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SAPICS CONFERENCE

Century City Conference

Centre, Cape Town,

South Africa



PROFESSIONAL BODY FOR
**SUPPLY CHAIN
MANAGEMENT**

The Convergence of Supply Chain Best Practices

A Case for DDMRP and SCOR®

**Supply chain thinking in
practice.**

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CLX flow, BSc (Hons), MPhil, CPIM,
SCOR®-P, CDDP, IDP



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My story

- Involved with many Supply Chain Software implementations
 - Always use strategic thinking based on my SCOR® training
 - Provides **holistic approach** to Supply Chain improvement
- Clients come to me with planning solution software in mind
 - Often DDMRP based on increasing popularity

- Today I would like to share:
 - My experiences with you
 - My ideas around using SCOR® thinking to inform DDMRP implementations

BSc (Hons), MPhil, CPIM, SCOR®-P,
CDDP, IDP

What is SCOR®?

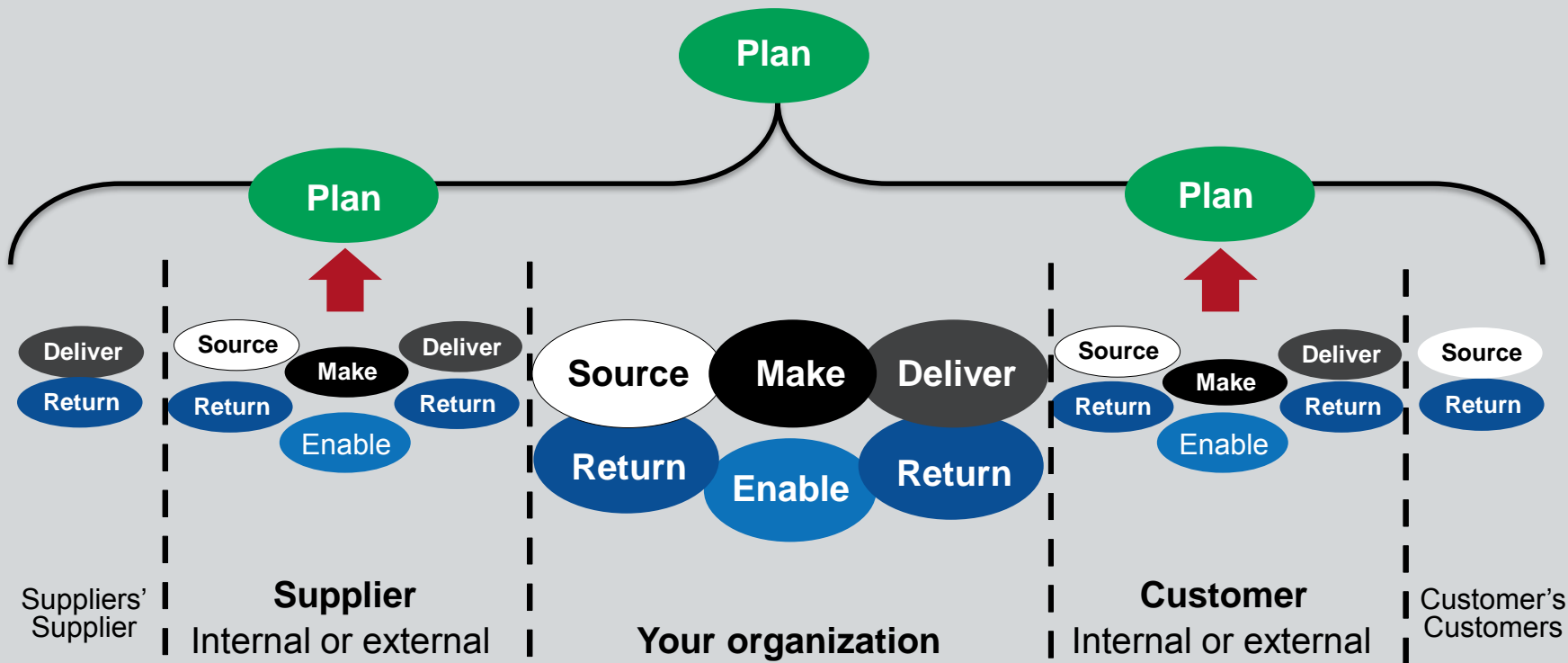


Image Source: <http://www.aims.education/study-online/supply-chain-operations-reference-model-scor/>

What is DDMRP?

