Navigating the Future

IAHTM
INTERNATIONAL ASSOCIATION FOR HEALTHCARE TEXTILE MANAGEMENT
Where Leaders Meet, Success Follows

Kannegiesser® ETECH

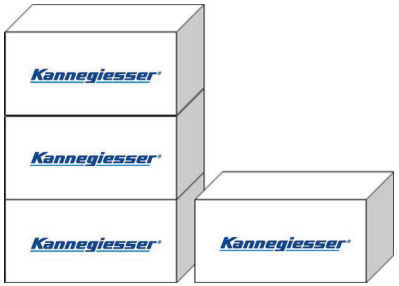
with Robotics and AI

SKYNET

Kannegiesser
Kannegiesser

K7

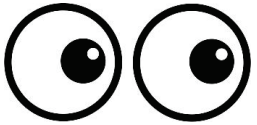
Robots



	Industrial application	Laundry
What? Identification by size, shape, surface	Pick up	✓	✗
Where? Defined position	Collect	✓	✗
Where to? Assigned location, target	Bring	✓	✓

What is the person doing?

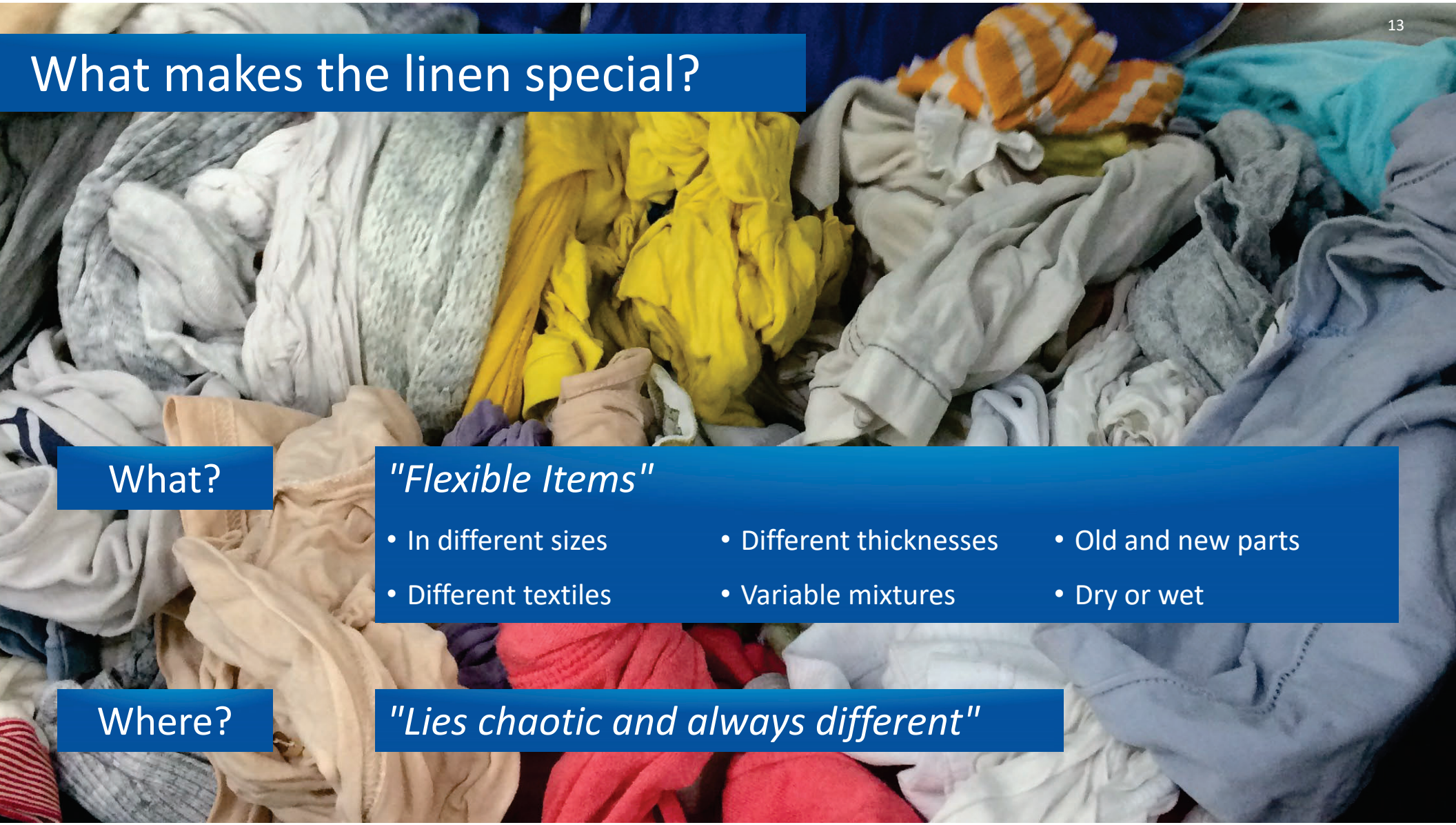
(1) Detect



(2) Identify

(3) Pick up

What makes the linen special?



What?

"Flexible Items"

- In different sizes
- Different textiles
- Different thicknesses
- Variable mixtures
- Old and new parts
- Dry or wet

Where?

"Lies chaotic and always different"

Kannegiesser
To have the *right linen*,
at the *right time*,
reliably,
and with *minimal effort*,
at the *right customer*.
GOAL

STEPS OF AUTOMATION

Machine.

STEP 01

Logistic.

STEP 02

Data.

STEP 03

Robotic

STEP 04

“FOUNDATION” – THE MACHINE

“FLOOR” – THE LOGISTICS

Logistic.

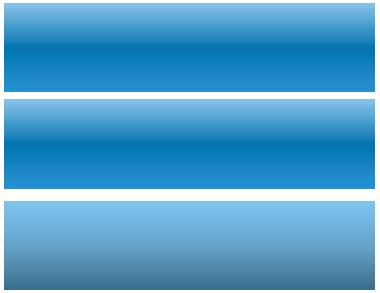
STEP 02

Less manual handling

Continuous flow of laundry

Better organization

Floor



“ROOF” - THE DATA

Data.

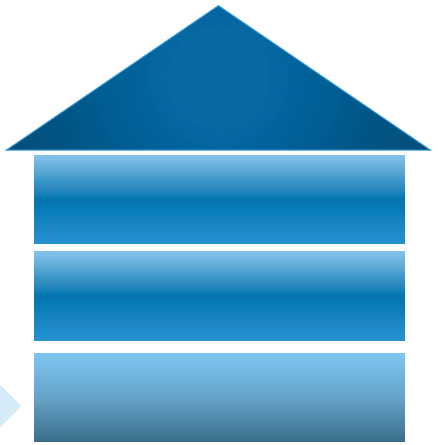
STEP 03

Keeps the overview

Provides information to machine and logistics

Controls the flow of goods

Roof



”STAIRS” - ROBOTICS

Robotic

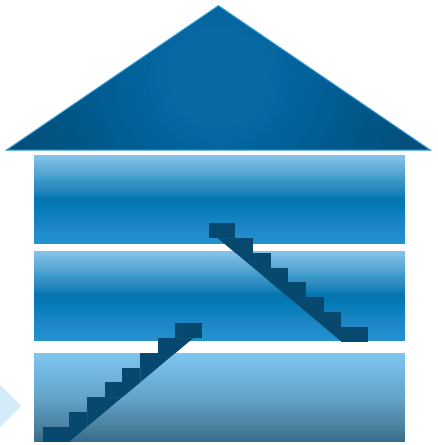
STEP 04

Independence

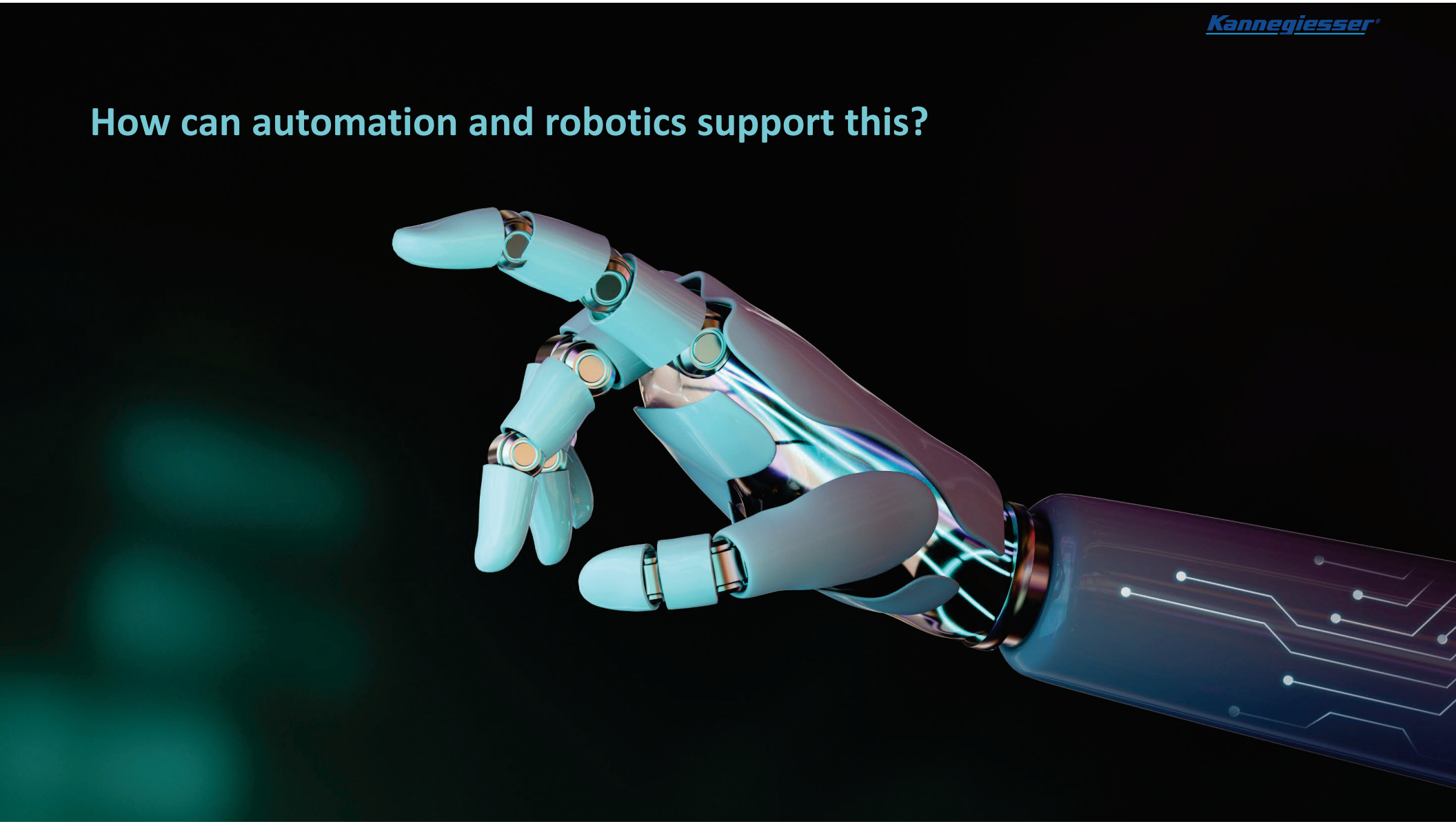
Consistent performance

Link between logistics, machine and data

Stairs

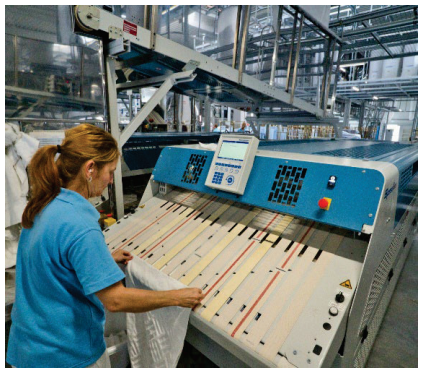


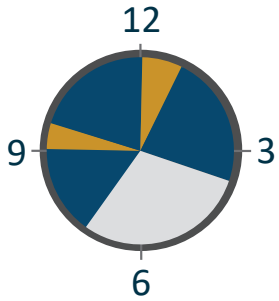
How can automation and robotics support this?



