SUPPLY CHAIN EVENT 2015

Fapics

ASSOCIATION FRANÇAISE DE SUPPLY CHAIN MANAGEMENT

1ère mondiale

Demand Driven S&OP

Carol PTAK

"Roughly Right is better than precisely wrong"

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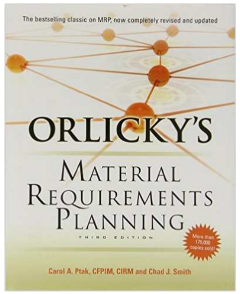
From "Push and Promote" to "Position and Pull"

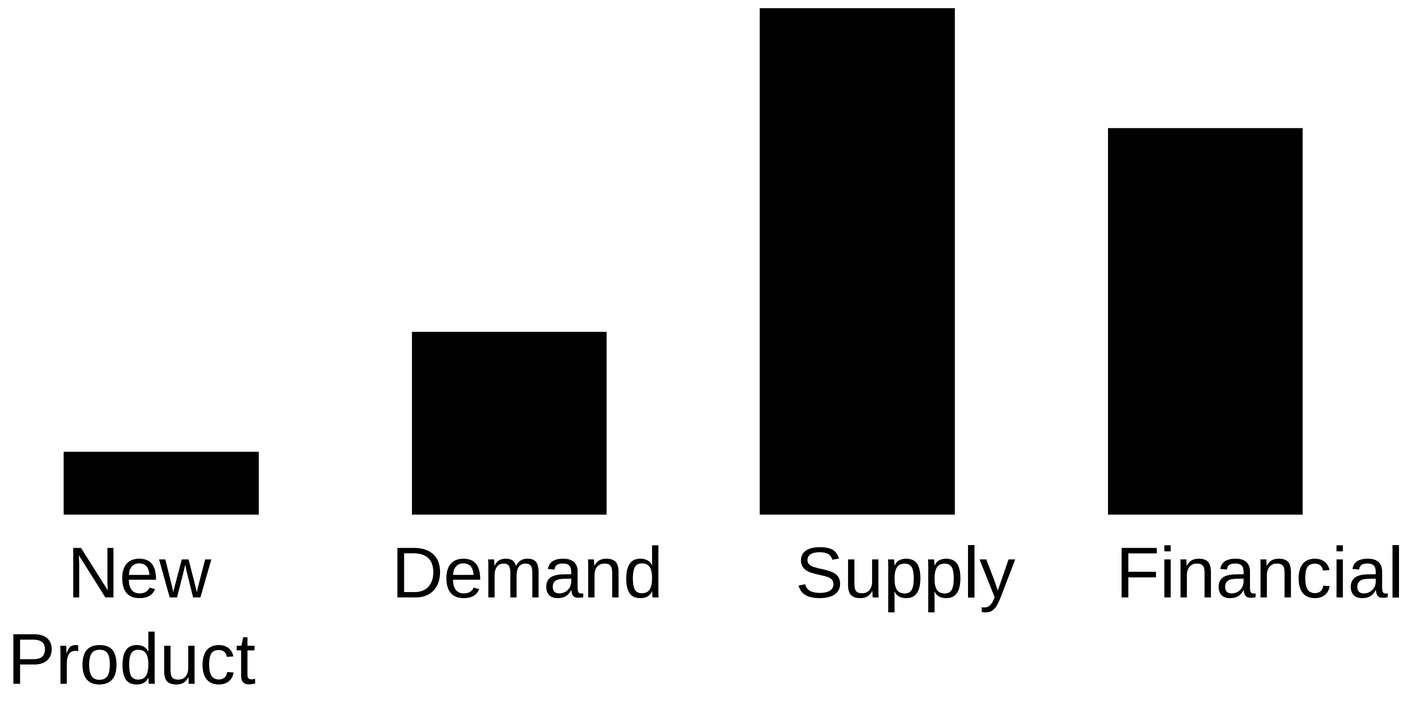
http://demanddriveninstitute.com/

Carol PTAK est actuellement associée au Demand Driven Institute.
Elle a été vice-présidente et Global Industry Executive (industrie et distribution) chez PeopleSoft où elle a développé le concept de Driven Demand Manufacturing (DDM).

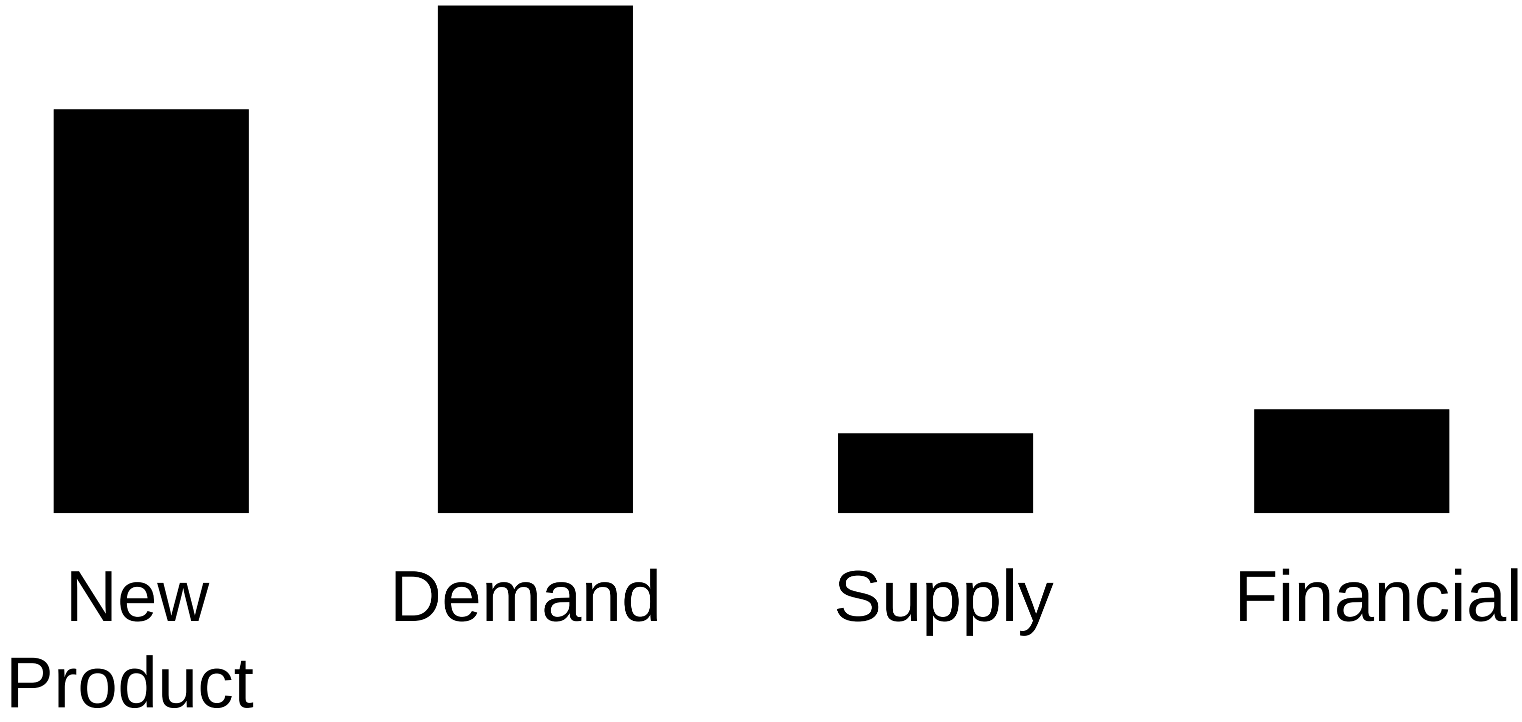
Elle est également ancienne présidente de l'APICS
et l'auteure de nombreux articles et livres.



