

STRATEGIC HR MANAGEMENT  
CASE STUDY-PART A



IBM's Global Talent Management Strategy:  
The Vision of the Globally Integrated Enterprise

*By John W. Boudreau, Ph.D.*

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# Case Study Part A

## INTRODUCTION

In early 2003, Randy MacDonald, the senior vice president of human resources for IBM corporation, was in the midst of a 10-city-in-two-weeks business trip that would take him from IBM's headquarters in Armonk, NY, to several cities in Central and Eastern Europe, Africa, India, China and several spots in Asia. His schedule was a fitting metaphor for IBM's strategic and human capital challenges.

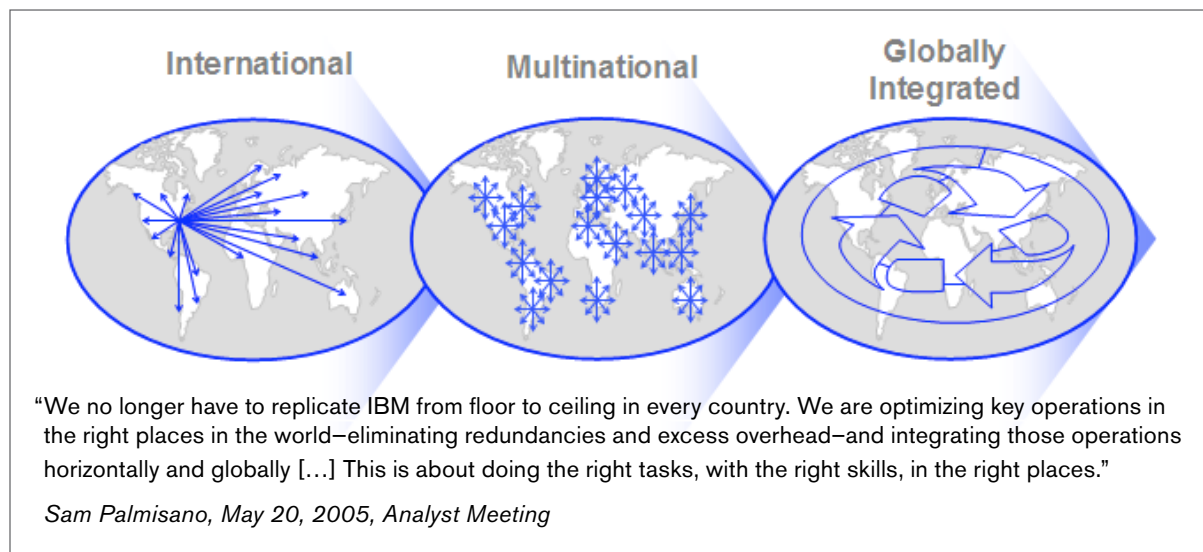
Randy was reviewing his recent meeting with Sam Palmisano, the CEO of IBM. Randy had been the chief HR executive at IBM since 2000, joining when Lou Gerstner was in the middle of his tenure as IBM's CEO. Lou had been an outsider to IBM, arriving at a time of great turmoil, when the corporation was near bankruptcy, and remaking the organization with an eye toward global consulting services. Sam Palmisano was an IBM insider, a 31-year veteran of the venerable company, who had helped bring Gerstner's vision to reality and now was building on that legacy of Gerstner.

In their meeting, Sam and Randy discussed IBM's strategic view of the evolution of global markets, IBM's strategic position as a leader in global transformation and the evolving needs of IBM's clients. These views later led to an article in *Foreign Affairs Magazine* in 2006.<sup>1</sup> In that article, Sam Palmisano described IBM's predictions about the evolution of new organizational forms, where the production of goods and services flowed globally to the places where the greatest benefit could be created at the most efficient cost. It was already apparent that supply chains were becoming much more global and transcending organizational boundaries. IBM's clients were increasingly seeing that same trend in other areas, such as marketing, R&D, sales and engineering. Future organizations (IBM's clients and those that hoped to serve them profitably) would evolve from the traditional "multinational" approach, which "organized production market by market, within the traditional boundaries of the nation-state."<sup>2</sup>

These ideas also recognized that trade and investment flows across national boundaries had liberalized, protectionism was reducing, and technological advances vastly lowered the cost of global communications and business computing, leading to shared business standards throughout much of the world. This changed the idea of what was possible through globalization. As Sam put it in the *Foreign Affairs* article, "Together, new perceptions of the permissible and the possible have deepened the process of corporate globalization by shifting its focus from products to production—from what things companies choose to make to how they choose to make them, from what services they offer to how they choose to deliver them. Simply put, the emerging globally integrated enterprise is a company that fashions its

strategy, its management and its operations in pursuit of a new goal: the integration of production and value delivery worldwide. State borders define less and less the boundaries of corporate thinking or practice.”<sup>3</sup>

Sam coined the phrase “Globally Integrated Enterprise” (GIE) to describe what he had in mind. He foresaw that IBM’s clients would increasingly be moving toward a GIE and that IBM needed to get ahead of that trend. This had implications for every aspect of IBM, including significant implications for IBM’s supply chain, IT systems, strategy, marketing and services development and deployment. Underlying all of these implications were significant challenges for IBM’s human capital and its approach to human resource management.



## HUMAN CAPITAL AND THE GIE

Of course, talent and human capital were becoming increasingly vital to competitive success in all organizations, but they offered an even greater strategic pivot-point for IBM. IBM competed mostly on its ability to deliver unique know-how and practical solutions to clients, rather than a particular hardware or software product. The knowledge, motivation, skill and deployment of IBM’s workforce was even more vital than for many of its competitors. In 2003, IBM had approximately 350,000 employees. IBM employees were highly qualified and motivated, but the existing workforce could simply not provide the global flexibility that would be needed to serve the needs of IBM’s evolving clients.

The customer was saying, “know my business and provide value propositions that are unique to me.” Yet, IBM’s workforce systems and decisions tended to be focused on accurately projecting demand and creating sufficient supply of talent against a multinational model that often operated separately within countries or regions. IBM sales and service experts were highly skilled in IBM products and solutions, but it was their unique knowledge about the client’s industry and global implications that increasingly would become key differentiators.

The key would be to make the most effective tradeoffs between terms and conditions of employment across regions and be able to move talent quickly between them, whether physically or virtually. IBM needed to be able to quickly and accurately find the capabilities of its workforce, wherever those capabilities exist, and deploy them against clients' problems faster and at a lower cost point than the competition.

**In a 2007 paper published by the IBM Institute for Business Value, the authors Eric Lesser, Tim Ringo and Andrea Blumberg cite seven keys to succeed in a globally integrated world of business.<sup>4</sup> They are:**

1. Understanding the demographics and capabilities of the workforce.
2. Predicting future labor supply and demand.
3. Utilizing social networks to increase visibility and application of knowledge across the organization.
4. Enabling individuals to perform work regardless of location.
5. Facilitating collaboration across traditional organizational boundaries.
6. Driving the rapid development of skills and capabilities to meet changing business conditions.
7. Evaluating employee performance and providing appropriate feedback.

Key for any globally integrated organization is the critical capability to move human capital skill and expertise to business opportunity—to put it more simply: to get the right person, with the right skills, at the right time, place and cost.

Randy and his colleagues realized that this would mean a significant change in how IBM defined its workforce, the information systems that employees and leaders used to understand and make decisions about workforce capability, and the way the capabilities of IBM's employees, teams and units connected to client needs and IBM strategy. Some consulting firms had begun to implement systems that used the language of competencies, capabilities or skills to depict the "inventory" of workforce capability and then matched that inventory to the pattern of their clients' needs. Such organizations generally had fewer than 100,000 employees, with fairly focused professional service domains. IBM was considerably larger, operated in multiple product and service sectors and would increasingly need to tap human resources throughout the world. In addition, a realistic idea about the true availability of capabilities would potentially require integrating information on hundreds of thousands of IBM job applicants in many countries and more than 90,000 contractors. The scale of the task was many magnitudes greater than what had been attempted by others. The investment in IT systems would likely be upward

of US\$100 million, and the ongoing investment of IBM's business leaders, HR organization and employees to maintain and use the system would likely be even greater.

Other large organizations had focused their talent management systems on a subset of capabilities, such as leadership competencies, or on subsets of the workforce, such as high-potentials or certain particularly critical job groups. Yet, even in the most advanced organizations, the vast majority of workers were not part of development programs aimed at leaders or a few vital jobs. Indeed, one initiative that GE's new CEO, Jeff Immelt, had pioneered was to focus the power of Crotonville on what was regarded as emerging vital disciplines such as marketing and innovation.<sup>5</sup> IBM seemed to need something that went well beyond even current cutting-edge efforts.

## HISTORY OF IBM<sup>6</sup>

IBM was founded in 1911. Thomas J. Watson joined the company in 1914, and as CEO, he instituted many of the policies for which the company would become famous, including salespeople wearing suits, corporate pride and loyalty, implied lifetime employment and strong values and beliefs, such as the slogan "THINK" to embody a strong and intelligent work ethic. After 40 years of growth and success, Watson Sr. turned the company over to his son, Thomas Watson, Jr. in 1952.

The next era was to see IBM become dominant in one of the most notable growth industries of the century. For example, IBM developed the 360 computer, an innovation at its time because it was based on semiconductor chips and had interchangeable components. It was a significant and revolutionary departure from vacuum tubes that had been used before and rapidly became the dominant design. In addition, IBM innovated in areas such as computer languages (FORTRAN), disk storage and point-of-service machines for banks and supermarkets. Indeed, IBM became so dominant in the industry by the 1960s that the company became the target of a 13-year antitrust action by the U.S. Justice Department, which was unsuccessful.

In the 1980s, IBM successfully introduced the IBM PC, which was an immediate sales hit, exceeding all forecasts. By the mid-1980s, IBM was firmly established as a solid and safe source of business computing solutions. Yet, even as the computer industry was changing with the advent of the PC, IBM's main business was still built around the mainframe computer.

That changed in the 1990s. In 1990, IBM was the second most-profitable global company, posting a net income of US\$6 billion. This promising position in a growing industry changed quickly. In 1991, the company posted earnings of negative US\$2.8 billion, an unthinkable occurrence in a company known for many decades as a source of solid growth and reliable financial performance. Now, IBM was derided by critics as being behind the times, out of touch with its customers and internally focused. Many felt that IBM failed to recognize the move toward client-server computing, the growing importance of the network and the need to interconnect computing elements such as mainframes, midrange and personal

computers. The sale of mainframes declined with these new developments. More nimble competitors, such as Dell and Compaq, seemed to be the ones with innovative approaches to products, pricing and the supply chain, not IBM. IBM's vast network of business units and tens of thousands of hardware and software products became symbols of a bloated and overly complicated organization that had too many layers, too many necessary approvals to make key decisions and an internal data processing organization that was more costly than industry norms. This was a sad commentary for a company whose value proposition was to help others become efficient and focused in their own data systems. Perhaps the most telling symbol of the negative change was IBM's announcement of first-ever forced employee layoffs in 1991 and continuing layoffs in 1992 and 1993.

Lou Gerstner joined IBM as CEO in 1993, with many analysts and others expecting that this computing industry outsider would break up the company and sell off the pieces. However, Gerstner soon asserted that this was not the plan and that the value of IBM rested in its synergies, not in the separate value of the different businesses and units. A period of relentless cost-cutting and the growing chorus from customers that IBM needed to create solutions, not products, ensued. Units such as the PC division were streamlined around fewer products and more focused and effective marketing and product lines. The IT organization cut costs dramatically, reducing the number of CIOs from 128 in 1993 to only one in 1997. By 1994, IBM was again posting solid financial results, with profits of US\$5 billion on revenues of US\$64 billion. IBM was profiting from the growing Internet and business spending to prepare for the year 2000 and beyond.

In 1995, Gerstner announced that "e-business" would be at the heart of IBM's growth strategy, specifically asserting that business-to-business e-commerce would be a core element of how all companies did business. At the time, this was a radical idea, but Gerstner invested heavily in acquisitions designed to position IBM to deliver value across the entire chain of e-commerce connections, including Lotus Development Corporation and Tivoli Systems. Moreover, IBM embraced the role of a connection point, welcoming partnerships with those who were best at particular hardware, software and other elements and adding value as the integrator and solutions provider. Between 1995 and 2000, the service businesses in IBM became the dominant revenue producers and growth engines.

Sam Palmisano had run IBM's integrated global services group from 1996 to 1999. In 2000, Gerstner began the transition toward Palmisano's leadership of IBM by making him president and COO just as the industry went into free-fall with the dot-com bubble burst. In March 2002, Palmisano, a 31-year veteran of IBM, took the reins as CEO. By 2003, IBM was on solid footing and had acquired PWC Consulting from the Price Waterhouse Coopers organization to further support its ability to become "One IBM" worldwide and the global innovator in services that were integrated, available on demand, locally innovative and yet globally synergistic.

## IBM IN 2003

IBM had found that its most promising clients were enterprises. In the late 1990s and early 2000s, enterprise clients were becoming more demanding. Business computing was increasingly a service clients could get through many channels, and it was becoming a commodity. IBM clients were seeing their own businesses change as well and increasingly demand information technology services that understood, anticipated and responded to those specific changes. Clients were saying, “Know my business better, add value to me, and don’t just find ways to show why I should buy your existing products and services. IBM doesn’t give me what I need, as much as try to sell me your stuff. Increasingly, IBM has the wrong offer set, because you are not keeping up with changes in my business.”

Palmisano and the IBM leadership concluded that to be successful, IBM would need to derive as much as 70 percent of its revenues outside the Americas by the year 2009. In 2003, the percentage of revenues from outside the Americas was only about 57 percent, consisting of US\$34.8 million from the United States, US\$3.5 million from other countries in the Americas, US\$29 million from Europe/Middle East/Africa, US\$19 million from Asia Pacific and US\$2.6 million from others.

IBM was not distinctively knowledgeable or unique in hardware or software (like Intel or Microsoft). Rather, IBM differentiated itself on its practical know-how and the ability to deliver its services quickly, effectively and efficiently. That meant that while a client might have operations in one country, the client’s purchasers might be in another country, the IBM programmers might be in another, the IT architects in another, etc. The idea was that while sometimes the workforce delivering the services did need to be in the same country as the client’s operations or purchasing decision makers, in many cases the workforce did not need to be located there. Increasingly, it was becoming apparent that IBM’s competitive advantage would hinge on globally optimizing service delivery rather than on coordinating multiple operations across several nations.

## THE EVIDENCE THAT SOMETHING NEEDED TO CHANGE

Aside from the emergence of the GIE, there were a number of signals within IBM that suggested room for improvement in how the organization measured, tracked, deployed and developed the workforce. Taken together, they suggested the immense potential value that a more rigorous approach might create. The current system wasn’t broken, and most IBMers believed it was quite adequate and working well. They would need specific evidence of the potential payoff from overhauling the system because there would be understandable resistance to such a significant change.



