

**Keynote: Designing contemporary supply chains, from 'outside-in'; developing new theory from empirical observations in the field**

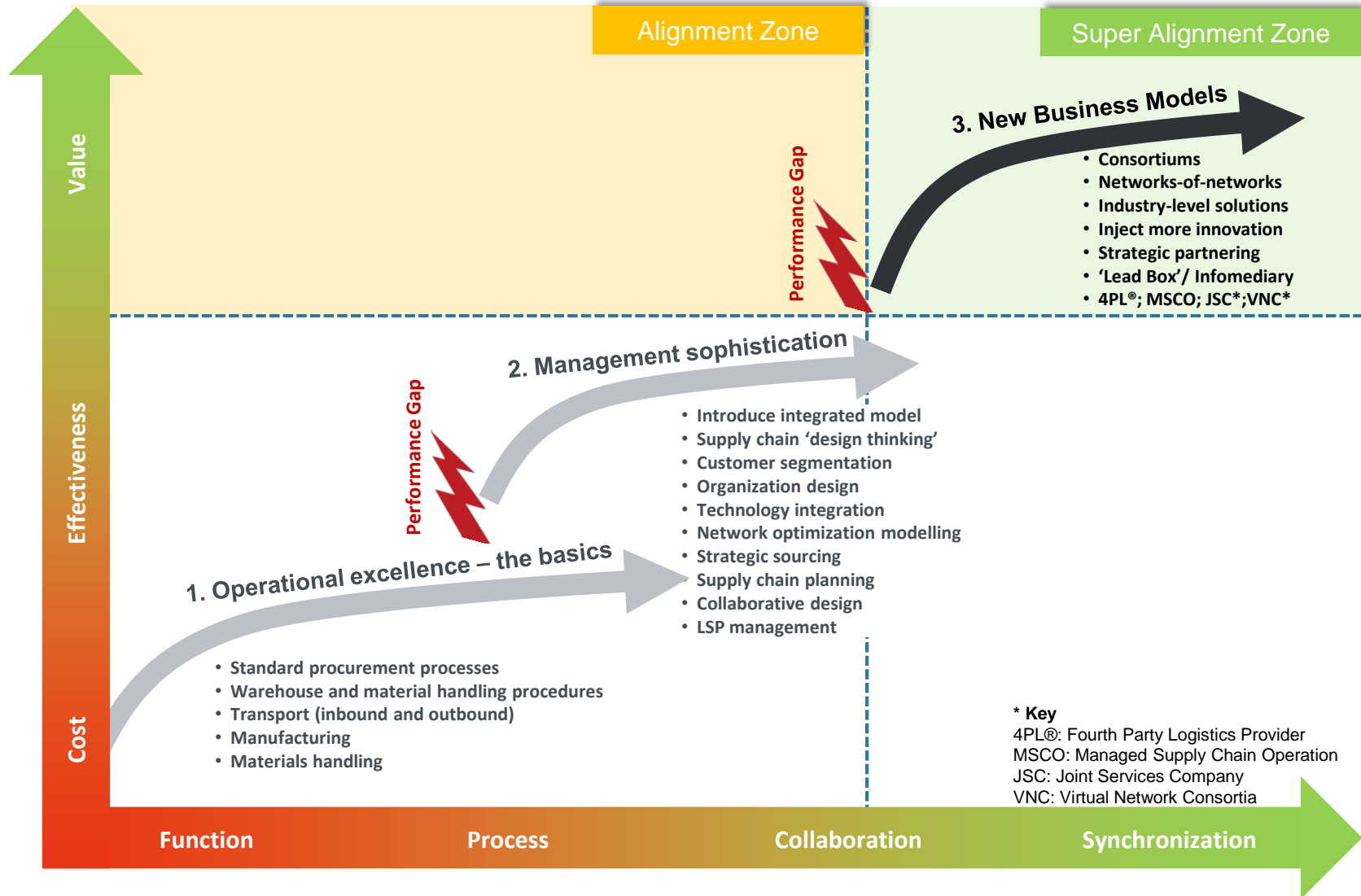
**Dr John Gattorna, Adjunct Professor, UTS Business School, & Global Supply Chain 'Thought Leader' and Author\***

**ANZAM Operations Supply Chain & Service Management Symposium 2016**

**Sydney • 14 June 2016**

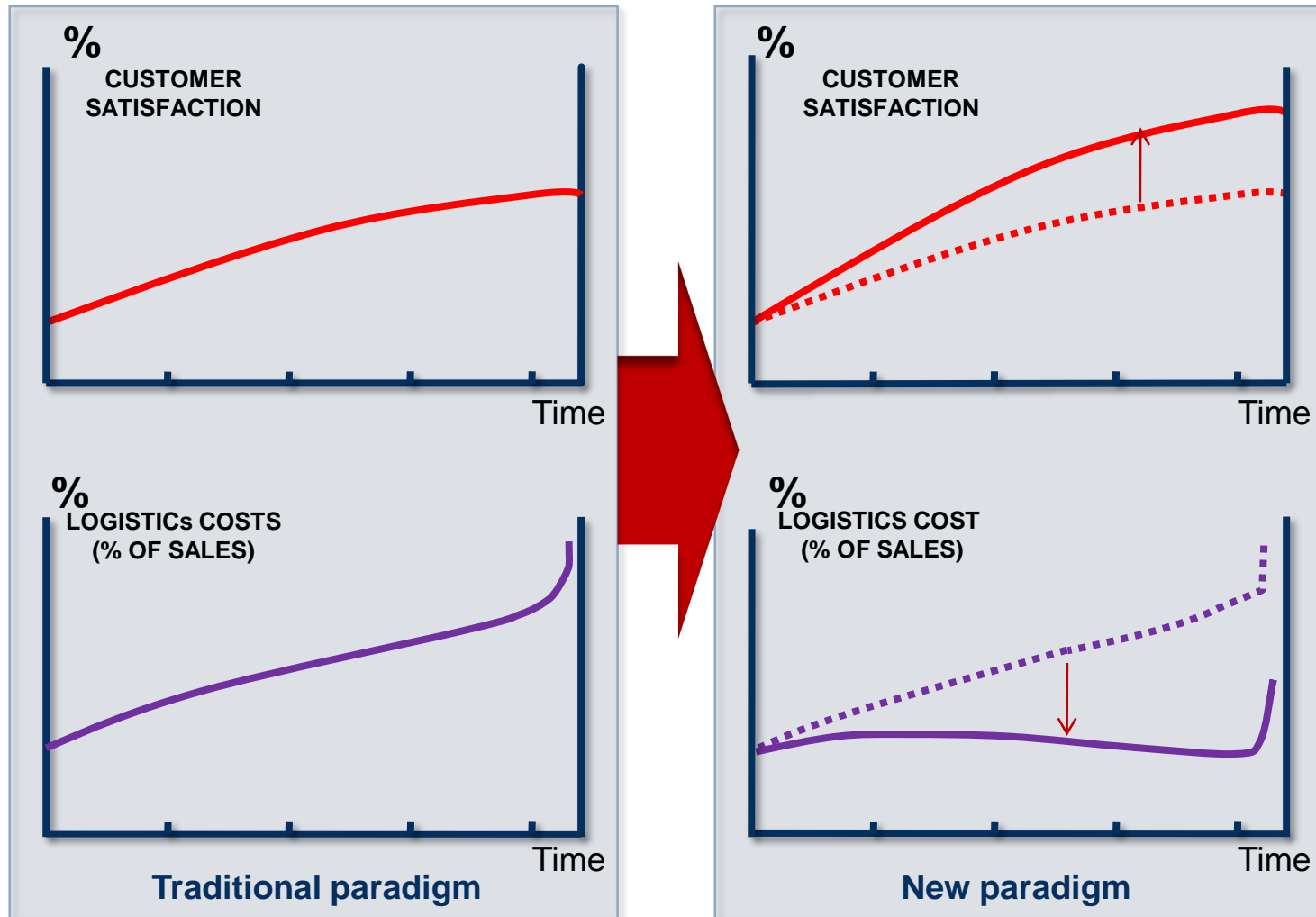
*\* Dynamic Supply Chains, 3<sup>rd</sup> Edn, Pearson, Harlow, 2015*

