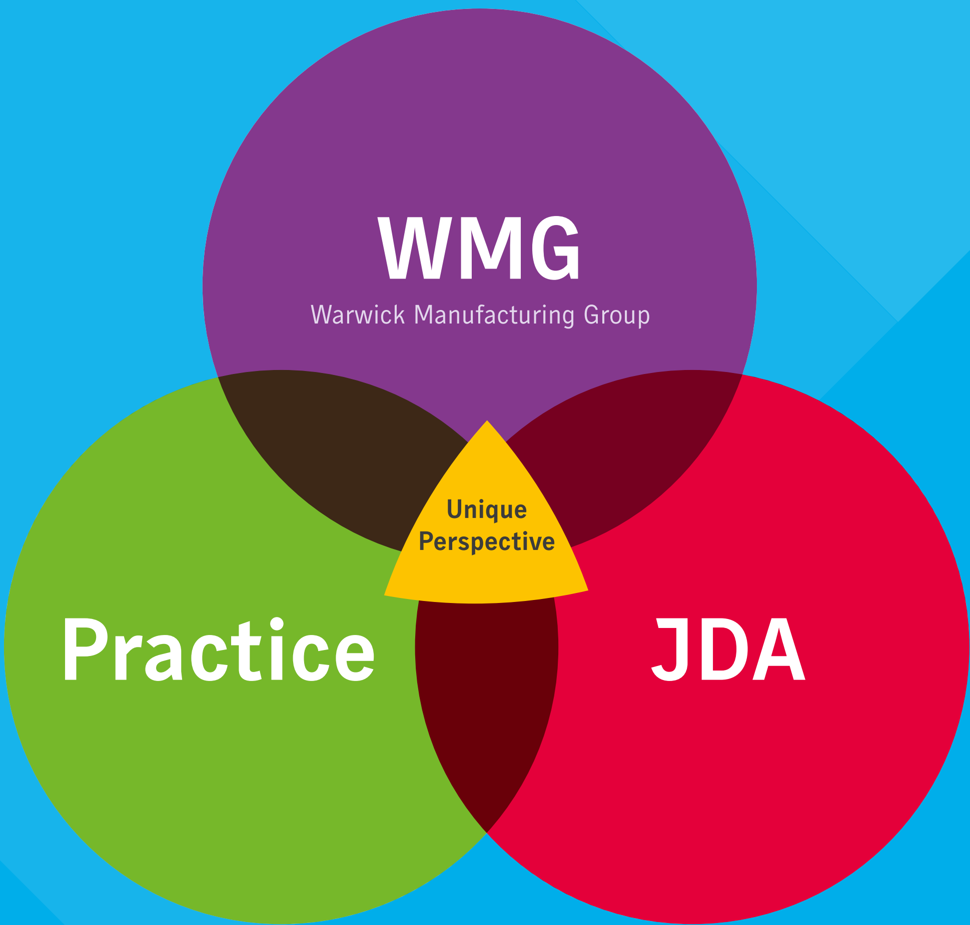
Supply Chain Segmentation

A Window of Opportunity for European Manufacturing

A survey of 100 manufacturing organisations across Europe

Industry Practice

Insights from 101 European Supply Chains



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Specific focus on research on strategic alignment and SC segmentation for 15 years

JDA

20 of the top 25 supply chain organisations use JDA[1]

[1] The Gartner Supply Chain Top 25 for 2016 listing.

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The Window of Opportunity

Supply chain segmentation is a shortcut to competitive advantage

Supply chain segmentation is re-emerging as a core capability for competitiveness. Effectively implemented it enables profitability to emerge from an increasingly complex and ever more dynamic market place. Moreover, it is a process designed to maintain strategic alignment whatever the pace of change. In this timely study, JDA and The University of Warwick surveyed senior management and executives in 100 organisations across Europe to benchmark how advanced European manufacturing is with respect to the segmentation practice.

The research revealed that only 8% of European manufacturers have reached level 3 segmentation while no firms demonstrated level 4 capability. This means that there is a significant opportunity for organisations that develop their capability. Given the general lack of maturity across the space, first movers are set to capitalise. Segmentation is not a new practice for supply chain management, so why is it so relatively under-developed, and what can be done to advance the capability? Moreover, benefits will be received from the early steps, so the key action is to begin the journey.

The operational excellence advantage

Organisations reported Operational Excellence (OE) as their core competitive driver, around which Product Innovation (PI) and Customer Intimacy (CI) are utilised for growth. Dynamic rules-based segmentation can help to manage a stable base of profitable predictable demand and allow management the headroom to focus on the exceptions and the dynamics of the growth components. However, only 13% reported use of advanced analytics such as simulations that assist, for example, new product introductions and exception management.

A business process orientation is not well established

Only 5% of respondents were at level sales and operations planning (S&OP)/integrated business planning (IBP) maturity; they reported higher levels of performance, with greater consistency. No respondents were at level 4. IBP helps to keep the three core processes of supply chain management (SCM), new product development (NPD) and customer relationship management (CRM) aligned while closing the gap to strategy.

Only 17% of organisations reported a business process orientation. This may be a new explanation as to one of the root causes.

Strategic alignment or mis-alignment?

Only 29% of respondents implement segmentation in a 'top-down way'. This means that the strategic nature of segmentation is not being recognised in practice. From a SCM business process perspective, the need to bring together the core functional supply chain processes (plan, source, make, deliver and return) under one umbrella, and to use them to connect seamlessly to customers and suppliers has long been recognised. However, the results show that departmental and functional approaches dominate over any common denominators at an organisational level.

