

# How Simpson Strong-Tie is Building Supply Network Optimization Inside SAP S/4 HANA

Ashley Van Dyk, Director of Operations  
Simpson Strong-Tie

Eric Jones, Executive Director  
ifm supply chain

Chicago

---

**2024**

**SAP**insider

A woman with blonde hair and glasses, wearing a black vest over a floral patterned top, is smiling and looking towards the right. She is sitting at a wooden table with a white coffee cup in front of her. Other people are visible in the background, some looking towards the camera and others looking away.

## In This Session You Will Discover...

---

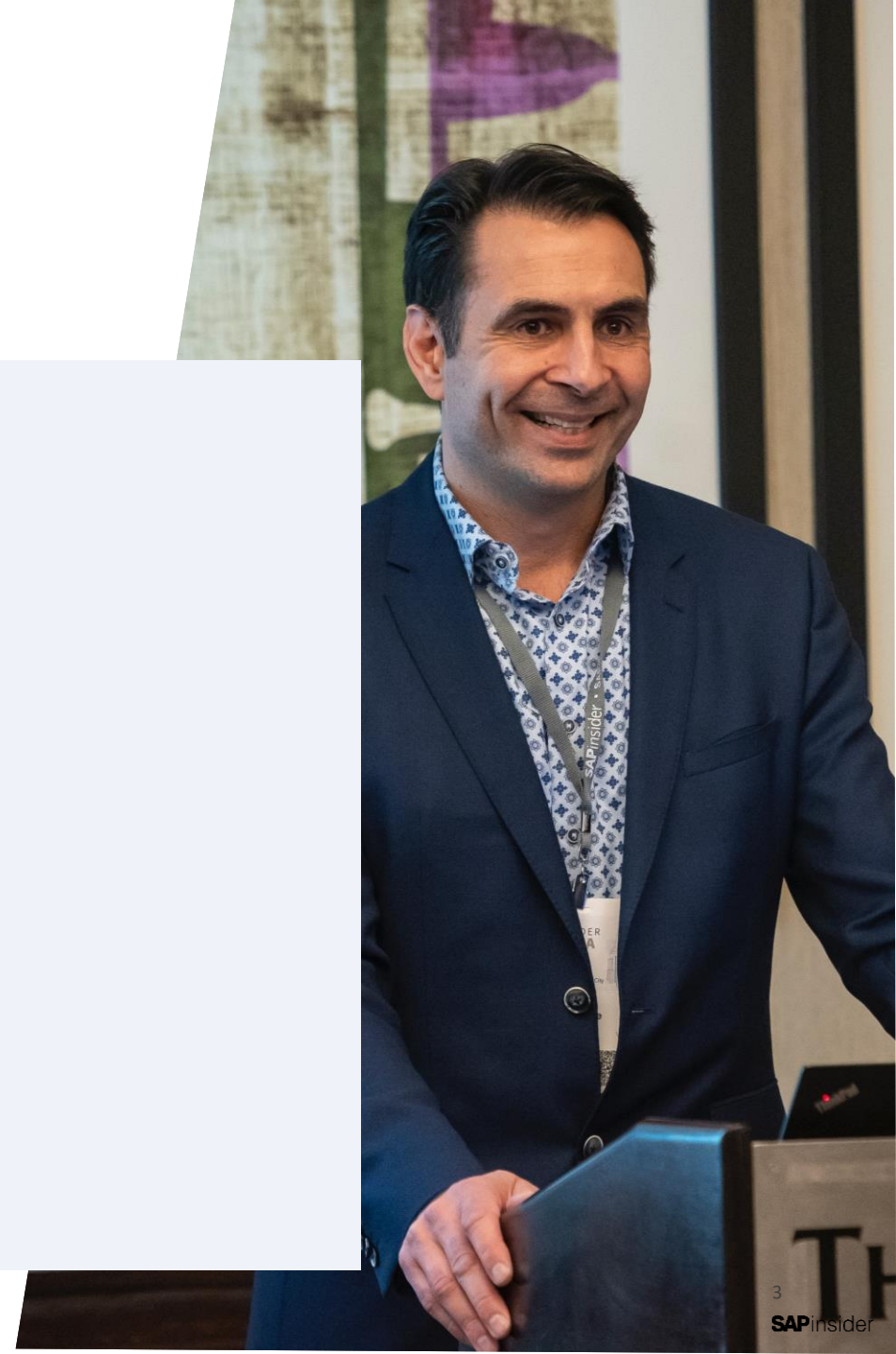
- ≠ Simpson Strong Tie's Supply Chain Optimization Vision
- ≠ The challenges faced in realizing that vision
- ≠ The actions taken to enable the vision
- ≠ The results of the technology decision, deployment, and continued innovations



