How Fujitsu is harnessing data to drive manufacturing process improvement with Signavio

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What We'll Cover

- Introduction to SAP Signavio for Manufacturing
- Introduction to KAIZEN
- How SAP Signavio complements data-driven KAIZEN
- Fujitsu's approach to data-driven KAIZEN for manufacturers
- Key Learnings
- Fujitsu's Sustainable Manufacturing Loop
- Other SAP Signavio Initiatives by Fujitsu
- Q&A Session





Chapter 1

The KAIZEN Philosophy

KAIZEN: Introduction

Kaizen principles What it means **Know your Create customer** value customer Go to Gemba Follow the action Eliminate waste: (E) Let if flow Muda Mura Muri Be Speak with real transparent data **Empower** Organize your people team

The message of KAIZEN strategy is that not a day should go by without some kind of improvement being made somewhere in the company

- Masaki Imai, Founder, KAIZEN Institute

KAIZEN Principles and Challenges

KAIZEN Principles Mura Overburden Muri Muda 00000





Chapter 2

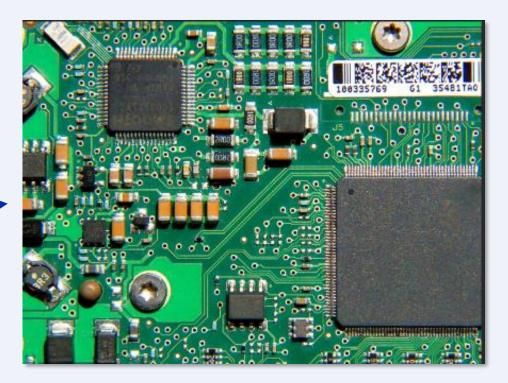
What's happening in Yamanashi?





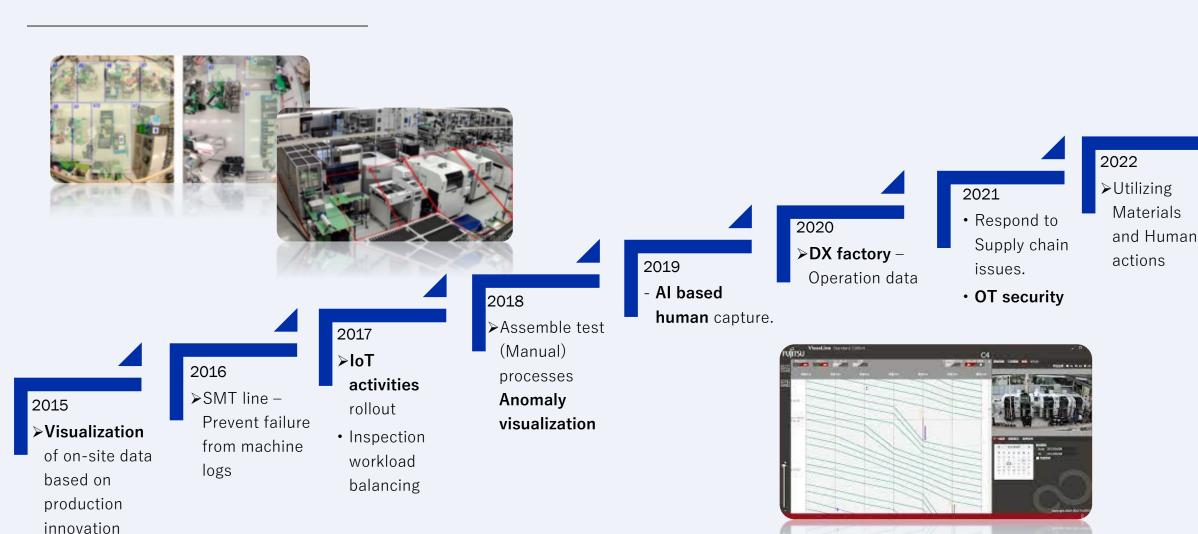
What do they manufacture?