MORE PRODUCTION TIME

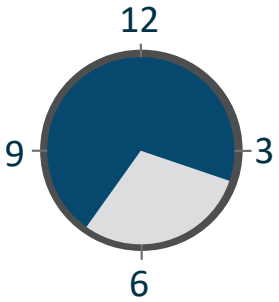
manual





Breaks / pauses

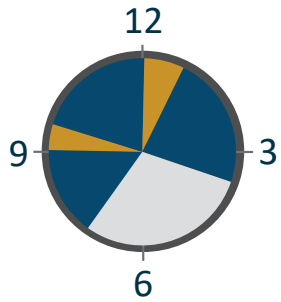
robot



15% more production time

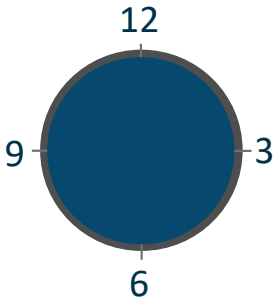
FLEXIBLE PRODUCTION TIME

manual



Shift operation

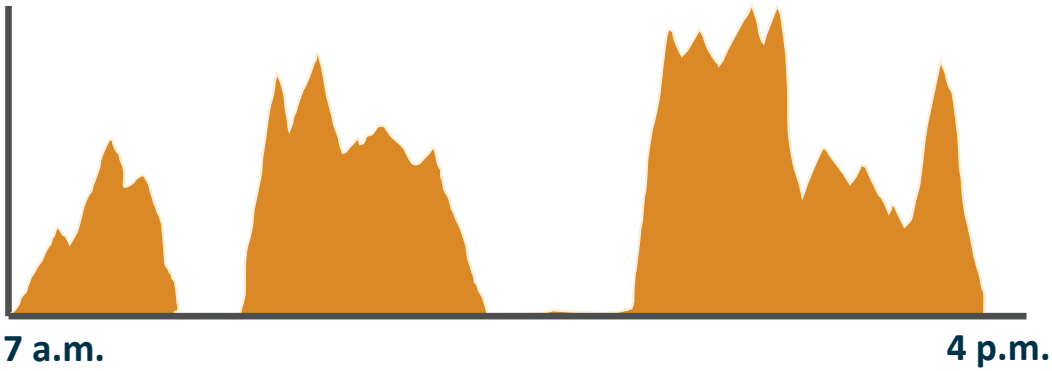
robot



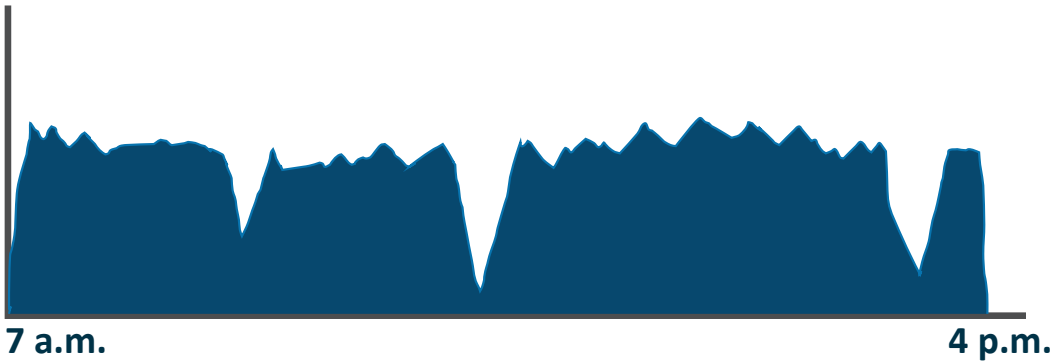
Multi-shift operation

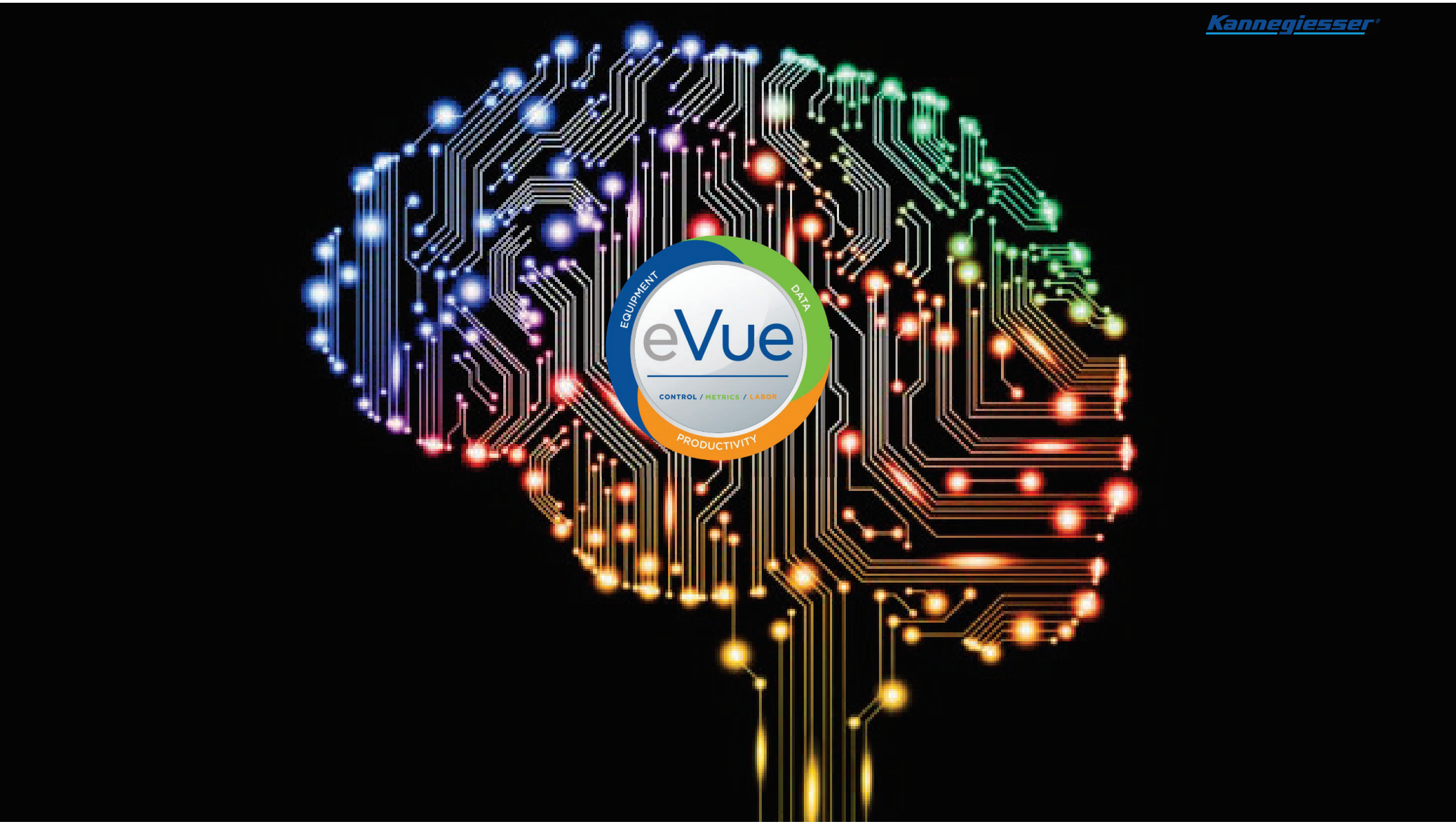
STEADINESS

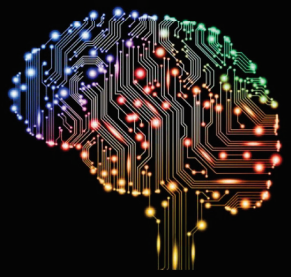
manual

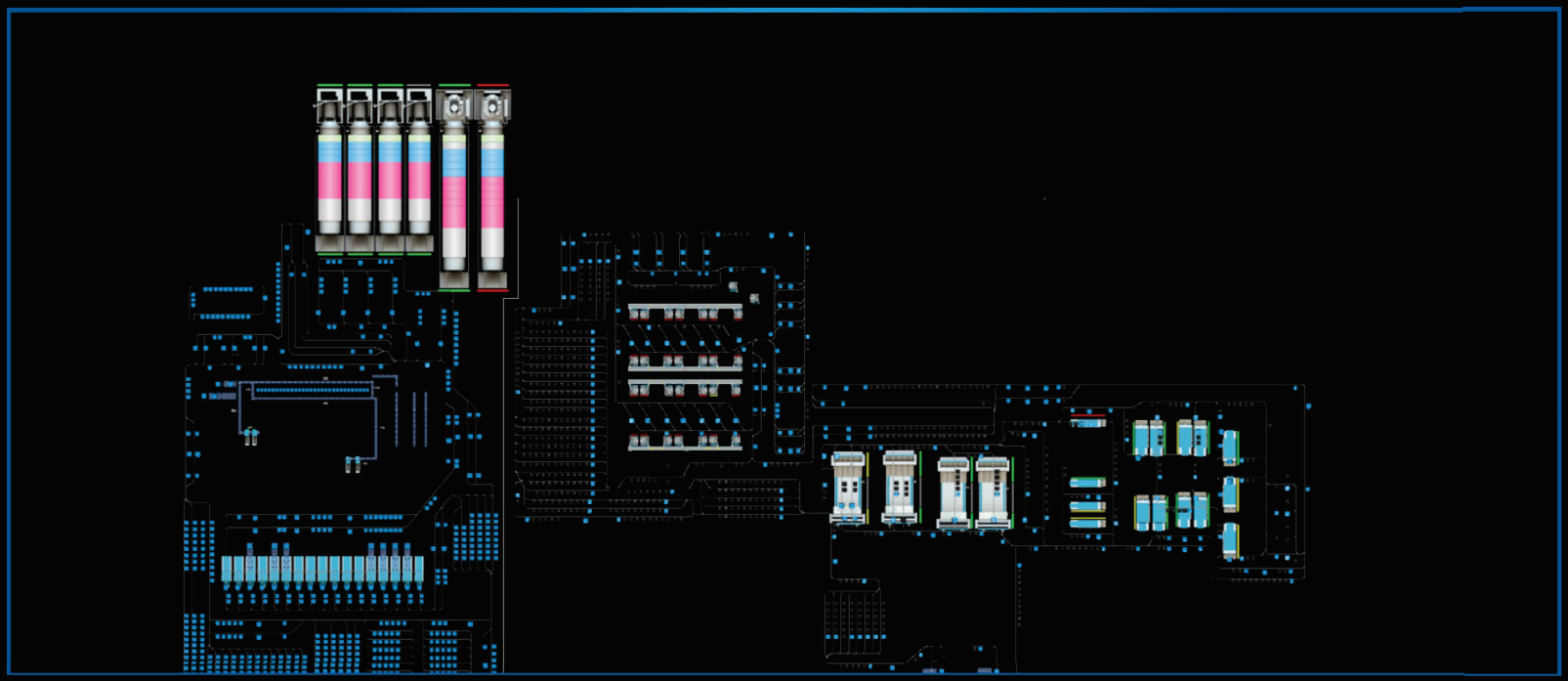


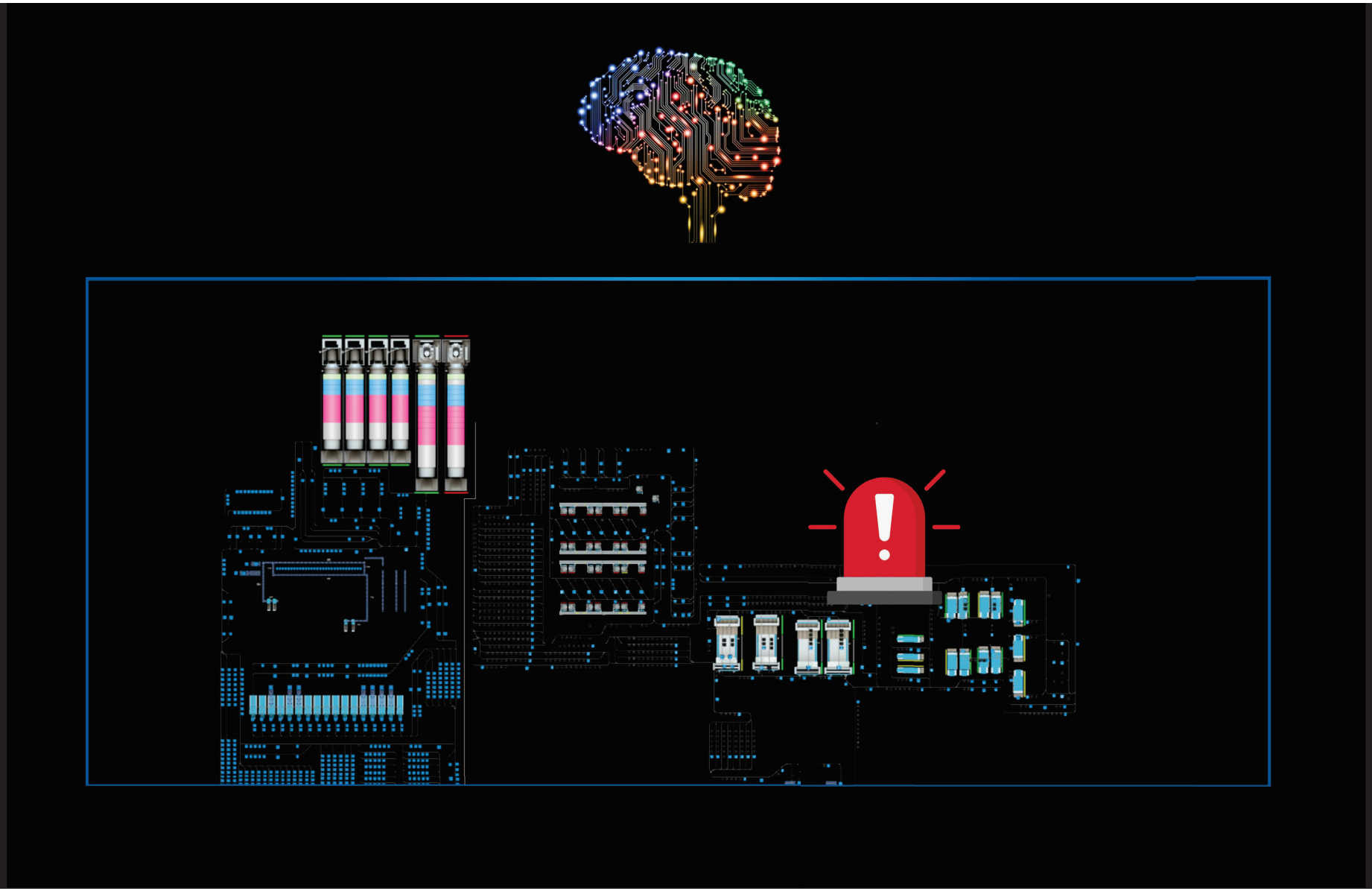
robot

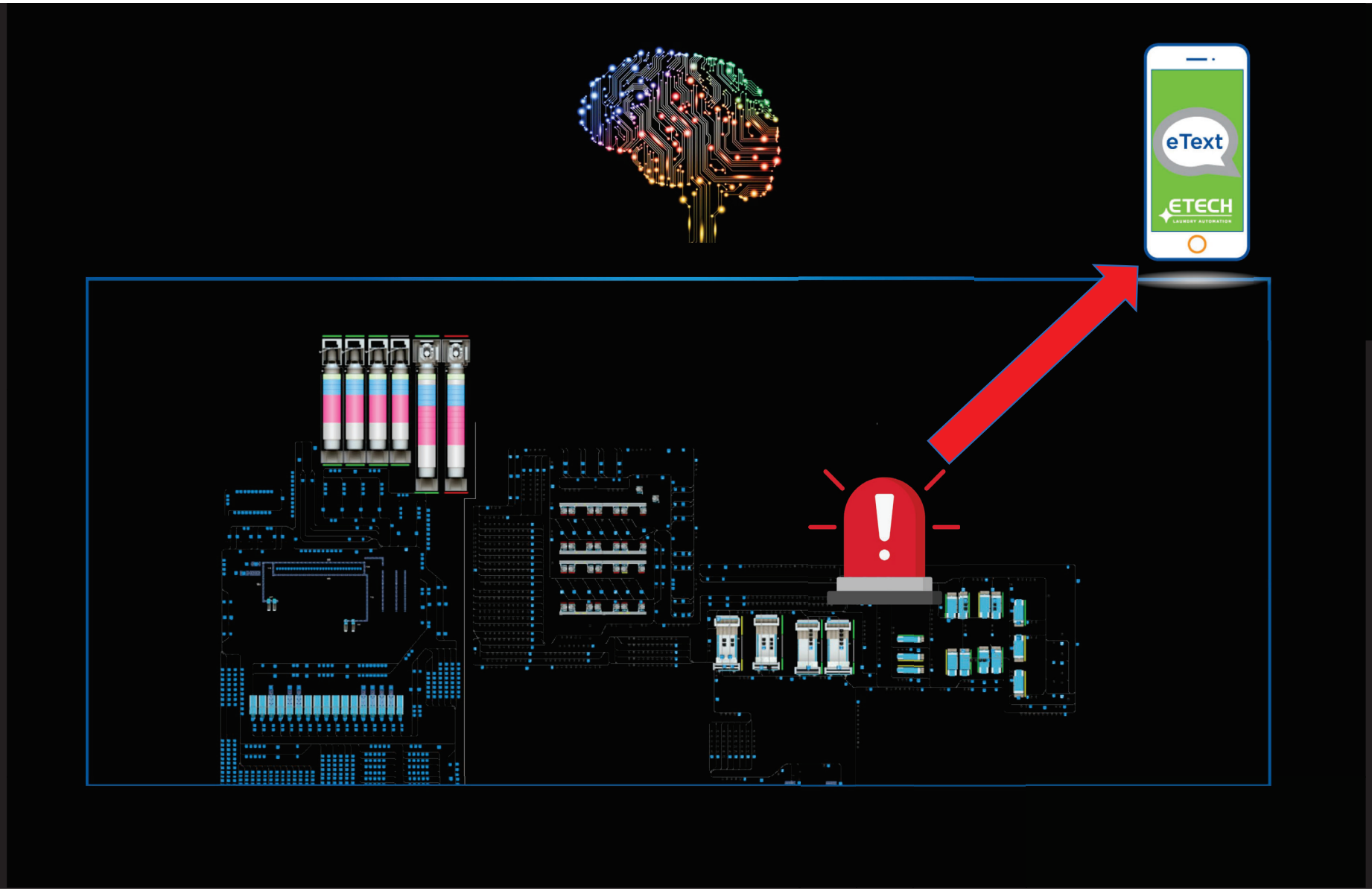


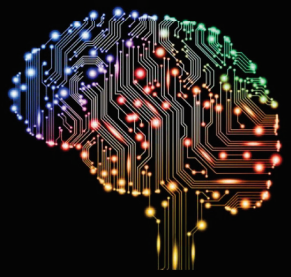

