

PERSPECTIVE



CHANGES EVERYTHING.

WIPFLI

“Generative AI is the most powerful tool for creativity that has ever been created. It has the potential to unleash a new era of human innovation.”

- **Elon Musk**



“...the potential to change the world in ways that we can't even imagine. It has the power to create new ideas, products, and services that will make our lives easier, more productive, and more creative.”

- **Bill Gates**



"Success in creating AI would be the biggest event in human history. Unfortunately, it might also be the last, unless we learn how to avoid the risks."

- **Stephen Hawking**



HELLO

A hand is holding a large, white, three-dimensional sign that spells out the word "HELLO". The sign is constructed from small, square tiles. Inside the hollow spaces of the letters, there are small, colorful figures of people walking, suggesting a busy public space or a city street. The background is a dark, blurred image of a hand holding a smartphone.

WIPFLI

Tour guides



Chris Volz

Partner – Wipfli

Valuation and litigation
consulting



Mo Abuali

Director - Wipfli

Manufacturing, retail
distribution consulting

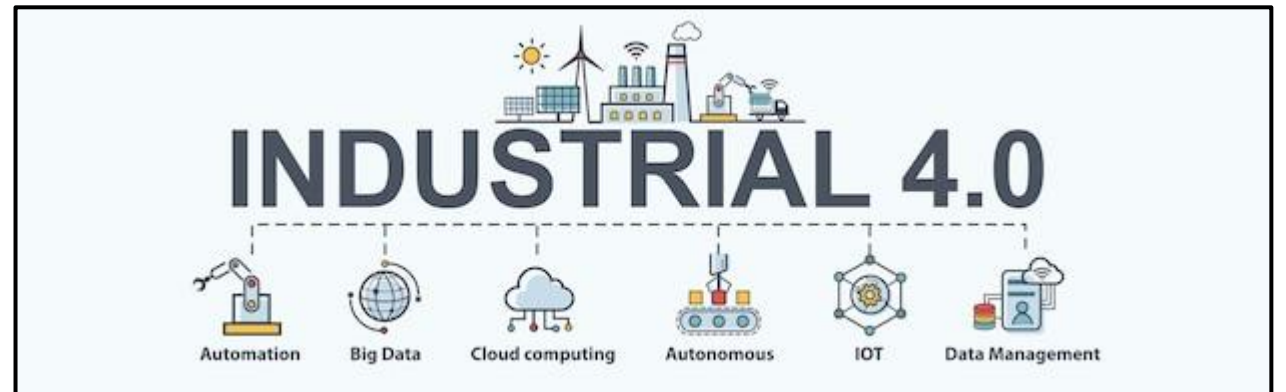


DISRUPTIVE
DIGITAL.

Industry 4.0

Smart, connected and digitized production and equipment systems, designed to sense, predict, and interact with the physical world...

So, we can make quicker more accurate decisions that support customers and operations in real-time...



Artificial intelligence

Artificial intelligence

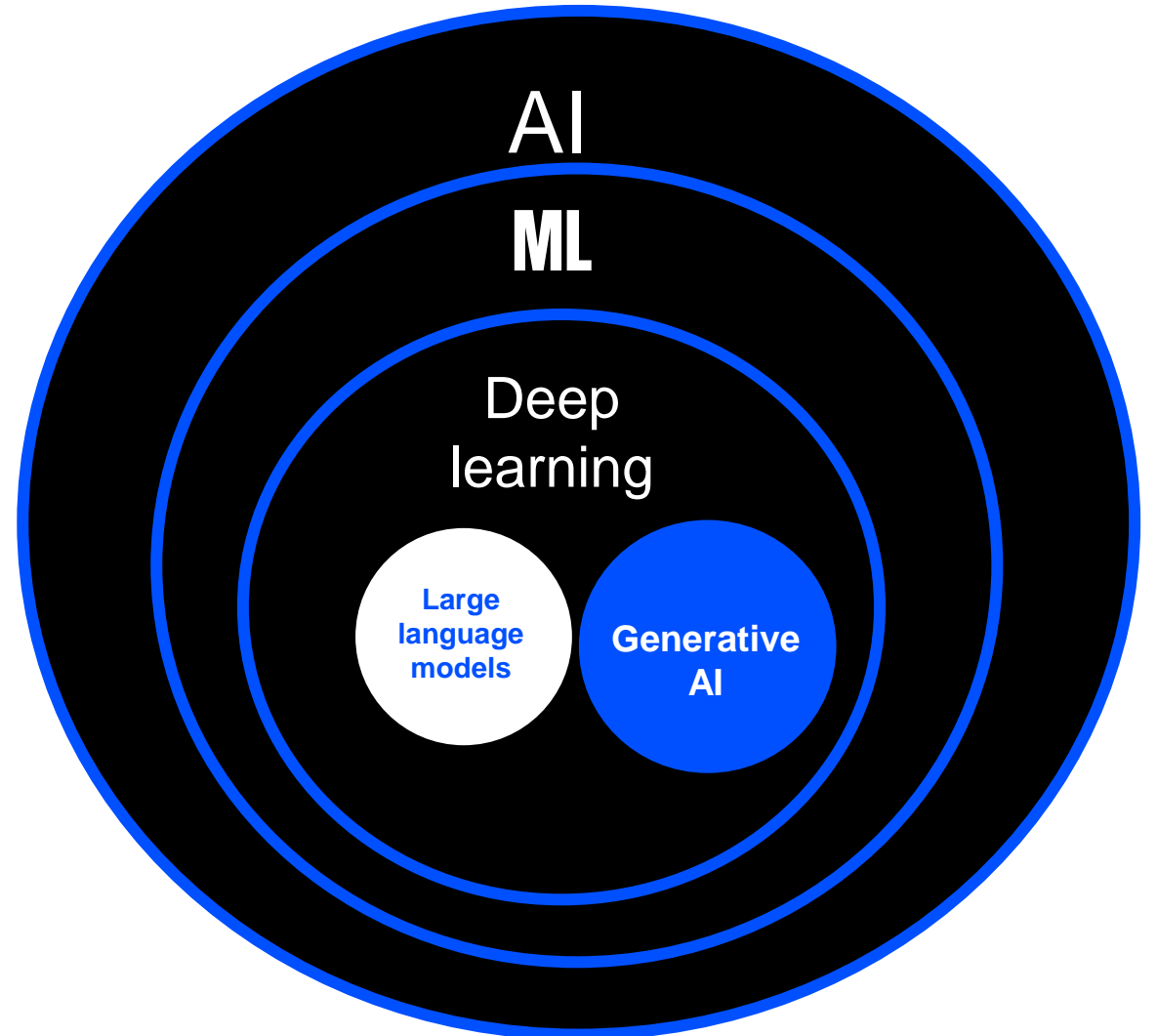
Systems that carry out tasks that typically require human intelligence

