

“One Manufacturer”: Harmonization Strategies for Global Companies

How to Align Enterprise Architecture with Corporate Strategy

Recently we have seen many global manufacturers running a “One Manufacturer” or “One M” program, where “M” is typically the name of the manufacturer (One Philips, One Canon, One Ford, etc.). The objective of these programs is to harmonize all or parts of the organization and rationalize the application landscape. Years of growth (organic, but in particular through mergers and acquisitions) have created a myriad of process standards and supporting applications.

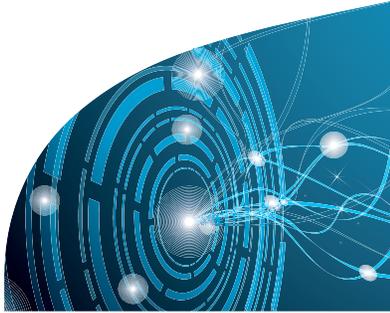
But what are the different strategies behind the design and implementation of these programs? What benefits can companies expect to achieve? And what are the critical success factors for a One program?

Drivers for One Manufacturer Programs

The need to harmonize stems from different business drivers, and depending on a company’s product portfolio and market conditions, these drivers will be assigned a different priority. As these drivers are addressed through a One program, a number of business benefits can be realized.

- **Operational Efficiency and Compliance:** Many manufacturers today are focused on operational efficiency and compliance of all the business processes. Process improvements in terms of quality, efficiency and compliance should lead to an exchange of best practices across the





One Manufacturer: Key Takeaways

Capgemini's One Manufacturer research leads to three key recommendations:

1. Good business reasons exist to adopt each of the operating models, and to differentiate the choice of operating models by function.
2. The research identified a gap between companies' current state and their ambition, even though complete Unification is not always the end goal.
3. The enterprise architecture maturity to implement these choices needs to be sufficient to support the ambitions of the operating model.

organization, and aligning the company on these best practices is another important driver for One programs. Improved efficiency from process harmonization can also reduce costs on the business side, particularly in areas such as procurement. In fact, based on our experience working with clients, the majority of the cost savings from a One program typically come from operational efficiencies in the business.

- **Costs:** The recent crisis has put even more emphasis on the need to manage costs effectively. The current application landscape is typically vast and complex, and new requirements from business owners are harder to implement. Simplifying this landscape and reducing the IT cost and effort of maintenance, to make headroom for innovation, is an important objective of these One programs. In particular, optimizing IT systems leads to a reduction in variable costs, which is an important priority for many global manufacturers.
- **Global Growth:** Further expansion across the globe, both in terms of new markets as well as new sourcing and production locations, has increased the need for common processes and application platforms. Companies must share processes and data across regions to have better control and visibility as they grow. A clearly defined set of processes and applications can help an organization establish a new operation quickly and cost effectively in emerging markets.
- **Corporate Synergy:** In more general terms, the alignment efforts of a One program are also aimed at fulfilling the corporate strategy. How are the different business units working together under one brand? What are the synergies among these units? Can parts of the processes be offered more centrally, as part of a shared-service center?

Many One programs are implemented primarily as cost-saving initiatives. However, our experience has shown that additional benefits include improvements in areas such as customer satisfaction and increased speed to market. To ensure that all the benefits are achieved, an organization's corporate strategy should be considered before implementing a harmonization program.

Framework for Corporate Strategy

Capgemini conducted research to analyze how organizations go about integrating their processes globally in order to move towards the One M approach. In addition, we compared harmonization strategies with the enterprise architecture developments, as these must go hand in hand. The research made it clear that companies need to understand the fit/gap between their corporate strategy and enterprise architecture if they want to move towards a One approach.

The research focused on four types of operating models that serve as the framework for corporate strategy: Diversification, Coordination, Replication and Unification (see sidebar, next page, for further details). These operating models provide a set of options for "being One" for a certain level of the organization. For example, sometimes Unification can be applied all the way to the corporate level, but quite often, this ambition will apply to the strategic business unit (SBU) or division level. Organizations with a Unification operating model have integrated and standardized business processes in order to have one face to their different customers.

