



Why a Forecast is Not a Plan And What MIT Research Reveals

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MIT Research shows us that traditional MRP based supply chain planning methods are obsolete



The findings of recent analysis from the Massachusetts Institute of Technology (MIT) state

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“Summary: In this project, we investigated how Demand Driven MRP (DDMRP) operates in a capacity constrained environment. Using qualitative and quantitative analysis, **we proved that DDMRP increases service levels and reduce both inventory levels and customer order lead times. The financial impact of these results combined with the competitive advantage derived from the improved service gives DDMRP the potential to be a game-changer in supply chain planning**”

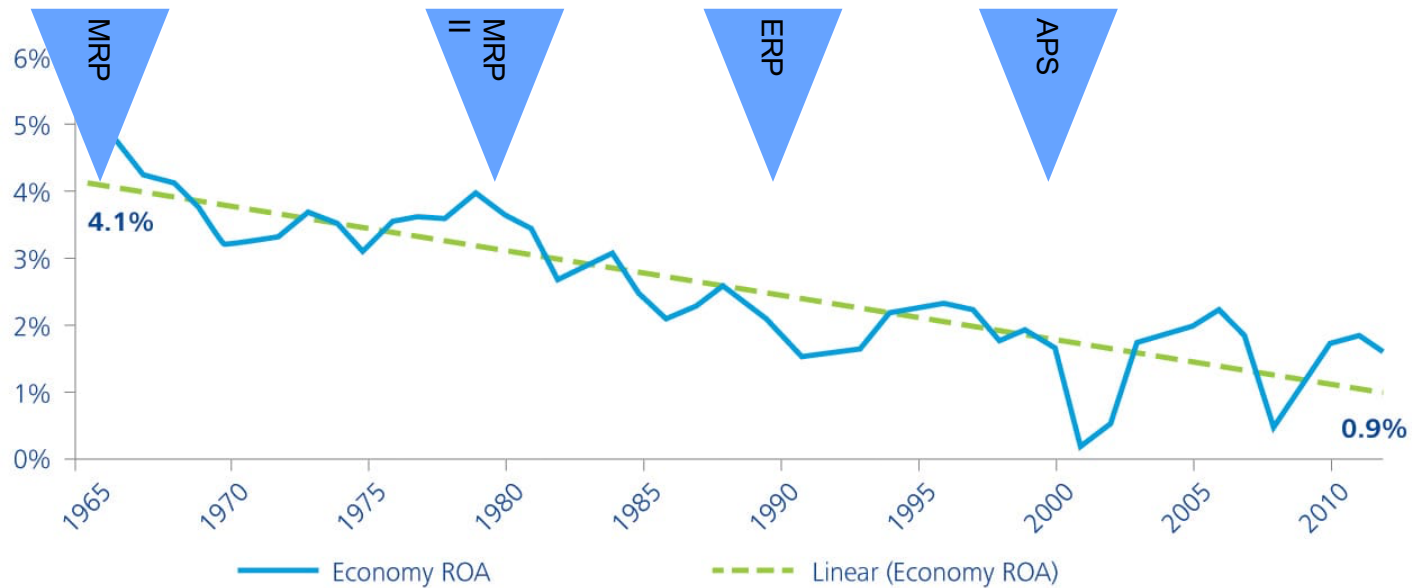
KEY INSIGHTS

- 1. DDMRP can have a strong impact on the financial performance of the company and can provide a competitive advantage.
- 2. Implementing DDMRP results in streamlined operation throughout the internal supply chain.
- 3. DDMRP provides similar results as a solver-based plan

Advances in MRP based planning logic have not helped business results



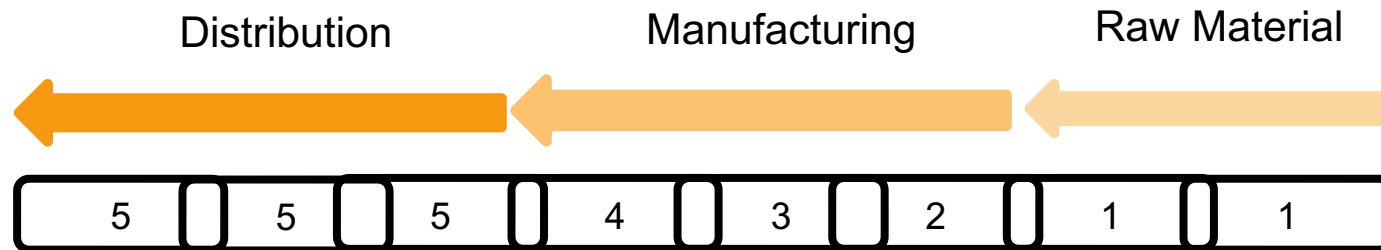
Figure 1. Return on assets for the US economy (1965–2012)



US firms' ROA fell to a quarter of its 1965 levels in 2012. To increase, or even maintain, asset profitability, firms must find new ways to create value from their assets.