# What We'll Cover

---

- ≠ Company Overview
- ≠ Supply Chain Challenges
- ≠ Technology Options Considered
- ≠ Results Thus Far
- ≠ What's Next
- ≠ Wrap Up



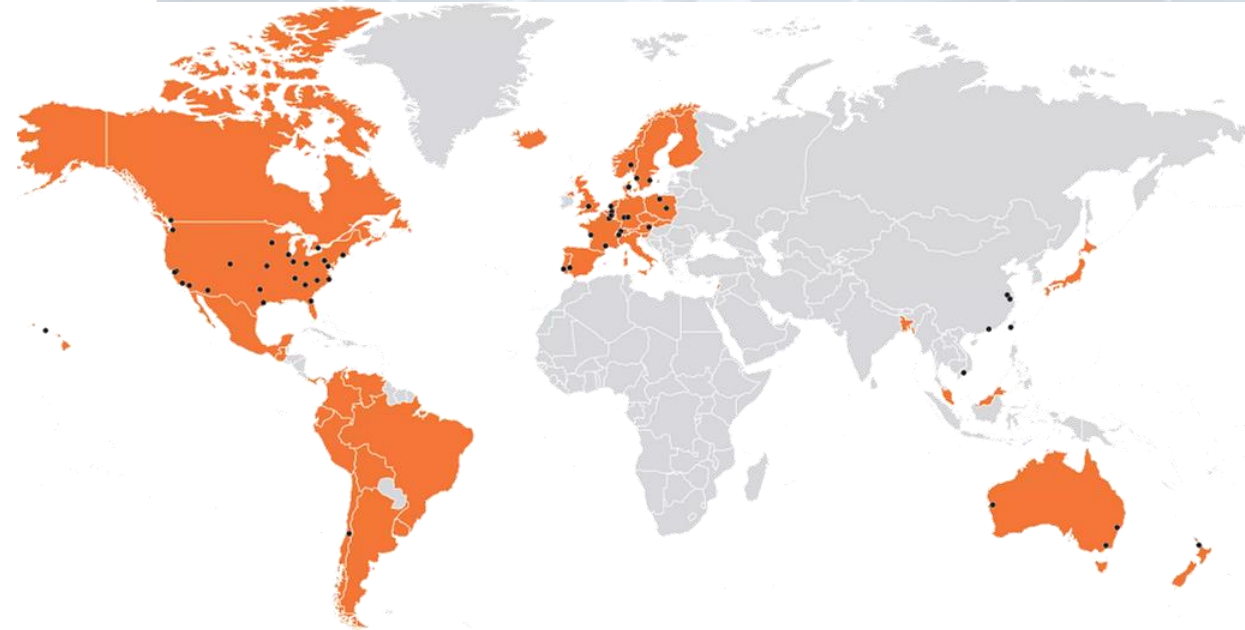
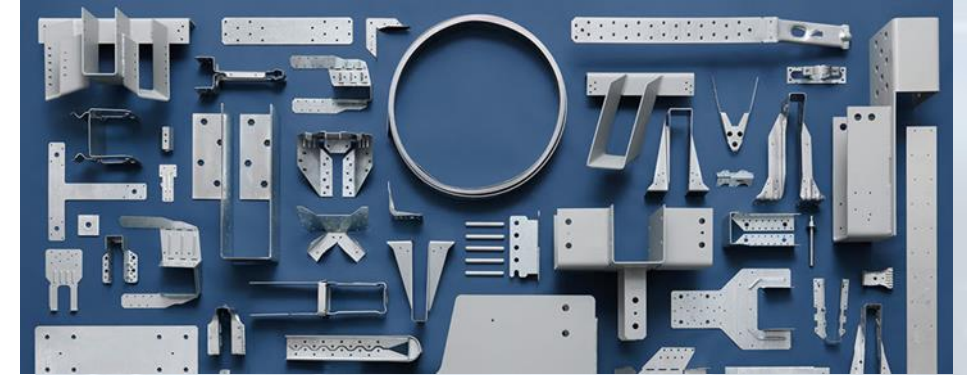
# Company Overview

---

For more than 60 years, Simpson Strong-Tie has focused on creating structural products that help people build safer and stronger homes and buildings.

Considered a leader in structural systems research, testing and innovation, Simpson Strong-Tie works closely with industry professionals to provide code-listed, field-tested products and value-engineered solutions.

Our structural products are recognized for helping structures resist high winds, hurricanes and seismic forces. From product development and testing to training and engineering and field support, Simpson Strong-Tie is committed to helping customers succeed.