In practice this means that supply chain segments once identified are being implemented through functional supply chain processes or not operationalised at all.

Profitability is rarely a goal of segmentation

A key test of capability to deliver business goals is the extent to which they are reflected in the end-to-end supply chain. The survey found that in only rare cases, for 'product' and 'customer' dimensions, was margin a goal at all. In both cases as a goal it was ranked 4th or lower. In general volume-based measures dominated.

However, this is not necessarily a bad thing, it depends on the strategy. The more concerning result from the end-to-end supply chain analysis was the use of traditional methods at each stage, and the way they provided no connectivity across the end-to-end supply chain.

'Strategic' was often poorly defined

Also worrying was the high percentage of customers that were segmented based on strategic reasons. There is little evidence to suggest that strategy had actually been cascaded. It is more likely to be a coverall not to follow process and to add cost.

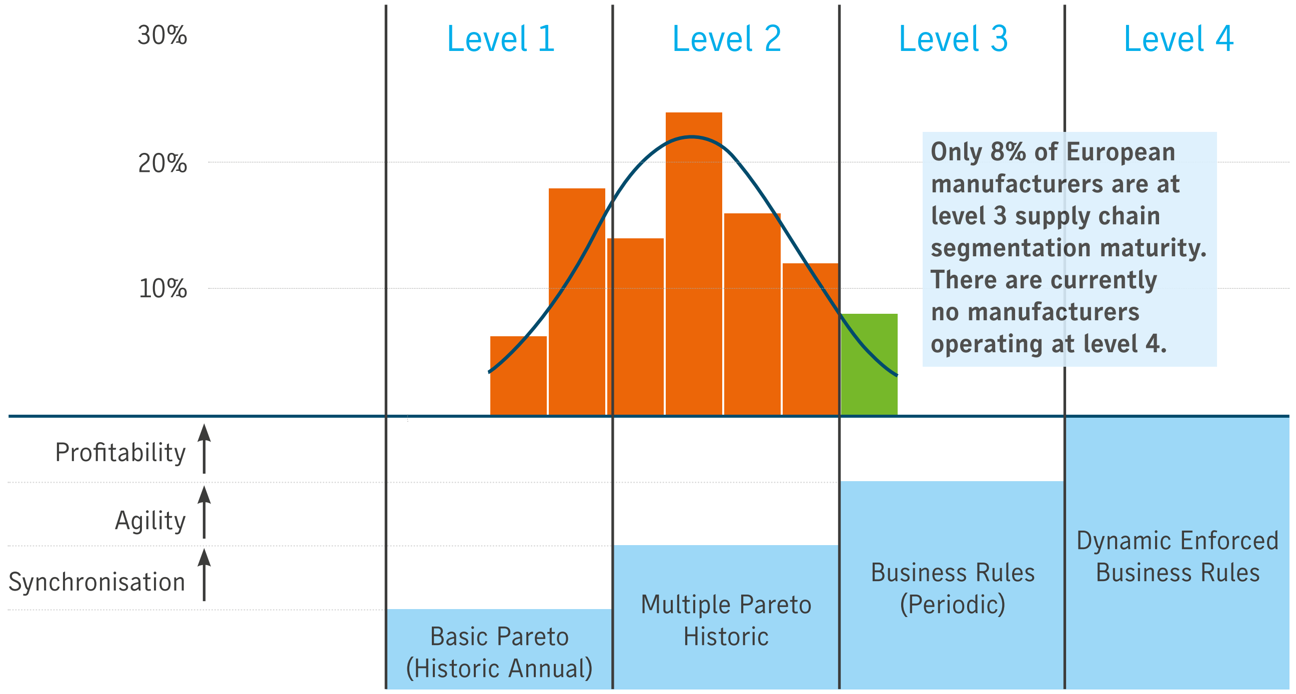
A lack of analytics and process capabilities are key barriers to achieving high levels of segmentation capability

The majority of organisations are not using dynamic or data-driven models, while only 18% of respondents considered the past, present and future in their planning processes. Effective IBP and segmentation processes clearly require strong and consistent analytical underpinnings end-to-end so it is probably not surprising that the two results would appear to be closely linked.

The state of supply chain segmentation in Europe

To benchmark the 'State of Segmentation', The University of Warwick and JDA developed a four-level model of supply chain maturity. The survey was divided into strategy and operational sections to examine the linkages as well as practice.