- A planning and execution methodology designed to:
 - Assist in maintaining a focus on supply chain strategy
 - Solving for real world constraints
 - Easy to use self regulating adaptive system

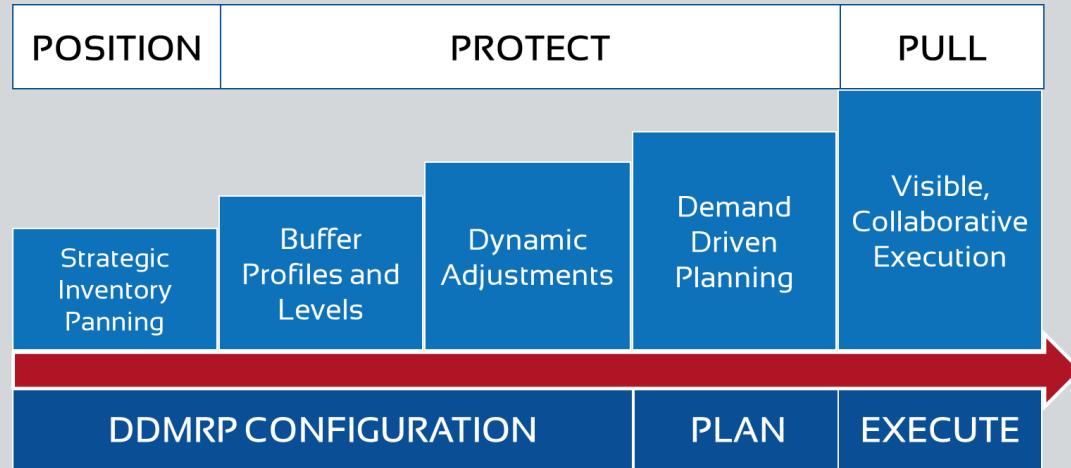


Image Source: Ptak and Smith Demand Drive Material Requirements Planning

Can SCOR® thinking be used to assist in configuring DDMRP such that it aids in fulfilling the overall supply chain strategy of the organisation?



SCOR®

Framework which enables a method of formalising **supply chain strategy** and processes



DDMRP

Formalised process for communicating and executing **supply chain strategy**

Together these tools may be used to create operating models which translate supply chain strategy to operational execution.



How do SCOR® and DDMRP converge?

SCOR®

The 5 SCOR® performance attributes provide guidance on what strategy an organisation needs to adopt to achieve their supply chain strategic objectives

DDMRP

The 6 DDMRP strategic buffer positioning factors provide guidance on where in the supply chain an organisation should be positioning their decoupling points to support the competitive supply chain strategy

SCOR®	Reliability	Responsiveness	Agility	Cost	Asset Management Efficiency
DDMRP					
Customer Tolerance Time		X			
Market Potential Lead Time		X	X		
Sales Order Visibility Horizon	X				
External Variability	X		X	X	X
Inventory Leverage and Flexibility		X	X		X
Critical Operation Protection	X			X	


Where to focus?

SCOR®

- Focus on where to improve supply chains through benchmarking
 - Superior
 - Advantage
 - Parity

