



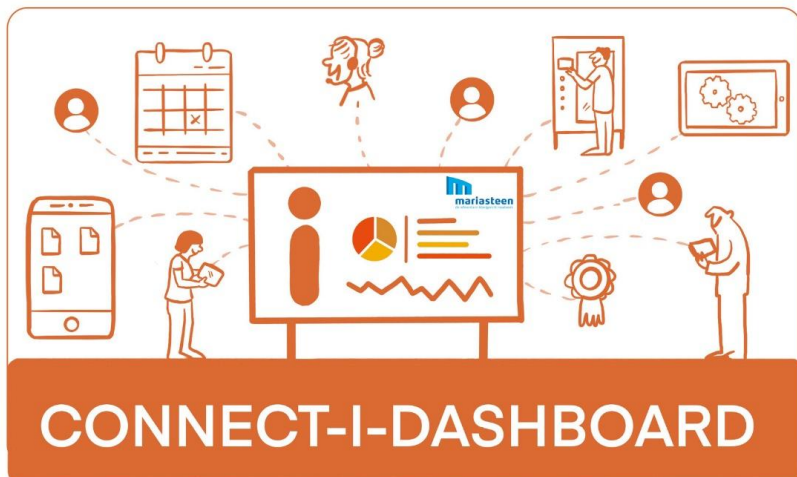
Technologie in dienst van menselijk potentieel:
Een nieuwe kijk op werkbaar werk



@Mariasteen



Vlaanderen
is duurzaam ondernemen



CONNECT - I - DASHBOARD =

HET JUISTE ORDER, IN DE JUISTE VOLGORDE, BIJ DE JUISTE MEDEWERKER,
IN DE JUISTE AANTALLEN, DE JUISTE AFWERKING EN DE JUISTE TIJD.
VAN KLANT DOOR DE FABRIEK TERUG NAAR DE KLANT.
EN DIT MET BEHULP VAN INTERACTIEVE VISUALISATIE.



Prio 1

Metaalbewerking

Montage

Prio 2

Houtbewerking

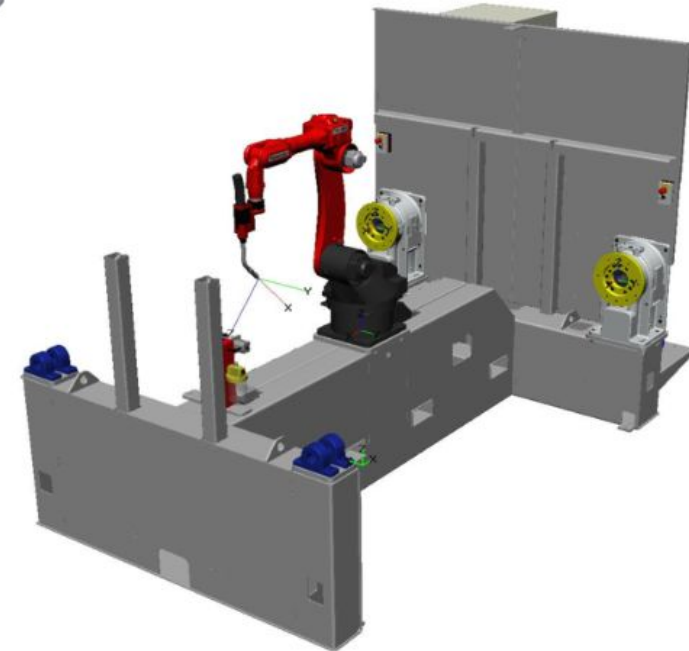


Sectoren: bouw, machinebouw, automotive, constructie, medisch, elektro...