### **Low Utilization Rates and Needless Talent Gaps and Surpluses**

Perhaps the most vivid quantitative indicator of the potential value of improved workforce management was utilization rates in the services population. At any single moment, IBM had open slots that needed to be filled to complete a project successfully. At the same time, at any moment, IBM had “frictional” unemployment of individuals who were “on the bench” awaiting assignments. They were essentially simply waiting for something to do.

An answer to the question of who was on the bench and who was unavailable was based on very antiquated methods, reflecting little consistency and coordination. There was a general feeling that IBM was plagued by the dual problem of having a lot of unneeded duplication in its talent, while at the same time suffering from business-stopping gaps due to a lack of the right talent. The Finance group had an indicator for at least part of the problem. IBM’s utilization rates were below the best in the industry. The Finance group had a monthly report that calculated how the utilization rates translated into lost consulting business opportunities.

### **Bottlenecks in Service Delivery**

IBM leaders saw these gaps in supply and demand as bottlenecks. They had begun to ask, “How can we sustain this? We can’t expect to survive long if we don’t make better and quicker matches between our talent and our needs.” They could also see the immense change in IBM’s cost structure and competitive agility if leaders could more quickly identify and deploy needed talent from among IBM’s vast and high-quality global workforce. A key metric was to reduce the “time to value,” meaning the time elapsed from a client request to when the business could respond. Several leaders suggested a metaphor of a talent supply chain and suggested that IBM’s talent deployment could be designed and evaluated using supply chain principles. The indicator was something like, “we sold a job, now we can’t get the people.” Not only were these bottlenecks annoying to IBM leaders, but there was evidence that they were contributing to an unacceptable level of unsatisfied clients and a lack of market penetration in key strategic regions.

### **Disconnected Talent Supply Sources**

If IBM’s talent pipeline was considered through a supply chain metaphor, then the “sources” of talent might be considered in three broad categories: (1) full-time employees, (2) applicants, (3) contractors. At IBM, and as is the case in most organizations, the three talent pools were managed largely independently of one another. Full-time employees were managed through the IBM human resources (HR) organization, consisting of full-time professionals at corporate headquarters, in the regions, supporting the businesses and residing in centers of expertise and information systems throughout the world. Randy MacDonald was the head of this organization, in the same way that the CFO oversaw the finance and accounting organizations. Applicants were also strongly supported by IBM’s HR organization, though the detailed information about applicants or those who might be attracted to become applicants often resided in the local regions, with the local HR organization or even the local recruiting organization. In contrast, contractor hiring was entirely

driven by the businesses. Even at the local levels, there was little visibility between contractor hiring decisions made by project teams or local business units and the status of full-time employees and applicants. There was even less visibility, and thus even less coordination, between the contractor hiring decisions in the businesses in one location and those being made elsewhere in IBM. This meant that you could quite easily have some businesses hiring contractors because they needed talent immediately while there was IBM full-time talent available but unknown to the business unit. Or, a business unit might fill a talent gap with long-term relationships with contractors, when it would be more cost-effective to bring on full-time employees through the applicant pool. However, because there was no visibility between the talent pools, such opportunities too often went unnoticed.

### **Missed Opportunities for Meaningful Workforce Development**

IBM's long tradition of treating its people well was a hallmark of IBM's culture and approach to people strategy and HR management. One 2009 internal IBM presentation stated, "IBM's most important innovation was the IBMer." IBM had traditionally been known as a place that was committed to its employees rather than treating them like simply costs of production. Yet, it was not simply a commitment to make employees "happy." IBM's commitment was based on the idea that a fundamental set of beliefs could "transcend economic cycles, geopolitical shifts, and generations of products, technologies, employees and leaders." In 2003, IBM had been named Company of the Year by the Society for Hispanic Professional Engineers, ranked in the top 10 by the National Association for Female Executives, named by *Working Mother* magazine as one of the best companies for multicultural women, and had been named among the top 10 companies for women for 15 years.

While the competitive markets of the 21<sup>st</sup> century made policies like "no layoffs" impossible to credibly pursue, the paradox was that the generation of workers coming of age seemed to increasingly value organizations that made significant and well-considered investments in their people. Particularly in emerging markets, IBM's global brand and vaunted reputation for enlightened human resource management made it a strong candidate for talented young people interested in developing cutting-edge capabilities and a global career.

That said, the reality did not always live up to the imagery. For someone to move from Argentina to New York, it often depended on whether that person or his or her manager knew the right person to call in New York to make the connection, identify the role that could be filled in New York and manage the process of making the move, rationalizing compensation and benefits, etc. In an interview with the *Harvard Business Review*, Sam Palmisano recalled the feedback from a unique 72-hour Internet discussion, called "jam," about IBM's future, initiated by Palmisano and his team in 2003, where 50,000 IBMers posted nearly 10,000 comments. One example the CEO cited was employees' descriptions of extremely frustrating situations. They'd say something like: "I'm in Tokyo, prototyping software for a client, and I need a software engineer based in Austin right now to help in a blade server configuration. But I can't just say, 'Please come to Tokyo and help.' I need to get a charge code first so I can pay his department for his time!"<sup>8</sup>

It wasn't that such things didn't happen quite regularly, and indeed IBM's managerial workforce was among the most devoted to working hard to make such opportunities happen. Still, within the current system, there was a feeling that too many opportunities were missed, or that IBM leaders simply did not have the information they needed to see all the possible opportunities for their eager young subordinates. For example, in Poland, IBM's pay levels were about at parity with organizations like Dell, HP and local employers. Yet, IBM enjoyed a stronger attraction among technically trained job applicants because of its reputation for global development. However, because the Poland market was growing so fast, IBM's leaders there had little time to spend, and even less information available, to create development opportunities that were vital not only for retaining that workforce but for preparing it for the future.

As one leader put it, "It was the transparent opportunity for learning that they wanted. They were not arguing for higher pay, but for us to give them the chance to take advantage of IBM's global workforce footprint, so they could develop themselves. Development had become the vital factor in the employment deal, and it offset pay, but we had to find a way to allow folks to use the system now that the opportunities were so visible. A big lesson is that in developing countries, people are here to learn." For example, the opportunity to become a certified IT architect in a specific number of years is a huge draw in developing countries. IBM was in danger of losing one of its most cherished and valuable distinctions precisely at a time when the future employees IBM needed most—and those who were the most sought-after—were making that distinction more valuable.

This was also the answer to a question that would be raised by investors or business leaders: "Why couldn't IBM cut costs and improve deployment simply by reducing the dilemma to a matter of labor arbitrage? Why couldn't IBM just reduce expensive and unneeded workforce elements and replace them by hiring workers in emerging countries that had cheaper labor?" The answer, of course, was that it was not always the case that the talent in emerging countries could do what the more expensive and more experienced talent in developed countries could do. Clients wanted the best of both worlds, a local workforce that could deliver like the best in the world. Thus, the dilemma was more subtle. How could IBM deploy its more experienced and expensive workforce located largely in developed countries to projects that increasingly were located in developing countries, while at the same time systematically upskill the developing-country workforce to offer IBM a long-term cost and effectiveness advantage? It seemed that somewhere in that equation there was actually a win-win whereby the existing IBM workforce was deployed not only to do the work but to be part of the talent development process. This seemed a much more humane and logical approach than perpetually chasing lower-cost labor around the world.

Sam Palmisano had summed it up. In the *Harvard Business Review* interview in 2004, he related his experience with the feedback he received in 2003 from 50,000 IBMers:

“We collected and collated it. Then I printed all of it out—the stack of paper was about three feet high—and took it home to read over one weekend. On Monday morning, I walked into our executive committee meeting and threw it on the table. I said, ‘You guys ought to read every one of these comments, because if you think we’ve got this place plumbed correctly, think again.’”<sup>9</sup>

### The Language of “Work” Was Insufficient

IBM faced a fundamental question. IBM’s current talent management systems were state of the art by any standard and yet, in many ways, seemed inadequate to the future challenges of the talent needs of the globally integrated enterprise. What was the fundamental limitation in the current systems? Of course, there was the question of greater integration and transparency, but as Randy and his team considered the implications, they realized that the very language of the work might be at fault. At first blush, you might think that the solution to the dilemma was not that difficult. You might think you could generate the talent development and movement you needed by just requiring managers to contact their counterparts when they had needs or surpluses. Leaders in France could ask leaders in the UK or Germany, or vice versa.

Yet, as the HR leadership team considered what would happen when such contacts occurred, they realized that the language used to describe the work in different countries, professions and even different projects was like comparing apples and oranges. This is one reason that employee movement so often hinged on making the right personal connections. Just like in most organizations, at IBM this was often the only practical way that two opportunities in different countries could be compared to each other. The managers would have to sit down and really hash out in detail what they meant by things like work tasks, qualifications, key success factors, etc. Many organizations had adopted skills inventories or competency-based systems to provide a kind of common language against which many aspects of the talent management system could be directed. Thus, it was not unusual for organizations to impose a competency or skill-based system that had been designed by HR and then require that the organization use that system to describe employee performance, employee capabilities, the outcomes of learning and career development experiences, the qualifications of applicants, and the bases on which employees were paid. Such systems had appeal, because if you had a common language, it allowed all of your talent systems to “talk to each other.” However, such systems were usually applied either in very technical areas, where skill sets were defined, or with leadership development, where broad competencies like “vision,” “flexibility” and “ability to execute” were used. If the language was too specific, it would provide very little additional integration than the myriad work descriptions IBM already had. On the other hand, if made too generic, it would fail to capture potentially important nuances.<sup>10</sup>

## THE VISION OF A WORKFORCE MANAGEMENT INITIATIVE (WMI) AT IBM

What would be the cornerstones of what might be called IBM's Workforce Management Initiative, or WMI? Randy consulted with several of his colleagues both within and outside of HR and solicited input from a number of outside experts. What they came up with is shown in the box below.

### Initial Vision of the IBM Workforce Management Initiative (WMI)

A cornerstone program that enables IBM's globally integrated enterprise is the Workforce Management Initiative, or WMI. As mentioned previously, moving the right skills to opportunities is a critical response for business success in today's global economy. WMI is IBM's response to this challenge.

By definition:

WMI addresses the labor-based business issue of managing resources effectively and seamlessly across business units and geographic borders. This is accomplished through an integrated set of processes and supporting tools designed and deployed to make IBM's workforce management effective, efficient and competitive.

At its core, WMI is a series of strategies, policies, processes and tools that enable optimal labor deployment, built on a foundation of learning.

What does WMI do?

WMI enables the optimal workforce strategy and integrated supply chain for human resource and talent management.

IBM's workforce management initiative acknowledges that workforce optimization requires linkages of key disciplines:

1. **Resource management** requires accurate inventory of skills and talent, demand forecast, capacity planning and workforce rebalancing.
2. **Talent and mobility** requires a common taxonomy, common profiles for all sources of labor, decision support.
3. **Learning** requires tight alignment to business objectives, accurate skill assessments, skills gap management and alignment with skills development systems and programs.
4. **Supplier or vendor management** requires supplier strategy aligned with resource management strategy.

## THORNY DILEMMAS: GETTING BEYOND THE CONCEPT TO THE REALITY

The vision of the WMI was well-received ... in concept. IBM leaders and the IBM HR team could see the value and the clear connection to IBM's strategic, business and talent dilemmas. If they could pull it off, a working version of such a system might be truly revolutionary. However, it was presently just a concept. Randy knew that the devil would be in the details. In particular, he pondered these dilemmas:

- How much was this really worth? What was the right level of investment, and how could they demonstrate the value of what would undoubtedly be a very significant investment? The HR team anticipated that the full investment might be more than US\$100 million over the course of five years.
- Change-management theory would suggest that one way to get traction on the larger goal of a fully comprehensive system, transparent to all, would be to start where the payoff is likely to be the greatest. Where was the largest and most tangible payoff likely to be? Would that be in the arena of full-time employees, contractors or applicants? Should the team concentrate on building a system focused on the area of the greatest return first and use that as a way to convince folks to go further? Or, should they create a system that was designed from the beginning to integrate all three talent arenas?
- How comprehensively should the system cover IBM's different business segments? For example, should it focus only on one business segment, such as consulting services, where there was arguably a much greater body of experience in defining billable skills, tracking billable hours, and a culture and employee group that readily accepted the requirement to move frequently and be ready to deploy when client needs dictated? Of course, the broad challenge was to address the talent-based equivalent of managing all types of resources effectively and seamlessly across all business units globally. The overall objective of WMI was to transform the manner in which IBM managed its most important asset—human resources—in support of a globally integrated enterprise. The Services business units were more focused on effective utilization of their resources, but other IBM business units could conceivably derive considerable benefits through consistently understanding their resource skills and needs, both current and future, for more effective business analysis, planning and productivity. For example, the Services business would certainly benefit from training investments driven by forecasted shortages based on one common Expertise Taxonomy worldwide, but so could other IBM businesses. Might the new system be deployed in modules, so that units might use some of the tools for capturing résumé or training information, even if they didn't use the full system to manage their internal talent? How quickly or slowly should the system be deployed to ensure that it achieved the benefits of a comprehensive look at the full workforce?

- How much organizational traction could be gained by expressing the initiative through a supply chain metaphor? Would the potential contribution of the new system be better understood using the same analytics and measures that were already well-accepted in the supply chain discipline? Certainly, one principle of change management is to tap into the thinking frameworks or “mental models” that are most familiar to your audience. Could a talent system really be described as a supply chain?<sup>11</sup> Or, was talent so different from goods and materials that the WMI would need an entirely different logic of cost and value? If it required a different logic, could IBM’s HR leaders really expect the organization to embrace what might be perceived as “just another new HR model that’s not related to our business models”? Should the team create a system that would focus mostly on getting the utilization rates down? Would that criterion be enough to guide the development of a sufficiently sophisticated talent system? If not, what other criteria should the team propose as their objectives and measures of success?
- Should the system be managed and maintained by HR or the line and employees? HR was expensive but had expertise in work analysis and was likely more reliable. Business leaders and employees were more expert on their particular work, would be more motivated if they owned the content and were held accountable for keeping information up to date. Certainly, the system could operate at a far lower cost if much of the ongoing work was being done in the field, outside of the HR function. The vision suggested that the system could be a natural and valuable part of the way employees and managers updated their capabilities, defined the work, related the work to client needs and business outcomes, and managed the employee development.
- Should the system be available and transparent to all IBMers and perhaps even to IBM’s contractors and applicants, or should it be a tool primarily used by IBM’s managers and leaders and their HR counterparts? Transparency would allow the system to become a true internal labor market, and it would embody IBM’s values of employee development. However, full availability and transparency carried risks. Managers might be faced with many more employee requests for a shot at open positions or development opportunities, requiring the managers to explain why employees were not deemed eligible. Transparency to IBM’s applicant pools and contractors might reveal patterns that gave clues to IBM’s future strategic direction (such as posting a large number of opportunities in certain regions or product areas). A fully available and transparent system might collapse of its own weight as hundreds of thousands of IBMers tried to modify it to fit what they considered to be essential exceptions or special cases.

