



November 12, 2007

Assess Your Enterprise Agility

by Henry Peyret
for CIOs



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Agree On Agility Objectives With Your Internal Peers

by **Henry Peyret**

with Alex Cullen and Caroline Hoekendijk

EXECUTIVE SUMMARY

Firms and government organizations are constantly buffeted by changes in their business environment — from changing customer tastes to economic changes affecting raw material prices to government regulations that make hitherto smart business strategies irrelevant. Firms must respond well to these changes to survive and thrive. While firms have used different business strategies to insulate themselves from the effect of change, CEOs are beginning to recognize the need for their firms to become more agile in detecting and making the changes to strategy, operations, and products. Turning agility from a buzzword into a business capability requires firms to measure and manage their ability to change — and agree on what agility means specifically for their enterprise. CIOs should take a lead by helping the executive team understand its own firm's definition of agility and defining the key agility indicators (KAIs) that will highlight improvement.

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Forrester interviewed five vendor and user companies, including Capgemini, HP, IBM, LogicaCMG, and Veolia Environnement.

Related Research Documents

"Debunking Alignment Nirvana"

June 18, 2007

"The Rise Of Globally Adaptive Organizations"

December 13, 2006

"The Foundation Of Sound Technology Investment: The Total Economic Impact™ Methodology"

September 26, 2003

THE RATE OF CHANGE CONTINUES TO CHALLENGE THE CAPACITY FOR CHANGE

Change is a constant for all firms. It provides opportunity in the shape of market openings or raw material supplies but also threats in the form of shifting customer preferences or macroeconomic forces that impact prices or costs. In an ideal world, firms would be able to instantly detect and respond to these changes at no cost; in reality, firms require time and funds to respond to changes or to prepare for a change like the ones occurring now. The speed and cost with which they respond to these market and economic environment changes determines how successful they will be in terms of growth and profitability. To improve their ability to respond to market and business environment change, firms have pursued a combination of three strategies:

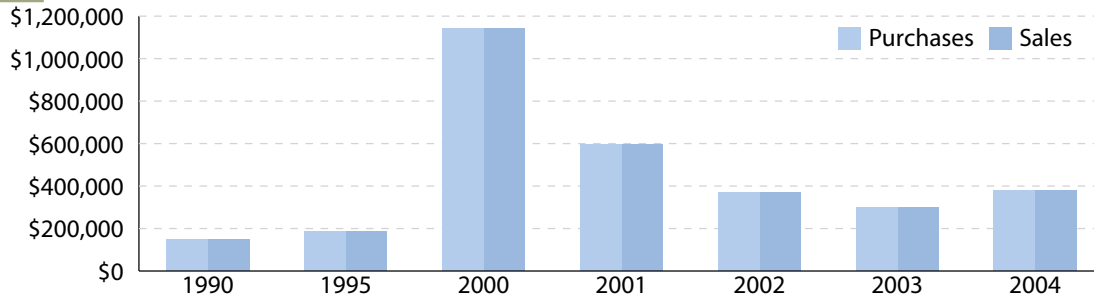
- **Increasing scale.** Firms use mergers to increase their size more quickly than they could through organic growth; they want to be big enough to insulate themselves against changes that their competitors or supply networks cause.
- **Increasing scope.** Firms broaden their product lines through acquisition or product and service innovation; their goal is to be able to ride out the changes in any one market.
- **Increasing reach.** Firms expand geographically to tap new markets; their aim is to be less dependent on the fortunes of their previous markets.

However, these strategies for coping with business change bring along their own change costs — they may have made the organization *more* susceptible to the impact of changes, as the experience of large firms has shown.

- **Mergers, acquisitions, and divestitures drive risk.** The number of deals has slowly increased year on year after an initial explosion in 2000 (see Figure 1). But the size of deals seems to vary, driving bigger companies to take more risks (see Figure 2). The larger the deals, the deeper the changes the enterprises face.
- **Innovations in products, channels, and business models propel organizational change.** For a number of decades, research and development (R&D) remained the prerogative of developed countries — in the 1990s, most R&D expenditure came from the US and EU. But as R&D expenditure expands into less-developed countries, enterprises are now localizing highly skilled research along with manufacturing. The political and global pressure to innovate generates competition between countries — and this will put pressure on multinational corporations (MNCs) to continuously adapt to benefit from different university research centers (see Figure 3).¹