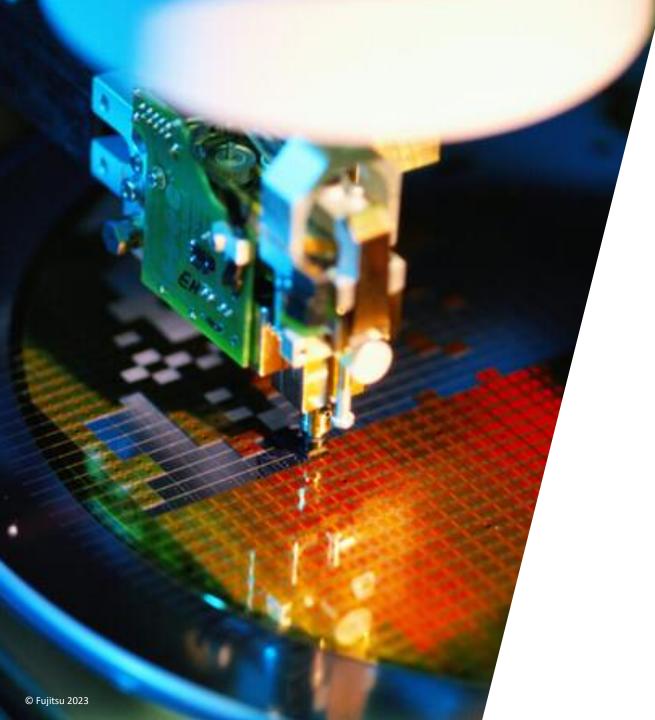






DX Journey at Yamanashi





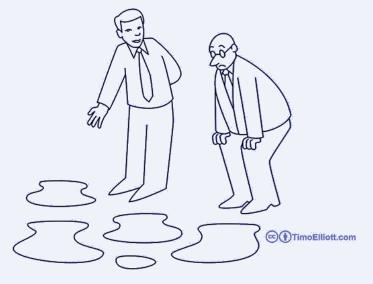
Chapter 3

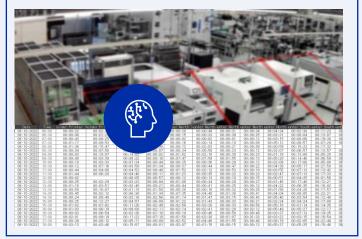
The Data Mines

Disconnected silos of data sets









"We call them our data puddles!"

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g 2022/10/7 18:00 00:00:30 00:12:13	00:04:13 00:01:00	00:02:41	00:01:24	00:00:51	00:00:19	00:03:09	00:02:32	00:19:00	00:00:58	00:00:28	00:00:11	00:00:06	00:00:33		00:00:10	00:08:09	00:02:34	00:00:02	00:20:29 00:00:05
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	00:00:30 00:00:04		00:02:04	00:00:36	00:00:11	00:04:05	00:00:05	00:00:27	00:00:02	00:00:45	00:01:09	00:00:09	00:00:25		00:00:01	00:00:12	00:00:04		00:00:25
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Fujitsu's Framework to data-driven KAIZEN













1. Assessment

2. Lean Mfg. inspired line of analysis

3. Understand
Data
Requirements

4. Conduct a PoC

5. Generate
Actionable
Insights from Live
Data

6. ROI & Business Case

Where are you now?

Where you want to be?

What's stopping you from reaching your goals?

What possibilities can be explored by eliminating Muri/Mura/ Muda?

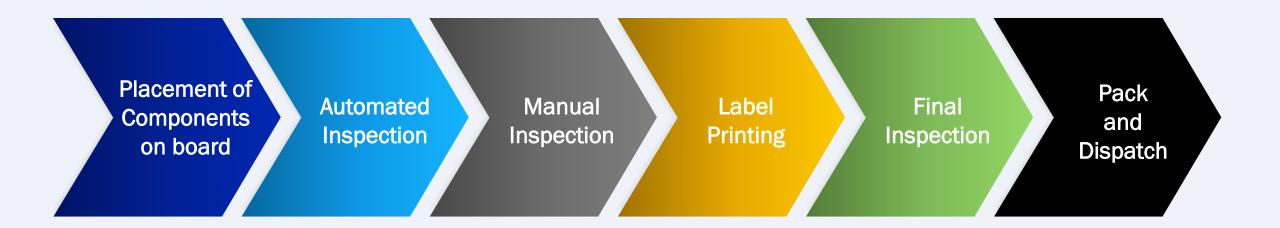
Which data points are needed for analysis?