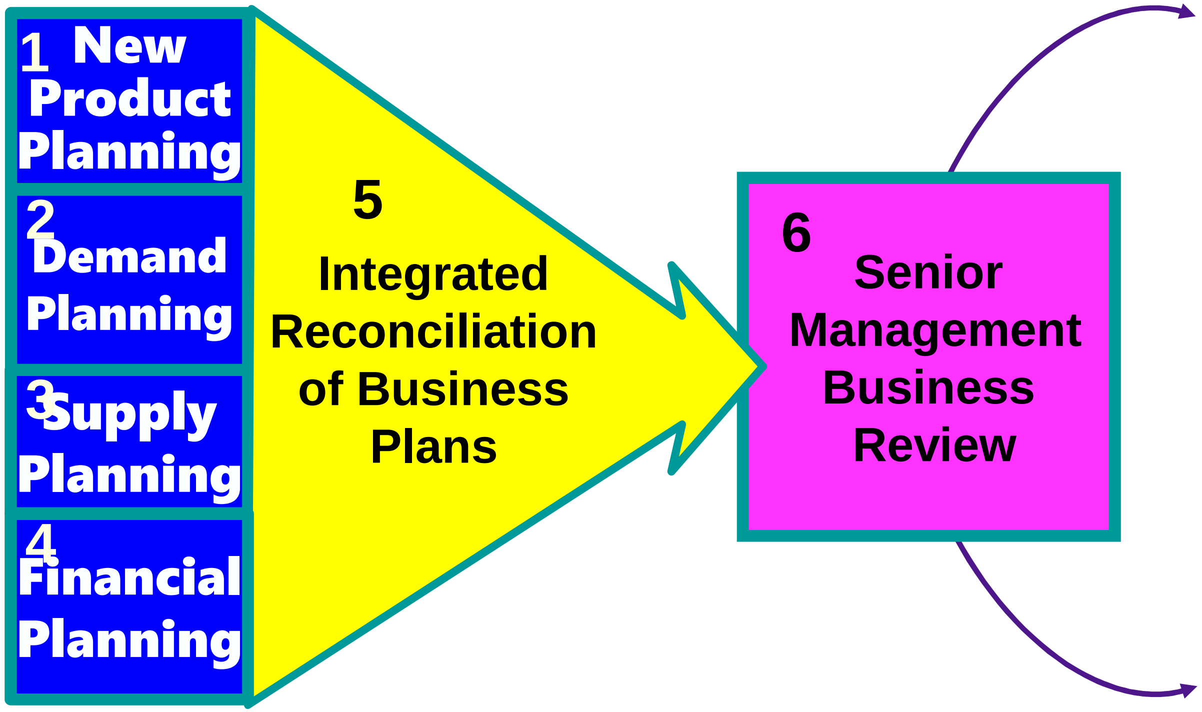
Where have most companies focused planning?



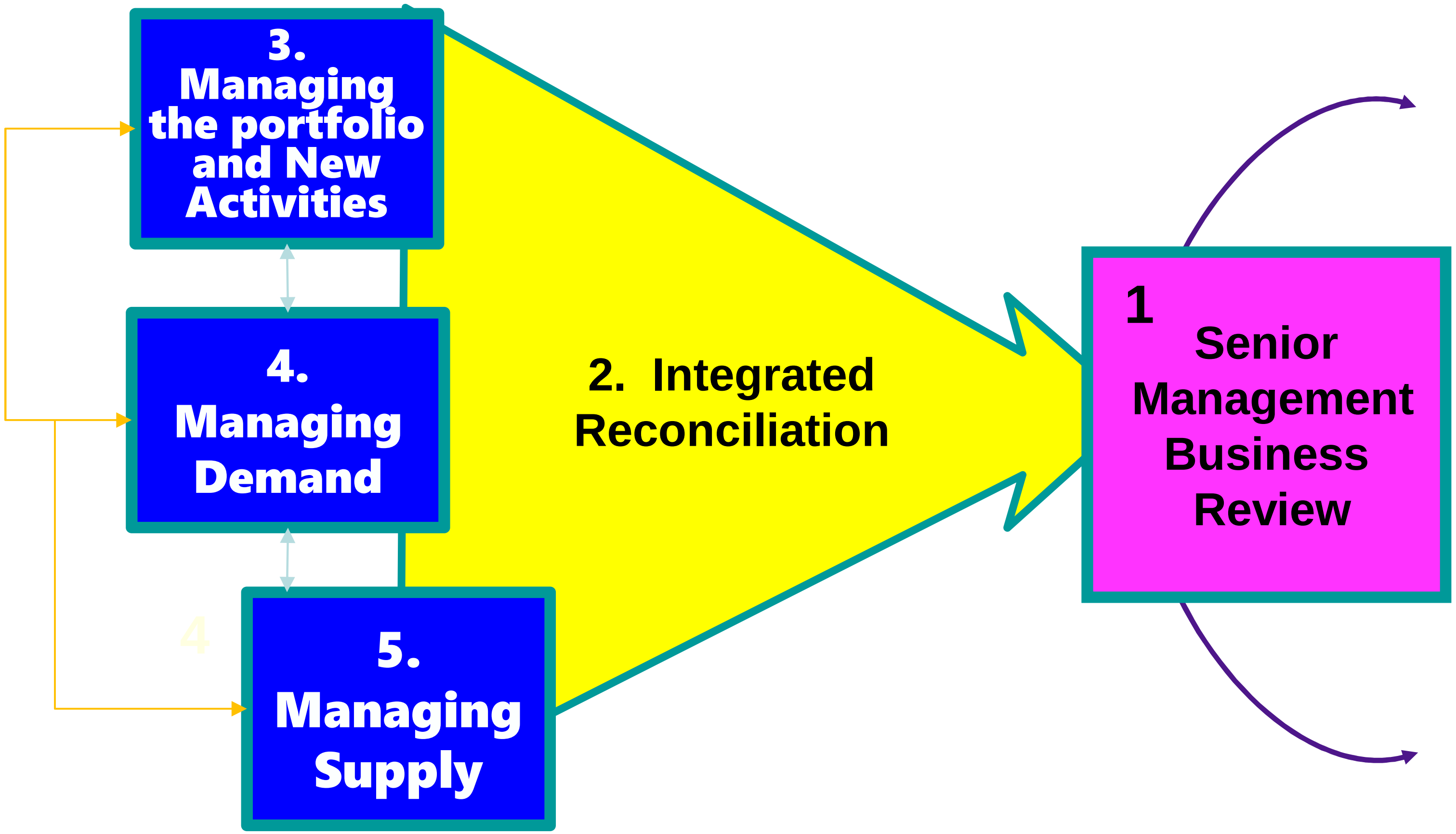
What area has the most change?



