



Where is the Toilet Paper?

The Misalignment of Demand & Supply

Where is the Toilet Paper?



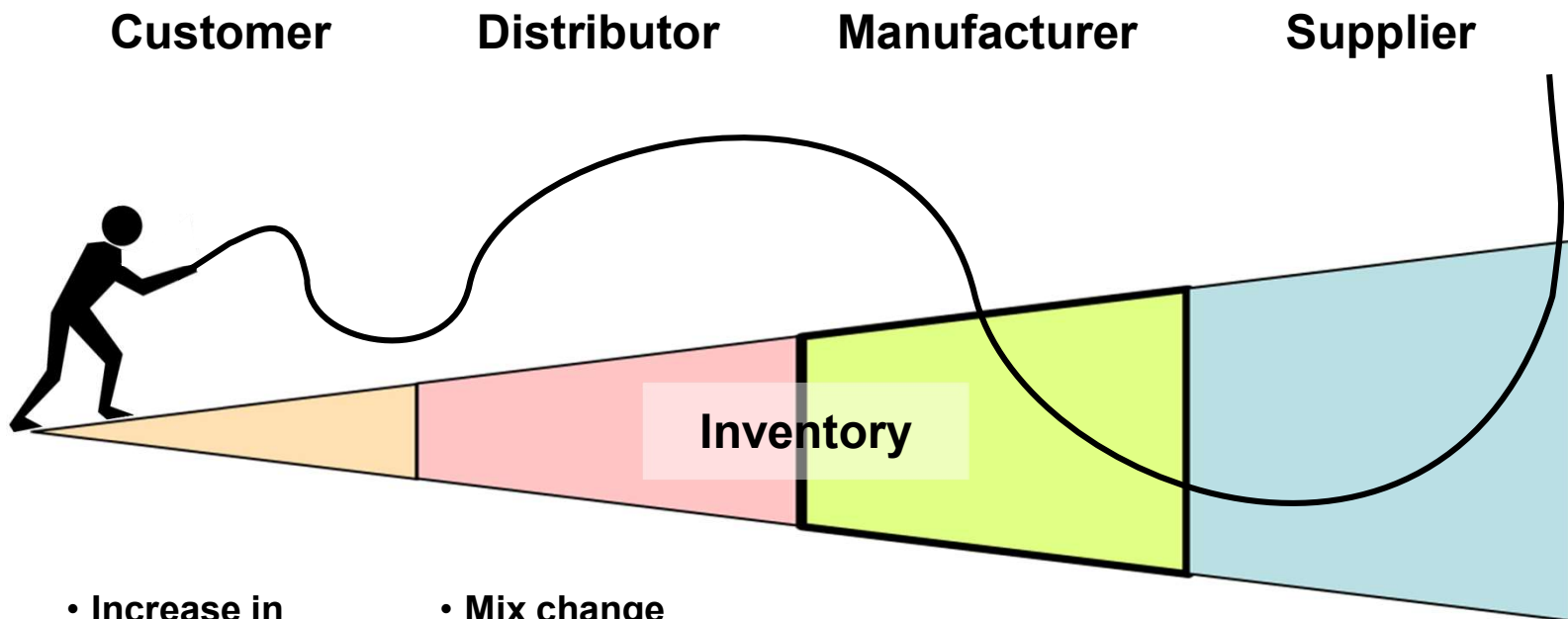
Status

- ↑ Toilet paper is produced in the U.S.
- ↑ Hoarding creates misalignment
- ↑ Spikes in demand creates ripples in the supply chain
- ↑ Resupply requires the extended supply chain to get realigned

My interview on RipCity

Cause: Bullwhip Effect

The Effect of Demand Changes (Demand & Supply Get Misaligned in an Exaggerated Way)

