

# Developing a global logistics strategy and target operating model

How KPMG led the way for a global diversified manufacturing company in changing times

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## The issue

Our client is a global diversified manufacturing company. The company had followed an inorganic growth strategy which led it to double its size through mergers and acquisitions over the previous two years. At this point, leadership decided to transition its strategy from that of a holding company into one of an operating company, focusing on operational excellence and synergies across their independent business units in order to position the organization for accelerated growth. A key element in the strategy had been a purposeful expansion of the manufacturing and distribution network to serve more markets globally, with a specific focus on capturing opportunities in emerging, high growth countries.

This rapid growth posed a number of significant challenges with regards to logistics/distribution: there was no clearly defined logistics vision or strategy, and any existing strategy development and decision making was de-centralized. Skills and capabilities were no longer adequate in the context of a much bigger and more complex organization. The company had accumulated a large footprint of manufacturing and distribution sites with significant potential for rationalization. Dozens of legacy ERP systems limited the company's ability to standardize logistics tools and leverage technology across its multiple business units, generate timely management information, and reduce the extensive use of manual processes.

In order to be able to support the continued growth of the organization in a sustainable and profitable way, our client was looking for a strategic partner who could assess the current logistics organization and footprint, identify and quantify the improvement benefits, develop an integrated global logistics strategy, and guide and facilitate the design of a new operating model that would drive improved operational performance and reduce cost. Key elements of this new operating model would be a rationalized global footprint, standardized logistics processes, increased use of supply chain technology systems, and a streamlined global organization which would be able to support growth while keeping costs in check and improve customer service levels. After deliberate and careful evaluation of the different service providers in the market, the client chose KPMG as its business partner.

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## Our approach

Developing a Global Logistics Strategy and Target Operating Model, and aligning a complex organization around it, can be a daunting task for an organization. Based on KPMG's experience of working with clients in a wide range of industries across the globe, we have developed a robust methodology which supported our client through the entire journey from facilitating alignment on the highlevel strategy through detailed organizational design all the way to full implementation planning while identifying key cost reduction opportunities. Together with the client, we developed a coherent model spanning multiple tracks by following an integrated, cross-functional approach spanning five phases:

- Define strategy and guiding principles. In order to effectively support the objectives of an organization, its Target Operating Model must be aligned to its overall strategy, which in turn determines the guiding principles for its design. We worked with our client's leadership team to share our expertise based on other successful engagements and facilitated consensus on a clearly defined strategy for its Logistics organization, as well the key principles determining the design of its future operating model. In doing so, we created the foundation for all subsequent phases of the project.
- Establish the baseline. In a cross-functional effort, we worked with the client's Logistics, Operations, Procurement, Finance, Human Resources, and IT teams to obtain a comprehensive, detailed understanding of the client's current operations. This effort did not only focus on costs, but also considered global manufacturing and distribution footprint, product flow patterns, organizational headcount, as well as systems landscape. This information was presented to the client in an easy to understand but yet comprehensive manner which had not previously been available to management. The baseline would later provide the basis for identifying potential cost savings, future operating scenarios, as well as the magnitude of change required to implement recommendations.

- Develop future scenarios. Applying industryspecific leading practices, capability maturity
  models, and the previously agreed upon guiding
  principles, we developed, in collaboration with key
  stakeholders, multiple scenarios enabling the client
  to reduce cost by rationalizing its global footprint,
  enhancing transportation efficiency, implementing
  cutting edge supply chain technology systems, and
  streamlining its global organization. Each scenario
  was presented along with its unique advantages and
  disadvantages while highlighting implementation
  considerations specific to the client. High-level
  implementation timelines and business cases were
  also developed in order to create the basis for
  informed decision making.
- Align leadership around preferred scenarios.
  Using KPMG's U-Collaborate methodology designed to facilitate complex decision-making processes amongst a wide range of stakeholders within a short period of time, we brought together the client's global leadership team for a two day event. The event focused on 'level setting' the leadership team on a definition of operating model, reviewing examples of how leading companies have built operating model, understanding implementation complexity/value created by each scenario and securing commitment to support the implementation.
- Prepare implementation. Once the preferred scenarios had been selected, we built detailed business cases and implementation plans for a select sub-set of the scenarios. This enabled the client to demonstrate the return on investment in each of the areas, as well as identify the resources required in order to implement the necessary changes. Furthermore, we provided a playbook which captured the learnings from this project and enabled the client to apply them to other parts of the business.

