# Business Process Management: What is Really the Point?

## Is This a Chance for Technologists to Make Friends with Business Users?

*By Jacques Halé*

*Business Process Management (BPM) has replaced the moniker Business Process Re-engineering (BPR) that discretely disappeared during the dotcom frenzy. Announcements by major IT providers are indicative of a sustained interest by IT vendors in the modeling of business processes as part of the design of corporate applications. Those responsible for enterprise strategy and infrastructure wish that their IT would be more flexible in meeting their changing needs. However, there is a huge gap between the way to design or redesign business processes and the way IT systems are specified and implemented. Only a handful of suppliers are embracing a systematic approach to business process design that will guarantee a reliable and flexible IT infrastructure.*

*Business Process Management could be an essential component in the drive to achieve 'the Agile Enterprise', 'the Real-Time Enterprise,' or 'eBusiness On Demand' depending upon which IT vendor is speaking. Business processes are now at the same point that manufacturing was in the 1970s, i.e., on the verge of a major breakthrough in terms of efficiency and quality. The core drive for that breakthrough was the eradication of inventories along the supply chain. The difference with manufacturing is that time has emerged as the major challenge for enterprises rather than inventory. The IT industry has a historic opportunity to contribute to turning the generalized Just-in-Time vision into a reality. This is one reason others should follow with keen interest the progress made in financial projects such as Straight Through Processing. Process automation and information processing are two major factors in meeting this challenge. In this Competitive Review, we will examine the issues surrounding BPM and its marketplace, and pull together the bigger picture.*

## Where Is the Vision?

Executives need the flexibility to adapt strategy to the ever-changing circumstances of markets, company dynamics, and regulations. It is a continuing frustration that IT is too often a hindrance to dynamic policies, and senior executives consider that IT is not flexible enough to meet their needs. In addition, the changing reality of the workplace dictates that those in charge of the business processes will have more say than IT managers in IT investment decisions. Thus, we may increasingly see that it is the CFO and not the CTO who has the power over IT implementations.

There is obvious pressure on the IT industry to be in sync with the reality of the organizations in which they operate. Despite this, we believe that most technologists are poorly equipped to face the challenge. BPM has the right ring to it, but at present it is very much for the benefit of technology specialists and does not seriously engage business people in a meaningful manner. BPM fails to address the needs of business executives for a coherent business infrastructure that serves the needs of those designing the processes HR roles, and IT systems implementing it.

This is not new, and during the era of BPR a number of start-up companies came up with tools for capturing, holding, and exploiting business rules around object-oriented technologies. Yet they failed to thrive in large part because they were disconnected from workflow systems more easily understood by technologists. But these tools may now have a second chance with the renewed interest in business processes.

During the last couple of years, IT vendors of integration middleware, workflow, and enterprise applications have started to wear the BPM label proudly, advertising the means to automate quickly the workflow in businesses. IBM's WebSphere Application Server v5 and WebSphere Studio are indicative of a sustained interest by IT vendors in the modeling of business processes as part of the design of corporate applications. Aligning IS and the business and BPM and its interpretation by IT vendors is the common thread with other suppliers such as BEA, SUN, and Microsoft.

## Are Standards a Substitute for Vision?

The response of the IT industry has been rather parochial, mainly concerned with software integration, and wrapped-up in concepts alien to the world of commerce or government. For example, BEA has stated that it sees the future as a convergence of application development and (application) integration. The other major industry initiative is centered on the development of standards for ecommerce where XML is hailed as the universal language that will unify everything in the business world. The Business Process Management Initiative (BPMI) was formed in 2000 in order to define XML-based standards for the management of business processes. The first project the group undertook was BPML (Business Process Modeling Language), an XML schema that provides a standard way to model business processes and is designed to bridge the gap between legacy IT infrastructures and emerging B2B collaboration protocols such as RosettaNet, BizTalk, and ebXML BPSS. We believe that these standards are worthwhile; however, we also believe that despite these efforts, there is no generally adopted business process design methodology that makes sense to executives and business operatives.

## Market Dynamics and the Need for a Methodology

Since so many software products now include embedded workflow engines, BPM is often confused with workflow automation. In our view, there is a hierarchy of concerns in designing and automating business processes. As illustrated in Figure 1, there is a stack with six levels from manual processes to integrated inter-enterprises processes. Traditionally, each level is cumulatively built on the prerequisite levels beneath it. This is a mistake made by enterprises and IT vendors since they try to automate activities and integrate applications that are not already understood and are designed to work 'manually'. A formal process engineering or rework needs to take place first, thus delivering a process that can be automated.