Machine learning

Systems that use algorithms to learn from data and recognize patterns without being explicitly programmed to perform the task

Deep learning

Systems that use neural networks to train on vast, complex data



Common AI use cases



Engagement

- Natural language processing
- Chatbots, virtual assistants
- Computer vision



Automating & Optimizing

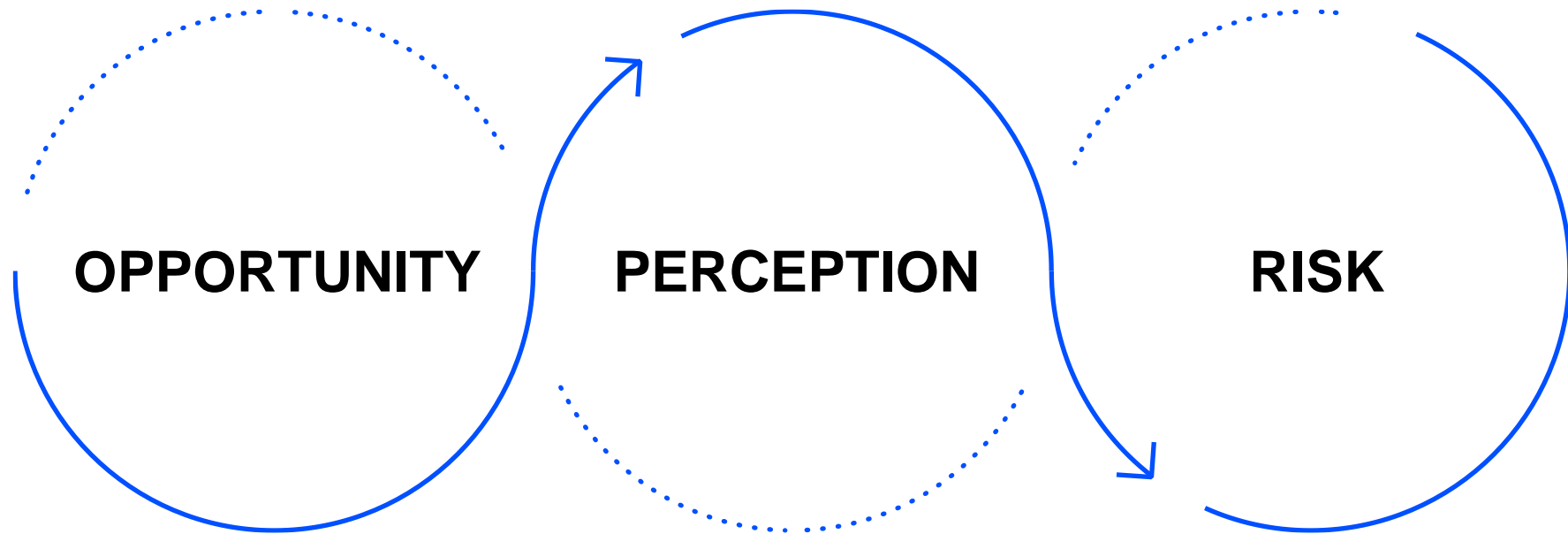
- Process optimization
- Automating tasks
- Semantic indexing and search



Generating Insight/Content

- Sentiment analysis
- Forecasting
- Classification
- Find and interpret patterns

Business value





Outward focus
(customers/markets/competition)



Inward focus
(people/products/processes)



Strategic focus
(planning/leadership/risk mitigation)



Technology focus
(systems/analytics/reporting)



Technology focus (systems/analytics/reporting)

AI enhances the role (learning/reasoning/problem solving)



AI value impact

- Efficient and effective market outreach
- Enhanced problem-solving capabilities
- Streamline mundane/repetitive tasks
- Better asset protection
- Alignment of leadership/values/mission

Outward focus

Inward focus

Inward/outward focus

Strategic focus

Strategic focus

Application.



Increase sales

Strategic thoughts

- If I better understood my markets and customers, I believe we could grow faster.
- Am I providing meaningful customer experiences?

Possibilities

- Customer data and preferences
- Personalized product recommendations
- Tailored messages to customers
- Customized user experiences



Outward focus

(customers/markets/competition)

How it works



TAKE THE QUIZ

Answer a few quick questions and we'll recommend a color you'll love.



EXPERTLY CURATED COLORS

Our designer-curated palette takes the guesswork out of finding the perfect paint color.



TRY BEFORE YOU BUY

Test colors at home with our hassle-free Perfect Color Swatch™. Just peel



ULTRA PREMIUM PAINT

Our premium paint is Zero VOC and GREENGUARD Gold Certified, so you can paint a healthier, happier home.



GET READY TO ROLL

Premium paint and supplies are delivered to your door. It's that easy!



HAPPINESS GUARANTEE

We've got your back with exceptional service, speedy shipping and a 100% Happiness Guarantee.



Hi! I'm Clare. Think of me as your personal interior designer. I'm here to help you find the perfect color for your space.



First, tell me a little bit about your project...

What type of room are you painting?



Bedroom



Living Room



Bathroom



Kitchen



Dining Room



Entryway



Kids Room



Nursery



Office



Other



Great! Now, let's talk space...

How would you describe the size of your room? (If you're not sure, just guess!)

xs

Extra Small
(10-100 sq ft)

s

Small
(100-200 sq ft)

m

Medium
(200-300 sq ft)

l

Large
(300-400 sq ft)

xl

Extra Large
(400+ sq ft)



Sounds lovely.

What's the natural light like in your space?



A little
Just a little bit



Some
Average light



A lot
Quite a bit



Tons
Bright all day



None
Very little



Perfect.

From which direction is your primary light source?



North



South



East



West

None
Skip this Question



Beautiful. Now, tell me a little more about what your space looks like...

Is there a dominant color already being used in your space (furniture, etc.)?



Blue



Green



Purple



Red



Pink



Yellow



Orange



Brown



Beige



White



Gray



Black

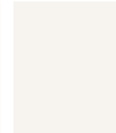
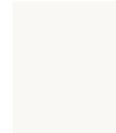


Nope!



Good to know! This helps me narrow down your options.

Which of these colors is most similar to the one in your space?





Nice. Let's talk about style now...