## How KPMG helped

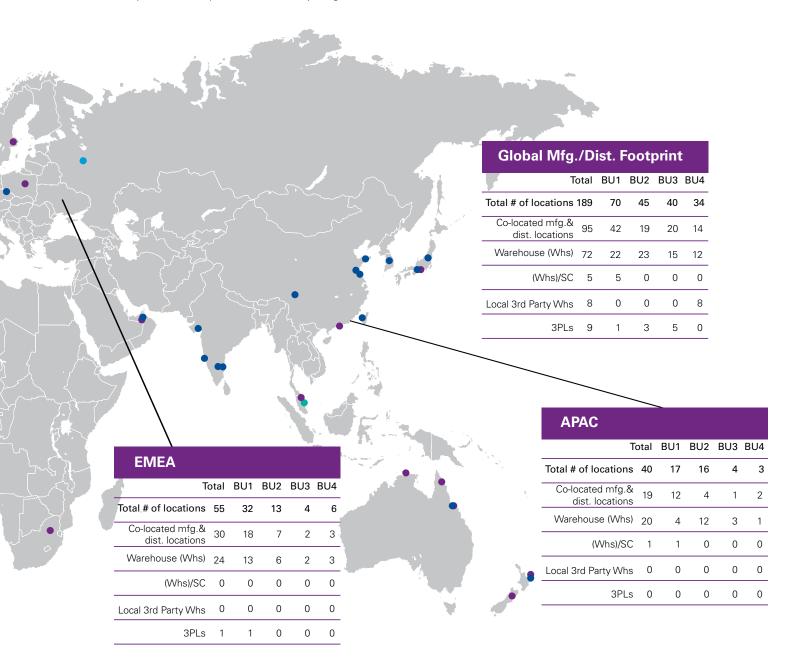
Our client's goals were: to design a new Global Logistics Target Operating Model, and identify three-year savings of \$100m enabled by this new model, within three months. The client leadership team was strongly committed to this effort and was aware that it would not be able to complete it without external support. The client therefore engaged KPMG to provide assistance in the following six areas considered to be the most impactful:





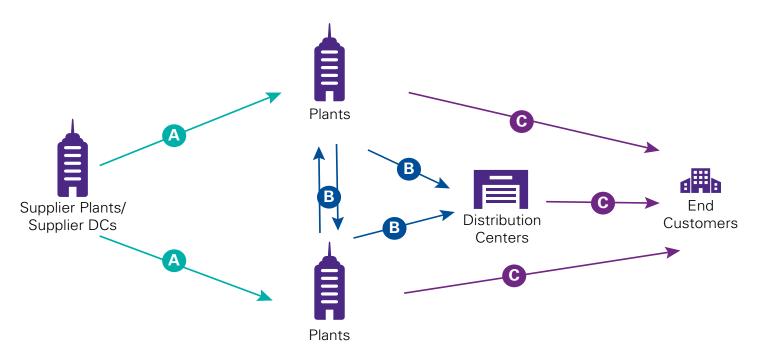
**Global Distribution Network:** Having grown through mergers and acquisitions, our client had accumulated a large portfolio of distribution sites across the globe, many of which were in close proximity to each other and were operated independently by each business unit. The client was looking to KPMG for advice on how it could rationalize its network by consolidating sites across business units and drive enterprise-wide operational/cost synergies.

Our approach was to identify clusters of sites, understand customer demand nodes and create detailed scenarios as to how the sites in these clusters could be consolidated in the most cost-effective manner. Given the current customer demand patterns, KPMG performed a rapid 'green-field' or 'clean-sheet' footprint study to identify potential locations for distribution centers globally.



**Global Transportation Strategy:** Although, a center-led logistics procurement team managed the transportation service rates with the client's global carrier base, a global transportation strategy wasn't clearly defined. Transportation operations were largely managed at the sites, with limited co-ordination within individual business units. These operations were not built on a standardized set of processes. KPMG did a process maturity assessment to understand a) who owns the processes and how are

they executed today and b) how the processes compare to leading practices. To quantify the impact of gaps identified, KPMG conducted a detailed analysis of the opportunities associated with consolidating loads, optimizing routes, and renegotiating freight rates which led to the identification of significant savings as well as demonstrating a need for company-wide compliance with centrally mandated policies and procedures.