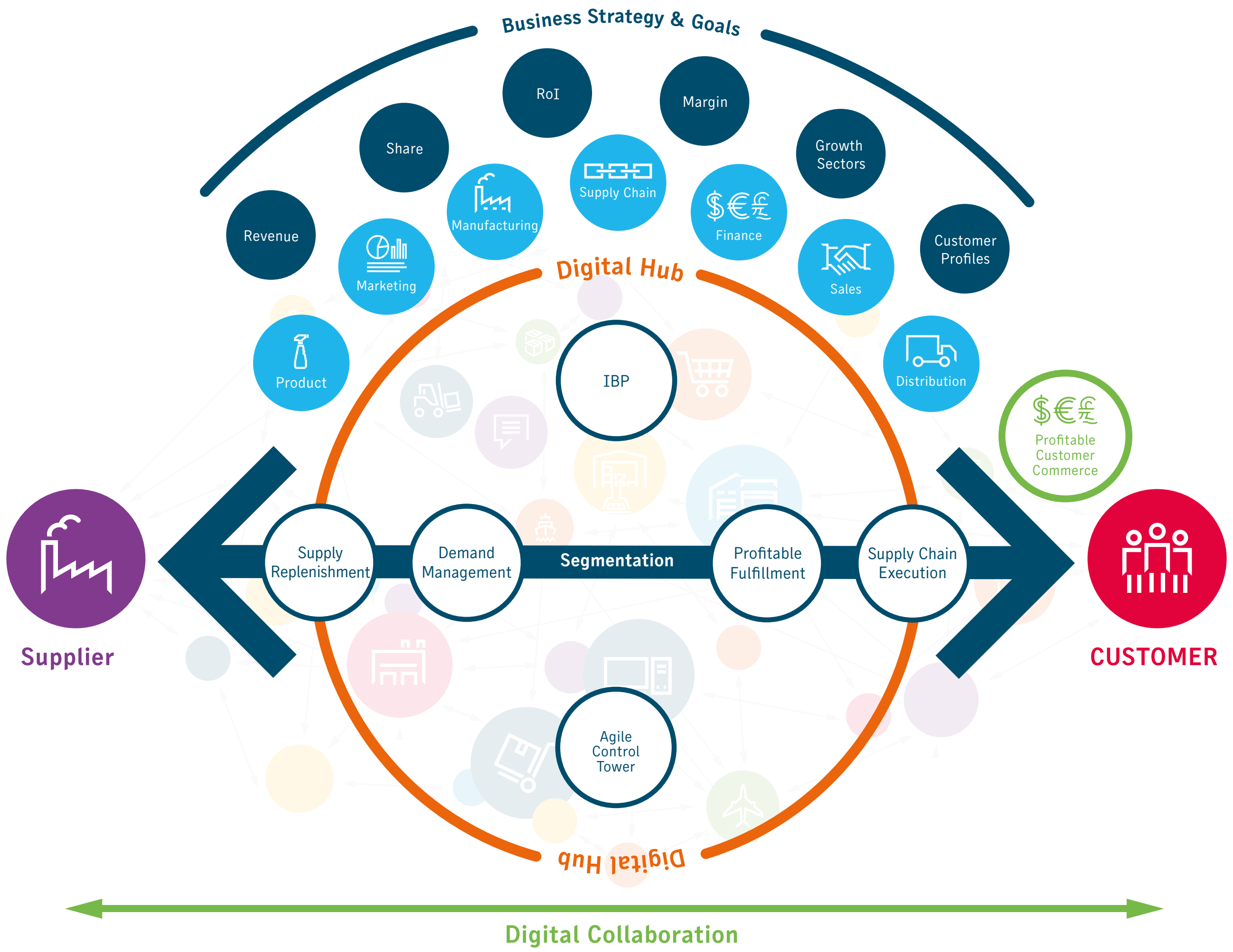
Optimal business outcomes require levels 3 and 4



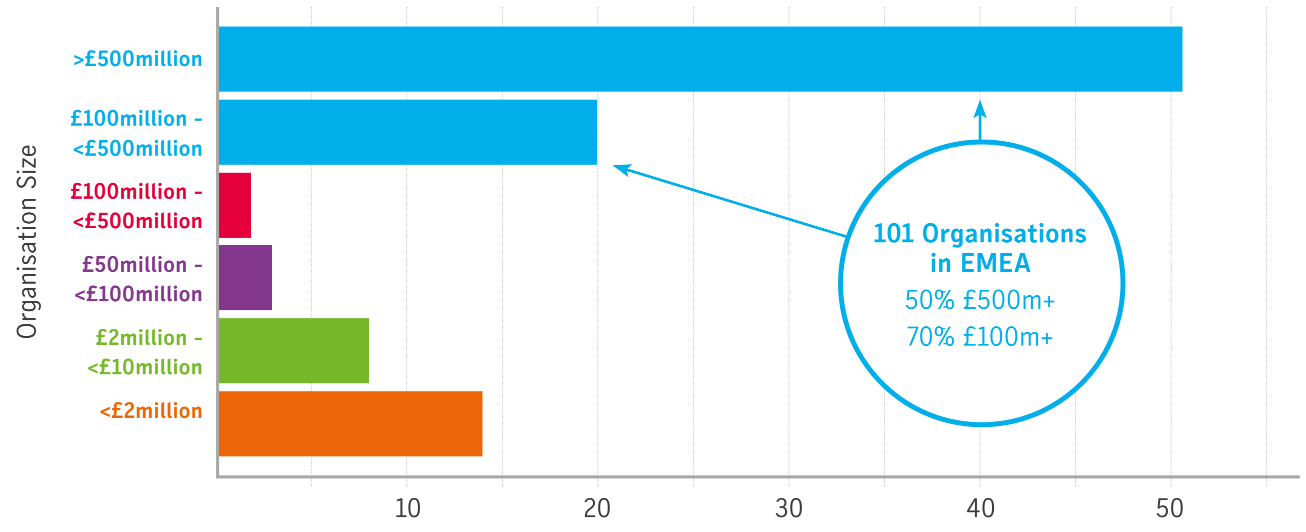
	Level 1	Level 2	Level 3	Level 4
Organisational Structure	Functional or Regional	Matrix	Business Process	Matrix + Business Process
Select Criteria	Existing Model or Judgement	Existing Model or Judgement	Existing Model or Judgement	Data Driven
Develop Segments	Existing Model or Judgement	Existing Model or Judgement	Existing Model or Judgement	Data Driven
Operationalise Segments	Not Operationalised	Bottom Up	Top Down	Top Down
Temporal Orientation	Past	Past and Present	Past, Present and Future	Past, Present and Future
Dimensions	Single, e.g. Customers vs. Products	Multiple, Including PLM Information	Multiple, Including PLM Information and Margin	Data-Driven Rules Based on Definitions
Definitions	Static	Static	Business Rules	Fully Dynamic
Methods	Pareto Charts, ABC Analysis	2x2 Grids, Trend Analysis	Multi-Grid	Multi-Grid
Purpose	Defined by Accounts	Revenues and Volumes	Markets Share / Products / Intimacy Goals	Align Operation with Strategy, Maximise Margin