Although Unification is the model to achieve full harmonization, it may not be the right choice for every organization. In some cases, there are good reasons for organizations to choose a Coordination or Replication strategy at the division or corporate level. An organization using the

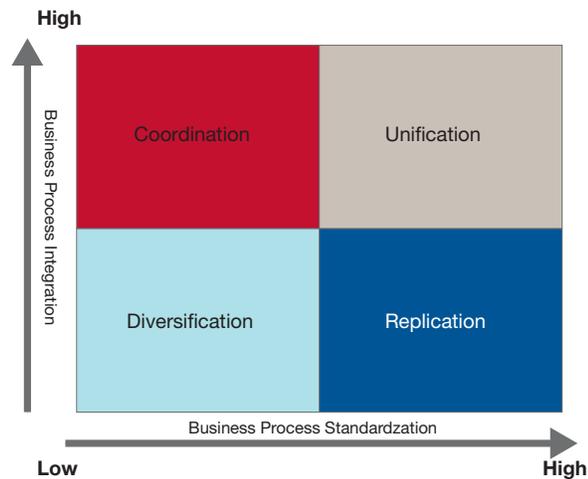
Replication operating model, for instance, largely focuses on standardizing key processes across the company through automating technology, enabling it to rapidly expand its business. With a Coordination model companies can present a common face to the customer by integrating the results from sharing key data across business units.

And even though the Diversification operating model will not necessarily make the organization more “One,” it can be a valid choice for certain parts of the organization, particularly those that run more or less independently, or certain functions, as we will see below.

In our research we found that there was often a gap between a company’s current state and its ambition, with many functions still quite diversified. In most cases, companies have an ambition for further harmonization, although not always full Unification. A certain level of Replication or Coordination may be desired in order to share best practices, improve operational efficiency and lower costs.



Figure 1: Operating Model Classification¹



Research Methodology and Operating Model Classification

Capgemini’s One Manufacturer study involved primary and secondary research and in-depth interviews. Interviews were conducted with experts representing a range of manufacturers from different segments (Aerospace and Defense, Automotive, High Tech and Industrial Products) and focused on the strategies and current situation of these companies.

The research was based on several well-established models, from COBIT² and Ross et al. The typology for operating models and enterprise architecture from Ross in particular are central to the research.

Operating model is defined as the desired level of business process integration and business process standardization for delivering goods and services to customers. Corporate strategy can be implemented through four operating models:

- **Diversification:** Characteristics include independent business units with different customers and expertise; autonomous business management; and few data standards across business units. In a Diversification model, both business process integration and business process standardization are low.
- **Coordination.** Characteristics include unique business units with a need to know each other’s transactions; shared customer/supplier/product data; and impact on other business unit transactions. In a Coordination model, integration is high, but standardization is low.
- **Replication.** Characterized by independent but similar business units; autonomous business unit leaders with limited discretion over processes; and standardized data definitions but data locally owned with some aggregations at the corporate level. In this model, integration is low but standardization is high.
- **Unification.** Characterized by a single business with global process standards and global data access; centralized management often applying functional/process/business unit matrices; and globally integrated business processes often with the support of enterprise designs. Both business process integration and business process standardization are high.

¹ "Enterprise Architecture as Strategy," Jeanne W. Ross, Peter Weill, David C. Robertson, Harvard Business School Press, 2006

² COBIT (Control Objectives for Information and related Technology) is a framework for IT governance improvement, risk mitigation, IT value delivery and strategic alignment maturity assessments.

Functional Understanding Is Essential

One of the key insights from the research is that the overall operating model analysis cannot apply uniformly. It makes more sense to go to the functional level (see Figure 2). In fact, it may be necessary to do this not at the corporate level, but at the division level for many functions.