Period of demand certainty has reduced to almost 0



Demand certainty

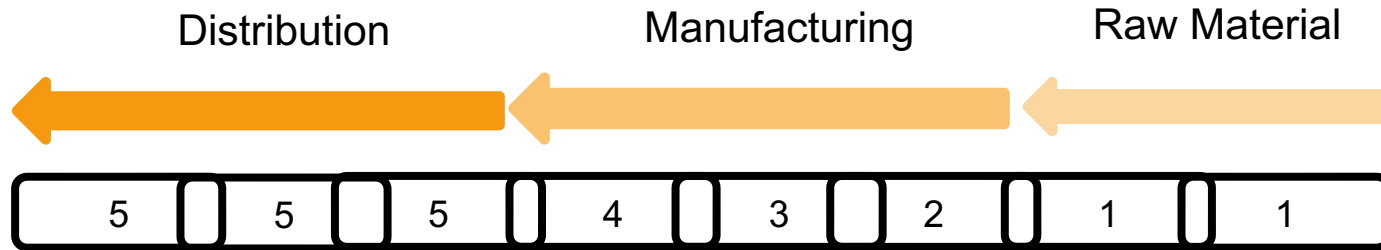
1960s: Full order books, excess demand

1970s: Product development and choice

1980s/90s: Consumer revolution

2000+: Internet revolution / Emerging markets

MRP is designed to bring together parts and materials in a Just In Time fashion....now based entirely on forecast



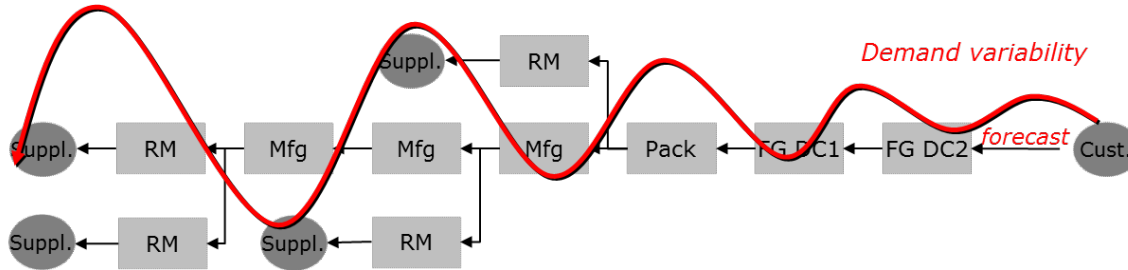
Demand certainty

1960s: Full order books, excess demand

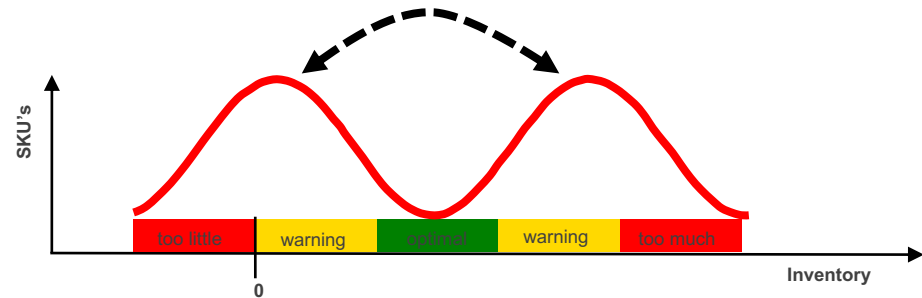
Now

Information Gap: Forecast

Modern business challenges have reduced forecast accuracy, increased the effect of the bullwhip and pushed inventories into a permanent state of imbalance