# Additional Company Info



## Markets

- ≠ Residential Contraction
- ≠ Commercial Contraction
- ≠ National Retail and DIY
- ≠ Building Technology
- ≠ OEM

## Products

- ≠ Engineered structural connectors
- ≠ Fasteners and fastening systems
- ≠ Lateral-force resisting systems
- ≠ Anchor Systems
- ≠ Products that repair, protect and strengthen concrete

## Customers

- ≠ Retailers
- ≠ Co-ops/Buying Groups
- ≠ General Contractors
- ≠ Specifiers (architects and engineers)
- ≠ DIYers

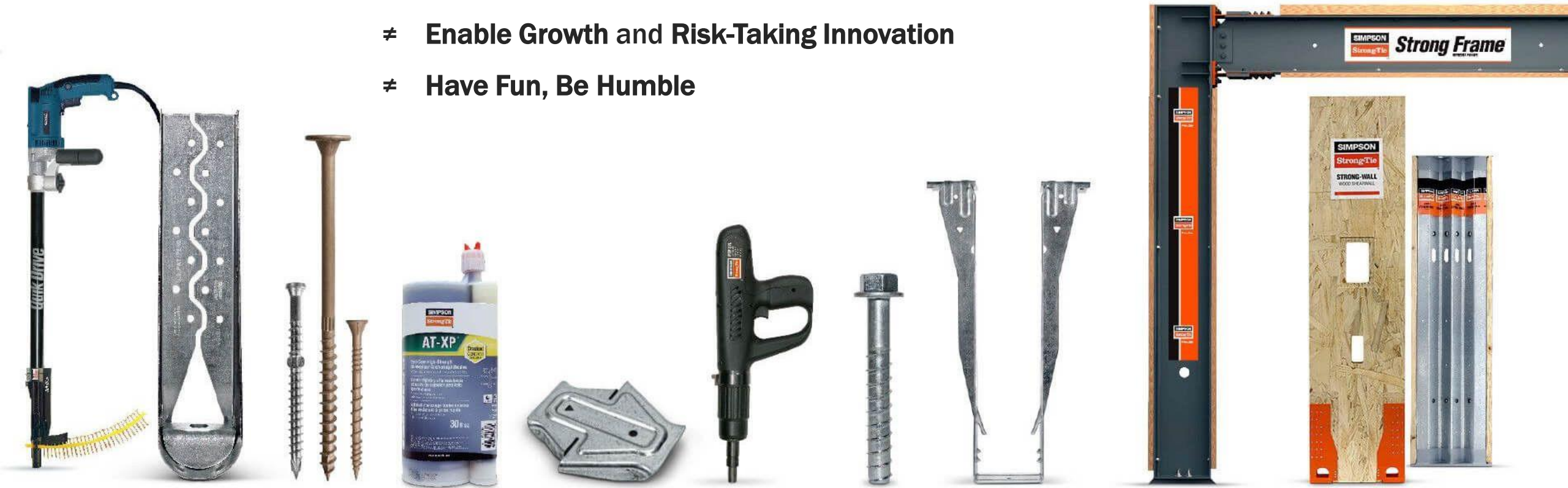


# Supply Chain Strategy

---

## *Barclay Simpson Nine Principles of Doing Business*

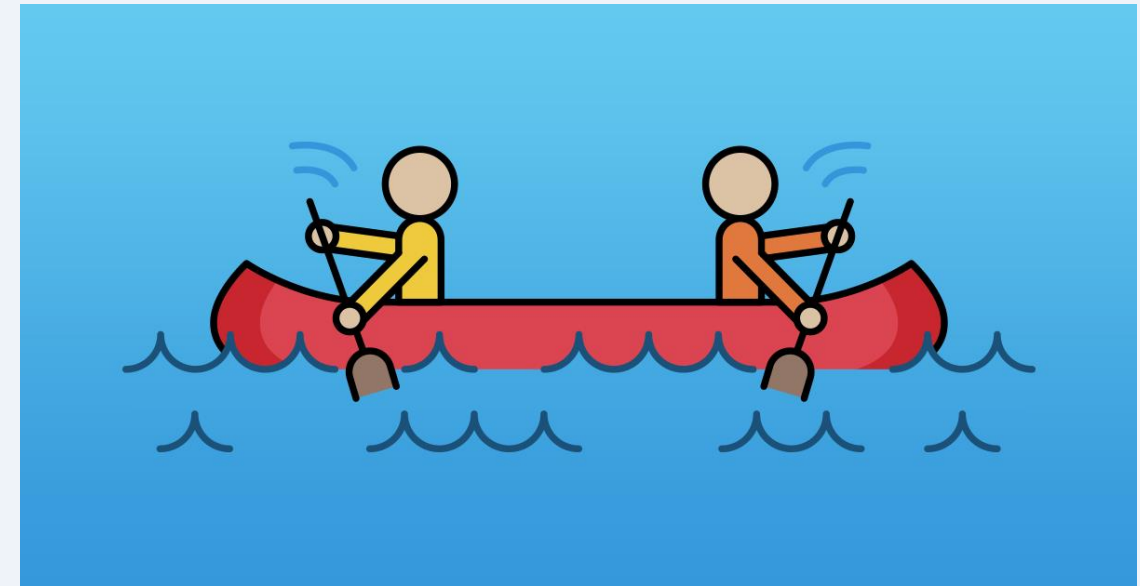
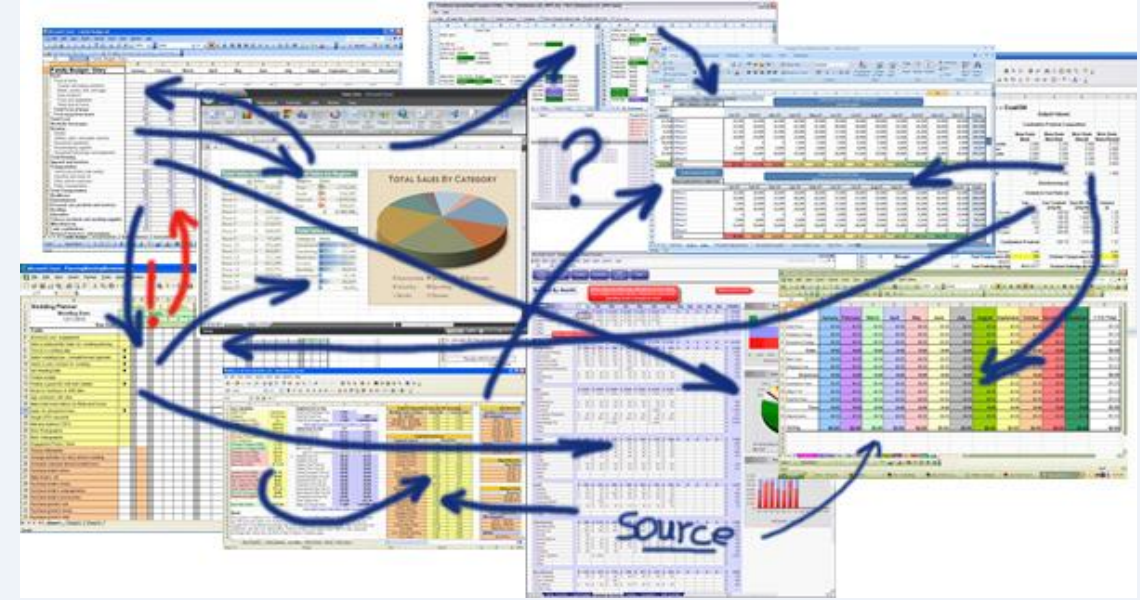
- ≠ Relentless Customer Focus and Customer Service
- ≠ Focus on the Long-Range View
- ≠ Enable Growth and Risk-Taking Innovation
- ≠ Have Fun, Be Humble



# Business Challenges

---

- ≠ No forecasting or performance tracking
- ≠ Manual demand planning process
- ≠ Limited visibility into production capacity
- ≠ Disjointed supply chain analytics
- ≠ Lack of standardization of supply chain processes



# Options Considered

---

- Started SAP Blueprinting early 2017–
- SAP Go Live Feb 2018–

## ***Long-Range View*** and ***Enable Growth***

- ≠ Least amount of customization to get started but allowed for a lot of flexibility and expansion
- ≠ Shorter Learning Curve
- ≠ User friendly interfaces
- ≠ Lowest total cost of ownership in the industry