Left to Right Traditional S&OP



Right to Left Ling Coldrick Model



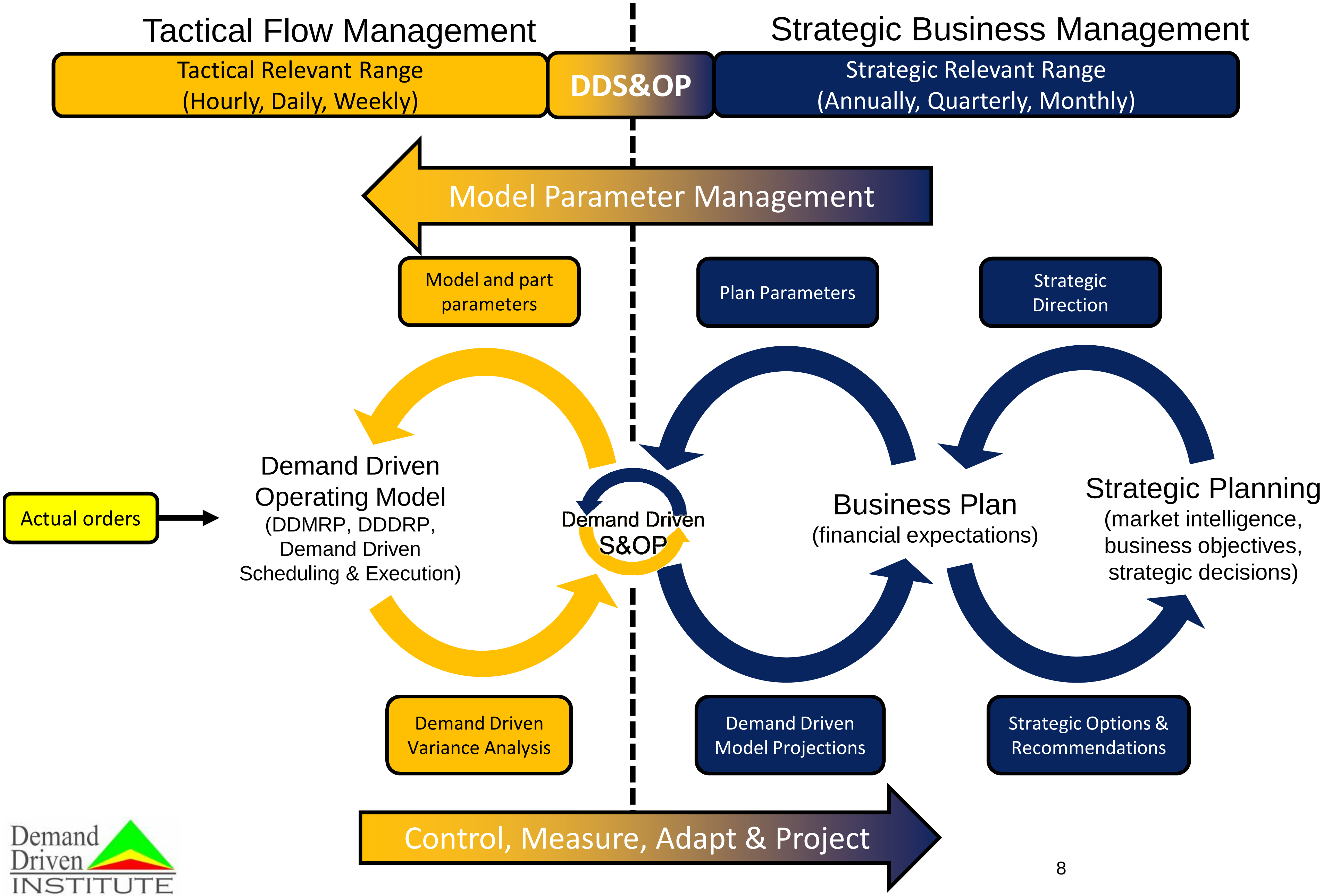
Demand Driven S&OP Definition

Demand Driven Sales and Operations Planning (DDS&OP) – DDS&OP is a bi-directional integration point in a Demand Driven Adaptive System between the strategic (annual, quarterly and monthly) and tactical (hourly, daily and weekly) relevant ranges of decision making.

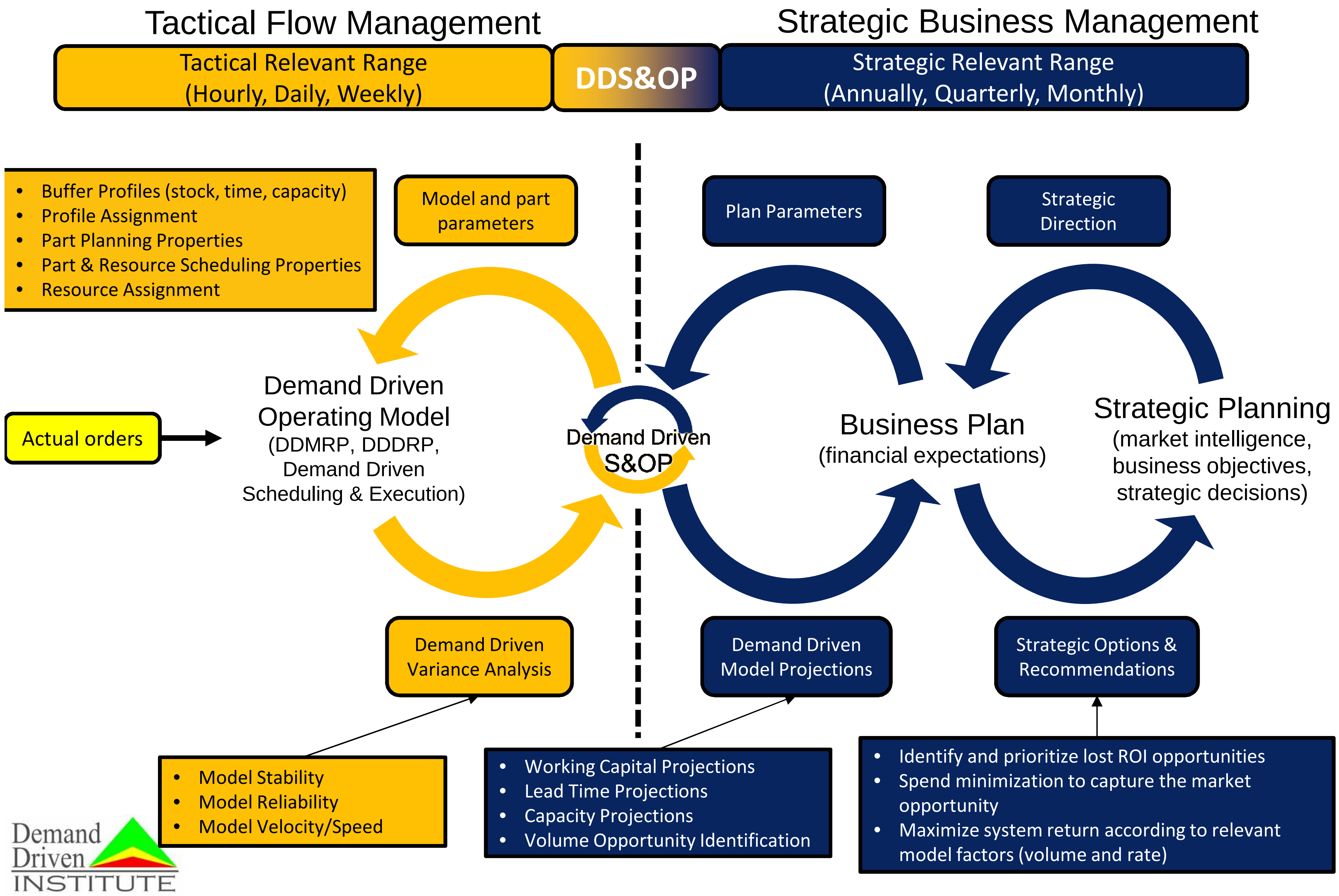
DDS&OP sets key parameters of a Demand Driven Operating Model based on business strategy, market intelligence and key business objectives (strategic information and requirements). DDS&OP also projects the model performance based on the strategic information and requirements and various model settings.