The Bimodal Inventory Distribution



The New Normal

shortened customer tolerance time

shortened product life cycles

pressure for leaner inventory

higher product complexity & customization

more product variety

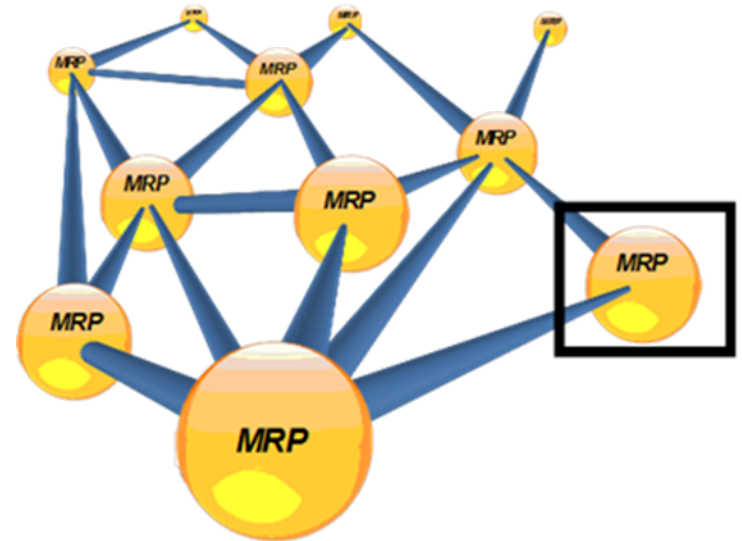
(ever more) inaccurate forecasts

global sourcing and demand

long lead time for materials

Today's Supply Chains are Complex!

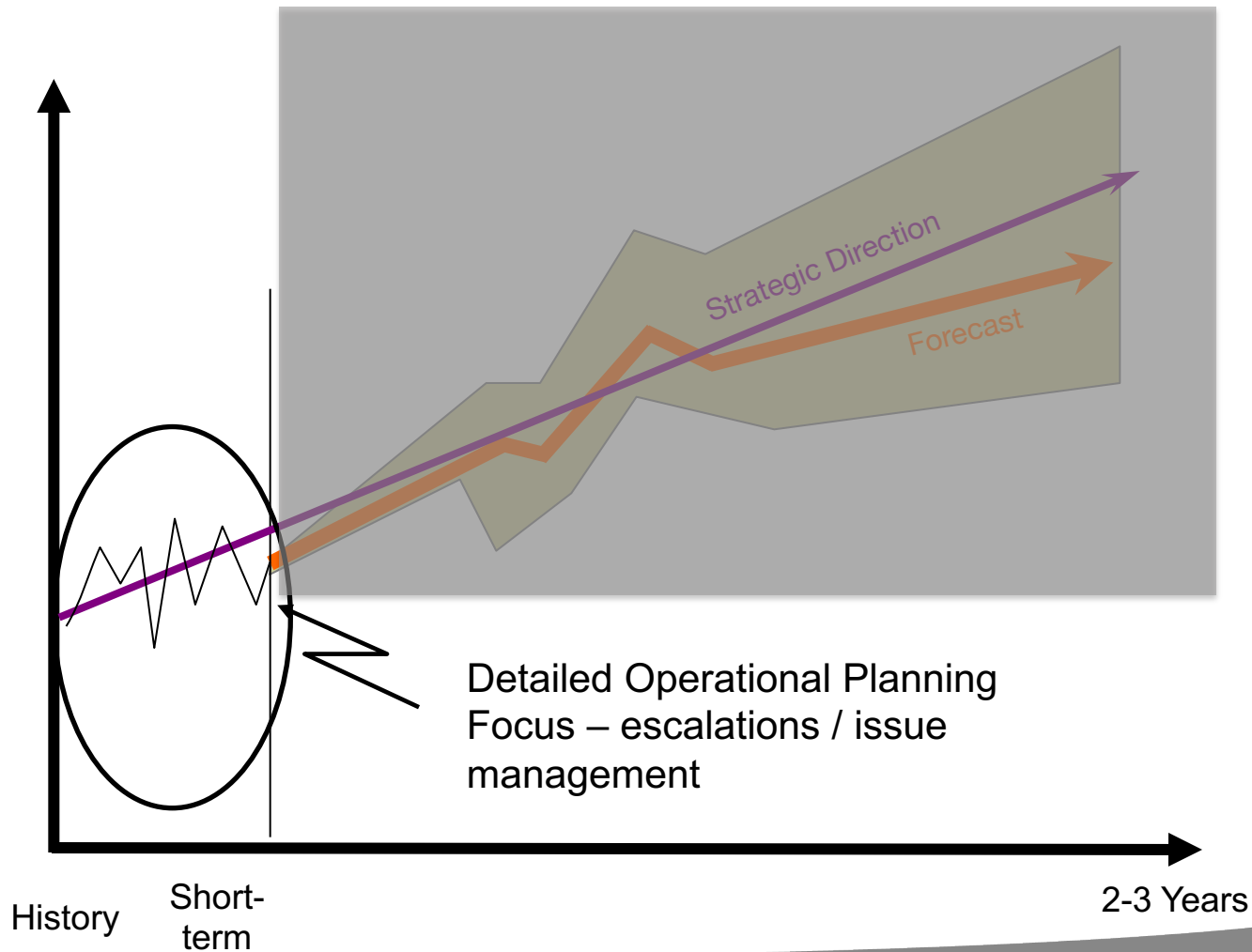
Embedded at the heart of every node is an ERP system and MRP II with all of its problematic forecast planning and cost centric rules