## Inbound Flow

- Extract 'embedded freight' costs
- » From Direct material costs (e.g. for categories such as Metals, Castings)
- Reduce and optimize supply network complexity
  - » By leveraging existing relationships with logistics service providers to reduce logistics costs for the suppliers

## Inter-company Flow

- Optimize 'sourcing' decisions
  - » By balancing costs/service (within network)
- Optimize shipments
- » By load optimization (e.g. Consolidate less than truck-loads to truck-loads)

## Outbound Flow

- Optimize 'stand-alone' DC network
- » Leveraging scale/best practice adoption
- Standardize transportation sourcing
  - » By enforcing sourcing policies across Business Units
- Drive 'freight revenues' higher
  - » By gaining control of 'customer managed freight'

**Enabling Logistics Systems & Supporting Logistics Organization** 



**Distribution Operations Efficiency:** The maturity levels of logistics processes varied widely between sites and were generally subpar. Through an internal benchmarking across the sites it was evident that distribution processes were not standardized. This presented an opportunity to realize savings by improving operational efficiency through the adoption of leading practices and leveraging processes already in use for the manufacturing operations. A phased implementation plan was created that strategically selected the right mix of sites to target as part of this operational improvement exercise. Further detailed implementation plans were to be created in Phase 2 of this project.

Supply Chain Technology: The client had embarked on a journey to rationalize dozens of legacy ERP instances to a small number of global platforms, but had invested very little in supply chain technology. Where it existed, it was largely driven by local sites. In this context, the client was looking to KPMG to advise what type of technology solutions would generate the most significant savings while minimizing disruption to the business, as well as understanding how these technologies could be implemented against the background of the ongoing ERP consolidation. KPMG provided an overview of key supply chain technologies, as a result of which the client chose to focus on the implementation of a Transportation Management System (TMS). We developed three deployment models, along with detailed parameters as to which one to choose for each site, along with an estimate of the resulting savings.

**Global Logistics Organization:** Due to the decentralized nature of the logistics organization, the client had struggled to gain an understanding of the size of its global Logistics workforce. In close co-operation with the client's Human Resources team, we were able to develop a detailed estimate of the current logistics organization by business unit, region, and role, benchmark this against industry standards, and identify the resulting savings opportunity.

**Target Operating Model:** Following a series of mergers and acquisitions, the client's leadership team saw an opportunity to realize synergies and increase the maturity of the organization through the design of a more coherent Operating Model for Logistics/Distribution. Based on the agreed strategy and guiding principles, KPMG facilitated



a consensus amongst the leadership team that the organization should invest in the establishment of a Center of Excellence (CoE) to further develop the client's logistics strategy across business units and drive the deployment of leading practice processes throughout the organization. A secondary recommendation was the creation of a

Shared Service Center to lower the cost of executing routine tasks (e.g. freight audit and payment). We created a detailed model clarifying where each logistics process would be performed: CoE, business units, sites, or the Shared Service Center, as well as the future organizational structure required to support it.

## **Logistics process framework**

Define tansportation strategy	Transportation – Strategic sourcing	Distribution strategy	Manage inbound material flow	Intercompany	Operate warehousing	Operate outbound transportation	Customer requirements	Services/ after sales
Identify transportation requirements	Develop standardized sourcing process	Design Distribution network	Plan inbound material receipts	Set-up processes/ policies to manage inter-co moves	Track inventory	Plan, transport, & deliver outbound product	Document customer requirements	Inventory positioning and allocation
Transportation sourcing and ensuring compliance	Forecast future transportation needs	Freight/carrier communication (Company ABC managed)	Inbound load Strategies	Inter-co load optimization	Receive, inspect, & store inbound services	Track carrier delivery performance	Setup policies to embed cust. req. in day to day logistics activities	Delivery requirements/ returns management
Develop delivery service policy	Conduct sourcing analytics	Freight/carrier customer communication (Customer managed)	Monitor inbound delivery performance	Distribution optimization	Pick, pack, & ship product for delivery	Manage transportation providers	Monitor customer service levels	Field services support /logistics
Optimize transportation schedules & costs	Compliance to sourcing practices	Location management		Inventory balancing	Track inventory accuracy	Process & audit carrier invoices, documents & claims	Track service levels/carrier performance	Product tracing and tracking
Define key performance measures	Develop carrier selection methodology	Continuous network optimization		Define metrics and track KPI's	Monitor shipping & storage performance		Manage customer issues	
Insurance & Risk Management	Track Sourcing benefits through metrics	International regulatory compliance					Customer communication	
Enabling Systems & Organization		TMS Platform/ Application Strategy	WMS Platform/ Application Strategy	Metrics Development & Standardization	Reporting Metrics/Analytics	Manage Software Vendors/IT Service Providers		