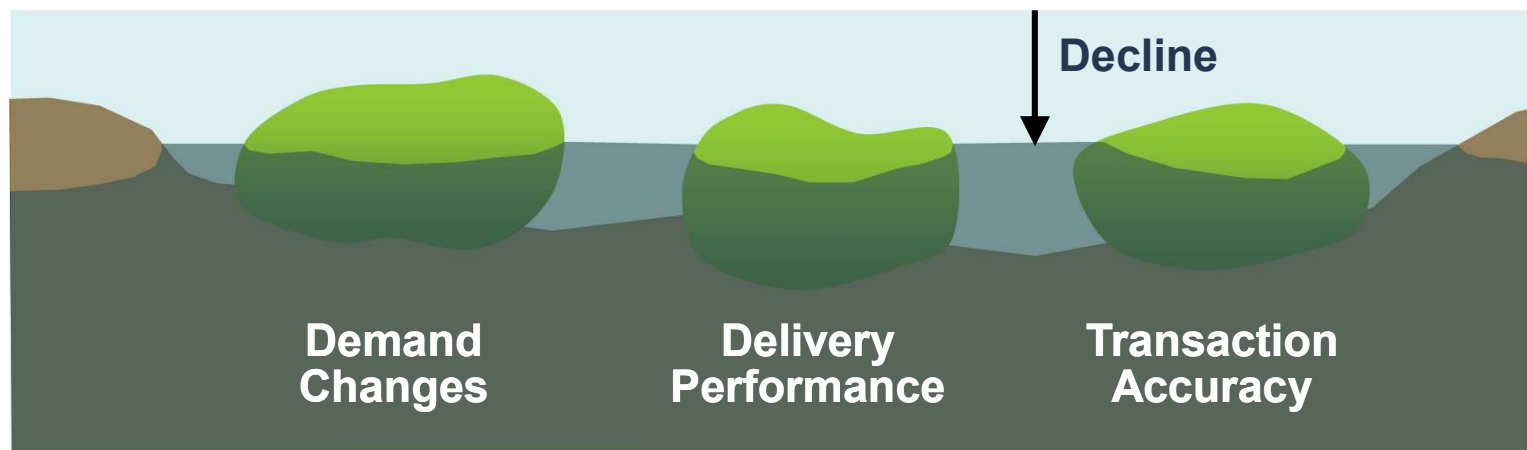


- Increase in Demand

- Mix change
- Order size change
- These aggravate normal bullwhip effect

Proactive Management of Inventory

Inventory Level/ Capacity Availability



Current Status: Manufacturing



Status

- ↑ CMTA survey 73% said they were operating >50%
- ↑ Informal surveys from SoCal – typically diversified and operating around 70-80%
- ↑ Food & medical up
- ↑ Non-essential down
- ↑ Tricky part is keeping enough employees
- ↑ The supply chain is a big challenge

Manufacturing is operating around 70-80%

Current Status: Asian Supply



Manufacturing is Moving to the U.S. & Mexico & smaller Southeastern Asian nations led by Vietnam

Status

- ↑ Delays of 2-3 months
- ↑ China is back around 80-90% capacity but isn't likely to get back to 100% anytime soon
- ↑ South Korea and Vietnam's wasn't as impacted; however, demand was off
- ↑ Kearney reshoring index shows dramatic reversal of 5-year trend with domestic U.S. manufacturing in 2019 gained significantly greater share than the 14 Asian exporters

Current Status: Ports



Ports are operating but down in volume

Status	
↑	Delays of 2-3 months during coronavirus
↑	China is back online at 80-90%
↑	Ports are around 85% of operations; workers not an issue
↑	Long Beach container volume -6.8% in Q1 & estimated at -14% in Q2
↑	Los Angeles container volume -18% YOY in Q1 & 30% in March
↑	More ships parked than in 2008-09
↑	Congestion

Current Status: Transportation



Trucking is down! Railroads has been down and will hurt as auto declines, but they know how to work it and will respond/cut.

Status	
↑	CCJ survey – 55% report decline in freight in last month & expect it to continue
↑	25% of the fleets surveyed reported already reducing driver workforce
↑	Transportation assets in wrong place
↑	Load to truck ratio fallen – shipper has the negotiating power
↑	Zombie carriers on the bubble
↑	Cancelled truck orders -14%

Current Status: Transportation



- ↑ Passenger flights nonexistent
- ↑ Cargo aircraft reaching record utilization levels
- ↑ Major airlines are flying cargo. For example, 16% of Aeromexico's fleet is flying cargo
- ↑ All 4 major U.S. airlines have started flying cargo
- ↑ E-commerce surge