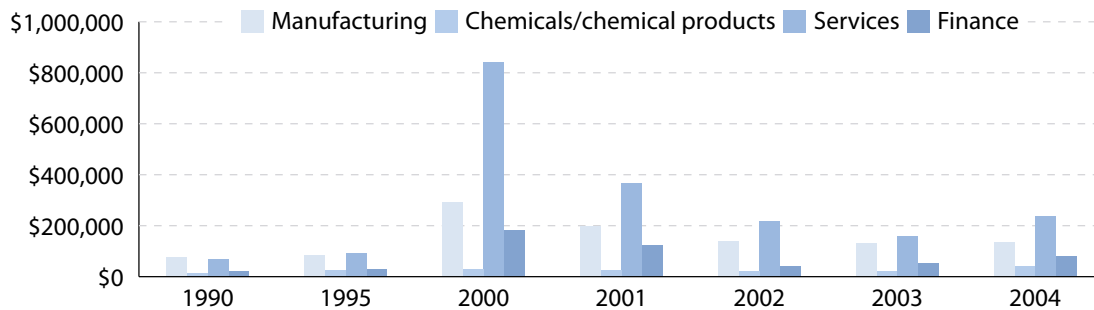
Figure 1 Merger And Acquisition Trends Accelerate Change

1-1 M&A activity (\$ millions)

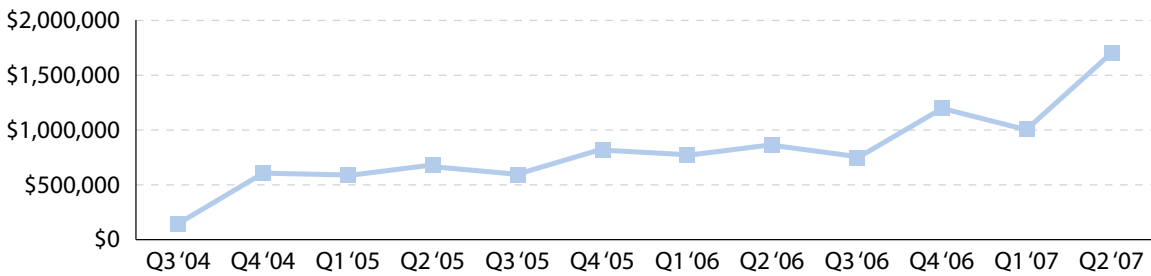


Source: UNCTAD Interactive Data: FDI Report: M&A

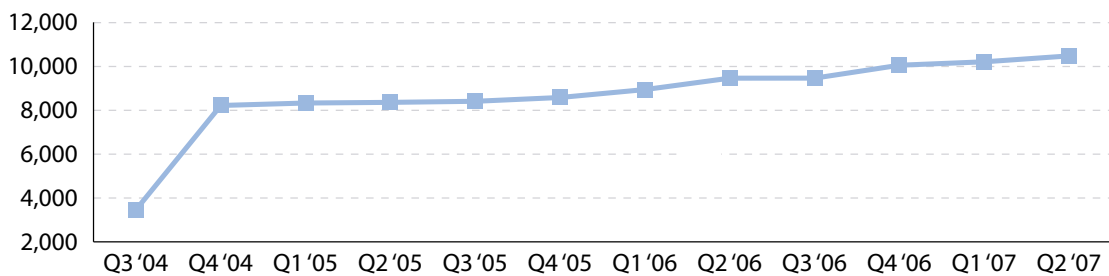
1-2 M&A activity by industry (\$ millions)



1-3 Quarterly transaction volume over the past three years (\$ millions)



1-4 Quarterly transaction volume of announced deals over the past three years (number of deals)