What words best describe the vibe you're going for in this room? (Choose three)

Airy	Bold	Calm	Cool	Cozy
Dark	Edgy	Warm	Clean	Moody
Bright	Classic	Minimal	Natural	Playful
Stylish	Vibrant	Cheerful	Dramatic	Whimsical
Energizing	Sophisticated			



Sounds good.

How adventurous are you when it comes to color?

 Love it! The bolder the better	 I'm open I'll try new things	 Not very Simpler the better	 I'm not Very minimal
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Great! Only one more question.

How would you describe your decor style?

Modern
Streamlined,
minimal, clean

Rustic
Natural woods,
warm elements

Coastal
Breezy, seaside-
inspired style

Eclectic
Quirky mix of
colors & patterns

Shabby Chic
Whitewashed
antiques

Traditional
Classic, elegant,
mannerly style

Transitional
Mix of modern &
traditional

**Mid-Century
Modern**
Minimalist

Small Room
Bathroom, Laundry Room,
Entryway
8' x 8'

Medium Room
Bedroom, Dining Room, Kitchen
12' x 12'

Large Room
Living Room, Basement
16' x 20'

Voilà! Here's your estimate:
MEDIUM ROOM
1 Gallon Paint
1 Gallon Primer
1 Gallon Ceiling Paint

[Shop Paint](#)

[START OVER](#)



Competitive advantage

- Hassle free user experience
- Sticky customers
- Low-cost distribution

Value impact

- ✓ “Market Leader” status
- ✓ Optimized pricing
- ✓ Increased revenue/customer
- ✓ Up-selling / Cross-selling
- ✓ Reduced volatility/risk



**Incremental
profitability**

Strategic thoughts

- How do I find more capacity without capital intensive solutions and labor pool expansion?
- How do the reduce the stops and starts of our operations?

Possibilities

- Machine monitoring that changes the sense of time
- Proactively monitor and respond to changes and the unexpected
- AI algorithms analyzing historical and real-time to generate predictions



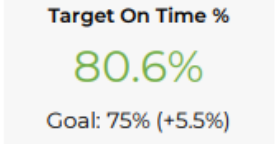
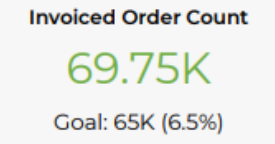
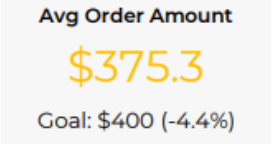
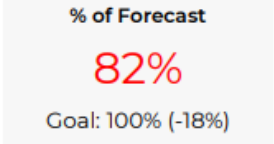
Inward focus
(people/products/processes)

Sales insights

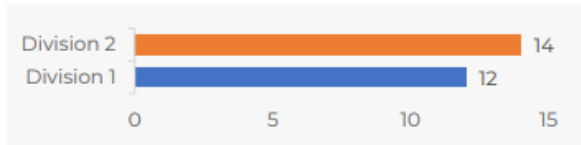
Invoiced Sales Dashboard

Report Filters

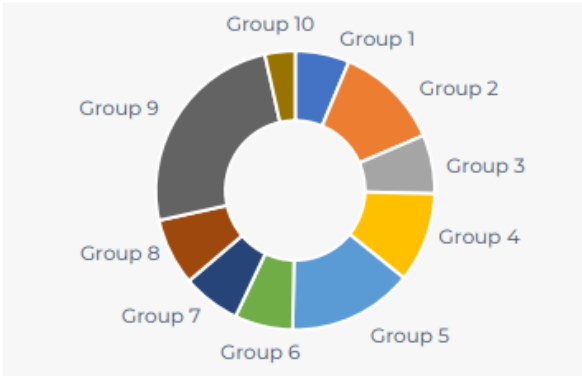
- Year
- Quarter
- Month
- Week
- Territory
- Division
- Production Group
- Production Line
- Product Line
- Product
- Customer



