CATALYST FOR CHANGE
Capital program evolution in the chemical and pharmaceutical industries
SUMMARY

Commoditization, public sector austerity and creating a new pipeline of products are some of the major challenges facing the chemical and pharmaceutical industries today. Global organizations operating in these sectors must continue to innovate with cutting-edge research and development and flexible manufacturing, while seeking to enter new markets. The significant investment required to do so must deliver the most cost effective, desired outcomes to programs—now more than ever.

The pharmaceutical (pharma) sector is uniquely affected by global economic cycles. Exposed to the public sector, the industry is challenged by austerity-driven restraint on spending. Even consumer lines are witnessing falling discretionary spending in many markets. In both health and consumer segments the challenge from low-cost generic products can only grow. Simultaneously, the productivity of pharma R&D has flat-lined, meaning that fewer new blockbuster compounds are replacing those falling out of patent. By contrast, while the chemical sector benefits from low feedstock prices, core, high-volume markets continue to be highly commoditized with intense price competition. This competition places continuous pressure on internal costs, including property functions, yet also drives differentiation strategies aimed at new products and services. This need for agility and speed to market places a greater premium on the ability of the property function to drive targeted investment in complex, operational sites.

In response, organizations in both sectors are innovating in new areas of science and product development, requiring investment in additional Research and Development (R&D) capability. They are also moving research and production facilities into emerging, potentially higher growth markets. In order to do this while protecting profitability, many businesses have implemented ambitious programs to consolidate and outsource functions which were previously distributed and held internally.

The need to balance cyclical investments in new technologies and markets, with ongoing spend on the rationalization and optimization of the existing property portfolio is creating particular pressure for capital project delivery functions. The risk is that spending on the existing assets will fall, creating long term liabilities and missed opportunities to streamline and enhance the existing estate.

At the same time, the delivery of large, complex capital programs creates new risks whether using a legacy delivery structure or a new, program-specific process. The need to focus on delivery of wider business outcomes with greater levels of certainty and effectiveness may require skill sets that the existing function does not have. Capital delivery functions are therefore under great pressure to deliver new investment programs and to optimize their existing portfolio, often delivered with a slimmed-down team.

Arcadis recently conducted research into the evolution of capital delivery models in the chemical and pharma sectors. A survey of senior property executives from several of the world’s largest chemical and pharma organizations, identified the following key trends:

- **Business priorities.** Business outcomes and lower cost are identified by 60% of respondents as their top two capital delivery priorities. The main business outcomes sought are delivering programs within budget and time including lowering risks. Chemical organizations prioritize lower cost above all other factors.
- **Position on the journey.** Organizations are on a journey in the development of their capital delivery models. While many have well-advanced (outsource) programs, they believe there are still significant changes to be made in:
  - centralization of the supply chain
  - centralization of asset knowledge for use by the organization
  - a shift from a transactional mind-set to more collaborative forms of working both internally and with the supply chain.

Interestingly, almost all respondents have already adopted a flexible approach to the selection of procurement routes on projects—enabling them to retain control where required.

- **Enablers for improved performance.** Aspects of organizational structure and governance are highlighted as key enablers for improved performance. Behaviours associated with delivery and organizational access to asset knowledge are seen as relatively low priority. These are areas where development is still required.

- **Barriers to performance.** Availability of supplier capability and the depth of internal support for change are seen as the most significant barriers to better project delivery. However, 70% of the sample highlighted internal capability as the second most significant barrier.

What is clear from the findings is that over 60% of respondents are already well on their way to significant outsource. All respondents can foresee implementing further outsource initiatives and 80% will reach a position where most functions are outsourced in the foreseeable future. Yet there are recognized areas of development that remain outstanding, which could have a significant impact on the overall success of the evolution of the delivery model.

We believe that some organizations may be initiating significant business change without fully understanding the implications, or without putting the necessary capabilities in place to drive the change. These organizations run the risk of losing momentum in their change program.

A recurrent theme from the survey is that organizations are not only lacking in confidence in the availability of resource from the supply chain, but are also concerned that they do not have the capability to secure all benefits from their suppliers. The two issues are interlinked and it may be necessary for internal investment to make best use of supply chain capability to meet wider performance improvement targets.

These findings are significant, as capital delivery functions become leaner internally while more complex as they transition to an intelligent client capability. The organization’s internal team should focus on stakeholder needs and the challenges associated with the delivery of business outcomes in complex, fast-moving organizations.

