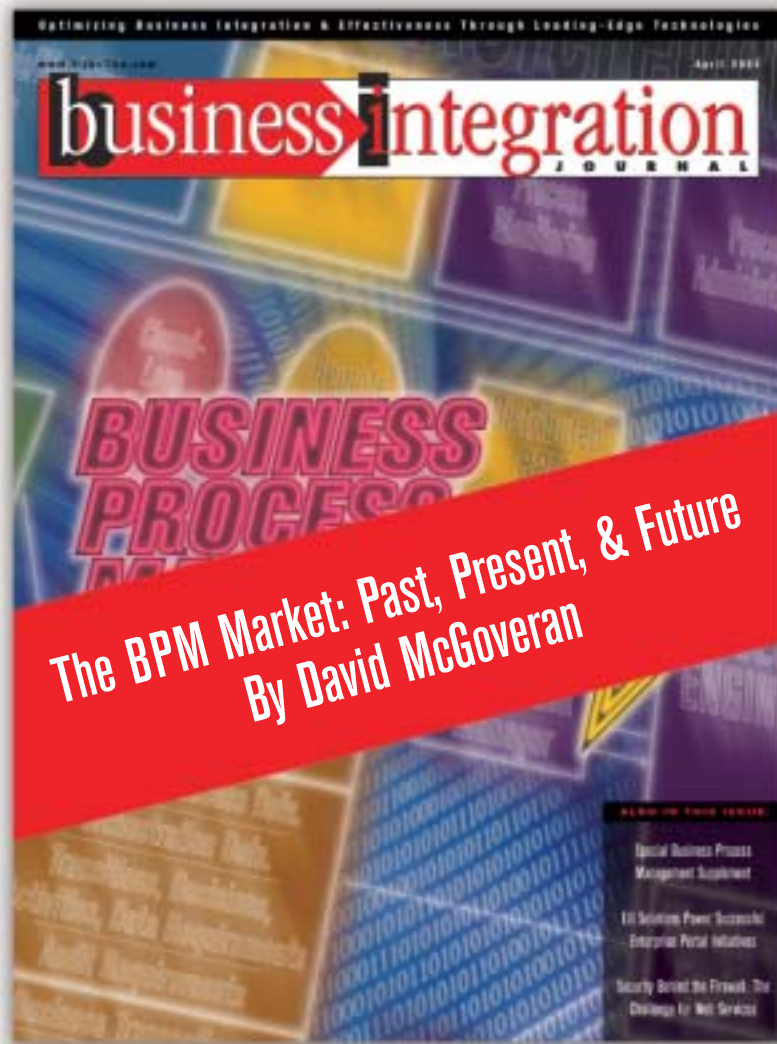


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The business process management (BPM) market has tendrils that stretch decades into the past with process manufacturing and control systems, workflow management, application integration, business process re-engineering (BPR), and so on. However, it didn't become a widely recognized acronym until the late 1990s. As Michael Hammer, the father of BPR, points out, "... the term [BPM] had no meaning in the past." As a technology, BPM generally referred to business process modeling, although a few used BPM as an undefined extension of business process re-engineering.

With the advent of sophisticated process engines and EAI infrastructure in the late 1990s, the concepts of managing the entire life cycle of a business process through technology and of managing a business in terms of its business processes finally became viable. By all accounts, industry analysts began tracking what we know today as the BPM market (BPM products and services) around 2000. Predecessor categories to BPM, including business process re-engineering, workflow management, and document management, were tracked previously from the early 1990s. During the last five years, BPM has matured both as a market and as a category of products and services.

The BPM Market:

Analyst definitions of BPM technology are now in reasonably close agreement, but their definitions of what should be included in sizing the market vary tremendously. For example, when evaluating the market contribution of EAI vendors with a BPM offering, some analysts include revenues generated from integration services. How much of this revenue is accrued to the BPM market depends on how encompassing you consider BPM to be, and whether it's distinct from EAI, business process integration, and the like.