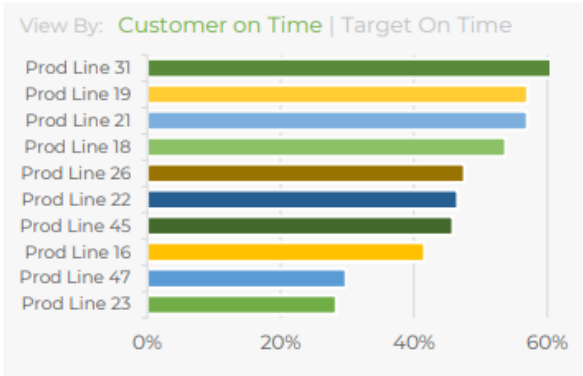
Invoiced Revenue by Division



Average Order Amt by Production Group



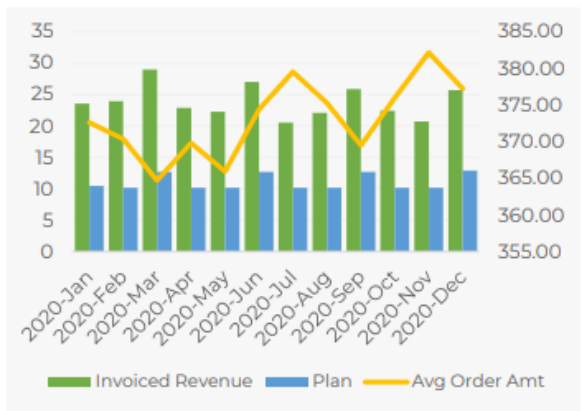
On Time % by Prod Line



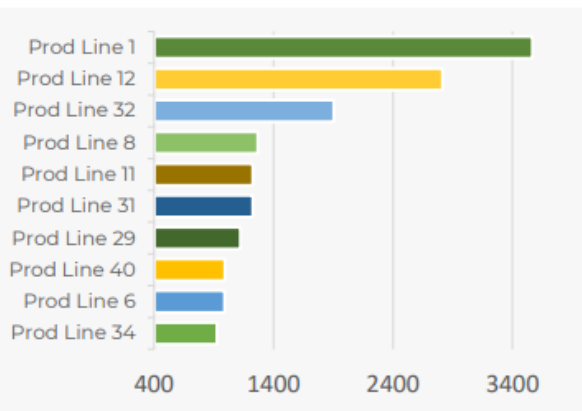
Invoiced Revenue by Production Group



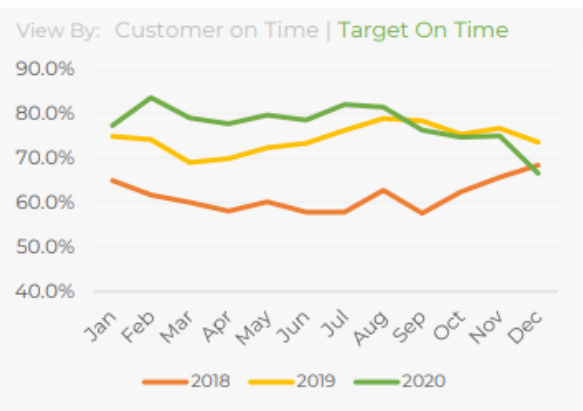
Invoiced vs Plan Trending



Invoiced Revenue by Production Line



YoY On Time % Trending

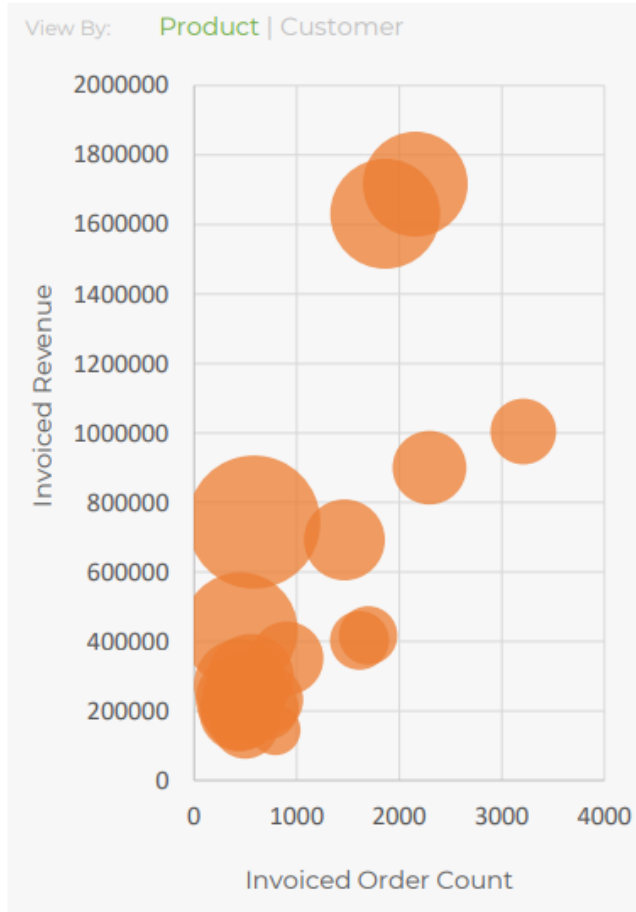


Profitability insights

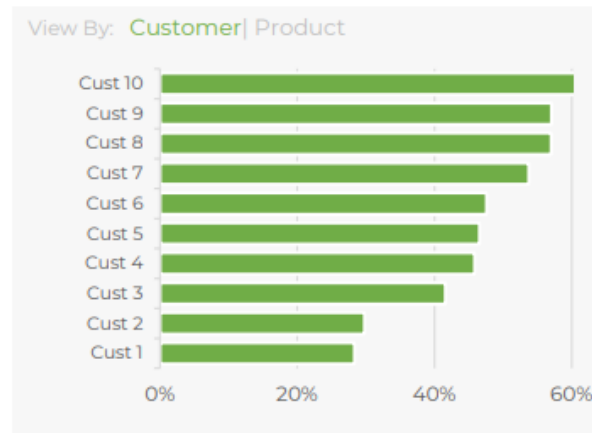
Invoiced Sales Analysis

Invoiced Revenue	Invoiced Order Count	Expedited Order %	Average Order Amt	Customer Count	Products per Customer
\$26.18M	69.75K	16.8%	\$375.3	2.5K	3.4

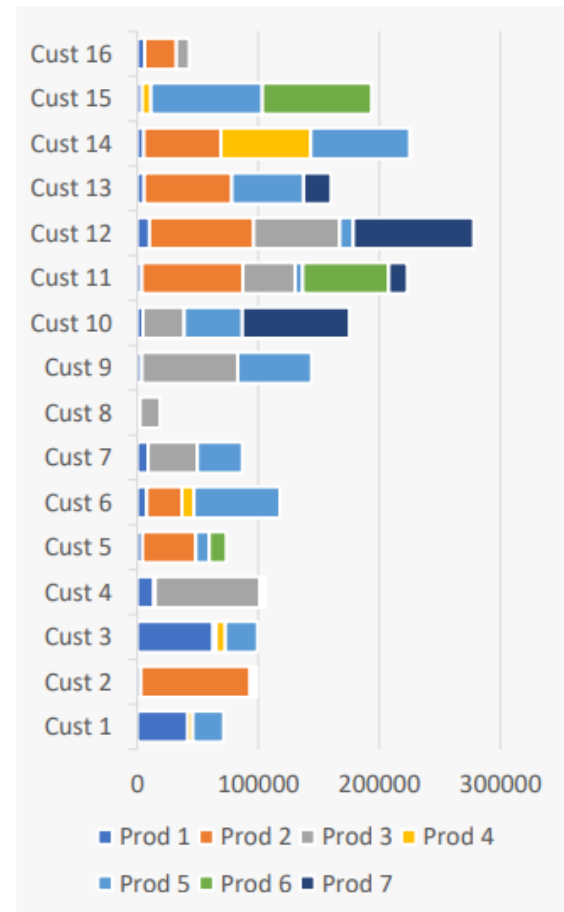
Net Profit vs Profit Margin vs Net Sales



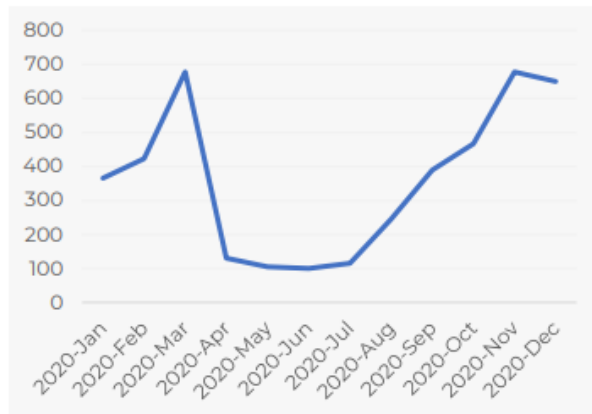
Expedited Order %



Invoiced Revenue by Customer and Product



Average Invoiced Order Amount Trending



Report Filters

- Year
- Quarter
- Month
- Week
- Territory
- Division
- Production Group
- Production Line
- Product Line
- Product
- Customer