## Global distribution network

## Streamlining and increasing the efficiency of the global distribution/manufacturing footprint while reducing operating costs

## What KPMG did

Baseline of global supply chain footprint

- Collected and normalized data from a variety of sources across the enterprise in order to develop a detailed baseline of supply chain facilities (i.e. manufacturing plants, warehouses) globally across business units, including total distribution space available, space utilization, as well as costs, revenues and headcount
- This baseline provided the client with the first ever comprehensive overview of its global supply chain facilities and served as a the basis for identifying improvement opportunities, as well as a benchmark to estimate potential savings opportunities and track results

## Network Clustering Analysis

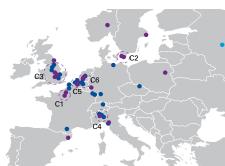
- Identified clusters of geographically overlapping facilities by using an optimization model – this helped identify the right set of sites to go after.
- Developed a 'green-field/clean-sheet' network model for North America/European regions – this helped identify an approximate location within or close to each cluster
- Identified opportunities across business units for consolidation based on utilization, operating costs, and ability to exit or dispose of facilities

## **Motivating factors**

 Having grown through acquisitions, the enterprise was going through a change in strategy from that of a holding company with independent business units to a single corporate strategy focused on operating the business from a more centralized position  Due to the decentralized structure of the organization, the client had never been able to obtain a comprehensive overview of all its global supply chain facilities. KPMG delivered this overview by driving a global effort to capture key site level data (e.g. fixed, variable costs, flow volumes, facility operational data)

- Developed footprint rationalization scenarios
- Identified 5% potential run rate savings of total operating costs





## Global transportation strategy

## Standardizing processes and reducing the costs of transportation through route optimization, freight rate renegotiation, and the unbundling of embedded freight

## What KPMG did

Baseline of global transportation costs

- Conducted a detailed analysis of current freight spend by business unit, region, and mode
- Assessed global and intra region shipping patterns, quantity and frequency
- Compared existing cost structure and rates with industry benchmarks
- Analyzed direct materials sourcing data to estimate shipping costs included in material price by top suppliers

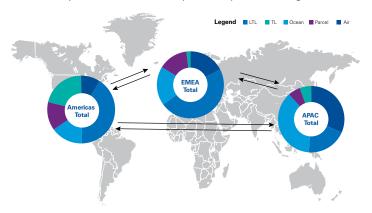
## Cost saving opportunities

- Based on the analysis of current spend and the opportunity funnel, KPMG identified three areas with significant opportunities for savings on transportation costs:
  - » Route optimization: Network models built helped identify possible backhaul routes and consolidation of less than truck-load (LTL) and less than container load (LCL) into full loads for both inbound and outbound lanes to reduce freight costs
  - » Freight rate harmonization: Leveraged KPMG's subject matter experts to identify opportunities to renegotiate freight rates for specific lanes based on benchmarks and industry leading practices while taking full advantage of the client's global volumes
  - » Embedded freight: Un-bundling of embedded freight costs (i.e. freight costs embedded in the cost of goods purchased from suppliers) by identifying top suppliers incurring in such practice and transfer those shipments to the client's contracted rates

## **Motivating factors**

- As the individual sites and business units were operating with a high degree of independence from each other, little co-ordination took place between them to consolidate freight, minimize intercompany shipments and leverage the full scale of the business to minimize rates
- The client had been considering the unbundling of embedded freight for some time, but was unsure whether this initiative was worth pursuing because they were unclear about how to determine the size of the opportunity. KPMG developed an approach to determine the savings opportunity

- Identified 3% potential run rate savings of freight spend through freight route optimization, and determined key routes for consolidation
- Identified an additional 2-3% potential run rate savings by mode by region through freight rate renegotiation
- Identified an incremental 4-9% potential run rate savings of embedded freight spend which could be captured by leveraging the client's own rates on freight costs currently embedded in the price of purchased goods