However, through rationalization, do organizations have the capacity and capability to drive wider change in their business, or have they reached the point at which they will have a diminishing strategic impact? What changes to delivery models should these functions consider to achieve levels of performance comparable with the best in other sectors?
BUSINESS PRIORITIES

We asked respondents to rank their capital delivery priorities – identifying the critical success factors against which the performance of the capital delivery program is judged. Business outcomes and cost were identified by most respondents as their top capital delivery priorities.

- 40% focused on outcomes as their top priority – a key enabler for a successful programmatic approach to delivery of capital investment
- 60% highlighted outcomes and cost certainty as the top two priorities.

However, the analysis could not single-out one big issue, highlighting the diversity of drivers behind programs in the sectors. Time was described as a secondary issue for most respondents, ranked number two by 40% of respondents.

The survey results in detail

Chart 1: Organizations’ capital delivery priorities

The analysis shows that there is no outstanding priority for capital delivery across the survey, albeit that business outcomes and cost were given a high ranking by most respondents. This result is in part a reflection of the differing maturity of organizations in the survey and partly a reflection of the cost reduction focus of many pharma organizations in the current business cycle.
In the chart, the length of the bar indicates the degree of aspiration for change in chemical and pharma organizations. It can be seen that the management of asset knowledge and the evolution of commercial behaviors both involve a significantly larger shift in capability than risk transfer in procurement. Procurement is perceived by many respondents to already provide the flexibility needed in the optimized delivery organization.

Our findings highlight that most surveyed organizations believe that they have further to travel on their performance improvement journey. While many of the organizations questioned have already out-tasked or outsourced a significant proportion of project delivery activity, they recognize that there are opportunities to continue the process and to gain further benefit.

Areas identified as potentially involving the greatest future change include:
- centralization of the supply chain
- transformation of the organizations’ capability to hold and use data
- centralization of decision-making
- development and embedding of collaborative commercial behaviors.

The analysis describes the gap between where respondents think their business is on the journey today, compared to where they aspire to be to have an optimum solution in place. The results are an aggregate of the survey. Some respondents will have already reached their desired objective. Others have to drive more change to be able to reach their target. However, the analysis shows a clear shift, from a project-focused, insourced model to a programmatic approach.

Chart 2 shows the extent of the journey organizations must take to develop the capability required to deliver projects and programs and meet organization need in the most effective way. The enabling factors are ranked in the importance given to them by respondents. It is noticeable that low priority enablers such as collaborative working and use of data are associated with some of the most ambitious plans for change.

Note: The chart plots the difference between what respondents think the current style and capability of their business is, compared to where they aspire to be. The length of each bar represents the average change for all organizations in the survey, with a longer bar representing a bigger aspiration for change. The journey towards higher levels of performance is plotted from left to right. Enablers are ranked from top to bottom in accordance with their perceived importance as a change enabler.

<table>
<thead>
<tr>
<th>High priority</th>
<th>Direction of travel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance - organization: decentralized to centralized decision making</td>
<td>DECENTRALIZED</td>
</tr>
<tr>
<td>Delivery organisation strategy - insourced to outsourced</td>
<td>INSOURCED</td>
</tr>
<tr>
<td>Resource strategy - decentralized to centralized supply chain</td>
<td>DECENTRALIZED</td>
</tr>
<tr>
<td>Governance - deliverables: emphasis on defining inputs or outputs</td>
<td>INPUTS</td>
</tr>
<tr>
<td>Behavior in delivery - transactional to collaborative</td>
<td>TRANSACTIONAL</td>
</tr>
<tr>
<td>Location of Asset Knowledge - held in projects or by the organization</td>
<td>PROJECTS</td>
</tr>
<tr>
<td>Approach to control - contractual to flexible risk transfer</td>
<td>CONTRACTUAL</td>
</tr>
</tbody>
</table>

Chart 2: Position of the organizations’ change journey
Our survey also examines the most important organizational characteristics in driving improvement in capital delivery and the greatest barriers to progress. We are interested in the balance between structural enablers such as governance processes and procedures, and softer aspects of business capability including transactional behaviors and the effective management of knowledge.