DDMRP

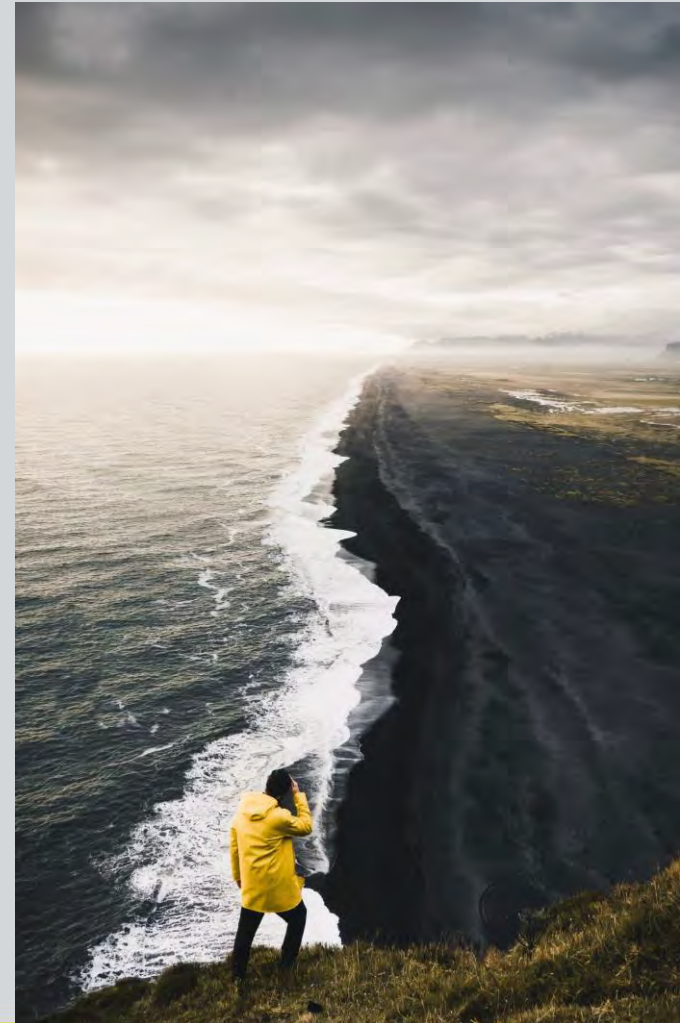
- Focuses on where to position stock to improve supply chain efficiency



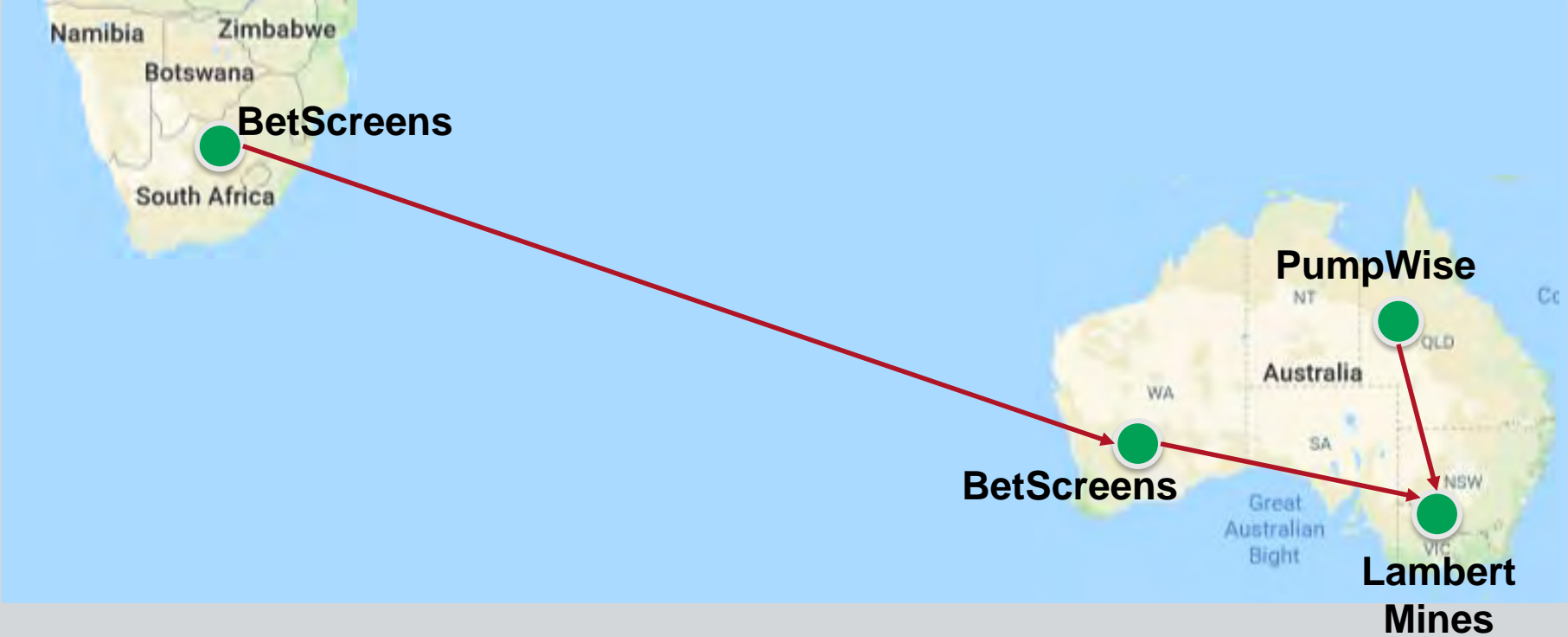
What happens when you apply DDMRP without knowing what the bigger picture is?

