Seven reasons to build business applications on BPM technology

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Independent Software Vendors (ISVs) face a myriad of challenged selling in today's marketplace. Few businesses are in a position where they can ignore challenges relating to business efficiency, quality, agility, and flexibility. In the vast majority of cases packaged applications are a much more efficient way to obtain a system to support business change than developing from scratch in-house; however, despite continuing advances in the sophistication of development and middleware platforms, packaged applications can still fall short in facing up to key business challenges faced by customers, particularly those related to agility and flexibility.

Building business applications on BPM technology gives ISVs the potential to deliver much higher value to customers: this report explores seven key benefits that ISVs can obtain by taking this path.

Summary

Demanding business environments create demanding requirements for business software applications

Across industries, competition is ever fiercer, customer expectations are more informed and more stringent, supply chains are more complex and business and technology are becoming ever more tightly intertwined. Few businesses are in a position where they can ignore challenges relating to business efficiency, quality, agility, and flexibility. More and more, businesses are taking strategic perspectives on their operations and tasking teams to look at how they can improve performance not only within isolated functions, but more broadly – to maximise competitiveness and ensure that their customers consistently have high-quality experiences.

'Standard' approaches to creating and implementing applications don't deliver the right results for today's key business challenges

Addressing the challenges associated with these business change and improvement themes requires systems solutions that have three things in common:

1. They need to be good at co-ordinating work across multiple teams and organisational silos.
2. They have to be quick and easy to change in the face of changing environments and requirements.
3. Measurement of performance, success and failure is something that needs to be addressed in the operational environment, rather than 'after the fact' in quarterly or annual reviews.

This is where building applications on a foundation of BPM technology comes in. Good BPM technology helps you build business applications that are ready for change and that support people's work in a much deeper way than "standard" packaged applications – and also helps you deliver bigger transformations for clients that yield measured improvements across entire areas of their businesses.

Seven reasons why a foundation of good BPM technology is a killer differentiator for ISVs

Good BPM technology can provide a foundation for your business that helps you build new propositions in seven ways: demonstrating value transparently; supporting iterative, collaborative change; speeding up user acceptance; managing customisations; supporting a transition to a software-as-a-service (SaaS) delivery model; engaging new buying stakeholders; and supporting continuous improvement in the client's environment.

The value of BPM for your customers

Independent Software Vendors (ISVs) face a myriad of challenged selling in today's marketplace. Across industries, competition is ever fiercer, customer expectations are more informed and more stringent, supply chains are more complex and business and technology are becoming ever more tightly intertwined. Few businesses are in a position where they can ignore challenges relating to business efficiency, quality, agility, and flexibility. More and more, businesses are taking strategic perspectives on their operations and tasking teams to look at how they can improve performance not only within isolated functions, but more broadly – to maximise competitiveness and ensure that their customers consistently have high-quality experiences.

The continuing impact of globalisation, the drive for business transparency and the desire to engage effectively with smart, connected markets are together pushing businesses to engage in change programmes where the same key themes come up time and time again:

- **More efficient and effective interaction with customers**. We're seeing companies continue to push strongly ahead with "customer intimacy" initiatives that aim to put the customer experience at the heart of a whole range of business processes – turning parts of the organisation "inside out" so that their goals are tied to the customer experience rather than internally-inspired performance metrics.

- **More business model flexibility**. Economic pressures are forcing all organisations (those performing well as well as those performing poorly) to refocus their strategies and reconsider where the value proposition for the business really lies, and what this means for the core competencies that should be developed (and the competencies that should be outsourced). When today's leading organisations look to outsource, they're not looking for simple transactional relationships with their providers; they're looking to work at a deeper level to ensure that friction and process inefficiencies are avoided as far as possible.

- **Better governance and regulatory compliance and better visibility of performance and risk**. Governance, performance management and compliance are all tightly related concerns. When it comes to regulatory compliance, the risks in play relate to financial penalties, PR issues, and even potentially executive incarceration. When it comes to corporate governance, the individual governance controls that are the focus of any one initiative may be very different to that of the next company. For example, a government agency may be primarily concerned with managing security risks; whereas a telecoms operator may be primarily concerned with increasing the accuracy of financial information made available to external parties. What's common to all these areas, though, is the notion of enhancing the transparency of business operation, and then enhancing the ways that operational activity can be reported and analysed.