A transparent system that could forecast and depict both IBM’s future talent demand and also individual capabilities would encourage IBMers to see where the system forecasted future demand and then make personal investments to prepare themselves for those opportunities. Yet, the world was fast-changing. It seemed quite likely that the system could not predict the future with perfect accuracy. So, one result would be that the game might change, even after the talent system predicted that certain development paths would hold true for years and were worth

a multi-year investment. What could IBM tell employees who made significant personal investments in development opportunities lasting several years, only to discover after a year or two that the role they were preparing for was no longer relevant or had changed substantially?

Indeed, “be careful what you wish for” was on the minds of the HR team, for if IBM could create a system that was so compelling and transparent and engage its entire talent pool to use that system as a clear indicator of the ebb and flow of opportunities, the resulting volume of transactions, administration and user support might easily swamp any reasonable-sized HR support organization, dooming the system to failure before it began.

- Perhaps the most vexing and fundamental dilemma facing the new system was whether and how it could become a truly global talent management system. Even if IBM’s HR leaders could solve the dilemmas above, they would still face some daunting challenges in trying to make the system work across the many countries and regions in which IBM operated. Different countries had very different privacy standards with regard to allowing information about employees to cross national borders. If Austria decided that it was not going to allow data about IBM employees in the country to be shared outside the European Union, then how could the system hope to give managers outside the EU a complete picture of talent trends and availability? Should the system operate in one language or many?
- Would IBMers be willing enough to move across national borders? The issues of inter-country mobility, expatriation or localization, tax treatment, remuneration, portability of benefits, etc. were legendary challenges in making global workforce movement work. For example, when IBM employees move from one country to another, both countries expect IBM to withhold appropriate personal income taxes. They expect IBM to figure out a system to do that. IBM had a long history of managing through these challenges, but a truly global workforce management initiative would multiply the volume and complexity of these decisions significantly.

## THE PARADOX

Like so many great opportunities, this one carried significant risks and potential payoffs. The HR leadership and many of IBM’s top business leaders believed there were potentially billions of dollars in untapped shareholder value, immense opportunities for current and future IBM employees, and a unique opportunity to advance the practice of talent management and human resources if the WMI could be successfully implemented. On the other hand, the history of such large-scale talent management endeavors was rife with examples of systems that were never really embraced by leaders and employees, failed to capture enough nuances about the work to be very useful or collapsed of their own weight through administrative complexity and high cost. Was the prudent decision to move ahead with a historical innovation, or to avoid starting down a path that had proven so difficult for others? On what basis should they make this historic decision?



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# STRATEGIC HR MANAGEMENT

## CASE STUDY-PART B



## IBM's Global Talent Management Strategy: The Vision of the Globally Integrated Enterprise

*By John W. Boudreau, Ph.D.*

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# Case Study Part B

## INTRODUCTION

In 2003, Randy MacDonald, the chief human resource officer for IBM Corporation, recommended to IBM executives that IBM embark on the Workforce Management Initiative (WMI). The economic and social trends of the 21<sup>st</sup> century clearly pointed to an era in which IBM and its vital customers and employees would face a global evolution in which the traditional national and multinational organizational forms would increasingly give way to truly globally integrated enterprises that not only operated in many regions and countries, but placed individual elements of their value creation processes where global considerations made them most optimal. Such organizations would rely on advanced information and computing capability to integrate and adapt in such areas as supply chains, marketing, manufacturing, finance and information systems. Already, advanced organizations were reaping the benefits and realizing the dilemmas of the ability to create global supply chains that were often only partially contained within their organizations, for example.

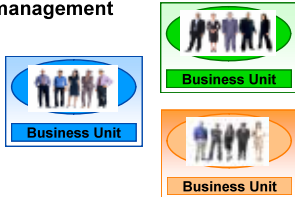
After careful consideration, the IBM HR team had concluded that such organizations would soon desire an approach to human capital that was as globally integrated and analytically savvy as their approach to technology, money, customers and operations. Indeed, it was not farfetched to say that unless organizations could develop globally integrated approaches to their human resources, the full potential of global approaches in other areas could never be realized. This conclusion was only the beginning, however. For, while there were examples of such global human capital integration on a small scale in some areas, no organization had successfully developed a way to provide a transparent view of workforce capabilities and needs that could guide planning, employee career decisions, business leader talent and strategy decisions, and at the same time be engaging and compelling enough to become a natural part of the management processes. Certainly, nothing had been attempted at the scale of IBM, which at the time had approximately 350,000 employees, 90 thousand contractors and tens of thousands of job applicants.

Randy and his colleagues had initially sketched out the broad vision and objective of the initiative (See Part A of the case for the initial vision). Sam Palmisano, IBM's CEO, supported this vision and tasked the HR organization to make it a reality. They realized this meant investing more than US\$100 million over a five- to seven-year time period, but they were convinced that the value would far outweigh the cost. Nonetheless, they expected to see tangible evidence of the payoff as the new approach was implemented. The exhibit on the next page shows the logic behind the expected payoff from the WMI.

## Why was WMI put in place?

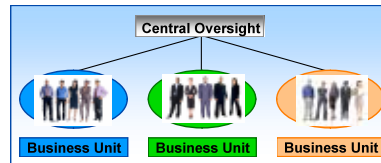
### 1. IBM had:

- No design for end-to-end resource supply chain
- No central accountability for workforce management



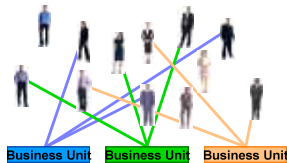
### WMI brings:

- Common supply chain design based on best practices
- Central oversight of measurements and investments



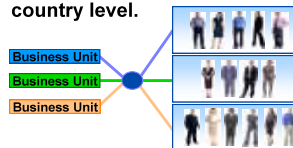
### 2. IBM had:

- No standard for defining the workforce
- Labor pools managed independently by business units



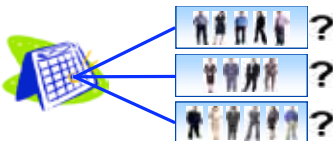
### With WMI:

- Workforce is consistently cataloged across business units (*Expertise Taxonomy*)
- Labor supply pools are optimized at the country level.



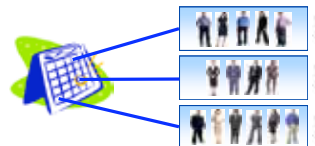
### 3. IBM had:

- Limited forecasting of anticipated resource demand
- Difficulty in linking training investments with market needs



### WMI is working toward:

- Resource forecasts using one common language (*Expertise Taxonomy*)
- Training investments driven by forecasted shortages



### 4. IBM had:

- No unified sourcing strategy
- Management systems that did not encourage cross-unit collaboration

### WMI processes, policies and tooling bring:

- Optimal use of resources
- Alternate work models
- An increase in variable labor mix

WMI is a series of strategies, policies, processes and tools which enable optimal labor deployment built on a foundation of learning.



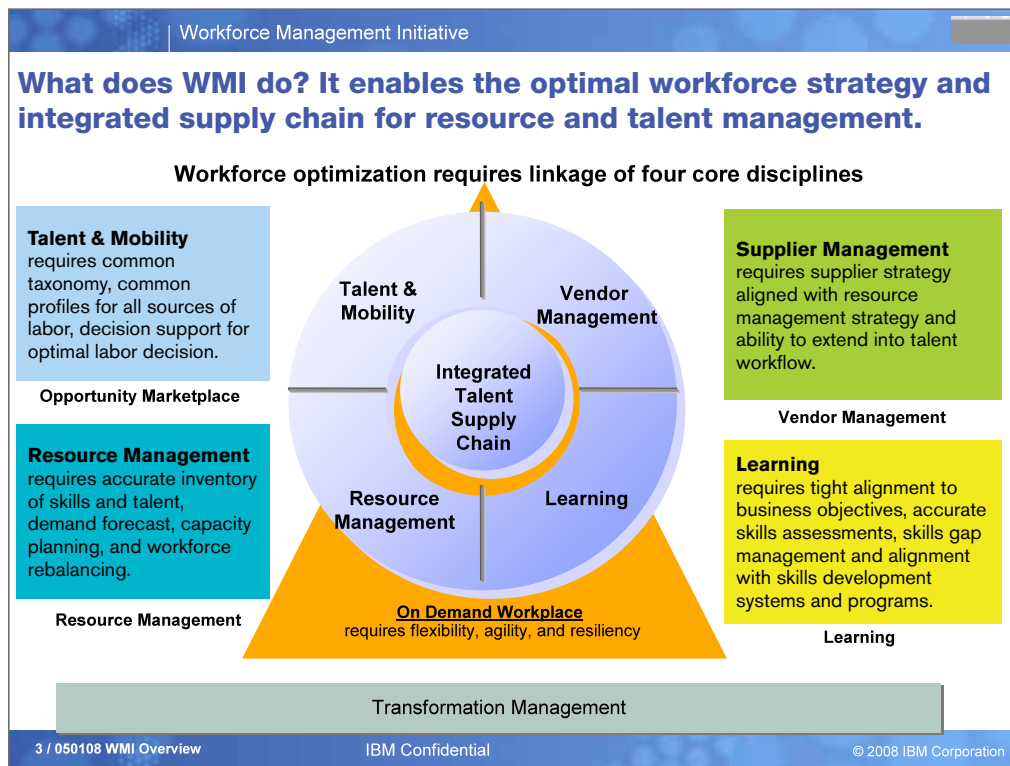
## WHAT WOULD WMI DO?

The exhibit below shows how IBM’s HR and executive team envisioned the future of IBM’s “on-demand workplace.” A core idea was that the underlying database would be comprehensive, supporting decisions about talent mobility, vendor management, learning and resources management. Another core concept was borrowed from operations management—the idea of an integrated talent supply chain.<sup>13</sup> The result would be a workplace that would operate more like a continuously adapting supply system rather than simply a repository of information about jobs or skills.<sup>14</sup>

Making this a reality required achieving broad goals: (1) capturing and maintaining workforce data, and (2) implementing a workforce management organizational structure that established the supply chain roles within the business units, country and geography.<sup>15</sup>

The critical steps to achieve these goals were:

- Establishing and implementing a common language to describe IBM’s talent resources—the IBM Expertise Taxonomy, referred to as the Taxonomy.
- Developing an optimum workforce management strategy linked to the business strategy, using the language of the Taxonomy.
- Capturing an inventory of all talent resources in a central data store/repository.



- Creating the capability to operationally match resource supply against demand (capacity planning) and proactively identify excesses and shortages—linked directly to business strategy.

## FROM UTILIZATION RATES TO AN INTEGRATED TALENT SUPPLY CHAIN “DECISION SCIENCE”

A significant financial impetus for the WMI had been the consistently low “utilization rates” that had plagued a portion of IBM’s business for some time. A utilization rate reflected the ratio of billable hours over available hours across the Services business. This number could easily be transformed into an estimate of the available value that could be tapped if the workforce was more consistently working on business needs. IBM’s utilization rates had been below industry standards and below IBM’s own targets for many years. It would have been tempting to design a simple WMI that would specifically target utilization rates, perhaps by holding business leaders accountable for achieving industry-standard levels, or by identifying individuals who were “on the bench” waiting for assignments and providing stronger incentives to deploy them to projects.

While such a system would likely bring utilization rates more in line with industry standards, it would not achieve the more significant goals of truly integrating the elements of talent supply and demand and helping leaders and employees make better decisions about their personal development and the development and deployment of the human capital that resided in those employees under their supervision. What IBM envisioned was a system that would be the foundation for what has been called a “decision science” for talent. Such a decision science had been described as shown in the box on page 22.

For IBM, the starting business metaphor for the WMI was the well-established decision science behind supply chain frameworks from operations management. As shown in the exhibits above, the idea was to consider existing employees, vendor-supplied contractors, applicants and learning as alternative sources of talent supply, each residing in particular individuals, countries, regions, etc. Like a supply chain for raw materials or components, the WMI system would provide visibility to various sources of supply using similar language to describe current workforce capabilities and availability, as well as updating the system as capabilities were added through such things as training, experience or hiring. Ideally, that same language would also describe the workforce demand, reflecting capabilities needed for projects, jobs or roles anywhere in IBM. Finally, the language would provide a way to translate business goals and objectives into specific talent requirements. The parallels to supply chain management were compelling.



A fully-developed decision science, whether in finance, marketing, operations or human resources, has been described as having the following elements that work together:

- **A decision framework**—the logical connections between decisions about the resource and the organization’s goals. A talent decision framework would need to provide a common language that defined the demand and supply of talent in a way that could consistently connect workforce planning, development and deployment. The framework would also be built upon logical principles of supply chain management that would show how decisions in one area connect to important outcomes. For example, like supply chain systems, talent decision system would illuminate the tradeoffs between decisions to make or buy talent resources. It would depict talent decisions in terms of quality, quantity, time, cost and risk.
- **Management systems integration**—the seamless connection between the talent system and other well-established management systems such as finance, marketing and manufacturing. A talent decision system would need to translate financial and operational business objectives into specific talent needs and availability, so that it fit easily into the existing business planning and budgeting systems. The decisions made with the system need to be clearly connected to tangible effects on the traditional business success measures.
- **Shared mental models.** Good decision science systems *teach* leaders and employees how to think more clearly and effectively about the resource *as they use the system*. The financial analysis system, for example, is based on concepts like internal rate of return so that users actually learn to think that way when they make decisions about money. A talent decision system could be the vehicle to get employees to think more clearly, consistently and effectively about their capabilities and development. It could help leaders think more clearly and effectively about how to deploy human capital. It could help planners better understand the connection between decisions about talent and business outcomes.
- **Data, measurement and analysis.** Good decision science systems direct attention to the places where measurement and analysis matter most, and they develop measures that reflect the principles of rigorous decisions. The financial management system very selectively pulls measures from the accounting system that reflect its fundamental principles of risk, return and liquidity. In the same way, a talent decisions science would not simply present a large array of numbers like turnover, utilization, performance and skills, but would select and organize measures using a logic and common language that highlighted where the greatest risks or opportunities resided.
- **Focus on optimization.** A good decision science not only describes the deployment and availability of a resource, but also leads to more optimal results. In the case of a talent system, it would need to go beyond simply providing a consistent language or taxonomy for talent demand and supply. It should lead to decisions that differentially invest where there is the payoff and invest less where the payoff is small. Particularly in the arena of talent, this often meant going against firmly held beliefs that it was unfair to treat people equally or to have different policies for different segments of the workforce. Yet, this kind of “talent segmentation” was exactly the equivalent of “customer segmentation” in marketing.