Supply chains are both more fragmented and more connected:

- The wrong rules inside each node transfer variability
- The greater amount of connections amplifies variability

Operational Failures undermine the S&OP process and lead excessive focus on short term issues driven by actuals that do not match the forecast

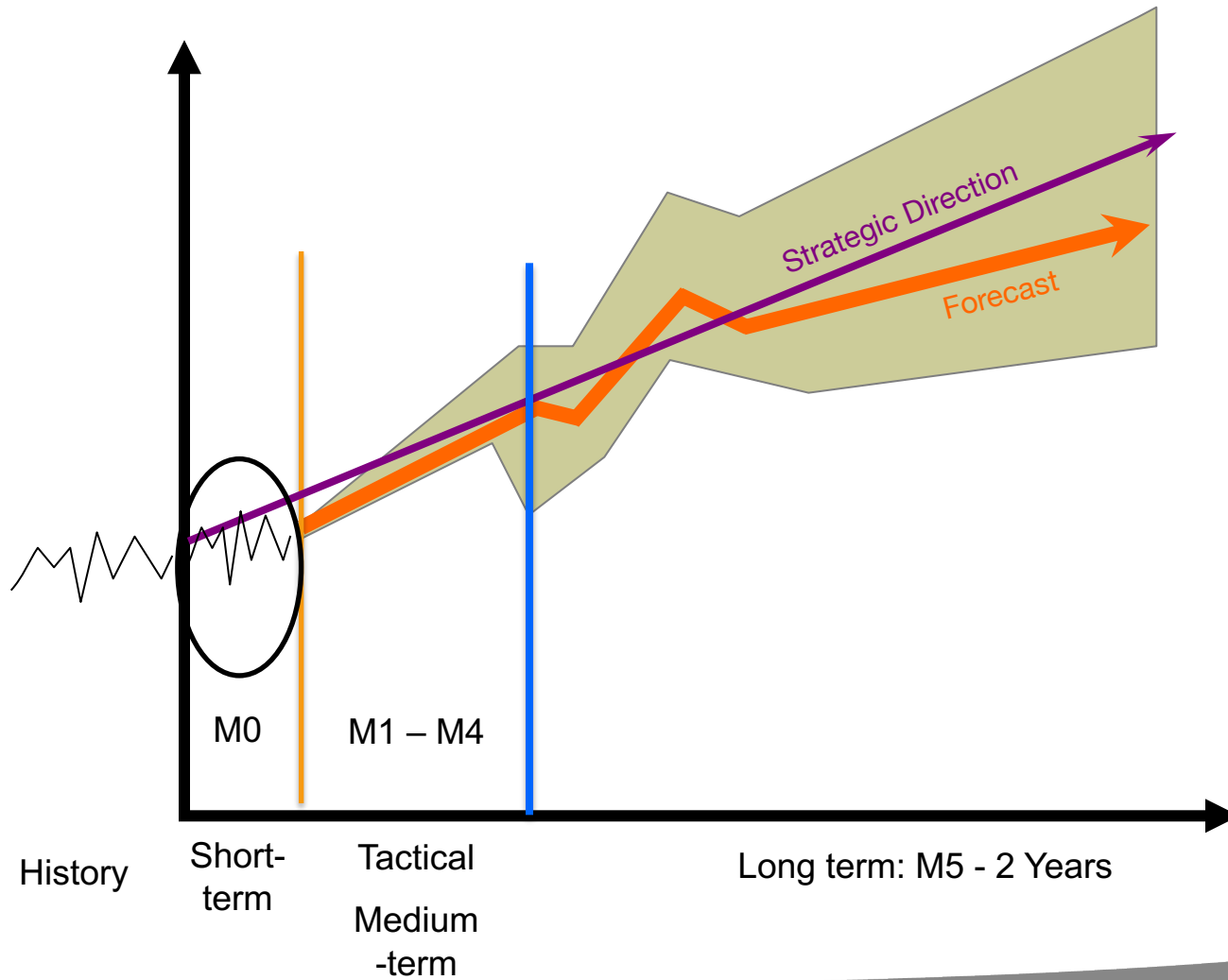


**Investments have typically been to invest in faster fire trucks!
Speed information flows to spot when to intervene as actual
diverges from forecast or apply ever more expensive complexity
to try and improve the forecast**