Is SAP Signavio capable enough to help discover the unknown(s)?

What insights can be generated from SAP Signavio?

How can you prioritize your KAIZEN initiatives?

Initial Assessment



KAIZEN Goals







Lean Manufacturing inspired line of analysis



Line Supervisor

Overburden

Is workload spread evenly across operators?



How can I improve worker productivity? Do some operators perform better than others? How does productivity change with time?



What is the current state of process standardization?

Are all products following the right sequence?



Is there unnecessary stock movement leading to increased TAT?



How much time spent by WIP waiting to be processed?

How do I identify bottlenecks? Is my capacity hindering lead times?



Factory Manager

Inventory

Can I save money by reducing WIP?



Is higher calibration of Automated inspection impacting total TAT? Is it leading to unnecessary Loops?



Quality Controller



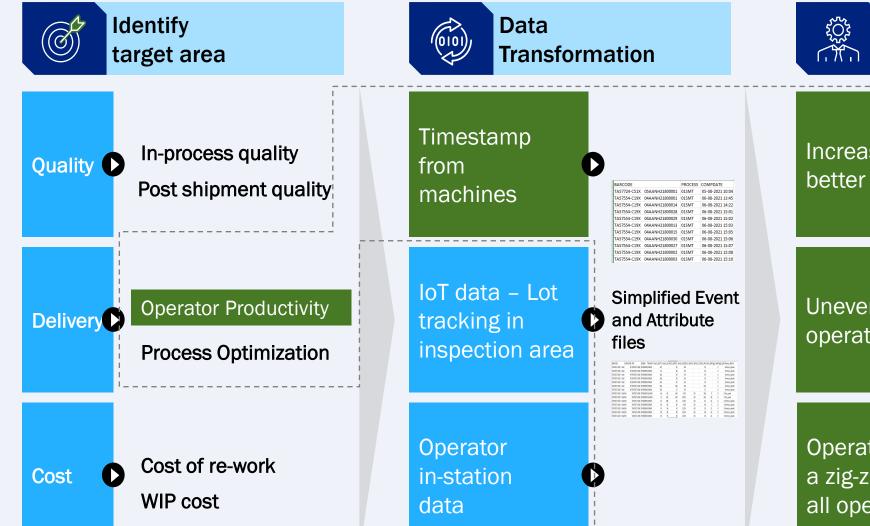
Can better process compliance lead to better quality? Are some products more prone to defects than others?

MURI

MURA

MUDA

PoC Approach



Insights on operator productivity

Increase in cases leads to better TAT

Uneven productivity between operators.

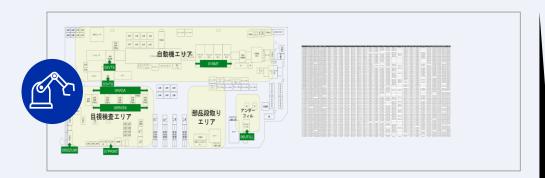
Operator productivity follows a zig-zag pattern almost for all operators.

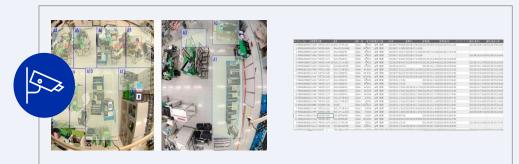
Chapter 5

Face to Face

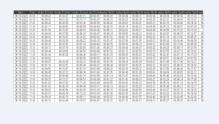


Generate Actionable Insights







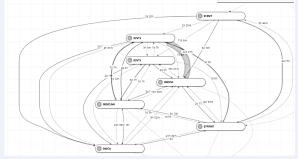


		-	
BARCODE		PROCESS	COMPDATE
TA57724-C51X	05AANH21800001	01SMT	05-08-2021 10:04
TA57554-C19X	04AANH21800001	01SMT	06-08-2021 13:45
TA57554-C19X	04AANH21800014	01SMT	06-08-2021 14:22
TA57554-C19X	04AANH21800028	01SMT	06-08-2021 15:01
TA57554-C19X	04AANH21800029	01SMT	06-08-2021 15:02
TA57554-C19X	04AANH21800013	01SMT	06-08-2021 15:03
TA57554-C19X	04AANH21800015	01SMT	06-08-2021 15:05
TA57554-C19X	04AANH21800030	01SMT	06-08-2021 15:06
TA57554-C19X	04AANH21800027	01SMT	06-08-2021 15:07
TA57554-C19X	04AANH21800002	01SMT	06-08-2021 15:08
TA57554-C19X	04AANH21800003	01SMT	06-08-2021 15:10