Adapted from: Boudreau & Ramstad. (2007). *Beyond HR*. Boston, MA: Harvard Business Publishing.

## THE NEED FOR A COMMON LANGUAGE

Early on, the pivotal importance of a common language about work became apparent. Any decision science rests on the common language that is used to describe its resource and organize decisions and thinking about that resource. For example, in the supply chain decision science, components often had stock-keeping-unit numbers (SKUs) that uniquely described the nature and purpose of each component and were consistently used throughout the supply chain process from sourcing, transport, deployment, assembly, shipping and sales. Business plans such as sales forecasts could be clearly translated into product specifications or model numbers, which, in turn, could be further refined into SKUs that comprised the necessary components. The language of SKUs provided the glue that tied the entire system together.<sup>16</sup>

What was the equivalent of SKUs in the realm of talent and the workforce? Frank Persico, the HR leader who oversaw the creation and management of the Workforce Taxonomy, noted that “the supply chain metaphor has some limits when applied to people. People and their governments have privacy concerns about releasing information. Also, with something like physical materials or parts, the physical attributes (size, color, etc.) are obvious ways to describe them. With people, what’s important is often the attributes you can’t see, such as knowledge, skills, dispositions or experiences. There were few guidelines on which of these were the right ones to measure, or how deeply and in what detail to describe the workforce to optimize the system.”

Persico noted: “We rationalized the idea of the WMI as insights into talent supply and demand. The idea was originally to convert revenue to talent demand and to remove the slack from the system. There was a supply chain logic here. But realize that talent is not perfectly fungible. At some point, it’s still people.”

“For example, it was clear there would be a growing long-term demand for information technology architects who knew service-oriented architecture as well. Yet, because IT and service disciplines tended to be separate career paths, with separate educational and labor market channels, finding someone who had both skills was very hard. The skills were out there, but they rarely were manifest in the same person! Unlike raw materials that can be blended or components that can be manufactured to specifications, there are limits to what labor markets produce. Thus, translating business predictions into talent needs, one could conclude that the world would need 50,000 of such individuals, but only 20,000 of them would be created. Thus, creating a supply chain for talent meant looking not simply at how well one could deploy the 20,000, but how to create another 30,000 on top of what existed today.”

In contrast to more mature decision sciences like finance, operations and marketing, the language used to describe workforce capabilities and requirements was not nearly as sophisticated or consistent. If the system were to encompass workforce development and learning, training programs inside and outside of IBM often developed their own particular language to describe the capabilities they taught. If the system extended to independent contractors or to vendors that supplied contractor labor to IBM, they would also have developed their own unique language and organizing framework to describe qualifications, job experiences, etc.

### **Job Descriptions**

Perhaps the most common language was the array of job descriptions, each of which contained information such as job titles, duties, qualifications, etc. IBM, like other organizations, had a vast system of job descriptions, often very useful for setting pay levels, describing job activities and discussing performance goals. However, IBM's job description system, like virtually every job description system, had not been designed to support anything like the WMI. The same job might go by different names in different professional areas. The same job title, such as "IT architect," might have very different descriptions in different business divisions or different professional disciplines. Thus, while the job description language might produce a WMI that could track whether one region was demanding more "IT architects" and another region had some "IT architects" who were idle, more often than not the same term might be describing very different capabilities.

During a periodic review of the Taxonomy, it was determined that the client briefing manager's core responsibilities were closely aligned to those of the sales program management specialist. The client briefing manager role was deleted from the Taxonomy, and employees who were in this job role were reassigned the sales program management specialist job role. In order to include the unique capabilities of a client briefing manager, specific skills were created. As industries and technologies change, these periodic reviews capture job roles that morph from their original descriptions to combine and create a new job role, thus ensuring the validity and currency of the Taxonomy.

### **Competencies**

Another common way to establish a consistent language of capabilities was a competency-based management system. There were many examples of such systems, generally derived by considering what individual attributes distinguished high performers from low performers, and usually applied to leadership. These attributes, such as vision, integrity and communication ability, could then be used as the organizing structure for activities like performance management, training, remuneration or career development. Such systems could provide enormous value by integrating the different HR systems and activities, but the tradeoff was that in order to generalize, they often had to be very generic. Business requirements seldom presented themselves in ways that could be easily translated into such generic competencies, so a clear and tangible connection to strategy and budgeting systems seldom existed for competency-based workforce initiatives.<sup>17</sup>

IBM had used competencies for years, but they were not quite sufficient as the basis for WMI. As one IBM leader put it, “Our competency frameworks described the personal development attributes that individuals needed to be successful over a broad career span. What WMI needed was a precise description and categorizing of what it took to be successful in a given job.”

In IBM, a competency was defined as not only knowledge but the ability to apply the knowledge. Competencies such as trustworthiness, passion for the business and drive to achieve are inherent in all IBMers, and IBMers are expected to demonstrate these competencies in the performance of their jobs. Competency models have evolved in the area of leadership and are used as a touchstone or reference point for skills but not as the basis for a job role. Competencies do not necessarily have learning activities associated with them. A competency does not have a one-to-one relationship with skills and vice versa. A particular competency can be associated with a skill, multiple skills or a set of skills. In discussions with the Talent Team, it was determined that competencies described work at too high a level of abstraction to be used for deployment and were too broad to be used for customizing learning plans.

### **Knowledge, Skills and Abilities**

At the other end of the spectrum, some organizations had gone very granular, describing the workforce in terms of quite specific skills, knowledge, dispositions or experiences. Such capability elements could be used to construct roles necessary for a certain project or customer and then search the system to see if anyone fit and was available. However, the number of such specific attributes was huge! Also, even at this level of specificity, it was not unusual to find that the same label might be used for very different underlying capabilities. Someone might state that they were “certified” in a certain programming language or quality system, but that could often mean very different things depending on the country, the training program or relevant experiences.

In the end, IBM’s HR leaders could see that none of the traditional job information sources were really sufficient to support their vision of WMI. Each of them had clear advantages and drawbacks. The trick would be to take the best from each and create a new approach that could alleviate the drawbacks and capitalize on the advantages.

### **USING THE SYSTEM “BEYOND HR”<sup>18</sup>**

Frank Persico said, “A very key lesson learned in developing the Expertise Taxonomy was that it doesn’t work if you can’t get business units to support it and have all employees populate it and use it.” Thus, a fundamental requirement was that the system become a natural part of how employees, managers and leaders do their work. This could not be simply a system internal to the HR function, used by HR professionals to accomplish HR functional goals. It had to be embraced by those who knew the work best—managers and employees. That had often been the downfall of such systems in other organizations. Indeed, it was a common drawback

to systems based on job descriptions, competencies or long lists of skills and abilities that often languished in the HR function.

Not only was having employees and managers using the system essential for the system to affect real decisions, it was also essential to the very feasibility of the system. Frank elaborated that “just a handful of HR folks manage the taxonomy.” He noted that this cannot happen unless a great deal of the work of updating, populating and verifying the data in the system is done outside of HR by those who use the system. If HR staff did this, the support cost alone would make it unfeasible. Frank noted the key role that Randy MacDonald had played: “Randy was the ‘hammer’ that made it happen. He got the business units to support the use of the system, and they agreed to allow the process to define the roles, would cooperate in putting their roles and people on the system, and use it to see and find talent. They would also need to sacrifice by allowing the system to standardize based on the governance rules, even when they believed they had a ‘special case’ because special cases would really bog the system down.” Randy personally presented the WMI to most of the senior leaders in IBM, because it required broader agreement and deeper commitment than most HR programs if it was to work.

## THE EXPERTISE TAXONOMY

The Expertise Taxonomy is the hierarchical framework that IBM uses as a standardized, enterprise-wide language and structure. This language is essential to IBM’s ability to plan, develop and deploy its talent resources consistently across all geographies and business units. The Taxonomy identifies things such as job roles (JRs), job role skill sets (JRSSs) and skills, creating common descriptors around what people do. The Expertise Taxonomy was designed to address the limitations of the other work-description approaches described above and provide something more suited to the WMI. It allowed IBM to satisfy developmental needs based on business unit and individual requirements.

The Taxonomy would support “UpSkilling Programs” that would enable an employee to compare his or her existing skills to job roles that utilized those skills. It also allowed the employee to identify other roles that required skills on which the employee could become proficient with only minimal development activities. The program would seamlessly integrate this skill inventory function with the capacity to enable employees to identify and apply for open positions in the company’s job posting system. When an employee identified an open job he or she was interested in, the system would show what learning activities make the employee more “marketable” for such positions in the shortest time.

IBM business units would be able to use the Taxonomy to optimize their operations. For example, IBM Global Business Services (GBS) would use job roles and job role skill sets to deploy their employees to appropriate contracts and positions based on the skills listed in client contracts and project descriptions. IBM Global Technology Services (GTS) would use the Taxonomy in their “Go-to-Market” model for their

“Face-to-Face” sales team. The Taxonomy would provide consistent and comparable role definitions, job role skill sets and incentive plan templates across all four GTS lines of business. This was important because the front-line sellers in each of the four lines of business were supported by skilled technical resources that spanned the business units, residing centrally in GTS Sales/Delivery or other business units. Prior to the Taxonomy, the Go-to-Market model was too complex, and it was difficult or impossible to appropriately match sales roles to pre-sales technical support roles. With the Taxonomy, there would be only seven standardized sales roles and three pre-sales technical support roles that align GTS with other IBM Business Units. The GTS Go-to-Market model would have clear and concise roles and responsibilities for opportunity identification, opportunity ownership and delivery.

So, IBM leaders and the designers of the system realized that the WMI had to provide deep insight on what every IBMer could do, in a consistent structure and language. It needed to be universal and to encompass full-time employees, as well as applicants and contractors, to represent the full deployable workforce. When the project began in 2003, IBM had hundreds of thousands of full-time employees, more than 40,000 applicants and more than 90,000 contractors. What sort of taxonomy would produce sufficient detail to be useful, but not be swamped by trying to do too much?

Expertise Taxonomy levels were derived from drivers of business value. IBM set out to define a system based on job roles. Job roles were designed to identify a language recognizable throughout IBM to identify the skills, expertise and requirements that applied to jobs. IBM would need to design the Expertise Taxonomy so that the job roles did not overlap significantly and could be meaningfully distinguished. IBM started by developing a logical hierarchy that would align IBM’s business units and services with external industries in a way that enabled employees to easily identify where they fit based on the language of the Taxonomy.

### **Primary Job Category**

At the highest level was the primary job category (PJC), which is a broad segment of the work IBM employees perform or manage. These categories cover a wide scope and were defined and named consistently with standard job categories recognized externally. An example of a PJC is IT specialist. An employee would belong to one and only one PJC.

### **Secondary Job Category**

The next level in the hierarchy is the secondary job category (SJC). An SJC was defined as a specific type of work that employees perform or manage, and that is a subset of the work in the PJC. The SJCs are used within IBM to identify employee populations for business planning and external benchmarking. An example of the SJC under the primary job category of IT specialist is technical services.

## Exhibit

### IBM's Expertise Taxonomy Roles: Applications Architect and Procurement Consultant

**Application Architect:** This role designs applications required to automate business processes and meet business needs. The resulting design may run on multiple platforms and may be composed of multiple software packages and custom components. This role defines best practices in the critical evaluation and selection and/or development of the software components and hardware requirements of the applications and data, and the development of the application, including evaluation and selection of development methods, development processes, best practices and tools. Applications architects are responsible for applications-related quality, performance, availability, scalability and integrity. They are also responsible for the functional interface to applications and for ensuring application usability.

**Procurement Consultant:** This role is responsible for analyzing client category spend data and developing category-specific sourcing and risk management plans. This position supports the sales and solutions teams with extensive category expertise and interfaces with the client on the category-specific strategic sourcing objectives. Additional responsibilities include the execution of contract requirements related to the assigned category as well as reporting to project and procurement leadership team on status, issues and corrective actions.

## Job Role

After SJC comes the job role. A job role is a named, integrated cluster of work responsibilities and tasks that must be performed by a single employee. An employee's total responsibilities may encompass more than one job role, but the employee may only designate one as his or her primary job role. An example of a job role under the SJC technical services is client infrastructure specialist. The exhibit above contains the language IBM used to describe the roles of application architect and procurement consultant.

## Job Role Skill Sets

Each job role can be further defined by job role skill sets (JRSS). A JRSS applies to only one JR and provides a more granular level of detail than the 'parent' JR provides. A JRSS usually provides additional information about products, platforms or solutions. For example, a JRSS associated with the job role of client infrastructure specialist would be "asset reuse." In this case, asset reuse refers to demonstrating expertise through reference work products, past deliverables and proven engagement models.

## Skills

Finally, the skills associated with a job role are the “DNA” that keeps the people side of the business running. They define IBM’s capabilities and ability to perform work independently or in teams and enable IBM to respond to rapidly changing industry and market trends. A skill contains detailed information about the knowledge and abilities for specific tasks for which individuals must demonstrate competence to be proficient in a particular JR or a JRSS. Skills define the ability to apply particular knowledge and experience in the execution or performance of a task or activity. For example, a skill associated with the job role of client infrastructure specialist would be the ability to implement asset management services.

The exhibit below shows the relationships between the different levels of the Taxonomy described here.

### Exhibit

#### Summary of the Expertise Taxonomy Levels for IT Specialists

PJC	IT specialist
SJC	Technical services
JR	Client infrastructure specialist
JRSS	Asset reuse
Skill	Implement asset management

## Updating the Taxonomy Based on Changing IBM Client Demands

Ted Hoff, IBM’s chief learning officer, noted, “The taxonomy of skills is based on value delivered to the client translated into workforce knowledge. It is updated at least annually, but actually whenever the businesses or subject matter experts uncover a gap in the taxonomy mapped against client value.” For example, as IBM HR leaders recalled, “As part of our Client Values Initiative work, we discovered our clients clamored for someone from IBM to help with their IT strategy. They wanted someone to act as a trusted advisor and advocate. The technical advisor job role was created and reviewed by multiple subject matter experts from various business units and countries. In a collaborative effort, the role was redeveloped into the current client technical advisor job role. This new job role was a reincarnation of several outdated roles and had the responsibility to sort out standards and strategies to support our clients’ data center needs.”