Metaalbewerking | 53 werkcenters



Vlaanderen
is duurzaam ondernemen



Montage | 45 werkcenters



Vlaanderen
is duurzaam ondernemen



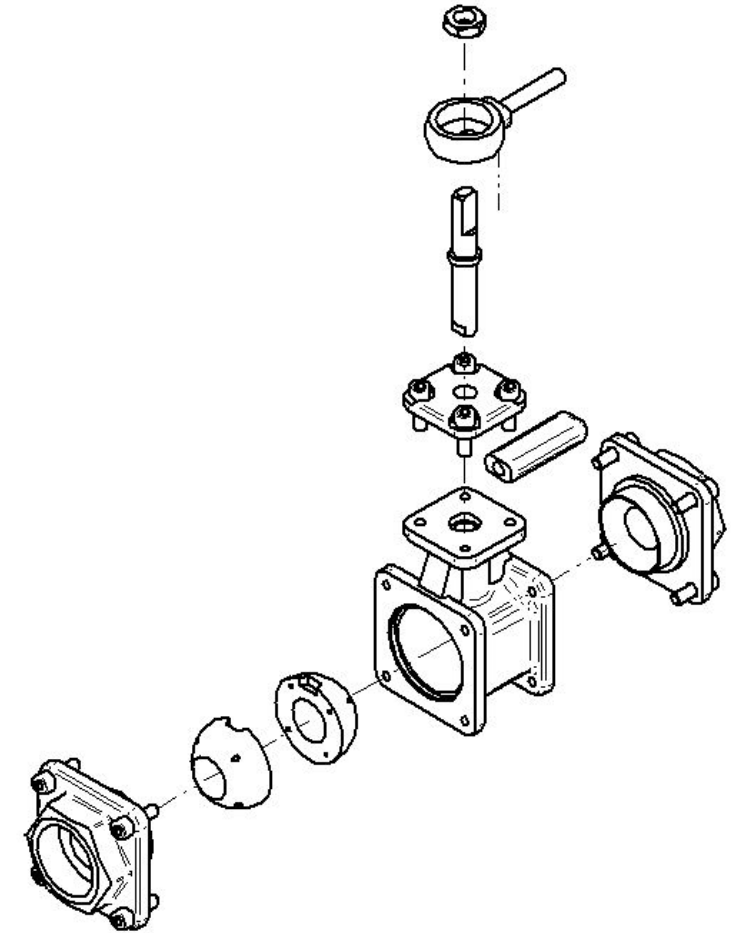
Metaal & Montage = 1 Business Unit



Vlaanderen
is duurzaam ondernemen

- “Stukproductie”
- Producten wisselen vaak
- Trend richting meer projectwerk en kleinere series
- 140 klanten – 14.000 klantorders per jaar – 3.000 artikelen – 7.500.000 stuks
- Complexe routings met grondstoffen, halfafgewerkte en afgewerkte producten
- Grondstoffen meestal uniek per order
- Sterk wisselende productiestructuren, over ca. 100 werkcenters -> ene flow heeft impact op de andere

HOGE COMPLEXITEIT



VOOR



1100

AMAI, CONTENT VAN MIJN WERKDAG, IK HEB VEEL STAPPEN OP MIJN STAPPENTELLER!

Using the 2018 version of 'The Sustainability' - The gold standard does not wait for change



- registratie klachten
- modellen en kalibers met foto's
- meetmiddelen met foto's
- beheer externe / interne documenten



- registratieformulier FAI, PC en LAI (EC)