Additionally, DDS&OP uses variance analysis based on past model performance (reliability, stability and velocity) to adapt the key parameters of a Demand Driven Operating Model and/or recommend strategic alterations to the model and project their respective impact on the business.

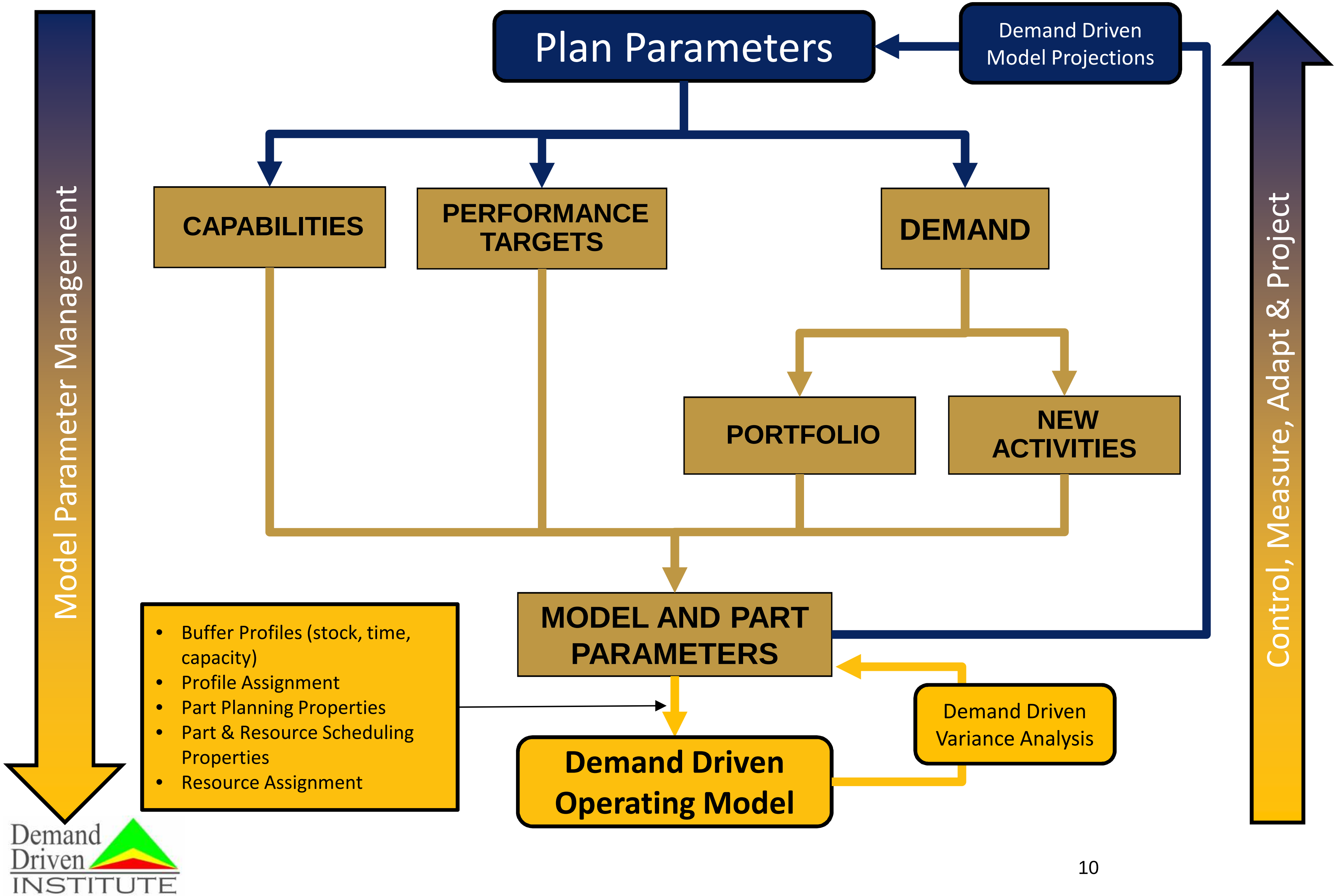
Demand Driven Adaptive System Schema