Visibility *(by Asset / Job / Part / Tool)*

End Job

Follow On Job

Start Changeover

Complete Changeover

Suspend Job

Enter Rejects

Enter Stop Reason

Operator Login

Comment

Book Good Parts

Change Cavitation

Print Label

Quality Check

Documents

Shift OEE

107.1%
Performance

76.5%
Availability

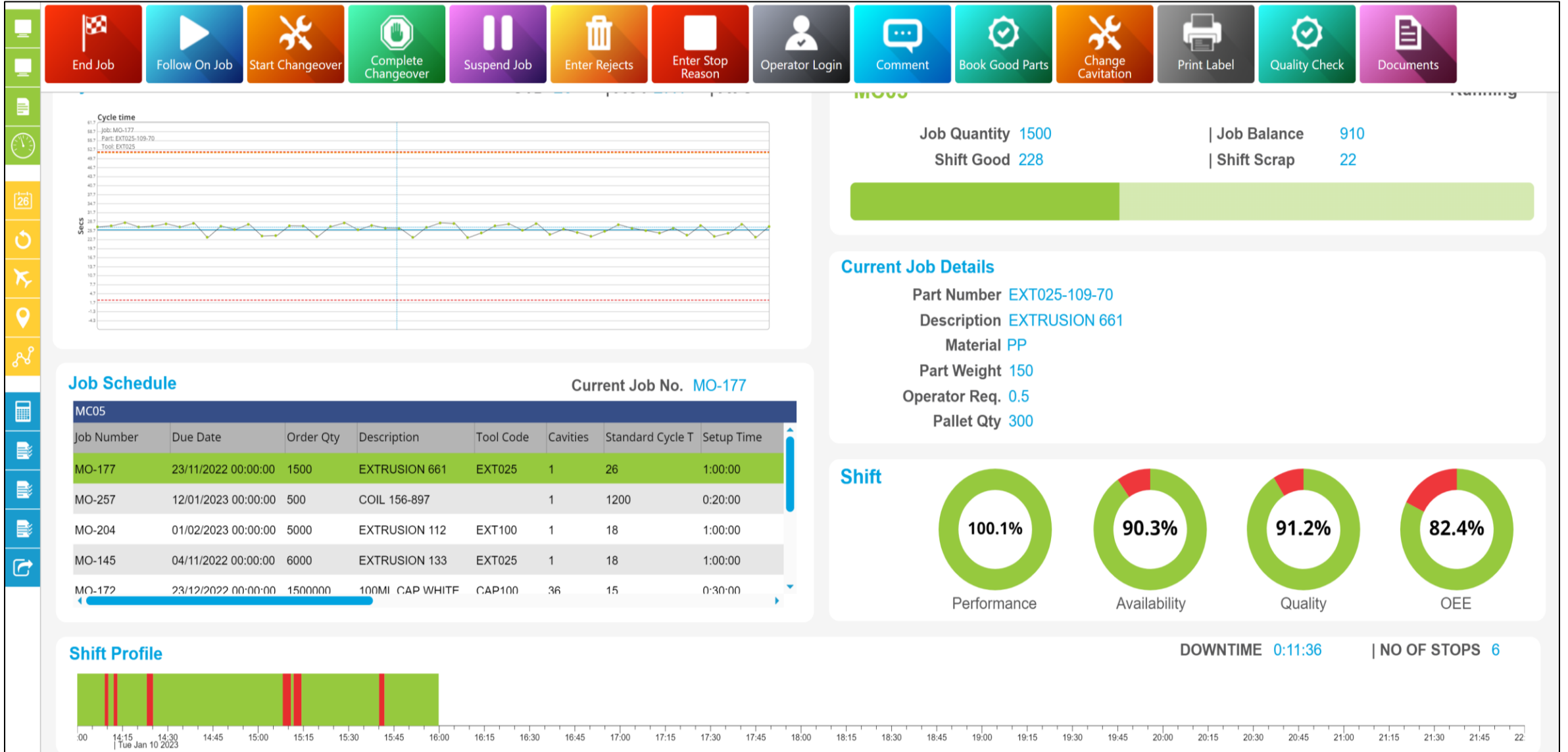
91.8%
Quality

75.3%
OEE

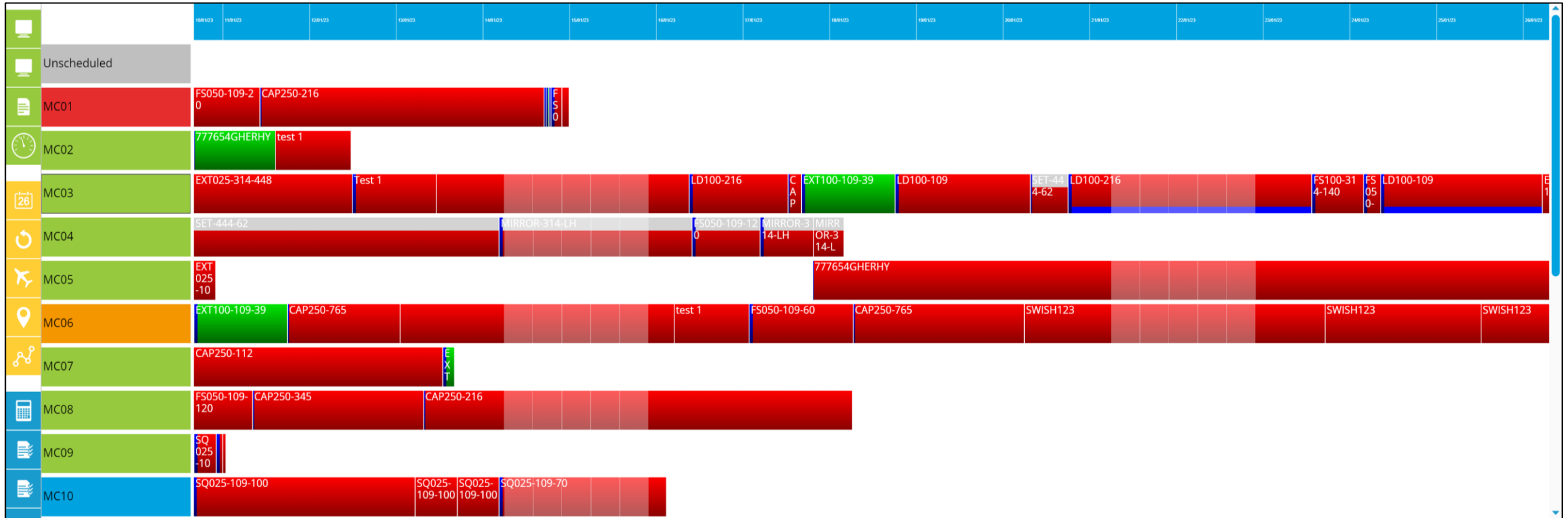
Live Production Status

MC ID	Job No.	Part No.	Status
MC01	MO-68	FS050-109-20	Running
MC02	MO-250	FS050-109-130	Running
MC03	MO-180	EXT025-314-448	Running
MC04	MO-141	SET-444-62	Running
MC05	MO-177	EXT025-109-70	Running
MC06			Waiting
MC07	MO-57	CAP250-112	Running
MC08	MO-173	FS050-109-120	Running
MC09	MO-234	SQ025-109-50	Running
MC10	MO-149	SQ025-109-100	Tool Change
MC11	MO-110	SQ025-109-50	Running
MC12	MO-207	SQ025-109-110	Running
MC13	MO-185	FS050-216-170	Alarm
MC14	MO-216	FS050-216-40	Running
MC15	MO-217	5-ASS-101	Running
MC16	MO-209	FS050-216-40	Running