Kannegiesser
EQUIPMENT
DATA
PRODUCTIVITY
eVue
CONTROL / METRICS / LABOR

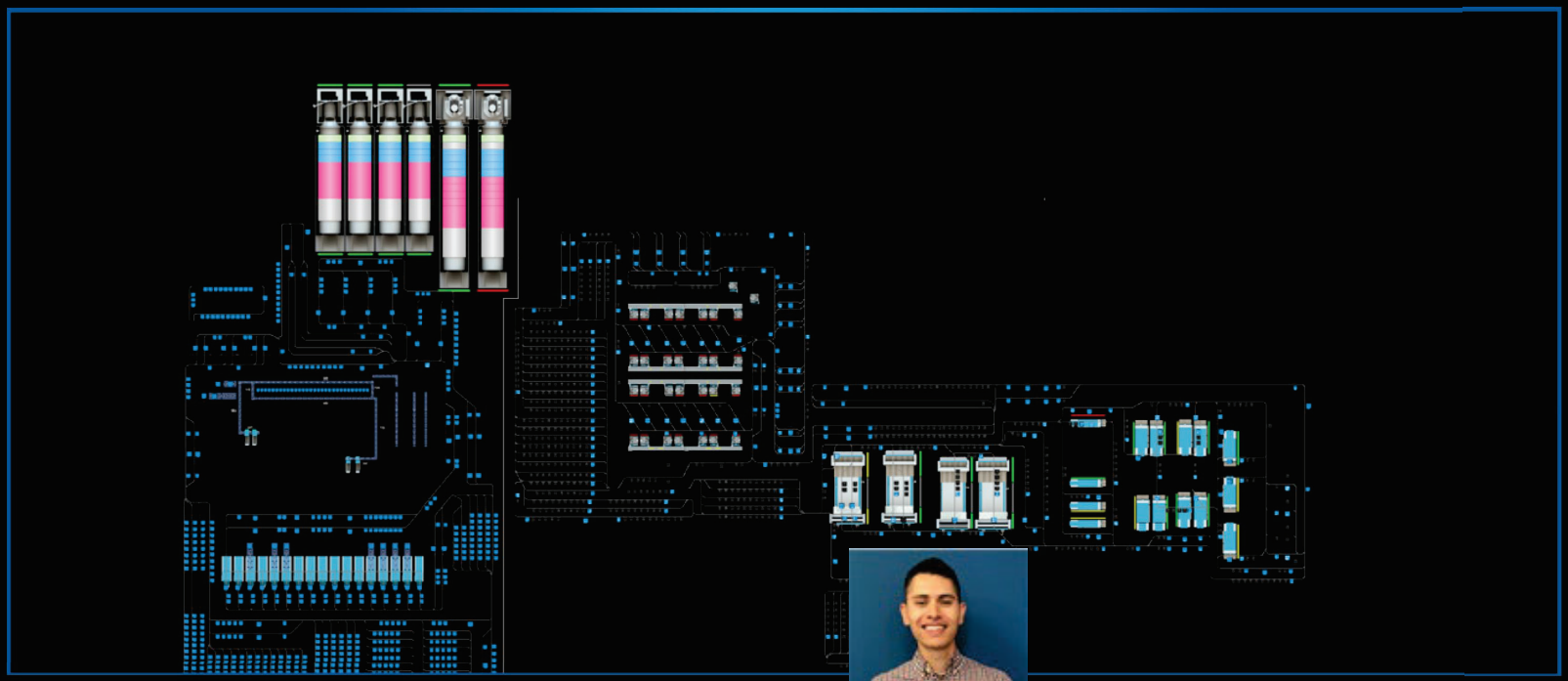


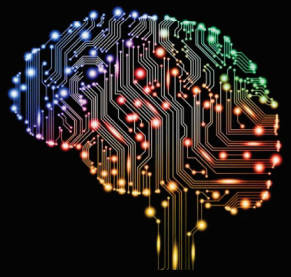


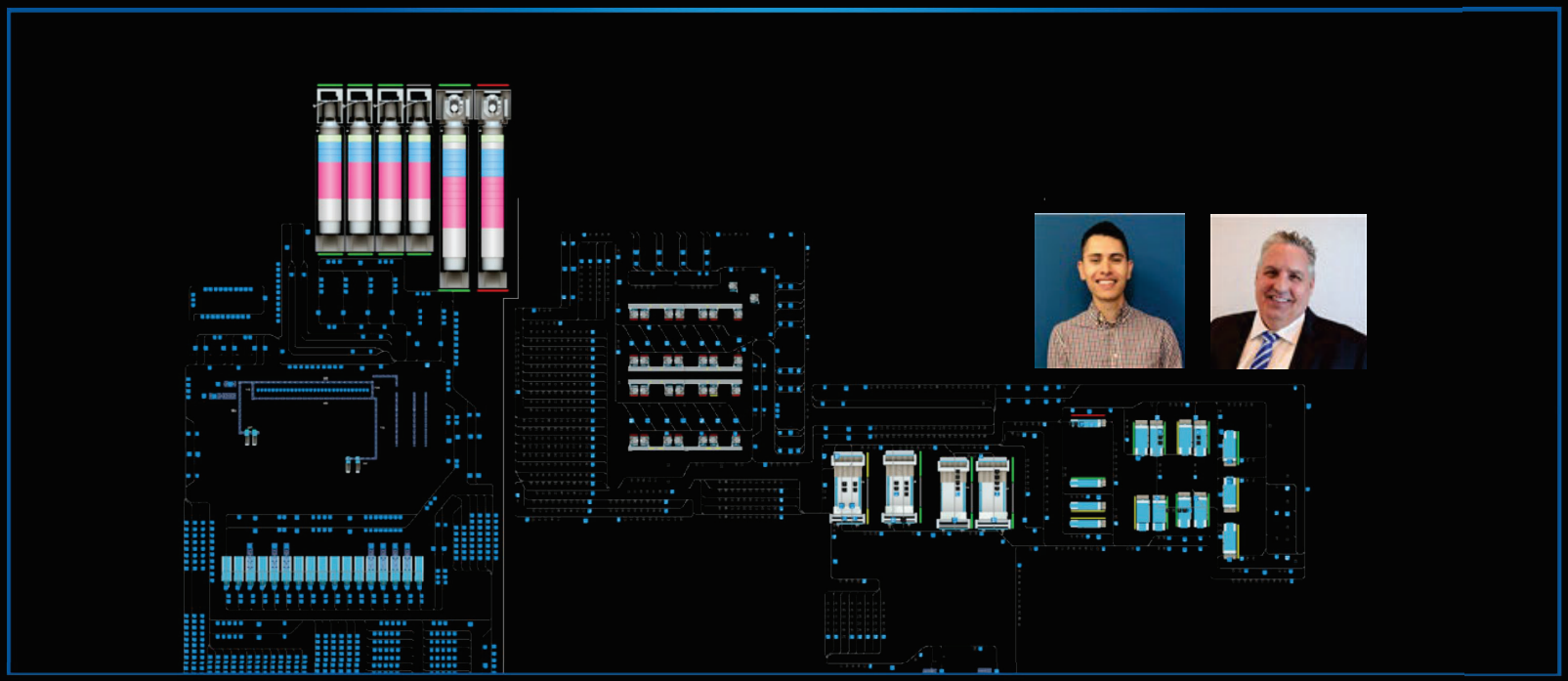


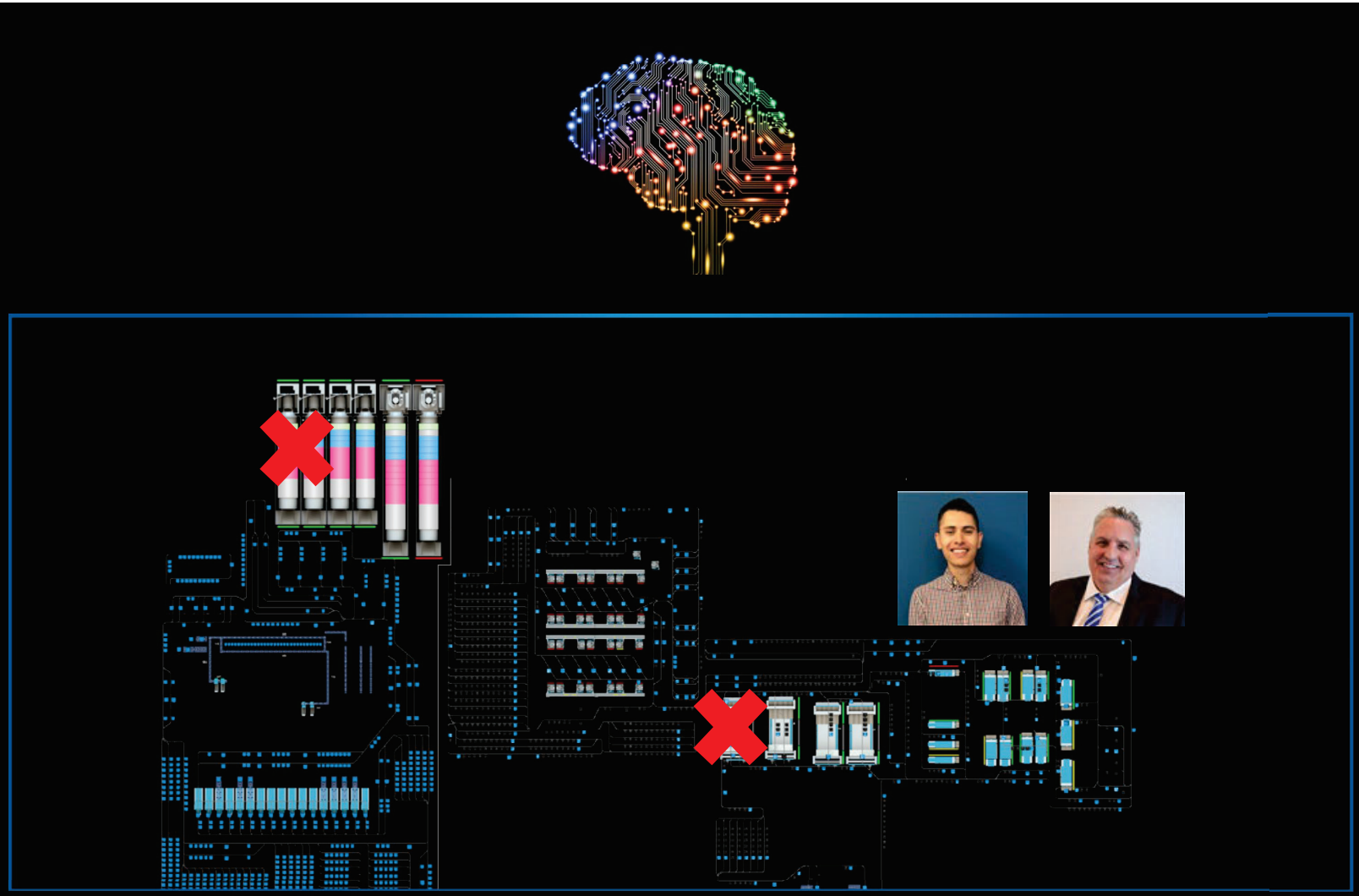

eText
ETECH
LAUNDRY AUTOMATION

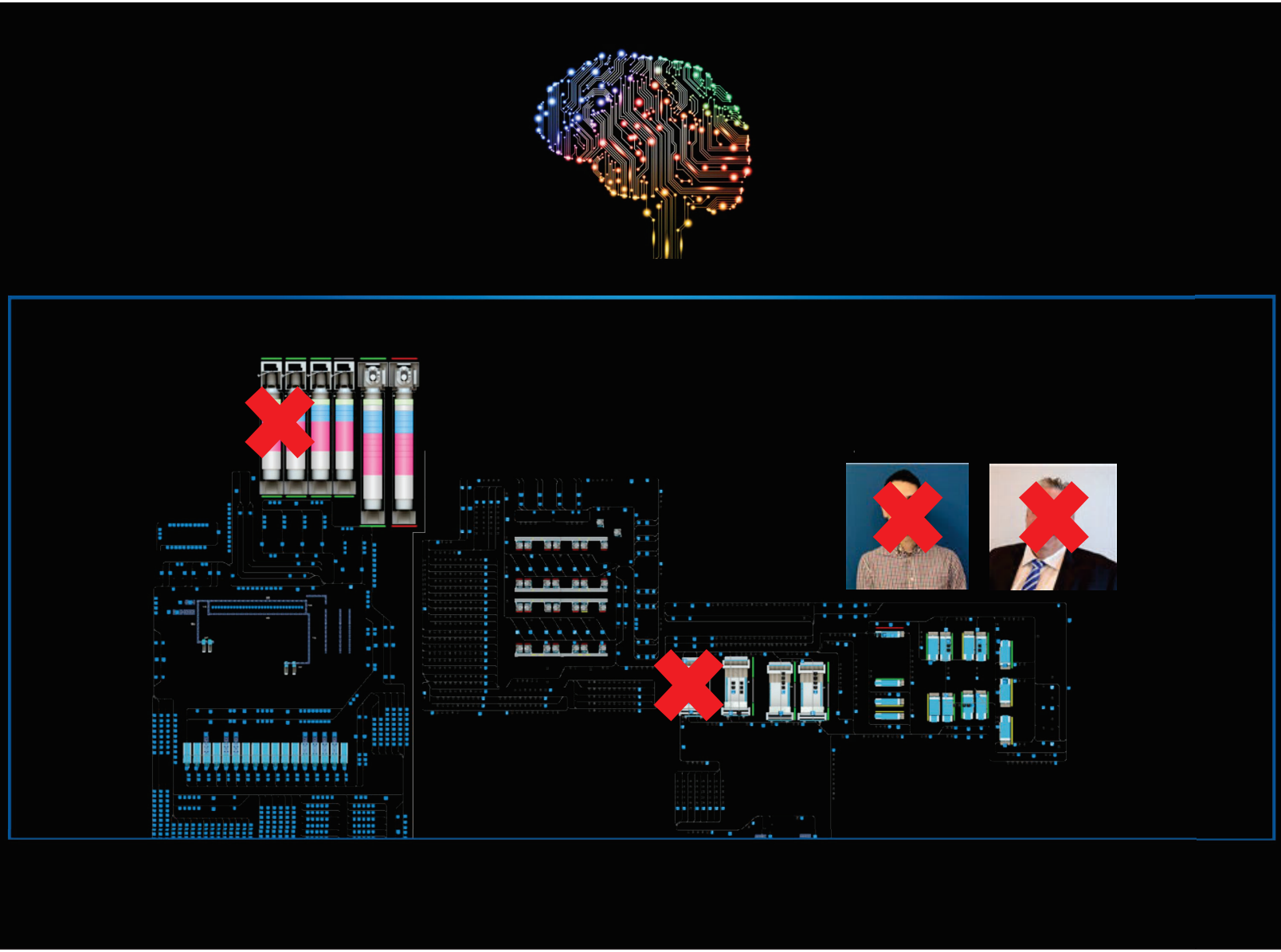


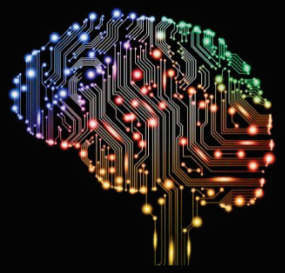












Maximize Equipment

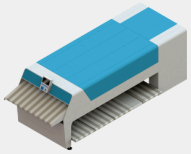
Maximize People

Maximize Production Flow

eVue

XFM 2

XFM
ID: 80257164



12h 26m PRODUCTION	5h 43m FAILURE
0h 00m LINE RESTRAINT	1h 00m WAITING

Pieces 11,002

Messages