## SEAMLESS CONNECTIONS BETWEEN EMPLOYEES, CONTRACTORS AND APPLICANTS

The system and the Taxonomy would allow a completely automated match between assets and skills at all levels. Ted Hoff notes that the workforce planning system would also use the Taxonomy as its language, so that projected supply, demand and gaps would be compatible and consistent. The desired result would be a constantly updated summary of known demand based on “projects” (in the language of the



Taxonomy) and a corresponding updated summary of talent supply based on who is currently working on certain projects and who is coming off of projects, again all in the same language of the Taxonomy. This knowledge of the existing IBM workforce would be combined with the availability of talent from contractors (such as Manpower, Inc.) using the Taxonomy. This meant requiring contractors to list and describe their talent using IBM's Taxonomy system. Finally, IBM committed to code all applicants into the same system.

Thus, strategic planning could define anticipated projects, embed the roles needed for those projects into the workforce plan and seamlessly match those role requirements to applicants and overall applicant population characteristics. This allowed an early assessment of whether IBM's applicant patterns seemed to match the future needs. If the system worked, once it became visible, transparent and available, the power to make automatic matches and projections based on real business needs would create the needed language and processes to give birth to a living human capital "market" encompassing almost a million individuals.

More than just being a living market, planners can also watch the market and direct it or adjust it. With incentives, encouragement and targeted HR programs, IBM envisioned being able to shift talent based on changes in competitive cost or location characteristics and as business demand shifted. IBM could alert this talent "market" to arising opportunities, not simply respond to the needs of the present. The system also provided a way to integrate learning and development opportunities. These would also be described using the common taxonomy. Thus, development "assets" (training, work experiences, external education, etc.) would be analyzed and coded into the Taxonomy and clearly linked to identified needs. This would allow IBMers not only to see what skills were increasing in demand, but to precisely identify how they could set out to enhance those skills.

This would transform the learning management system to go well beyond just a set of courses to become a true reconciliation between talent needs and development "assets" to meet those needs. IBM envisioned a "just in time" approach to training, where real business needs would trigger immediate responses in terms of developing new courseware or directing courseware to precisely where it was needed.

## **HR IS NOT THE SUBJECT MATTER EXPERT ... THOSE DOING THE WORK KNOW IT BEST**

One of the downfalls of many HR talent system taxonomies was the inevitable clamor for exceptions. Different countries often had different descriptions of roles such as "software architect." Such roles would even vary within disciplines. Is a "business systems architect" significantly different from a "software systems architect?" The software discipline was convinced that "software sales" roles were very different from "hardware sales" roles. Of course, every country, business discipline and business unit had become accustomed to their own definitions. So, there was lots of pressure to allow variations. The HR team knew that if they allowed all exceptions, the system

would implode from complexity. Yet, they could also see that each country had its own challenges, rules and customs regarding not only work definition, but also transparency both within and across country borders. How do you reconcile the need for standardization with the legitimate desires for customization where it made sense?

Most HR organizations answer this dilemma by taking on the task of painstakingly defining different roles and reconciling differences themselves. In most systems, HR sets out to define the language and populate the system. They define competencies or skills and then require that employees and leaders fit their work into HR's system. HR analyzes the work using its own language and uses that result as the basis for describing roles, development opportunities, key performance indicators, etc. If differences arise, HR conducts a job analysis, makes conclusions about what the work entails and tells the business that it has concluded that two jobs are not different even if the business thought they were. Then, they must convince those outside of HR to adopt their system. This is often unsuccessful, because those doing the work are understandably convinced that they understand it better than even the most diligent and competent HR professional. This is why HR-driven systems often become a “foreign language” spoken only by HR and only infrequently updated due to exorbitant expense and a shortage of HR experts. Such systems often become calcified and unresponsive and eventually are not worth the trouble for those doing the work and their supervisors to try to learn and commit to this new language.

For IBM, the answer was almost the opposite. HR needed to get out of the business of defining the work. After all, those doing the work and those overseeing the work were the legitimate experts. HR could add its greatest value by creating and implementing a better system for understanding and reconciling differences. The HR team realized that indeed HR should not and probably cannot be the subject matter expert about the content of the work. HR usually doesn't have first-hand knowledge; those doing the work won't grant HR the credibility. Moreover, even if HR had the requisite knowledge, it was simply infeasible to assign a large enough cadre of HR professionals to continually analyze the work, sense changes and update the system. Their insight was that in the IBM system, HR would define and oversee the system of work analysis, but it would rely on subject matter experts doing the work to actually provide the content of the work descriptions. HR would ensure that the system was comprehensive and updated when necessary and provide a way to resolve disagreements about what is unique and what is not. In essence, HR would function more like a good accounting controller, who defines the system for describing the financial health of a business, but the business leaders populate that system with appropriate numbers.

As Frank Persico described it, “The solution was that anyone could propose that they had a new and different role, whether you were in software, consulting, manufacturing or anywhere in the company. The person that felt they needed a new role definition to fit their situation would submit their proposal and language into the system. Our team considers the proposal—for example, whether the software architect definition is actually different from the business-systems architect. We developed a process of work

analysis and definition that tells us if they are different enough to justify separate roles, or if they are really the same role and should be listed that way.” As the HR team described it, the solution was that HR said, “OK, you are the subject matter experts, but you must agree to work within the process that HR has set up to properly codify your knowledge, resolve discrepancies and remain consistent with the system.”

The HR team also noted that this process works with just a handful of IBM HR people overseeing it. The key is that it is the subject matter experts who come together to propose what jobs and skills they want when a new job role defined. They must propose a description to HR. The Taxonomy team diligently looks at these submissions for duplication. There are hard calls about what is sufficiently different and what is not, but they must err on the side of having a less complex taxonomy, not a more complex one. Several of the HR leaders noted, “We really spent time thinking deeply about this process. There were a lot of opinions about how you would certify a role, capability, etc. into the system.”

Keeping the content relevant while maintaining consistency was a challenge. A process was developed that governed how the data are controlled, updated or changed. In IBM’s approach, governance was defined as “the people, mechanisms, processes, and procedures that control and influence the data defining expertise in the Expertise Taxonomy.” The validity of the Taxonomy and its currency with industry trends were supported by the Taxonomy Stewards and Governance Board. The Expertise Taxonomy governance body and process are key ingredients in ensuring the Expertise Taxonomy maintains its integrity and achieves its overall objective of being a common taxonomy, or structure, that outlines internal and external skills. The Governance Team realizes the need to validate the consistency and accuracy of the Expertise Taxonomy. Changes can occur as a result of the introduction of new policies, restructuring of sponsoring organizations or as an annual mandatory maintenance process. The Governance Team consists of a group of stewards (experts, administrators and managers) who are responsible for overseeing the validity and usefulness of the data in the Taxonomy.

Several HR leaders described the evolution of the system. “The first phase was to capture all the work in the Taxonomy. Now, over time they can observe which areas are being changed in the Taxonomy as people use it. You get more and more information as they make changes to the original set.” Thus, a key factor in understanding the system is how Frank and his team came up with the original set of roles and how those roles are modified and revised as the system is used.

## **FROM A MILLION INDIVIDUALS TO 331 ROLES**

In their first pass, in March of 2005, the team came up with 650 roles. After the initial 650 roles were developed, the big push was to get all the jobs into the system. An early metric was simply “how many of the jobs in IBM are actually codified into our new system?”

Over time, the system developed with input from the field. The more the system was used, the more apparent it became that it could function with even fewer roles and thus be even more concise and simple. The evolution to fewer roles as more jobs went into the system was interesting. Usually, this involved combining two or three skills or roles into one when it became clear they were too granular. However, sometimes there was significant change or evolution in an area of expertise, and many roles were consolidated. For example, in the “Sales” primary job category, the roles of “platform management leader,” “platform sales leader,” “sales specialist,” “services sales leader,” “services sales specialist,” “specialty software sales representative” and “systems and technical platform sales specialist” were all consolidated into a new job role called “solutions sales specialist.” Conversely, sometimes a job role was too broad to be meaningful and was broken up. For example, the job role of “technical sales specialist” was replaced with three job roles: “technical sales specialist—deep technical expert,” “technical sales specialist—techline” and “technical sales specialist—territory/field.”

By 2008, the number of roles needed to define IBM’s workforce capability was 331. By the end of 2009, it was under 300. Considering the massive size of the IBM workforce, contractor base and applicant pool, each role covered more than 1,000 employees, hundreds of contractors and hundreds of applicants worldwide.

As the system has matured, the success metric is not so much whether all the jobs are covered in the system, but more nuanced and sophisticated patterns. For example, IBM analysts can now examine the qualifications and development experiences of a sales force and compare them with the sales quota achievement pattern. They can analytically connect, and understand, whether certain qualifications and development experiences are actually associated with improvements in sales quota achievement.

### “ONE GLOBAL APPLICATION TRANSACTION”

A good example of how even a simple idea requires sophisticated resolution in a global talent system is the notion that there should be one global application transaction. What that means is that whenever someone applies for a job at IBM across the globe, the information the applicant provides will be consistent and readily uploaded into the talent taxonomy system. The issue of globalization was paramount. While IBM could find vendors that could create an application system in a given country or region, no vendor had the global scale to create and oversee an applicant system at the scale of IBM’s employee population. Yet, if IBM did not have a global standard for applicants, a significant element of the talent supply would become invisible to the system.

Ted Hoff noted: “We had to cobble together the vendors to create a global recruitment event in our system. The world really wasn’t ready for the idea. Issues such as global privacy, information sharing, language compatibility, etc. suddenly needed to be resolved. The idea that every IBM applicant would submit information in a similar way and that information would immediately be available across the

company seemed logical, but it actually flew in the face of some long-standing global traditions.” For example, Germany places an additional set of privacy restrictions on the way in which information can be collected or shared within IBM about individual applicants. The United States places additional requirements on reporting information to ensure that there is no adverse impact on specific diversity groups among the applicants. The province of Quebec, Canada, requires that the actual text in IBM’s global recruitment system, the Global Opportunity Marketplace, is written in French as well as English.

### THE EFFECT ON UTILIZATION RATES

One question on the minds of the HR leaders when they chose to implement the WMI was how they might show tangible financial and accounting payoff. As noted in Part A, there was significant attention to utilization rates, particularly among the full-time employee ranks. One goal of the WMI was to improve those utilization rates. In fact, the rates were improved by the new system. IBM’s calculations showed that the “billable utilization rates” improved 9 percentage points between 2003 and 2008.

The Taxonomy has improved capacity management, which lowered the number of people “on the bench” and improved fill rates to over 90% in global delivery. With the Taxonomy, IBM could more precisely, efficiently and effectively match upcoming supply and demand, which allows it to proactively manage future bench and future open seats, thereby increasing utilization and reducing open seat conditions. One improves cost, the other improves revenue.

An HR leader related a specific case in point: “Hyperion is an area of focus for IBM right now, and frankly, in the past, it has had a feast then famine demand signal. By putting those resources in one JRSS, it has helped IBM closely manage their growth and follow a specific sourcing strategy: Hire upper levels, hire some selective lower levels, etc.”

In short, the Taxonomy and the system supporting it enabled IBM to smooth the “demand signals” coming from projects and unit talent requests and then to respond to them in a far less costly way.

### A SURPRISING SOURCE OF INITIAL FINANCIAL PAYOFF: CONTRACTORS

A surprising source of financial payoff came through the system’s effects on optimizing the contractor workforce. IBM had tens of thousands of contractors in 2005. This was far fewer than the number of full-time employees, so IBM leaders did not expect the financial payoff for contractors to be the source of such significant financial results. However, what became apparent as the system was implemented was that IBM had much greater knowledge and awareness of the status, capabilities and deployment of its full-time employees. As Part A noted, while the full-time and applicant elements of the workforce came under the purview of HR, decisions

about contractors were largely made by businesses or regions, often in response to significant short-term talent needs and often with much less input from HR.

As Frank Persico recalled, “Our full-time employees were reasonably well known. It was in the contractor space that had the greatest potential. Contractors would be brought in on the belief that they have the skills that the supplier says they have, but in fact, they often didn’t. It wasn’t that the suppliers were misleading us. Rather, it was that the language the suppliers used to define contractor capabilities didn’t line up well with the language we used to define our business needs. So, there was lots of room for improvement in the degree to which we actually matched contractor skills to their best possible use and to make sure that what we were paying them was actually commensurate with what they were doing. Just knowing which contractors were actually working while being paid was helpful. The operations could really clearly see how applying the Taxonomy allowed us to rationalize what we paid contractors by having much greater insight into their skills, deployment and value added.”

The WMI system had indeed cost millions, but it paid for itself just in the hard savings from better contractor management, not counting the improvement in full-time employee management. Persico observed that the payoff equation was best understood through a financial management lens, not an accounting lens. “We found that if leaders took an accounting approach, they would become fixated on the costs of the system, time spent working with it, etc. However, if they reframed it into a financial investment question, then the value through better contractor and employee management was clearer, and it became clear that the large investment paid off.” (The actual payoff breakdown is shown later in this case.)

Of course, getting the contractor labor pool incorporated into the IBM WMI Taxonomy was not always easy. Suppliers of contract labor were quite attached to their systems for describing the capabilities of those they placed. In the end, IBM’s leaders worked with contractors to help them make the transition, but if they would not, they risked simply not being chosen as a contract labor supplier.

One IBMer described it this way: “Prior to the establishment of the Taxonomy, IBM had worked with the core suppliers on standardizing the nomenclature that we used when requesting contractors. IBM had done this to be able to set up a rate matrix for frequently required skills, so they could place purchase orders for these contractors in a ‘hands-free’ mode [placing the order without a lot of approvals] if the suppliers offered them at or lower than the matrix price. The Taxonomy actually allowed IBM to do two things: First, it expanded the percentage of purchase orders that IBM could put into the rate matrix by having a greater number of job roles. Second, because the suppliers now used the same taxonomy as IBM for regular employees, IBM could now more easily match regular employees with those available from contractors, revealing places where regular employees who might be ‘on the bench’ could substitute for contractor employees and cancel PO with suppliers.”

The similarities to the world of supply chains are striking. In that discipline, a classic problem is the “bullwhip effect,” which occurs when demand signals become

muddled and each part of the supply chain holds too much inventory because they can only see signals from one part of the chain. One answer is to make the demand signals clearer to more parts of the supply chain.<sup>19</sup> Here, the Taxonomy had clarified the connection between IBM's demand signals and the available "inventory" of skills both within and outside of IBM.

### REDEFINING THE IBM EMPLOYMENT "BRAND"

A common problem with global talent management systems is that they come to depend on "whom you know." In large global organizations, the sheer volume of talent movement, combined with the reality that employees and leaders are already extremely busy, means that development opportunities or opportunities to move from one country to another are not visible to everyone who might be interested. Leaders do their best, but in practice, who learns of opportunities and who actually takes them often depends on which leaders know each other and who is in the right spot at the right time.