**ENABLERS FOR DRIVING IMPROVED PERFORMANCE**

The survey findings emphasize that the organization of governance, whether centralized or decentralized is seen by most respondents as having the greatest impact as an enabler. However, the structure of the delivery organization, the focus on governance on business outcomes or project inputs and the balance between insource and outsource of resources is also seen to be important by many respondents.

By contrast, our respondents showed markedly less interest in factors that are often associated with high performing teams including collaborative team behaviors, access to and use of data and the management of control and risk.

Our analysis of the results of the survey suggests that:

- while many organizations are well into their journey towards the outsourcing of resources, investment in the structural elements of decision-making, governance and definition of requirements are likely to need further work if they are to be effective as performance enablers
- performance enablers that have been given a low ranking (e.g. transactional behaviors and access to knowledge and data) are identified elsewhere in the survey as requiring the most significant changes over the next 2-3 years
- no respondents identified their approach to control through risk transfer as a significant performance driver. This is an area where most organizations have already adopted a flexible approach suited to the needs of a specific project.

**BARRIERS TO IMPROVED PERFORMANCE**

The key barriers to performance improvement, highlighted by respondents are availability of supplier capability and internal capability. Clearly selection of delivery partners is a critical aspect of reshaping the capital delivery process but the results emphasize that respondents are not always confident that their internal teams have the right skills to drive the initial, critical stages of the change program. This makes their early decisions in connection with the identification of partners all the more critical.

In reality there are many suppliers operating regionally and globally that have the capability to drive the necessary transformation. The challenge is for the organization to accurately identify their need, the capabilities required to drive the change and to shortlist suppliers that can not only demonstrate a proven skillset, but who can also collaborate effectively with clients and their existing supply chain. This initial stage of the evolution of the delivery model, which often requires building rather than reducing capability, is critical to enable the organization to invest in their change program. Without this investment, they are less likely to be able to attract the capability in the supply chain that they need to drive their change journey.

Interestingly the issue of internal support is seen by many respondents as less of a barrier. In our experience, stakeholder management is one of the key capabilities that needs to be developed as part of the organization’s retained skillset. Securing internal support is in reality a challenging area that is likely to rely on managed change at both C-suite and operational levels.

![Chart 3: Enablers of improvement in capital delivery](chart3)

![Chart 4: Barriers to improvements in capital delivery](chart4)

Overall, the results show that:

- availability of internal capability to drive business-side requirements under new organizational models is recognized as a critical constraint
- organizations may not have sufficient confidence in the capability and availability of their outsource partners to drive a change program which will deliver optimum benefits. Designing change programs which attract suppliers and which have an optimum balance of organization and supplier involvement is a key aspect of the change journey
- a very low rating is given to unclear benefits. We take this as a positive, in that our clients tell us that it is unlikely that any program would be initiated without a clear route to benefit. Clearly to be sustainable, a change program must deliver more benefit to the organization than any other participant.

These analyses emphasize the near term challenges for chemical and pharma organizations associated with securing capability, while highlighting potential gaps in the development of appropriate governance structures, necessary to underpin a successful organizational change process. Many organizations in this position can out task a significant proportion of program activities to external providers. However, without further essential building blocks associated with controls, knowledge bases and business behaviour in place, it will be more challenging for organizations to secure all of the potential benefits of a capital delivery transformation.
The results of the Arcadis chemical and pharmaceutical capital delivery survey highlight the potential for evolution and performance improvement for many property functions in these sectors. Most organizations are well into their improvement journey and many have adopted a similar strategy, placing greater emphasis on the outsourcing of resource than on developing a capability to control and ultimately transform the delivery of capital programs.

There is, of course, no one single solution for capital program delivery that will meet every organization’s needs. Organizations in these sectors have different asset portfolios and business structures that will influence organization design and are at different stages of their investment cycle. Furthermore, the impact of recent and legacy merger and acquisition activity will also have a big impact on options to manage the property function as an integrated whole. However, while taking into account these constraining factors, in our experience the greatest impact from reorganization and performance improvement comes from freeing the internal capability. By not driving day to day delivery, which can be self-limiting and which can crowd-out opportunities, the internal team can respond to business needs, driving genuine transformation.

The survey highlights a broad recognition of opportunities that will flow from the property function’s focus on wider business outcomes. Yet this is a double-edged sword, potentially introducing greater complexity into the management of capital delivery through exposure of a program to a wider system of activities and investments within a business.