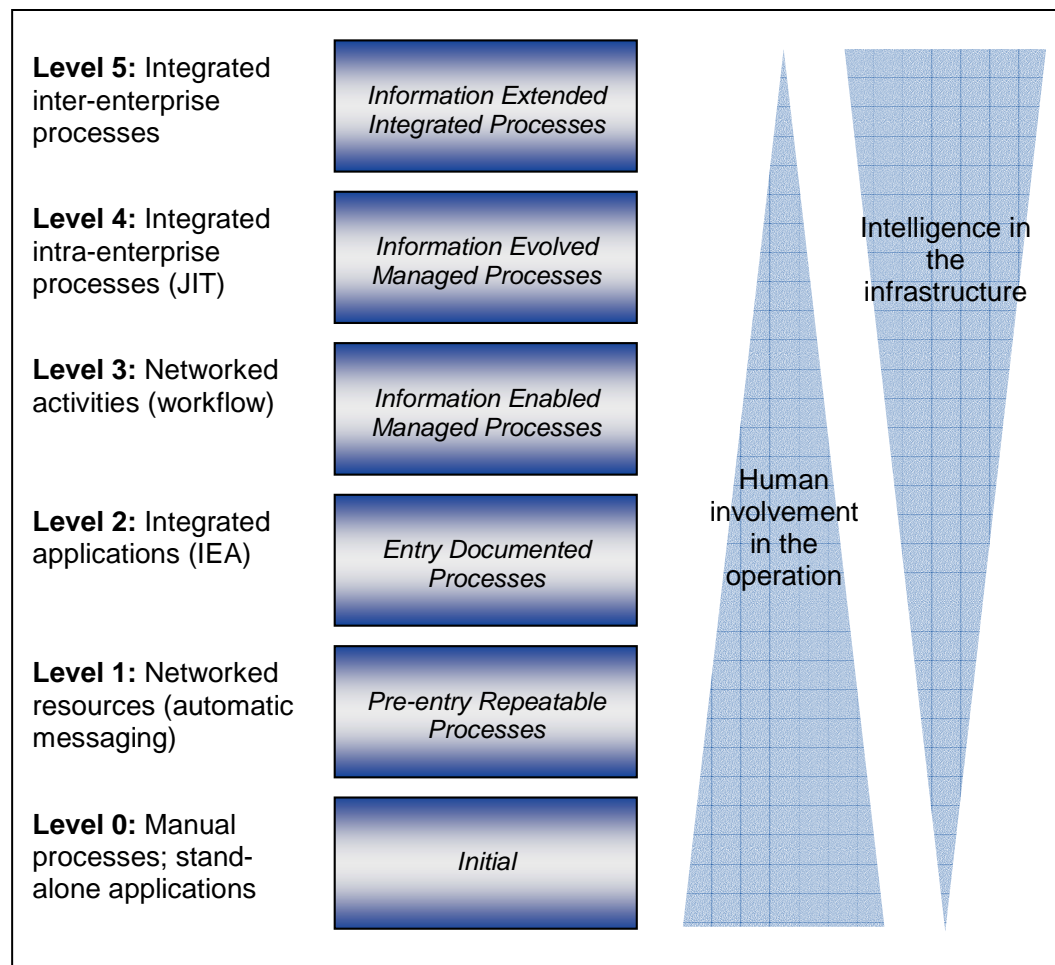| | | | |
|---|---|---|---|
| **Level 5:** Integrated inter-enterprise processes | *Information Extended Integrated Processes* | | |
| **Level 4:** Integrated intra-enterprise processes (JIT) | *Information Evolved Managed Processes* | | Intelligence in the infrastructure |
| **Level 3:** Networked activities (workflow) | *Information Enabled Managed Processes* | | |
| **Level 2:** Integrated applications (IEA) | *Entry Documented Processes* | Human involvement in the operation | |
| **Level 1:** Networked resources (automatic messaging) | *Pre-entry Repeatable Processes* | | |
| **Level 0:** Manual processes; stand-alone applications | *Initial* | | |

Figure 1: The Process Maturity Stack

BPM is focused on Levels 4 and 5 of this model. In a BPM portfolio, one expects to find a business process modeling tool with a repository of business rules and event types, a run-time engine to execute and monitor processes, and a development environment with the means to integrate enterprise applications.

