



2010 IFS Advanced Manufacturing Software Trends Study



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Background

As we enter the second decade of the 21st Century, continuous advancements in technology and revolutionary innovations will provide manufacturers with new opportunities to gain strategic advantages over their competitors. These competitive benefits can be realized, for instance, by upgrading business processes, gaining greater control over an extended supply chain, adopting asset management practices and improving customer relations.

Analyst reports and software vendor collateral both explore the above areas at length. But three often-overlooked areas where manufacturers can gain benefit from new technologies include:

1. Developing greater communications internally and with customers and partners through the use of social computing applications.
2. Improving productivity and reducing costs by implementing enterprise software that facilitates "green" business processes.
3. Establishing processes to manage and safeguard intellectual capital as businesses experience workforce attrition due to the aging of the population.

In November, 2009, a study was conducted by a third party research organization among manufacturing executives and professionals to better understand how manufacturers anticipate enterprise software including enterprise resource planning (ERP), enterprise asset management (EAM) and other company-wide software solutions, can help them in these three under-researched areas.

The findings conclude that:

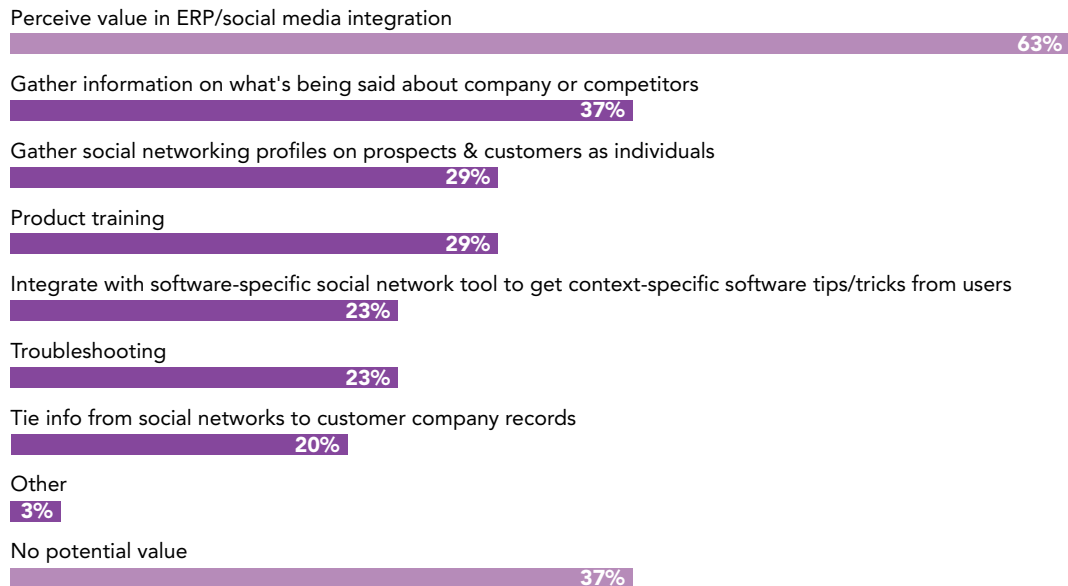
- Businesses are planning to utilize social media applications to keep abreast of their market and communicate with customers, prospects and partners. However, most manufacturers have yet to recognize the benefits of integrating existing social networking applications with their enterprise system.
- Manufacturers are interested in better understanding their impact on the environment, but, most lack the enterprise technology to track and manage their environmental footprints. Roughly one-half employ practices that evaluate materials waste and pollution, and only one out of four currently track their greenhouse gas emissions. Most companies now measuring and managing ecological consequences of their business decisions rely on stand-alone solutions, yet their preference is to eventually have these applications integrated into their ERP platform.
- Workforce attrition, inevitable as the enormous Baby Boom generation heads into retirement, looms as a mounting dilemma for manufacturing executives. The loss of intellectual property is difficult to replace and business solutions that capture and store relevant knowledge are becoming more essential. Enterprise systems are seen by a majority of study participants as a solution for accommodating information repositories for future generations of employees. In effect, while the majority of respondents were less than enthusiastic about integrating ERP with social media sites, their answers to this line of questioning revealed that ERP performs highly desirable functions of some social media applications.