How do SCOR® and DDMRP complement one another?

- PumpWise supplies pumps to Lambert Mines
- BetScreens supplies rubber screening products to Lambert Mines
- Both have decided to implement DDMRP
 - We started by defining strategic supply chain goals
 - Did the application of DDMRP help fulfil these strategic goals?



The overall supply chain





PumpWise

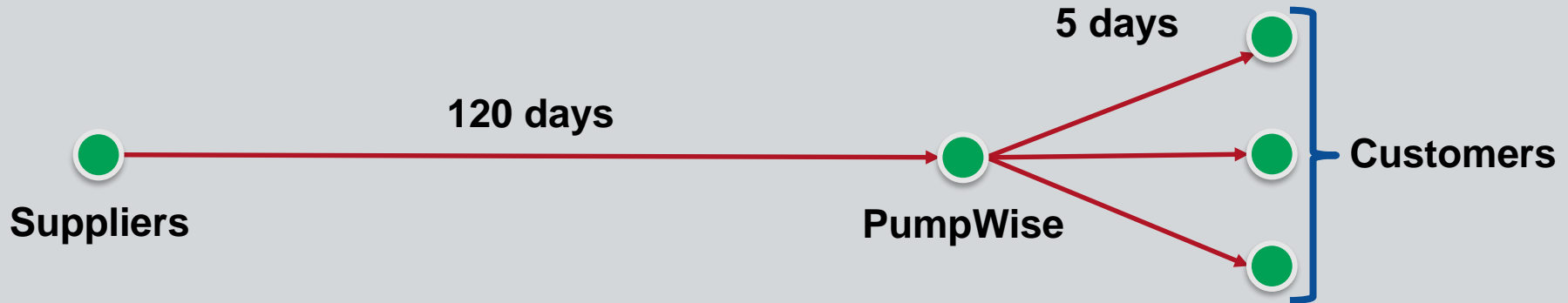
- Large product portfolio
 - Sourced internationally
 - Supply lead times average 120 days
- Have experienced rapid growth by increasing market share by providing high responsiveness
 - Customers expect products within 7 days of order
 - High working capital
 - High cost to serve

What is the problem that needs to be solved?

Attribute	Metric	Target Performance	Your Organisation	Parity	Advantage	Superior	Gap to Target
Reliability	Perfect Order Fulfillment	Advantage	90%	75%	85%	95%	-
Responsiveness	Total Order Fulfillment Cycle Time, Configured-to-Order Products (Days)	Superior	4	10	7	4	-
Agility	Supply Chain Adaptability (%)	Advantage	50%	30%	50%	75%	-
Cost	Total Supply Chain Management Cost (% of Revenue)	Parity	20%	10%	6%	3%	-10%
Asset Management Efficiency	Inventory Investment (% of Turnover)	Parity	70%	55%	30%	20%	-15%



How do we maintain current advantage with growing base while keeping cost and working capital within sustainable tolerances?