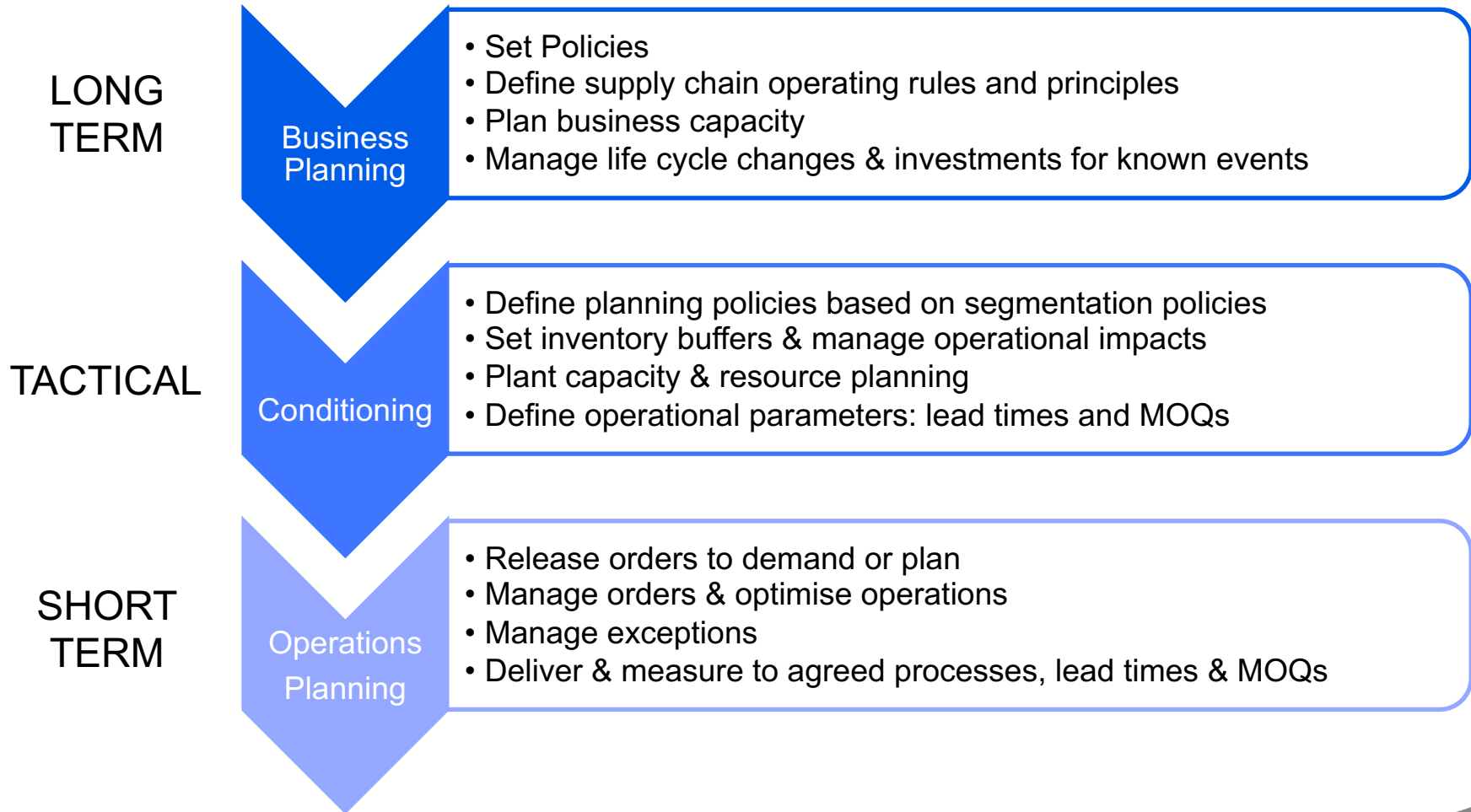


- Advanced Forecasting systems
- Advanced Planning Systems
- DRP systems
- Inventory Optimization Tools
- Integration and alert systems
- Business dashboards
- Demand sensing

DDMRPII™ Conditioning segments the time horizon more fully and connects the planning process with business performance



Each DDMRP^{II}™ Planning process segment has its own focus and outputs that allow the next to operate optimally



DDMRPII™ Resets the supply chain and addresses the root cause of planning failure by de-coupling the supply chain, giving control, visibility and the ability to manage uncertainty