- **Faster and more agile product/service delivery**. Although retrenchment to "focusing on the core business" is a current theme for many organisations, at the same time many are looking to do more things with that core business. That commonly means launching new products, updating products, or finding new ways to differentiate by adding value through innovative service delivery. Refocusing a business model doesn't mean standing still – in bad times, standing still is just an open opportunity to get trampled by competitors as every customer opportunity becomes more competed over. Bringing products and services to market more quickly is something that can only happen with management and operational discipline, however, otherwise costs and risks can easily run out of control.

- **More effective revenue assurance**. Revenue assurance is a business function that's easily overlooked or underexploited when times are good. It's established practice in the telecoms industry, but organisations are looking to become much more effective in how they turn product or service delivery into revenue – particularly as interactions with customers, partners and suppliers become more complicated. Fraud, "freebies" and billing inefficiencies can all contribute to problems that can create "revenue leakage" amounting to 5, 10 or even 15% of overall revenue in extreme cases – particularly in service industries where fees are linked to usage.

Three challenges for traditional applications and why they fall short of today's customer needs

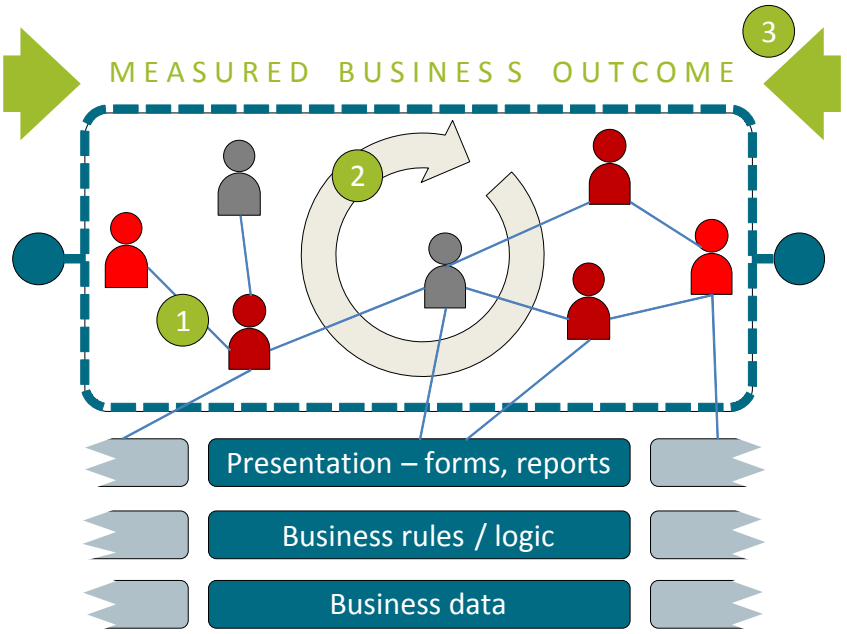
Addressing the challenges associated with these business change and improvement themes requires applications that have three things in common:

1. They need to be good at co-ordinating work across multiple teams and organisational silos.
2. They have to be quick and easy to change in the face of changing environments and requirements.
3. Measurement of performance, success and failure is something that needs to be addressed in the operational environment, rather than 'after the fact' in quarterly or annual reviews.

Until relatively recently, customers embarking on business change initiatives could *model* business processes that captured interactions across teams, and which acted as the basis for a performance measurement framework, at least on paper – and this work would help them shape and refine the requirements of change. But when it came to implementing systems to help support a 'to-be' business environment, there were only two options on the table: purchase a 'packaged' application and customise it if necessary, or implement a custom-built application.