Performance analytics



Dynamic scheduling



Job Number	Due Date	Order Qty	Description	Tool Code	Cavities	Standard Cycle T	Setup Time	Part Code	Order Balance	Job Hours Remai	Start Time	Earliest Start	End Time	Weight	Material
MO-180	14/11/2022 00:00:00	10000	EXTRUSION A11	EXT025	1	17	1:00:00	EXT025-314-448	9137	43:58:06	10/01/2023 11:35:	01/01/1988 00:00:	12/01/2023 11:56:	265	HDPE
MO-262	18/11/2022 00:00:00	4000	5 LITR WHITE - APRI	FS050	1	20	1:00:00	Test 1	4000	23:13:20	12/01/2023 11:56:	01/01/1988 00:00:	13/01/2023 11:09:	150	PP
MO-259	28/12/2022 00:00:00	45			1	2400	0:00:00		45	30:00:00	13/01/2023 11:09:	30/12/2022 14:52:	16/01/2023 09:09:	0	
MO-220	20/12/2022 00:00:00	3655	10 LTR LID BLUE	LD100	1	26	1:00:00	LD100-216	3655	27:23:50	16/01/2023 09:09:	01/01/1988 00:00:	17/01/2023 12:33:	65	PP
MO-263	01/01/1960 00:00:00	100000	250ML CAP ORANGE	CAP250	64	7.2	0:30:00	CAP250-765	100000	03:37:30	17/01/2023 12:33:	01/01/1988 00:00:	17/01/2023 16:10:	8	PP

Competitive advantage

- Higher utilization and output of assets
- Less manufacturing variances
- Targeted continuous improvement

Value impact

- ✓ Increased revenue / employee
- ✓ Lower costs of goods and higher margins
- ✓ Improved EBITDA

SC

**Supply chain
optimization**

Strategic thoughts

- How do I minimize supply chain disruptions, reduce lead times and reduce costs?
- Where should I expand to gain competitive advantages?

Possibilities

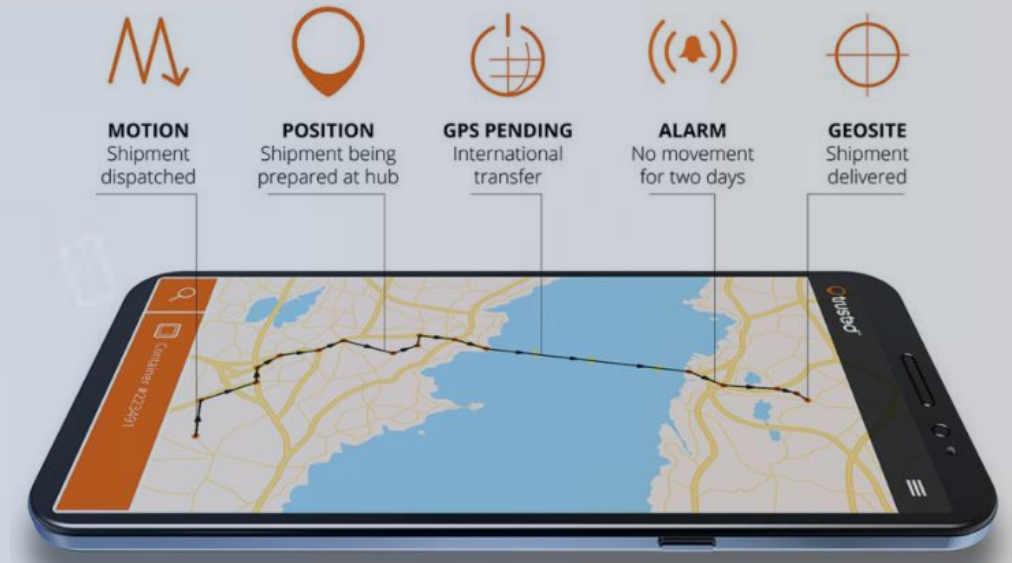
- AI algorithms searching large data sets
- Computer driven material movement equipment
- Modeling software



Strategic focus

(planning/leadership/risk mitigation)

- Enabling supply chain visibility
- Sourcing materials
- Warehousing automation





- Predicting production disruptions
- Warehousing automation
- Sustainability initiatives