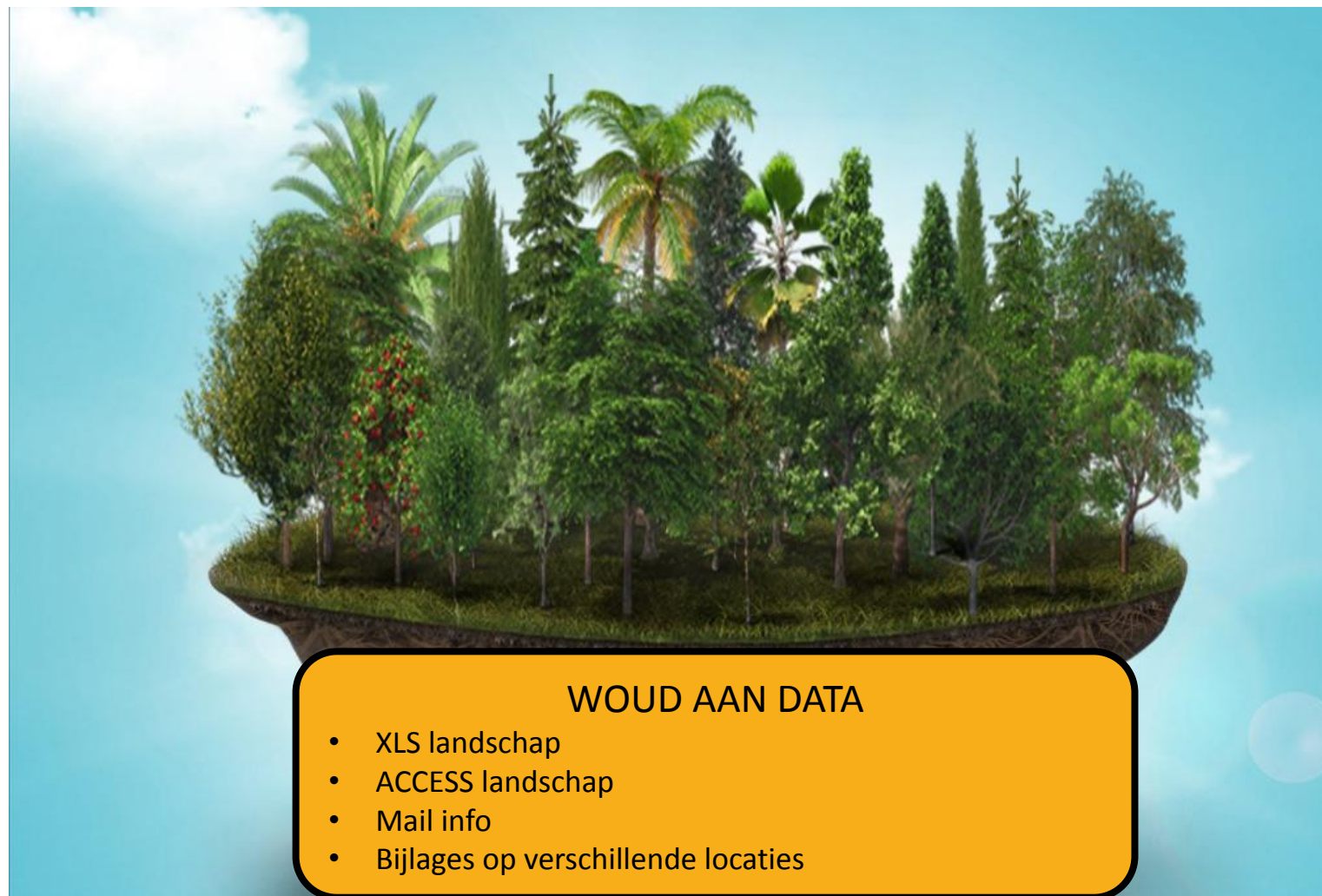
- zagerij: aankruisen van meetwaarden
- M&M: meetvoorschrift => noteren van waarden en bij montage ok / nok
- bepalen Cp met bijhorende grafieken
- analyse klachten Mariasteen