# Performance/capability continuum

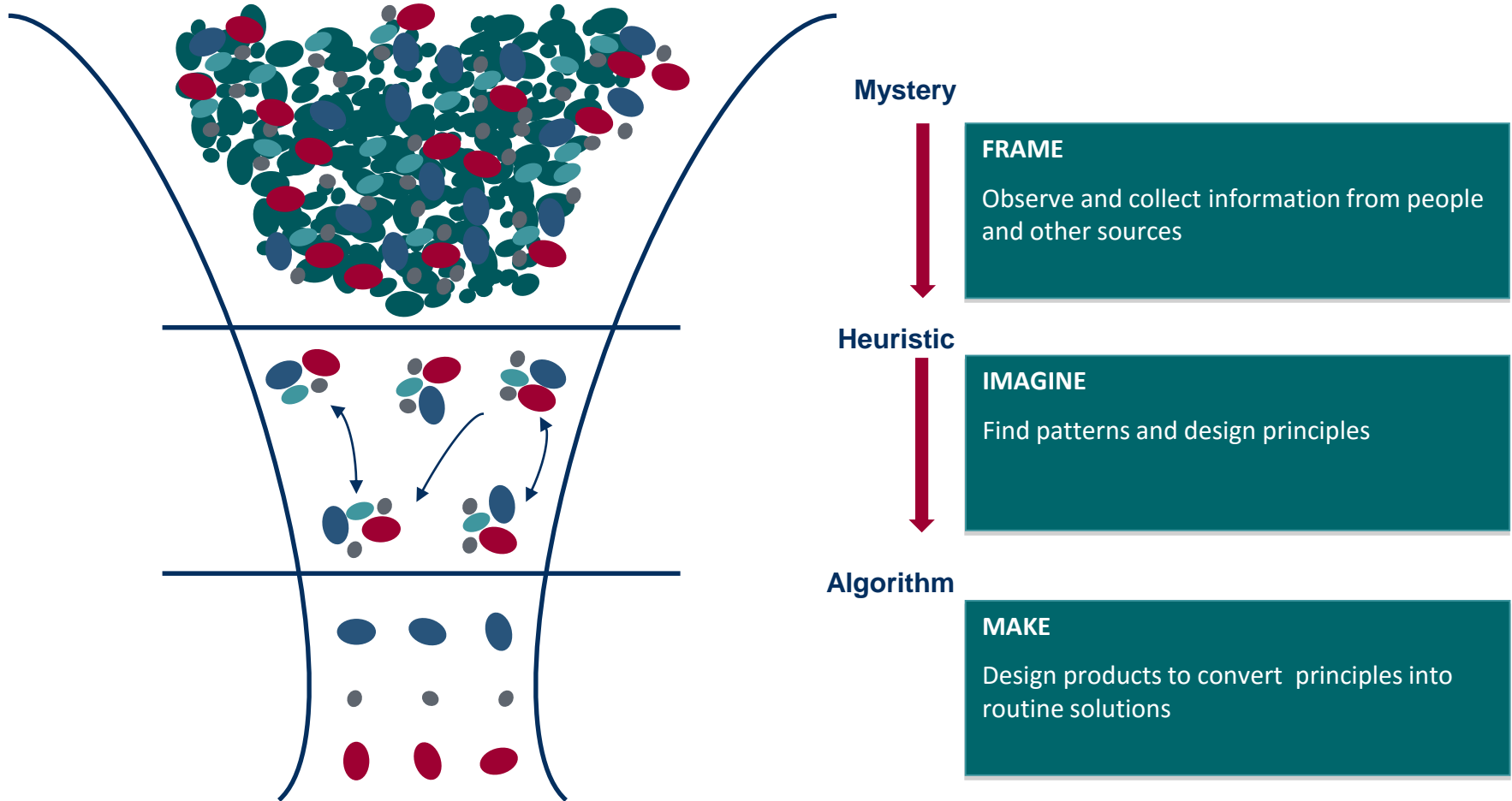


\* JSC and VNC are new terms coined by John Gattorna

# 'Best-of-both-Worlds' Strategy

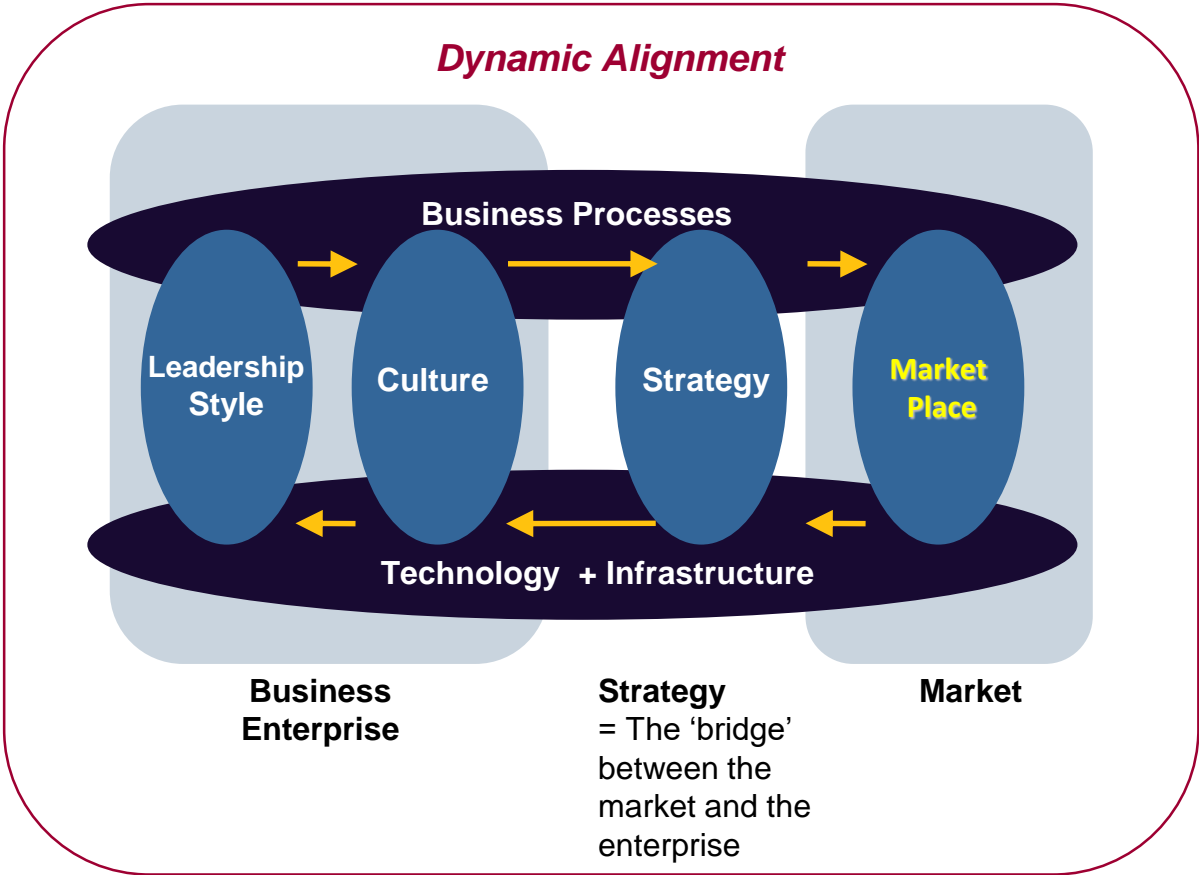


# The Knowledge Funnel in design thinking



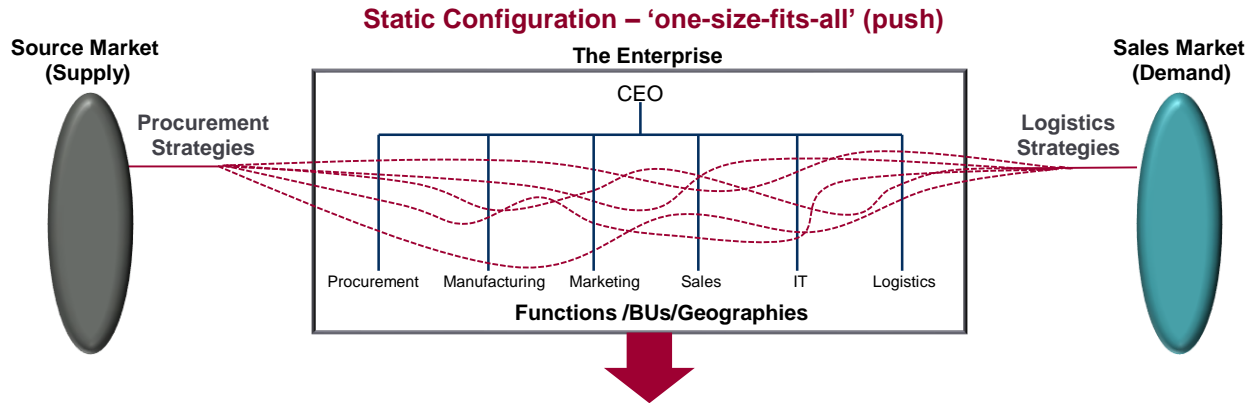
Source: Adopted from Roger Martin, *The Design of Business*, HBR Press, 2009, Figure 1-1, p-8

# Dynamic Alignment™ business model and heuristic – from a supply chain perspective

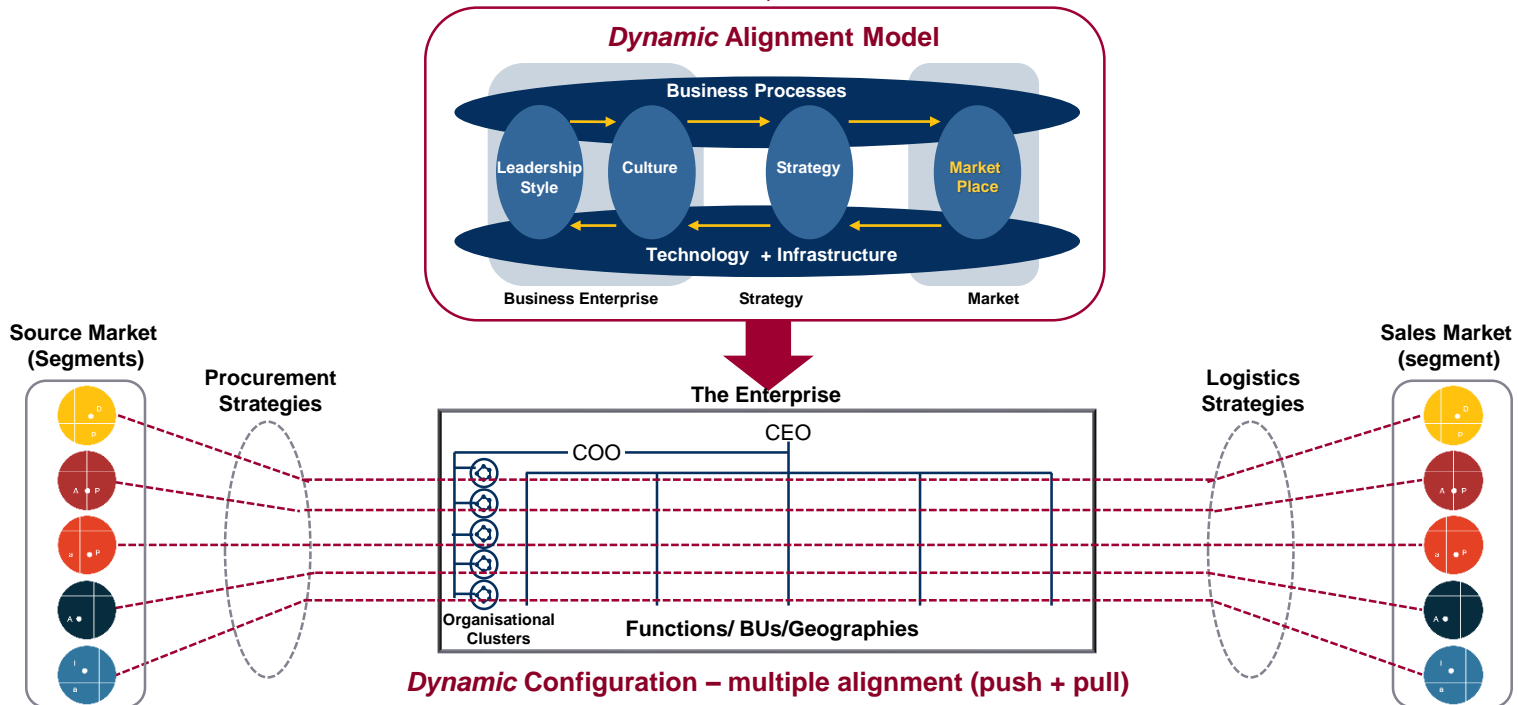


# From 'Static' to 'Dynamic' design of enterprise supply chains

Current

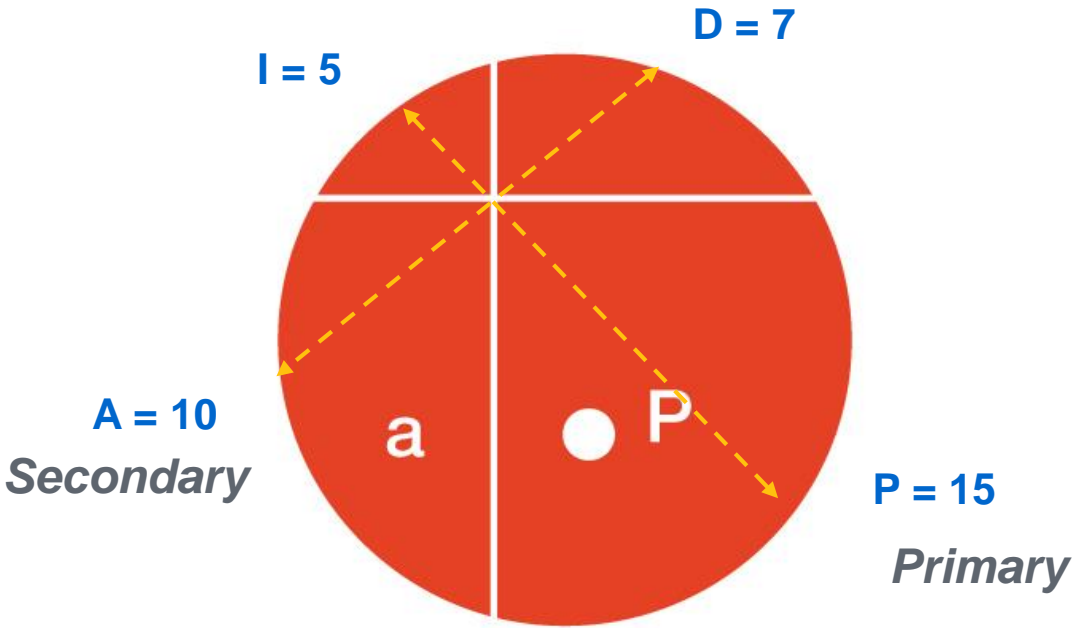


Future

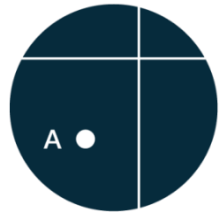


# Typical bias of behavioral forces at play in markets

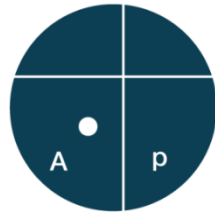
ILLUSTRATIVE



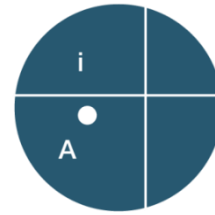
# The sixteen (16) possible dominant behavioral segments