The economic shortcomings of in-house custom development are well understood; but the challenge of delivering a custom application cost-effectively is compounded when the target is a system to help support scenarios with high rates of change, and where there are requirements to co-ordinate work and information sharing across groups of people as well as track and optimise end-to-end work performance.

Figure 1: Three challenges for ISVs and the application-outcome gap



To succeed, today's applications must:

1. *Be good at co-ordinating work across teams and organisational silos.*
2. *Be quick and easy to change in the face of changing environments and requirements.*
3. *Provide performance management capabilities as integrated components of their function.*

Despite continuing advances in the sophistication of development and middleware platforms, today's applications focus on management of business data, business logic and presentation – but fail to go far enough in end-to-end support for the most vexing kinds of business change challenge. To address these, solutions need to (1) be good at co-ordinating work across teams and organisational silos; (2) be quick and easy to change in the face of changing environments and requirements; and (3) provide performance management capabilities as integrated components of their function.

Packaged applications of course provide a way for customers to quickly get access to tried-and-tested industry best practices and cut out many of the time and cost risks of custom development; in the vast majority of cases they're a much more efficient way to obtain a system to support business change than developing from scratch in-house. However, despite continuing advances in the sophistication of development and middleware platforms, packaged applications can still fall short in facing up to the three challenges outlined above: see figure 1. This means that although today's packaged applications can deliver a lot of value in many scenarios, they're not by themselves enough to satisfy many of the key business change scenarios that vex companies today.

Using BPM technology to extend your application

We're often asked about how BPM differs from earlier process improvement methods and tools. One answer is to say that a key differentiator is BPM's central focus on enabling continuous change and improvement. Another and more enlightening answer, though, is that BPM is fundamentally about "improving the process of process improvement". Whereas previous business performance improvement technologies focused primarily on modelling and simulation, BPM uses a set of technologies and practices that enable models to be used not only for documentation, analysis and simulation of 'as-is' and 'to-be' environments, but also as the basis of applications that make 'to-be' environments real.

Crucially, though, BPM technology isn't just about providing a nice vehicle for model-driven development – although that is important, especially in terms of helping deliver applications that can be changed quickly, easily, and repeatedly and with a comparatively low risk profile. Specialised BPM technology:

- **Works from a set of models that are used to specify how work gets done, by whom, in what order**. The models at the heart of specialised BPM technology are executable artefacts – but they're not focused primarily on data management or on low-level business logic; they help ensure consistency and coordination of activity across teams and roles. The best BPM technology works from models that help you do this even in dynamic, event-driven environments where the precise order and assignment of work may need to be adjusted on-the-fly.
- **Uses its core models not only to drive execution, but also as an operational performance management framework**. Integrated monitoring and management tools use the models at the heart of a BPM-enabled application to provide business-meaningful performance metrics that are guaranteed to show an accurate picture of how efficiently and effectively work is being done – as it is being done. In a BPM technology platform performance intelligence isn't something offered daily or weekly through offline aggregation of extracts from operational databases; it's something available whenever it's needed. The best BPM technology provides process performance monitoring and analysis functions that give a near-real time view of the performance of individual process instances, and also gives on-demand access to aggregated historical performance data for more thorough analysis.

Good BPM technology helps you build applications that are ready for change and that support people's work in a much deeper way than "standard" packaged applications. It also helps you deliver bigger transformations for clients that deliver measured improvements across entire areas of their businesses.

Why embedded workflow isn't enough

There are technology choices available which enable ISVs to embed workflow engines in their applications, and some of these are available under open-source licenses – making them attractive. Nevertheless, it's important to realise that embedding a workflow engine by itself is not really enough to address the challenges we've been talking about. To put it succinctly: in the context of figure 1 above, embedding a workflow engine in an application will help with the first challenge; but it won't help at all with the second or third challenge. A workflow engine by itself won't necessarily help you deliver applications which are quick and easy to change in the face of changing environments and requirements; neither will it provide a foundation for business-meaningful performance management.