Simplified Event and Attribute files

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TA57517-C20X	01A/	99	TAS7517-C20X	NP330550	XIRMIO	162		54		OK		54		0	shimizu_satsuki
TA57517-C20K	01A/	99	TA57517-C20X	NP330550	XIRMJO	184		29		OK		29		0	shimizu_satsuki
TA57517-C20X	01A/	99	TA57517-C20X	NP330550	XIRMIO	122		33		OK		33		0	shimizu_satsuki
TA57517-C20K	01A/	99	TA57517-C20X	NP330550	XIRMJO	242		304		NG		103		1	shimizu_satsuki
TA57517-C20X	01A/	99	TAS7517-C20X	NP330550	XIRMIO	130		17		OK		17			shimizu_satsuki
TA57517-C20X	01A/	N/4	TA57517-C20X	NP323510	W3U5H0	48	85	344	9	OK	CK	144	,	0	0 Itou_yuka
TA57517-C20X	01A/	NH	TA57517-C20X	NP929510	W1U5H0	71	123	342	28	OK	CK	142	28	0	0 itou_yuka
TA57517-C20K	01A/	NH.	TA57517-C20X	NP330550	XIRMIO	61	108	63	12	OK	CK	63	12	0	0 shimizu_satsuki
TA57517-C20X	01A/	NH	TA57517-C20X	NP330550	XIRMJO	64	90	64	- 6	OK	OK	64	6	0	0 shimizu_satsuki
TA57517-C20K	01A/	NH	TA57517-C20X	NP330550	KIRMJO	53	96	53	11	OK	CK	53	11	0	0 shimizu_satsuki
TA57517-C20X	01A/	NH	TA57517-C20X	NP330550	XIRMIO	96	85	96	10	OK	OK	56	10	0	0 shimizu_satsuki
TA57517-C20K	01A/	NH.	TA57517-C20X	NP330550	KURMUD	56	91	56	10	OK	OK	56	10		0 shimizu satsuki











From Traditional to Data-Driven KAIZEN

Intuitive user interface and easy to Time and skill intensive process create widgets for analysis Move away from data puddles to Lack of holistic data view for cohesive data set for decision decision making making. Goals prioritized as per cost and Mis-prioritization of goals business value.





Feedback from the shopfloor



These process flows were not expected..... we must review the processes "

- Mr. Kawamura - Process Engineer KAIZEN leader



The great thing of Signavio is **you do not need to be data scientist to analyze the big data and see the facts, problems** and how much impact it is making, find the root cause, prioritize and discuss the actions to solve them.

- Mr. Takei Digital Transformation Head





Using simulation, now we can **optimize the order of production, human operators shifts** to maximize the through put with ensuring the quality. "