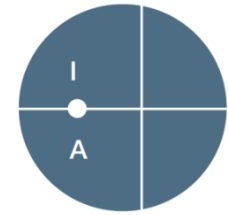
TRANSACTIONAL



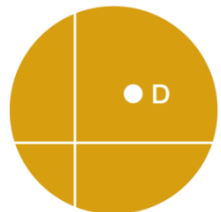
COMMERCIAL



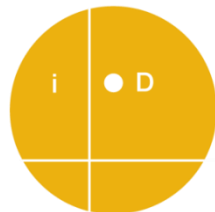
FAIR DEAL



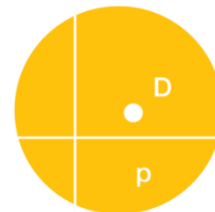
RELATIONSHIP AT A PRICE



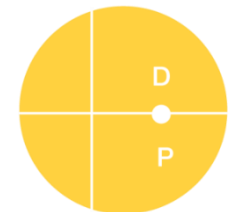
VISIONARIES



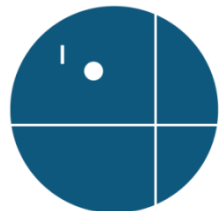
INNOVATION THROUGH  
COLLABORATION



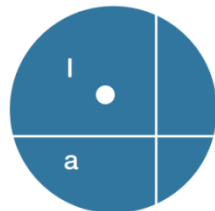
INNOVATIVE SOLUTIONS



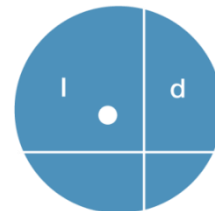
INNOVATION AT SPEED



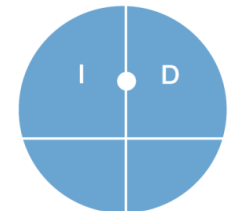
PARTNERS



COLLABORATIVE



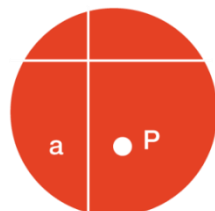
LET'S GO PLACES TOGETHER



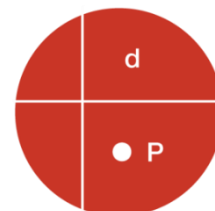
SHARING INNOVATION



DEMANDING



DYNAMIC



SOLUTIONS AT SPEED

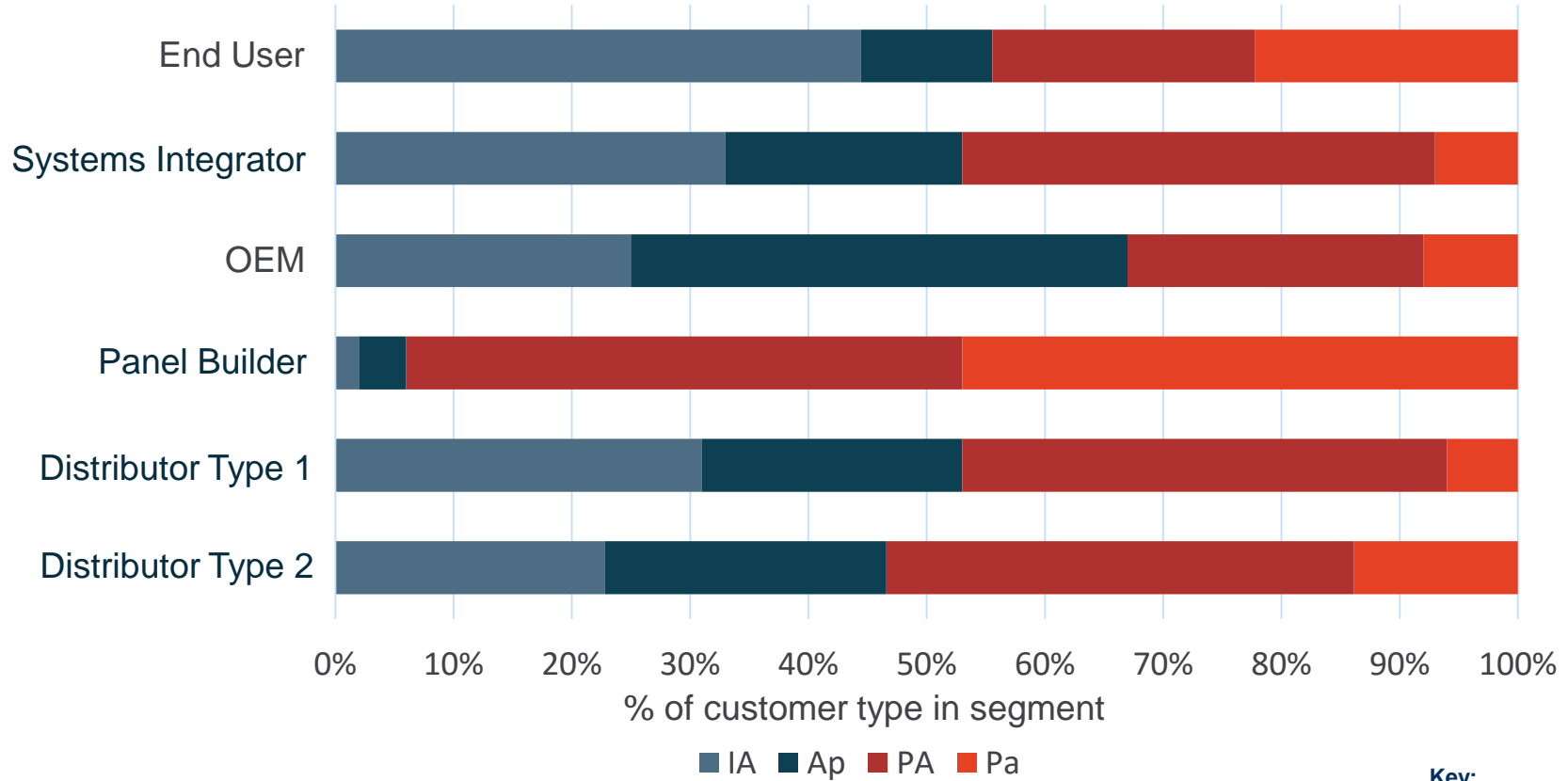


PRAGMATIC /PROJECT  
ACCUMULATION



# Mix of behavioural segments in each institutional segment

Illustrative



**Key:**

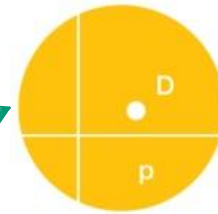
IA	Cooperative
Ap	Commercial
PA	Pragmatic/Projects
Pa	Dynamic

# Reducing complexity from Institutional to Behavioural segmentation

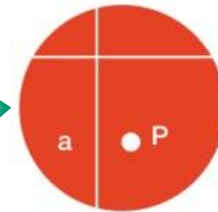
## Institutional Segments

- Airlines
- Airport Lounges
- Executive Jets
- Defence
- Hospitals / Schools
- Event Catering
- Remote Catering
- Stadium Catering
- Retailers
- Wholesalers
- Full & Quick Service Restaurants
- Hotels & Resorts
- Ships / Cruise Lines
- Convenience Stores

## Behavioural Segments



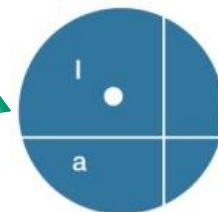
**Innovative Solutions**



**Demanding**



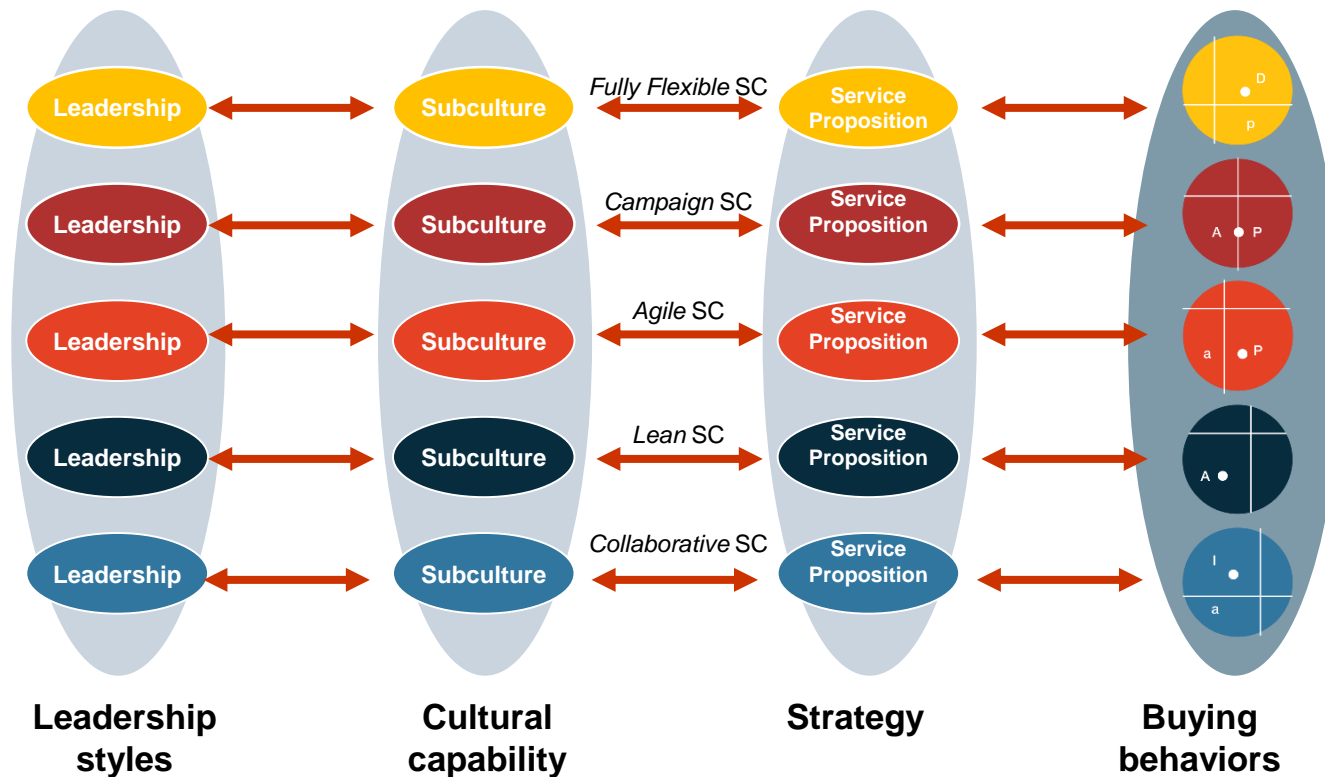
**Transactional**



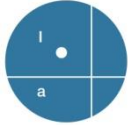

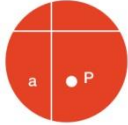


**Collaborative**

# Multiple supply chain alignment: Level 1: customer-side

Finding the *linkages* is key to supply chain design



# The five most commonly observed dominant buying behaviours

Collaborative	Transactional	Dynamic	Project Accumulation	Innovative Solutions
Close working relationships for mutual gain	Consistent low-cost response to largely predictable demands	Rapid response to unpredictable supply and demand conditions	Delivery to project site on time and complete	Supplier-led development and delivery of new ideas
				
<ul style="list-style-type: none"> <li>▪ Mostly predictable</li> <li>▪ Regular delivery</li> <li>▪ Mature or augmented products</li> <li>▪ Primary source of supply</li> <li>▪ Trusting relationship</li> <li>▪ Teamwork/partnership</li> <li>▪ Information sharing</li> <li>▪ Joint development</li> <li>▪ Forgiving</li> <li>▪ Price not an issue</li> </ul>	<ul style="list-style-type: none"> <li>▪ Predictable demand within contract</li> <li>▪ Regular delivery</li> <li>▪ Efficiency, low-cost focus</li> <li>▪ Multiple sources of supply</li> <li>▪ Little sharing of information</li> <li>▪ More adversarial</li> <li>▪ Standard processes</li> <li>▪ Power imposed</li> <li>▪ Transactional</li> <li>▪ Very price sensitive</li> </ul>	<ul style="list-style-type: none"> <li>▪ Unpredictable demand</li> <li>▪ Commodity relationship</li> <li>▪ Time priority/urgency</li> <li>▪ Opportunity focus</li> <li>▪ Ad hoc source of supply</li> <li>▪ Low loyalty, impersonal</li> <li>▪ Fewer processes</li> <li>▪ Outcome oriented</li> <li>▪ Commercial deals based on pragmatism</li> <li>▪ Price aware</li> </ul>	<ul style="list-style-type: none"> <li>▪ Time-specific deliveries</li> <li>▪ Stock reservation system</li> <li>▪ Completed deliveries</li> <li>▪ Expedite if necessary</li> <li>▪ Accumulation off-site</li> <li>▪ Standard processes</li> <li>▪ Special packaging</li> <li>▪ Special transport if necessary</li> <li>▪ Fixed price</li> <li>▪ Delay avoidance</li> <li>▪ Risk migration (liquidated damages)</li> <li>▪ Systematic and detailed supervision</li> </ul>	<ul style="list-style-type: none"> <li>▪ Very unpredictable demand</li> <li>▪ Higher risk</li> <li>▪ Flexible delivery response</li> <li>▪ Innovation focus</li> <li>▪ Rapid change</li> <li>▪ Individual decision making</li> <li>▪ Solutions oriented</li> <li>▪ Management of IP</li> <li>▪ Incentives/ego</li> <li>▪ No price sensitivity</li> </ul>

# Research inputs to dynamic supply chain design – primary research - customer segmentation - data analytics

## Customer Interviews

Predictive

**Buying Behavior**  
**Customer expectations**  
**Service sensitivities**  
**Demand drivers**

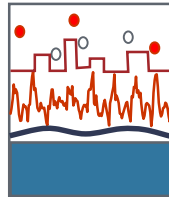
Status quo

**Customer Operational Drivers**  
*Includes:*  
**Lead time drivers**  
**Availability sensitivity**  
**Stockholding drivers**  
**Value-added sensitivity**  
**Planning horizon**

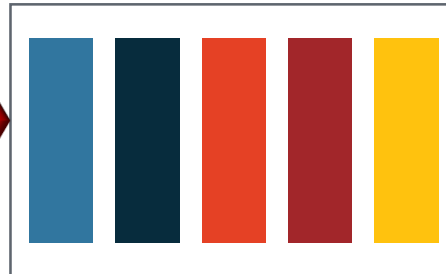
**CUSTOMER PADI LOGICS**



**DEMAND PATTERNS**



**IDENTIFY KEY SEGMENTS**



**Design service offers and supply chains**



**Service offers**

**Tailored**

**Common**



**Network**

**Network**

## Internal & Data Review

*Includes:*

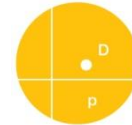
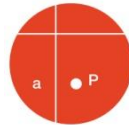
**Business growth strategy**  
**Cost & risk imperatives**  
**Customer sales patterns/ data analytics**  
**Customer briefings**