Current Status: Warehousing/ 3PL's

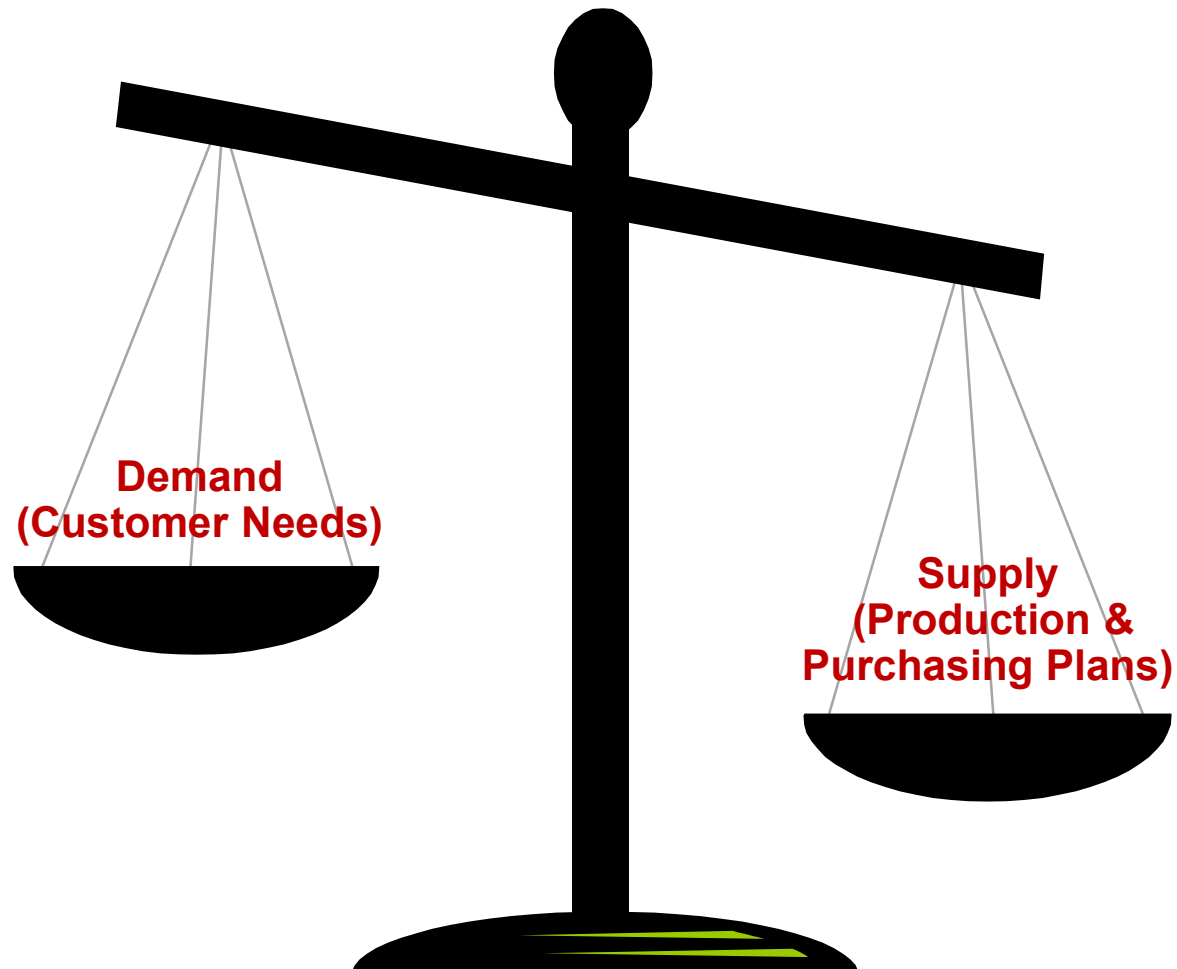


Resupply shock coming

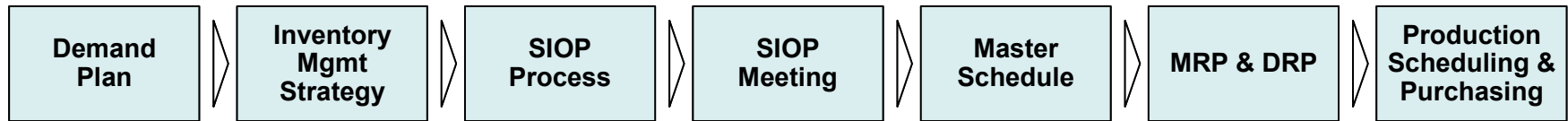
Status

- ↑ Depends on the customer!
- ↑ E-commerce UP!
- ↑ Non-essential businesses down
- ↑ Amazon hiring – 100,000 new roles & increases pay \$2/hr
- ↑ Walmart has hired 100,000 and expects to hit 150,000
- ↑ 3PL opportunity to leverage technology and take cost out
- ↑ Warehouses stuffed!

Cause: Demand & Supply Out of Alignment



SIOP/ Integrated Business Planning



Key Participant	• Demand Planner	• Master Schedulers/ Planners	• SIOP Leader	• SIOP Leader	• Master schedulers/ planners	• Planners/ Buyers/ Distribution planner	• Schedulers/ Purchase execution
Key Points (Start with theory & adjust to what makes sense)	<ul style="list-style-type: none"> • 12 month by month • 18 months – last 6mo by quarter • Financial month • Incorporate inputs – historical sales, customer forecasts, contracts/ agreements, market info, sales orders, etc. 	<ul style="list-style-type: none"> • Inventory strategy • By customer • By part • Repetitive • Discrete 	<ul style="list-style-type: none"> • Preliminary demand plan • Preliminary production and purchase plan • Demand and supply review 	<ul style="list-style-type: none"> • Align on demand plan • Agree on production plan • Communicate plan to supply base 	<ul style="list-style-type: none"> • Master schedule for periods medium term period • Associated capacity, staffing and inventory plans 	<ul style="list-style-type: none"> • Production orders • Purchase requisitions • Distribution orders • Define lot sizing logic • Review lead time logic • Review yield logic 	<ul style="list-style-type: none"> • By line • By groups of items • Monthly, weekly, daily schedules • Purchase releases • Proactive management of due dates & past dues • Advance builds, etc. • Drop ins/ expedites
Policies	<ul style="list-style-type: none"> • Inventory management strategy • Time fences • Drop ins (Customer, New & updated Products) 						
People/ Organization							
Processes							
Systems/ Data							
Customers & Suppliers							
Metrics							

Proactive Management of Demand

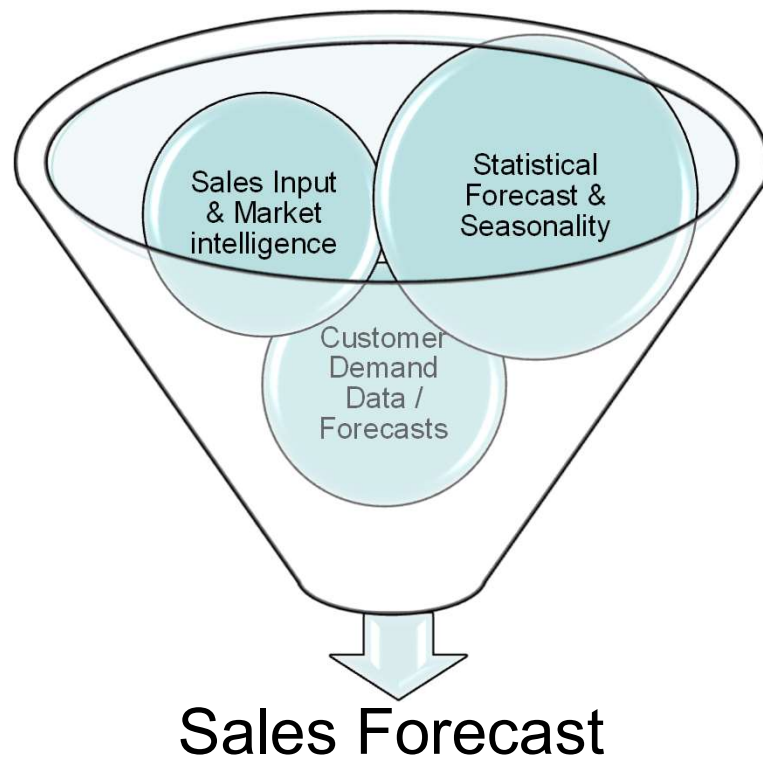


Are you “all over” your demand?