Light barrier (B29) obstructed Infeed cross folding Item stopped too late

XFM | 80257164 March 18, 2024 7:10 PM

XFM 3

Transaction Details | Close

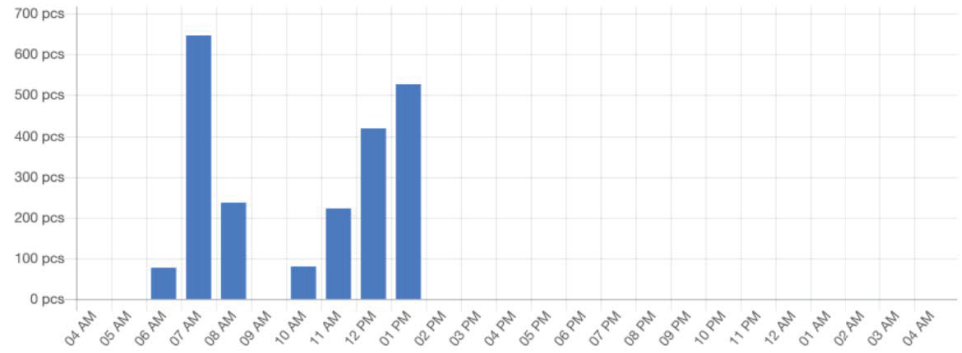
Efficiency -- Target: 80%. Current efficiency: 81%

Trends

Today

Sum: 2212 pcs

Production Chart:



Hour Sum: 1.79

Efficiency Avg: 60

User Stats Table:

Name	Category	Hours	Hourly Rate	Target	Efficiency --	Delay Time
Anahi Maximillian Howe	Luxury Towels	0.25	584	950	61%	0
Clare Donna Balistreri	Std Towels	0.53	583.02	950	61%	0

Tunnel 2

Transaction Details | Close

Efficiency -- Target: 85%. Current efficiency: 56%

Trends

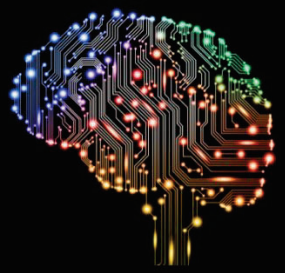
1 Week