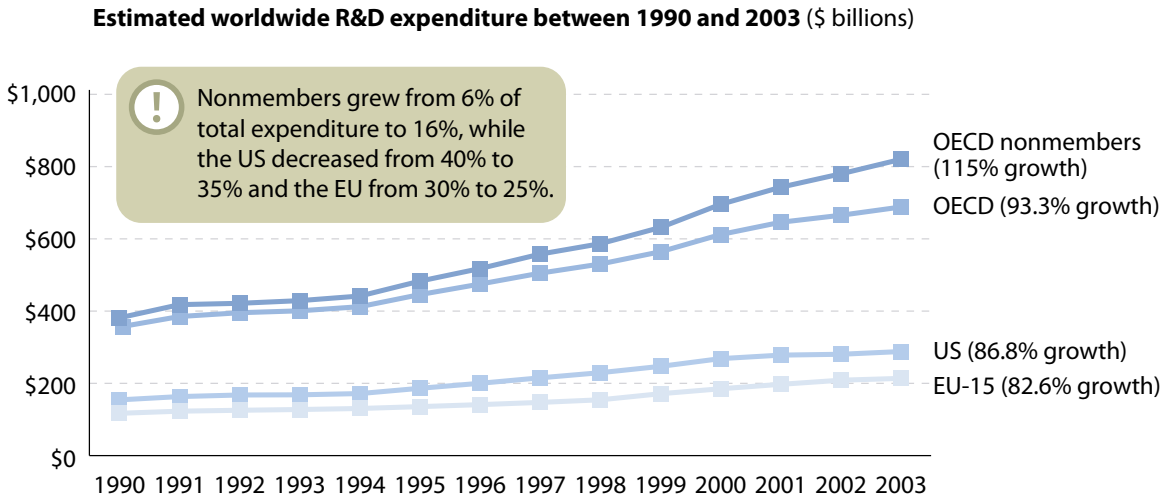


Source: OECD; on Figure 1-3 and 1-4, please note that the size and number of deals can vary.

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Source: Forrester Research, Inc.

Figure 2 R&D Expenditure Accelerates The Rate Of Change



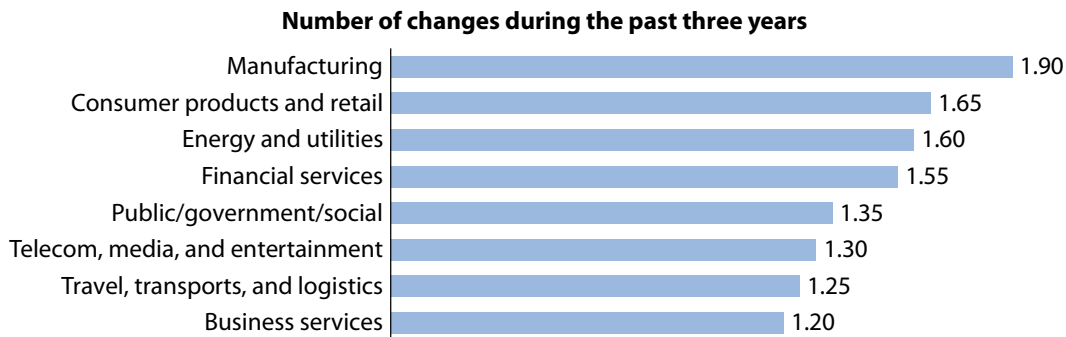
SOURCE: OECD, Main Science and Technology Indicators

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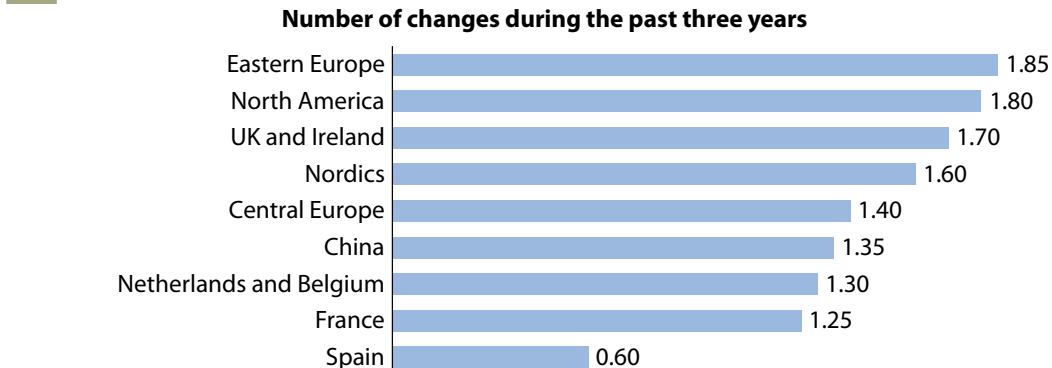
Source: Forrester Research, Inc.