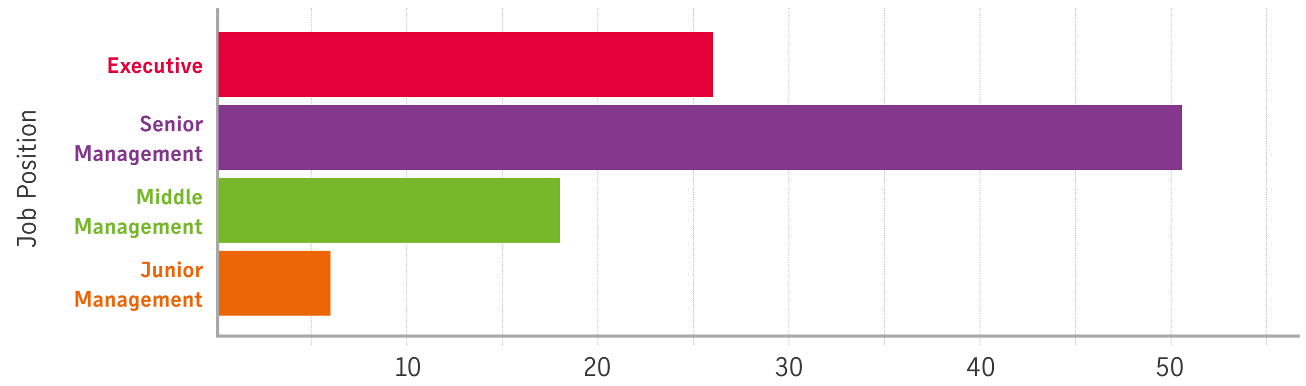
The Strategic Role of Segmentation

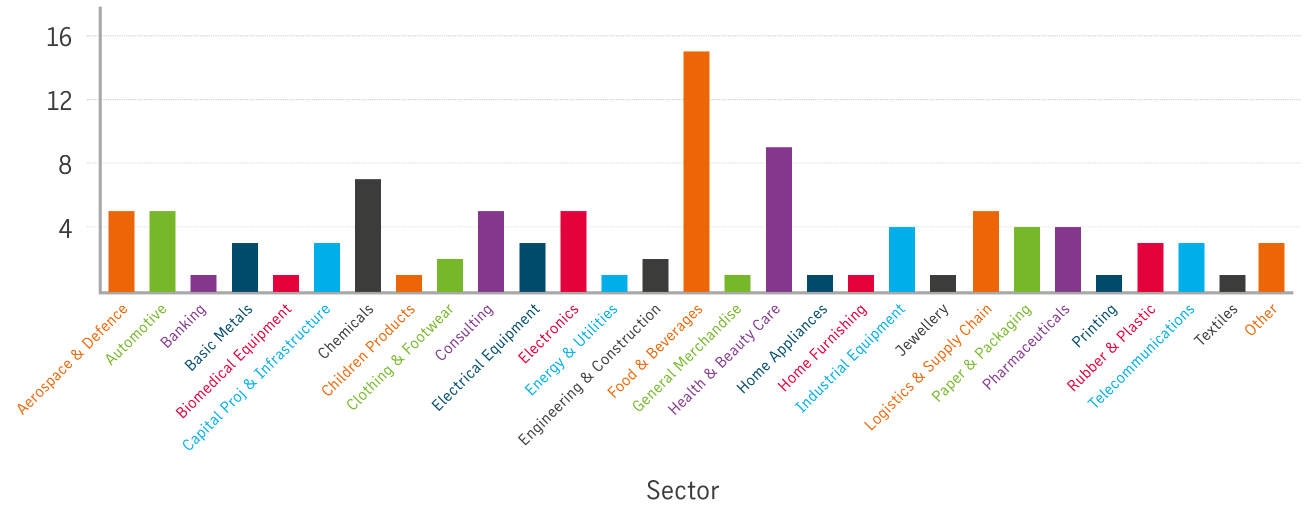
Supply chain segmentation should be the lens that focuses complex signals from the market, then adjusts the image to account for business goals, to reveal a dynamic picture of the optimum configuration of supply chain assets, consistent with maximum profitability and strategic conformance. Operationally, segmentation underpins supply chain management, one of the three core capabilities of any organisation along with new business development and customer intimacy. In theory, segmentation is a key business process and hence capability to ensure that business goals are realised in the hurly burly of operation. So, it is something of a surprise to find that only 17% of respondents had a business process orientation as part of their organisational design. Moreover, less than a third of organisations operate segmentation top down.



Suggesting that companies recognise the strategic potential of segmentation, 77% of respondents were at senior management or executive level. **Over half of the organisations contributing were above £500m in turnover and 71% had annual revenues in excess of £100m**. There was a good spread of results from across all industry sectors.