What to look for in selecting a 'good' BPM platform

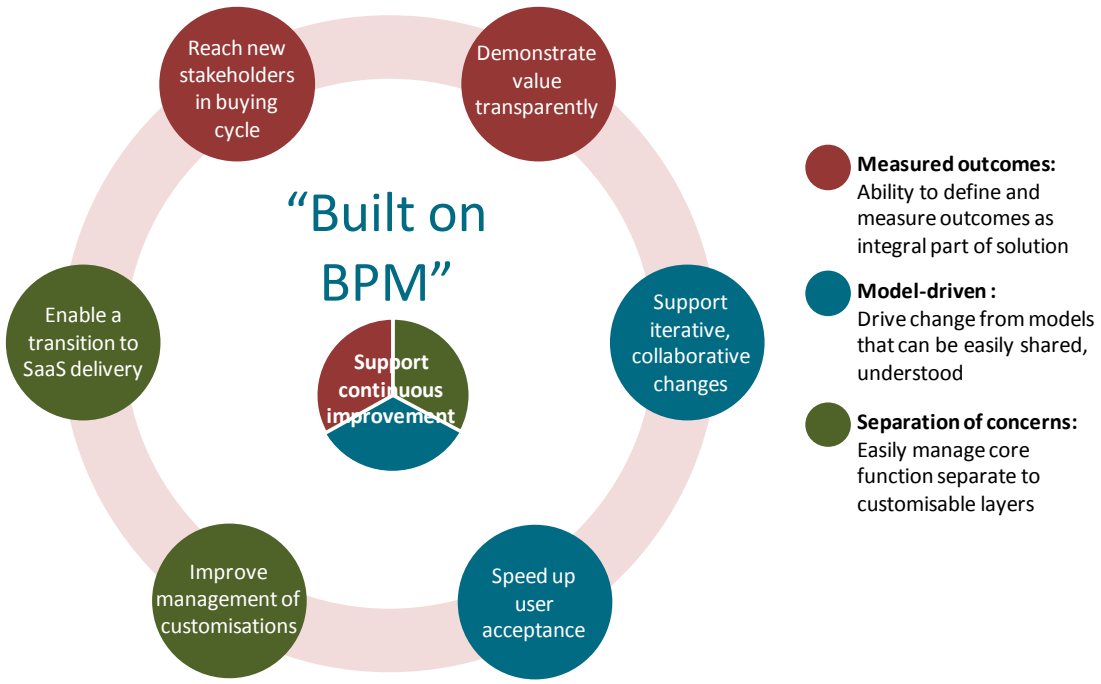
There are three fundamental aspects of good BPM technology platforms that can potentially have an impact across your business – from sales, through customer engagement and value delivery to business model development:

- **Measured outcomes**. Good BPM technology platforms make it possible to define and measure business outcomes as an integral part of any application built on them.
- **Model-driven**. Good BPM technology platforms enable changes to business rules, policies and other logic to be driven from graphical models that can easily be shared and understood by multiple stakeholders.
- **Separation of concerns**. Good BPM technology platforms naturally promote an architectural approach that makes it easy to manage 'core' stable application functionality separately from functionality that can be allocated to one or more other customisable layers.

Seven reasons why a foundation of good BPM technology is a killer differentiator for ISVs

Figure 2 shows seven ways in which building a business software application product or service using BPM technology can help you to extend your current proposition or build new propositions for customers. The sections below look at each of these benefits in turn.

Figure 2: A foundation of appropriate BPM technology can bring seven positive impacts for ISVs



The ability of good BPM technology to deliver measured outcomes, its model-driven nature and the way it creates a strong separation of concerns in applications can provide a wide range of benefits to ISVs' businesses.

1. Demonstrate value transparently

ISV Benefit: Your prospects can more easily see the value of your application, earlier in the sales cycle which can shorten your time to revenue.

Demonstrating value of a business software application is always tough: there's proofs of concept (PoCs), of course, that aim to give an indication of possible future value by demonstrating some element of an application with some degree of customisation or extension to fit a customer's requirement; and of course case studies and benchmarks can have their role to play too – assuming you already have a significant customer base in place that can be benchmarked. However, really demonstrating the impact that an application is having, or can potentially have, on an area of business activity requires a lot of additional effort.