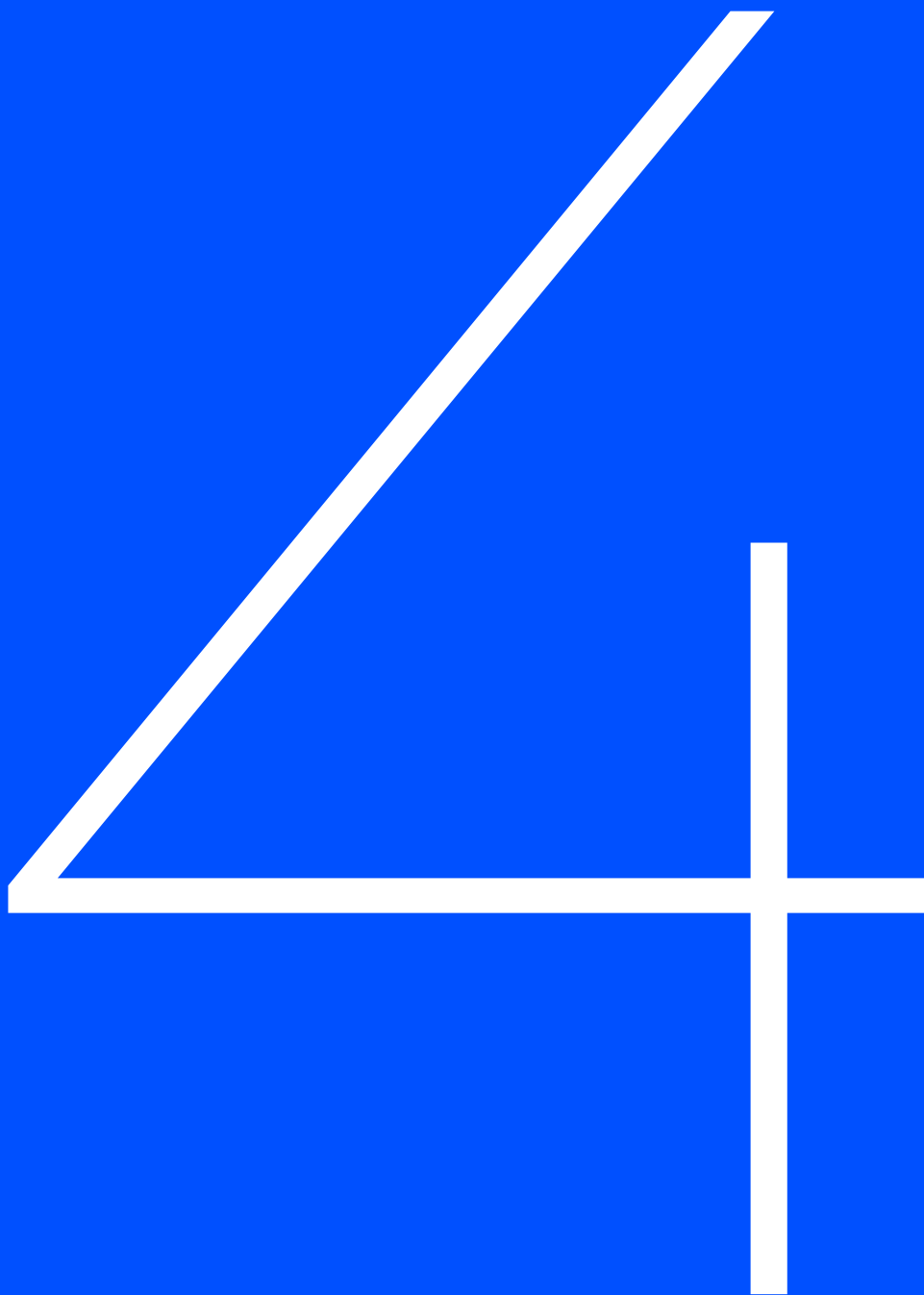


Competitive advantage

- Effective and efficient supplier base
- Reduced lead times
- Less working capital and inventory
- Increase cash turnover

Value impact

- ✓ Increase operating efficiency and reduced operating costs
- ✓ Reduced financing expense
- ✓ Ability to redeploy for increased ROI



**Product
innovation**

Strategic thoughts

- How do we stay ahead of trends and align product and service development?
- How do we partner with others to make offerings more valuable?

Possibilities

- App driven machine learning solutions
- Automated tailored marketing
- Realtime user feedback and performance



Strategic focus

(planning/leadership/risk mitigation)



Outward focus

(customers/markets/competition)





5

Stroke Improvement
for New Members

5x

More Likely to Hit a
Hole-In-One

162

Countries Arccos
Played in

16

Million Rounds
Played with Arccos



PAIR

PLAY

LEARN

ENJOY

Competitive advantage

- Provide “Hope of Gain” edge
- Technological advantage
- Customer insights

Value impact

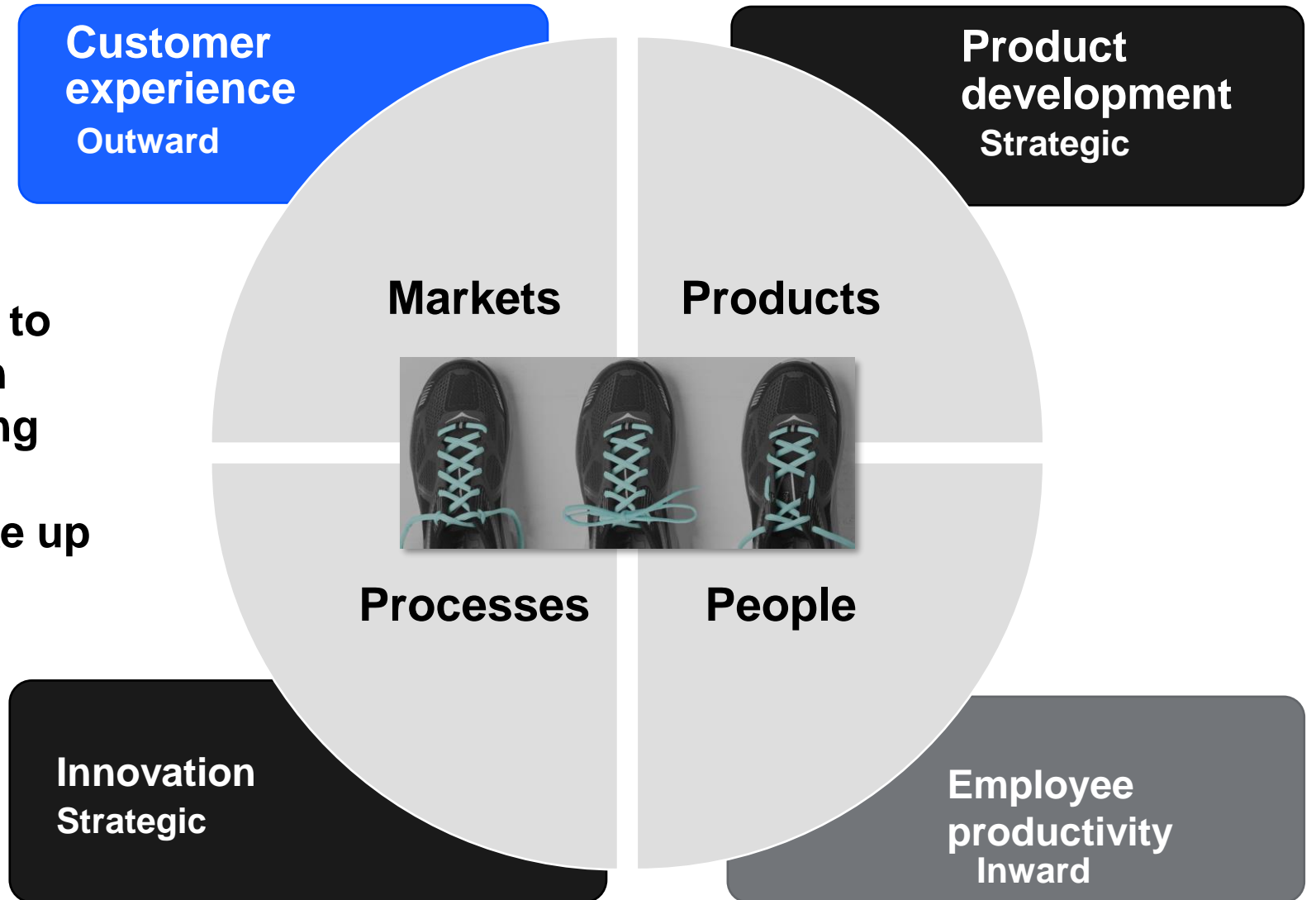
- ✓ Increased revenue
- ✓ Market leader
- ✓ High return on R/D effort