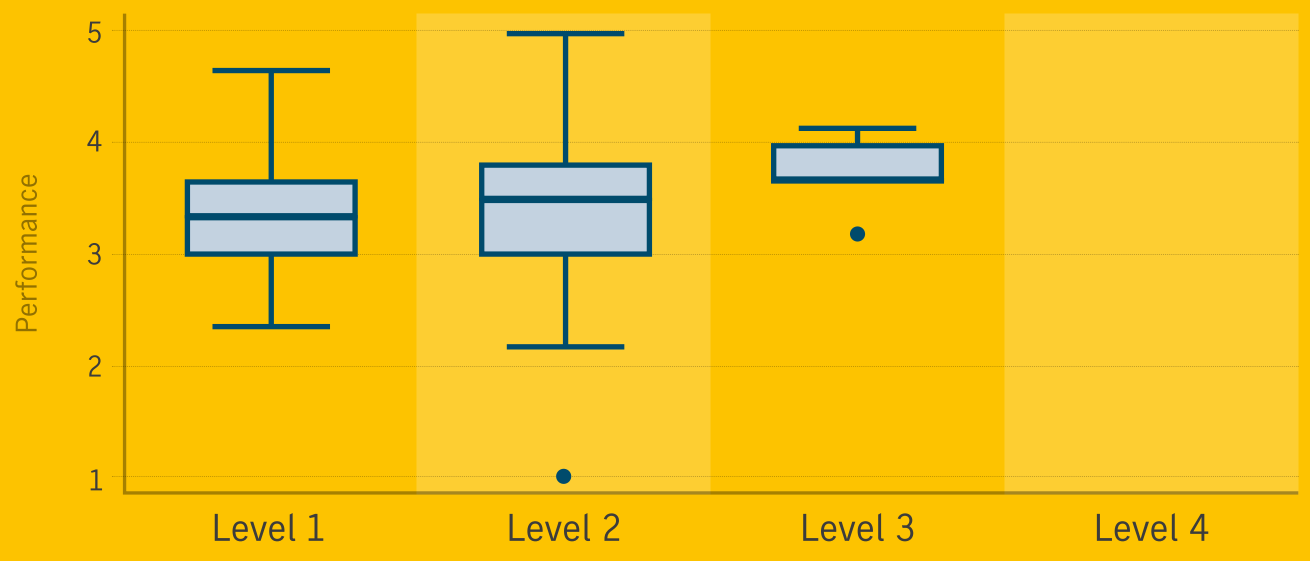




The Process Challenge

A key finding is that Level 3 and 4 segmentation requires robust processes and a strong analytical approach. Higher levels of segmentation maturity demand investment in both. Arguably a key indicator of process capability is an organisation's measured maturity in S&OP/IBP. Moreover, IBP is an area that is likely to have been a focus of management attention. Fortunately, there is a well established measure of IBP maturity.

IBP is the single most important governance mechanism to close the gap to strategy and ensure that the strategic priorities are delivered.



Given the underpinning findings for segmentation, it is probably no coincidence that the majority of organisations surveyed are found to be operating at level 2. Only 5% were operating at level 3, with no organisations surveyed reaching IBP level 4.

At level 2 of IBP we may expect, for example, limited interactions with finance, financial objectives oriented toward revenue rather than profit and to find departmental goals oriented toward volume.

When respondents reviewed their end-to-end supply chain, margin was rarely reported as an objective. Margin was only a consideration for product and customer parameters. Margin came 4th behind volume, variety and standardisation for 'product' and behind volume, value and strategic importance for 'customer'.

When combined with the finding that departmental views dominate over consistent organisational goals, a clear picture emerged that there is a lack of 'top-down' process.

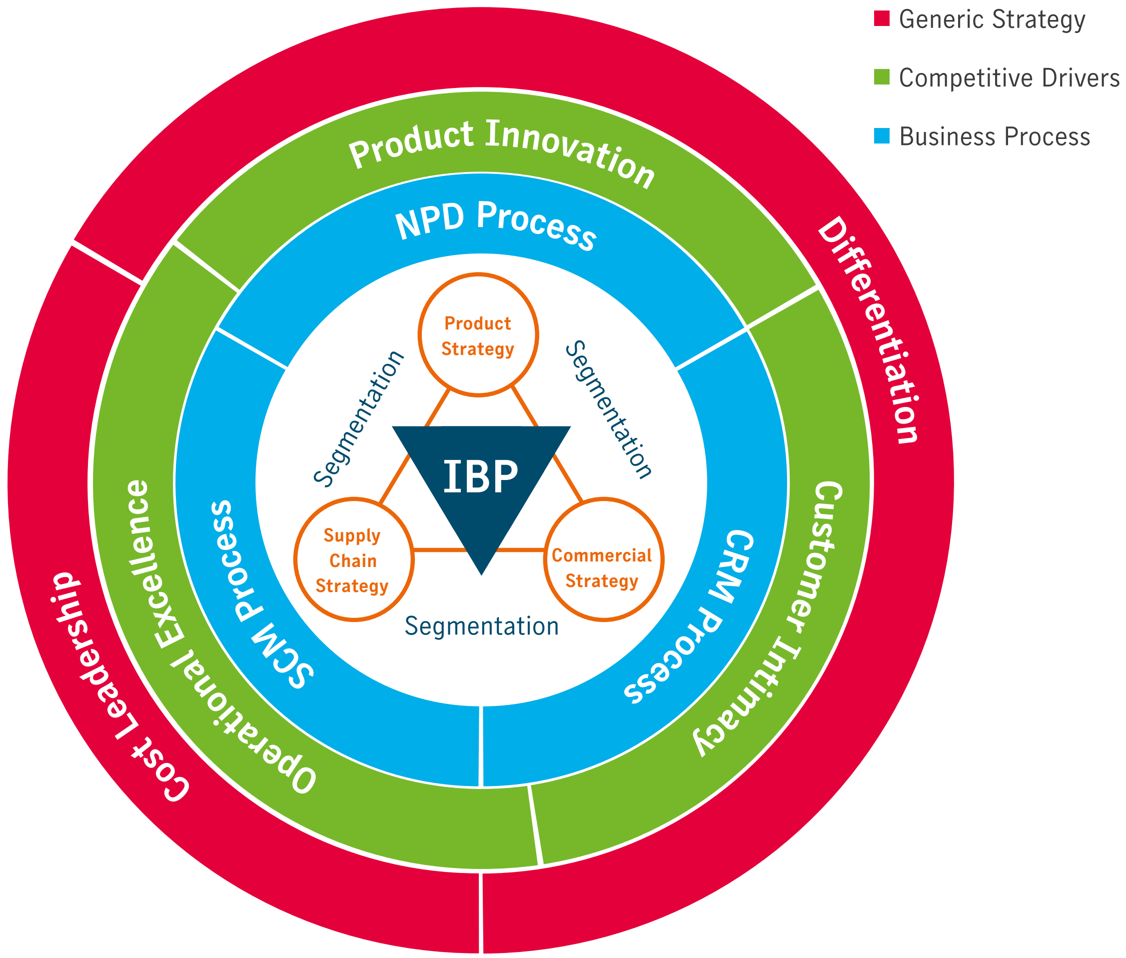
"Only 5% respondents were at level 3 IBP maturity but they reported higher levels of performance, with greater consistency."