With good BPM technology as a foundation of a business application, a performance management framework is 'baked in' to the application's infrastructure: the ability to monitor how people work with the application in real time, and the ability to roll that data up into coherent views of business process performance trends over time, are provided almost as a side-effect of using the process platform in operation. This means that the impact of implementing your application can be demonstrated in a striking and comparatively immediate way.

What's more, good BPM technology provides easy-to-use, open, customisable dashboards that can aggregate reports and graphs and provide tailored or personalised views of business performance to different stakeholders. These capabilities are valuable both as part of PoC efforts, where they can be used to highlight the potential value of implementing an application; and as part of a live installation, where they can be used to give immediate feedback not only to team leaders and operations managers, but also to project sponsors and other interested parties.

2. Support iterative, collaborative changes

ISV Benefit: Your customers can work more quickly to implement your application, which drives up customer satisfaction.

Implementing application customisations and integration extensions for clients is always fraught with complication. Whoever does the work, delivering the 'last mile' of implementation for a client's particular circumstances can be a costly and risky exercise. The risks are well-documented, and one of the most important critical success factors is the degree to which end users' expectations are balanced with the effort required to implement them: ideally, expectations should be shaped by business value considerations, and at the same time, business value considerations should be shaped by users' expectations (as long as those expectations are tied to real business issues rather than individual preference or priority).

It's well known that the methodology used when carrying out application customisations and extensions has a very significant bearing on risk. Approaches which work from an isolated requirements gathering phase, and which then implement changes 'behind closed doors' before re-engaging with users during another isolated User Acceptance Testing (UAT) phase, can create an illusion of control for the implementation team – while storing up trouble for later. This is particularly the case if requirements-gathering is carried out only before the application is purchased in the first place – the longer the period between requirements gathering and UAT, the more opportunity there is for unmet expectations from the user population.

The way that good BPM technology provides its capabilities primarily through easy-to-understand and easy-to-change models creates a fertile environment for supporting a much more iterative approach to application customisation and extension. If you build your application on BPM technology then with light but appropriate training, iterations can also be driven collaboratively with direct involvement from a range of client representatives – not just software developers. Rather than involving a sample of end users only when gathering requirements and then again in UAT, with the right BPM technology foundation in place you can bring key end users right into the heart of customisation and extension work. Involvement in this work, if properly managed, makes it far more likely that the balance between client expectations and business value considerations will be struck effectively.

Of course there are risks – you have to be sure to educate clients about the importance of governance and change management and internal collaboration between different stakeholders. But this is how clients increasingly want to work: swapping black-box, big-bang implementations for more collaborative, iterative, time-boxed change.

3. Speed up user acceptance

ISV Benefit: Your customers' employees can get more widely involved in implementation more easily, meaning live use of your application is likely to be wider and value to the customer higher.

Good BPM technology's ability to speed up user acceptance comes as a direct result of its ability to support iterative, collaborative change. Bringing a set of end users right into the heart of application implementation work doesn't just give you and your partners the opportunity to better manage some of the risks associated with technical implementation work: it also gives you and your partners the ability to create 'change champions' from within the user community who will advocate use of the new application (and the new ways of working it implies). Simply put: the more you can do in a client environment to help the client 'own the change', the more likely it is that the right people will buy into your application's successful long-term deployment.

The more widespread a user population is going to be, the more important it is to develop a set of change champions who can act as a bridge between an implementation team and the wider user population. These champions help reassure their colleagues about the impact of changes, help educate them and provide support as they start to work in new ways, and can also provide valuable feedback to the rest of the implementation team to help drive further improvement when circumstances change or where unforeseen application functionality or quality gaps appear.

4. Improve management of customisations

ISV Benefit: Clearer separation of customisations from core application code means easier customer support and more predictable upgrades.

Using model-driven capabilities as a foundation environment to bring a wide range of client stakeholders into the work of customising and extending can have its benefits, but it also has its dangers. As referenced briefly above, without the right approach and the right skills chaos can ensue as untrained people are let loose on models that are core to the operation of the application.