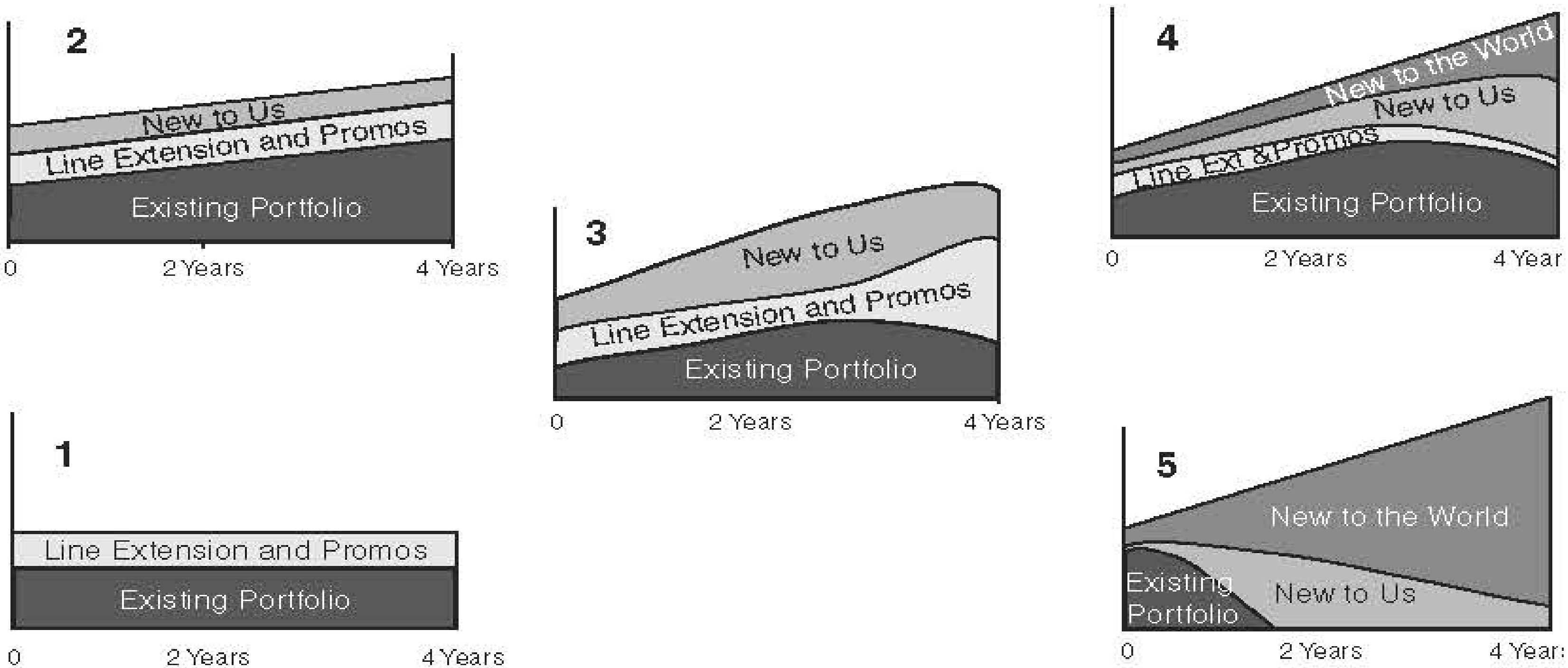
Demand Driven Adaptive System Schema



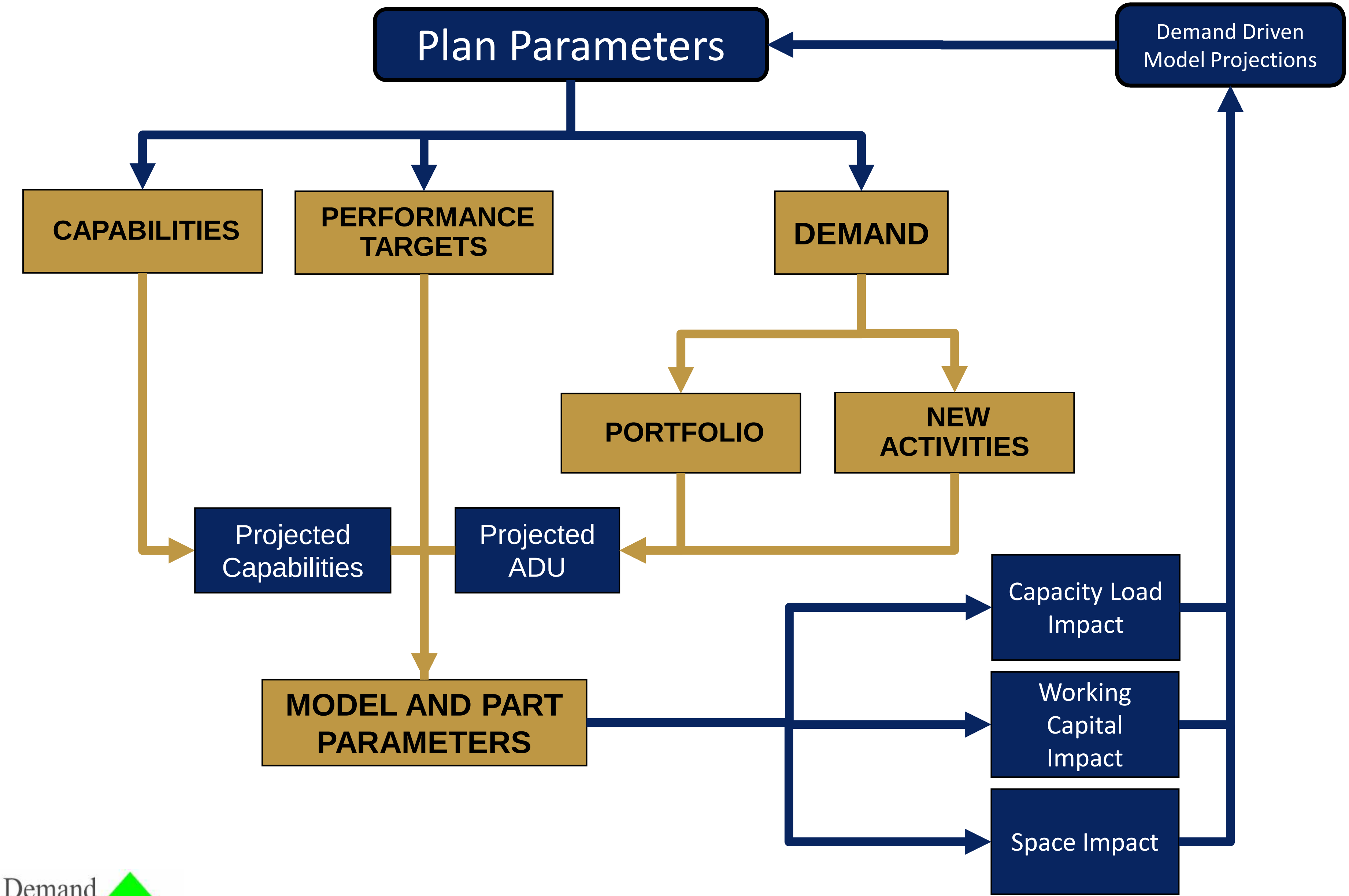
Demand Driven S&OP Schema



Which Portfolio Model?



Projecting Demand Driven Operating Model Performance

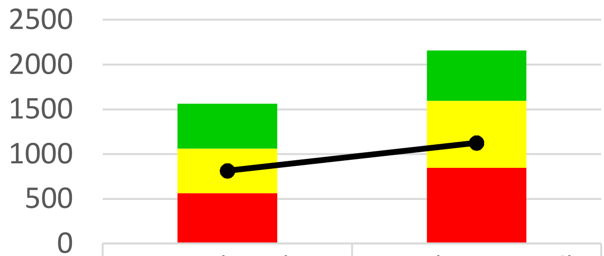


Example

- This company makes four products.
- They have forecasted ADU at the SKU level 6 months from now.

