0,00	0,00	0,00	0,00	0,00
Falz- und Stanzprodukte					
davon Falzprodukt	3,28	3,70	3,90	4,33	6,06
davon Stanzprodukt	4,77	5,02	4,79	5,98	7,10
Hefte					
davon Heft	3,72	3,73	4,13	4,38	4,01
davon Heft-Selfcover	4,07	3,99	3,98	4,45	4,76
Schneidprodukte					

PROCESSPARTICIPANTS IN DETAIL



Production



FORECAST CHALLENGES

Forecast request



Sales



Customer

Just **like last year**.

We can't say at this
time...

...

WHAT IS OUR RESULT?

80%

DIGITALISATION

- Provides transparency
- Simplifies it for all process participants

What we have seen so far



NOW AI COMES INTO PLAY

+10-15%

1. QUALITY INDEX

+5-10%

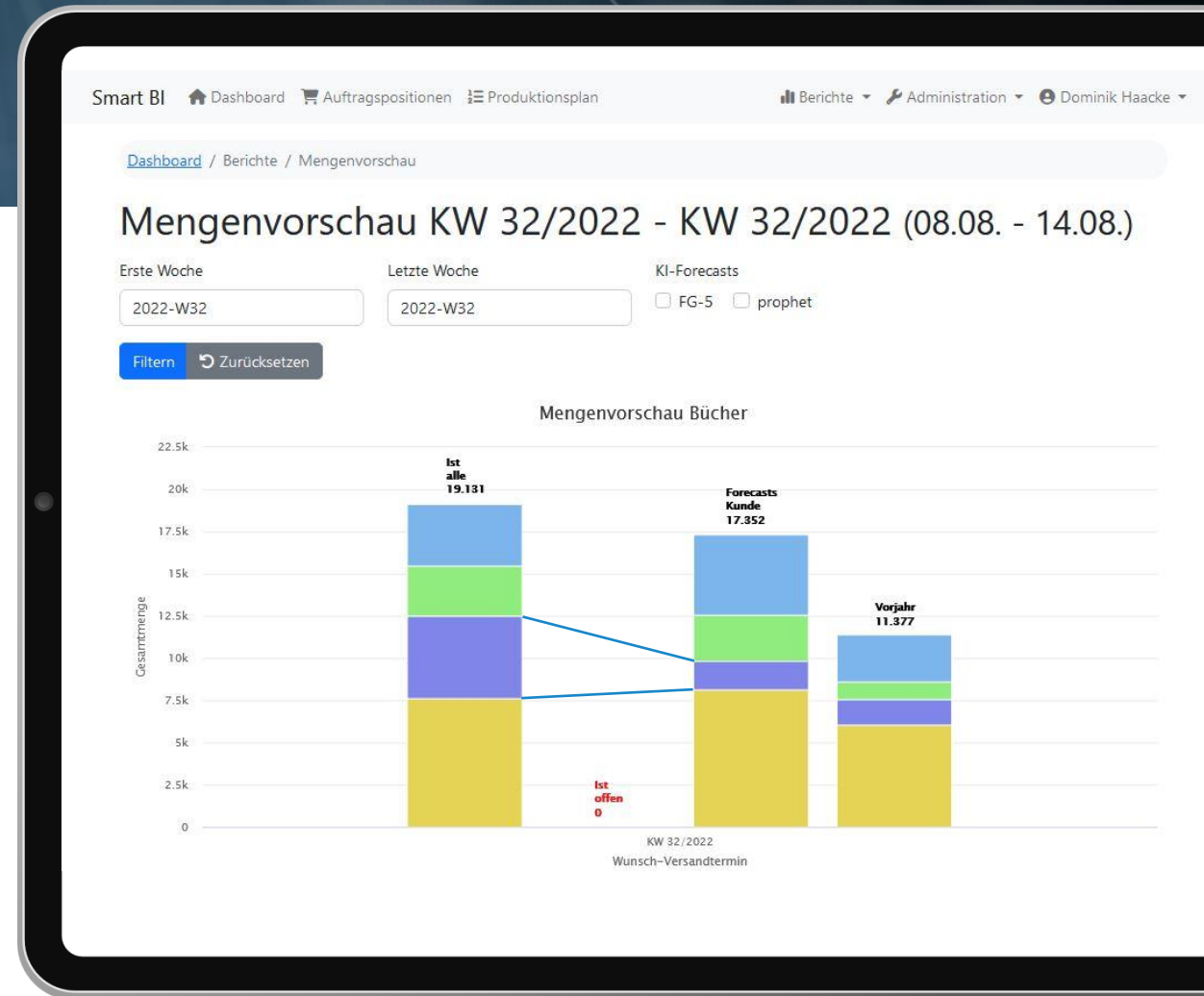
2. SECTOR FACTOR

QUALITY INDEX

- Analysis of developments per customer channel
- At product level
- And monthly level