## Distribution operational efficiency

Improving the day to day operation of distribution facilities (standalone warehouses and shipping areas within manufacturing plants) in order to improve service levels and reduce operating costs

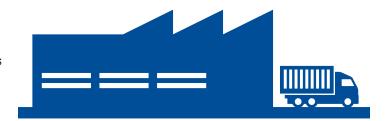
## What KPMG did

- Collected, through a survey, distribution facility maturities in order to prioritize high-impact focus areas
- Leveraged cost and headcount baselines in order to complete prioritization framework
- Discussed with key operations stakeholders the feasibility of the operational efficiency improvement plan Created a 'wave' approach to implementation due to client's limited resources to focus on 'quick wins' during the first wave and tackle more difficult or larger facilities in subsequent waves
- Identified and validated potential savings from increasing the operational efficiency within the supply chain facilities by leveraging the client's performance improvement methodology and applying it to distribution activities

## **Motivating factors**

- The client had a very good track record within their manufacturing operations to constantly meet annual targets for cost reduction in this area (e.g. by implementing Lean)
- Distribution facilities and activities, however, were not a formal part of their continuous improvement initiatives
- As the business grew, and with it the distribution space, distribution costs had not been targeted as effectively

- Created a targeted plan to drive operational efficiencies within the distribution facilities by identifying sites contributing to majority of the cost: one fourth of the sites drove half of the costs
- Identified a 6%-7% potential run rate savings of total distribution cost through improved operational efficiency through implementation of lean principles, improved management system, better labor utilization, etc.



## Supply chain technology

## Deploying supply chain technology to optimize routes, mode selection, shipment planning and carrier assignment

## What KPMG did

Current State Analysis

- Documented the current systems landscape and the road map for the client's ERP and supply chain systems across all business units on a global basis
- Developed a portfolio of technology options that could suit the operational needs while surveying the vendor base to identify key players and underlying pricing structures

## Solution Prioritization

 Compared the potential savings from implementing different types of technology options and identified the roll-out of Transportation Management Systems (TMS) as the largest opportunity

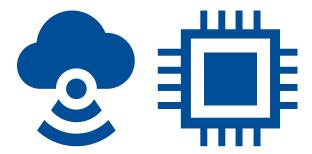
## Deployment Options

- Aligned with the client on three principal TMS deployment options (on premise, cloud-based, and managed service) and provided guidance on each option in relation to pros, cons, and potential vendors
- Developed, agreed and applied criteria for the type of site where each of the options should be deployed

## **Motivating factors**

- While the individual business units were starting to coordinate the rationalization of dozens of legacy ERP systems, the implementation of supply chain systems was still site-driven with little co-ordination across the sites. KPMG developed an approach to globally deploy three standardized TMS options. The roll-out plan integrates into the existing systems road map and is designed to minimize additional systems complexity

- Based on the existing systems road map and the agreed TMS deployment criteria, we developed a phased, sitelevel TMS implementation plan which maximizes early return on investment
- Identified 7%-11% potential run rate saving





## Global logistics organization

## Providing visibility to global logistics organization footprint by understanding roles/functions across business units/sites

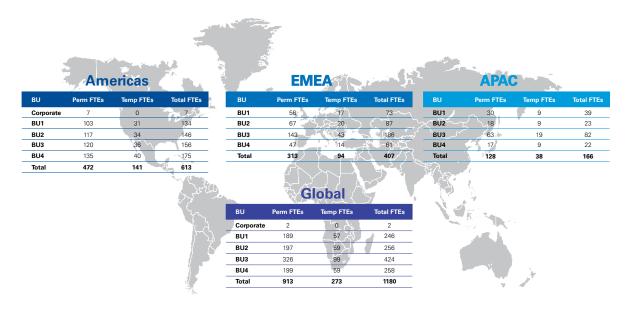
## What KPMG did

- Sourced, analyzed, and validated organizational data to determine number of staff by business unit, region, location type, and job title
- Provided visibility to the global logistics organization footprint. Contrasted client organization footprint with industry comparators

## **Motivating factors**

 The client was struggling to obtain an overview of its global supply chain staff, as staff records were kept at site level and central reporting was inconsistent. KPMG developed an approach which allowed the client to understand its global organization footprint