SCOR®	Reliability	Responsiveness	Agility	Cost	Asset Management Efficiency
DDMRP					
Customer Tolerance Time		X			
Market Potential Lead Time		X	X		
Sales Order Visibility Horizon	X				
External Variability	X		X	X	X
Inventory Leverage and Flexibility			X		X
Critical Operation Protection	X			X	

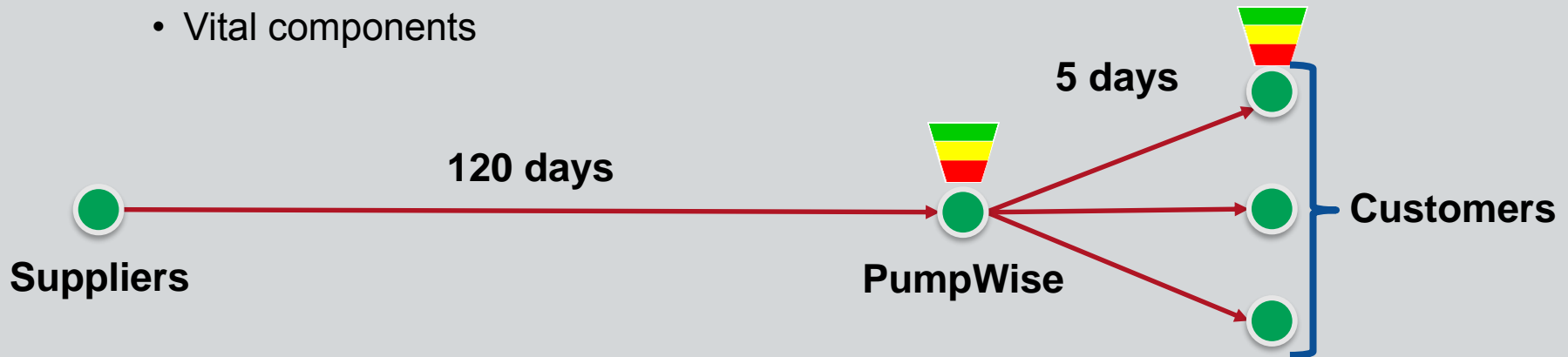
PumpWise buffer placement criteria

1. Inventory Leverage and Flexibility
2. External Variability
3. Market Potential Lead Time (retain)
4. Customer Tolerance Time (retain)
5. Critical Operation Protection
6. Sales Order Visibility Horizon



PumpWise buffer placement

- Buffered specific items at
 - Specific customers
 - Central distribution centre
 - Vital components



Results obtained

Attribute	Metric	Target	Then	Now	P	A	S	Gap
Reliability	Perfect Order Fulfillment	Advantage	90%	90%	75%	85%	95%	-
Responsiveness	Total Order Fulfillment Cycle Time, Configured-to-Order Products (Days)	Superior	4	4	10	7	4	-
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BetScreens

- Make to Order/Stock
- Central manufacture in South Africa
 - Long delivery lead time to international customers
- Customers expect product delivery in 21 days