#1 Priority

- ↑ Know your customers & your customers' customers
- ↑ Understand your market
- ↑ Talk with your customers
- ↑ Talk with your front-line resources
- ↑ Take macro economics into account
- ↑ Gain proactive information on demand into your supply chain
- ↑ Ask about outliers/ items with high forecast error

Proactive Management of Demand

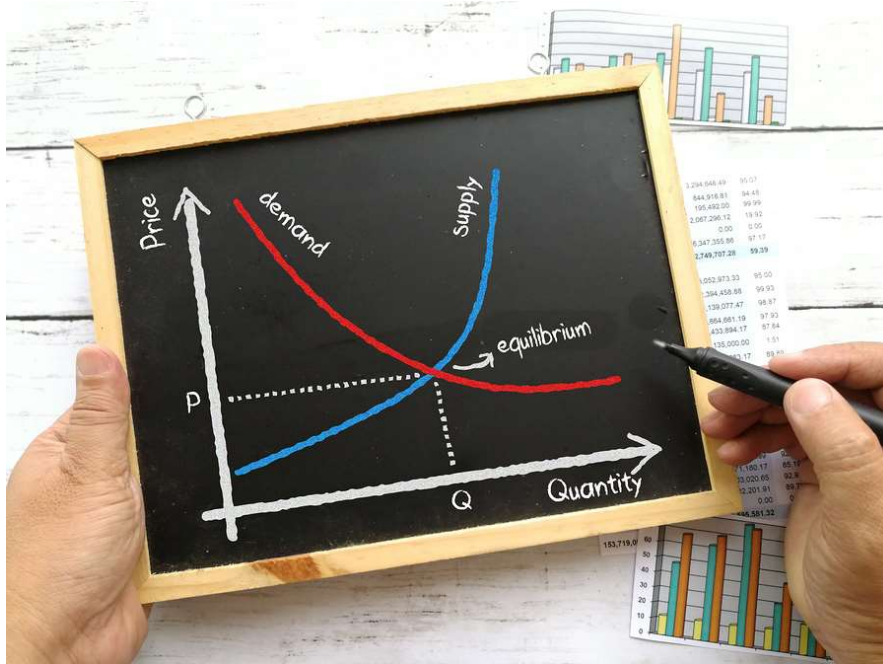


Gartner Research For every 1% improvement in forecast accuracy:

- 7% reduction in FG inventory (days)
- 9% reduction in inventory obsolescence (percent of inventory value)

AMR Research
3% increase in forecast
accuracy means a 2%
increase in margins

Proactive Management of Supply



Are you “all over” your supply?

#1 Priority

- ↑ Know your manufacturing capacity levers
- ↑ Understand your supply base
- ↑ Talk with your suppliers
- ↑ Talk with your front-line resources
- ↑ Take your transportation network into account
- ↑ Prioritize & proactively manage supply
- ↑ Manage your outliers and bottlenecks

Proactive Management of Inventory



Inventory Covers the Demand & Supply Mismatch

#1 Priority

- ↑ The point of having inventory is to cover for the volatility of demand and supply!
- ↑ If not inventory, capacity is also a good alternative.
- ↑ Keep strategic inventory
- ↑ The better you get at proactive management of SLOP, the less inventory / excess capacity you'll need