- Mr. Kishimoto Line Manager

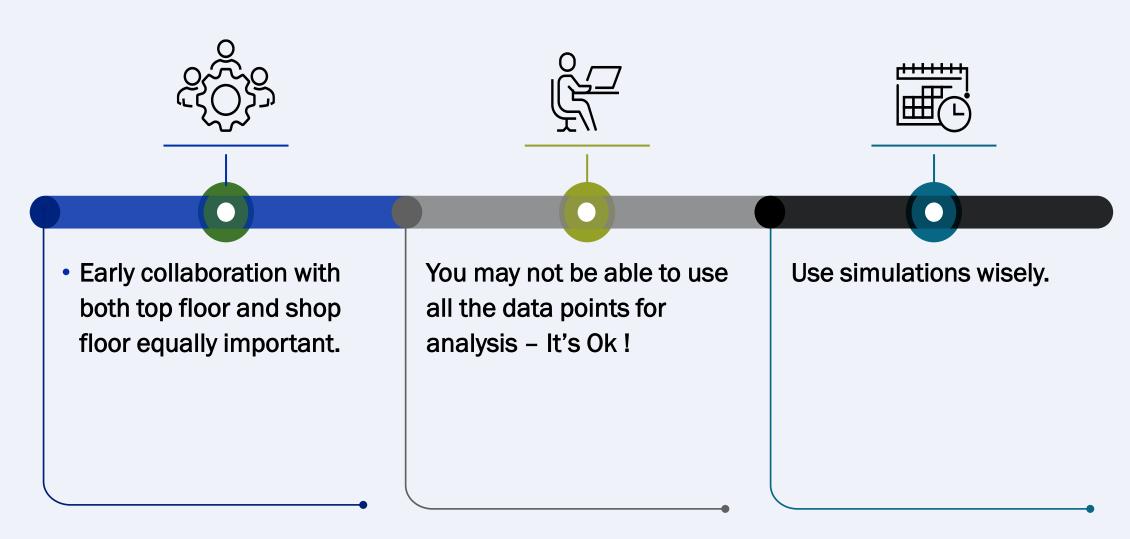


Wrap Up

- Key Challenges & Learnings
- Data-driven KAIZEN powered by SAP Signavio
- Digital Kaizen at the heart of Sustainable Manufacturing Loop



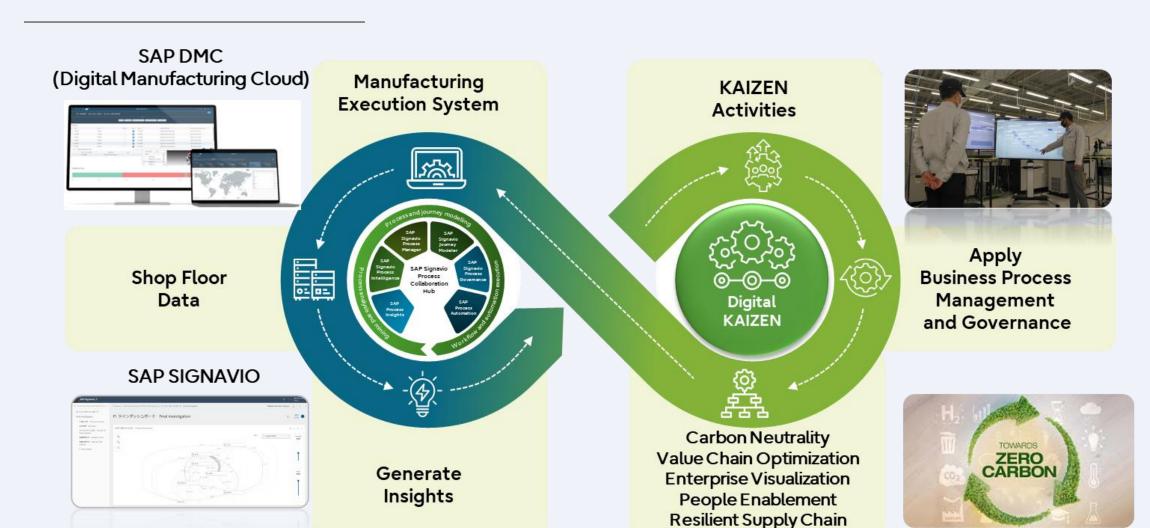
Key Challenges & Learnings



Data-driven KAIZEN, powered by SAP Signavio

	KAIZEN principles	What it means	KAIZEN powered by SAP Signavio
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Know your customer	Create customer value	Customer Journey Modeler to visualize customer experience throughout the engagement.
10 Jun	Go to Gemba	Follow the action	Use Process Intelligence to visualize your shopfloor.
(SS)	Let if flow	Eliminate waste: Muda Mura Muri	Follow your actual flow and compare it with the planned flow through Process Conformance and Process Manager. Highlight the inefficiencies, Defects Rework Waiting times and Bottlenecks with Variants.
0 8/à,x	Be transparent	Speak with real data	Use actual raw data with Data and APIs from your systems and transform the data into actionable insights. Develop foresight with Simulation capabilities and identify most promising improvements.
E TO	Empower people	Organize your team	Share your vision and findings and collaborate in a single workplace with Signavio Collaboration Hub