Sum: 642 Batches

Production Chart:

Production By Category:

Category	#	Production	Percentage
Std Towels	10	170	26.5%
Flat Sheet - Std	22	103	16%
Std Pillowcase	6	56	8.7%
Luxury Towels	11	47	7.3%



Maximize Equipment

Maximize People

Maximize Production Flow

People of a laundry

Operator

eVue LABOR

Maintenance

eVue CONTROL

Production

eVue METRICS

eVue Anywhere

Director

eVue Anywhere

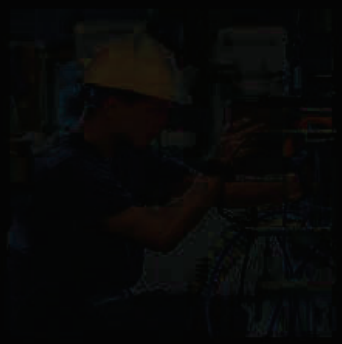
People of a laundry

Operator

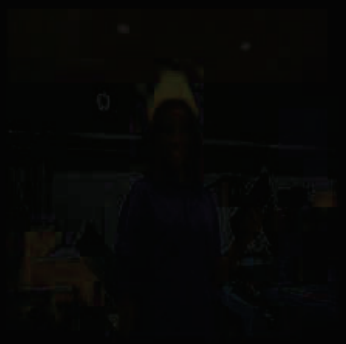
eVue

LABOR

Maintenance



Production



METRICS

Director

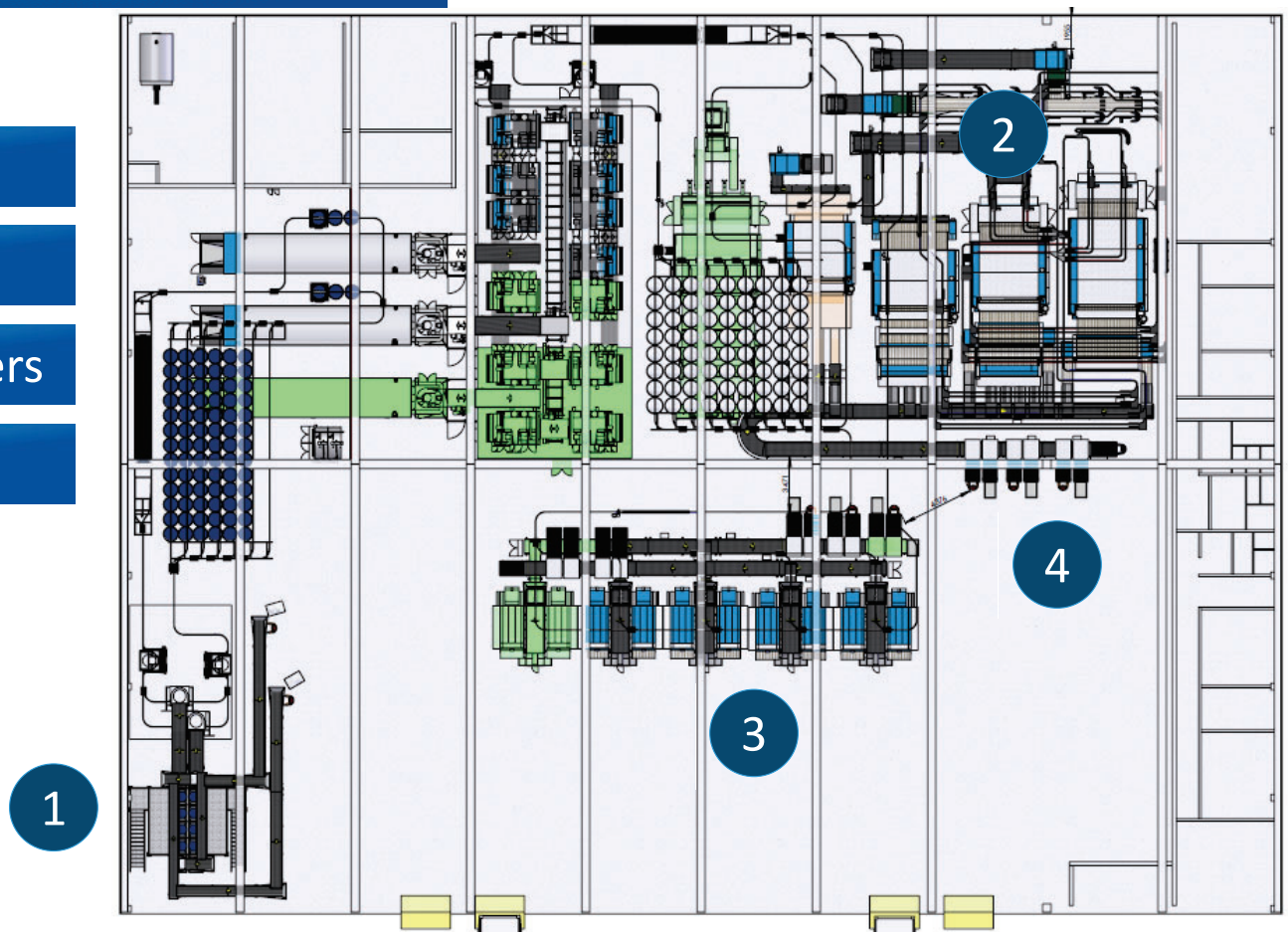
Areas with the most staff in the laundry