- U:\920\WV\DOSSIER_WV
- U:\925\PRD
- U:\Productiedossiers

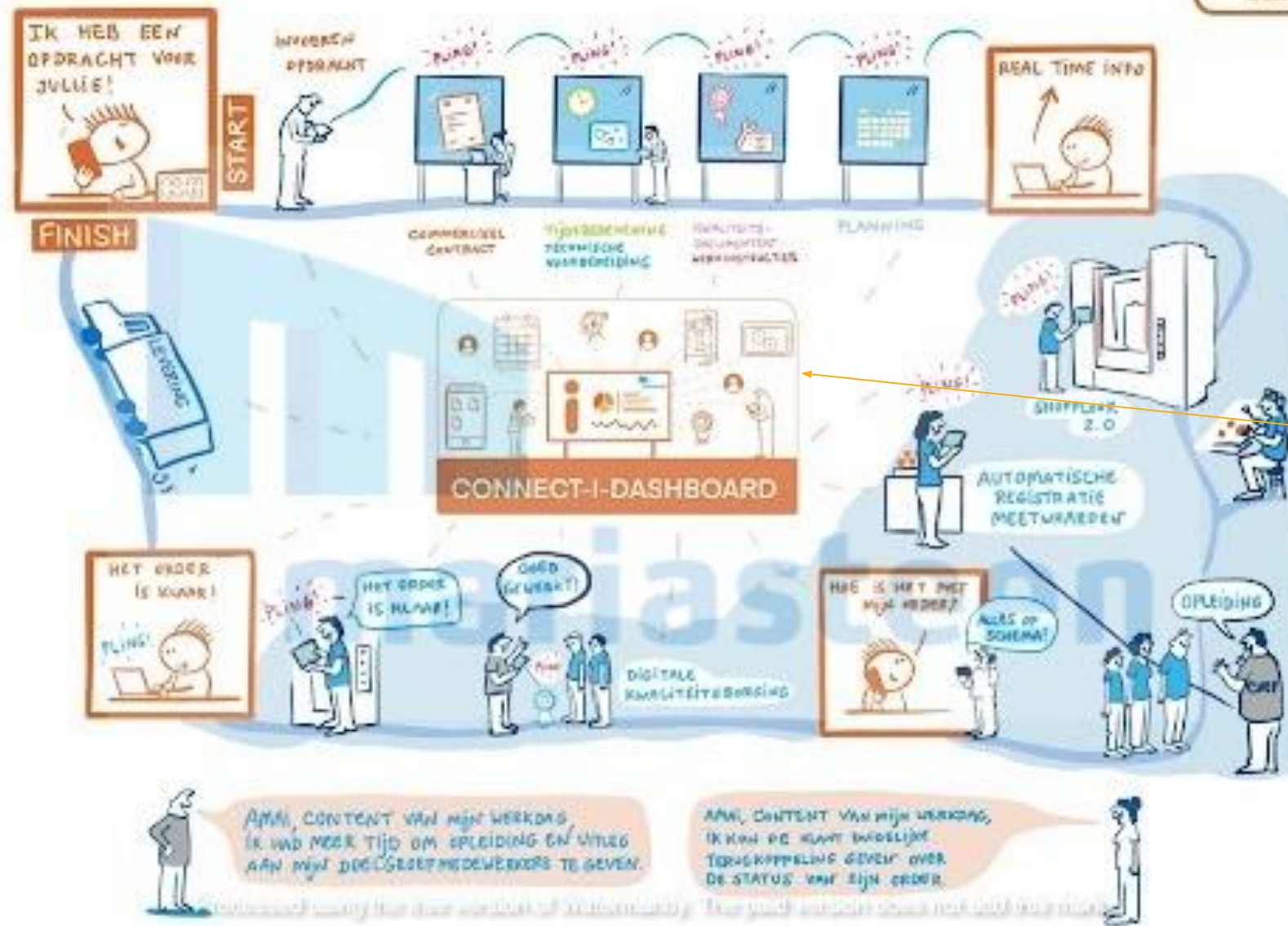


- MIS





NA



Missing
link

Low code Operations Platform





24Flow is a **modular, human centric operations platform** that empowers **discrete manufacturers** to **reduce lead times** through digital support of operators and management.

THE CHALLENGES WE TACKLE

Manufacturers need flexibility, resilience & human centricity.

Customer Expectations

Customisation
Fast Delivery
Always on time
First time right
Manage orders real-time yourself
Fast customer support & service deflection

Uncertain future

Digital Disruption
Audit & Changing Regulations
Cybersecurity



War for talent

UX friendly apps
Multilingual platform
Omni-device apps
Employee empowerment (PDCA capability)
Digital (consumer) expectations

DO YOU RECOGNIZE THIS?

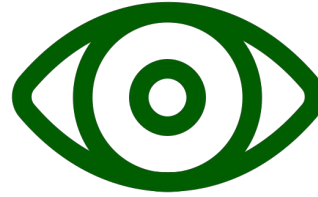
Six sources of waste.



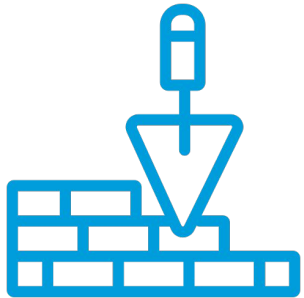
**Long lead times
& late deliveries**



**Continuous
planning and
re-planning**



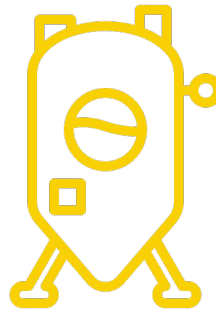
Lack of visibility



Excessive WIP



**Lack of
traceability**

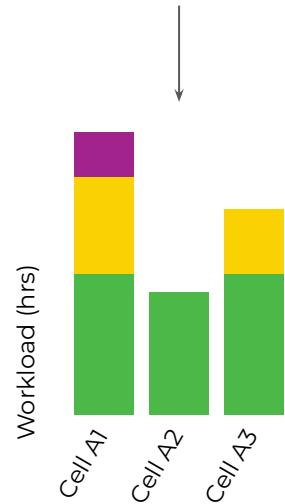


**Outdated
homegrown
apps**

CREATE FLOW OF PRODUCTION ORDERS

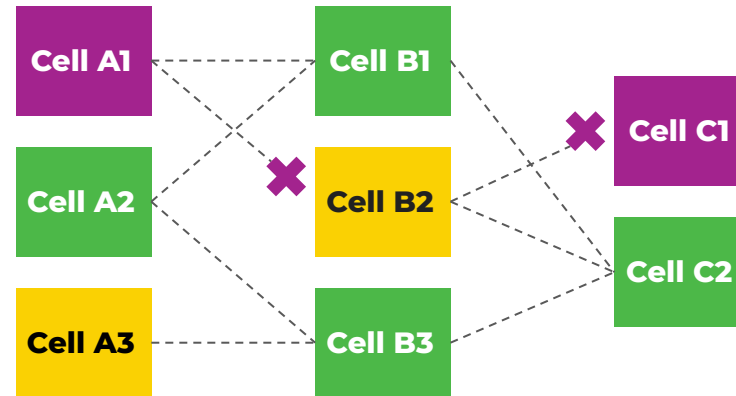
24Flow helps you to increase the flow of production orders.