Source: Gattorna Alignment research

# Matching SC types for the five most common behavioural segments

## SEGMENT

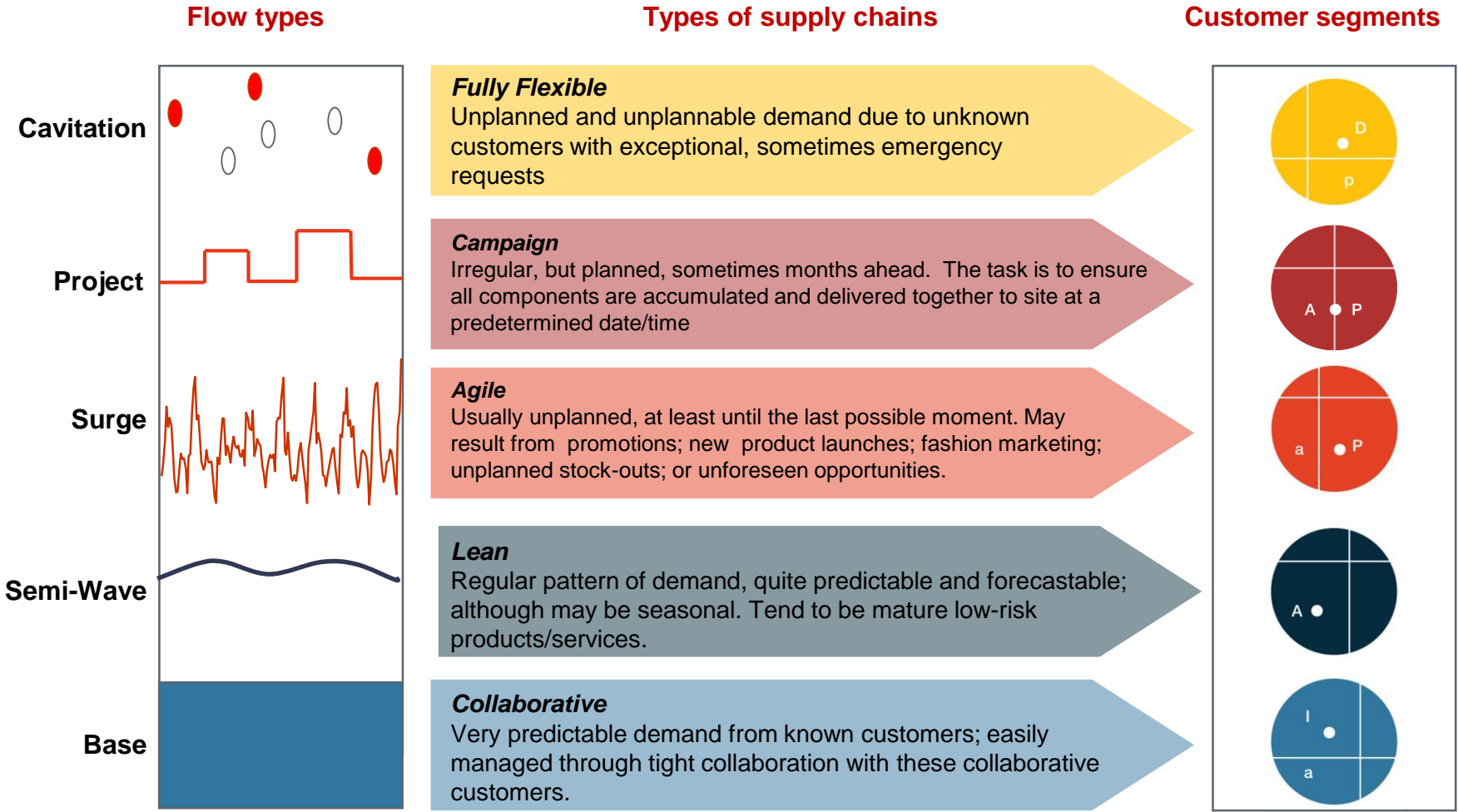
<b>Collaborative</b>	<b>Transactional</b>	<b>Dynamic</b>	<b>Project Accumulation</b>	<b>Innovative Solutions</b>
Close working relationships for mutual gain	Consistent low-cost response to largely predictable demands	Rapid response to unpredictable supply and demand conditions	Delivery to project site on time and complete	Supplier-led development and delivery of new ideas



## SC RESPONSE

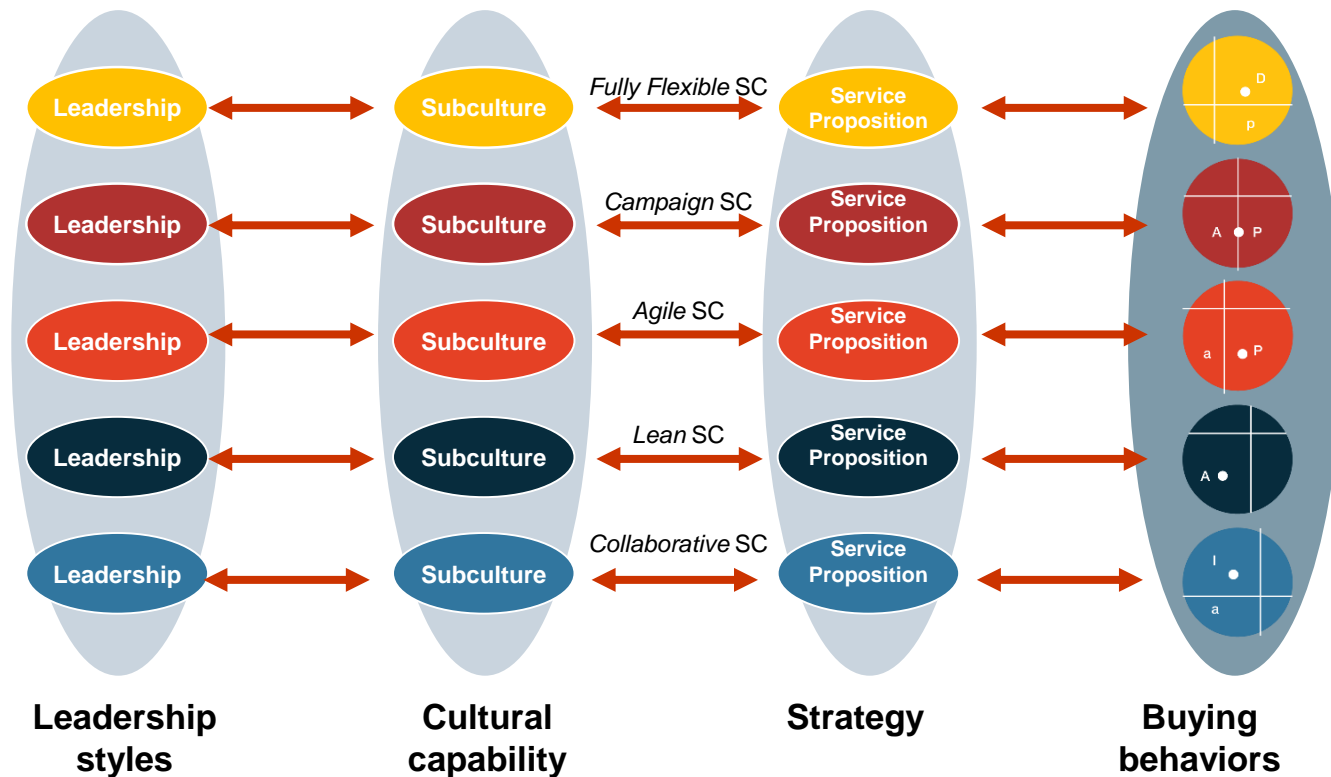
<b>COLLABORATIVE SUPPLY CHAIN</b>	<b>LEAN SUPPLY CHAIN</b>	<b>AGILE SUPPLY CHAIN</b>	<b>CAMPAIGN/ PROJECT SUPPLY CHAIN</b>	<b>FULLY FLEXIBLE SUPPLY CHAIN</b>
-----------------------------------	--------------------------	---------------------------	---------------------------------------	------------------------------------

# Flow characteristics typical of each supply chain configuration



# Multiple supply chain alignment: Critical linkages

Finding the *linkages* is key to supply chain design

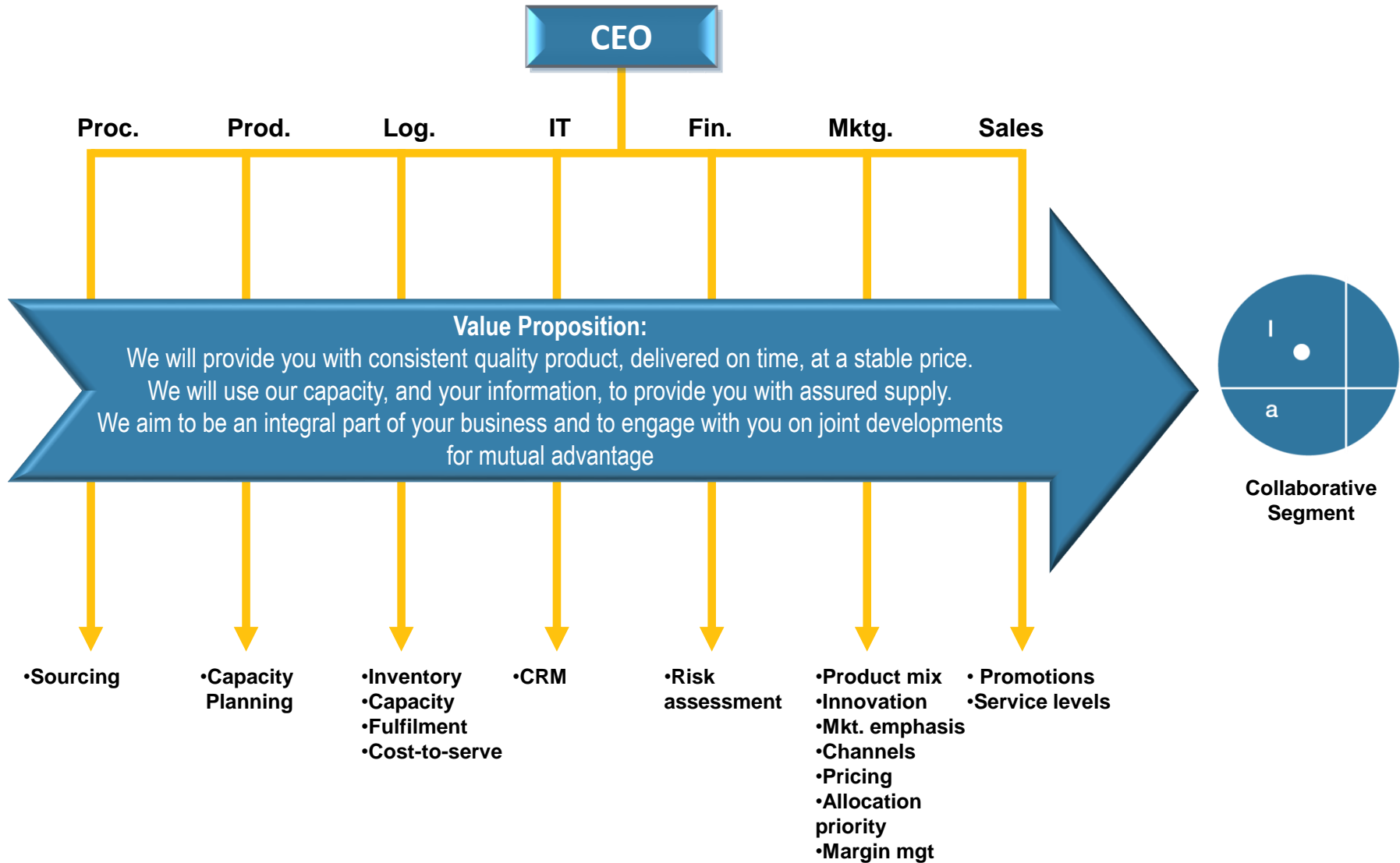




# Strategic dimensions for formulating supply chain strategies

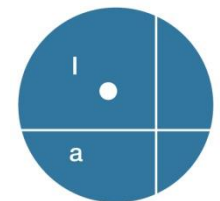
1. Product mix
2. Innovation emphasis
3. Marketing emphasis
4. Channels of distribution
5. Pricing regime
6. Promotional activity
7. Service emphasis
8. Procurement/sourcing approach
9. Production
10. Capacity considerations
11. Fulfilment emphasis
12. Relationship intensity
13. Systems/IT support
14. Resource allocation priorities
15. Strategic risk profile
16. Financial considerations

# Value proposition for *Collaborative* supply chains



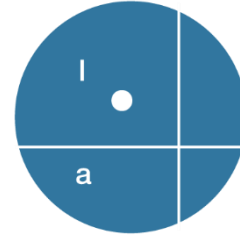
# Collaborative supply chain strategy - Protective

	STRATEGIC DIMENSION	IDEAL STRATEGY
1	Product mix	Emphasis on mature, branded and augmented products
2	Innovation emphasis	Big emphasis on product quality and joint product development. Innovate to improve relationship
3	Marketing emphasis	Build brand loyalty
4	Channels of distribution	Either direct or via trusted outlets
5	Pricing regime	Price according to strength of brand; moderate price sensitivity
6	Promotional activity	Low promotional activity – not needed
7	Service emphasis	Empathy with loyal customers; consistency of service; trust
8	Procurement/ sourcing approach	Select suppliers on basis of relationships
9	Production	Low volume – high value add. Collaborate to reduce costs
10	Capacity considerations	Maximum utilization achievable consistent with serving customers
11	Fulfilment approach	Reliable/scheduled delivery; shared forecasts
12	Relationship intensity	Mutual dependence between customer and supplier
13	Systems/ IT support	Emphasis on customer management, CRM essential
14	Resource allocation priorities	Focus on supporting the relationship to retain customer
15	Strategic risk profile	Low
16	Financial Considerations	Relax credit terms. Undertake customer account profitability analysis