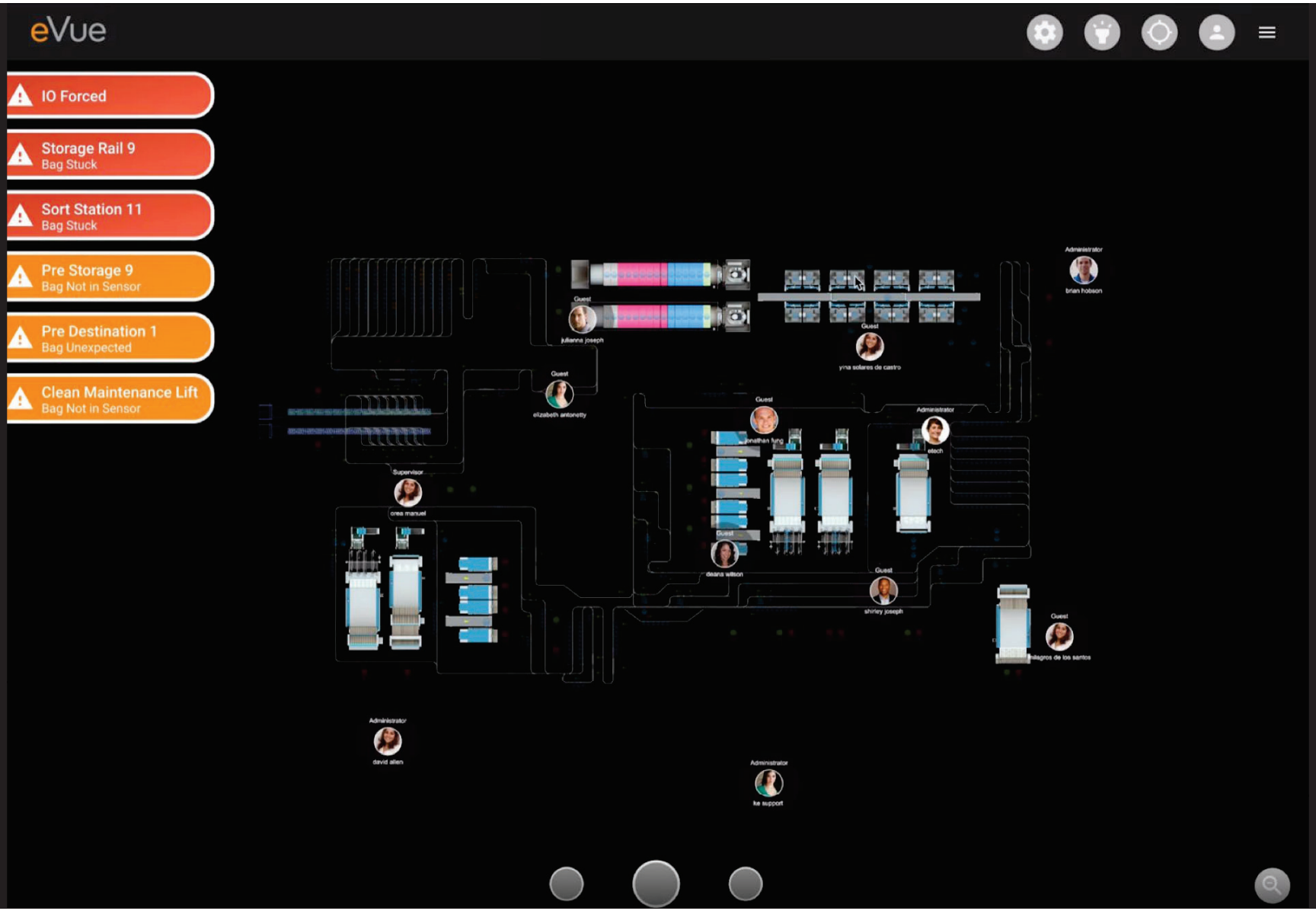
(1) Soiled linen sorting

(2) In front of the ironer lines

(3) In front of the dry work folders

(4) Stack handling and dispatch




eVue
IO Forced
Storage Rail 9
Bag Stuck
Sort Station 11
Bag Stuck
Pre Storage 9
Bag Not in Sensor
Pre Destination 1
Bag Unexpected
Clean Maintenance Lift
Bag Not in Sensor
Administrator
brian hobson
Guest
julianna joseph
Guest
yina solares de castro
Guest
elizabeth antonetty
Guest
jonathan fung
Administrator
etech
Supervisor
ores manuel
Guest
deana wilson
Guest
shirley joseph
Guest
Administrator
david allen
Administrator
ke support

Derek Hanson | Ironer 1 Lane 1 | OR sheets | 349 / 340 | 103%

Emily Drolet | Ironer 1 Lane 2 | OR sheets | 241 / 340 | 71%

eVue 8:13 AM Ironer 1 167 (18.6)