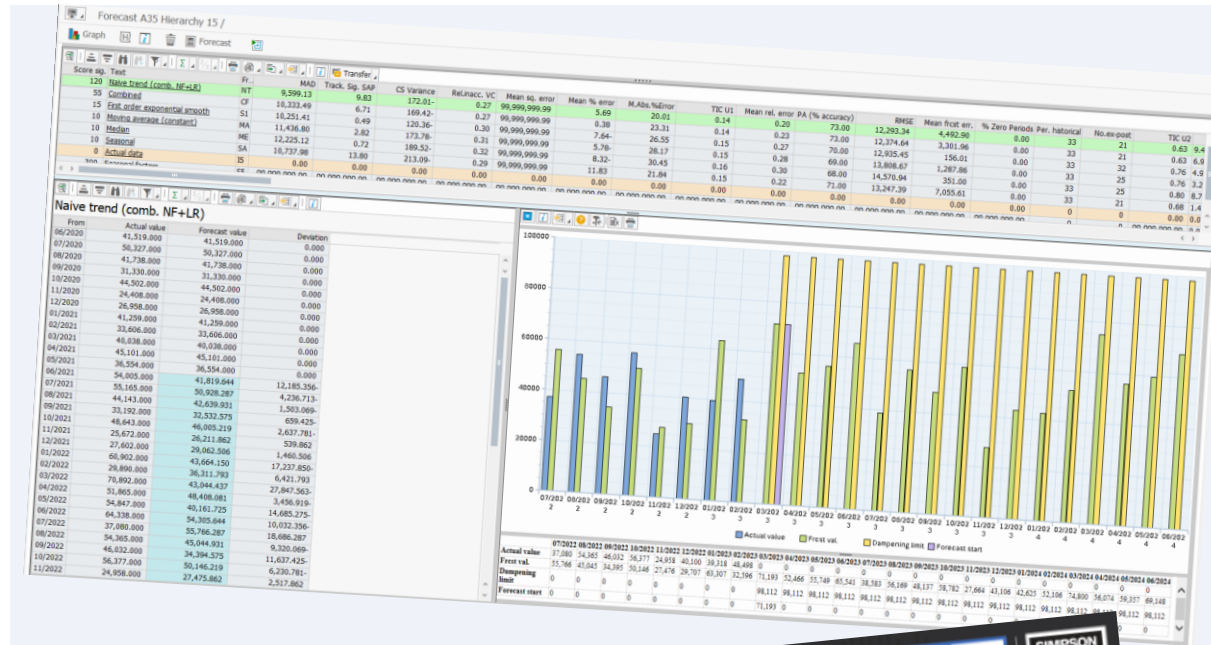


# Ifm Supply Chain Addressed Our Challenges by...

## Demand Planning

- ≠ Statistical Planning
- ≠ Process Standardization
- ≠ Forecast Performance Tracking
- ≠ Outlier Management
- ≠ Forecast Model Evaluation
- ≠ Improved Sells to Operations Communication

Out of the Box  
Next Level



## DCF Improvements – New DCF Setting Changes

### DCF Forecast Models

New forecast procedures capture more seasonality and less trend compare to default settings – Combined Forecast and Naive Forecast Trend.

Removed Winter's models and Moving Average Trend are sensitive to change in trends and cause spikes and dips in forecast.

XYZ	DCF Default (Old) Settings		DCF New Settings	
	FP Initials	Forecast procedures	FP Initials	Forecast procedures
X	WA	Winters additive	S1	Exponential smoothing 1st ord.
	WM	Winters multiplicative	MA	Moving average constant
	S1	Exponential smoothing 1st ord.	ME	Median
	MA	Moving average constant	SF	Seasonal factors
	ME	Median	SA	Seasonal forecast
	SF	Seasonal factors	LR	Linear regression
Y	SA	Seasonal forecast	CF	Combined forecast
			NT	Naive forecast trend
	S2	Exponential smoothing 2nd ord.	S2	Exponential smoothing 2nd ord.
	MT	Moving average trend	SF	Seasonal factors
Z	LR	Linear regression	SA	Seasonal forecast
	WT	Winters trend	CF	Combined forecast
	SF	Seasonal factors	NT	Naive forecast trend
	SA	Seasonal forecast		
	WA	Winters additive	SF	Seasonal factors
	WM	Winters multiplicative	SA	Seasonal forecast
	RC	Rolling Croston	RC	Rolling Croston
	TB	TSB procedure	TB	TSB procedure
	SF	Seasonal factors	CF	Combined forecast
	SA	Seasonal forecast	NT	Naive forecast trend

# GIB Addressed Our Challenges by...

## Inventory Optimization

- ≠ Harmonized Analytics
- ≠ Process Standardization
  - Process Automation
  - Mass Data Maintenance (SS, Lot Sizing, etc)
  - Intercompany Plant to Plant Relations
- ≠ User Friendly and Exception Message ranking

	X	Y	Z
A	Low Inventory, Continuous flow of inventory	Average Inventory, Continuous flow of inventory	Increased Service Level, Average Inventory
B	Low Inventory, Continuous flow of inventory	Average Inventory, Continuous flow of inventory	Increased Service Level, Higher level of inventory
C	Low Inventory, Continuous flow of inventory	Increased Service Level, Higher level of inventory	Increased Service Level, Higher level of inventory