The Integration of Social Media Applications into ERP Systems

Manufacturers are only beginning to explore ways that social media can be used to achieve business objectives. Yet roughly two-thirds (63%) of the executives surveyed see the opportunities and potential benefits by tying social networking applications such as Facebook and LinkedIn with their own enterprise solutions. The intentions in using the social networks as a business tool are to gain a fuller comprehension of the marketplace by understanding how their company is perceived, for researching the behaviors of customers and prospects, and acquiring intelligence on the competition.

Uses for social media applications



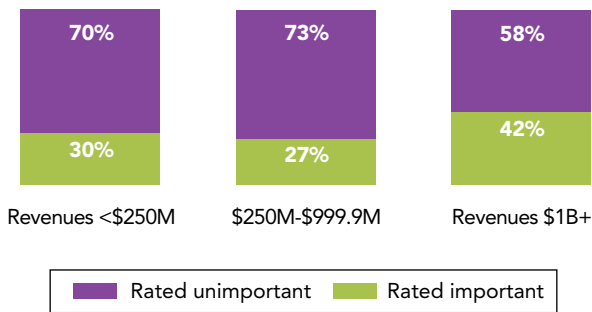
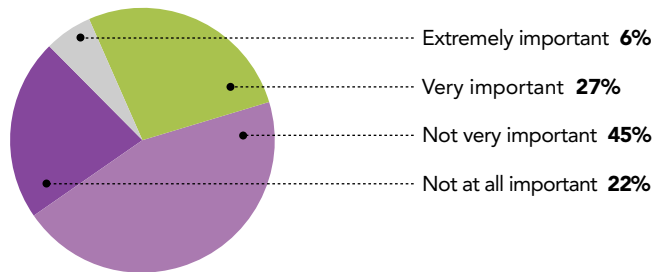
“We would like to be recording customer contact points into transactions via social media — if I twitter a sale to our top twenty prospects, that special price and info is captured for ordering and response rate.”

— Operations Manager, Industrial Machinery; revenues: \$1B+



However, while these executives recognize the potential of social media for business purposes, integrated ERP with social media is not a high priority for most. Only one out of three said that integration of social media tools with ERP systems will impact their selection of ERP solutions. Not surprisingly, larger companies (those reporting more than \$1 billion in revenue) are ahead of the adoption curve, and nearly one-half of these assert that the addition of social media applications will become an important factor in the evaluation of ERP systems.

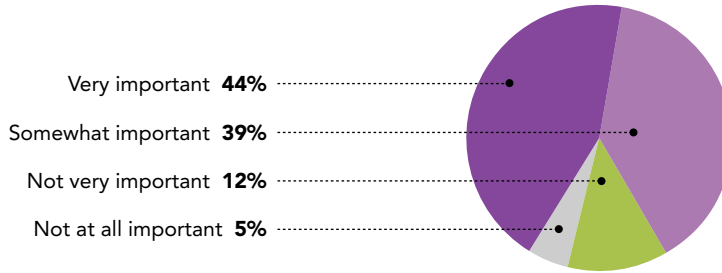
The importance of integrating social media tools with ERP



Environmental Management and Measurement

Manufacturing executives surveyed are placing greater importance on monitoring their company’s impact on the environment. Their requirements extend beyond the need to measure their carbon footprint and discharges to the air, water and landfills; they also need to determine the total impact of their products on the environment during their useful life and during end-of-life disposal or decommissioning.

The importance of measuring their company’s impact on the environment



Yet, while many feel it is important to measure their company’s effect on the environment, the percentage of those actually tracking these metrics falls short. Less than one-half are analyzing waste, pollution or end-of-life product impacts and one-half are gauging product lifecycle status; only one out of four are currently tracking carbon emissions. Among those monitoring these areas, most are employing software that is running independent of their ERP system.