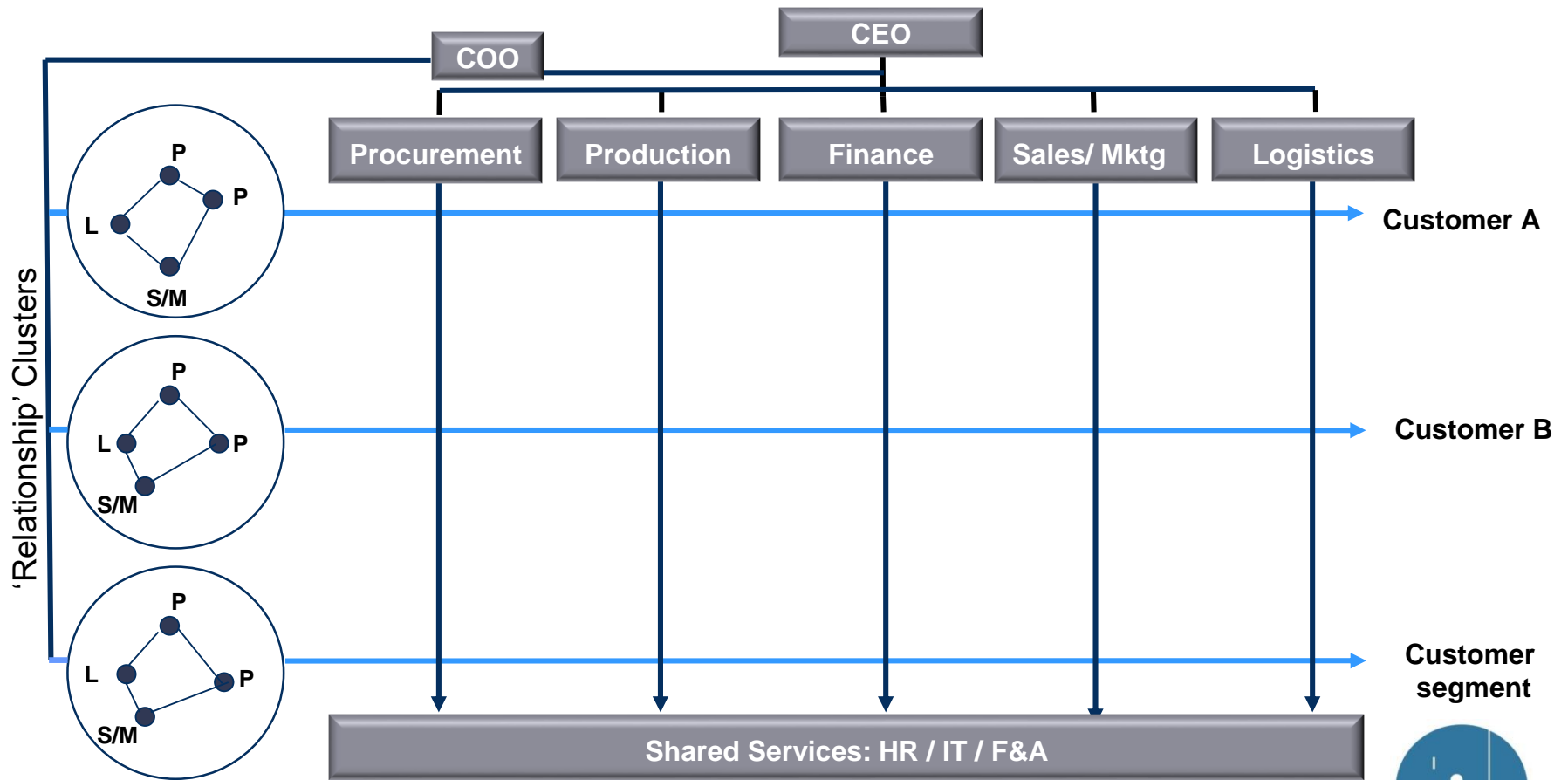


# Practical Implications of Collaborative Supply Chain Configurations

<b>Network</b>	<b>Supply</b>	<p>Long term best value (life cycle cost) Stable Volumes Stable supply paths</p>
	<b>Manufacturing</b>	<p>Base – committed capacity plans Agreed plans Stable regional/local mix</p>
	<b>DCs/Depots</b>	<p>Minimise stock level by removing variability Optimise stock holding location between customer and supplier</p>
	<b>Transport</b>	<p>Firm contracts with 3PLs – assured volumes and routine schedules to minimise price</p>
<b>Planning</b>	<b>Demand Planning/ Forecasting</b>	<p>Collaborative planning and forecasting – at SKU level</p>
	<b>Production Planning</b>	<p>Firm plans to meet commitments Coordinated S&amp;OP</p>
	<b>Inventory</b>	<p>Minimal inventory associated with low variability and high visibility</p>
	<b>Deployment</b>	<p>Minimise stock levels by removing variability Where volumes justify; more direct from plant to customer</p>
	<b>Demand / Order Capture</b>	<p>Default orders VMI? Full visibility, true demand</p>



# Collaborative supply chain organization clusters

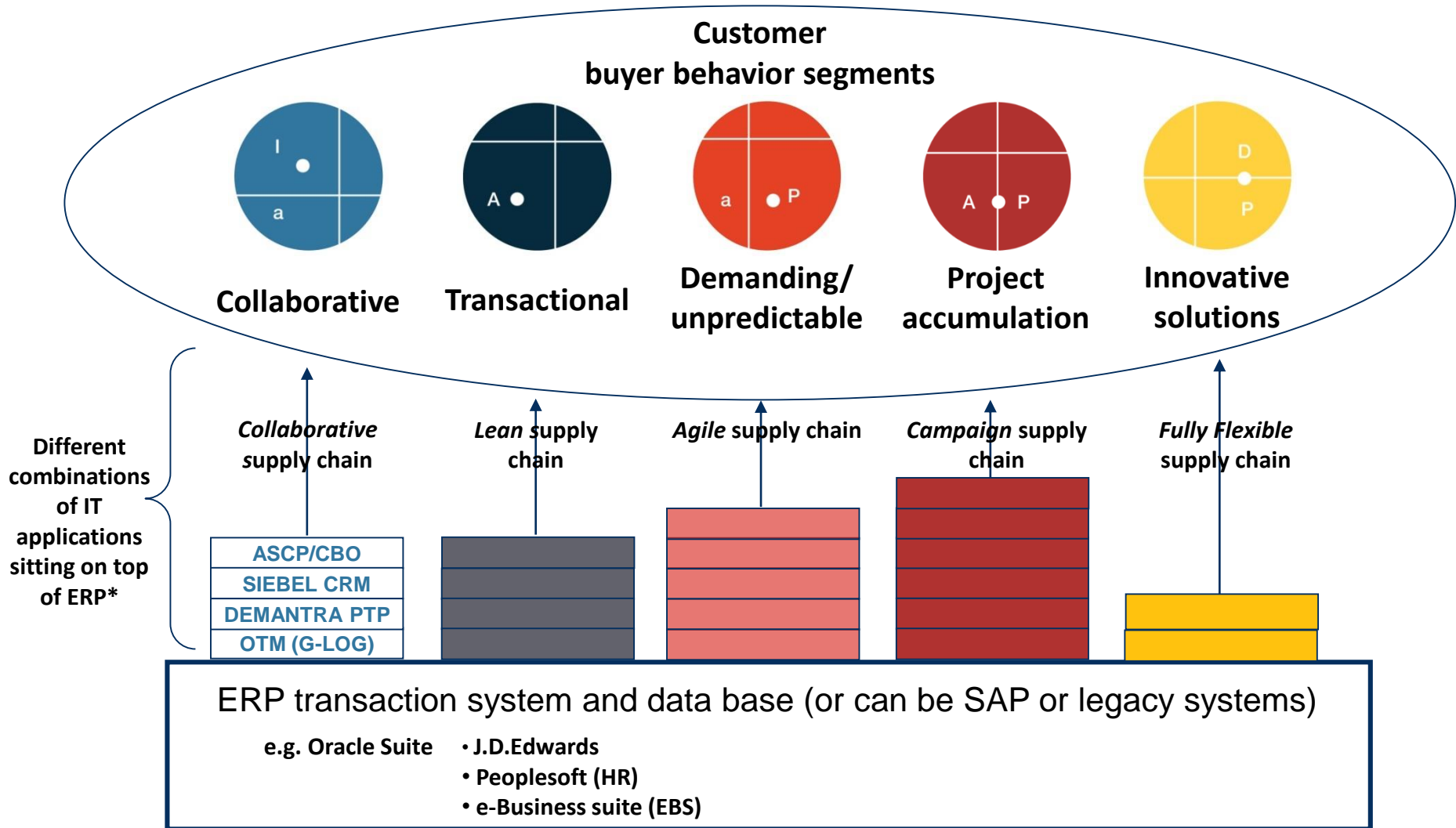


Note 1: Account teams/clusters configured with a 'relationship' mindset bias

Note 2: Individual team members return to their respective functions for specialist training



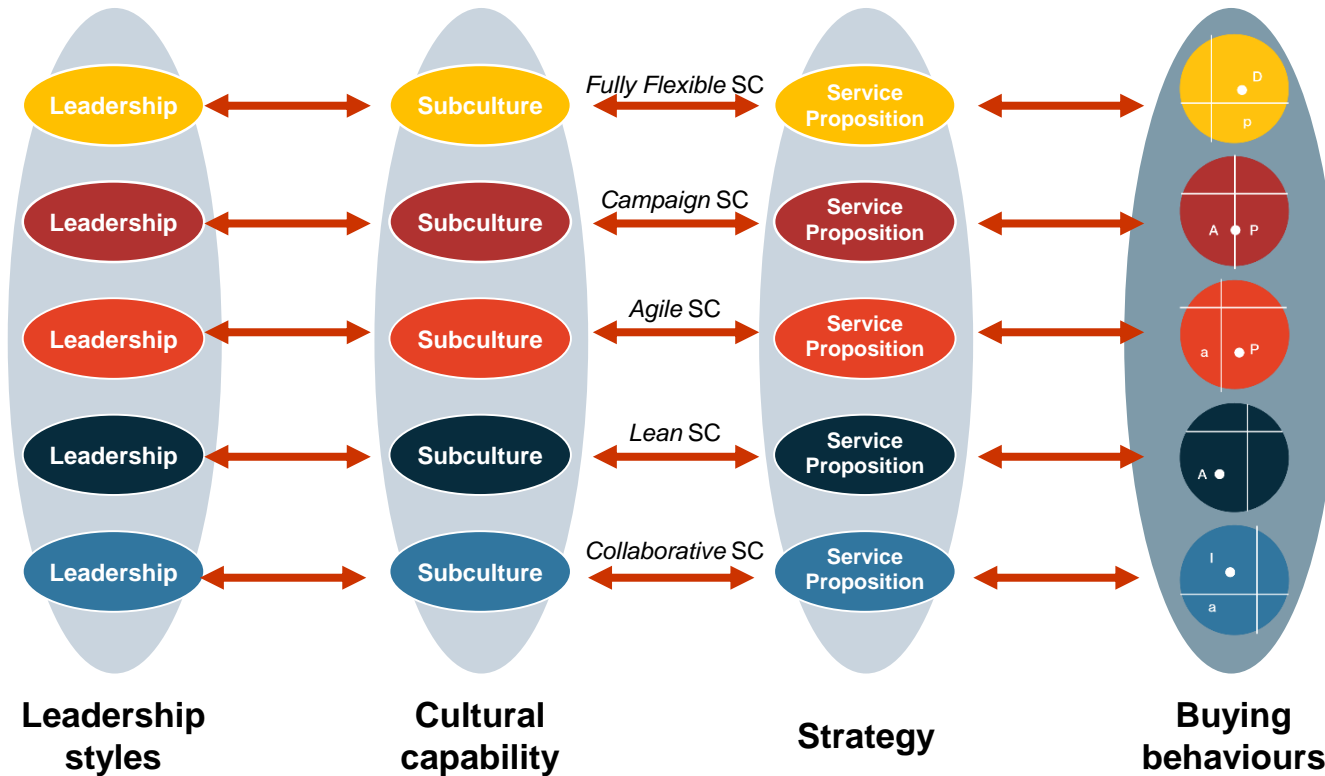
# Requisite technology for *Collaborative* supply chains