From the pure EAI perspective, BPM is a class of middleware used to accomplish business process automation and business process integration, and so is indistinct from EAI. When one considers the fact that Web services are playing an ever increasing role in integration, and that Web services orchestration can be understood as a particular approach to process-centric integration, one is faced with the question as to whether EAI encompasses BPM, BPM encompasses EAI, or is it completely distinct. Similar problems arise with respect to the markets for CRM, supply chain management, compliance management, business process outsourcing, and document management. All these are highly responsive application areas for BPM, so much so that BPM may subsume them in the same sense that the enterprise software market subsumes ERP. If these relationships are taken seriously, the BPM market opportunity going forward is in the high tens or even low hundreds of billions in U.S. dollars.

Past, Present, & Future

Some analysts perceive BPM as having little to do with application integration except for a strong synergy. BPM enables focused, business-driven application integration and an integration infrastructure enables BPM. Other analysts focus on the fact that a business process management system (BPMS) can be understood as a natural, though perhaps significant and even disruptive, evolution of workflow management systems (WfMSes). Still others view BPM as a revitalization of the business process re-engineering and process change markets enabled by e-business and the growth of EAI (and especially process-centric integration) technology and standards.

The important message is that BPM consumers must understand BPM market assessments and forecast in the context of the analyst's perspective. Regardless, it's almost universally agreed that the BPM market opportunity is very high, that its compound annual growth rate (unrestrained by a bad economy) is among the highest for any software category, and that the potential ROI and rate of return has few peers. In 2000, most estimates of the BPM market were in the tens or perhaps low hundreds of millions in U.S. dollars. By some analyst forecasts, the BPM market will be between \$4 and \$6 billion U.S. dollars in 2005.

By David McGoveran

To take the pulse of the current BPM market, *Business Integration Journal* invited key industry analysts to answer a few questions. *Business Integration Journal* is grateful to Jim Sinur of Gartner, Ian Charlesworth of Butler Group, Nathaniel Palmer of the Delphi Group, Hollis Bischoff of META Group, and Ken Vollmer of Forrester, for participating. Their interviews are summarized here. >

Gartner on the BPM Market

Jim Sinur
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Gartner has been tracking the workflow market since the mid-90s, and changed the practice to BPM in 2000. They define BPM as the management of business processes, end-to-end, regardless of what's included. The technology enables end-to-end processing of business events, including managing the necessary resources.

Gartner divides the market into visual/administrative BPM, collaborative BPM, application-specific or preconfigured BPM, integration-focused BPM, and pure-play BPM. So far, Gartner has focused on tracking the pure-play and integration-focused BPM vendors, defining pure-play as vendors of technology that links processes together.

Sinur says that the pure-play BPM market (of which there are about 95 vendors) was about \$455 million for new license revenues and the overall pure-play BPM market was about \$1.2 billion. While Gartner hasn't released numbers for 2003 (the report is due in May), Sinur expects these numbers to have grown by about 20 percent. For 2006, they are forecasting \$3 billion for tools and \$6 billion for solution providers around those tools. Compliance issues are among the primary drivers of the market.

The return on relationship (ROR) from BPM projects for the next five years is estimated conservatively at 10 to 15 percent on average. However, says Sinur, the ROR for projects that go after the "low-hanging fruit" with obvious cost-cutting benefits is closer to 20 to 30 percent. Examples of processes that fit in this category include mortgage underwriting, pharmaceutical drug certification, customer service, and CRM functions. Informally or manually managed business processes tend to develop as much as 50 percent exception processing as process entropy (a.k.a. process decay) kicks in. Gaining control over exception processing is an obvious problem to attack with BPM.

So far, Gartner thinks that about 40 percent of the current market has been penetrated, but the opportunity going forward is enormous. There are about 110 vendors total in BPM and all are making money, so it's pretty clear that the market hasn't reached 100 percent penetration. There's been some consolidation, but not nearly as much as was expected during 2002 to 2003.