It should be noted, however, that supporting functions like Human Resources and Finance can be unified even at the corporate level. This is typically the place where Unification starts for most multinationals as they have generally centralized their processes within these functions for corporate control and better access to information.

For R&D, there are also possibilities to unify to the corporate level, but Diversification is also quite common, depending, for example, on the homogeneity of the product portfolio. For Sourcing, Coordination can help provide synergy benefits without necessarily unifying all systems and processes.

In Production, Diversification and Coordination are likely because facilities and product portfolios may be very different but need to be linked together on some levels. Replication of processes can also be a viable option. For Distribution, Diversification seems to be justified because of the differences in markets and product characteristics, but increasingly companies are beginning to unify their processes in this area. For both of these functions companies may be diversified at the group level, but have a Coordination model within a business unit.

For Sales and Marketing and Service Management, the majority of companies diversify in order to organize themselves around customers and markets, but the business processes are well coordinated within the business units. For Sales and Marketing, customization to sales channels and markets is key, but this also offers opportunities to unify product groups across these channels. A similar situation holds true for Service Management, where this function becomes more strategic due to the general shift from products to services.

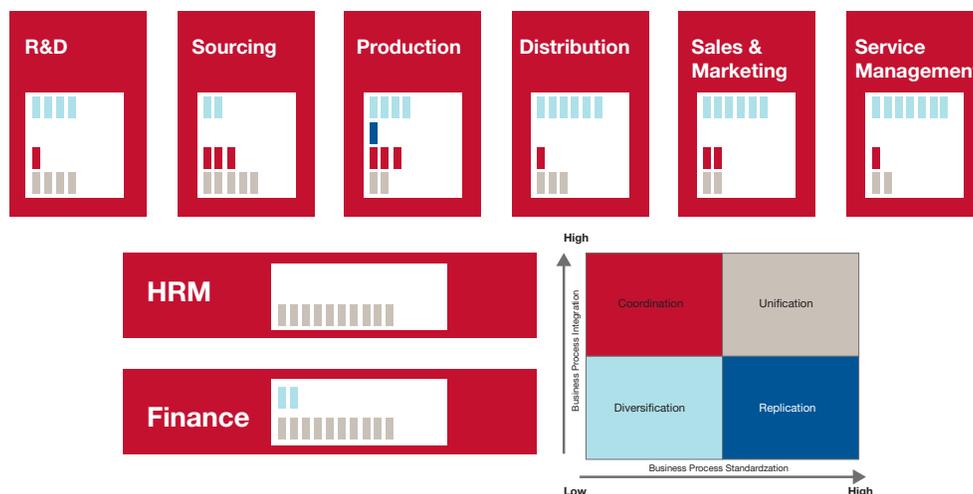
A company's prioritization of the business drivers may also impact its choice of operating model. For example, many global companies looking to achieve better synergies, cost management and operational efficiency have centralized their business processes within the R&D and Sourcing functions. However, if global growth is the main priority then a company may want to focus on Replication, particularly in Production, to enable faster time to market.

An organization's internal culture may also be a factor in the selection of operating model. For example, a more centralized, hierarchical-driven company will likely have a greater appetite for full harmonization than will a company that is more decentralized and locally driven.

Different Models for Different Segments

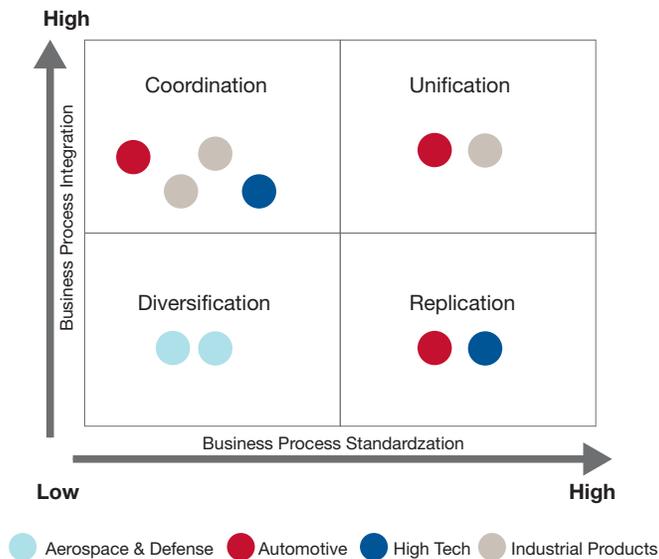
Summarizing the choices made for these different functional areas, we can assess a general operating model for each multinational manufacturer studied. It is interesting to note that different manufacturing segments are making different choices in their operating model (see Figure 3).