Part #	Current ADU	Projected ADU (6 mos)	Lead Time	Desired Order Cycle	MOQ	Variability
XYZ	100	150	5 (low – 75%)	3	500	Medium (50%)
ZYX	50	75	7 (medium – 50%)	3	250	Medium (50%)
ABG	25	10	5 (low – 75%)	3	250	Low (25%)
GJK	20	200	5 (low – 75%)	3	250	High (70%)

Projected Change to XYZ



	XYZ (now)	XYZ (projected)
Green	500	563
Yellow	500	750
Red	563	845
Average OH	813	1126,5

Red Yellow Green Average OH

Projected Change to ZYX

	ZYX (now)	ZYX (projected)
Green	250	263
Yellow	350	525
Red	263	395
Average OH	388	526,5

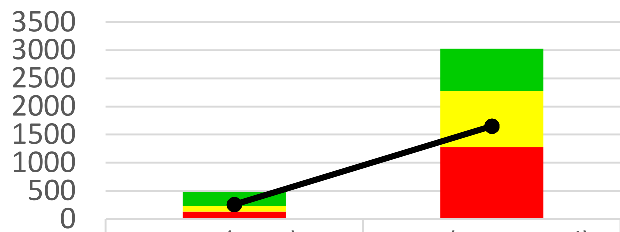
Red Yellow Green Average OH

Projected Change to ABG

	ABG (now)	ABG (projected)
Green	250	250
Yellow	125	50
Red	118	48
Average OH	243	173

Red Yellow Green Average OH

Projected Change to GJK



	GJK (now)	GJK (projected)
Green	250	750
Yellow	100	1000
Red	128	1275
Average OH	253	1650

Red Yellow Green Average OH

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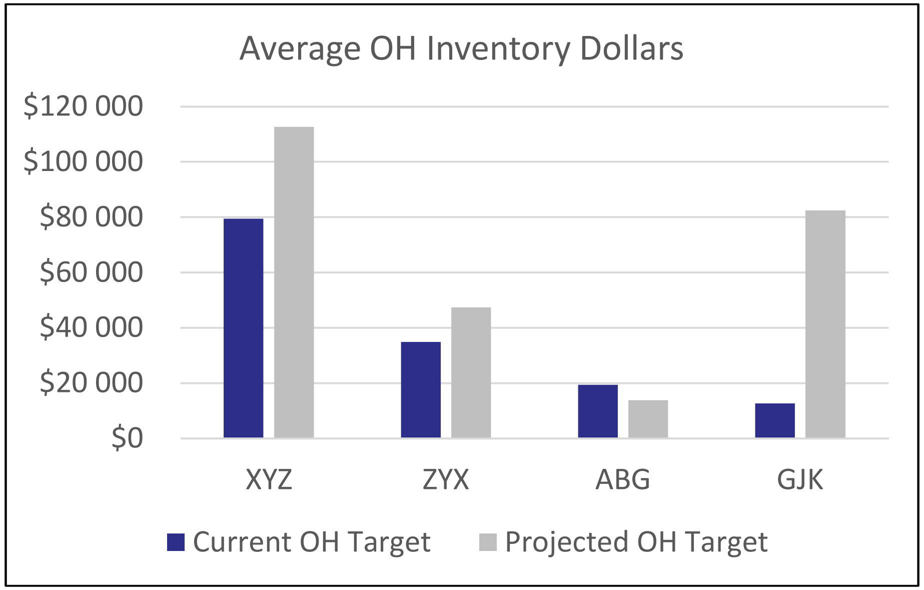
Working Capital

Converting targeted on-hand inventory to capital required.

Part #	Dollars per units	Current Target Inventory Level	Targeted working capital in inventory	Projected Target Inventory Level	Projected working capital in inventory
XYZ	$100	813	$81,300	1127	$112,700
ZYX	$90	388	$34,920	527	$47,430
ABG	$80	243	$19,440	173	$13,840
GJK	$50	253	$12,650	1650	$82,500
		Total	$148,310	Total	$256,470



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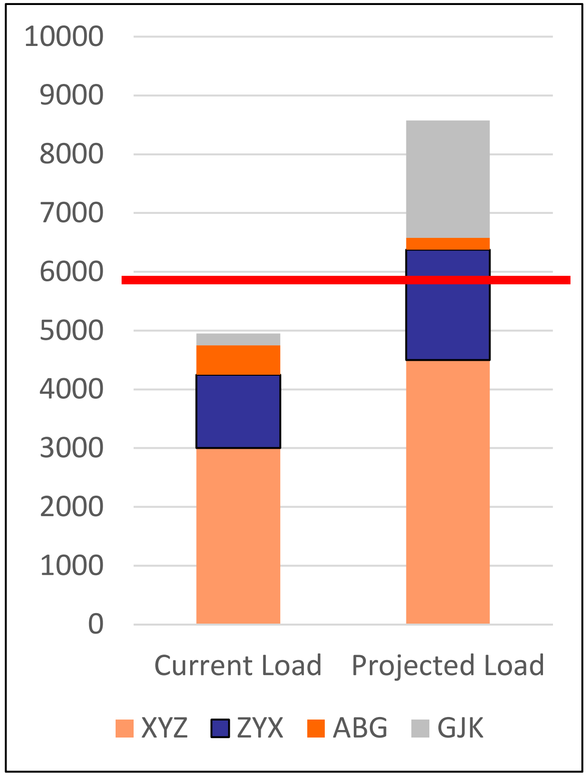
Projecting Capacity Load

Establish an average daily load on a critical resource (ADUs x capacity units/SKU)
Critical Resource: Lathes
Lathes available = 5
Minutes available per lathe per day = 1200 (6,000 total per day)

Part #	Minutes/unit on lathe	Current ADU	Current Average Daily Load	Projected ADU	Projected Average Daily Load
XYZ	30	100	3000 minutes	150	4500 minutes
ZYX	25	50	1250 minutes	75	1875 minutes
ABG	20	25	500 minutes	10	200 minutes
GJK	10	20	200 minutes	200	2000 minutes
Total			4950 minutes	Total	8575 minutes



Critical Success Factors

1. Leadership
2. Education
3. Map the DDS&OP process
4. Learn by doing
5. "Roughly right"
6. Select marketing families
7. Identify new activities
8. Financial integration
9. Collaboration
10. Make better decisions
11. Critique the process
12. Strategy driven
13. Business planning
14. Advisor/Coach
15. Software support