Operational excellence is the core competitive driver

Operational excellence is the average centre of gravity for an organisation's strategy. When given 100 points to split between competitive drivers, the result was 40 for Operational Excellence (OE), 30 for Product Innovation (PI) and 30 for Customer Intimacy (CI). This shows that companies are underpinned by a base level or OE from which they then compete on a combination of PI and CI. This demonstrates a balance toward cost control for European businesses, with growth being driven by an equal amount of CI and PI.

Dynamic supply chain segmentation combined with analytics enables the identification and tracking of the 'stable' base-level of demand. This may account for as much as 70%-80% of demand for some organisations. Its high predictability enables an efficient supply chain response to be delivered across the end-to-end supply chain. It supports the delivery of operational excellence and provides the ability to 'focus' management attention on the parts of the business that require product innovation and customer intimacy.

However, organisations have to be careful that functional goals of efficiency do not override higher level business goals designed to maximize ROI to investors.



The goal of segmentation is to ensure that the configuration of supply chain assets dynamically reflects business goals.

"More organisations are driving their supply chains forward while looking in the rearview mirror rather than by looking ahead."

The Analytical Challenge

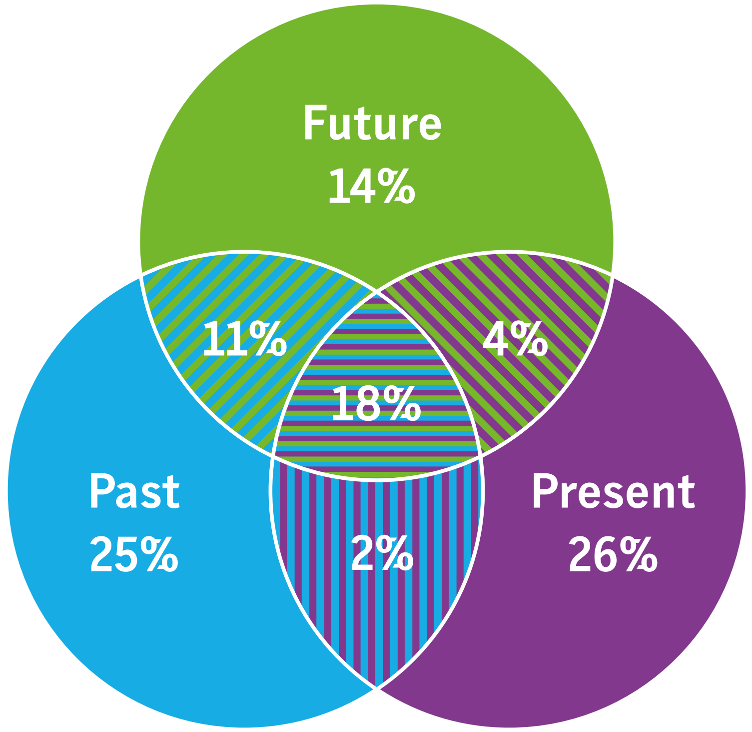
Taken together, the results for temporal orientation, data-driven and data type may provide a substantial clue as to why segmentation is still operating at level 2 maturity. It is tempting to speculate that simplistic historic segmentation practices developed in an age of limited analytics and have simply failed to develop. The sheer volume of data now requires an analytics capability an order ofmagnitude more sophisticated in order to develop and standardise segmentation criteria and the methodologies employed.

The lesson for today is that the strategy and goals should be embedded top down and the primary lenses should be customer facing and supply chain wide. The functional level models should then cascade into place.

The results of the survey clearly show a variety of function goals and a lack of any common denominators concerning strategic priorities.

Only 18% of respondents considered the past, present and future of their planning processes.

In fact, as the chart opposite shows, more organisations are driving their supply chains forward while looking in the rearview mirror rather than by looking at the road ahead. It is not just an over reliance on historic data in a dynamic world, it is quite possible that organisations are being driven along the wrong road. The data suggests that some organisations may not have the capability to accurately navigate their supply chain along the business road map. Any lack of analytical capabilities means that the base assumptions of segmentation may well be inaccurate. The evidence suggests that a lack of advanced analytical capabilities is widespread, along with a consistent end-to-end analytics approach. As such it is an opportunity for advantage for those organisations that move early and top down.