Accelerated SIOP

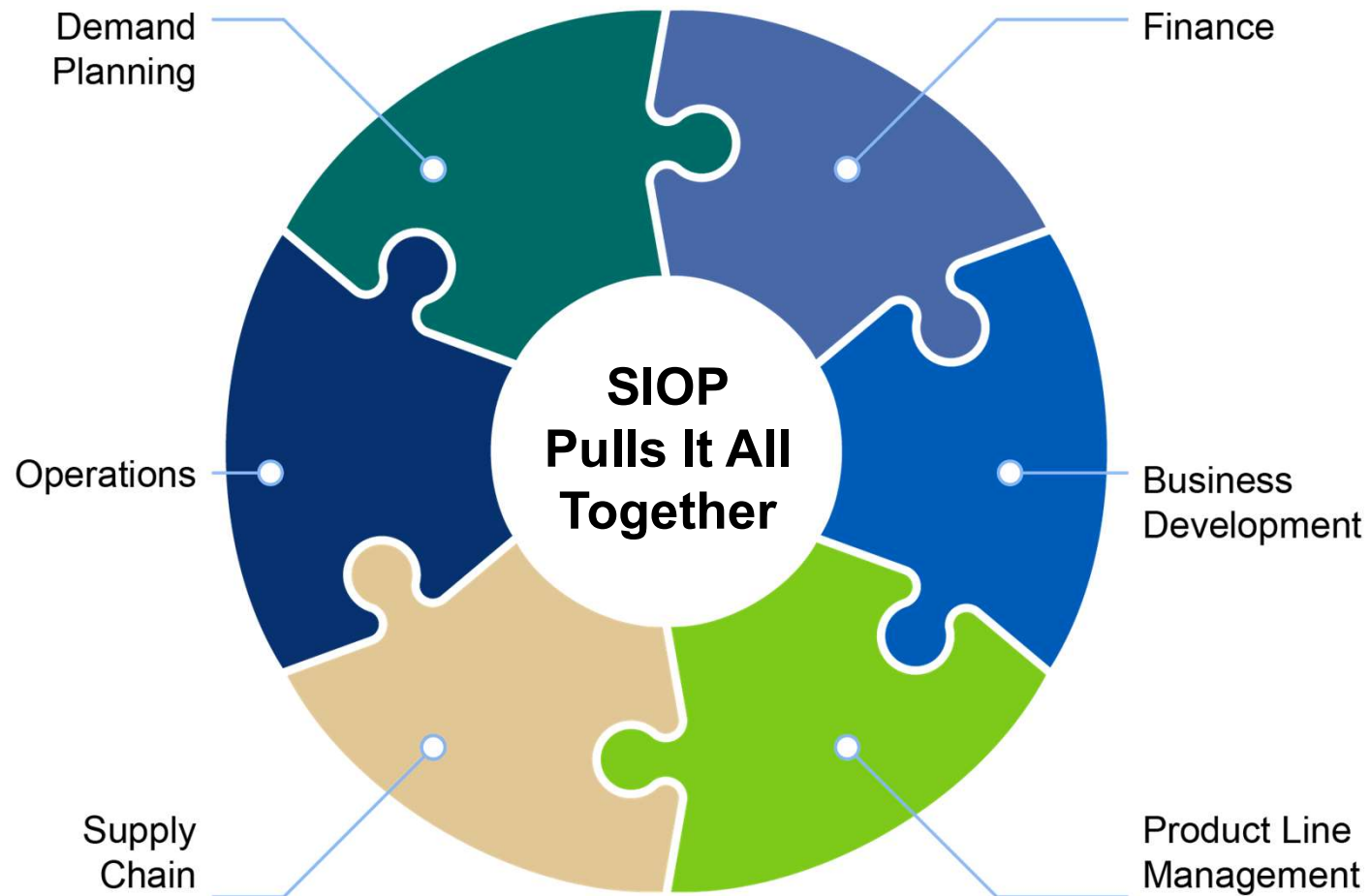


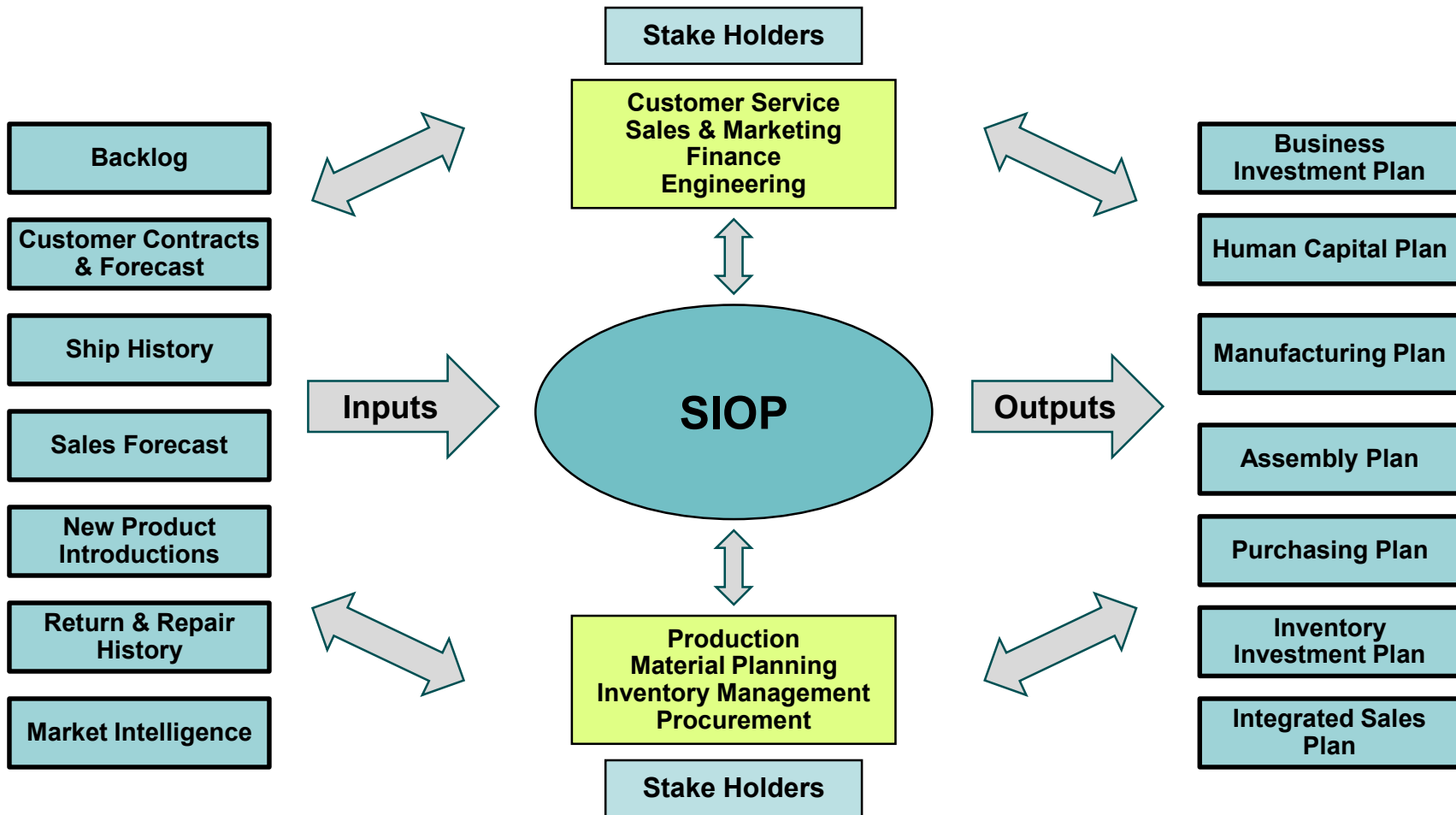
SIOP Aligns Demand with Supply

Who is involved?