The types of environmental disturbances manufacturers are monitoring

	Carbon footprint	Solid waste	Air and water Pollution	Product lifecycle	Product end-of-life
Currently tracking	27%	48%	47%	50%	44%
Tracking w/ERP	5%	10%	7%	20%	16%
Tracking with other software	22%	38%	40%	30%	28%
Not tracking at present time	73%	52%	53%	50%	56%

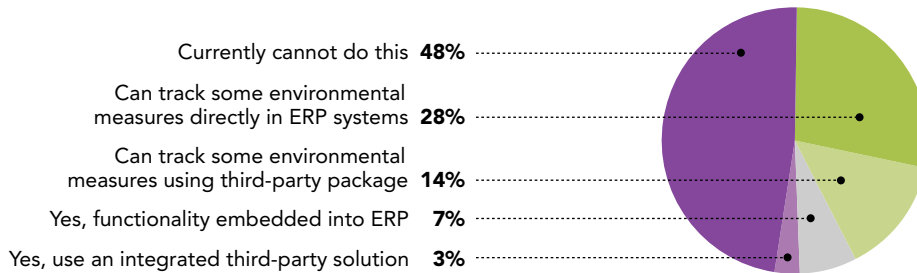
“We are looking for integration into project management and product lifecycle management systems.”

— Engineering Manager, Industrial Machinery, revenues: \$250M - \$999.9M



When asked if their current enterprise software solution contains embedded functionality for tracking their company's impact on the environment, the majority claim their current system either measures *some* areas or does not possess any ecological measurement capabilities. The degree to which those who indicate that they are measuring environmental metrics directly in their ERP may be overstated given that the market footprint of ERP products that offer this functionality is too small in North America to represent a sizable sample in the study. In some cases, these respondents may in fact be running third-party packages integrated with their ERP systems.

Solutions for tracking their company's environmental impact



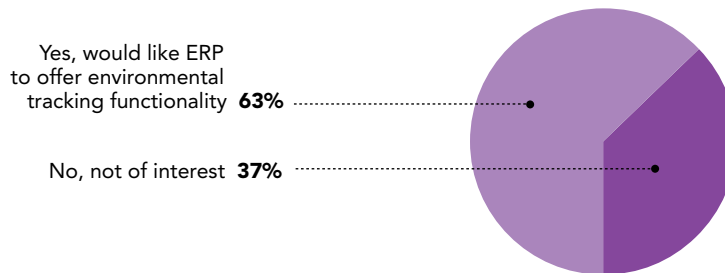
The survey data suggest greater interest in environmental impact measurement and management among large manufacturers, and more of them are, at present, tracking *some* environmental measures through the use of applications running in concert with their current ERP system and is the case among middle-market manufacturing companies. The fact that larger manufacturers report greater capabilities in this area is not surprising given that the largest of companies are often running several ERP systems simultaneously, often integrated with not only with each other but third-party solutions like those used to measure elements of an environmental footprint. Middle-market companies, by comparison, have much more limited IT resources and budgets, and will have a harder time cost-justifying or paying for the initial integration process and the ongoing consulting project associated with maintaining an integration.

Companies tracking some environmental measures but not others in their ERP



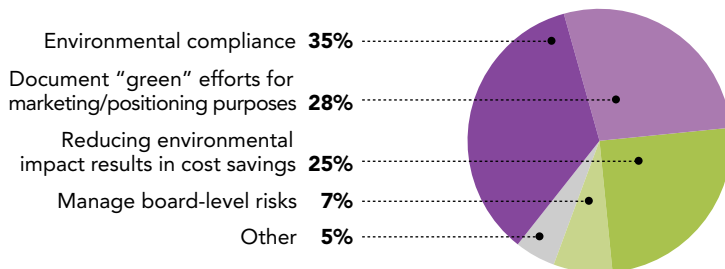
While manufacturers reported varying levels of capacity to measure their environmental footprint using their enterprise software, the majority expressed interest in ERP packages that include the ability to track carbon footprint, solid waste, air and water pollution and product lifecycle impacts as an embedded part of the solution.