Figure 2: Operating Models Can Vary by Function



The research demonstrates that operating models often vary depending on the function. However, supporting functions like Human Resources and Finance are more likely to be unified at the corporate level.

Figure 3: Operating Models Differ by Segment



Different manufacturing segments make different choices in their operating models. For example, Diversification is more prominent in Aerospace & Defense due largely to the type of products with long lifecycles and dedicated production and service vehicles.

In general, we see good harmonization in Automotive and Industrial Products, driven by price pressure and an ongoing quest for operational effectiveness. These companies typically have gone through years of organic growth, allowing a coherent approach even at the corporate level.

Many of the companies that have grown through acquisitions and which offer a wide product portfolio prefer the Coordination operating model, even though they have ambitions to achieve greater centralization. Balancing the needs of the different product divisions and markets means that Coordination can be the sensible choice.

The route to Unification seems to go through Coordination more often than through Replication, but some of the High Tech and Automotive companies have a preference for Replication.

In the different segments, variances are also apparent depending on functional area. In the Production function, for example, Automotive companies may have coordinated processes and systems. While production facilities are mostly harmonized at the highest level possible with common processes, some parts of the processes may have a unique role to play in the global network.

In the Aerospace & Defense segment, Diversification is more prominent. This is due to the type of products with long lifecycles and dedicated production and service verticals. However, for the Distribution function companies in this segment may shift to the Coordination model as they look to move goods more efficiently through global supply chains. Similarly, for the Service Management function, maintenance, repair and overhaul (MRO) is increasingly being looked at as a single point of contact

for overall service requirements, which may lead companies to coordinate systems and processes. We also see some Unification efforts in Sourcing and support functions like Human Resources and Finance.

Within the High Tech segment, Replication is apparent, especially in Sales and Service Management. However, due to the diverse product portfolios and the need for quick time to market, companies run the risk of moving back to Diversification.

In the Industrial Products segment, some functions are unified. This is especially true in Sourcing in order to leverage a low-cost strategy and to synergize the supplier network. However, functions like R&D, Sales and Service Management are more likely to be coordinated.

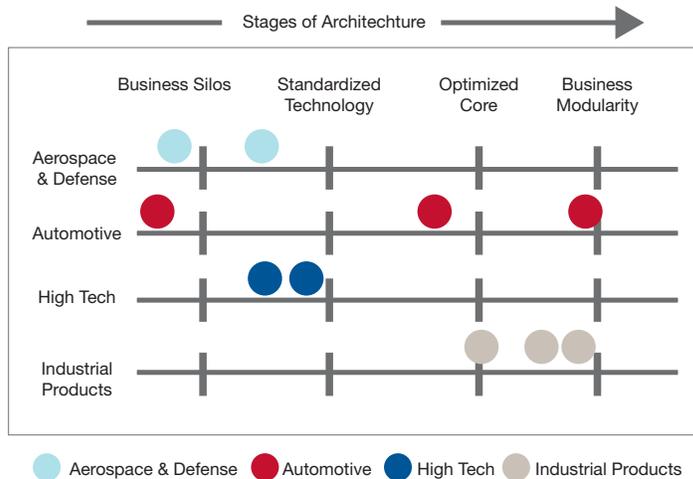
Coordinate Enterprise Architecture to Become More “One”

For companies looking to harmonize all or parts of their organization it is not enough to focus only on the operating model. Corporate strategies no longer are managed just through central guidelines and KPIs, but also through active integration and process alignment guided by an enterprise architecture approach. To become more “One,” companies need to coordinate their enterprise architecture.