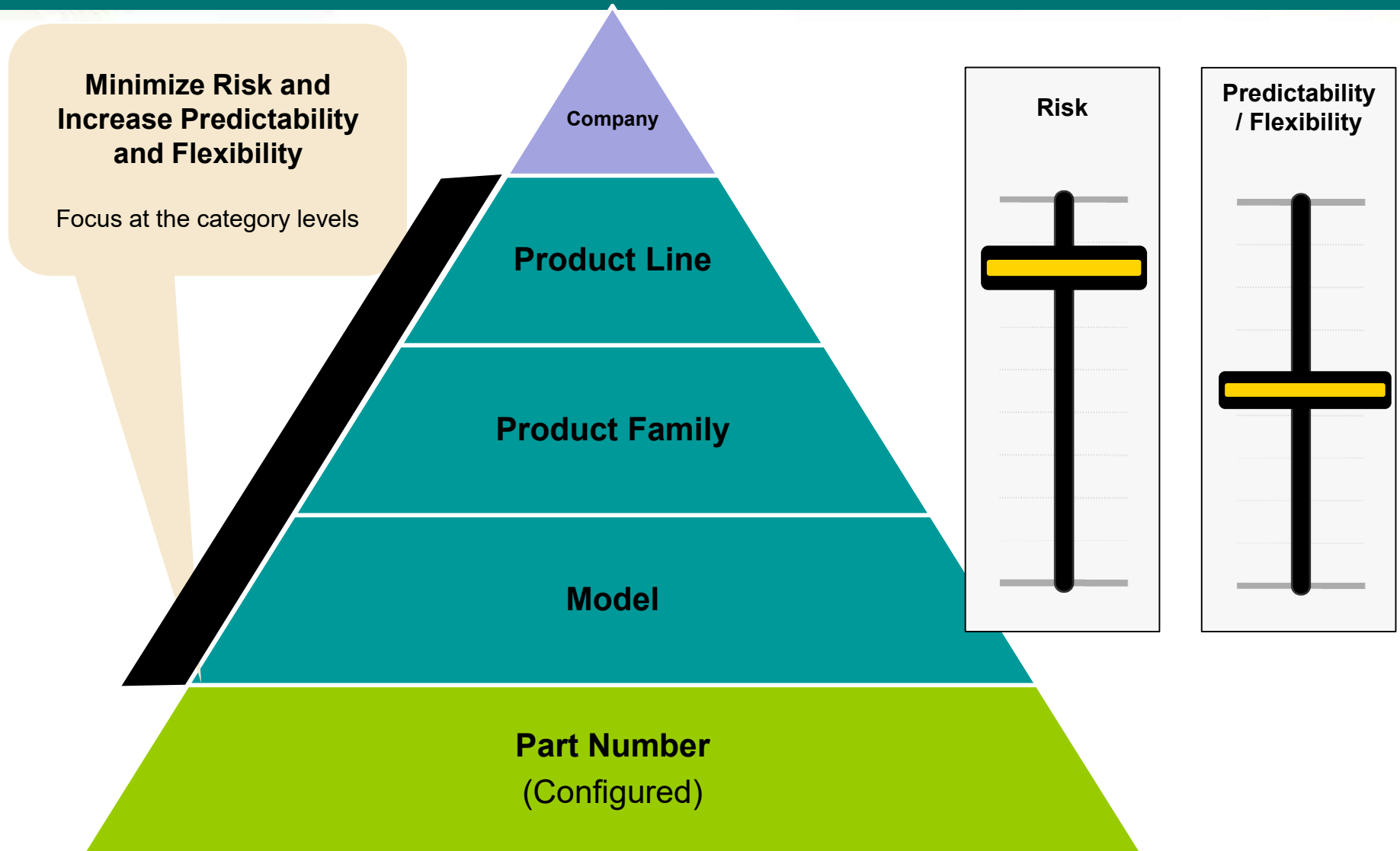


SIOP Aligns Critical Functions

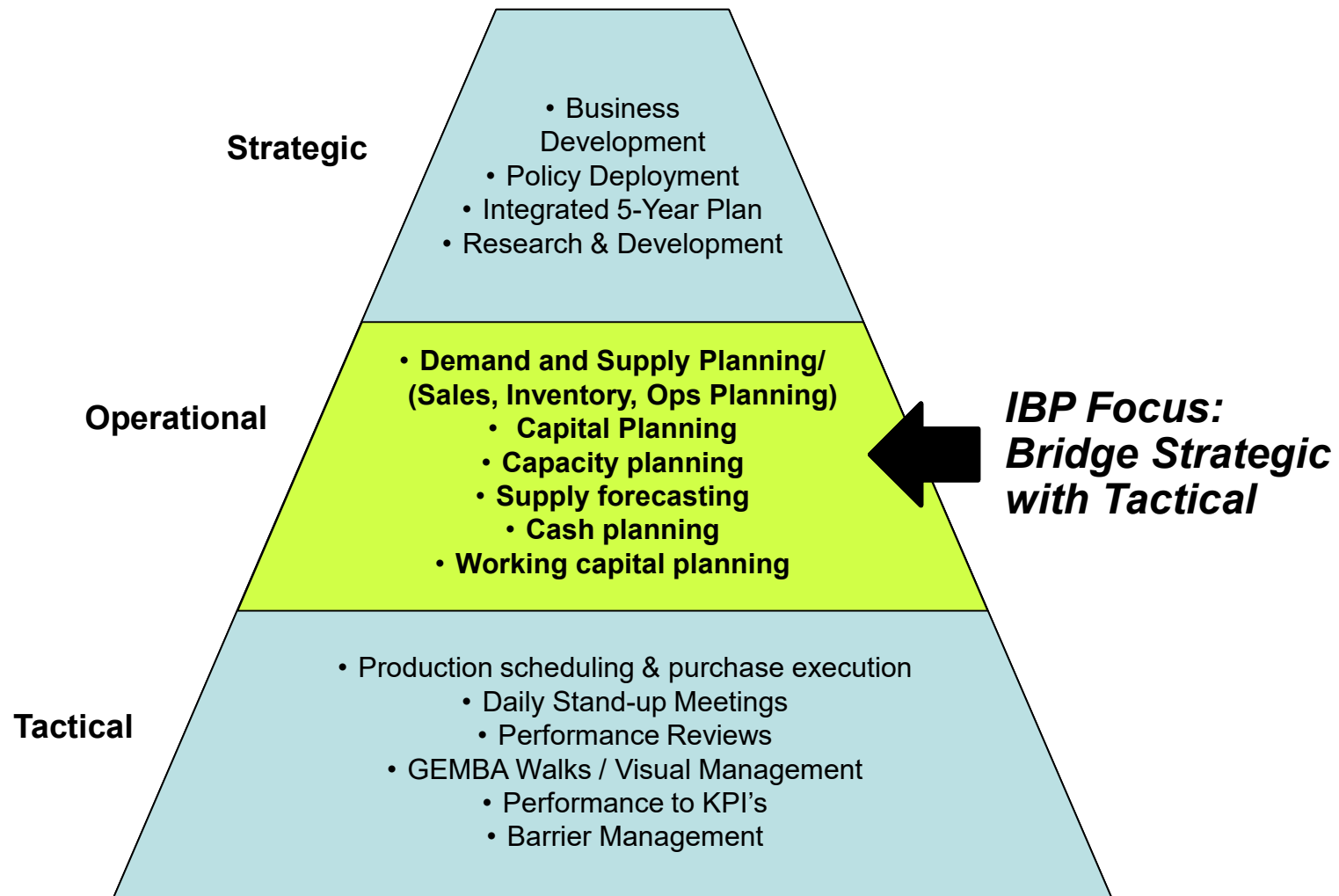