Part A noted that a significant historical IBM reputational advantage had been the opportunity for employees to develop and move globally. As IBM became larger and more complex and as the workload in fast-developing countries increased, there was a danger that job applicants and employees would perceive a compromise in this reputational advantage. IBM might be falling prey to the same drawbacks that plagued other talent management systems. Leaders at IBM might be seen as "too busy" to attend to employee development, and the opportunity to capitalize on IBM's global footprint to offer unique opportunities for global development would be compromised. Ironically, this would have happened just as the emerging labor markets of the world placed a huge premium on a company's ability to develop its people globally!

A significant advantage of the WMI was its positive impact on IBM's ability to deliver on employee development. The transparency and comprehensiveness of the system and its reliance on a common language describing both work needs and development opportunities meant that employees and their leaders had an unprecedented capability to see what areas of the business were generating strong demand for certain capabilities and precisely how an employee might get those capabilities. Rich Calo, vice president for enterprise support, noted that "employees realize that they can be much more confident that they are seeing real future opportunities and that they have opportunities to prepare themselves for them. We actually see an effect on our employee retention, particularly among those for whom the opportunity to develop and advance globally is a high priority. Increasingly, these are the kinds of folks most sought-after by our businesses and by our competitors."

The WMI actually made it possible to enact a much more sustainable and agile labor force approach. As Frank Persico put it, “IBMers can use the system and the available development assets to become ‘thought leaders’ if they aspire to that. It truly gives employees insight into IBM as a ‘land of global opportunity’ and a ‘meritocracy through an open market.’ We now can truly say that we go beyond personal connections to a system that truly reflects demonstrated capabilities.”

Part A noted the dilemma of Poland, with an expanding economy and a true talent war. On the one hand, you need to fully employ everyone just to meet business demands, but on the other hand, to attract the necessary people you need to make good on IBM’s unique ability to provide career development. How can you find time to develop when things are so busy? The WMI provided an answer. By developing a system in which HR provided the governing structure, but employees and managers naturally used the system to describe their work and their capabilities, IBM ensured that the system could be comprehensive, transparent, cost-effective and useful to employees. It was a tangible indicator that IBM had invested millions to make development opportunities more apparent.

That said, the WMI also made it apparent that globalization required a very different “deal” for IBMers than the traditional idea of no layoffs and stable employment in similar positions for an entire career. The new reality is that no organization can make any guarantees. Things change quickly, and even the best predictions about future talent demand and supply must be revised often. So, how can an organization have a sustainable employment “deal” that might engender loyalty and long-term commitment, when it probably can’t make any long-term predictions about the capabilities it will need?

The answer was that change had to become an integral part of the system. Frank Persico said, “The dilemma often comes when change occurs and an employee must forsake a multi-year development path that they and their manager set up and committed to a year ago. The WMI predicted that IBM would value certain capabilities in three years, based on our best predictions, and managers encouraged their employees to embark on three-year plans to get prepared. After a year, things may change, and we must go back and tell folks that their plan may need to change as well. We foresee that in the future these targets will change much more rapidly. We know that nothing is fixed, but on the other hand, we don’t know what the new jobs are, but we do now have a way to translate the signals from the business much more quickly into action with our talent or actions that our people can see they can take to get prepared.”

How does such a system fit with IBM’s desire to attract and retain top employees and make investments in their future value? IBM’s WMI team explained: “At first, it can seem harsh that people will commit to a multi-year plan to develop toward a target role that we said will be in demand, and then things change and we must



change the target. However, remember that the WMI is constantly being updated with our best planning and strategy data, as well as information from thousands of our managers and leaders filling projects and projecting talent needs based on business and customer demands. If something we thought was important changes and a particular capability becomes obsolete, we can be pretty certain that it was going to be obsolete in the broader labor market anyway. So, for the employee, this is an early warning as well to prevent them from staying committed to a path that would not be valuable to them, either within IBM or somewhere else. The new deal is all about adaptability, but not just because things change in IBM. It's because things are changing everywhere. At IBM, employees have a chance to see those changes early and make proper adjustments. Also, while it's dramatic to consider those roles and capabilities that change rapidly, as they do in some of our leading technical areas, it's also true that the WMI reveals many areas that stay relatively stable and gives our people the opportunity to pursue multi-year development plans that do place them in the target roles when they are done."

Thus, the IBM that Sam Palmisano joined in 1973 had a deep and pervasive commitment to "respect for the individual." In the early years, it was embodied in policies such as "no layoffs" or "lifetime employment." The 21<sup>st</sup> century would not allow those kinds of policies to survive, but the WMI promised a more modern version of those same values. One member of the IBM team noted that for IBMers today, the "deal" is that if they "stay relevant to the talent market within IBM," they will be rewarded and will advance and can have a marvelous lifetime career at IBM. As they explained it, "You become personally visible if you put yourself into the system so that folks can find you using the Taxonomy. As more people come on board, those who choose not to play (whether employees decide not to put themselves into the system or leaders choose not to put their needs into the system) begin to stand out as not involved. This becomes rarer and rarer as the system becomes the living market within IBM. Being out of it means missing some real opportunities."

IBM's HR leaders also noted that the system is a great help to managers who want to be responsive to employee aspirations, but also need to have tough conversations when an employee is over-reaching. In the past, those conversations did not always have the benefit of data, so a manager was often in a position of offering a general opinion about an employee's capabilities and prospects. "As a manager, you now have a fact-based way to describe where an employee is versus where they want to go. It adds significant substance to development planning that was not there before. No longer is it vague and informed only by what the manager may know. Development options now present themselves to you if you're on the system because the Taxonomy translates your assessment and aspirations into gaps that can be addressed by accessing our learning assets. IBM's 40,000 learning assets (such as internal and external classes, online instruction, etc.) are tagged to specific skills and capabilities, providing a direct path to skill gap closure."

## A LIVING AND BREATHING TALENT SYSTEM

By 2008, the WMI had become a part of how IBM did business. About 90% of the roles within IBM were in the system. In 2009, most employees were on the second or third cycle of using the system to define their capabilities or to describe new emerging roles. Managers and employees routinely used the system as part of their day-to-day work. As the IBM team put it, “The system helps them enough that they use it naturally now, we don’t have to bribe folks to use this system.” With a system this complex, covering such a large number of people and so pervasively integrated with the work of IBM’s leaders, if the system didn’t work, “we’d have a revolt.” Indeed, the system is now so vital in many areas of IBM that businesses willingly invest in system upgrades to meet new challenges.

For example, Dan D’Elena, IBM’s Global Business Services (GBS) unit, is investing in enhancing what IBM calls the “Professional Marketplace.” GBS is adding more detailed information about each of the IBMers in the division, but not the traditional employee information. GBS is working to include increasingly detailed information about the types of clients each IBMer has worked with in order to be able to pinpoint professionals who have had exactly the right kind of experience for a new client need. Jon Prial, in IBM’s Software Group (SWG), led the effort to enhance the capabilities of the Expertise Assessment system. In particular, SWG saw the value of adding detailed information about the precise version of IBM’s software offerings that an IBMer has worked on. This required expanding the data fields in the Expertise Taxonomy, increasing the capabilities of the personal development (PD) tool application.

Since the system had been in place, IBM had grown its workforce in emerging and fast-growing markets while simultaneously flattening the headcount growth in areas where business needs were slowing. The system supported decisions that allowed IBM to both grow and shrink at the same time—a hallmark of organizations that will meet future challenges.

The WMI’s effectiveness has been tested in a variety of situations. This kind of “pressure testing” has revealed the system’s effectiveness but also challenges. Rich Calo noted that the acquisition of PriceWaterhouseCoopers’ (PWC) consulting arm was an informative test. This acquisition brought with it many new and unique roles that needed to be considered and integrated into the system. “When we acquired PWC, we integrated new employees globally. So, every new IT architect had to be entered into the Taxonomy, because PWC had many different descriptions for roles and responsibilities.” Other examples occurred in specific regions. When IBM acquired a company in Shenzhen, China, the same thing had to happen, systematically and seamlessly. The roles, projects and individual talent had to be incorporated into the system. Every acquisition is different, and each one presents unique challenges to the system.

A vital question is whether the WMI is actually functioning in the acquired organization and whether the Taxonomy got close enough to capturing the work to avoid missing key strategic integration issues. The Taxonomy had proven to be surprisingly resilient. One IBM HR leader said: “We have actually found that as we acquire new groups, we are not adding new job roles. The new organizations are able to find themselves in the established taxonomy. There are some instances where a word or phrase needs to be updated, but for the most part, we are adding job role skill sets to the Taxonomy to support the depth of knowledge that these acquisitions are bringing to the table.”

As an enterprise business transformation initiative, with a total investment of US\$230 million over the course of its five year business case, IBM received ~US\$1.5 billion in benefits from the WMI; US\$453 million of these significant benefits were hard benefits, flowing directly to IBM’s bottom line.

Of course, no system is ever finished. Frank Persico described the progress as a “shuffle and dwell strategy,” in which they would put something in place and allow the organization to try it for a while, “dwelling” in that phase. Then, if that worked, they would “shuffle” a bit farther and put some new elements in place or respond to concerns. They would dwell there for a while to see if that worked and so on. Ultimately, the IBM team could imagine the Taxonomy becoming the basis for many more aspects of employees’ relationship with their work, beyond skill proficiency and understanding the flow of demanded capabilities. They could conceive of creating a career framework to assist IBM employees in developing a long-range career strategy, or augmenting the skill descriptions with an assessment of mastery in the role elements, and to help employees identify their part in mastering their roles. Indeed, one could even imagine integrating compensation information with the Taxonomy, making it more of a single reference source for all of the information about the roles that defined IBM’s business model. The mind boggled at the potential of this platform!

Still, as the IBM team and Randy MacDonald observed the success of the system, their attention turned to several dilemmas.

### THE DILEMMAS OF THE WMI AS OF 2008

As the team pondered the living and breathing talent system, they saw several challenges. Most of them reflected the fact that successfully implementing such an unprecedented talent system implied redefining many traditional arenas of strategy and talent management.

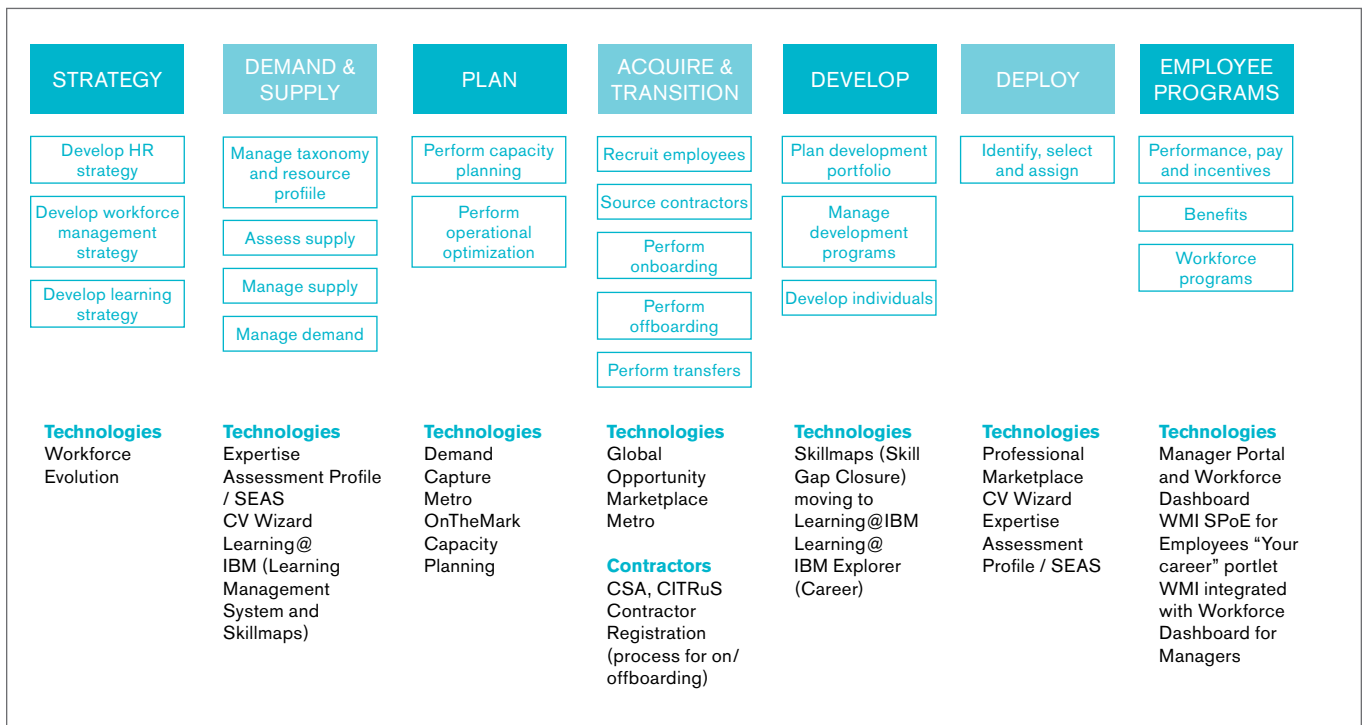
First, there was the issue of cross-country movement and remuneration. Traditionally, when individuals were asked to work on assignments outside of their “home country,” they were often eligible for lucrative compensation packages as inducements to leave and as a way to make their existence in the “foreign” country more similar to the one they left. The new system meant that all IBMers can now look at their skills, compare to the emerging roles, see what they can expect to be available in their own country and then also see what might be available if they

decided to move. Increasingly, development opportunities will only be available to those willing to move, and global migration will become a much more important element of IBM careers. It is no longer possible to predict the locations to which skills will migrate, so the idea of “expatriation” really could have little meaning in the future. This would probably mean that IBM will require those who move to new regions to accept local terms and conditions because labor will be so fluid that it will make less sense to treat people as expatriates. Someone who chooses to move will be competing with talent that is already in country and joining those folks in IBM’s workplace, so comparability is important. Moreover, it will be very apparent that most skills exist at some level all around the globe, making it less easy to justify special treatment for those who move to fill vacancies. Should IBM retire the idea of expatriation and replace it with a broad policy that those who move will be treated comparably to those already in the country?

Second, what were the implications for IBM’s larger dealings with various countries around the world? As the WMI system became more pervasive, it was more important that it contain data on all of IBM’s workers, capabilities and needs. Yet, the world was still defined by a myriad differing approaches to information-sharing, privacy, etc. Different countries each had their own traditions, codified into employment laws that IBM followed to do business there. Some of these traditions and laws prevented or discouraged providing the information that IBM needed in its system. Or, sometimes the information was allowed into the system, but could not be shared beyond country boundaries—something that seriously threatened IBM’s ability to see and move talent globally. How aggressively should IBM work to change these rules? Could it tolerate large “blank spots” in the system as a cost of doing business? Or, had the importance of talent in IBM reached the point where IBM should refuse to do business in countries where rules would compromise the global system? Had things reached a point where considerations of talent transparency might actually drive decisions about what countries IBM would work with? It was conceivable that the WMI could actually help target IBM’s lobbying efforts by identifying those regions where it would be most valuable to get certain governments to clear a path by changing policy. How should IBM’s top leadership incorporate these considerations into IBM’s business decisions?