CZ items are subject to become ZSMI or MOD

GXO ALERT Monitor

Refresh

Pl	Wght	Doc. Plant	Material	MRPCn	PGr	MRP date	Exceptions	StckDS
✓	1	1300	XU34S1016	II1	II1	03/02/2023	07;10;15...	37.0-
✓	1	1300	DIA37S	II1	II1	03/02/2023	10;96	38.0-
✓	1	1300	SDW22634	II1	II1	03/02/2023	10;96	53.0-
✓	1	1300	P27SL3A	II1	II1	03/02/2023	10;96	70.0-
✓	1	1300	P27LVL5	II1	II1	03/02/2023	10;96	79.0-
✓	1	1300	SDW22634-R50	II1	II1	03/02/2023	10;96	79.0-
✓	1	1300	P22AC3A	II1	II1	03/02/2023	10;96	96.0-
✓	1	1300	P27SL4A	II1	II1	03/02/2023	07;10;15...	117.0-
✓	1	1300	P22AC4A	II1	II1	03/02/2023	10;96	160.0-
✓	1	1300	P25SL5	II1	II1	03/02/2023	10;96	179.4-
✓	1	1300	CILPL32	II1	II1	03/02/2023	10;96	224.0-
✓	1	1300	BIT40T-134-99	II1	II1	03/02/2023	30;96	998.9
✓	1	1300	S105200CN	II1	II1	03/02/2023	30;96	998.9
✓	1	1300	ECC08-20	II1	II1	02/22/2023	30;96	990.9
✓	1	1300	SDS25300-E	II1	II1	03/02/2023	30;96	342.3
✓	1	1300	SDS25412-E	II1	II1	03/02/2023	30;96	199.3
✓	1	1300	LCC3-S-01	II1	II1	03/02/2023	30	148.8
✓	1	1300	CCO07-20	II1	II1	03/02/2023	30	144.1
✓	1	1300	F10T250B08	II1	II1	03/02/2023	30	141.6
✓	1	1300	THD75812HMG	II1	II1	03/02/2023	30;96	117.0
✓	1	1300	FCB49-S-R25	II1	II1	03/02/2023	30	98.8
✓	1	1300	STR2-62700MGR20	II1	II1	02/22/2023	30;96	78.0

ABC/XYZ	LSP
AX	WB
AY	WB
AZ	Z2
BX	WB
BY	Z2
BZ	ZM
CX	Z2
CY	ZM
CZ	M2

Manage by exception – Employee Efficiency – Increased Customer Service

# ifm Supply Chain Addressed Our Challenges by...

## Production Planning & Scheduling

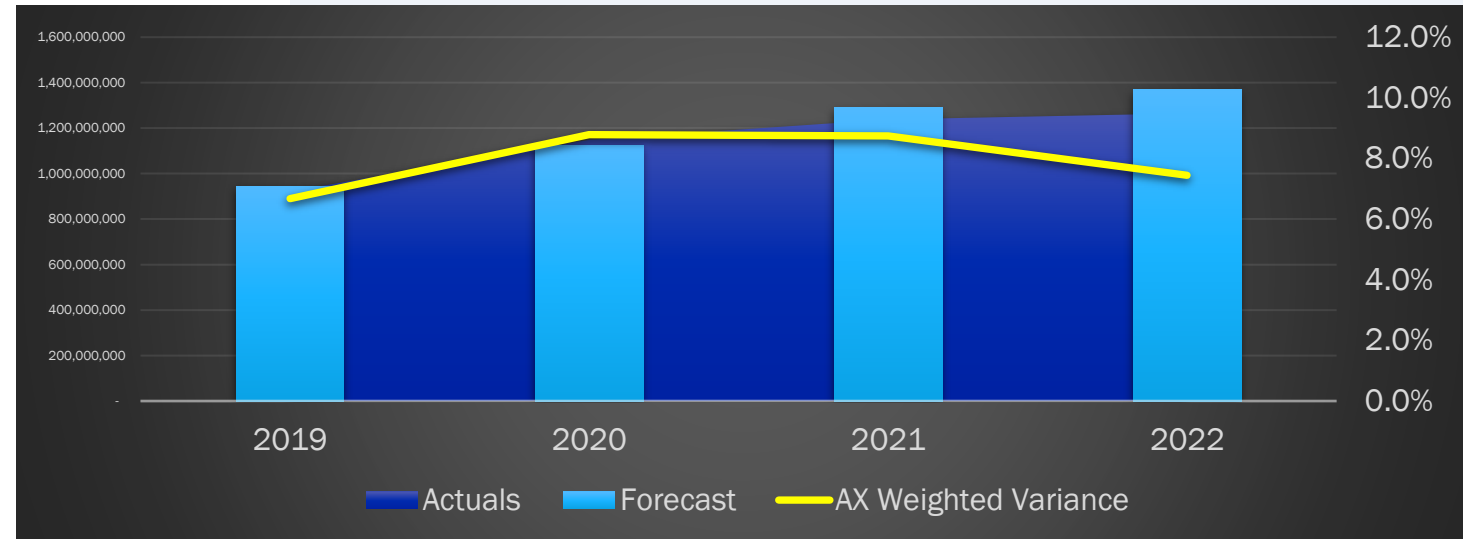
- ≠ Visualize Capacities
- ≠ Easily Adjust and rebalance schedules
- ≠ Flexible and Proactive Customer Service
- ≠ Long term Capacity Planning - S&OP