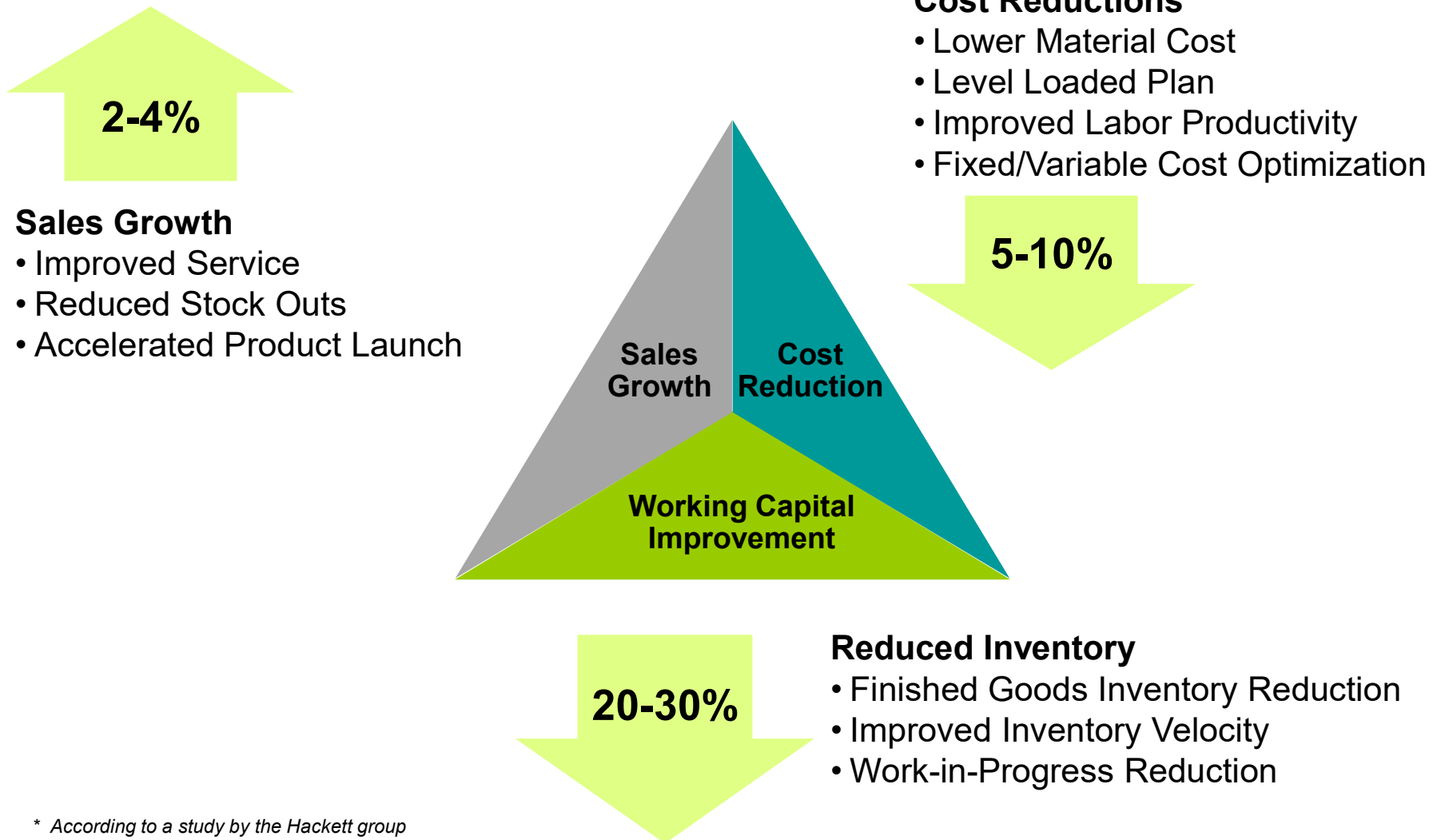
SIOP Focused Business Model



Supply Chain Integrated Business Planning



Why Implement SLOP?