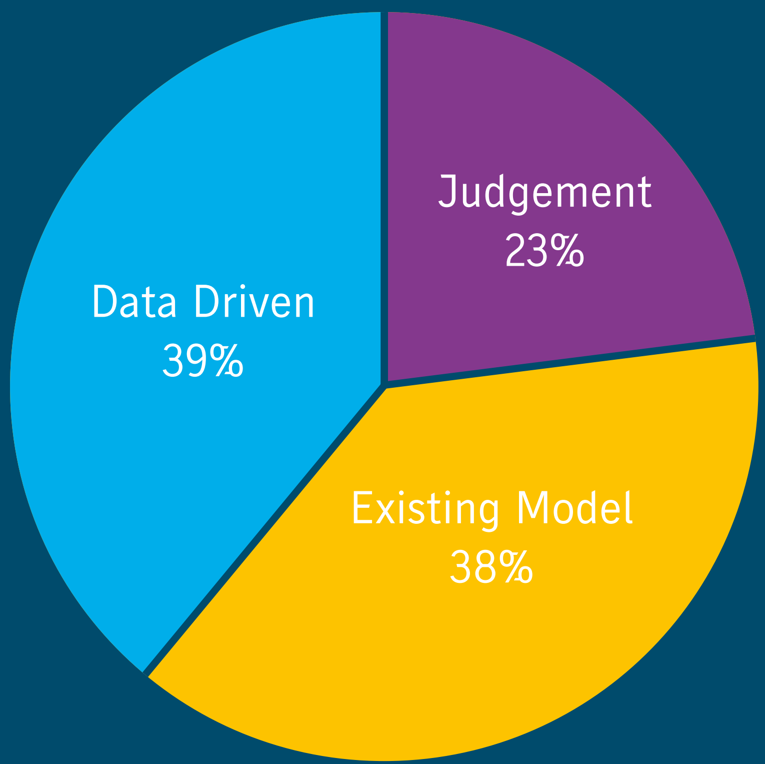


SC Segmentation Development Maturity

	Plan	Source	Make	Deliver	Return
No. of Criteria	1: 23%, 2: 21%, 3: 21%, 4: 10%, 5: 25%	1: 27%, 2: 25%, 3: 13%, 4: 23%, 5: 12%	1: 35%, 2: 12%, 3: 17%, 4: 17%, 5: 19%	1: 31%, 2: 17%, 3: 21%, 4: 17%, 5: 14%	1: 52%, 2: 15%, 3: 10%, 4: 13%, 5: 10%
Method	Existing 35%, Judgement 19%, Data Driven 46%	Existing 37%, Judgement 17%, Data Driven 46%	Existing 37%, Judgement 21%, Data Driven 42%	Existing 40%, Judgement 23%, Data Driven 37%	Existing 44%, Judgement 25%, Data Driven 31%

Less than 40% of segmentation criteria are data driven.

While legacy models clearly utilise data, the majority of organisations have yet to implement models driven by the underlying signals in the data. **Of more concern are the 23% of organisations that simply utilise 'rules of thumb' over any kind of data-driven methodology.** At the far end of the spectrum this would suggest that not only is the road ahead not clear, the supply chain may be on the wrong road without the driver even being aware.



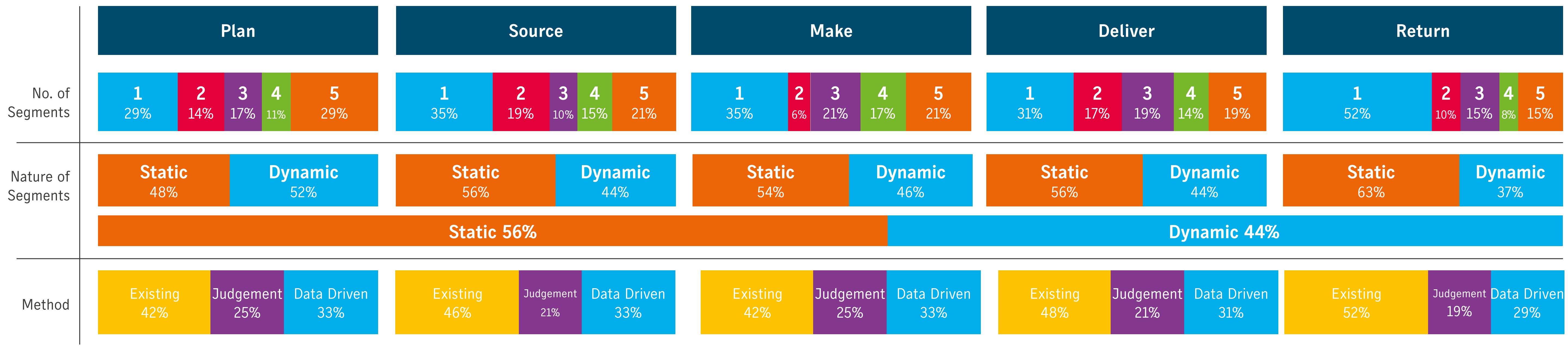
Limited criteria

One third of organisations (33%) are utilising just a single criteria to model segmentation, while over one half (51%) are only employing two. This means that most organisations are relying on just one or two segmentation criteria to make vital day-to-day commercial prioritisation decisions. Moreover the criteria being utilised are inconsistent between functions, therefore there is no end-to-end commercial perspective driving the reconfiguration of the supply chain. There is little doubt that the business results will leave a lot to be desired both financially and strategically. This may be another symptom of the lack of analytics, as without a powerful underpinning analytics capability, it requires a high level of manual effort to establish a meaningful and valid segmentation model.