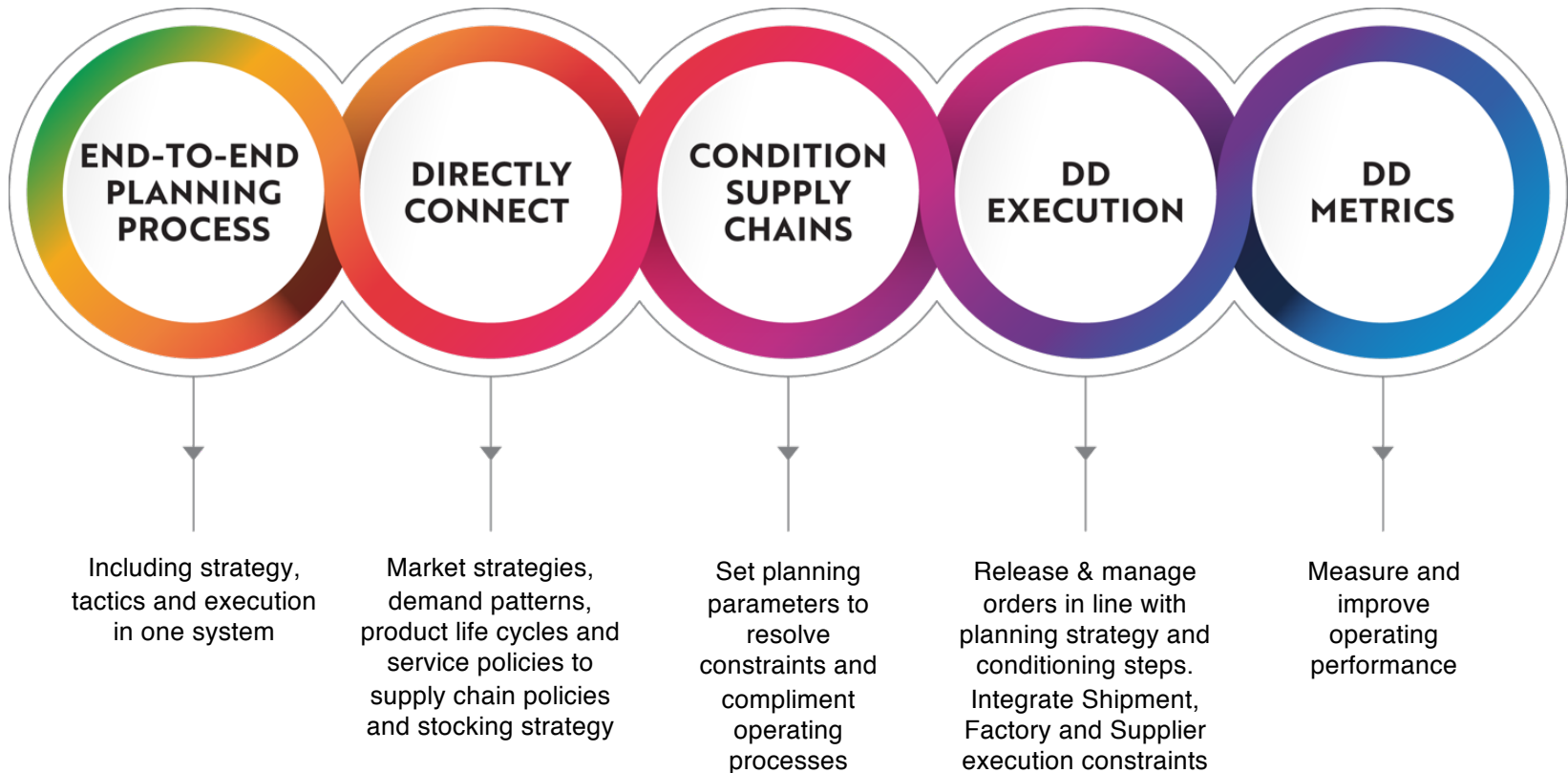


Replenishment plans are driven by forecast, driving stocks up & resulting in continual re-work