So, processes are more than technology, and yet all the effort is going into defining the technology to support them. The Unified Modeling Language (UML) deployed by the Rational suite of development tools is often promoted as suitable for modeling business processes. However, this is misleading because UML is tuned to software development and in our opinion is not suited to Business Process Modeling by business analysts.

How is a process design methodology different from a software design one? For the design of an application, a team would typically use UML methodology and tools to capture the requirements and would use such approaches as Use Case Diagrams, Sequence Diagrams, and possibly State Diagrams. These representations seek to define what the enterprise is using in its operation and how it is using it, as well as sequences and dependencies involved in its operations. The investigation is often complemented by a flow diagram of the operations. This effort is not directed at capturing the purpose of the process, the roles involved, or the business events. The UML representation tends to introduce details of records, data processing concepts (e.g. data processing methods) as part of the analysis for the benefit of the developers and thus tends to confuse potential users of the software. This carries the risk that potential users will not easily understand the implications of the choices and tradeoffs made at that early stage. For example, exceptions are usually pushed back to a later stage of

the design and are not treated as an integral part of the process whereas they can consume a disproportionate effort of the actual operation.

An alternative approach based on process design or with a system view of the business would enable a more robust specification of the software to be provided. The companies who are adopting this approach often make reference to the Zachman Framework for Enterprise Architecture: Ptech Inc and Framework Software Inc. are two of them (see Table 1). Other methodologies are available, in particular Systems Dynamics, but the Zachman Framework, a holistic approach to the way enterprises work that accounts for people, process, and technology, is the most popular at present.

"BPM is all about change" is the mantra of the Business Process Management Group, a club founded in 1992 that represents over 3,000 companies in the change management marketplace. BPMG currently has over 230 software players on its reference list. The appropriate handling of dynamic business rules for companies with complex and/or regulated business processes and the corresponding software development represented by Business Rule Engines (BRE) is essential in today's competitive environment. Business Activity Monitoring (BAM) is another development that seeks to link processes with business performance indicators. However, these are simply standalone technologies that still require a solid methodology for deployment.

**Responding to the Need**

Table 1 shows a partial inventory of vendors of software relevant to BPM. This is not a comprehensive survey but a representative cross section of the market. We have excluded generalists such as IBM, Microsoft, HP, SUN, and Fujitsu as well as Enterprise Integration Systems suppliers in order to concentrate on pure BPM vendors and those with BPM aspirations.

| Table 1: Sample of Relevant BPM Companies | | | |
|---|---|---|---|
| **Company (alphabetical order)** | **HQ** | **BPM Position** | **Comment** |
| Akazi | Paris, France, (1999) | Modelization, prototyping, and execution of processes. | Emerging company. |
| Bind Systems Ltd | Dublin (2000) | BindStudio automates and orchestrates processes with XML and Web Services standards. | Founded by ex-IONA, SUN and Siemens people. |
| Framework Software Inc | Breckenridge, CO (1993) | Based on the Zachman Framework for Enterprise Architecture. | A documentation and repository of enterprise objects and rules. |
| Fuego | Addison TX (1999) | More for workflow management than process design; generation of XML and support emerging BPM standards. | Visual process designer, orchestration engine. |
| Holosofx | El Segundo, CA (1989) | Modeling, analysis, generation of dynamic process definitions in standard process languages, workflow definitions for IBM MQ WebSphere messaging system. | Acquired by IBM last year as one of the bricks in the WebSphere edifice, interfacing with Rational (now also IBM) Rose for ULM generation. |

| | | | |
|---|---|---|---|
| Infographics | Glenrothes, UK (2001) | FlowSuite for business process management in the .NET framework. | Microsoft market exclusively, close link with Microsoft. |
| IDS Scheer AG | Saarbrücken, Germany (1984) | ARIS product suite for the development, implementation, operation, and evaluation of business processes. | On the Board of BPMI. Alliance with Intalio for a more comprehensive portfolio. Strong presence in Europe (close support of SAP) |
| Intalio | San Mateo CA | Graphic design with XML output. (Support modeling tools from Casewise, IDS Sheer, Mega, Popkin, Proforma and Microsoft.) | Initiated and co-founded BPMI.org. Alliance with IDS Scheer. |
| Mega | Newton, MA (1992) | Design from enterprise environment, to process and databases, based on UML techniques and tools, uses an enterprise repository. | An early actor in the BPR movement; specialized in re-engineering. |
| Popkin Software | New York, NY (1988) | Support for Zachman Framework, structured, generation of components in UML (since 1999). | Graphical enterprise modeling software (system Architect), for analysis design, and simulation. Maintain an encyclopedia of pre-defined models. |
| Ptech | Quincy, Mass | Based around an enterprise repository. Support an Object-Oriented methodology; refer to the Zachman Framework for Enterprise Architecture. | In alliance with IBM. Diluted their original Associative Design Technology methodology. |
| Savvion | Santa Clara CA (1994) | XML integration tools supporting BPM. | Links enterprise applications together. |
| Versata Inc (Was Vision Software until Dec 1999) | Oakland, CA (1995) | Front-end business logic design for the definition of a service-oriented approach that can be executed on Java enterprise servers, from Versata or others. Working towards a full model driven executable architecture. | On the Board of BPMI Process and system modeling, and simulation, works stand-alone in a J2EE environment or with IBM WebSphere and BEA WebLogic. |