Findings also highlight organizations’ concerns with respect to capability within their organization and within their suppliers. In our experience these concerns are often related to the scale of the change perceived to be necessary to achieve the desired business goals. A progressive approach, driven quickly, may in these circumstances provide the confidence and quick wins that enable organizations to target the bigger prize. A progressive approach is particularly important to enable organizations to build their internal capability across a range of dimensions including process, governance, data and team performance. The evolution of a business function from taking control of its program to driving business transformation is multi-dimensional. The results of the survey substantiate this, clearly demonstrating that organizations have big opportunities for change associated with the supply chain, data and ways of working.

Many of these opportunities will involve a change in the balance between local and central resources, standards and ways of working. This shift is highly dependent on the role of local small and medium sized enterprises and as a result also dependent on skills held in the centre to manage the internal customer. Therefore, while the headline emphasis of the change may be on shifting resources out into the supply chain, the importance of internal support and resource will not diminish. Understanding of needs, development of capability, management of politics, and alignment of programs with personal objectives of senior managers is still required.
UNDERSTANDING THE DIMENSIONS OF PERFORMANCE IMPROVEMENT

Through our work with global and regional organizations operating in highly challenging environments, we have witnessed the journeys of many different businesses to different states of operational excellence. Some organizations have fully understood the implications of their transformation and have had the capability to put in place holistic, collaborative solutions. Their successful implementation not only drove short term gains, but also enabled the organization to focus on driving wider business benefits, helping to ensure that capital spend drove the right business outcomes by fully utilising outsourced tactical resources.

On the other hand, we have seen that some organizations are clearly initiating business change without fully understanding the implications and without putting the necessary capabilities in place – resulting in below-par outcomes and a loss of momentum in business change.

One of the key findings of our survey is that many large, outwardly mature organizations are currently only aspiring to an impactful level of business change and do not have in place some of the key processes and functions needed to efficiently deliver their capital program. As a result, their delivery capability does not currently match their brand, global ambitions and need for flexibility.

Through our work with high performing businesses, we recognise that successful program delivery will be built on a foundation that spans all aspects of management – from governance and program control to the development of a collaborative approach across the supply chain. For example, the global consolidation of suppliers will only enable cost reduction and consistent global delivery if the client organisation consistently adopts its own common processes and behaviours. The choices that organizations make when designing processes and allocating roles within the program team are key to the creation of sustainable delivery capacity.

These factors and the evolution of the capital delivery model are as relevant to the chemical and pharma sectors as in any other capital intensive business.
CONCLUSION

Our survey of property functions within chemical and pharma organizations finds that most businesses have or are in the process of initiating significant change, often focused on an outsource model. Our findings suggest that some organizations are implementing the change without fully understanding the implications or without putting the necessary capabilities in place to drive the change. These findings highlight the need for property functions to plan a full range of capabilities that are needed to ensure that future programs are aligned with the needs and priorities of the business. Property teams also need to make the case for sufficient investment in driving change to ensure that desirable behaviors are embedded.

In particular, we have found that for many organizations, a future focus on developing capability in governance process, controls and collaborative behaviors, will be the foundation for further improvements in performance and value delivered.

METHODOLOGY

The survey was developed by capital delivery experts in the Arcadis Business Advisory team. It focused on the capital delivery priorities and the organization of capital delivery functions in chemical and pharma organizations. It examined key aspects of business design and behaviour that change through the evolution of the capital delivery model.

In order to gain an understanding of the current position of chemical and pharma organizations in the evolution of their property functions, and to assess their business priorities, we surveyed a representative sample of senior property executives from several of the world’s largest chemical and pharma organizations. The survey was conducted confidentially during Q3 and Q4 of 2015. The global survey secured insight from organizations operating in Europe, the US and from emerging markets, particularly in China.

The scope of the survey covered:
- priorities and key success factors for capital delivery
- the current and future planned position of the business organization and capability along a continuum associated with resourcing, governance, organization and behaviors
- the identification of enablers and barriers affecting the driving of improvement in capital delivery performance
- the nature of organizations’ capital program (i.e. annual spend, number of capital projects etc).

Notes on analysis: The relative importance of organizational characteristics in driving improvement in capital delivery or when acting as a barrier to performance improvement (shown in chart 3 and 4 respectively), has been calculated using a weighted ranking. Respondents were asked to rank the 3 most important enablers and barriers to performance improvement. The analysis of the results places a greater emphasis on higher ranked responses.
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