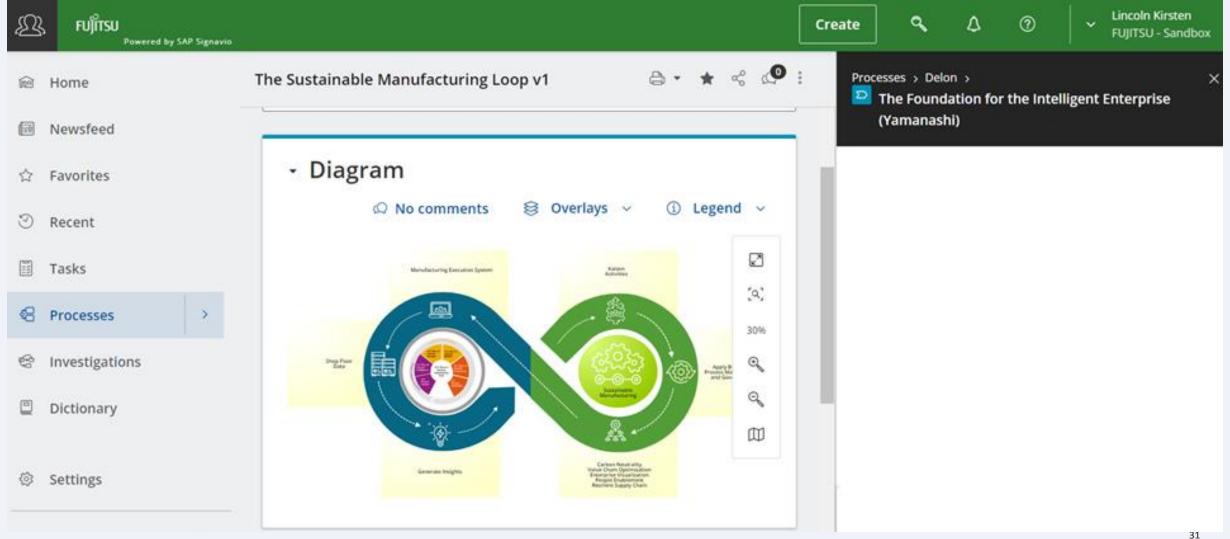
Digital KAIZEN at the heart of Sustainable Manufacturing



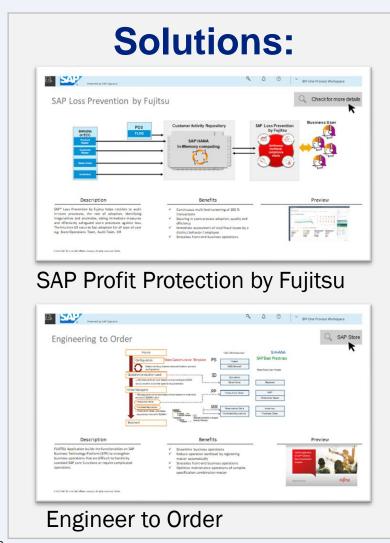


Other SAP Signavio Initiatives by Fujitsu

Fujitsu's Sustainable Manufacturing Loop on SAP Signavio



One Process Acceleration Layer (OPAL)





Prepare Design Explore Realize Run

Discover Prepare Design Explore

Discover the raison Govern the raison Covern the raison Covern the raison Confinencial Replacement process grade definition