\* Using Oracle Suite as sample to demonstrate

# Level 3: Cultural capabilities

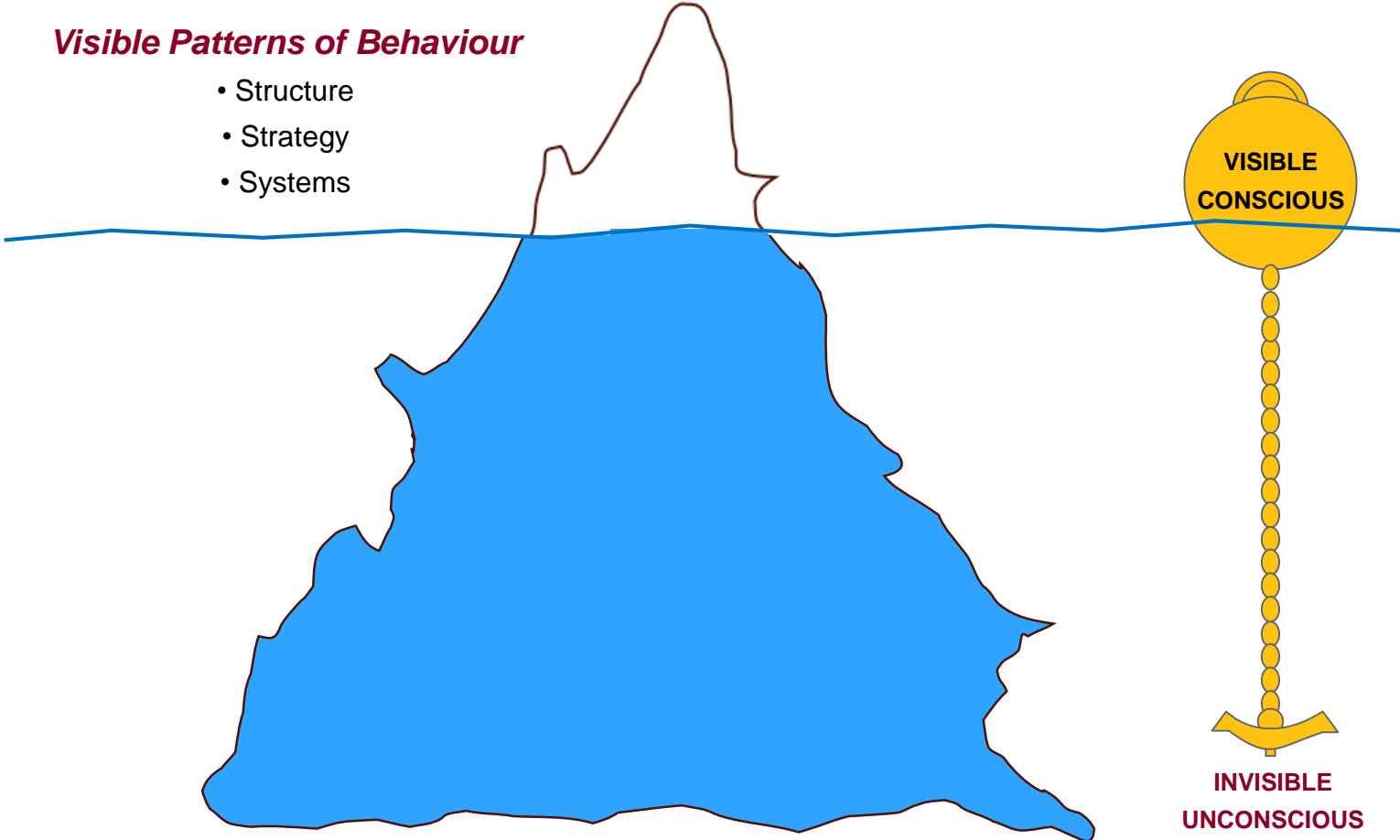
Finding the *linkages* is key to supply chain design



# The 'performance iceberg'

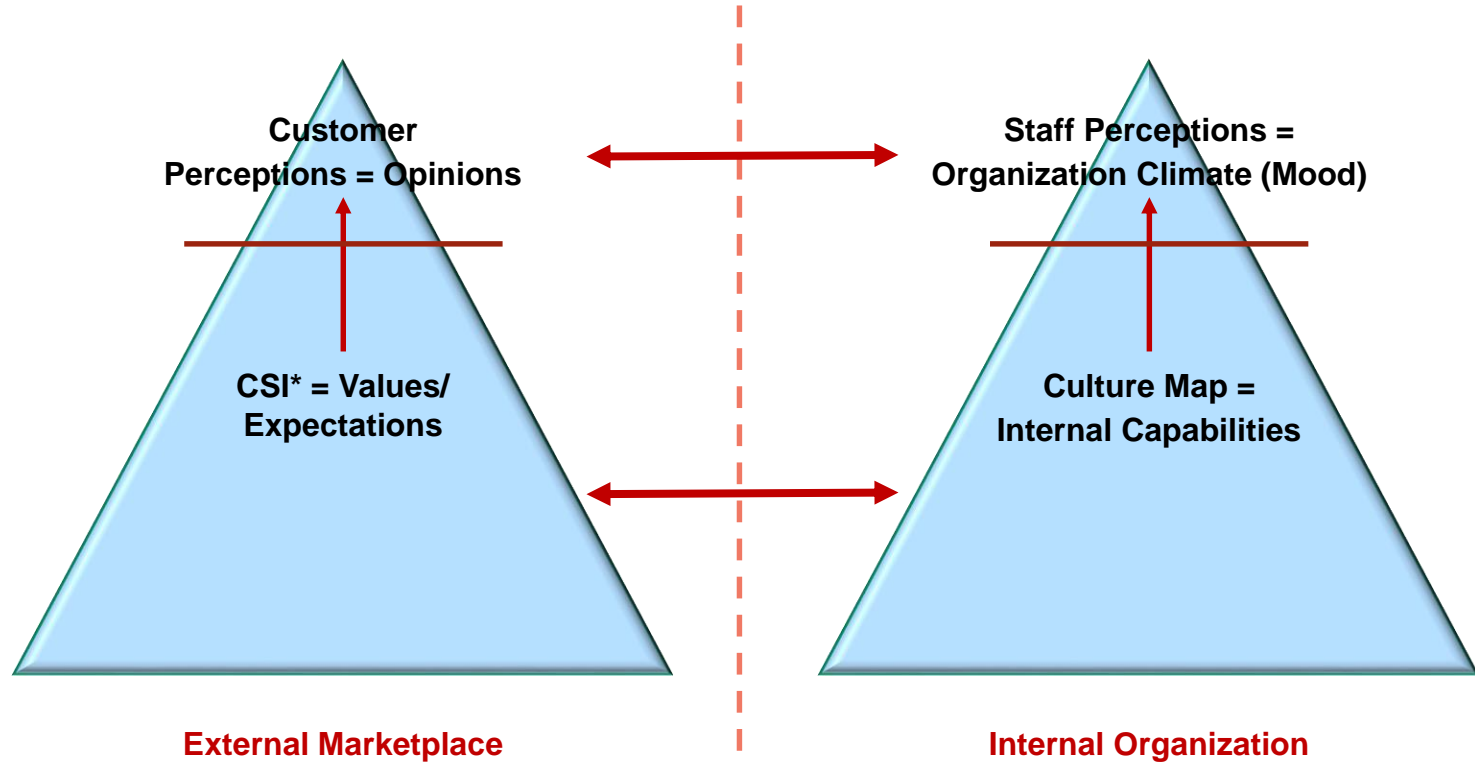
## *Visible Patterns of Behaviour*

- Structure
- Strategy
- Systems



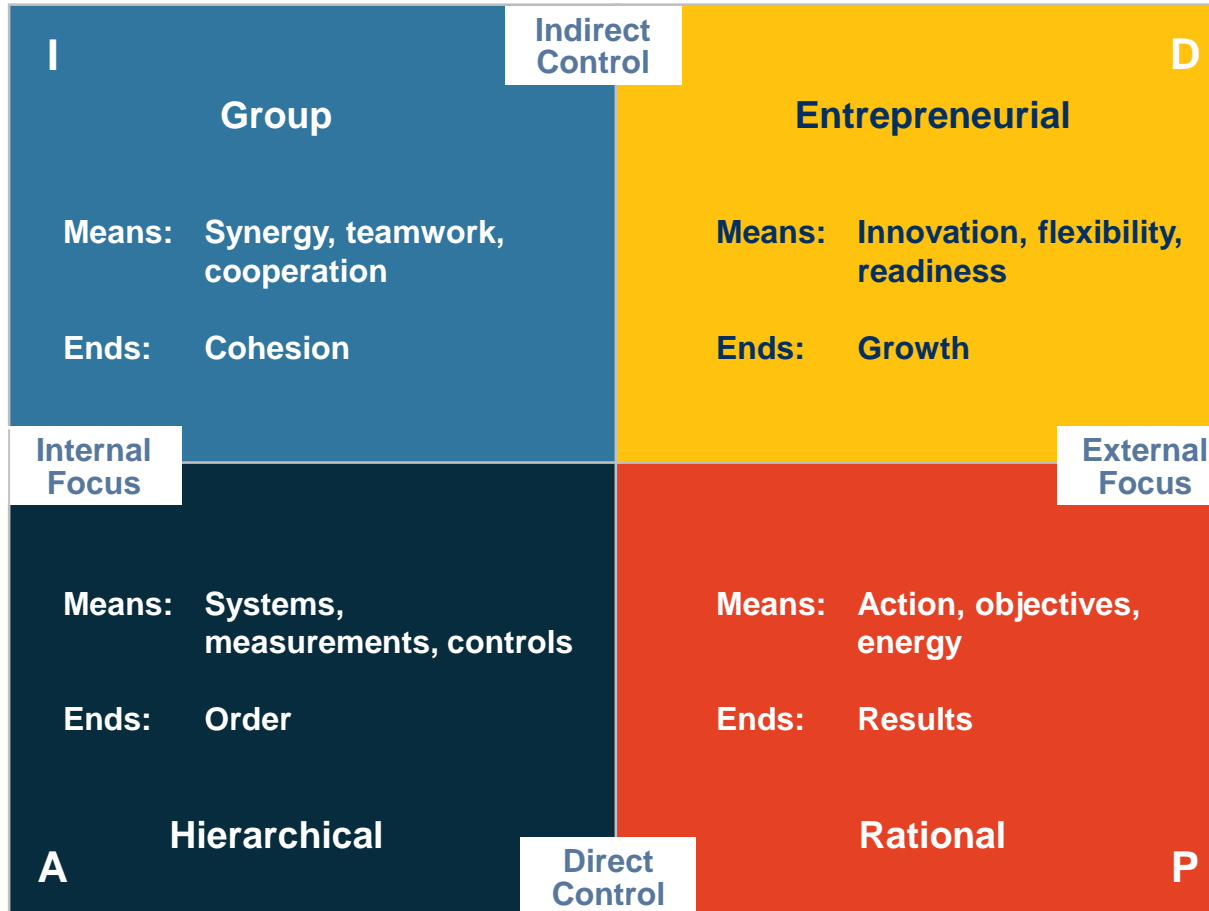


# The two sides of values, behaviours and perceptions – ‘inside’ and ‘outside’ the enterprise



\* Customer Satisfaction Index

# The four generic enterprise subcultures



# The embedded emphasis of the four generic subcultures

## **I** *Emphasis on Cohesion, Teamwork, Synergy and Consensus*

- Define ‘**what we stand for**’ statement
- Emphasise teamwork
- Consensus decision-making
- Define common values
- Joint-peer job design
- Informal standards for performance assessment of teams based on cohesion
- Reward team effort, loyalty and commitment
- Cash based rewards for team (gain-sharing)
- Training emphasises personal interaction and team building
- Recruit ‘I’ people

## *Emphasis on Creativity, Innovation and Flexibility* **D**

- Define ‘**our future potential**’
- Allow people to work on their own to fulfil their potential
- Make individuals accountable for their decisions
- Formulate vision
- Job design to increase autonomy
- Informal standards of performance assessment for individuals based on creativity, flexibility
- Reward creativity of solutions, ideas, experimentation, lateral thinking
- Incentives for individuals, e.g. learning experience
- Open, informal communication for whoever is around at the time
- Training in creative thinking; creative problem solving
- Recruit ‘D’ people

## *Emphasis on Stability, Order, Systems, Control*

- Define ‘**how we do things**’ statement
- Centralise decision-making, especially for cost control measures
- Change guidelines to rules
- Define jobs by method
- Formulate policy and procedure manuals
- Set efficiency/productivity objectives
- Measure and reward conformance to systems and procedures
- Provide cash rewards based on productivity, “sticking to the rules”
- Establish a formal, regular, structured, systematic communication process on “need to know only” basis
- Training programs which emphasise planning, measuring, controlling and “use of systems”
- Recruit ‘A’ people

**A**

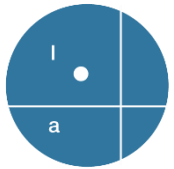
## *Emphasis on Results, Urgency, High Levels of Activity*

- Define ‘**what we are fighting for**’ statement
- Decentralise decision-making; encourage staff to solve problems
- Specify clear guidelines, not rules
- Job design based on results, outputs
- Formalise position descriptions; individual performance objectives
- Measure performance against objectives
- Provide regular feedback on performance
- Reward achievement of objectives; speed of response. Provide incentives/merit-pay, based on results for **individuals**
- Establish a timely and speedy communication process
- Training programs which emphasise optimum use of time and resources
- Monitor competitor information and market conditions
- Recruit ‘P’ people