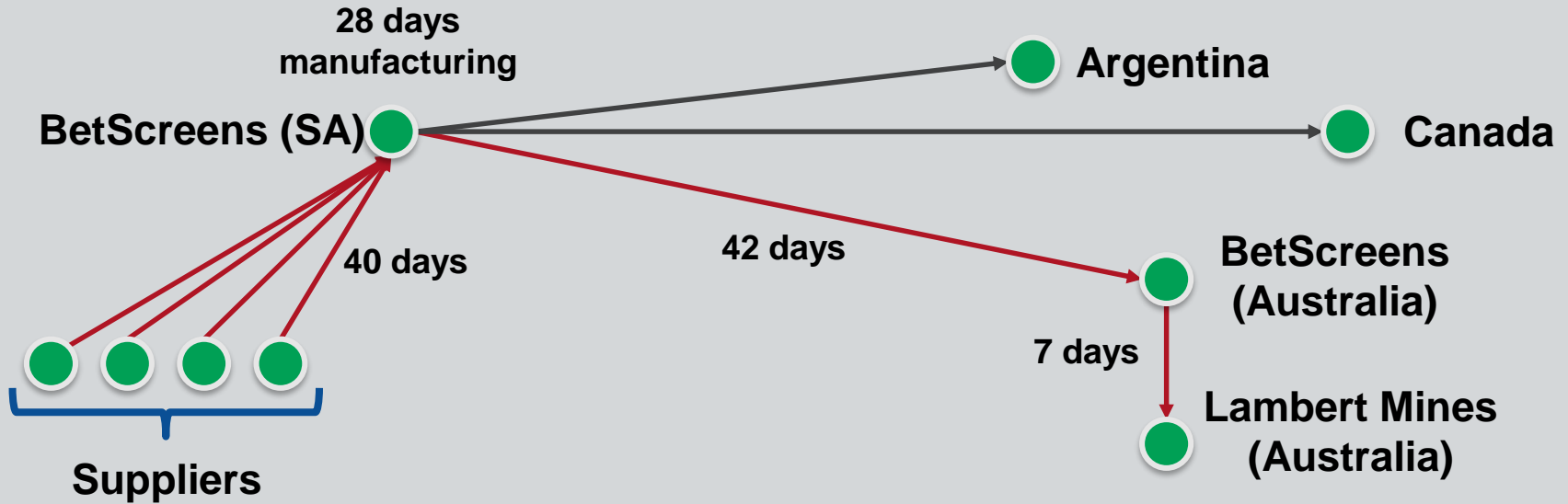


What is the problem that needs to be solved?

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Responsiveness	Total Order Fulfillment Cycle Time, Configured-to-Order Products (Days)	Superior	70	20	15	5	-65
Agility	Supply Chain Adaptability (%)	Advantage	65%	40%	65%	75%	-
Cost	Total Supply Chain Management Cost (% of Revenue)	Parity	20%	15%	10%	5%	-5%
Asset Management Efficiency	Inventory Investment (% of Turnover)	Parity	55%	55%	35%	15%	-



How do we maintain reliability while reducing transportation cost, correctly size working capital and increasing responsiveness?



SCOR®	Reliability	Responsiveness	Agility	Cost	Asset Management Efficiency
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Market Potential Lead Time		X	X		
Sales Order Visibility Horizon	X				
External Variability	X		X	X	X
Inventory Leverage and Flexibility			X		X
Critical Operation Protection	X			X	