Figure 3 The Rate Of Major Changes By Industry And By Region

3-1 Change intensity per industry



3-2 Change intensity per region



Source: Capgemini

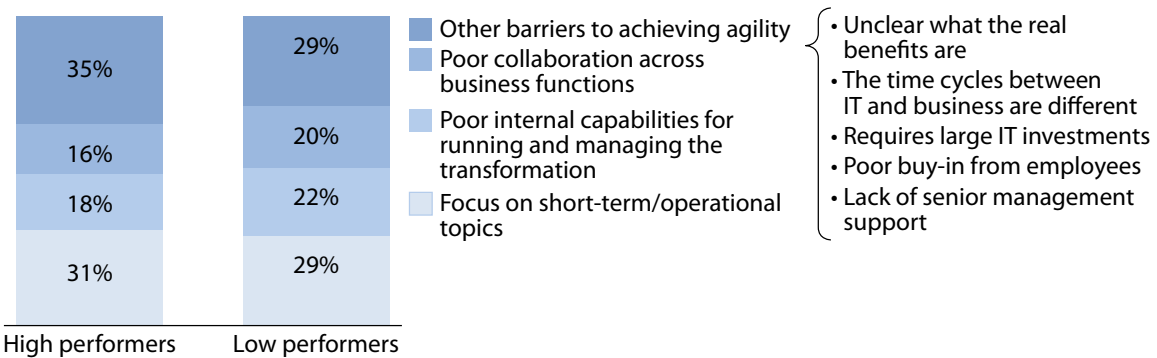
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Source: Forrester Research, Inc.

- **MNCs struggle to change in the face of country differences.** Each national market has its own specific regulations, as well as geopolitical, sociocultural, environmental, and macroeconomic differences, forcing enterprises to continuously adapt to multiple risks at the same time.² MNCs want to confront this diversity by quickly adapting their existing and well-established procedures. But the error rate remains high — and the initial reasons for country selection may prove ephemeral.³
- **A reliance on shared services inhibits change flexibility.** Typical shared services like IT, HR, and procurement are often seen as inhibitors to change. While their main objective is to decrease global costs, they often do not deliver the right level of adaptability to the different business units that are facing change. These units complain that shared services provide either the same “lowest common denominator” service at the lowest price for every business unit or a higher level of service but at a higher service/price ratio that is too expensive for the “poorest” units (see Figure 4).⁴

Realizing this, CEOs are now asking not how they can insulate themselves from these business environment changes, but rather how they can shape their organizations to become more adept at responding to change — how can they become more “agile”?

Figure 4 The Barriers To Achieving Agility That CIOs See



High performers: Positive perception of business performance

Low performers: Negative perception of business performance

Source: Capgemini

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Source: Forrester Research, Inc.

There Is No Single Overriding Problem That Reduces The Capacity For Change

As firms struggle to adapt to changes in their business environment, they too often find that they are coping with change on multiple fronts and grappling with multiple inhibitors — everything from a short-term operational focus that makes it more rewarding for managers to ignore changing conditions to the differing cycle times for business change and underlying IT system changes. These barriers may be different for different verticals and for different countries or cultures and may affect each business unit differently. Business units' capacity for change depends on internal factors, such as investments, restructuring capabilities, new processes, and organizational changes — and also on the capacity of internal actors to adapt.

The CIO Struggles To Prepare For Change

While the business faces changes that require more agility, IT is seen as lagging behind — even when CIOs carefully manage business and IT alignment:

- **IT objectives still include only cost reduction and quality.** IT objectives rarely reflect enterprise agility objectives. CEOs want greater agility but don't talk about it as a measurable objective. Instead, many firms still measure IT on its contribution to cost reductions inside and beyond the walls of IT, along with its reliability and its availability to run today's business.
- **Business agility improvement projects don't easily gain funding.** There are a number of current trends that, in theory, should improve agility — such as service-oriented architecture (SOA), on-demand services, pervasive technologies, outsourcing, Dynamic Business Applications, agile development, and offshoring. However, IT still needs to plan for and right-size these options to reach the “agility” required while balancing the costs and risks. In addition, these technologies require cross-department investment in enterprises where each business unit manages budgets separately.