Replenishment is driven by demand, and inventory flexes to buffer variability

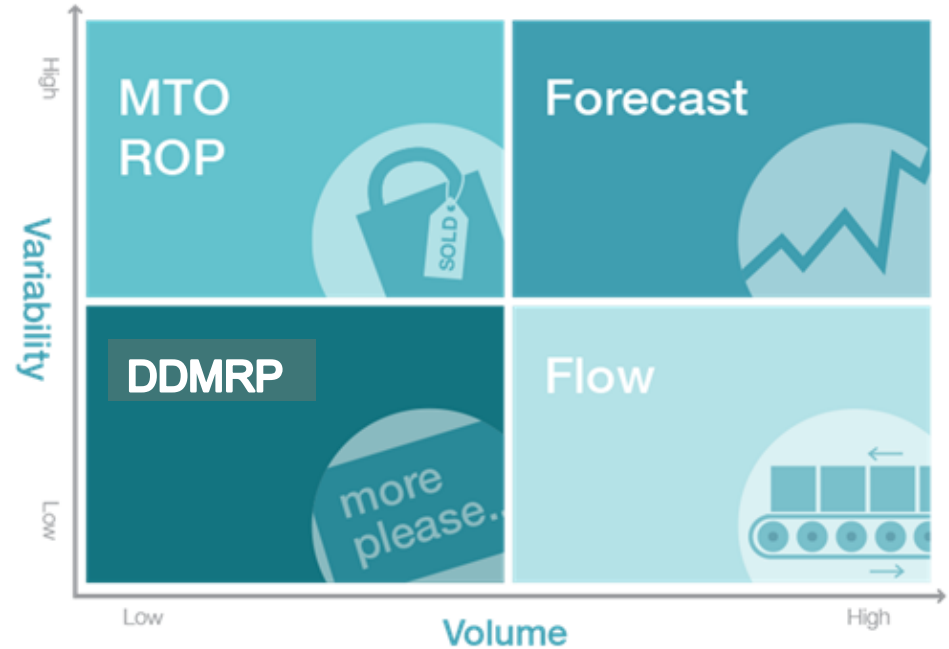
CRITICAL SUCCESS FACTORS FOR DEMAND DRIVEN PLANNING SOLUTIONS



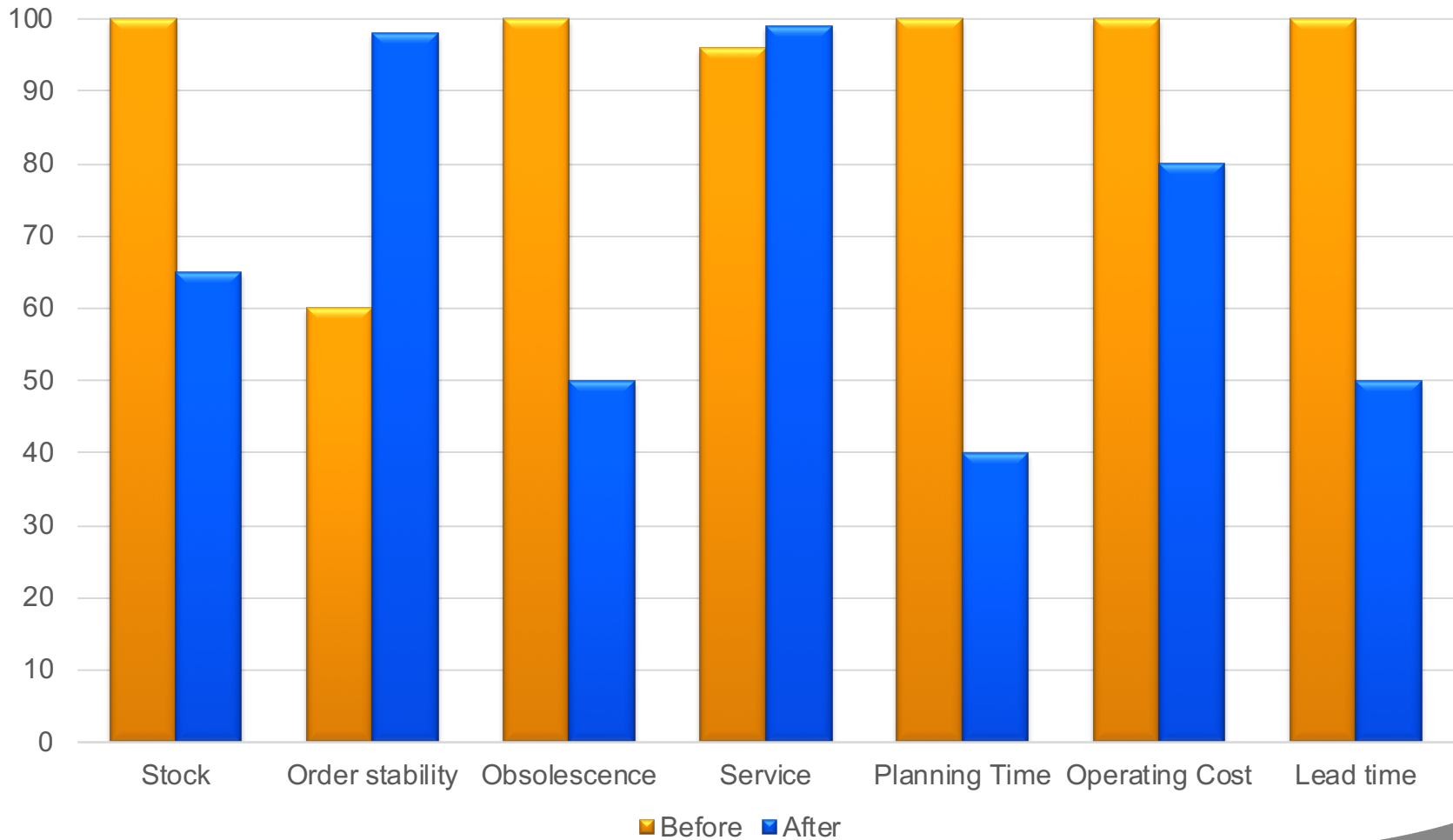
The planning approach needs to cover multiple planning strategies
– this is not a religious argument. Conditioning in O8 delivers a
balanced plan to deliver business goals