The early adopters of BPM were big: insurance, banks, healthcare (due to HIPAA), and government. Medium-size companies (revenues in the hundreds of

millions of dollars) are now adopting, which is pulling some additional players into the market, with some indications that even smaller firms are starting to take notice. The verticals seeing the greatest benefit, in order, are insurance, government, healthcare, discrete manufacturing, and telecommunications. The big surprise, says Sinur, is retail.

Gartner predicts that the BPM market will see increased selling of business process templates. There will be three main types of templates: vertical process, horizontal process, and compliance templates. BPM is at the heart of the buy-vs.-build argument because it offers a solution that's a huge blending of the two: where maybe 50 percent of

Gartner offers two services that pertain to BPM, their integration service and the application development service.

functionality of an application is BPM. Sinur also predicts that the markets he calls "the Killer B's" (BPM, business rules, BAM, and business process analysis) are converging.

Sinur says that workflow "failed" the first time around because it was highly departmental, had no design support, no methodology, and weak performance. Although BPM has begun to address the other issues, he sees its biggest hurdle is the lack of a publicly accepted methodology. The difficult part of BPM is the link to integration. Sinur believes integration is moving toward a commodity market, so that pure-play BPM vendors must have an integration partner.

Gartner offers two services that pertain to BPM, their integration service and the application development service. They also address BPM out of vertical services. In addition, they offer market watch and consulting services for BPM. Both BPM pure-play and EAI vendors rate a "magic quadrant" study comparing the top 50 vendors in each segment. Several Gartner Reports on BPM are available, including "Drivers for BPM: 11 Money-Related Reasons to Start," published Feb. 25, 2004. [bji](#)

Butler Group on the BPM Market

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Butler Group's first report on the BPM market was published in March 2002. They define BPM as concerning "the software and tools required to model and execute an organization's business processes, through the orchestration and integration of the necessary people, systems, applications, and application components." That market includes the process modeling environment, development environment, process testing and simulation, process engine, rules engine, process management suite, administration tools, repository, integration layer, and presentation layer.

According to Charlesworth, BPM technology was "first generation" from 2000 until 2002 and is now in its second generation and growing rapidly, though still in the early adopter phase of the category life cycle. Initially, EAI vendors drove the market, enabling rapid adoption of BPM and letting business users see IT assets as business process-related. BPM can be understood from the business process model and management view by business users and simultaneously enable IT users to understand the real assets that implement process activities as services. This is the first time such a strong synergy and mapping between IT and business has existed. With early successes, the danger is now that vendors will oversell BPM. He advises a focus on vertical solutions so that both investments can be controlled and benefits measured. Ian expects BPM to move to market adoption within two to three years and to reach maturity in four to five years.

Butler Group says that global organizations with complex processes are the primary adopters, with manufacturing, telecommunications, and financial services seeing the greatest benefit. He cautions that, against a backdrop of dramatic, attention-grabbing vendor claims relating to potential ROI and benefits, BPM needs to be critically challenged in terms of discovering exactly how and where it will add value to the business. Solutions need to be focused on business problems (compliance, distributed order management, etc.) if positive ROI is to be realized.

As Web services and service-oriented architecture (SOA) take hold, the task of application integration will be drastically simplified. This will create a level integration playing field, which will ensure that BPM offerings truly compete at a business level. In broad terms, we're talking about creating

points of integration between BPM and related technologies, specifically business intelligence (BI), corporate performance management (CPM), and more importantly, workgroup and enterprise collaboration.

The greatest barrier to BPM adoption is seeing BPM "... as purely a technology solution. BPM needs to be seen as a mover of power from IT to business units and so it's important to look at the organization's strategy first. BPM users should identify business problems, and only then try to discover the IT source or solution. The technical solution is incidental. BPM encourages this approach."

Vendors were selling BPM as an IT solution with a business management

**In successfully adopting
BPM, significant change
management is required;
this consumes 75
percent of the effort.**

facility on top, but are now understanding that the business drivers are first. They're still feeling out business issues surrounding BPM adoption and organizational change; business consultants and systems integrators (SIs) will now come and deal with this.