- Detailed organizational baseline
- Key analyses include identifying 'shadow roles' staff performing logistics functions on a parttime basis



## Target operating model

## **Developing a Global Logistics/Distribution Strategy** supported by a well-defined 'Target Operating Model'

## What KPMG did

- Facilitated alignment across the client's global supply chain leadership on a single supply chain strategy
- Developed design principles to ensure that the Target Operating Model is aligned with the overall supply chain strategy
- Assessed the current maturity levels of the client's key supply chain capabilities against leading practices. Facilitated alignment on desired future maturity levels and prioritization of gaps
- Mapped out the client's key logistics and distribution processes, sub-processes and activities to be considered for future state Target Operating Model and governance, as well the current operating model for each of them
- Presented key Target Operating Model options (Centerled/Center of Excellence, Business Unit-led, Regionallyled, and Shared Services) and provided guidance on their respective pros and cons, as well as parameters for their application to the client's key processes

## **Motivating factors**

- Due to the decentralized nature of the business, there was no common logistics/distribution strategy across business units and regions. Most of the key processes were owned by the business units with little central co-ordination. KPMG facilitated a comprehensive review of the client's operating model based on the following principles:
  - » Freight procurement is centralized to fully leverage the client's scale
  - » A Center of Excellence develops and manages the implementation of leading practices

- » The business units ensure that customer requirements are met
- » Regions collaborate to optimize the supply chain footprint and reduce freight costs
- » Shared Services execute administrative tasks

## **Kev results**

- A well-defined vision for logistics/distribution function globally
- A proposed target operating model, including, an understanding of 'what are the key processes', 'who owns these processes' and 'where are these processes embedded'
- A proposed future organizational structure including detailed roles & responsibilities







- Strategy development and d key strategic capabilities at COE with inputs from BUs/regions/sites
- Shared leading practices, other resources between COE and BUs
- Reporting remains at center/COE with BUs supporting execution

- Logistics costs embedded in BU P&Ls and also with Corporate/COE
- Centerled governance with inputs and collaboration from Region and BU/Site

- Decision making between Regional and BU level

- Ability to influence and guide policies and practices with regional team Reporting remains at regional level with support from corporate as needed

Logistics costs mostly embedded in BU P&Ls

- Logistics costs remain within BU P&Ls
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Logistics costs mostly embedded in BU P&Ls

BU-led governance with inputs and collaboration with Region and Corporate/COE



## U-Collaborate

## Building rapid alignment across the business units, regions and leadership

## What KPMG did

- Facilitated, and documented a two day U-Collaborate event with the client's global executive team and functional leadership team to:
  - » Align on the future supply chain strategy
  - » Build out Target Operating Model options and reach consensus on the preferred model
  - » Obtain buy-in for launching strategic initiatives such as supply chain footprint consolidation, freight route optimization, and Transportation Management System implementation
  - » Agree on governance model for implementing the Target Operating Model as well as the strategic initiatives
  - » Develop high-level implementation plan



## **Motivating factors**

The leaders of the individual business units operated with a high level of independence. It was therefore critical to success of all the proposed initiatives including the target operating model that the business units and regions were fully bought in to them. The client saw KPMG's U-Collaborate methodology as a key differentiator to rapidly build awareness of the proposed initiatives and reach consensus on the way forward amongst all key decision makers globally

- A logistics/distribution strategy and target operating model agreed upon by all business units globally
- Alignment on the future structure of the global supply chain organization
- Agreed upon high-level implementation plan

## Transformational road map and business case

## Building rapid alignment across business units, regions and leadership. Preparing for implementation

## What KPMG did

- Based on the outputs from the U-Collaborate event, we developed a two year high-level roadmap for each work stream. We also developed a detailed implementation plan for each strategic initiative for the first year
- Built a detailed business case for each strategic initiative to demonstrate return on investment
- Designed a detailed governance model for supporting the implementation of each initiative



## **Motivating factors**

 Having reached agreement with the global business leaders at the U-Collaborate event to implement the strategic initiatives and build the Target Operating Model, the client was keen to maintain momentum, prepare for implementation, and establish the governance structures which will enable their success

- Project plans guiding the client through the implementation of the initiatives
- Business cases for each strategic initiative
- Project governance model





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