As illustrated in Table 1, there are several pure-play BPM vendors in this market space, but only a handful of them are supporting a process design methodology for BPM to bridge the gap between Enterprise Architecture and the IT Infrastructure in a more sophisticated way that could appeal more to business analysts, rather than capturing the workflow of existing activities. These companies include Holosofx, Versata, Ptech, and Framework Software. However, in our view, they are still too often seeing the world from a strictly software point of view. Most IT vendors engaged in BPM are scrambling around the minutiae of technologies for workflow and process automation. and fail to relate automated transactions to the value delivered by the business.

## An Emerging Vision

In our opinion, only Microsoft and IBM to date have seen the big picture.

Microsoft's vision is emerging by trial and error but is beginning to be articulated more convincingly as, for example, in the project code-named "Jupiter" announced in October 2002. The aim of Jupiter is to integrate Visual Studio, .NET, and Office; and to bring together three discrete Microsoft server products — BizTalk Server, Content Management Server and Commerce Server — into one package, in order to connect information, people, and processes. The release schedule is split in two: second half of 2003 and first half of 2004. The objective is clearly to unify to Microsoft technologies, but will it help business analyst to design better processes? It is in the right direction but we doubt that it will deliver the full vision.

IBM has a comprehensive vision, but one that the company has not fully disclosed publicly. This is embodied in the 'on-demand' drive for its WebSphere technology. The message is to provide enterprises with the means to be more responsive to their customers, to integrate better with their partners, and to operate faster, better, and more efficiently. Clearly, this ambition will appeal to those deciding the IT investments. IBM's initiatives can be seen as falling in line with this vision, which is illuminating the strategic role that IBM Business Services (ex-PWC consulting) consulting division, supported by the new on-demand Innovation Services research group, will have in the on-demand initiative.

## What Does It All Mean?

In our view, there is an even bigger ambition emerging from the major vendors' strategies, beyond 'eBusiness On Demand' or 'the Agile Enterprise'. A relevant analogy is what happened to the manufacturing industry in the 1970s and 1980s. The major effort in that period was Quality Management, which was applied initially to reducing waste, tightening-up tolerances, simplifying the processes, managing resources with computers (MRP and MRP II). However, the real break through occurred when the Just-in-Time approach unleashed a revolution lead by the re-engineering of manufacturing processes.

Business processes are now at the same point that manufacturing was in the 1970s: the management of time and the reduction of process time emerge as the major challenge for businesses. One may think that the Internet and the dotcom era were responsible for this obsession with time compression, but in fact there is a more fundamental law at work here: delays in business processes are wasteful and frustrating.

Developing the means to reduce delays is a main reason for redesigning and automating business processes. Although driven by largely regulatory reasons, the financial industry is leading the way with the Straight Through Processing (STP) initiatives. The aim of STP is to reduce the settlement of some financial transactions to one day (T+1) as opposed to four days or more, as is currently the case. This is why the rest of the world should follow with keen interest the progress made in these projects. But this is not a simple task as noted by the Securities and Exchange Commission pushing back the compliance date for T+1 to 2005/06 from the initial target date of 2003.

The conceptual content of BPM is still too often restricted to the automation of the existing work flow and it needs to evolve into a proper business process design method. IT should be repositioned as a capability serving the business processes and not the other way around, and BPM in that spirit should be understood as a methodology as well as a technology.

Hence the full meaning of the 'on-demand' drive pioneered by IBM. The realization that Just-in-Time is not just for manufacturing industries but could enable customers of IT to capture fast-moving market opportunities. This could reposition IT as an enabler to respond with flexibility and speed to any customer demand, market opportunity, or external threat. This is business talk that, if executed as promised, will open the next chapter of IT evolution towards full maturity.