In successfully adopting BPM, significant change management is required; this consumes 75 percent of the effort. Because processes are intertwined, businesses need to understand process change implications, purpose, and value. Making changes is complex and requires both short-term and long-term impact analysis. The technology comes in for only the last 25 percent.

Butler Group's Ian Charlesworth is one of the principal authors of *Business Process Management—A Guide to Navigating the Process Minefield*, published in February 2004. They also publish the *Butler Group Technology Evaluation and Comparison Report*, and provide research and analyst consulting services. **bij**

Delphi Group on the BPM Market

Nathaniel Palmer

Delphi Group

www.delphigroup.com/bpm



Delphi Group published its first BPM report in 2001. They define a BPM system "... by the components of an execution engine, process designer, process definitions, an activity monitor, and user interface." A BPM system must include process extraction, definition, and execution; be transparent with respect to human vs. automated tasks, provide an identifiable and independent process definition (not merely an application generated from a process definition), separate integration logic from process execution logic, provide introspection of the integration layer so that the interface isn't hard-wired or use purely manual data structure mapping.

Delphi characterizes the BPM market based on the results of a survey. Their 2003 survey respondents spent \$550 million on BPM projects, of which 26 percent was software and 39 percent was integration services. The BPM software-only market was estimated at \$500 million, suggesting that the overall market was something less than \$1.5 billion. The market is expected to grow at 15 to 30 percent annually over the next three years.

Initial projects tend to be implemented with considerable help from external services, but the trend is to bring this expertise in-house. Almost 90 percent of survey respondents cited BPM projects as having a positive return or at least netting out expenses. Case studies report ROI in as little as the first four months after deployment.

The market has a long way to go. It has been strong through the present by applying BPM to the "low-hanging fruit": — namely, those situations in which an obvious process improvement could be obtained through BPM. The "leap of faith investments" are over and the market is moving to solution selling. Still, Palmer states that less than 5 percent of the market opportunity has been addressed.

Businesses that can benefit from current BPM technology must be of significant size. There's more adoption among midsize businesses than elsewhere. Adoption isn't being driven by IT, but usually by a group with a business transformation charter such as an e-business group. Telecommunications, finance, and insurance are seeing the greatest benefits. BPM technology is driving (i.e., enabling) business change rather than the other way around.

Palmer predicts that BPM will see heavy use in business process outsourcing (BPO), not just for cost-cutting, but to handle capacity variability. BPM will enable business knowledge capture and

transfer, so that education about a specific task can be rolled up and delivered to a generalist for execution. It will be used increasingly to help bring new personnel and new business units online quickly. The trend is toward frameworks on platforms, most of which are Java 2 Enterprise Edition (J2EE).

In 2004, modeling facilities will improve. Federated and cross-process security support will come. BPM will begin to leverage presence technologies (e.g., instant messaging) for more robust, adaptable task assignment by delivering the task to the human resource. This will eliminate the need for a person assigned a dedicated role to attend to a worklist manager.

BPM technology is unique in that it

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must not be separated from business issues. It's difficult for businesses to learn to think in terms of process; this can take nine to 12 months or longer. The biggest barrier to adoption is for the business to become adept at process discovery and capture. Rapid improvements in products can be expected in support of these difficult tasks.

Delphi Group published the BPM 2003 *Milestone Report*, and the first report of several expected in 2004 will appear in May. The firm provides several BPM-related client services, including executive workshops, process redesign, a framework for market analysis, and how to write requests for proposals. **bij**

META Group on the BPM Market

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META Group started tracking BPM in 2002, but Bischoff states that they had tracked the same market for many years before as workflow. Says Bischoff, "BPM refers to both a concept and technology (just like CRM). The concept provides for establishing goals, strategies and objectives for improving particular operational processes having significant impact on corporate performance. BPM technology automates and manages business processes by tracking and coordinating the flow of work and information across all human and system interactions. Some BPM vendors offer analytics and simulation tools to get to the most optimized process."

size adopting BPM as an enterprisewide standard for all processes. Those with the most significant manual processes (e.g., financial services and healthcare) are seeing the greatest benefit.