## THE IMPLICATIONS OF WMI FOR IBM’S HR PROFESSIONAL FUNCTION

Finally, perhaps the most vivid dilemma was how the new WMI would affect the organization and deployment of the HR profession within IBM. As those outside of the HR profession increasingly embraced their role in defining and maintaining the system, and talent planning, development and deployment became a natural part of their work, what was the role of HR? The system could operate with a handful of talented HR managers. That much had been proven. The more difficult question had to do with the roles of HR outside the immediate WMI. For example, what was the role of the HR leader who partnered with the individual businesses, now that business leaders could define and project strategic talent needs using WMI? Did they even need an HR leader to assist with the



talent implications of strategy? What should be the role of the global learning and development organization in delivering development “assets” that were responsive to increasingly independent decisions by employees to choose and pursue their development paths? How should the leadership and career development system change now that the WMI provided real-time information on the talent implications of changing business demands? Should the leadership system move away from traditional activities such as succession planning?

The box above shows the array of “technologies” that had been developed to make the WMI a reality. IBM’s HR leaders depicted the technologies as associated with various stages of the employment “life cycle” from strategy to planning to deployment, and incorporating both programs for strategists, managers and employees.

In a nutshell, could the HR organization be as agile, global and transparent as the WMI? What sort of organizational structure for the HR function made sense? Should the function be centralized in some places and decentralized in others? How should HR educate leaders and employees to use the WMI and make those leaders and employees personally accountable for how they used it? Should the HR organization be the same size, bigger or smaller?

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STRATEGIC HR MANAGEMENT  
CASE STUDY-PART C



IBM's Global Talent Management Strategy:  
The Vision of the Globally Integrated Enterprise

*By John W. Boudreau, Ph.D.*



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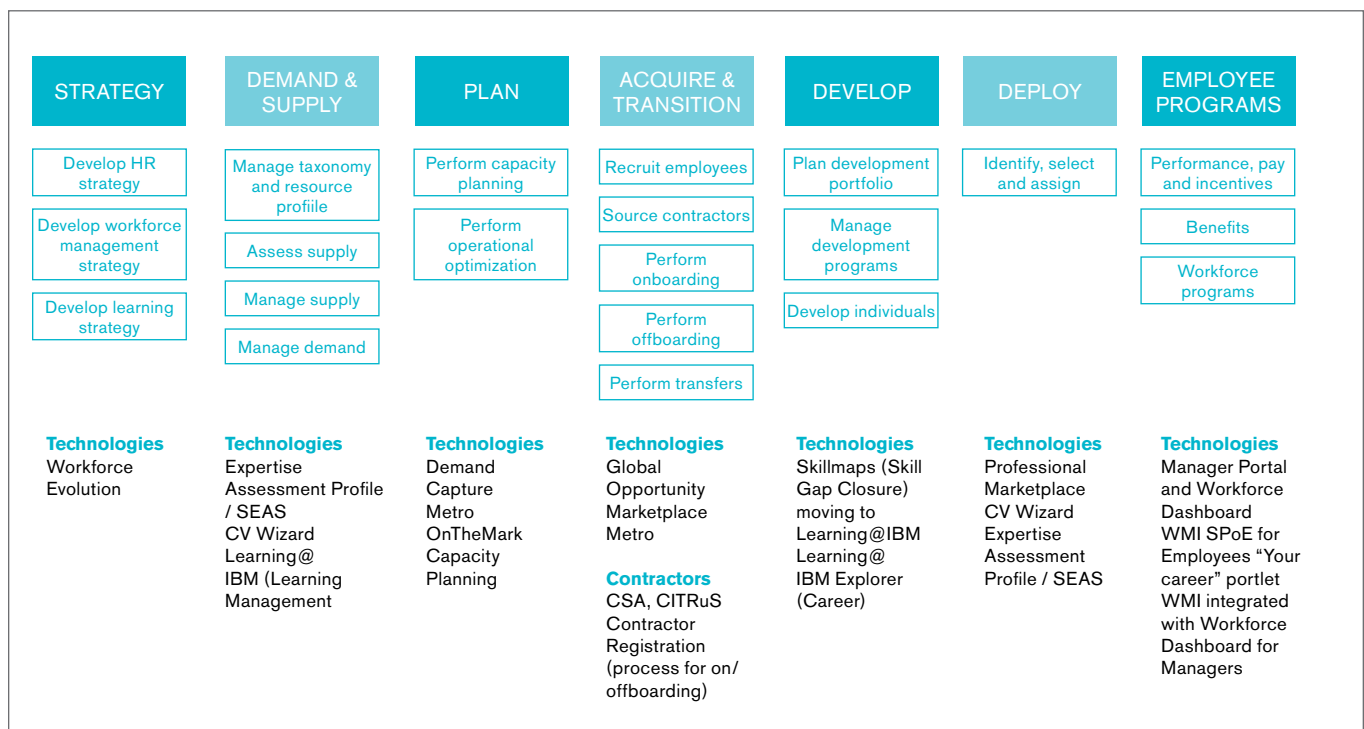
# Case Study Part C

## INTRODUCTION

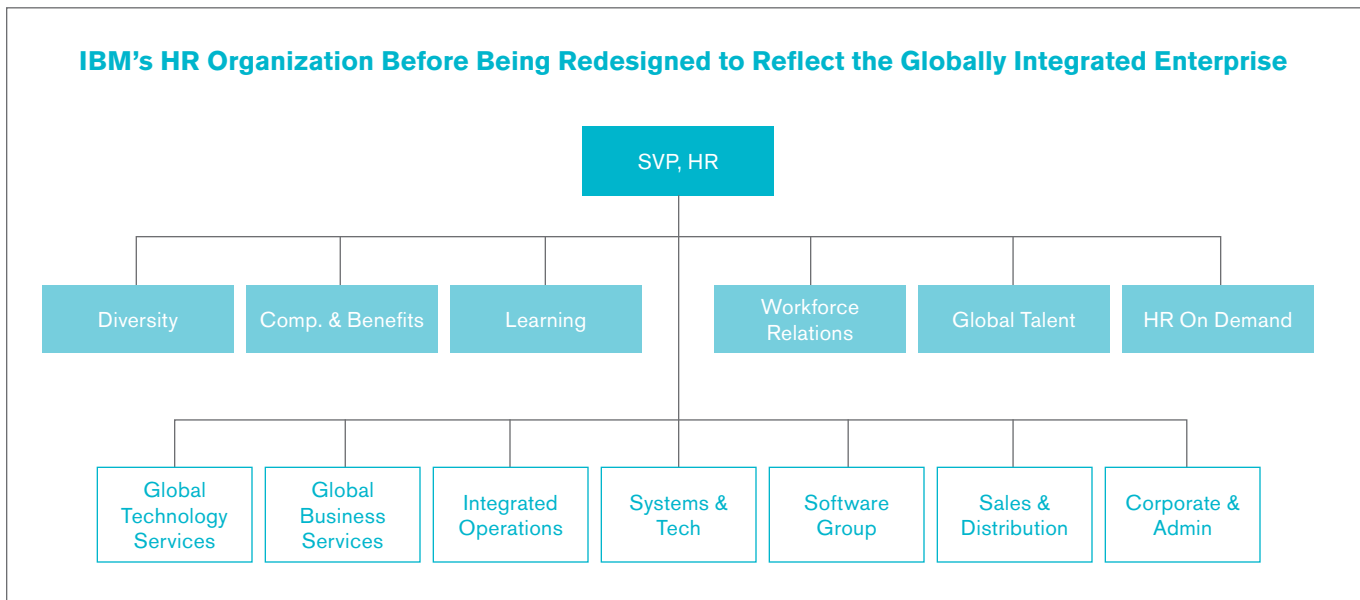
Between 2002 and 2009, IBM had created a unique workforce management initiative (WMI) that reflected the increasing need for global organizations to have a transparent and comprehensive view of their talent supply, requirements and implications for business strategy. The system was successful, being used by more than 80% of all IBMers as a natural way for individuals to track and plan their development and performance, for managers to estimate talent requirements and availability, and for IBM's strategic planners to gather data from this "living market" to estimate future opportunities and challenges.

## CONNECTING THE WMI TO THE EMPLOYMENT LIFE CYCLE PROCESS

Implementing the WMI system required creating or incorporating specific "technologies" into every stage of the employment life cycle, from planning through deployment. It involved tools for HR, IBM managers and IBM employees. The box below shows the technologies and the areas of the employment process they supported.



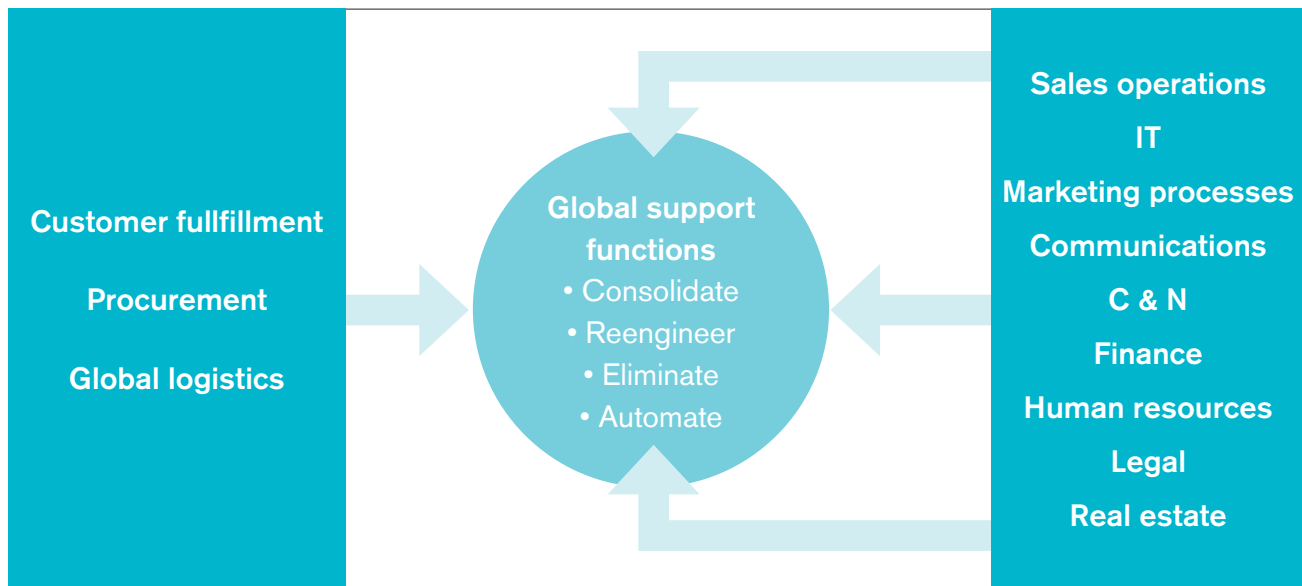
The implication of this system was that a great deal of the day-to-day work involved in workforce management would reside with managers, team leaders and employees. Yet, overseeing, maintaining and improving such a system would require talented HR leaders. Those leaders might be deployed in central organizations that supported workforce management across the globe. They might be located in functionally specific units (such as units that were experts on talent acquisition, training or organization design) that were assigned to particular regions or countries. Moreover, in the existing HR organization at IBM, there were several established roles. Some HR leaders served as “business unit HR leaders” who worked directly with businesses, regions or countries to support their particular strategies and HR needs. Others served in “centers of expertise” and provided specific expertise and consulting in areas such as compensation, benefits, staffing, development and labor relations. Still others served in HR “operations,” maintaining and enhancing the supporting infrastructure of the function, including information technology, communication, legal compliance, and data analysis and reporting. The exhibit below shows IBM’s organization structure before its redesign.



While it was state of the art by traditional standards, the strict divisions between HR roles would not allow enough fluid movement and integration across those roles. For example, prior to the global HR transformation, the top row of boxes below the senior vice president of HR had an HR leader supporting each of the major HR functional areas such as learning, compensation and benefits, diversity, and workforce relations. The bottom set of boxes shows the assignments of other individuals to be HR leaders for the major business units and service areas of IBM. Not only was this division of expertise potentially more expensive, it limited the kind of flexibility needed by a more dynamic and globally integrated organization.

## APPLYING PROCESS EXCELLENCE PRINCIPLES TO HR

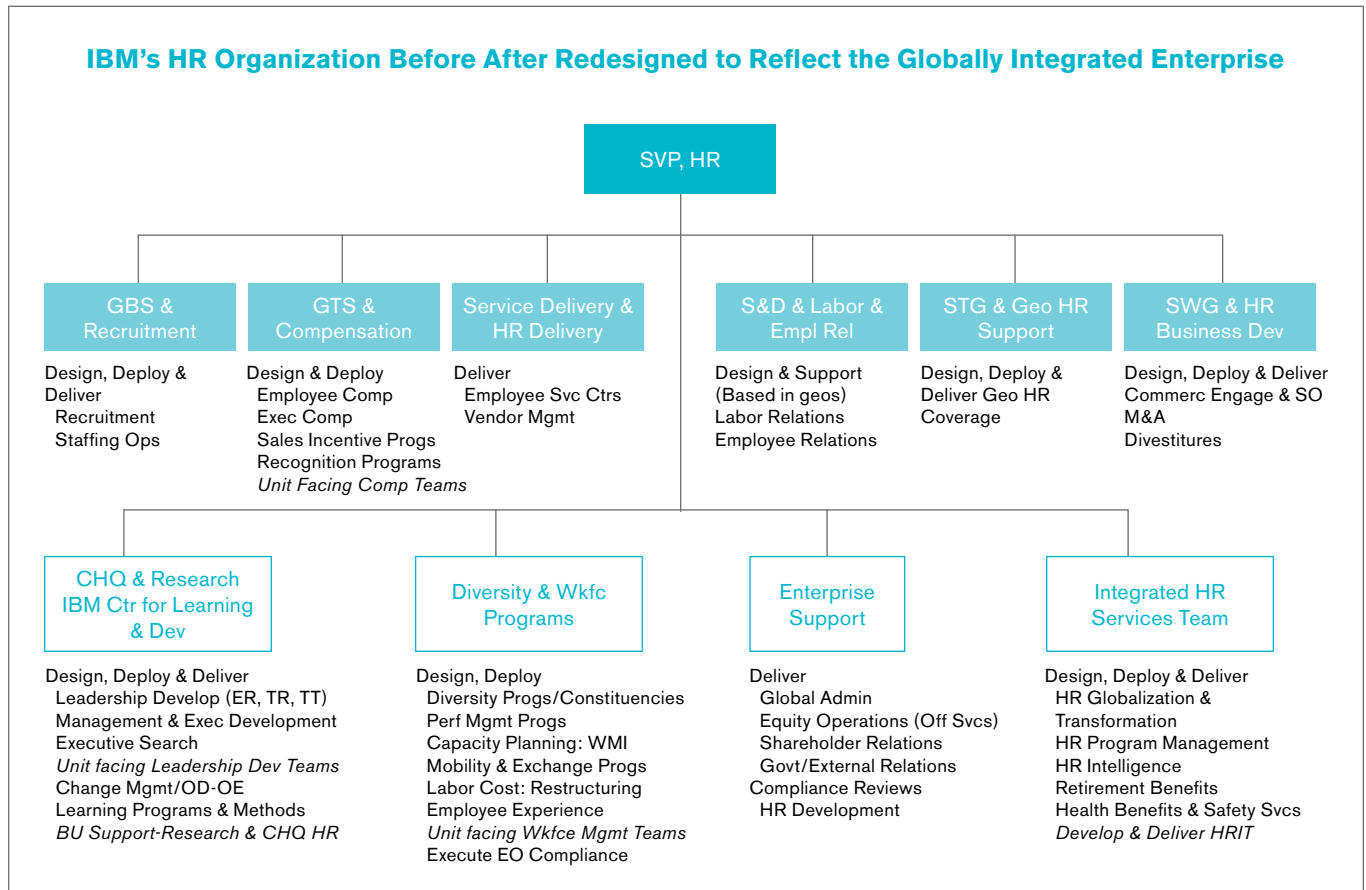
A central tenet of IBM's view of the evolution of world markets was that in order to support a truly globally integrated enterprise, the underlying functions that supported the enterprise (such as sales, marketing, IT and HR) needed to evolve to be "globally integrated support functions" (GISF). A graphical illustration used by IBM to depict the idea is shown in the box below.