Discover the raison Covern the raison Cover

SAP BPI Journey Framework



Sustainable Manufacturing Loop

Kaizen: A Data-driven Approach

Kaizen principles

Kaizen powered by SAP Signavio

Know your customer

Create customer value

Let if flow

Eliminate waste: Muda Mura Muri

Go to Gemba

Follow the action

Follow the action

Speak with real data

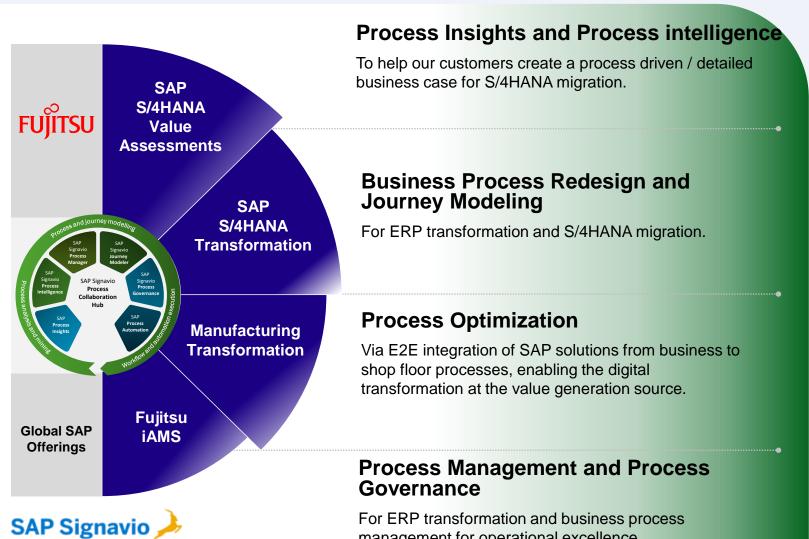
Empower

Organize your

Share your vision and findings and collaborate in a single

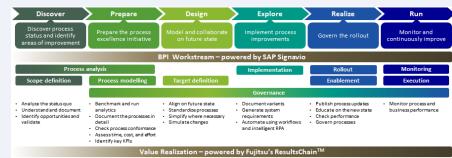
KAIZEN with Process Mining

Fujitsu's SAP Offerings - powered by SAP Signavio



management for operational excellence.

SAP Signavio is embedded into Fujitsu's **Global SAP offerings** as a key differentiator



In addition, we offer the **BPI Journey framework**, a value-added service that differentiates Fujitsu as thought leader and Business Transformation player in the SAP marketplace.

Learn more about Fujitsu and its SAP Signavio initiatives



Why Fujitsu?

Fujitsu has been working with SAP for more than 40 years to deliver sustainable solutions across a range of industries, including manufacturing, retail, and public sector, just to name a few.

As a strategic partner and a customer of SAP Signavio, Fujitsu actively participates in codevelopment and other initiatives that enhance the SAP Signavio Process Transformation Suite, such as the newly introduced One Process Acceleration Layer (OPAL).

Drawing on our highly skilled consultants and extensive partner ecosystem, we'll help you leverage the power of SAP S/4HANA and transform into an intelligent enterprise, unlocking tangible business values and cocreating solutions so you can innovate and thrive.

Ultimately, you can rely on us to help you to see the big picture, from a desired standpoint of productivity, business outcomes, and sustainability.



https://marketing.global.fujitsu.com/Fujitsu-SAP-BPI.html

Where to Find More Information

Bring your organizational and IT processes closer together with Fujitsu's Business Process Intelligence framework

https://marketing.global.fujitsu.com/Fujitsu-SAP-BPI.html

See the way ahead with Fujitsu's BPI Journey – Brochure

• https://marketing.global.fujitsu.com/rs/807-GYW-324/images/FUJ_SAP_BusinessProcessIntelligence_Broc_AW.pdf

SAP Sustainable Manufacturing Customer Reference eBook

https://marketing.us.fujitsu.com/rs/407-MTR-501/images/FUJ_SAP_Sustainable_Manufacturing_eBook.pdf

How A Japanese Philosophy Changed The Country's Premier Aerospace Company, Keith Greenberg 2021

• https://www.forbes.com/sites/sap/2021/05/25/how-a-japanese-philosophy-changed-the-countrys-premier-aerospace-company/?sh=79dfb92dbd4e

Partner-Webcast: Using Data Driven Kaizen Towards Lean Manufacturing,

https://www.signavio.com/events/using-data-driven-kaizen-towards-lean-manufacturing/

Key Points to Take Home

- A better understanding of the Kaizen Method and SAP **Signavios solutions supporting Kaizen**
- How Fujitsu creates insights for manufacturers based on its Lean Manufacturing framework and SAP Signavio
- **How to best combine Process Visualization with Process** Mining insights
- Key challenges that were encountered and lessons learned from Kaizen framework



Thank you! Any Questions?

Lincoln Kirsten

Global SAP BPI (Signavio) Leader, Fujitsu Uvance

Email: <u>Lincoln.Kirsten@fujitsu.com</u>

To connect with me on LinkedIn, Scan Below!!



Please remember to complete your session evaluation.

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