**P**

# Internal capabilities required to propel Collaborative supply chains

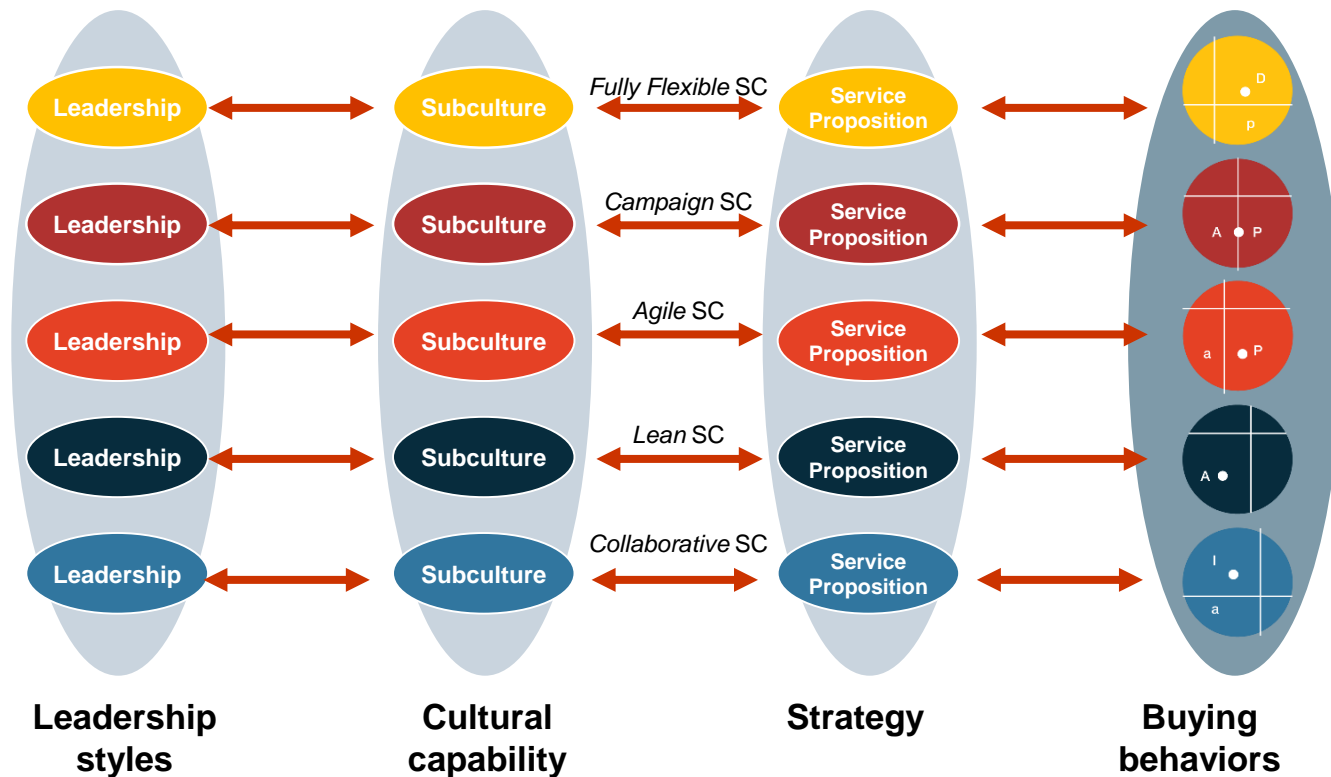
	CAPABILITY AREA	CAPABILITY
1	Customer interaction	<ul style="list-style-type: none"> <li>• Customer Call Center (CCC) - joint responsibility*</li> <li>• Rolling annual CSI/NPS surveys*</li> </ul>
2	Transformation	<ul style="list-style-type: none"> <li>• Translate strategy into working models*</li> </ul>
3	Organization	<ul style="list-style-type: none"> <li>• Risk management/ mitigation</li> <li>• OD: multi-disciplinary cluster</li> <li>• People selection and positioning :ensure bias of relationships (Ia) in cluster</li> <li>• Analytics*</li> <li>• Risk management/ mitigation</li> <li>• Project management*</li> <li>• Strategic partnering</li> </ul>
4	Processes [standard]	<ul style="list-style-type: none"> <li>• Customer Account Management (CAM)</li> <li>• Key Account Management (KAM)</li> </ul>
5	Planning	<ul style="list-style-type: none"> <li>• VMI</li> <li>• CPFR</li> <li>• S&amp;OP</li> <li>• Co-planning with selected customers</li> </ul>
6	IT Systems	<ul style="list-style-type: none"> <li>• CRM for selected customers</li> <li>• EDI</li> <li>• Network Optimization modelling*</li> <li>• Inventory management</li> <li>• Track &amp; Trace</li> </ul>
7	Operations	<ul style="list-style-type: none"> <li>• Delivery reliability [DIFOT]</li> <li>• MTS</li> <li>• FTL/FCL delivered direct from source</li> <li>• Transport selection and management</li> </ul>
8	Culture	<ul style="list-style-type: none"> <li>• Minimize change: keep status quo</li> <li>• Internal collaboration-teaming</li> <li>• Consensus decision making</li> <li>• Shared KPIs: emphasis on loyalty and retention</li> <li>• Incentives: encourage participative schemes</li> <li>• Job design: degree of autonomy negotiated by consensus</li> <li>• Internal communications: consultative/ face-to-face</li> <li>• Training &amp; development; team building</li> <li>• Role modelling: managers with ESFP MBTI profile ideal</li> <li>• Recruiting: team players</li> <li>• Leadership style: Coach: conscientious; lead by teaching; concerned for others; loyal, committed, politically astute; seeks agreement by consensus</li> </ul>



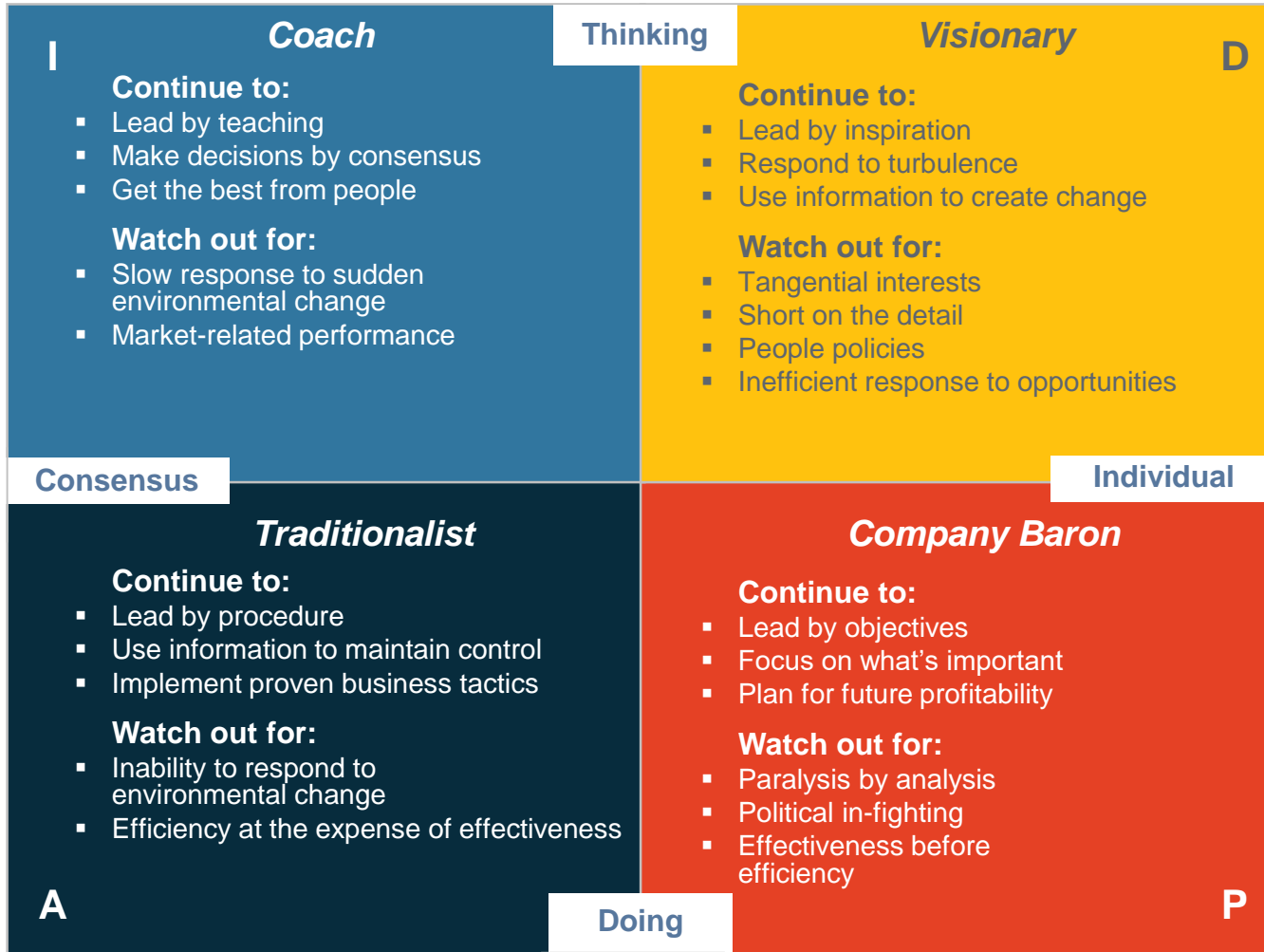
\* Common across all supply chain types

# Multiple supply chain alignment: Level 4: Leadership styles

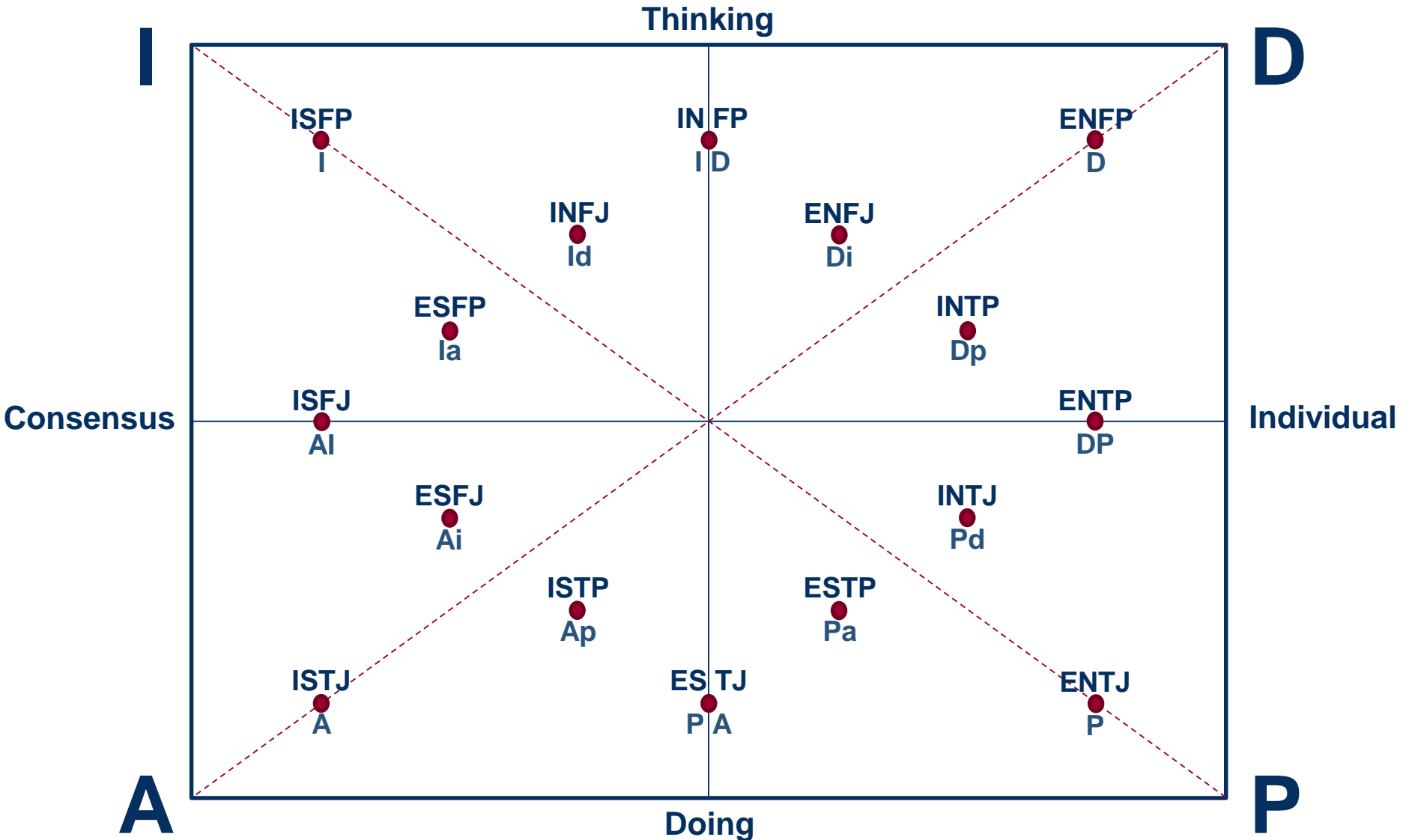
Finding the *linkages* is key to supply chain design