What this meant was that HR would need to approach itself as an end-to-end globally integrated solution. What engineering and solution principles might help HR become more efficient and effective in how it moved talent around the world? How could existing HR resources be used more effectively? How might the different HR roles (business partner, center of expertise, operations, global center, etc.) be arrayed most effectively to support this?

The answer came in many forms, some reflected in the broad organization design and mission of HR, and others reflected in subtle changes in HR roles. This was apparent in the new organization structure for HR that emerged as the implications of an end-to-end solution perspective on HR became clearer. The new organization structure is shown in the exhibit on page 48.

In the new organization design, HR processes such as learning, recruitment and compensation were placed where they were most effective. Also, as shown in the second row of boxes in the exhibit, the leaders of each functional area of HR were “dual-hatted,” meaning that they led not only a significant HR functional area, such as compensation or recruitment, but at the same time they supported a large IBM business area as the HR “business partner.” For example, in the left-hand box, the HR leader for the “Recruitment” HR function was also the HR business leader for “GBS,” or Global Business Services. This pairing was made because GBS was the largest user of recruitment services. On the top right, the person in charge of HR Business Development was also the “business leader” for the Software business. These roles were grouped because the Software group had traditionally done the most acquisitions.



## PUTTING HR PROCESSES WHERE THEY ARE MOST EFFECTIVE

One significant idea was that HR activities, like IBM's talent more generally, would be placed where they could be most cost-effective. For example, administration of IBM's learning system had been based in Florida, but the servers that supported the data system for learning were located elsewhere. Why not move those servers to Florida so that the program implementation and data support could be more integrated?

A growing realization was that with global changes in the labor force, the heaviest WMI workload was going to be in Asia. Yet, HR administration and support had traditionally been housed in the United States. The support center was a 24/7 operation to be sure, but if the heaviest demand was going to occur during business hours in Asia (the middle of the night in the U.S.), did it really make sense to have U.S. HR staff working in the middle of the night instead of moving the support center to Asia?

## DUAL-HATTING GLOBAL PROCESSES AND BUSINESS PARTNERSHIP

An implication of the dual-hatting model within the Global Integrated Enterprise was that there would be a much stronger connection between the day-to-day talent planning at the business level and the operations that were supported centrally. The challenge became how to develop and motivate HR to have an eye on both the central and the business-specific elements of performance. Traditionally, it was very easy for the HR operations to become disconnected from the business operations, because HR leaders working as business partners might not be familiar with the global process operations and vice versa.

The GIE model and WMI required something different. This organizational model change requires integration between line HR and staff HR initiatives and day-to-day activities. The idea was that about 100 HR folks would run the WMI full time, but it would work because more than 500 HR business partners would understand it and help their business units use it on a day-to-day basis. This meant that the WMI processes needed to be simple, intuitive, easily learned and applied, and the organizational model had to be integrated in a way that enabled such implementation.

The "dual-hatting" of top HR leaders, described in the exhibit on page 48, played a key role. This had the effect of keeping the global processes as simple as possible. It is easy for such processes to grow in elegance and complexity when the person responsible for them is solely focused on enhancing them and constantly adding the latest innovation. However, when the person running a global process also has responsibility for supporting a unit with thousands of employees, the amount of available time becomes very limited. This sets a natural priority so that only the most vital and impactful innovations are made in the process, and the process itself is relentlessly simplified. Otherwise, no one would have time to do both jobs effectively!

## SUCCESS AND CHALLENGES ON THE HORIZON

The successful evolution of IBM to a GIE and the development of the WMI to support it through talent was justifiably regarded as a financial and organizational success. IBM could point to its own evolution as an example of the kind of transformation its products and services could engender in its customers.

IBM's talent management system was fast becoming a uniform—yet constantly adapting—tool not only with the HR function but throughout the organization. The underlying logic of the Taxonomy was not only enhancing utilization rates and responsiveness, but also supporting a stronger “decision science” for talent management by seamlessly integrating demand, supply and development. The increased clarity between the “demand signals” in the businesses and the response of the talent system allowed greater speed and clarity. For example, IBMers noted that a decision to manufacture chips for video games changes the skill set needs of IBM's chip manufacturing in as little as six months. IBM's HR partners must be ready to work with business leaders and flex to that new demand immediately once the business decision is made. The Taxonomy and the WMI allow those business signals to be translated into specific talent capabilities, which can be arrayed against learning assets and talent movements. Rich Calo used an ice hockey analogy and likened this to allowing HR to “skate to where the puck is going to be” rather than reacting to changes after they occur.

This success brought its share of new questions.

- How would the new structure and roles for the HR function change the necessary qualifications for future IBM HR leaders? For example, would the blending of the roles of business support and centralized functional support create a greater need for HR leaders adept at both business and traditional HR capabilities? Would traditionally trained HR recruits have the necessary background in business? Would traditionally trained MBAs have the requisite capabilities in the disciplines of HR?
- How would the new structure and roles change the necessary qualifications for the role of leaders outside the HR profession, as talent strategists and decision makers? As more key decisions about talent demand, supply and development were made by business leaders working directly with employees, what skills should all business leaders be expected to have regarding fundamental principles of learning, engagement, motivation and employee relations? Should IBM's business leaders be as informed about principles of talent markets and decisions as they were about principles of decisions and markets for money, customers, supply chains and technology?

- How would IBM leverage its success with the WMI directly into products, revenue and customer service? Few organizations had systems that so seamlessly integrated talent with business needs, and many organizations were willing to invest to attain such systems. To what extent could IBM's lessons in developing its internal talent systems become services and products for its clients? Who should run such a business?
- How could HR retain the vital balance between the “soft” and the “hard” benefits? The WMI enhanced HR's role as a data-driven and analytically powerful discipline, capable of solving talent issues with the kind of mathematics and logic previously reserved only for more tangible resources. Was there a danger that the intangible and unquantifiable aspects of IBM's employment relationship might be lost in a sea of numbers, equations and optimization rules? After all, people are still not simply elements of an inventory or products awaiting shipment. Should the job of retaining IBM's intangible values and employment brand be explicitly assigned, or should it be a specific accountability for every business and HR leader?



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IBM's Global Talent Management Strategy:  
The Vision of the Globally Integrated Enterprise

*By John W. Boudreau, Ph.D.*

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# Teaching Notes—Part A

Instructors can formulate classroom discussion and board plans around several different disciplinary frameworks, including change management, workforce planning, talent globalization, the tradeoffs between organizational customization and standardization, and the nature of the HR value proposition.

Part A is particularly useful for instructors teaching these topics:

- Competitive strategy.
- Strategic choices in services and technology.
- Evolution of competition in the technology and services industries.
- Strategic role of talent and human capital in supporting competitive dynamics.

A board plan might look something like this:

- Competitive context.
- IBM's competitive position in 2003 and going forward.
- Vital differentiators for IBM to compete effectively.
- How does GIE fit IBM's competitive choices?
- Human capital and talent implications.
- Does the WMI address the strategic human capital, organizational and talent needs of IBM?
- What should Randy do?

A typical discussion agenda might include the following topics and questions:

1. What factors characterized the competitive environment that IBM faced in 2003?
2. In 2003, what was IBM's decision regarding how it planned to compete in that environment? What was going to make IBM unique? On what dimensions did IBM plan to excel, and on what dimensions did IBM expect competitors to excel?
3. Why was a globally integrated enterprise such an important organizational design goal for IBM, considering its decisions about where and how it would compete going forward?
4. What things about IBM's culture, history, values, organization and workforce offered support for creating a globally integrated enterprise? What things offered potential hindrances to the globally integrated enterprise?

5. What specific human resource management and human capital indicators suggested that a change was needed in how IBM approached its talent management decisions? If you were an IBM business leader, would you care about improving talent management at IBM? What would be the evidence you would probably be seeing that would cause you to desire an improvement? If you were an HR leader at IBM, why would you care about improving talent management? Are the answers for a non-HR leader and an HR leader the same?
6. If you were a board member or a member of IBM's executive team and you were presented with the vision of the "Workforce Management Initiative" shown in the case and told that implementing such an initiative would take several years and cost up to US\$100 million, would you embrace the initiative or resist it? Why?
7. Consider the questions posed in the last section of the case study (pages 13-15). How would you design the change-management initiative and the WMI itself in answer to these questions? Why would you make those choices? What do you think Randy and the IBM HR and executive team decided to do?

*NOTE: If the class will continue to analyze Part B, the final question above provides a very good transition into that case. Or, an instructor might provide Part B as a supplemental set of material for students to read; it shows how IBM decided to proceed to address the dilemmas outlined at the end of Part A.*

**Useful sources include:**

Dowling, P. T., & Schuler, R. S. (2005). *International human resource management*. Excel Books.

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# Teaching Notes—Part B

The Part B case focuses on the design of a talent management language that can provide seamless connections between the talent demands as they occur in businesses and projects and the talent responses that are undertaken by employees, managers and HR leaders.

This part is suitable for a course in human resource management or the portion of a general management course that deals with connecting human capital investments and programs to organizational strategy.

A board plan might look something like this:

- The connection between GIE and WMI: Why was WMI needed?
- WMI general structure and goals: Can they achieve the strategic objectives?
- WMI and talent supply chain: How is WMI like an inventory and supply chain system?
- The talent language and “demand signals:” Why was it so important to establish a common language for talent, and what did it accomplish?
- Measurement and evaluation: How were the tangible returns from WMI actually measured?

Several learning areas can be used to structure case analysis and discussion:

1. Instructors in general management programs might introduce the notion of a talent supply chain, perhaps drawing the connections between external suppliers, recruits, hires, developed employees and employees assigned to projects. It can be instructive to note how similar these connections look to a traditional supply chain that acquires unfinished goods or raw materials and then moves them through processes to finish them, store them and deploy them to retail channels where they are sold and used by customers.
2. Instructors might organize this discussion by developing a diagram of the talent “life cycle” (such as attraction, acquisition, development, deployment, engagement, attrition, etc.), and how the life cycle relates to the basic questions of talent supply, demand and gap resolution. Addressing the life cycle requires applying an array of talent programs, which must be integrated together using a logic that expresses the supply, demand and talent gaps in a comparable way. Underlying this integration of the life cycle with the gap analysis and program deployment are the costs and benefits of the system itself. The idea is to invest and deploy cost-effective HR programs that create the greatest value by



addressing the most vital gaps with the right elements of the talent life cycle. Are the programs outlined at the end of Part B the right things to implement?

- 3.** Instructors can use the case to illustrate the limitations and promise of traditional approaches to the “language” of talent (such as job descriptions and competencies) and their value as a framework for talent planning and investments. Students might recall their own experience trying to construct job descriptions or trying to use them as the basis for assessing talent needs and strategies. Similarly, instructors might present any one of many leadership competency frameworks and engage in a discussion about their use and limitations as talent planning frameworks. This can be contrasted with the approach that IBM took and how it built upon and went beyond them. Students can also be challenged to consider the additional opportunities to improve this system. For example, the system emphasizes work role descriptions and skill sets, but should it also include such things as traits (such as personality and values) or needs (such as preferences for location, work schedule, etc.)?
- 4.** Instructors can also engage in a discussion about how such a system should be measured and evaluated. The case notes that the system is likely to require investments of up to US\$100 million over five years (as the case notes, the actual cost was twice this much over seven years) and presents IBM’s method of assessing the returns on that investment. Students might be asked to react to the analysis of utilization rates and “hard” and “soft” benefits. Is IBM’s approach sufficient to adequately capture all the costs and benefits? What other elements might be examined to better understand the true effects of the system? What would students want to see if they were an HR leader or non-HR leader at IBM?

# Teaching Notes—Part C

Part C of the case focuses specifically on the design of the HR organization and the changing roles of HR professionals as a result of adopting the workforce initiative that supports IBM's globally integrated enterprise. Students obtain a deep understanding of how IBM modified the traditional HR structure, which largely separates the roles of corporate leader, business partner, functional expert and operations manager, and instead attempted to combine many of these roles. The seamless connection between operations, business support and functional leadership is striking. The case provides an opportunity to consider questions about the optimal structure and design of HR functions and staff functions generally.

This part is most suitable for a course in human resource management or organizational design.

Instructors might motivate class discussion in the following ways:

1. Call attention to the contrasting organizational structures that describe IBM's HR organization before and after the change.
2. Consider the questions of “capability” (can the person do what is needed?), “opportunity” (does the person get the chance to perform what is needed?) and “motivation” (is the person driven to do what is needed?) as they apply to the different roles in the newly designed HR organization. Students can use the COM framework to note where HR employees will have the greatest challenge adapting to the new system and where their roles, rewards and work challenges will remain more constant.
3. Discuss the future profile of HR leaders and non-HR leaders in systems such as IBM's. Students can discuss the meaning of “business partner” for staff functions, and whether organizations should emphasize deep background in the HR profession, broad business understanding or both. Students can reflect on their own preparation and whether it would be sufficient to become a business or HR leader at IBM. What kinds of individuals go into HR now and in the future? What is IBM's population of HR leaders likely to be like now and in the future?

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