	Backlog	M 02/2023	M 03/2023	M 04/2023	M 05/2023	M 06/2023	M 07/2023	M 08/2023	M 09/2023	M 10/2023	M 11/2023	M 12/2023	M 01/2024	M 02/2024
[1300] AM60 (001)	0.00	100.00%	68.65%	62.24%	39.50%	89.14%	38.39%	64.98%	37.27%	69.82%	76.31%	34.82%	25.50%	33.54%
[1300] AM61 (001)	0.00	100.00%	38.88%	39.84%	39.33%	26.63%	56.85%	41.33%	31.74%	63.11%	33.41%	29.11%	13.92%	32.44%
[1300] AM62 (001)	0.00	76.08%	48.03%	96.68%	110.23%	107.25%	115.32%	99.09%	95.94%	119.21%	103.15%	105.75%	86.73%	101.13%
[1300] AM63 (001)	0.00	103.46%	40.05%	21.24%	36.51%	31.37%	39.67%	22.07%	37.59%	36.23%	28.03%	20.48%	37.22%	1.13%
[1300] AM64 (001)	0.00	100.00%	15.75%	0.00%	38.12%	31.33%	24.46%	32.26%	39.33%	16.60%	36.66%	20.89%	11.33%	0.00%
[1300] AM65 (001)	0.00	100.42%	70.60%	33.16%	54.67%	65.05%	45.27%	80.40%	47.39%	60.66%	70.38%	37.52%	27.21%	27.29%
[1300] AM66 (001)	0.00	100.00%	39.93%	46.55%	70.21%	33.34%	72.43%	52.10%	29.67%	65.25%	52.90%	37.07%	23.43%	6.01%
[1300] AM67 (001)	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%
[1400] MAP60A (001)	203.75	192.83%	95.70%	149.88%	119.86%	111.53%	163.37%	105.28%	125.29%	139.11%	134.28%	134.58%	52.31%	36.18%
[1400] MAP60B (001)	58.13	27.77%	11.41%	21.93%	10.38%	16.66%	21.03%	15.71%	15.72%	19.08%	17.16%	16.49%	11.81%	7.76%
[1400] MAP60C (001)	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%
[1100] AMTP1 (001)	146.30	7.94%	4.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
[1100] AMTP2 (001)	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%
[1100] AMTP3 (001)	24.11	49.21%	99.69%	108.08%	114.12%	147.77%	140.22%	114.30%	144.62%	139.33%	125.73%	100.12%	79.63%	73.32%
[1100] AMTP4 (001)	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%