OS

**What's the
point?**

AI links all facets of enterprise value creation

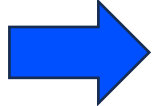
AI technology has the potential to *spark innovation* throughout an enterprise by refining, enhancing and empowering the products, processes and people that make up the organization.



Impact on innovation

- Enhanced utilization of enterprise assets
- Exhaustive and rapid ideation
- Speeds the “trial-and-error” phase

Impact on workforce / productivity

- Automate 60-70% of total workforce hours
- Natural language  "knowledge workers"
- Potential for automating management and talent development functions
 - 17% in 2017
 - **49% in 2023**



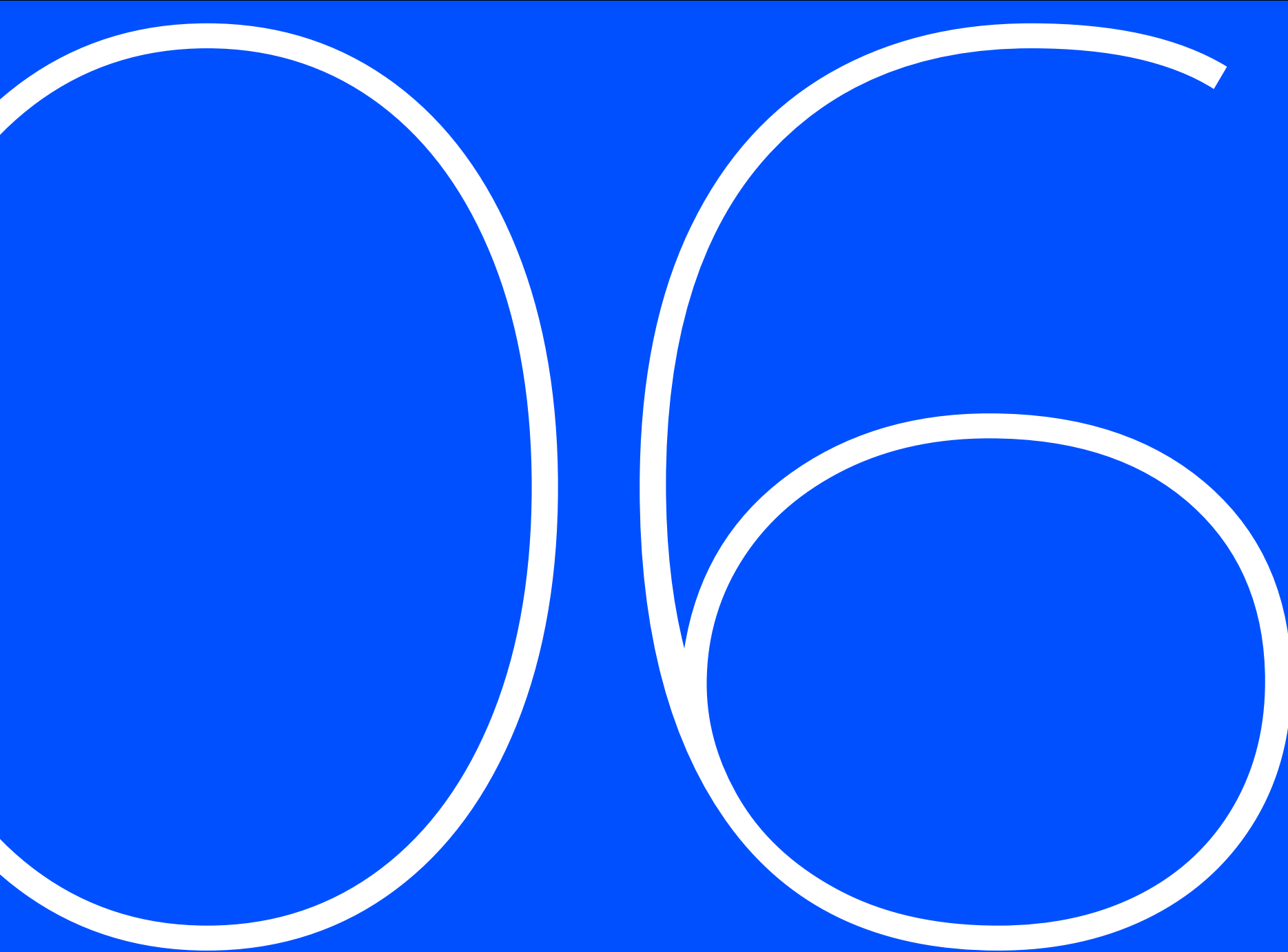


Strategic challenges to intellectual property

- Level playing field / value of "creative class"?
- Suspect ownership / increased litigation
- Easier "work-arounds" / patents vs trade secrets

Economic challenges from AI

- Scale and scope of workforce transitions
- Adapting to new mix of occupations / needed skills
- Moving rapidly while managing risks



**Digital
winners**

Getting Started

Practical Steps Forward:

Get Educated

Get your executive team and board educated. AI will disrupt business models, and those using it will make better decisions and improve operations.

- **Enroll in Industry 4.0 and AI Training**

Identify

Understand and invest in data infrastructure, management, and security.

Dependencies

Understand the capabilities needed to execute on strategy.

- **Evaluate your company's IT / OT stack and digital maturity**

Understand

What are your technology solution partners doing?

Roadmaps

Understand roadmaps of your critical systems. Leverage what you already bought.

- **Establish and engage with your partner ecosystem**

Develop Strategy

Communicate your strategy and approach. Think about developing smaller trials - consider functional areas such as Finance, Sales and Marketing, and HR.

& Use Cases

- **Roadmap your Industry 4.0 and AI strategy with an ROI mindset**

Contact Us



Chris Volz

Partner – Wipfli
chris.volz@wipfli.com



Mo Abuali

Director - Wipfli
Mo.abuali@wipfli.com