MANAGE ENTERPRISE AGILITY TO PREPARE FOR DISRUPTIVE CHANGES

Managing enterprise agility will allow enterprises to forge agreement between CxOs, split strategic agility objectives among the different departments contributing to them, and measure or predict these objectives. Forrester defines the key elements for this management as follows:

- **Enterprise agility:** The capability of the enterprise to deliberately adapt to an event or complete a change at an acceptable speed, cost, and level of risk.
- **Key agility indicator (KAI):** Measurable business performance, expressed as the predicted time to adapt to an event at the right level of cost and risk.
- **Agility measurement:** The capability to predict, collect, and aggregate the KAIs that are meaningful to the business.

There are two different types of agility, based on the nature of the event or change, which a firm should endeavor to manage:⁵

- **Range agility.** This is the time it takes to react to predictable and recurring events. It is often measured by a rate. For example, an auto manufacturer wants to shorten the time-to-market for delivery of a new model from five years to three years. Improving a firm’s range agility might include actions like improving collaboration with suppliers around design, making assembly-line changes, and changing the product life-cycle management software to allow virtual prototypes and a shorter design phase.
- **Time agility.** This refers to the ability to respond to a single event, such as a price change for a raw material or an economic downturn affecting specific market segments. While firms may expect these events, they can’t determine their timing or size in advance. An auto manufacturing firm could improve its time agility by improving market intelligence to allow faster detection of changes or by preparing the product design process to rapidly include new options.

These two types of agility are the basis of KAIs, which enable firms to measure range agility and predict time agility. A firm might decide to focus on one type of agility or a combination of both. Let’s show how an auto manufacturer could use KAIs (see Figure 5). The range agility for an auto manufacturer typically involves the time-to-market for a new model or brand. If a firm takes five years to get from concept to the first delivery, it could set a KAI around the time it takes to introduce new models and have a goal of reducing this to three years. Time agility might apply to the consequences of an increase in the price of a barrel of oil. While we all know that a price of \$100 will occur, we can’t predict when. A KAI here might involve establishing that the auto manufacturer is preparing for 10% of its product lines to be available with a hybrid engine option in less than two years. However, the price of a barrel of oil could rise to \$200 or more and have a radical impact on the auto market, although this is less likely. The firm could create a second KAI with a quicker and bigger change to address this second scenario.

Figure 5 KAI Examples For An Auto Manufacturer In An Enterprise Agility Assessment (E2A)

	Range agility (rate)	Time agility (time)
Why (strategy)		<2 years after oil barrel price at \$100, 10% of models must be hybrid
How (process)		
What (products)	Major evolution of every model every five years	
Who (employees, customer segments)		
Where (geography, market zone)		<5 years after entering new market, the market share must be >15%

Agility Management In Action

Agility management uses KAIs and agility measurement to shape the culture, processes, and structures that prepare an enterprise for change — both predictable and unpredictable. Agility management should follow this process (see Figure 6):

1. **Establish a common language for enterprise agility.** Agility requirements — expressed as KAIs — already exist in the enterprise, but in most cases they are not properly shared, even at the highest level. For example, most range agility-related KAIs come from the COO and chief marketing officer and include indicators like the time it takes to introduce new product versions. As the market and competitors change, these execs often identify agility requirements and the cost of internal delays in response. As time agility deals with events that may occur within a given time frame, most of the time KAIs will be expressed as probabilities and opportunities or risks and will come from the CEO, the chief strategy officer, or the chief security officer.
2. **Understand agility requirements and inhibitors.** For range agility, the COO and CMO collect measurements like time-to-market, design time, delivery time, manufacturing time, and production time. For example, a typical time-to-market improvement will often require an enterprise to identify inhibitors — such as the time spent to reconfigure manufacturing equipment and the time needed to test product changes — and then solve them one at a time or all at once through internal projects.

For time agility, the CEO and CSO manage the risks and/or opportunities resulting from predictable and unpredictable events — mergers and acquisition, the impact of major environmental changes, market conditions, new regulations, and associated risks that could affect the business. The most probable events would likely be managed as potential risks within a risk management strategy — but time agility management can help here by identifying the least-probable scenarios with the greatest impact on the business. There may also be important business events that aren't managed as risks but that should be managed as part of agility management. Each CxO must specify the incremental investment that will provide a level of agility adapted to a tolerable level of risk and cost.