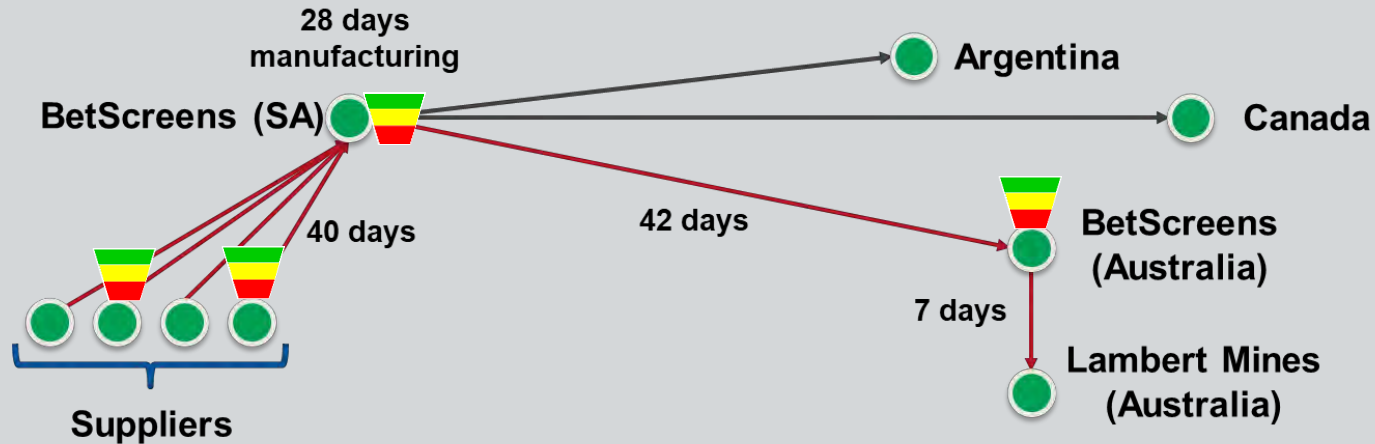
BetScreens buffer placement criteria

1. Customer Tolerance Time
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BetScreens buffer placement

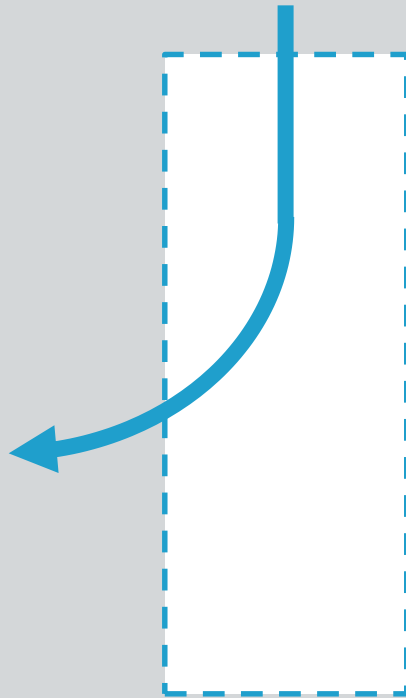
- Buffered specific items at
 - Key suppliers
 - Manufacturing centre
 - Australian warehouse



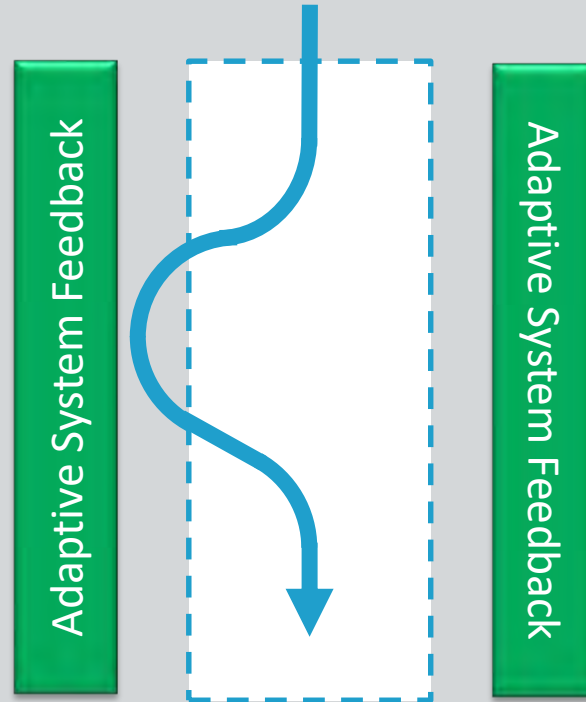
Results obtained

Attribute	Metric	Target	Then	Now	P	A	S	Gap
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Responsiveness	Total Order Fulfillment Cycle Time, Configured-to-Order Products (Days)	Superior	70	10	21	15	5	-5
Agility	Supply Chain Adaptability (%)	Advantage	65%	65%	40%	65%	75%	-
Cost	Total Supply Chain Management Cost (% of Revenue)	Parity	20%	15%	15%	10%	5%	-
Asset Management Efficiency	Inventory Investment (% of Turnover)	Parity	55%	50%	55%	35%	15%	-5%

Strategy



Strategy



SCOR[®] strategy to DDMRP execution

- By applying SCOR[®] thinking we can use SCOR[®] metrics as a tool to drive the design of a DDMRP implementation
 - Benefits supply chain strategy
 - Benefits the bottom line
- Results in a supply chain strategy baked into the execution model of the supply chain within an adaptive system