ERP
INCOMING PRODUCTION
ORDERS



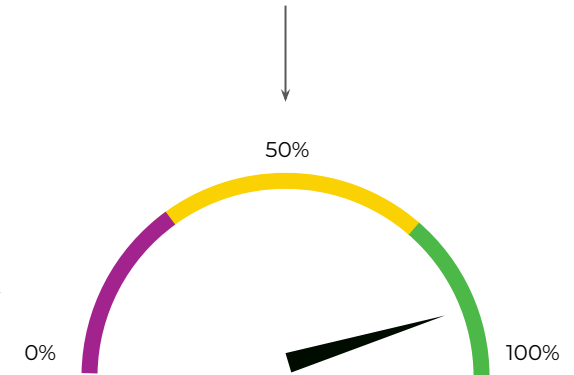
Order pool management
to manage the variability of
demand

HIGH LEVEL
MRP

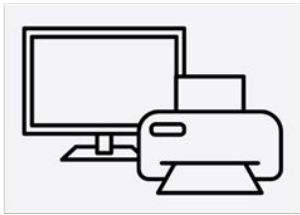


WIP-control system keeps the
throughput time on the shop floor short
and predictable

DELIVER
RELIABILITY



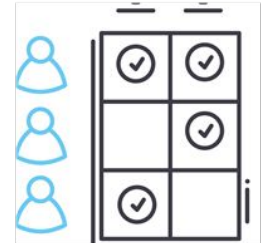
Small safety time
guarantees delivery reliability



Werkvloer
registraties



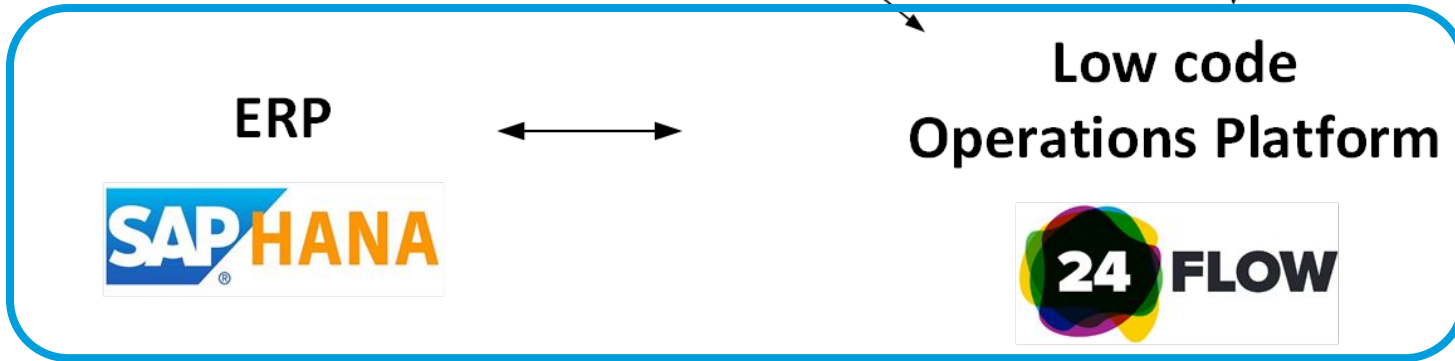
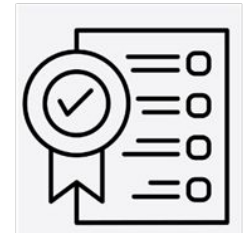
Digitale
Werkinstructies



mpleo.

Competentiematrix

Kwaliteitsdoc +
bijlages



Tijdsregistratie



Machine-captatie



ORDER POOL MANAGEMENT

Decide what & when to release for production.