GOAL

Optimise forecast accuracy

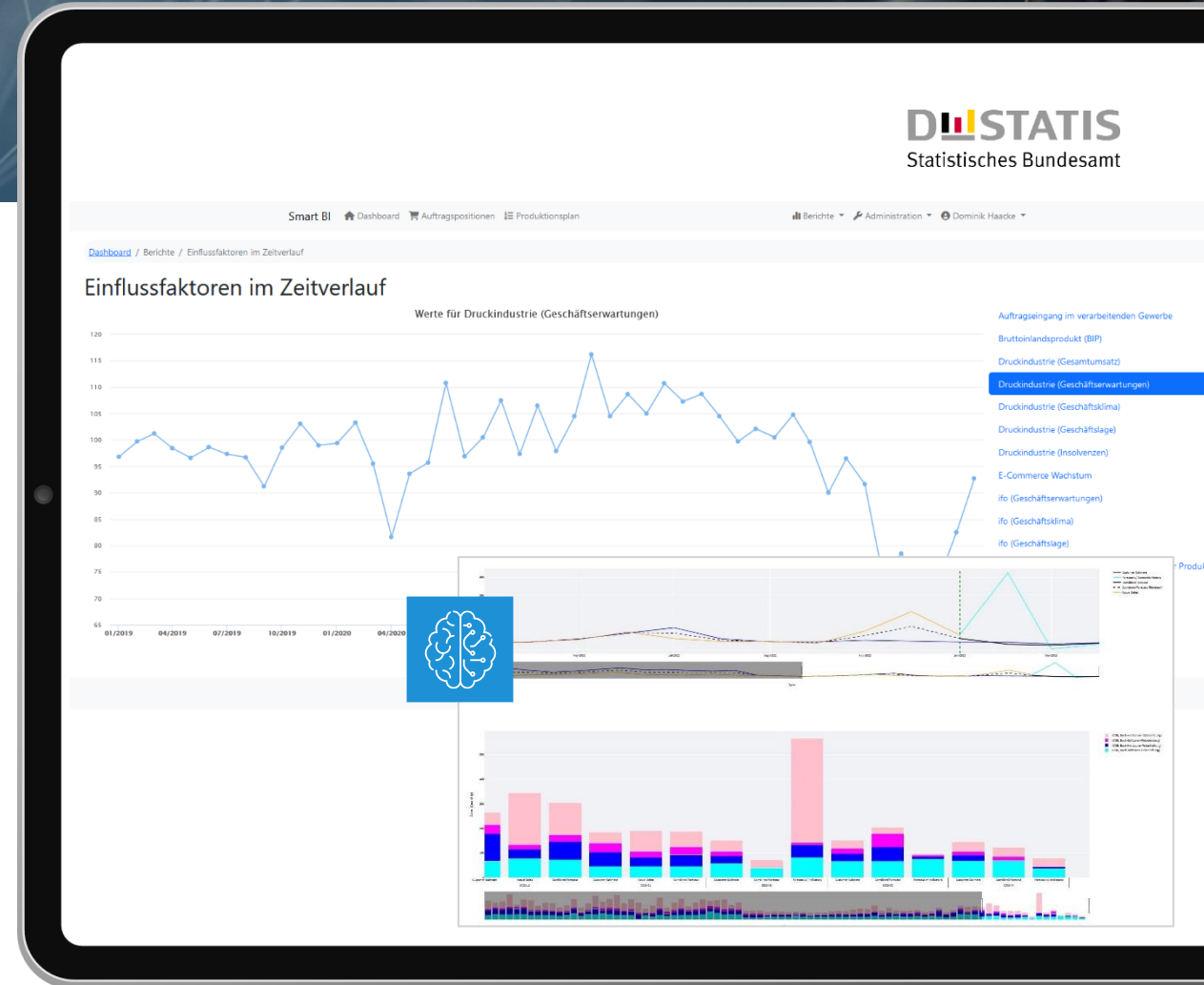


SECTOR FACTOR

- For B2B and for B2C
- Can be integrated individually for each customer channel

Currently 16 influencing factors integrated:

1. Gross domestic product (GDP)
2. Price development (producer prices of industrial products)
3. Price trends (consumer prices)
4. Sentiment indicators consumption
5. ifo (business climate)
6. ifo (business situation)
7. ifo (business expectations)
8. ZEW (economic situation)
9. ZEW (economic expectations)
10. Incoming orders in the manufacturing industry
11. Printing industry (business climate)
12. Printing industry (business situation)
13. Printing industry (business expectations)
14. Printing industry (insolvencies)
15. Printing industry (total turnover)
16. E-commerce growth

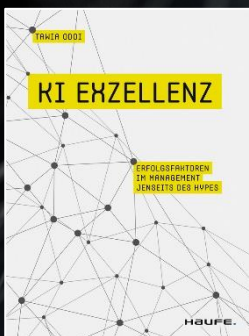


DIGITALISATION

= EFFICIENCY

=





KI EXZELLENZ

Success factors in management beyond the hype. Understanding future technologies and successfully utilising artificial intelligence in the world of work.

<https://shop.haufe.de/prod/ki-exzellenz>



ESG - MADE IN GERMANY

Sustainability as a corporate strategy for German family businesses.

<https://www.herder.de/geschichte-politik/shop/p4/82624-esg-made-in-germany-gebundene-ausgabe/>



<https://returntomonkeyisland.com>



DOMINIK HAACKE

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HOW LONG DID IT TAKE?



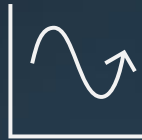
07/2020

Project start



01/2022

Production planning



03/2022

Forecast



05/2022

Target costing control



09/2023

AI forecast



12/2023

End of project

WHAT DID IT COST?