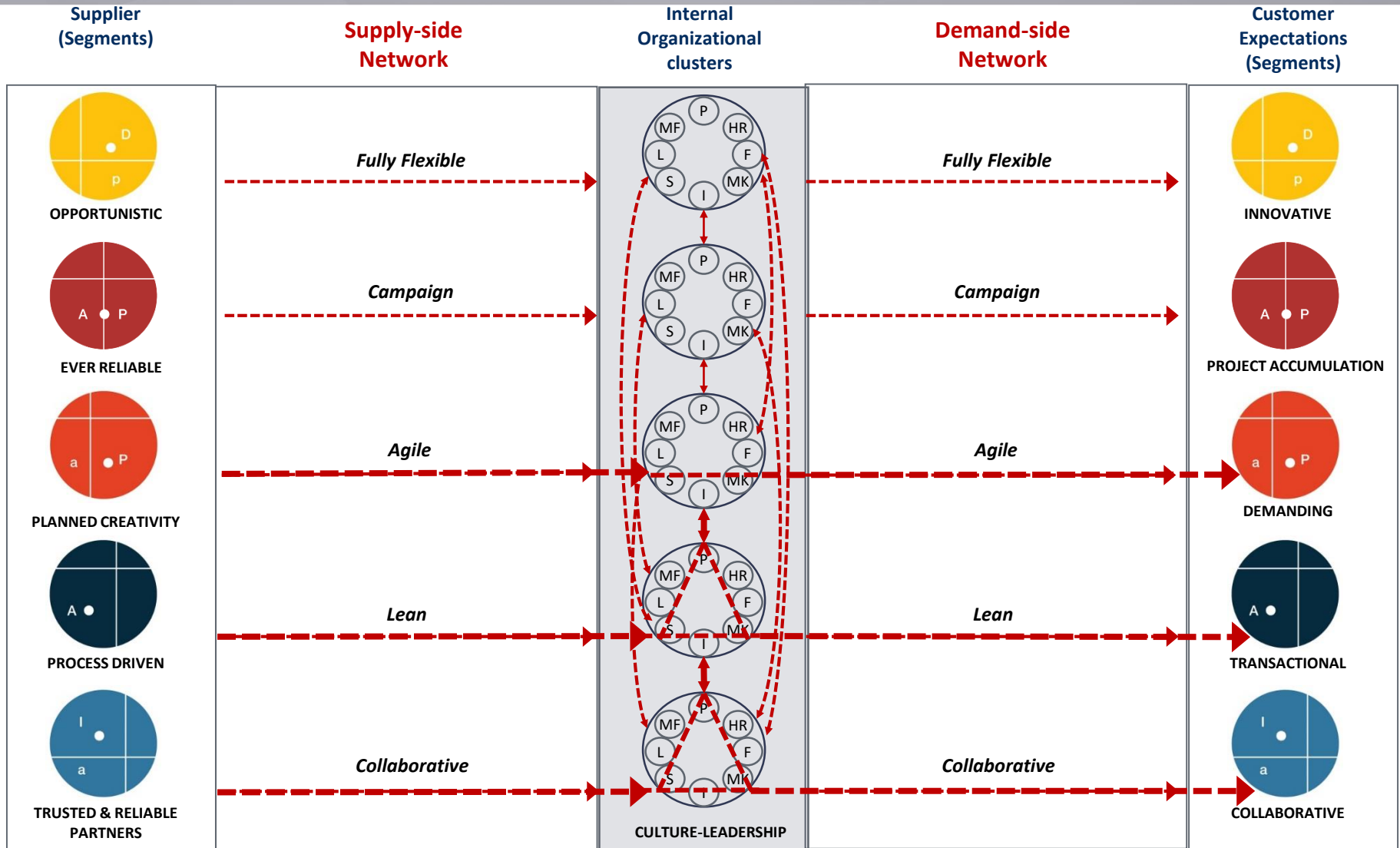
# Leadership styles



# MBTI® overlay on P-A-D-I framework



# A new dynamic business model for supply chains of the future



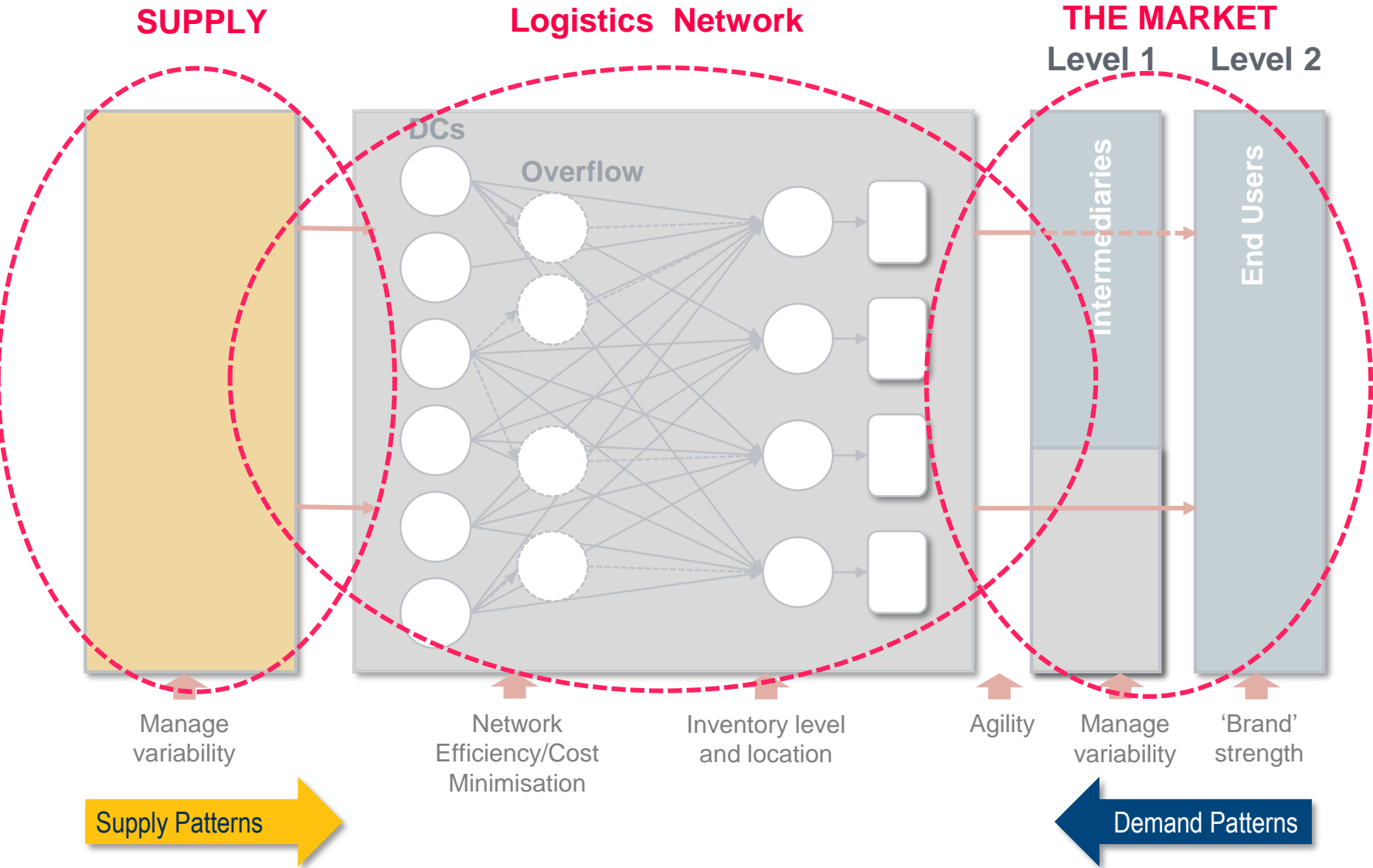
Key:  
 P = Procurement    MK = Marketing  
 MF = Manufacturing    F = Finance  
 L = Logistics    HR = Human Resources  
 S = Sales    I = IT



# The misalignment possibilities are enormous, especially with changing buying behaviours of Customers (Level 1)

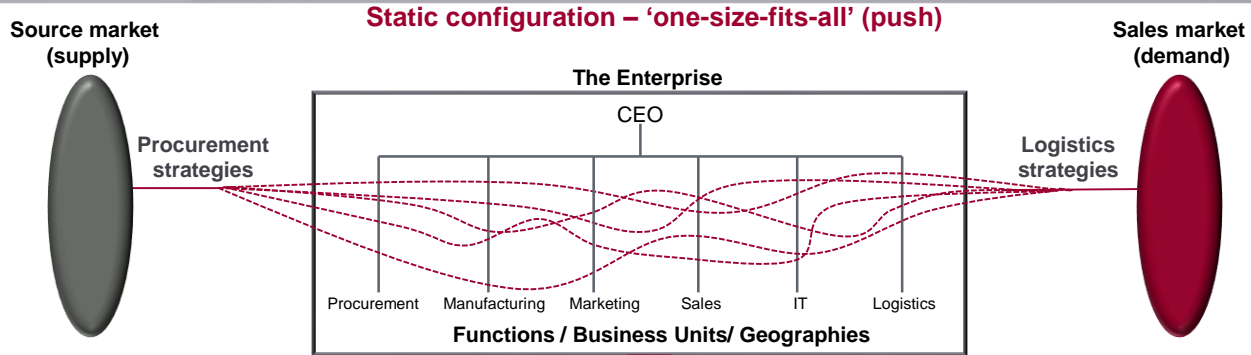


# Linking all three subsystems is the 'secret sauce'

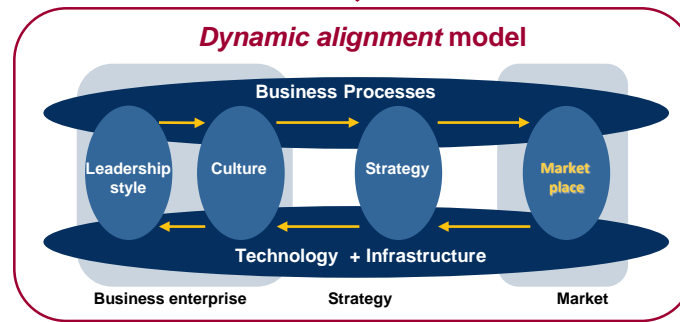


# From 'static' to 'dynamic' design of enterprise supply chains in a 3D digitised world

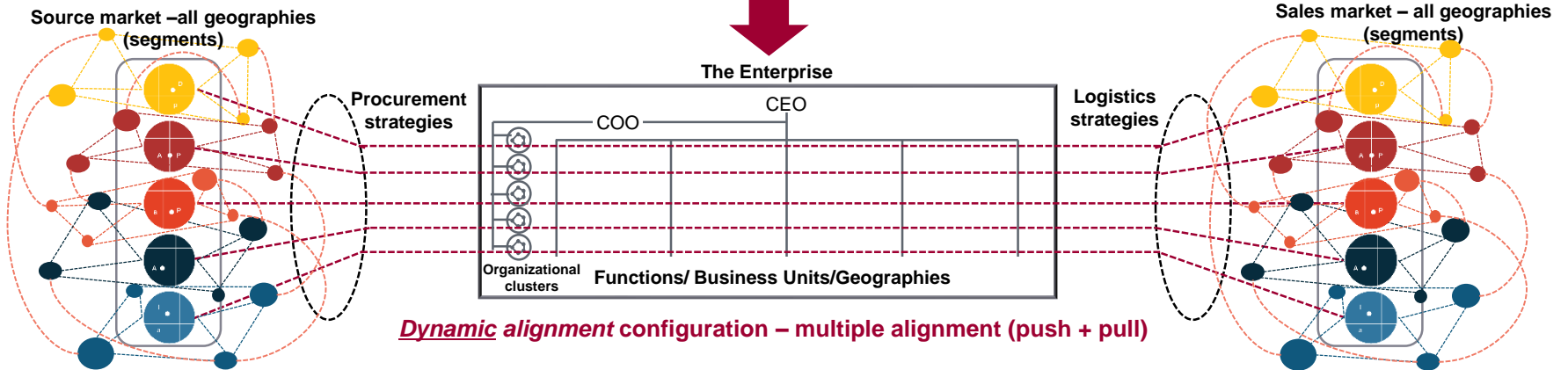
**Current**



**Dynamic alignment model**



**Future**



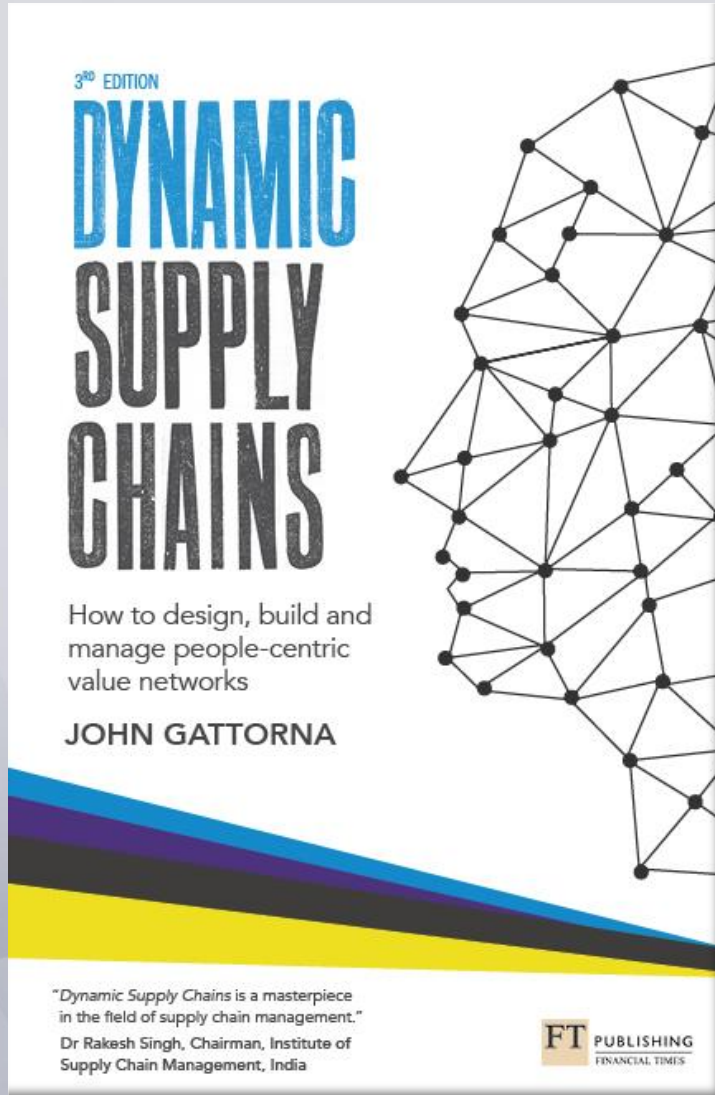
**Dynamic alignment configuration – multiple alignment (push + pull)**

# Maze of complexity



Source: Getty Images

Figure 17.2: Maze of complexity



New Release

## Contact Details

Website: [www.johngattorna.com](http://www.johngattorna.com)

Email: [john@johngattorna.com](mailto:john@johngattorna.com)