Order Pool - 20780 AH - Today: 23-11-2022						
Order Finish Date	▼	Order Name	▼	Stock Status	Quantity	▼ Actions
17/11/2022, 00:00		PE2018736-1 (50)		✓	50	Release
18/11/2022, 00:00		PE2018729-1 (200)		✓	200	Release
18/11/2022, 00:00		PE2018736-1 (50)		✓	50	Release
22/11/2022, 00:00		PE2018728-1 (50)		✓	50	Release
▼ 22/11/2022, 00:00		PE2018729-1 (200)		✓	200	Release
22/11/2022, 00:00		PE2018729-1 40 11/22 003		✓		Release
22/11/2022, 00:00		PE2018729-1 40 11/22 004		✓		Release

ERP
24Flow

Order Pool
Management

Visual Planning

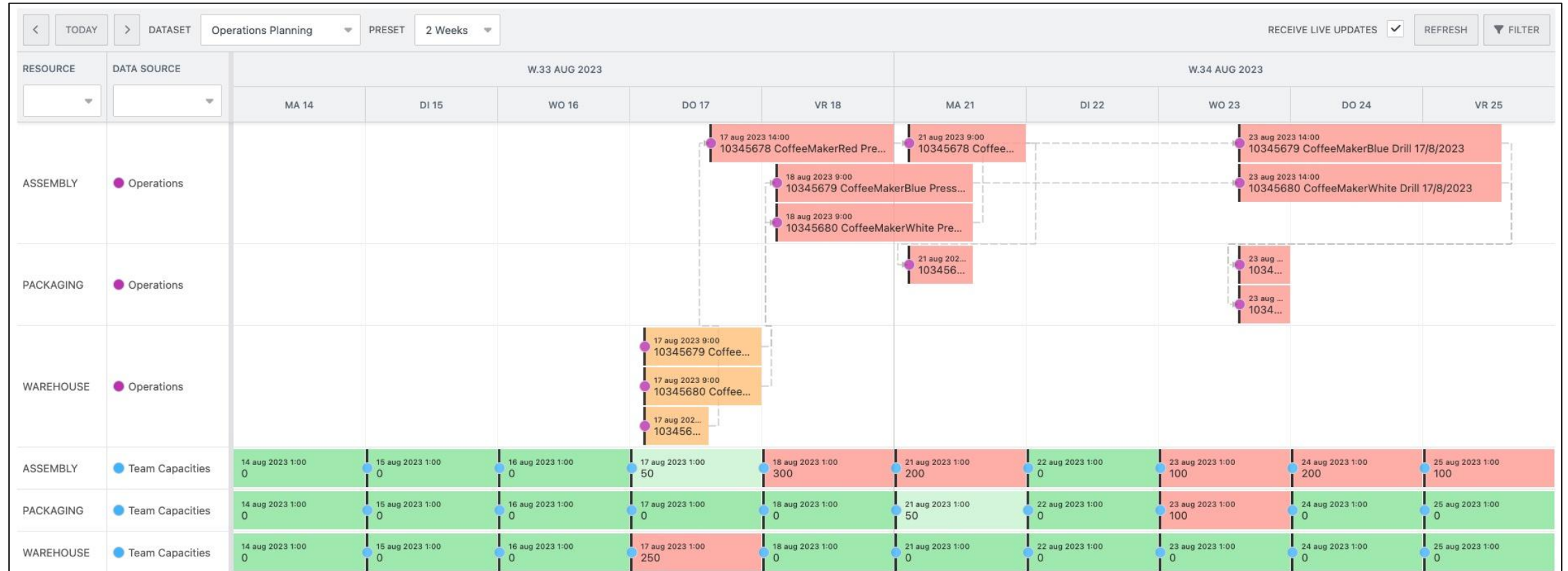
Work Overview +
WIP Control

MCT

24Flow
ERP

DIGITAL PLANNING BOARD

Simulate alternatives, analyze capacity constraints.



ERP
24Flow

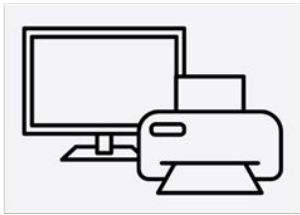
Order Pool
Management

Visual Planning

Work Overview +
WIP Control

MCT

24Flow
ERP

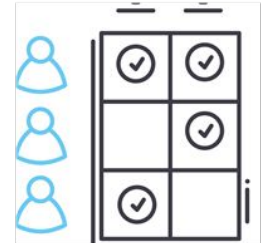


Werkvloer
registraties

Digitale
Werkinstructies



mpleo.



Competentiematrix

Low code
Operations Platform



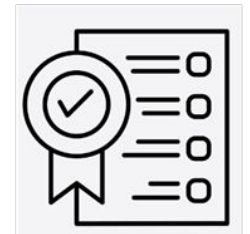
Tijdsregistratie



Machine-captatie



Kwaliteitsdoc +
bijlages



TEAM COCKPIT

In-context information for each workstation.



★

+

🔔

?