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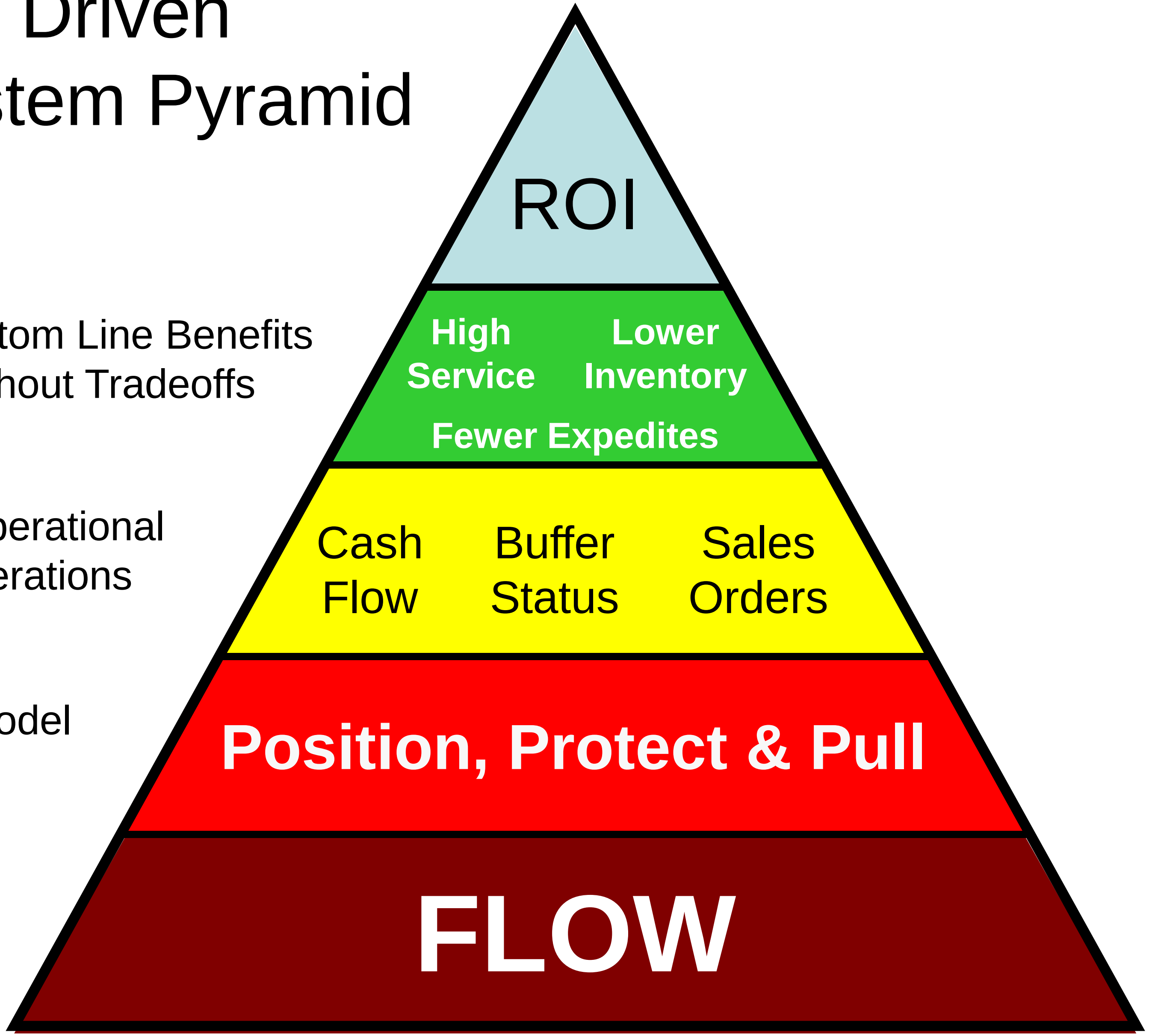
The Demand Driven Adaptive System Pyramid

Bottom Line Benefits Without Tradeoffs

New Operational Considerations

New Operating Model

Fundamental Principal



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DDS&OP compare/contrast

- DDS&OP
  - Aligns strategy to capability
  - Employs a dynamic demand driven operating model
  - Has a bi-directional effect on strategy
  - Direction is coming from roughly right through relevant ranges
- Compared to other S&OP models
  - APICS – supply focused rather than demand focused
  - Ollie Wight – common plan rather than flexible capability
  - Gartner – trade-offs rather than flexible capability
  - Sales and Ops planning institute – one way linkage to operation. Disaggregate strategy to operations only.

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APICS S&OP - Sales and Operations Planning (S&OP) – a process to develop tactical plans that provide management the ability to strategically directs its business to achieve competitive advantage on a continuous basis by integrating customer focused marketing plans for new and existing products with the management of the supply chain. The process brings together all the plans for the business (sales, marketing, development, manufacturing, sourcing and financial) into one integrated set of plans. It is performed at least once a month and is reviewed by management at an aggregate (product family) level The process must reconcile all supply, demand, and new product plans at both the detail and aggregate levels and tie to the business plan. It is the definitive statement of the company's plans for the near to intermediate term, covering a horizon sufficient to plan for resource and to support the annual business planning process. Executed properly, the sales and operation planning process links the strategic plans for the business with its execution and review performance measurements for continuous improvement. See also: aggregate planning, executive sales and operations planning, production plan, production planning, sales plan, tactical planning

Ollie Wight IBP - Using the Integrated Business Planning Process to Create One Company Agenda
Align your planning processes with the business strategy over a 24 to 36 month horizon, with full product portfolio management and financial integration, to ensure the organization is working to a common agenda and single set of numbers.

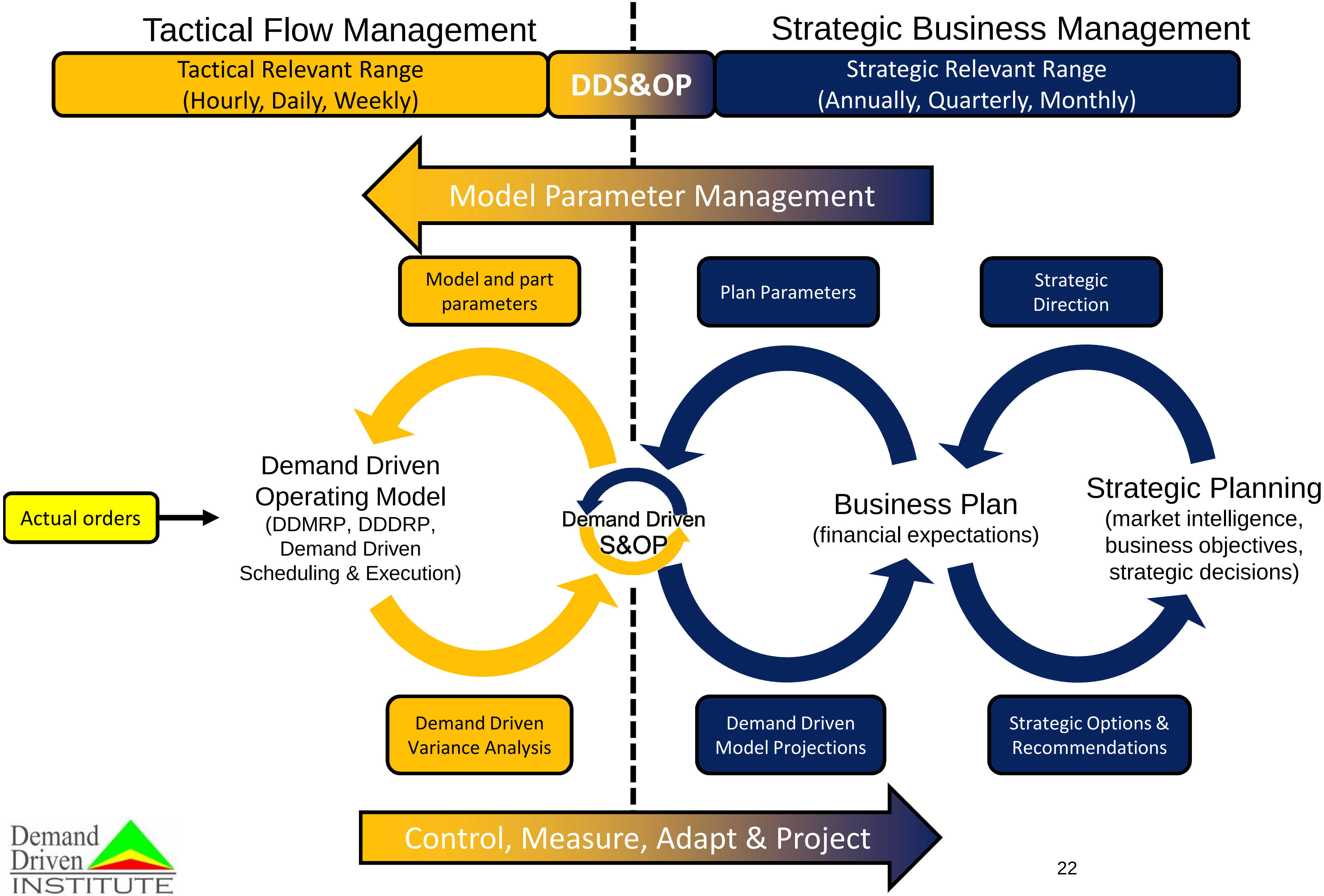
Gartner Model - Sales and operations planning is a critical process to help businesses become more demand-driven. Orchestrating – demand sensing and conscious trade-offs for demand shaping to drive an optimized demand response. The New Five-Stage S&OP Maturity Model - Stage 1: React, Stage 2: Anticipate, Stage 3: Integrate, Stage 4: Collaborate, Stage 5: Orchestrate