Good BPM technology can help here too, though, in two ways. The first way it can help is by providing the ability to use process models and other linked models that enable clear encapsulation of your core application functionality and its separation from layers of client customisation and extension. The second way it can help is by providing mature change management facilities that are seamlessly integrated into the toolset and at the level of models (rather than the level of code). This is an area of functionality that – surprisingly, given the value proposition of BPM technology – is lacking in many BPM technology offerings. The best platforms make it possible to restrict publication of changes to models to particular users and roles, and can also be extended to enable model and other application changes to be reviewed and 'signed off' via specialised workflows built using the tools themselves.

5. Enable a transition to SaaS-based delivery

ISV Benefit: You can give customers the option of SaaS-based delivery for your application, which can help shorten sales cycles as well as delivering you a new line of business.

By helping to create a product architecture that clearly separates clients' customisations from core application/service functionality, as outlined above, good BPM technology can provide a foundation to enable you to transition into a software-as-a-service (SaaS) delivery model.

Beyond helping to separate client customisations from core application behaviour, good BPM technology can help any vendor looking to build a SaaS delivery line of business in three ways:

- It provides web-based user interfaces for process participants, managers and administrators that are customisable and personalisable.
- It provides a web-based performance management framework and dashboarding as an integral component, making it possible to communicate business-focused service metrics alongside technical SLA elements.
- The BPM platform can be used not only to provide application functionality to clients, but also to provide a foundation for the service delivery infrastructure that any SaaS provider needs for commercial online service provision – including applications for service fulfilment, assurance, billing and other operational support. With a BPM platform in place you have the ability to more easily mix in-house support systems functionality with third-party elements.

6. Reach new stakeholders in the buying cycle

ISV Benefit: You can deepen your relationships with customers to learn more about their concerns, capabilities and priorities – as well as spotting opportunities for cross-selling and up-selling.

If we quickly recap the industry overview at the start of this report, we can see that delivering value to clients in the current environment ideally means obtaining support from a range of stakeholders, quite possibly extending far beyond the role of the main buyer of your application within a client organisation.

Building your application on the right BPM technology enables you to tell your story in a different way, to a range of different stakeholders in a client organisation. Because the concept of 'process' is surfaced so starkly when you use the right BPM technology, you can help stakeholders realise the broader operational implications of addressing a particular business problem and start new kinds of conversations that focus not on point features and functions, but on the ability of the client's organisation to work effectively in response to business conditions. With the right BPM technology foundation in place you can use early engagements with prospective clients to draw clear links between their strategies and their operational activities, and show how applications which are 'process-driven' make those links traceable and enforceable.

7. Support continuous improvement for your customer

ISV Benefit: You can educate customers about how to deliver business improvements using your technology that will help to ensure high-levels of acceptance – and ultimately repeat business.

The three fundamental design tenets underpinning good BPM technology – the ability to provide measureable outcomes through an integrated performance management framework, the model-driven nature of application specification and change, and the ability to create a strong separation of concerns in applications through those models – come together in helping an application built on a BPM platform support continuous improvement in key business areas for clients.

First, continuous improvement driven by technology requires visibility of performance and underlying cause-and-effect relationships. It's not only complicated and expensive to create visibility of business outcomes with a 'traditional' approach to software application development and delivery; furthermore, insight into cause and effect of business change supported by the application in question is often poor because the tools available can only show results of work after the fact, in aggregate (such as, for example, the difference between customer order throughput before and after implementation of a sales automation system). With good BPM technology as a foundation of a business application, the operational performance insight gained by using the BPM platform will use the models as context; with good BPM technology, you get to see business outcomes (good and bad) superimposed onto the models of work and tasks and you get to see them change over time.