⚙️

🔔



Operator

CNC

Time Entries

Operations

Competence Matrix

 CNC

Post

Poll

Question

Share

Bezig

	Delivery Date	Production Order	Product	Team Name To	Operations	Remark	Actions
▼	2022-10-06	12	EN1-Kst-R1-L1-Vst-VAI-Sk	Assembly	0036	Too late	
▼	2022-09-30	4	EN1-Kst-R1-L1-Vst-VAI-Sk	Welding	0012		
▼	2022-10-03	7	EN1-Kst-R1-L1-Vst-VAI-Sk	Cutting	0021	Shortage	
▼	2022-10-07	13	EN1-Kst-R1-L1-Vst-VAI-Sk	Assembly	0039		

In Buffer

	Delivery Date	Production Order	Product	Team Name To	Operations	Remark	Actions
▼	2022-10-06	11	EN1-Kst-R1-L1-Vst-VAI-Sk	Assembly	0033		Claim
▼	2022-09-29	3	EN1-Kst-R1-L1-Vst-VAI-Sk	Drawing	0009	Skill Needed	Claim
▼	2022-10-04	8	EN1-Kst-R1-L1-Vst-VAI-Sk	Assembly	0024		Claim

Time Entry Active

Employee

Select an employee

Employee	Activity	Start	End	Duration
Evy Hanssens	Picking	11:26:44	/	02:01:27

Component Picker 0036 Picked Hidden



OFB|0

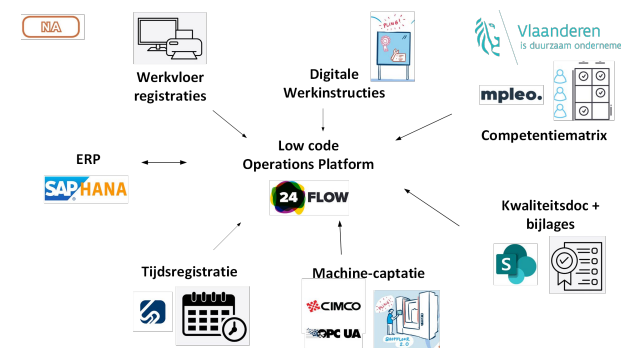
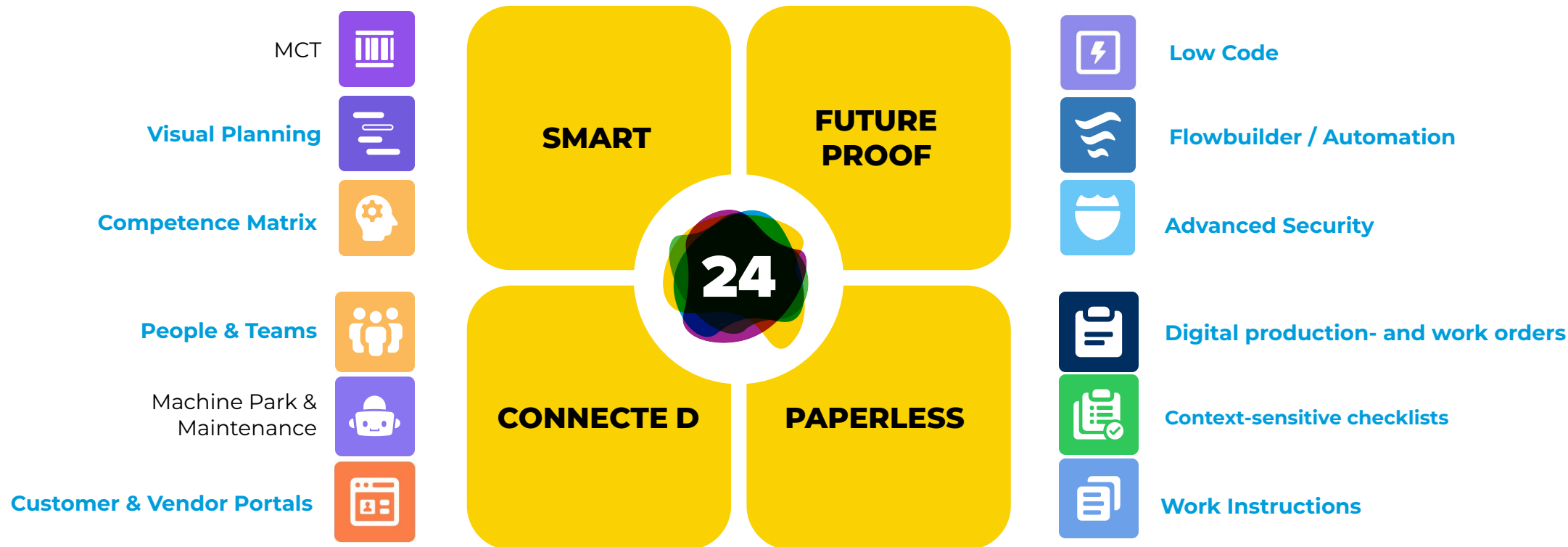
25/100 S10-M2-3A-A



OFB|0

50/50

24FLOW - A FUTURE PROOF MARIASTEEN platform.