Jammed

No work

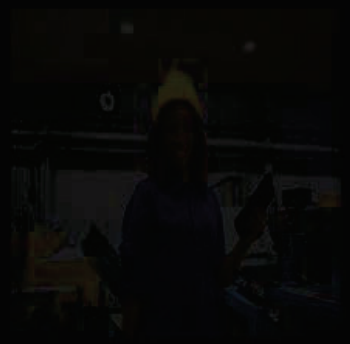
Call Maintenance

People of a laundry

Maintenance

Operator

Production



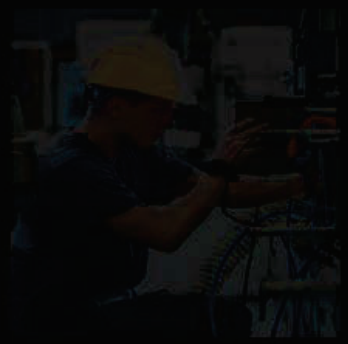
Director

eVue CONTROL

People of a laundry

Operator

Maintenance



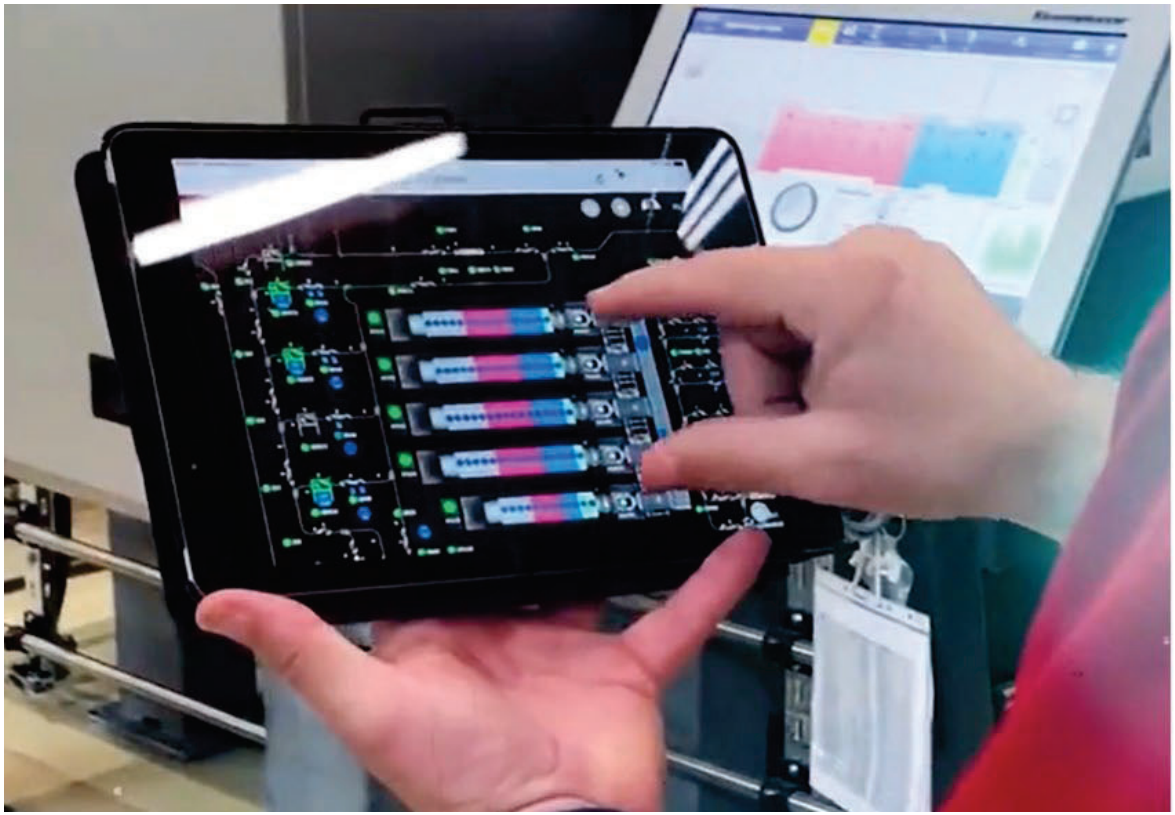
Production

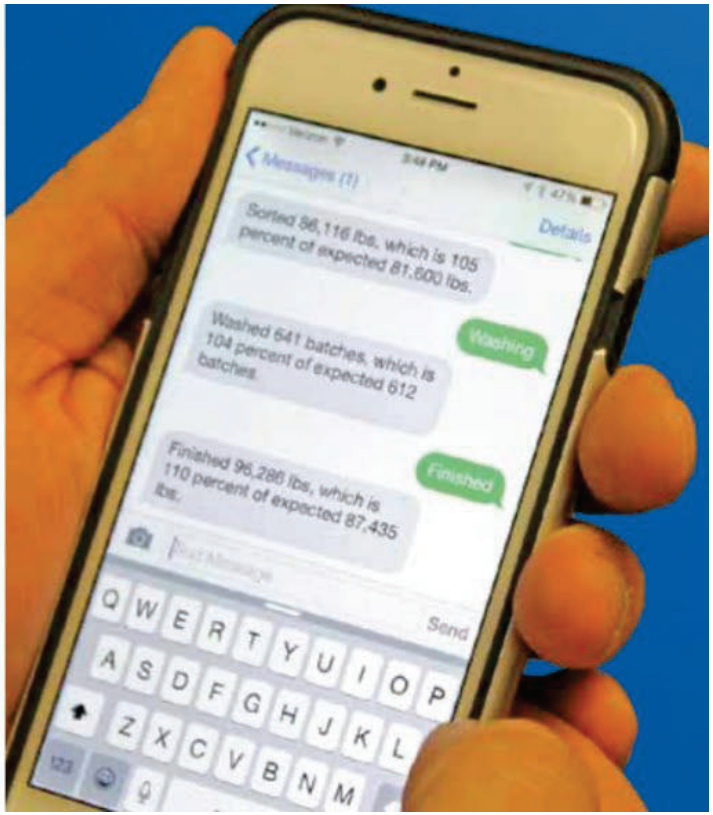
eVue METRICS

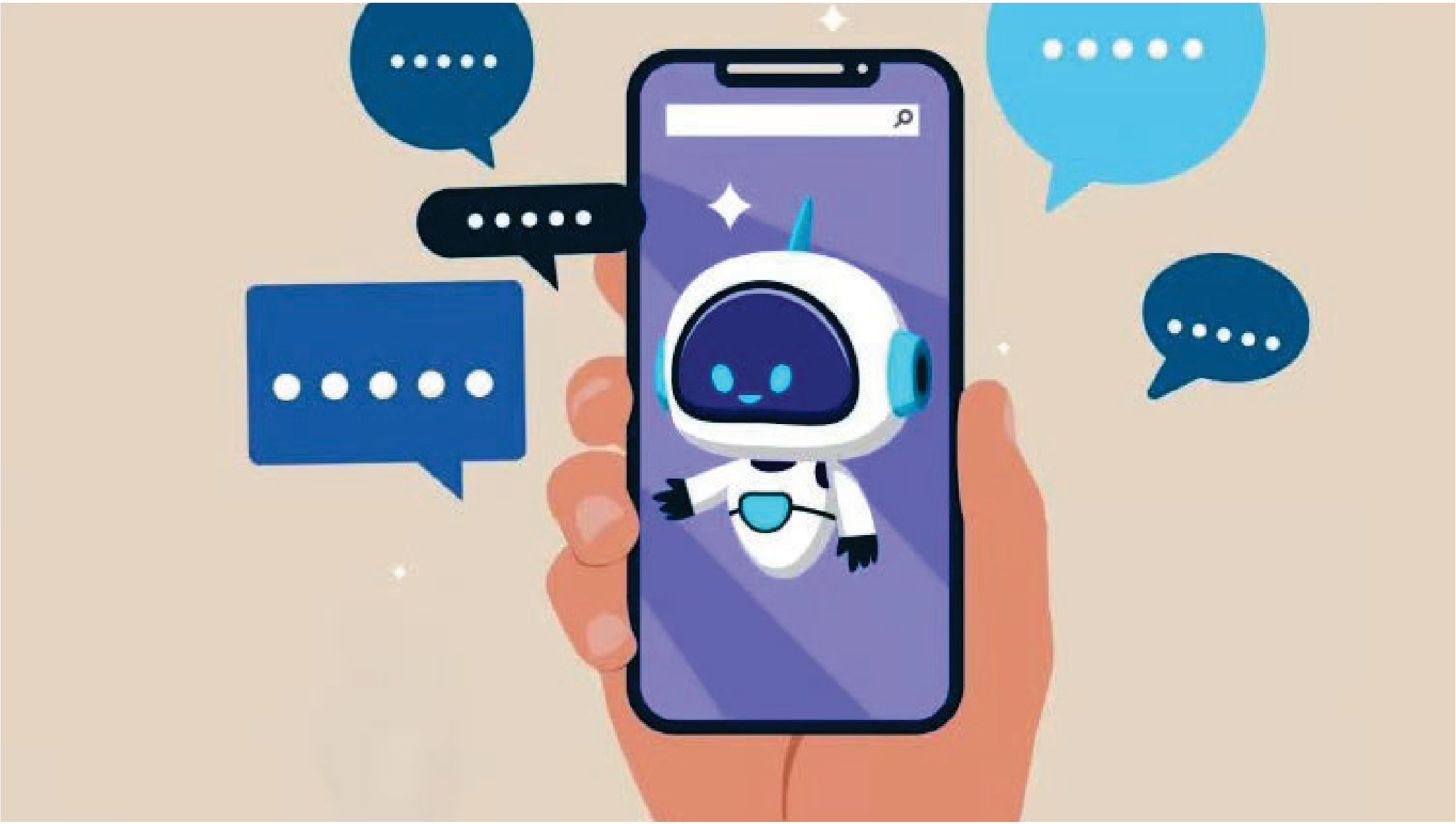
eVue Anywhere

Director

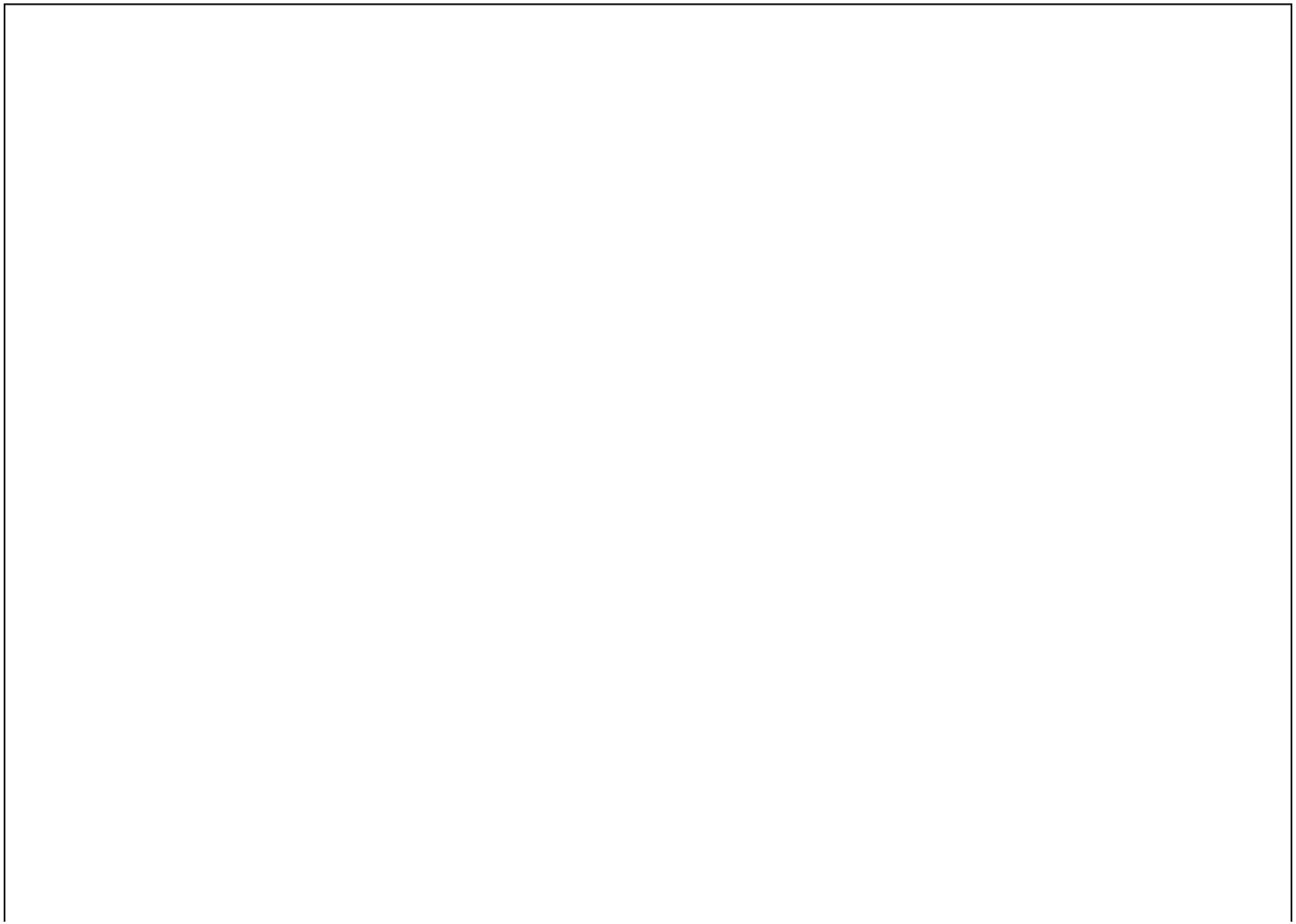
eVue Anywhere




Messages (1)
Details
Sorted 86,116 lbs. which is 105 percent of expected 81,600 lbs.
Washing
Washed 641 batches, which is 104 percent of expected 612 batches.
Finished
Finished 96,286 lbs, which is 110 percent of expected 87,435 lbs.
Send



eVue
6



People of a laundry

Operator

eVue LABOR

Maintenance

eVue CONTROL

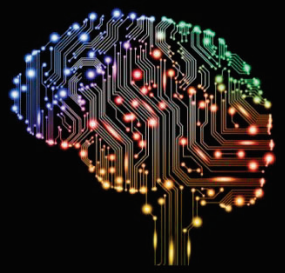
Production

eVue METRICS

eVue Anywhere

Director

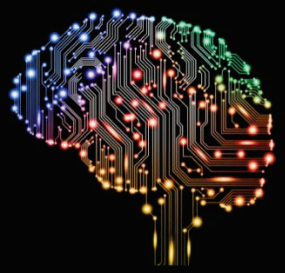
eVue Anywhere



Maximize Equipment

Maximize People

Maximize Production Flow



Maximize Equipment

Maximize People

Maximize Production Flow

Sign up Log in

Playlist

Rock Classics 🎸🤘 Classic Rock from 60s, 70s, 80s and 90s. - Klassisk Rock

Rockmusik vi minns med världens bästa rocklåtar i en mix av klassiska låtar från legendarer som Queen, AC/DC, Toto, Journey, Led Zeppelin, KISS, Van Morrison, Black Sabbath, Tom Petty, Scorpions, David Bowie, Bruce Springsteen and more.

Digster Sweden • 4,736 likes • 200 songs, about 14 hr

List

#	Title	Album	Date added	
1	Another One Bites The Dust - Remastered 2011 Queen	The Game (2011 Remaster)	Dec 6, 2022	3:34
2	Smells Like Teen Spirit Nirvana	Nevermind (Remastered)	Dec 6, 2022	5:01
3	Enter Sandman Metallica	Metallica	Dec 6, 2022	5:31
4	We Will Rock You - Remastered 2011 Queen	News Of The World (Deluxe Remastered Version)	Dec 6, 2022	2:02
5	Heaven's On Fire KISS	Animalize	Dec 6, 2022	3:21
6	Three Little Birds Bob Marley & The Wailers	Exodus (Deluxe Edition)	Dec 6, 2022	3:00

75%

One Person Making Most Important Decision In The Plant

No Control or Visibility

Send too much or little

Push instead of pull

Abandoned equipment

Reactive (Getting Yelled At)

THERE MIGHT BE A BETTER WAY.
#SVU
NBC

eVue AUTOPILOT

Introducing eVue AUTOPILOT

A laundry is different every day, yet the industry standard for production scheduling is static production lists. These lists work initially, but soon become irrelevant and 75% of our customers turn them off. The laundry then resorts to manually selecting what to wash sling to sling, often by an untrained operator who now is making the most critical decision in the plant. This leads to sending too much or too little to clean equipment, backing up dryers, abandoned equipment, and most critically, the inability to meet the orders of the day. The laundry experts on the eVue team believed something better was possible.

Questions that eVue AUTOPILOT considers when making decisions :

- ***Do we need this to meet the afternoon orders?***
- ***Is this a good decision for the clean equipment?***
- ***Is it a good decision for the dryers?***

eVue Autopilot automatically sequences production throughout the plant based on current demand and the real-time state of the system. It can integrate directly with the laundry's route accounting system to pull in real-time requirements and delivery information to achieve your daily order fulfillment goals.