Inconsistent connection to strategy

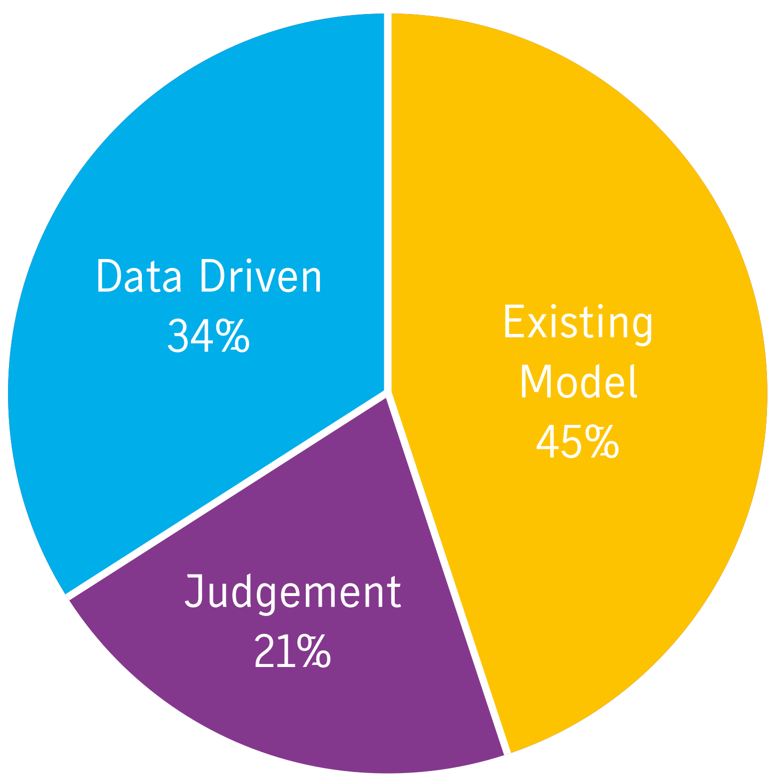
There is a general lack of consistency on the choice of criteria, the number of criteria and the methodology being implemented. This again reflects a lack of connection to overall business strategy, with departmental and functional measures dominating over end-to-end corporate wide measures.

Supply Chain Operationalisation

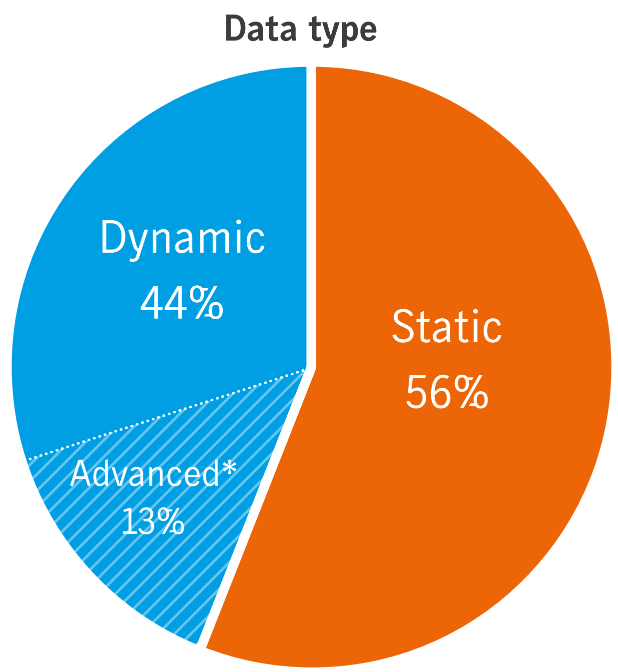


The true test of segmentation is the extent to which the models are utilised in practice.

In operation, there are a limited number of segments, based on limited criteria that are rarely data-driven or end-to-end. This limited validity implies limited business credibility. Arguably, it is a recipe for the order-management function to over-ride the segmentation prioritisation in order to accommodative the day-to-day tactical pressures inside the business. The result will be an increasing divergence from strategic goals and sub optimal financial results



Only 44% of supply chain segments developed are dynamic in nature and only 13% utilise advanced analytics such as simulation.



*Advanced levels of analytical capability ((e.g., simulation)

The demand and profitability profile of individual SKUs changes over time, so it is critical to dynamically review their positioning within specific segments. IBP can also be used as a review process; however, a fully dynamic data-driven analytical approach will optimise for profitability more of the time.

It is not just the SKU's demand profiles that need to be dynamically monitored, but the underlying assumptions of the segmentation dimensions. For example, a product that is a 'star' today may reach 'end of life' within months; a product that was profitable to supply in the past, may no longer be profitable today. Therefore, segmentation rules need dynamic evidence-based tests to ensure their ongoing validity. Automation and analytics are clearly key capabilities, while rules and evidence-based prescriptive exception management, combined with simulation capabilities, help keep exception management instances profitable.

Strategic Action to Take Advantage of the Window of Opportunity

- Adopt an end-to-end business process perspective. Departmental and functional measures should not dominate.
- Use IBP to maintain strategic alignment
- Segment the supply chain process top down to enable end-to-end flow across the supply chain. Implement end-to-end optimisation and visibility capability.
- Take a 360-degree view to develop and operationalize supply chain segments.
- Operationalization of segmentation requires capable tools to automate, monitor and provide a segmented response, e.g. through Allocated ATP (Order Promising).
- Use advanced analytics to enable dynamic decision making and consolidate across other major processes and functions such as S&OP/IBP and Agile Control Towers.

"Business processes provide a way to connect the end-to-end supply chain, create integration, enable flow and deliver customer value at the lowest supply chain cost."

Professor Janet Godsell,
The University of Warwick

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