Second, continuous improvement requires low barriers to change. Good BPM technology helps make it easy to deliver improvements in a managed, low-risk way. Specifically, the way that good BPM technology uses models to structure application logic and drive behaviour creates a clear separation between different kinds of design artefact that affect processing – creating strong distinctions between logic specified not only in process models, but also information models, organisational models (which define user roles, permissions, relationships, attributes which can influence task assignment and so on), business rules, integration logic, and user interface definitions. This strong separation of concerns that you get with good BPM technology makes it possible to deliver changes in a very predictable, well-managed way – minimising unintended consequences of change and reducing the incidence of problems associated with introducing application changes into the customer's environment.

Hotspots for BPM-enabled applications

The value of building applications on good BPM technology platforms has very wide applicability. Fundamentally, there are four signifiers of whether a particular scenario or broader industry environment is likely to have a good fit with a BPM technology foundation:

- A strong **service differentiation** focus. Where a given scenario or industry environment has a strong focus on delivering value through a focus on service excellence, the way that good BPM technology delivers a built-in, business-meaningful performance management framework – combined with a model-driven specification environment that makes it easy for client teams to diagnose performance bottlenecks and work together to make improvements – plays very strongly.

- A strong need for **performance transparency**. Where a given scenario or industry environment depends on the effective measurement of work, product or service performance and the sharing of that measurement with stakeholders, the way that good BPM technology delivers business-meaningful performance management capabilities makes it very valuable.

- A **dynamic regulation** or **policy** environment. Where a given scenario or industry environment operates in the context of changing external regulation or internal policy priorities and mandates, the way that good BPM technology creates a clear separation between business rules and policies, specifications of workflows, work management patterns (who is allowed to do what work) and other application elements makes it possible to keep business-critical applications in line in changing environments and minimise risks.

- A need to **coordinate** work and information across or between **organisations**. Where a given scenario or industry environment has deep requirements to make sure that activities are coordinated effectively between teams, groups, divisions – or perhaps even between companies or agencies – good BPM technology's value stands out again. Here, it's the ability to work with workflow specifications that are model-driven and very easy to change, and the ability to monitor and manage work performance in the context of those models, that drives the value.

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Why More ISVs Choose Progress Savvion to Build BPM-enabled applications

Customers are driving their application providers to respond quickly to changes in their markets and in their business. In order to meet these ever increasing demands Independent Software Vendors (ISVs) are looking for ways to make their solutions more flexible, without sacrificing previous investments in building their application.

To succeed in the future, business applications will need to be developed using a Business Process Management (BPM) platform. These applications which we refer to as Business Process Applications have considerable advantages over traditional applications, providing users with agility and visibility into their business operations. By using a BPM platform, ISVs can customize their applications more easily than they can modify traditional applications, and develop new applications faster and with less cost.

Progress® Savvion BPMS is an industry-leading Business Process Management Suite (BPMS) that allows ISVs to rapidly transform their existing applications into Business Process Applications. Companies that use Progress Savvion BPMS to build business process applications have achieved the following benefits:

- Increased competitiveness and higher business value – Applications that are BPM-enabled with Progress Savvion have the flexibility to respond more quickly to competitive requirements. These dynamic business applications allow ISVs to capture new market opportunities more quickly and easily than their competition.
- Reduced cost of development of business process applications compared to traditional applications because the business processes are modeled, not coded. In fact, with Progress Savvion users are able to define their business processes, even if they are complex and sophisticated, in hours or days, not months.
- Simplified customization of applications for different customers because most customizations are changes to business processes, which again are modeled not coded.
- Lowered total cost of ownership (TCO) and reduced Time-to-market (TTM) – Customizations of applications are achieved by simply modifying the business processes. This translates to lower costs and faster delivery times.

Progress Savvion BPMS is a key component of the Progress® Responsive Process Management (RPM) suite. RPM brings unprecedented control and visibility into business operations. Using RPM gives companies the power to immediately sense and respond to threats or opportunities and stay ahead of the competition with continuous business process improvement.

Many Progress Software ISV partners are taking advantage of the features in Progress Savvion BPMS. Our vision has always been about simplifying the creation of the world's best business applications. With Progress Savvion BPMS you can now more easily develop dynamic business process applications and stay a step ahead of your competition. For more information visit www.progress.com/savvion.