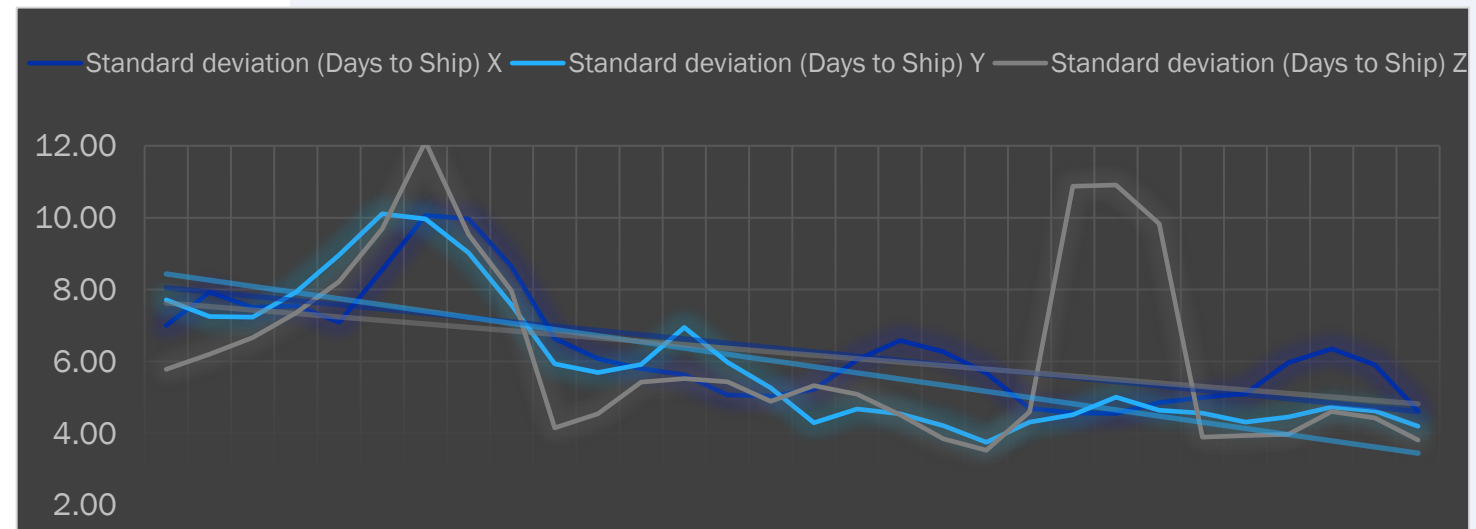


# Tangible Improvements thus far...

# Improved forecast accuracy



# Improved Lead time Plant to Plant Lead time Variation



# Tangible Improvements thus far...

- ≠ Time/Labor Savings
  - ≠ Auto Ordering
  - ≠ Exception Message Management (20/15's)
  
- ≠ Optimal and more predictable Inventory Levels
  
- ≠ Predictable Capacity Issues
  
- ≠ Predictable Customer Service Issue

Estimated 2hr a day X 12 Inventory Control Personnel

*\*\*Focus on the Exception\*\**

FG&C Target Inventory Status by Material Type (% out of Target Band)				
	Components (HALB)	Buyout (HAWA)	Finished Good (ZFIN)	Total FG&C
1030	Within Target	-8.5%	-7.5%	Within Target
1050	51.9%	73.1%	Within Target	19.7%
1100	32.4%	18.6%	Within Target	Within Target
1200	0.5%	Within Target	13.7%	7.4%
1300	41.7%	3.8%	8.3%	9.8%
1400	Within Target	Within Target	13.8%	8.7%
1500	44.3%	-5.4%	Within Target	Within Target
<b>Total</b>	30.2%	Within Target	1.7%	1.0%

# The Next Steps in Process Improvement

---

- ≠ Streamline End-to-End Simulations
- ≠ Customized Interactive Capacity Simulation Dashboard
- ≠ Automated level loading of demand around capacity constraints at the plant AND aggregate level
- ≠ Supply Network Optimization
- ≠ Custom Exception Messages to promote Inventory Rebalancing
- ≠ Automated Rebalancing
- ≠ Explore varying Inventory Planning Concepts by product groups or types





# Wrap Up

---

- **Supply Chain Management is a mission critical process for Simpson Strong Tie**
- **Choosing a set of tools that are perfectly aligned with SAP allowed us to move quickly and scale globally**
- **We started with the basics, ensuring our processes were consistent and durable enough to survive personnel changes**
- **We continue to improve and mature our processes and adopt new technologies from ifm supply chain**
- **Ifm Supply Chain has evolved with us as we've migrated from SAP ECC to S/4HANA**

# Key Points to Take Home

---

- Limited visibility into production capacity, disjointed supply chain analytics, and lack of standardization of supply chain processes are key challenges
- Having a clear supply chain optimization vision and taking actions to enable it can lead to tangible improvements in forecast accuracy, lead times, labor savings, inventory levels, and customer service
- Choose a set of tools that are perfectly aligned with SAP can allow for quicker scalability and global expansion
- Focus on the people as much as the technology and processes when implementing a supply chain optimization strategy

# Where to Find More Information

---

Company and product resources:

- Simpson Strong-tie official website: [www.strongtie.com](http://www.strongtie.com)
- ifm's Demand Planning solution: ifm.com/us > Supply Chain > Operations Planning > Demand Planning
- ifm's Inventory Management solution: ifm.com/us > Supply Chain > Operations Planning > Inventory Management
- ifm's Procurement solution: ifm.com/us > Supply Chain > Execution & Integration > Procurement
- Ifm's Production Planning solution: ifm.com/us > Supply Chain > Operations Planning > Production Planning



# Thank you! Any Questions?

---

**Ashley Van Dyk**

[www.linkedin.com/in/ashley-van-dyk-mba-cpim-54670079](https://www.linkedin.com/in/ashley-van-dyk-mba-cpim-54670079)

Please remember to complete  
your session evaluation.

# SAPinsider



## SAPinsider.org

PO Box 982Hampstead, NH 03841

Copyright © 2024 Wellesley Information Services.

All rights reserved.

SAP and other SAP products and services mentioned herein as well as their respective logos are trademarks or registered trademarks of SAP SE (or an SAP affiliate company) in Germany and other countries. All other product and service names mentioned are the trademarks of their respective companies. Wellesley Information Services is neither owned nor controlled by SAP SE.

---

**SAPinsider  
comprises the  
largest and fastest  
growing SAP  
membership group  
with more than  
800,000 members  
worldwide.**

---