Interest in an ERP solution that offers environmental tracking features



The most important benefit sought from an ERP-based application that gauges the effect of a company's ecological footprint is to automate environmental compliance processes. Roughly one out of four also hope to boost their market image as a "green" manufacturer or realize cost savings as a result of reduced waste and increased efficiencies.

Single most important benefit from an ERP solution that offers environmental tracking features

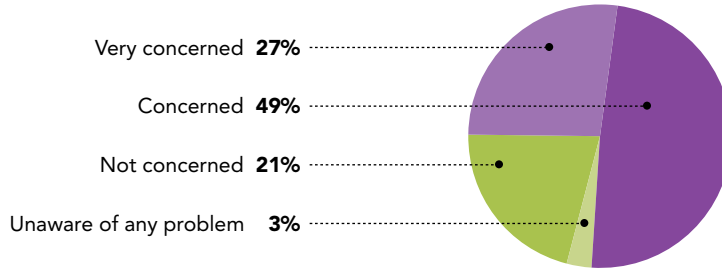




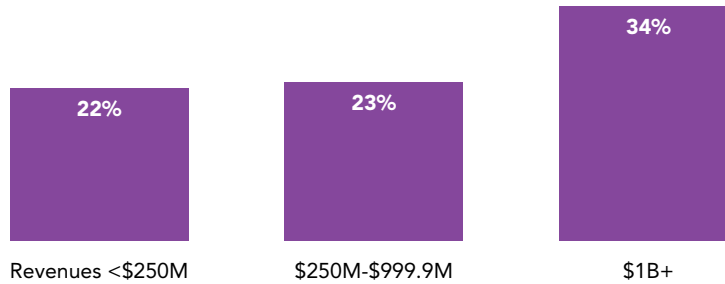
The Aging Workforce

Manufacturing executives in this study expressed strong concerns over the demographic trend of fewer highly skilled, experienced workers in the job market in the near future. Executives at larger manufacturers are more fearful of the implications that a smaller labor pool will present than are their counterparts at middle-market companies.

Level of concern over a shrinking workforce



Companies very concerned about the shrinking workforce





To address this emerging problem, many manufacturers believe enterprise applications may offer a solution to help prevent a loss of intellectual capital that would result from retirement of their own experienced and skilled employees. Two out of three (62%) see ERP technology as a way to accumulate and store knowledge while nearly one half (44%) said they want ERP that is easier and faster for younger, technologically sophisticated employee to learn and use.

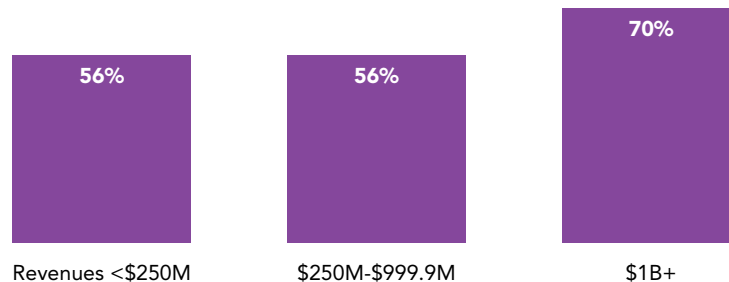
Ways in which enterprise solutions can help cope with the loss of personnel



These results are interesting in that, while questions relating to external social media site integration with ERP revealed marginal interest, executives surveyed apparently want their ERP solution to perform the functions of many social media tools. Moreover, they want ERP that is intuitive and usable for younger people who spend their time outside of work steeped in social media. Social media succeeds by making it easy for people to communicate and share what they know, while recording that exchange of ideas for others to benefit from. Blogs, wikis, threaded discussions and tools like Twitter all create a stream of user-generated ideas and content that is searchable and can serve as a resource for others.

Respondents at larger companies are more likely to recognize the benefits of using ERP to collect and store the tacit knowledge of senior employees than are mid and smaller manufacturers, but a clear majority of executives all company sizes said ERP has a role to play here.