Enterprise architecture is the organizing logic for business processes and IT infrastructure reflecting the integration and standardization requirements of the company’s operating model. It ensures that the strategic and management processes of the enterprise are in sync.

The research made it clear that harmonization of processes and data requires complementary structuring of the operating model and the enterprise architecture. Enterprise architecture exists in different levels of maturity in the global manufacturing

Figure 4: Enterprise Architecture Maturity Exists in Different Levels



Harmonization of processes and data requires complementary structuring of the operating model and the enterprise architecture. Enterprise architecture exists in different levels of maturity in the global manufacturing companies studied.

companies we studied. We have adopted the terminology of maturity levels as described by Ross et al (Business Silos, Standardized Technology, Optimized Core and Business Modularity) and have also assessed the organizations using the COBIT model.

The Business Silos level of maturity means that IT is mostly designed and delivered separately for each division or strategic business unit, with little central control at the corporate level. Organizations focused on delivering solutions for local opportunities require local autonomy and are often at this level of maturity with their enterprise architecture. Agreement on reporting processes and reporting data standards is necessary to maintain a basic level of integration between business units. However, communication and integration tend to be rigid within the business silos due to the presence of disparate systems.

The Standardized Technology level involves a central effort to make standard technology choices for the different layers of the IT architecture,

but still leaves the detailed design and implementation open to the divisional needs. Standardizing on technology typically begins with the infrastructure level and works its way up. At this level shared technology platforms enable cross-business information flow, but freedom in functional implementation enables local information needs to be filled.

The Optimized Core level of maturity facilitates the development of the applications across the organization through a reusable data and process architecture. At this level shared IT is based on a corporate information model, with companywide standardization of processes helping to maintain quality standards. Core enterprise process definition and measurement is a key management capability.

The Business Modularity level provides seamless linkages of reusable and customizable IT modules to provide maximum agility for the business processes. This level features central control on delivery of standard services but allows more local influence in the planning phase to avoid rigidity. There

is a constant need to seek a balance between harmonization and differentiation.

The result of this analysis is shown in the accompanying diagram (see Figure 4). There is a wide spread of enterprise architecture maturity across all the levels, with Automotive and Industrial Products showing some of the higher scores, and Aerospace and Defense and High Tech somewhat more to the left.

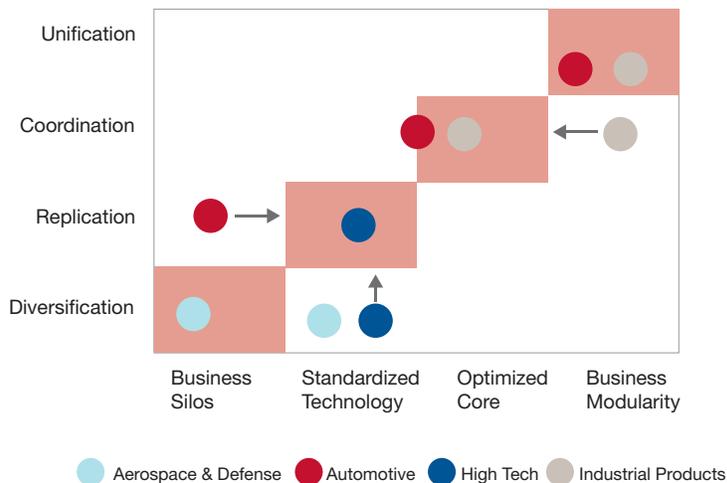
Conclusion: Aligning Enterprise Architecture with Corporate Strategy

When we combine the two sides of the analysis – corporate strategy choices in terms of operating models and enterprise architecture maturity levels – we see that there is indeed a good correlation (see Figure 5). It is clear that how you run your company should be well aligned with how you run your architecture. To move towards One M, organizations need to achieve a level of process harmonization and system consolidation by aligning their enterprise architecture with their corporate strategy.