Sales and Operations Planning Institute - Sales and Operations Planning is a set of decision making processes that balance demand and supply, integrate financial and operational planning, and link high-level strategy to ongoing, day-to-day operations

Demand Driven Adaptive System

Demand Driven Adaptive System – A Demand Driven Adaptive System is a management and operational system designed for complex and volatile manufacturers and supply chains. A Demand Driven Adaptive System uses a constant system of feedback that connects the business strategy to the settings and performance of a Demand Driven Operating Model through a Demand Driven Sales and Operations Planning Process (DDS&OP). A Demand Driven Adaptive System focuses on the protection and promotion of the flow of relevant information and materials in both the strategic (annual, quarterly and monthly) and tactical (hourly, daily and weekly) relevant ranges of decision making in order to optimize return on equity performance as change occurs.

Demand Driven Adaptive System Schema



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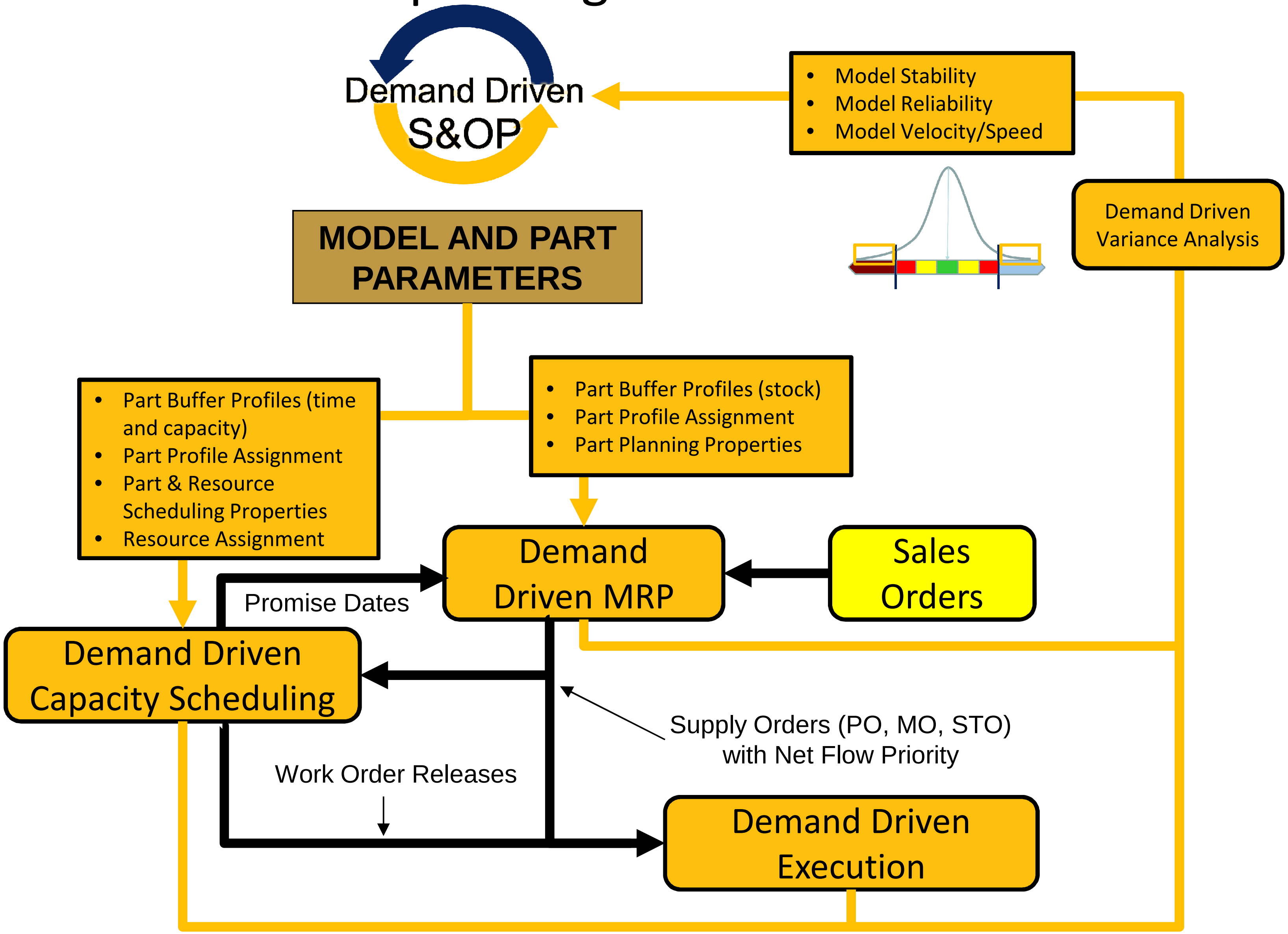
Demand Driven Operating Model

Demand Driven Operating Model – A Demand Driven Operating Model is a supply order generation, operational scheduling and execution model utilizing actual demand in combination with strategic decoupling and control points and stock, time and capacity buffers in order to create a predictable and agile system that promotes and protects the flow of relevant information and materials within the tactical relevant operational range (hourly, daily and weekly). A Demand Driven Operating Model's key parameters are set through the Demand Driven Sales and Operations Planning process to meet the stated business and market objectives while minimizing working capital and expedite related expenses.

Demand Driven Operating Model



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