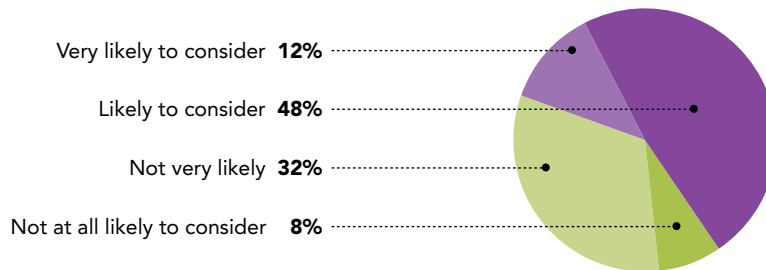
Companies interested in using ERP as a knowledge storage solution





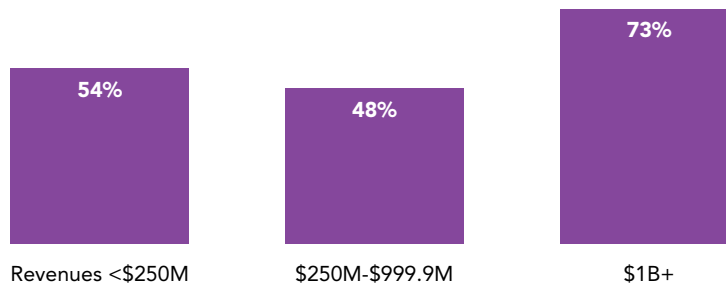
As companies recognize vulnerabilities that will result from the loss of senior employees, interest in ERP solutions that offer help is increasing. Roughly two out of three (60%) contend features to address these concerns will likely drive future ERP investments.

Likelihood of considering ERP features that help with potential loss of experienced employees



Again, executives at larger organizations are more inclined to state interest in future ERP investments that will preserve the knowledge of senior people that leave the workforce than are executives at middle market manufacturers.

Companies very likely/likely to consider ERP features that help with potential loss of experienced employees





Methodology

This research was conducted by **RBInteractive Research Group for IFS North America**, the Americas subsidiary of a provider of enterprise resource planning (ERP), enterprise asset management (EAM) and other enterprise solutions. In February of 2009, IFS became the first major enterprise software vendor to offer an embedded environmental footprint management tool, and wanted to learn more about the appeal that this functionality had in the market. They also are working to evolve their enterprise suite, IFS Applications, in the direction of enterprise 2.0, and wanted to gather input on the perceptions and priorities of companies in their targeted demographic.

The study was executed in November, 2009, and was administered over the Internet among subscribers to several Reed Business trade magazine titles including ***Manufacturing Business Technology (MBT) and Plant Engineering***. Respondents were pre-qualified for being involved in decisions regarding ERP applications and related software solutions for their company. Individuals were further qualified for being employed in companies estimating 2009 revenues at \$100 million or more.

In total, 268 corporate, operations, and IT executives and managers in manufacturing companies were interviewed for this study.

About the Respondents and Their Facilities

Respondents to the study are largely senior IT and manufacturing operations management (21%), operations and plant managers (15%), supply chain executives (10%), corporate executives (6%), procurement executives (5%), design or control engineers (19%), and consultants and systems integrators (11%). A broad range of industries are represented and includes industrial machinery, aerospace, petroleum, wood and paper, chemicals, food and beverage, automotives, metals, computer systems and medical devices, etc. Respondents were classified into three categories based on organizations 2009 projected revenues: companies under \$250 million (32%), businesses reporting revenues between \$250 million and \$999.9 million (30%) and organizations having \$1 billion or more in sales (38%). Any significant differences in the findings based on company size are highlighted in this brief.

About IFS AB.

IFS is a public company (OMX STO: IFS) founded in 1983 that develops, supplies, and implements IFS Applications™, a fully-integrated, component-based extended ERP suite built on SOA technology. The company has more than 2,000 customers in more than 50 countries and focuses on seven main industries: aerospace & defense, utilities & telecom, manufacturing, process industries, automotive, retail & wholesale distribution, and construction contracting & service management. IFS has 2,700 employees and net revenue in 2008 was \$383 million.

Contact Information:

Charles Rathmann

Analyst

IFS North America

262.317.7419

chuck.rathmann@ifsworld.com