WERKPAKKET 1
Alle beschikbare data verzamelen en verbinden
(SAP, shopfloor, machine info, kwaliteit, syntregro, ...)



WERKPAKKET 2
ICT- technologie ontwikkelen (dmv low code platform)



WERKPAKKET 3
Digitaliseren van planning + info real time maken



WERKPAKKET 4
Gebruiksvriendelijk visualiseren voor alle betrokkenen

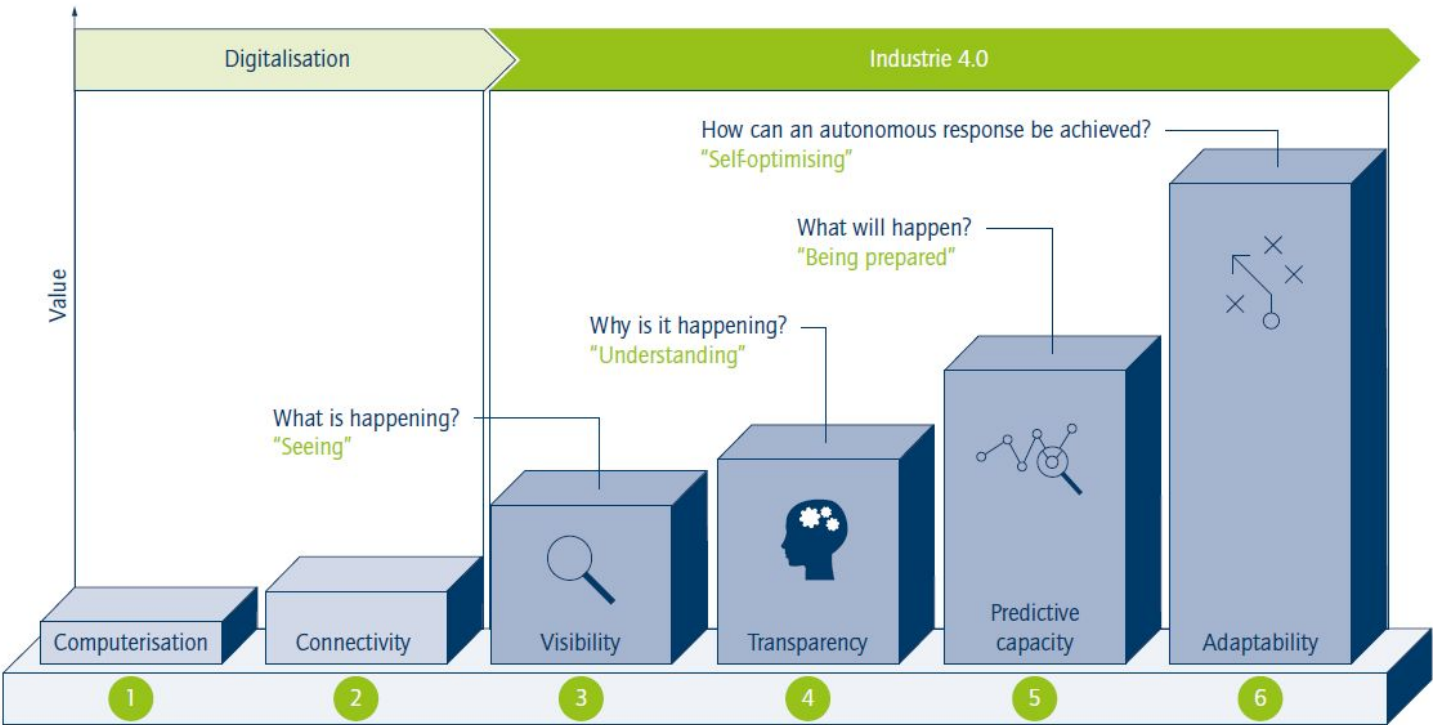


Figure 5: Stages in the Industrie 4.0 development path (source: FIR e. V. at RWTH Aachen University)

Dankjewel voor je aandacht.



Vlaanderen
is duurzaam ondernemen



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