3. **Value enterprise agility using Total Economic Impact™ (TEI).** TEI is Forrester's methodology for identifying the value of IT investments. In addition to the usual return on investment dimensions that focus only on costs and direct benefits, TEI adds two other dimensions: flexibility — particularly related to future options — and associated risks.⁶ Range agility directly generates business value and will be valued through the benefit dimension. Time agility generates indirect benefits. TEI's flexibility and risk dimensions are therefore really useful in valuing the incremental investments in this case (see Figure 7).

4. **Identify the actions needed to improve enterprise agility.** After identifying the inhibitors during the second step, the different CxOs should prepare projects to reduce the impact of these inhibitors. Depending on the project costs and risks, they may need to adjust and prioritize the agility requirements. Most of the time, the range agility requirements will need IT projects that one or more business units support. Usually, however, time agility requirements will not generate new projects by themselves — but rather will become criteria for assessing the projects within a project portfolio or will justify incremental investment in existing projects.

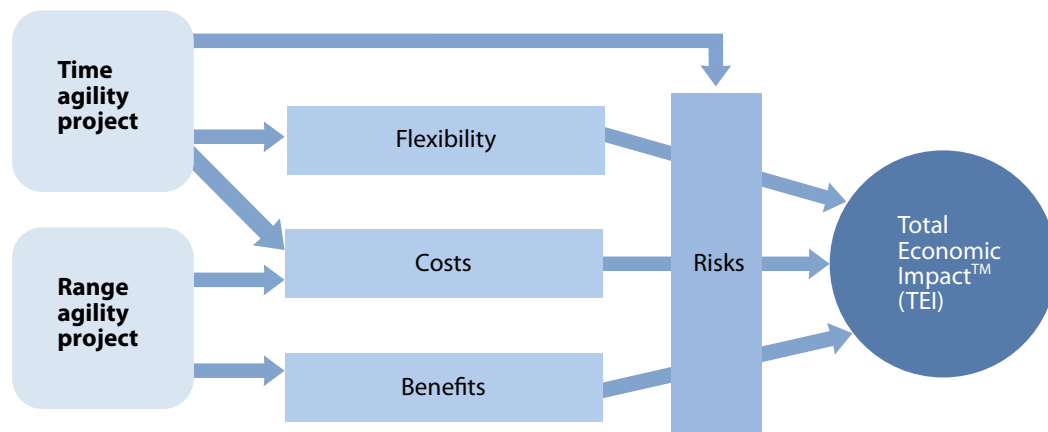
5. **Measure the results and improve.** Range agility KAIs are easy to measure. After the projects are delivered, verify that they provide the agility that was specified by making sure that the requirements delivered link to the KAIs; periodically reassess these to be sure that, in context, the changes do not worsen the results. Time agility KAIs are far more difficult to measure because, in most industries, there is a possibility that the event will never occur. However, a good practice is to regularly check that other, newly discovered inhibitors don't affect the predicted time. A risk review can also adjust the probability of occurrence and be added to the risk management portfolio. In addition, firms can study their experiences when one of the predicted events occurs and review the time agility indicators; for example, the review could help identify additional inhibitors that they had failed to take into account and that affect other KAIs.

Figure 6 Agility Management Is Different For Both Agilities

Actions	Range Agility	Time Agility
1. Establish common language	Talk with COO, CMO	Talk with CEO, chief strategy officer, and chief security officer
2. Collect agility requirements/ inhibitors	Typical KAIs: Time-to-market, delivery time, production time	Typical KAIs: Time for first reaction to a somewhat unpredictable event
3. Use TEI to value agility	Main benefits are business benefits	Main benefits are indirect and accounted as flexibility and risks
4. Identify the actions	1. Start new business cross-department initiatives 2. Generate IT projects	1. Follow up the risk assessment 2. Alter existing IT projects and applications
5. Measure the results and improve	Compare range agility requirements with results	Time agility KAIs vary according to assumption reviews

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Source: Forrester Research, Inc.

Figure 7 Use Forrester's TEI Methodology To Value Range And Time Agility Projects

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Source: Forrester Research, Inc.