A Diversification strategy does not need a very mature enterprise architecture, whereas Unification requires quite advanced maturity to support the different needs through one platform. It is also interesting to note that the Standardized Technology level is more related to Replication and the Optimized Core to Coordination. Nevertheless, it should be stressed that not all companies should go through Replication before attempting Coordination.

The enterprise architecture maturity levels are particularly important when different operating models exist for different functions. For example, how does a company unify its Finance function when Sales is diversified? In these situations, the enterprise architecture is the glue that holds all the functions together.

Figure 5: Correlation Between Operating Model and Enterprise Architecture Maturity



When we combine corporate strategy choices in terms of operating models and enterprise architecture maturity levels, we see good correlation.



Three key recommendations stem from the research:

- 1. Good business reasons exist to adopt each of the operating models and to differentiate the choice of operating models by function.** The main drivers and benefits for these harmonization programs are operational efficiency and cost reduction, but the alignment with corporate strategy and global growth objectives are also important longer-term benefits. Depending on the function under consideration, harmonization can be achieved at divisional or even corporate level.
- 2. The research identified a gap between companies' current state and their ambition, even though complete Unification is not always the end goal.** There are valid reasons to stay at other levels. The choice of operating model will depend on factors such as the benefits of synergy, time to market and corporate culture. For example, if your company has a large, diverse product portfolio, you may have less reason to harmonize Sourcing or Production; instead, the right approach may be Diversification.
- 3. The enterprise architecture maturity to implement these choices needs to be sufficient to support the ambitions of the operating model.** In particular, your enterprise architecture must be able to bridge the different operating models across functions.

Implementing One M: How Capgemini Can Help

It is evident from the research that manufacturers must streamline operations on a global scale using flexible processes and applications that can be employed worldwide. Based on our experience helping companies implement One programs, Capgemini has identified a number of critical success factors, particularly the importance of alignment between the business and IT as much of the savings will come from the business side (see sidebar).

Using our One Manufacturer approach Capgemini has helped global companies consolidate, rationalize and harmonize processes and systems to simplify the business, boost productivity and cut costs. Our approach comprises:

- **Strategy and roadmap:** Design the target architecture and process model, develop the business case, define the role of technology, outline a comprehensive roadmap and develop a rapid scan analysis.
- **Analysis and design:** Benchmark and design best-practice processes and systems, and model the current and future systems architecture.
- **Accelerated implementation, migration and rollout:** Develop a streamlined, standardized approach and produce templates for accelerated delivery, data migration, distributed delivery and testing.
- **Shared services and Business Process Outsourcing (BPO):** Create future scenarios that integrate shared-service and BPO capabilities, as well as cloud delivery platforms and services.
- **Change management and governance:** Support planning and design authority, integrate Application Lifecycle Services and establish governance procedures.

Capgemini's industry-specific process models and system templates for different segments (Automotive, Industrial Equipment, etc.) can

accelerate development of standardized platforms across a manufacturer's operations.

One Manufacturer: 7 Critical Success Factors

1. Align project objectives, approach, planning and results.
2. Provide transparency in terms of status, issues, risks and implications.
3. Ensure that your approach is driven by the business benefits.
4. Align business and IT within the project approach and team.
5. Establish cross-team collaboration and identify critical decision points.
6. Establish alignment with major stakeholders and opinion makers.
7. Incorporate sufficient change management in areas such as communication, mobilization and enabling.



About Capgemini and the Collaborative Business Experience

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies. Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience™. The Group relies on its global delivery model called Rightshore®, which aims to

get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients. Present in more than 35 countries, Capgemini reported 2009 global revenues of EUR 8.4 billion and employs over 100,000 people worldwide.

More information about our services, offices and research is available at www.capgemini.com.

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