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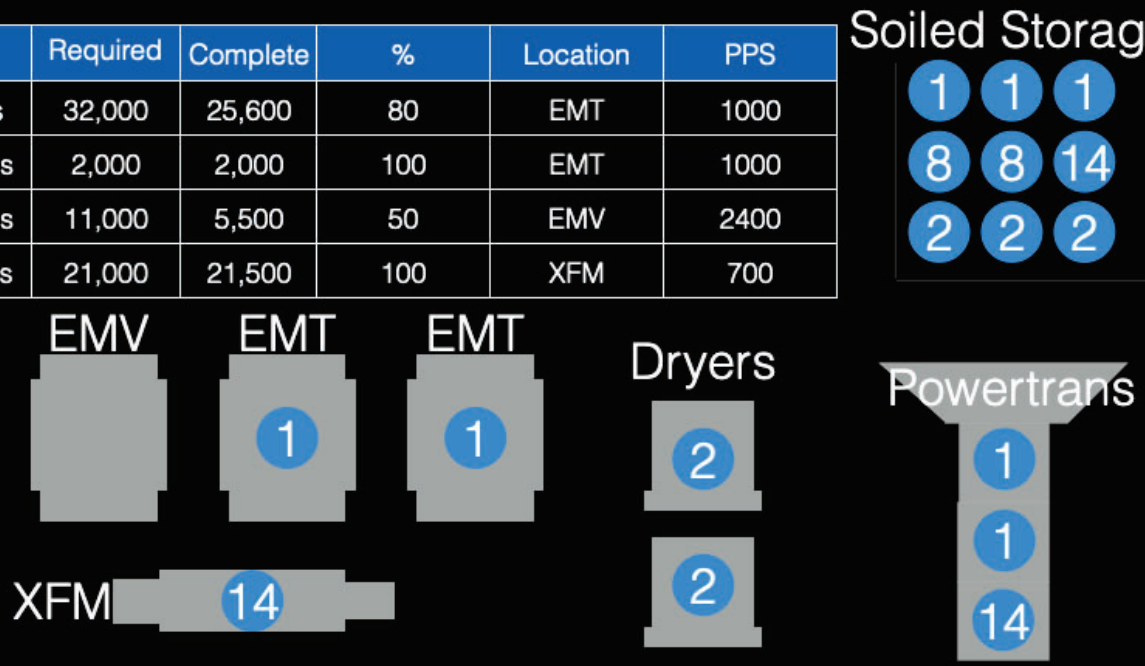
MAXIMIZING THE PRODUCTION WORKFLOW THROUGHOUT THE PLANT

eVue Autopilot always makes the best decision for your plant. All laundries with eVue 6 are capable of getting eVue Autopilot, It is one of the more advanced applications to the eVue PRO subscription platform.

eVue AUTOPILOT *DASHBOARDS*

eVue AUTOPILOT KNOWS WHERE YOUR ITEMS ARE LOCATED THRUOUT THE LAUNDRY AND BUILDS AN ITEM SCORE BASED ON A RANK OF THE NEED TO FULFILL YOUR DAILY ORDERS.

Product	Required	Complete	%	Location	PPS
1 - Flat Sheets	32,000	25,600	80	EMT	1000
2 - Draw Sheets	2,000	2,000	100	EMT	1000
8 - Pillow Cases	11,000	5,500	50	EMV	2400
14 - Underpads	21,000	21,500	100	XFM	700



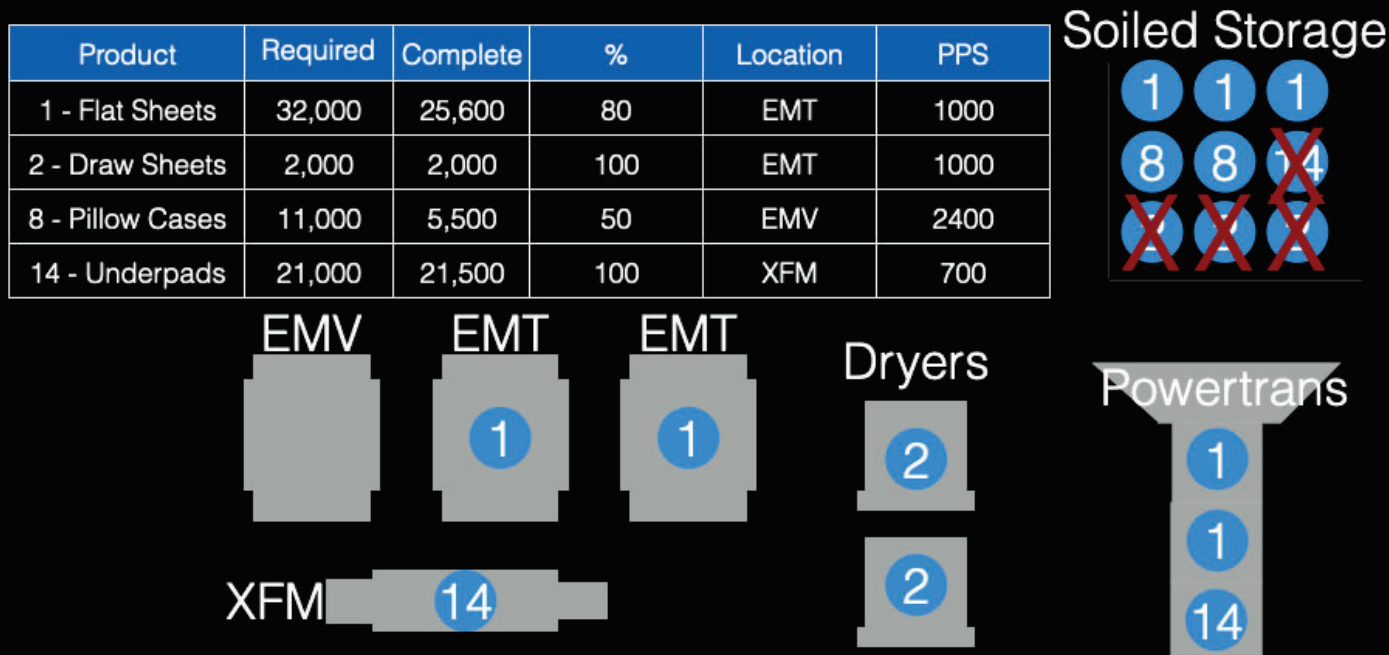
Eliminate Some Choices

Do I Need This?

Is it a good fit for the clean side?

Is it a good fit for the dryers?

Product	Required	Complete	%	Location	PPS
1 - Flat Sheets	32,000	25,600	80	EMT	1000
2 - Draw Sheets	2,000	2,000	100	EMT	1000
8 - Pillow Cases	11,000	5,500	50	EMV	2400
14 - Underpads	21,000	21,500	100	XFM	700



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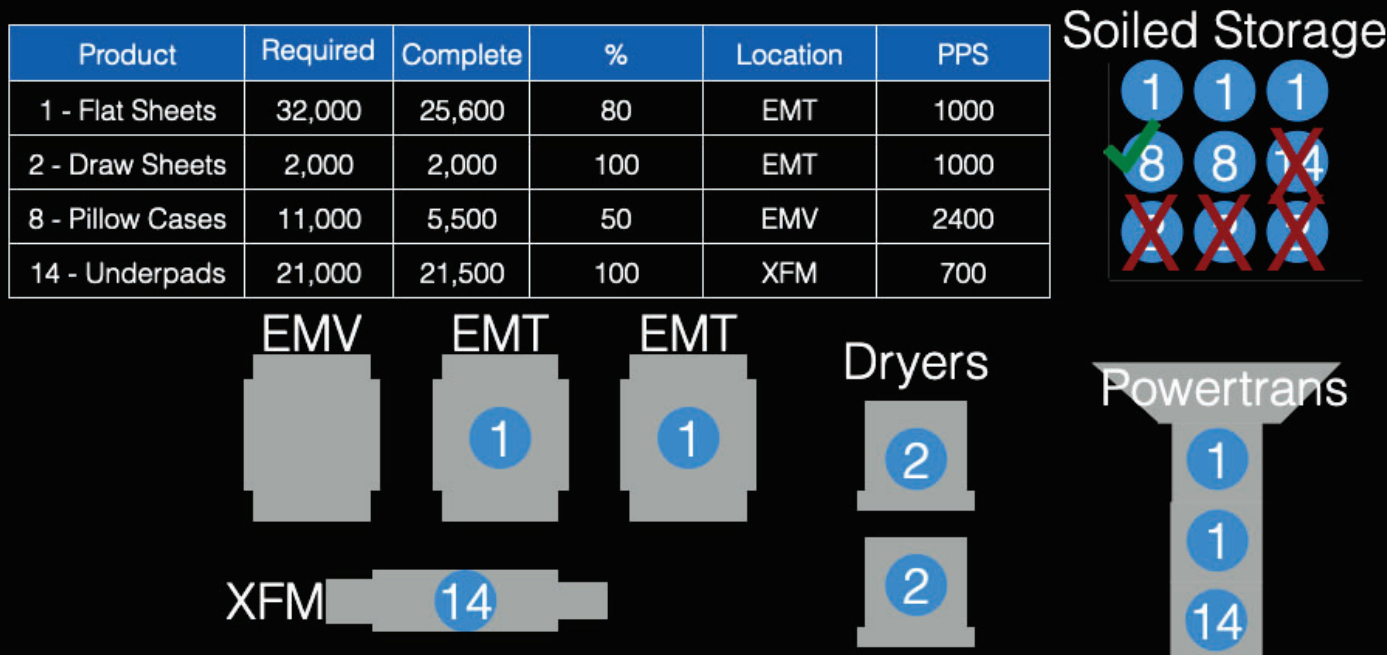


eVue Autopilot

AUTOPILOT DASHBOARD

DASHBOARD | WASHERS | ERP ASSIGNMENTS | CATEGORIES CONFIGURATION

Sort Classifications
RANKED BY NEED

Sort Classification	Image	AutoPilot Score	Soiled Storage	Washing/Drying	Finishing	Washed	Daily Requirement
DRAW SHEETS			8 SLINGS	0 SLINGS	0 SLINGS	503 LBS	1365 LBS

DRAW SHEETS ORDER FULFILLMENT
By Route

AUTOPILOT SCORE

Route #0 Today
105 / 105 lbs

Route #3 Today
225 / 225 lbs

Route #0 Tomorrow
173 / 562 lbs

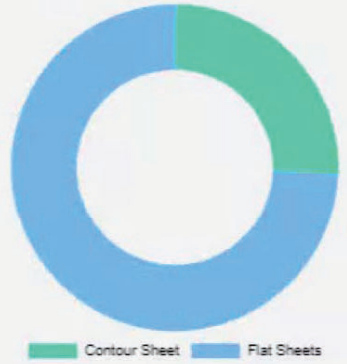
Route #4 Tomorrow
0 / 75 lbs

IRONERS 1 & 2
Available Work

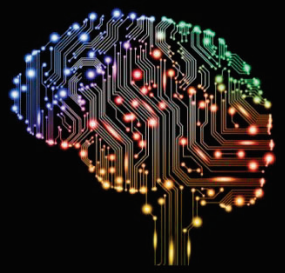
AUTOPILOT SCORE

3.4
HOURS OF WORK

6.0
TARGET HOURS



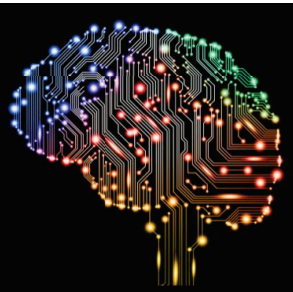
If I could turn back time



Maximize Equipment

Maximize People

Maximize Production Flow



Maximize Equipment

Maximize People

Maximize Production Flow

Maximize Robots

Kannegiesser
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To have the *right linen*,
at the *right time*,
reliably,
and with *minimal effort*,
at the *right customer*.
GOAL

Navigating the Future

IAHTM
INTERNATIONAL ASSOCIATION FOR HEALTHCARE TEXTILE MANAGEMENT
Where Leaders Meet, Success Follows

Kannegiesser® ETECH

with Robotics and AI