RECOMMENDATIONS

TRANSFORM THE AGILITY BUZZWORD INTO STRATEGY

Agility management is not for the CIO alone: It is beneficial for all CxOs. They can share their agility requirements, form an accurate assessment of where they are, and try to solve the agility inhibitors together. CIOs should educate their CxO peers on the issues that impact a firm's ability to respond to changes and propose a disciplined approach to agility management as a way to systematically correct these inhibitors. Here are some key actions for the CIO:

- **Help business execs understand what range and time agility mean to them.** These concepts will sound abstract initially, but will be useful when tied to the symptoms and barriers that they can actually see — such as the time and cost to complete a strategic change like a product acquisition or the ability to quickly exploit market shifts or ramp output in response to consumer fads.
- **Educate executive management on the management practices needed for improvements.** CIOs are on the front line of many programs designed to improve application flexibility — and in the trenches when it comes to finding funding and governance for cross-business-unit programs. Programs to improve agility are often cross-business programs that get mired in these funding and governance challenges; SOA is the most common example. As CIOs help business execs understand the basic concepts of agility management, they should use the opportunity to educate them on the changes to management practices necessary for these programs to be successful.

WHAT IT MEANS

AGILITY MANAGEMENT IS A STEP TOWARD A FULLY MANAGED BUSINESS STRATEGY

This new approach of systematic agility management contributes to better strategy management. Most companies carefully manage the productivity performance aspect of their enterprise, but they often base this on lagging indicators, such as rolling up measurements every three months: They are simply *reactive*. More mature enterprises look for earlier indicators and to shorten the reaction time by moving to more real-time metric visibility. In some highly automated industries, such as pharmaceuticals, manufacturing manages by exception: They have automated most (80%) of the tasks and focus their manual workforce mainly on the remaining exceptions (20%). Managing the risks of these exceptions allows them to continuously adjust the 80:20 rule and to become more *proactive*. And when an enterprise starts to manage its agility requirements to shorten the time it takes to react to predictable and unpredictable events, it will become *predictive* — and benefit from faster responses to market opportunities or challenges. Finally, by continuously adjusting the tradeoffs between productivity, quality/risks taken, and agility objectives, the enterprise will achieve a *fully managed* business strategy, providing the optimal response to dynamic market and business conditions.

SUPPLEMENTAL MATERIAL

Companies Interviewed For This Document

Capgemini

LogicaCMG

HP

Veolia Environnement

IBM

ENDNOTES

- ¹ To minimize global risk exposure while capturing opportunities worldwide, innovative CEOs will transform their monolithic firms into globally adaptive organizations (GAOs) by instilling flexibility, efficiency, altruism, and openness into their globally networked talent, processes, and partnerships. See the December 13, 2006, “[The Rise Of Globally Adaptive Organizations](#)” report.
- ² Any momentum gained from flattening the world by dismantling existing barriers is bound to be matched by equivalent drag occasioned by the erection of new barriers that decelerate or reverse globalization. See the December 13, 2006, “[The Rise Of Globally Adaptive Organizations](#)” report.
- ³ For example, a number of companies moved first their manufacturing and then their warehouse and research centers to Ireland to benefit from lower taxes compared with the rest of Europe. But, more recently, other European countries have created several “free” zones to lower unemployment rates. Other criteria then arose, such as the availability of highly trained employees and logistics or utilities infrastructure, energy prices, and the availability of raw material or subcontractors — any of which could hamper the desired outcome.

- ⁴ Capgemini's survey is based on interviews with 301 CIOs at companies and organizations in Europe, North America, and Asia. The Capgemini study noted that poor collaboration between business functions, poor internal capabilities for running and managing the transformation, and a focus on short-term/operational topics are the main barriers to agility. Source: "Global CIO Survey 2007 — IT agility: enabling business freedom," Capgemini, March 13, 2007, (http://www.capgemini.com/resources/thought_leadership/global_cio_survey_2007__it_agility__enabling_business_freedom/).
- ⁵ This is based on the work of Kishore Sengupta from INSEAD and Andrea Masini of the London Business School. Source: "What is IT Agility? Does it affect Organizational Performance? A Conceptualization and Some Empirical Evidence," October 1, 2006, (http://www.london.edu/assets/documents/PDF/2.3.3.7.14Abstract_Whatis_IT_Agility.pdf).
- ⁶ We developed the Total Economic Impact™ (TEI) methodology in 1997 and have been using it to analyze and support IT decisions. The TEI methodology embraces traditional cost analysis and a best-practice approach to minimizing costs and extends it by explicitly incorporating analysis and quantification of both business benefits and flexibility, while tempering these three categories with an analysis of the risk effects. See the September 26, 2003, "[The Foundation Of Sound Technology Investment: The Total Economic Impact™ Methodology](#)" report.

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