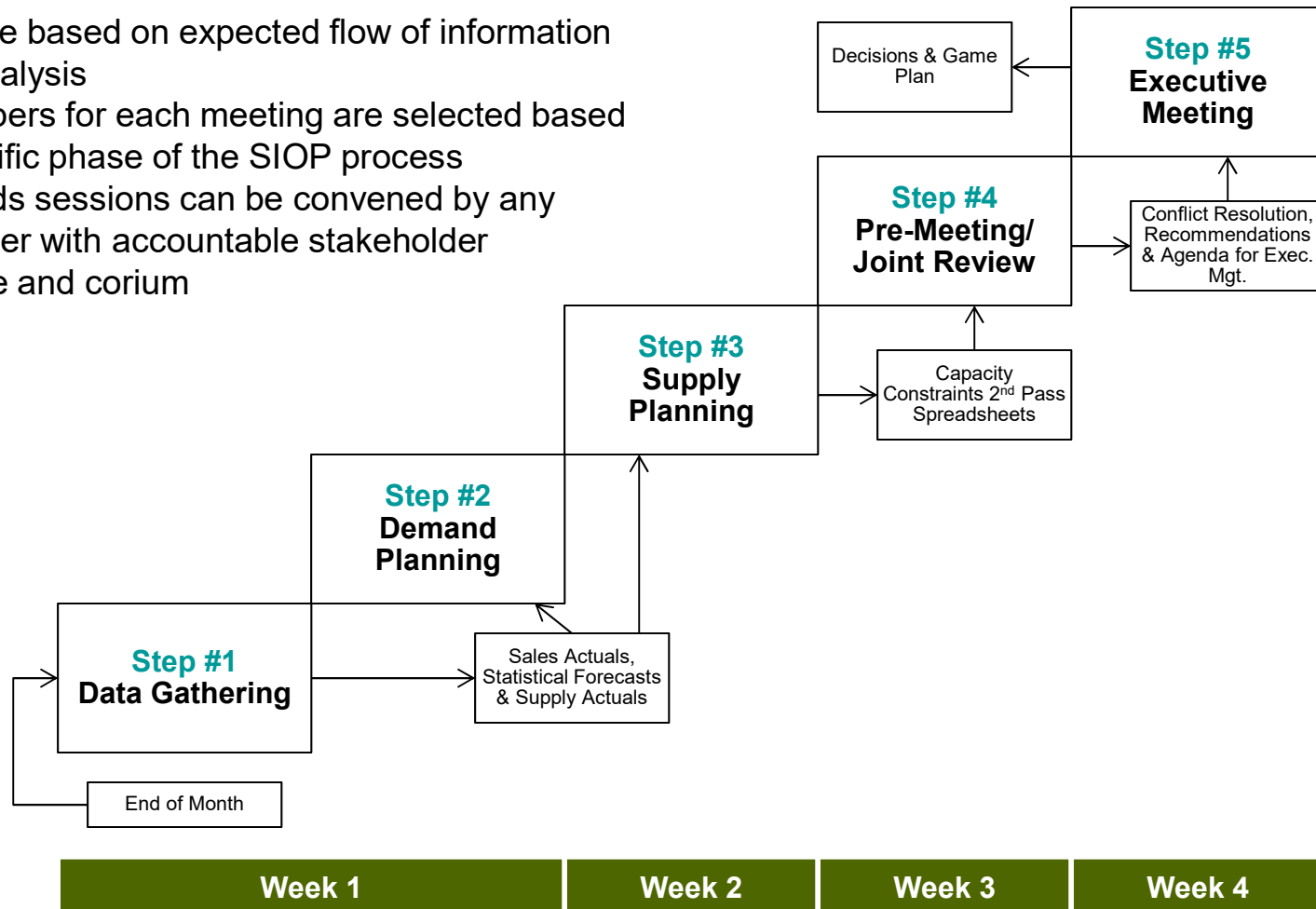


* According to a study by the Hackett group

Implement: Rolling Monthly Cadence

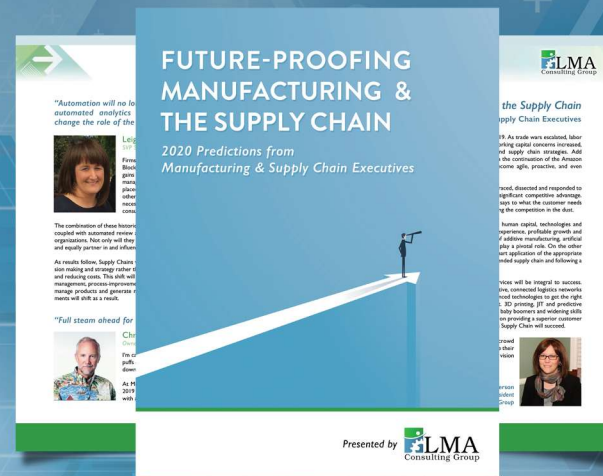
Executive SIOP

- Meetings are based on expected flow of information and data analysis
- Team members for each meeting are selected based on the specific phase of the SIOP process
- Urgent needs sessions can be convened by any team member with accountable stakeholder concurrence and corium



Ebook on What to Do

Manufacturing & Supply Chain Predictions 2020



Contact

- Email: landerson@lma-consultinggroup.com
- Phone: 909-630-3943
- Website: www.lma-consultinggroup.com
- Twitter: [lisaandersonlma](https://twitter.com/lisaandersonlma)
- LinkedIn: [linkedin.com/in/lmaconsultinggroup](https://www.linkedin.com/in/lmaconsultinggroup)



LMA Performance Advantage



Lisa Anderson, President