- Segment the planning process according to an item's demand profile
- Accommodates a diverse range of items, production rhythms, geographies and markets
- Policy driven and refined monthly
- Integrates and extends planning process to the rest of the business and beyond
- MRP not required



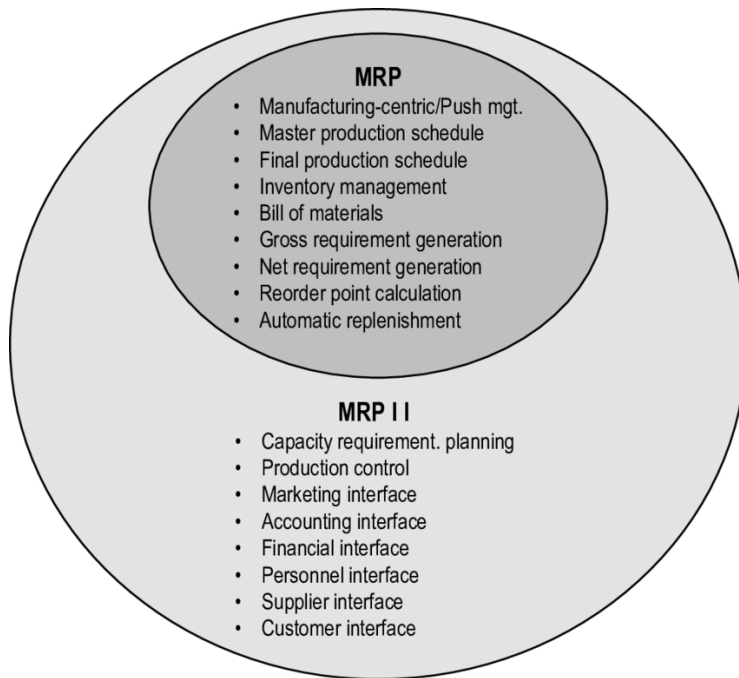
O8 Observed Typical DDMRPII™ Benefits In Line with and Exceed Proven MIT model results



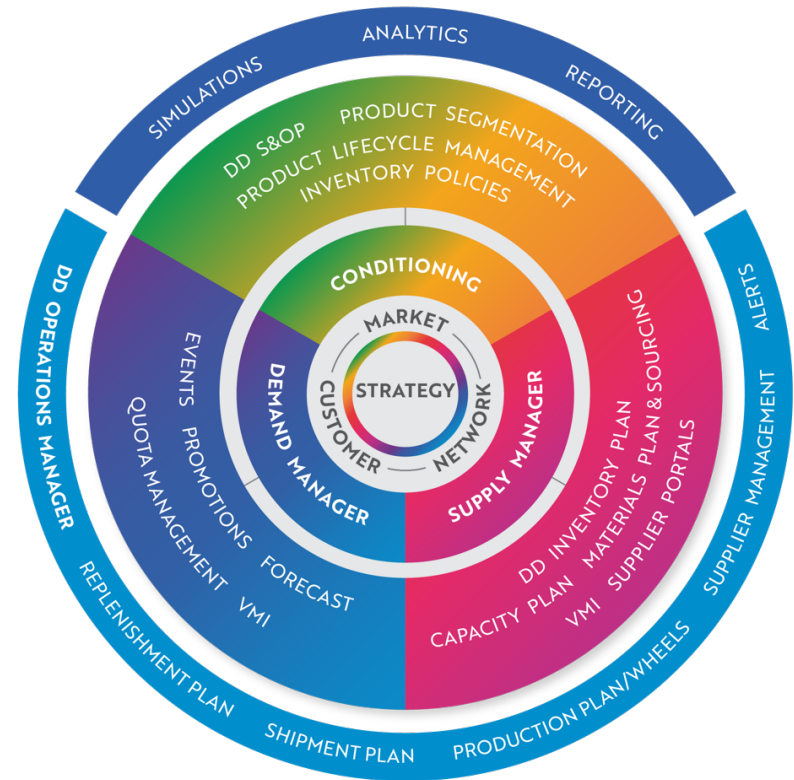
More Than DDMRP : O8 Offers DDMRP II™ ROI Guaranteed



Just as MRPI was good, MRP II
Was better



Similarly...DDMRP is good,
DDMRP II™ Is better





www.O8supplychain.com

ROI Guaranteed