Bischoff predicts that applications, EAI, Web Services, collaboration and BPM will come together as a set of tools that can create, manage, and measure collaborative applications or services. She emphasized that the greatest barrier to BPM adoption was "... cultural acceptance of standardized processes across humans, [and] the acknowledgement that a single individual or department should be sub-optimized in order to optimize the entire process or enterprise." People have to be taught the value of giv-

Bischoff believes that the current state of BPM

technology primarily addresses manual processes (a.k.a.

workflow), with simultaneous support for the

combination of manual and automatic activities by any

process engine on the market as being too difficult.

They define the BPM market as including only those vendors offering process modeling, process orchestration engine, integration server, process monitoring and analysis, and process simulation and optimization in their technology. META Group declined to size the market or state a typical ROI or ROR. However, Bischoff did say that BPM vendors so far have penetrated less than 10 percent of the market, which "has great growth potential."

According to META Group, most organizations of any size are adopting BPM for a single process or departmental effort. There are few organizations of any

ing up some control over their work habits and of performing business functions in a repetitive manner.

She believes that the current state of BPM technology primarily addresses manual processes (a.k.a. workflow), with simultaneous support for the combination of manual and automatic activities by any process engine on the market as being too difficult. In META Group's view, BPM is just the latest step in the evolution of workflow and is nothing new.

META Group offers a BPM research service, as well as consulting. An important product coming later this year is a BPM METASpectrum. **bij**

Forrester Research on the BPM Market

Ken Vollmer

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Forrester/Giga began tracking BPM about 2000, covering some pure-play and EAI vendors. Vollmer defines BPM as the designing, executing, and optimizing of cross-functional business activities that incorporate people, processes, and functions. Forrester divides the BPM market into several segments of vendors: pure-play, EAI, platform vendors, enterprise applications, and enterprise content management.

Forrester estimates that the market in 2000 was less than \$10 million (U.S.). In 2002, it had risen to about \$50 million. By 2004, it's about \$1 billion in software and services, of which about \$300 million is software. "By 2006, we expect it to double."

similar to electronic data interchange (EDI). The sectors that have seen the greatest benefit so far are banking, insurance and retail, but it's clear that there's a big potential in manufacturing.

Most large organizations will adopt a BPM agenda within the next five years. BPM requires significant organizational realignment as businesses become more process-focused. BPM eliminates functional department boundaries and puts pressure on jobs.

Vollmer says, "... the greatest barrier to BPM is the adoption drag effect." Effective sharing of information among related departments or other entities is highly dependent on the use of common technology and interfaces. Therefore,

Less than 20 percent of companies have adopted

BPM technology and most of these have

revenues of greater than \$1 billion.

The midsize market has barely been touched.

"The worst mistake you can make is to pick a good BPMS and then waste the investment on something easy, something low risk and therefore with no payback," warns Vollmer. Most organizations will have about a one-year payback period on their first project, due to the steep learning curve. By the second project, return is realized in 60 to 90 days, and continues to go down with subsequent projects.

Less than 20 percent of companies have adopted BPM technology and most of these have revenues of greater than \$1 billion. The midsize market has barely been touched. Forrester thinks that this market is following a maturation pattern

any adoption of BPM would still find it difficult to deploy across its entire value chain, as it's unlikely that all the participants in an enterprise process would universally adopt this capability.

Forrester offers guidance on and a framework for vendor selection, request for information preparation, and analysis of responses on a client subscription and consulting basis. Online, the company offers interactive Tech Rankings so clients can compare two vendors. This is available now for the pure-play segment. Tech Rankings for EAI vendors of BPM technology will be available later this year. A new *Forrester Wave* report evaluating competitors is in preparation. **bij**