

WHITE PAPER

The Economic Impact of Microsoft Windows Vista

Sponsored by: Microsoft

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IN THIS WHITE PAPER

This White Paper quantifies the forecasted economic impact the Microsoft Windows Vista operating system will have on a region consisting of six European countries: Denmark, France, Germany, Poland, Spain, and the United Kingdom. The impact is seen in IT employment and in revenues to local firms. It is based on an IDC methodology that has been applied over the last several years to more than 40 countries. Because of the use of different currencies in the region, figures are quoted in euro.

Executive Summary

The availability of Windows Vista, Microsoft's first major new operating system released for PCs since Windows XP appeared in 2001, will begin in late 2006 with the launch of an enterprise version for selected customers and will continue through 2007.

For Microsoft, this launch will be a major event, inasmuch as the Windows client operating system accounts for 30% of Microsoft's revenue and 60% of operating income¹. On the heels of Windows Vista will come two other programs, Office 2007 and Exchange Server 2007, which will also drive revenues into the market.

But Windows Vista's impact on the market will reach far beyond Microsoft, driving revenues and growth for many of the 1 million IT companies worldwide that sell hardware, write software, provide IT services, or serve as IT distribution channels.

The IDC research in this White Paper indicates that:

- ☑ Within its first year of shipment, IDC expects Windows Vista to be installed on more than 100 million computers worldwide. More than 30 million computers in the region studied are expected to be running Windows Vista.
- ☑ In the six countries studied, Windows Vista-related employment will reach more than 20% of IT employment² in its first year of shipment.

¹ Microsoft 2006 year-end figures.

² See Definitions and Methodology section for a description of the calculations.

- ☒ While much of this employment will shift from Windows XP-related employment, over 50% of the *growth* in IT employment will be driven by Windows Vista.
- ☒ For every euro of Microsoft revenue from Windows Vista in 2007 in the six countries studied, the ecosystem beyond Microsoft will reap almost 14 euro in revenues. In 2007 this ecosystem should sell over €32 billion (\$40 billion) in products and services revolving around Windows Vista.
- ☒ Within the six-country region, in 2007 over 150,000 IT companies that produce, sell, or distribute products or services running on Windows Vista will employ over 400,000 people; another 650,000 will be employed at IT using firms.

And although the study focused only on six countries, together they account for over 65% of IT spending in the European Union economic zone (defined as the EU plus Croatia, Norway, and Switzerland). Rapid and widespread adoption of Windows Vista means that its launch will not only affect Microsoft but will also have a pronounced positive impact on local economies throughout Europe.

Background to This Study

Since 2002, IDC has been conducting studies on the economic impact of IT, software, and the Microsoft ecosystem and partner community on local economies. This impact comes in the form of job creation, company formation, and increased IT spending. Over the years, IDC has developed an Economic Impact Model (EIM), which ties local IT spending to the economic metrics. The model output — jobs, GDP contribution, etc., — has been validated with local government sources, and thus calibrated. The economic impact and reach of the Microsoft ecosystem, which we call the Microsoft Footprint, have been studied in more than 40 countries since 2004.

The most recent major updates to the EIM took place in the spring of 2006 in a study of 28 countries in Europe, and before that in the fall of 2005 in conjunction with a study for the Business Software Alliance on the economic impact of lowering software piracy rates around the world. In that study, the EIM covered 70 countries.

In 2006, Microsoft asked IDC to predict the economic impact of the upcoming launch of the Windows Vista client operating system. Six European countries were chosen as a test bed for the new methodology: Denmark, France, Germany, Poland, Spain, and the United Kingdom.

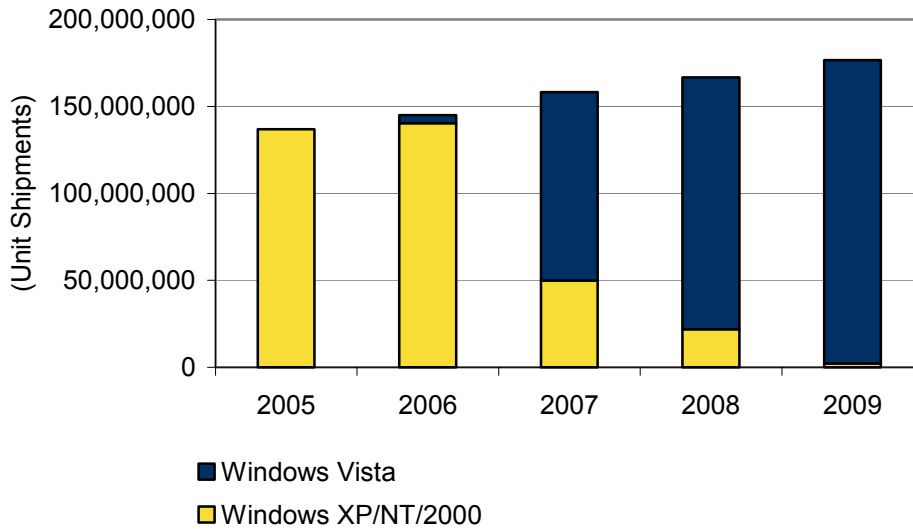
WINDOWS VISTA LAUNCH AND ADOPTION

According to Microsoft, the official launch of Windows Vista will take place in stages from late fall 2006 to early 2007. Specifically, certain enterprise customers will have access to certain versions of Windows Vista in November 2006. Consumer versions will be available in early 2007. Thus, Windows Vista will be in production shipments for almost all of 2007, which is a key premise of this study.

Figure 1 shows IDC's published forecast of Windows Vista unit shipments worldwide by year compared to Windows XP, NT, and 2000.

FIGURE 1

Microsoft Client OS Forecast — New License Shipments



Source: IDC *Windows Vista Economic Impact Study*, 2006

On a worldwide basis, IDC forecasts more than 105,000,000 units of Windows Vista will ship in 2007. Among the countries selected, that means more than 30,000,000 units should be shipped, driving almost €2.4 billion (\$3 billion) in revenue to Microsoft.

In the scheme of total IT spending, Microsoft's Windows Vista revenue will be small — about 1% of total IT spending in the six countries studied in 2007 and 5–6% of total spending on software. But Windows Vista means more than revenue to just Microsoft. It will also drive revenue for hardware companies, other software companies, service firms, and channel firms.

To understand this overall impact requires first understanding the importance of software to the larger IT economy.

The Importance of Software

On a worldwide basis as well as in the six countries studied, packaged software accounts for about 20% of total IT spending. That's spending on operating systems, applications, and development tools for everything from ultra portable computers to large mainframes. But this software generates related activity. People in service firms install, integrate, support, and train others on software. People in computer stores, system resellers, and distribution companies spend time selling and delivering software.

Because software is more complex to sell, service, and support than hardware, euro for euro, software generates more downstream economic activity than hardware.

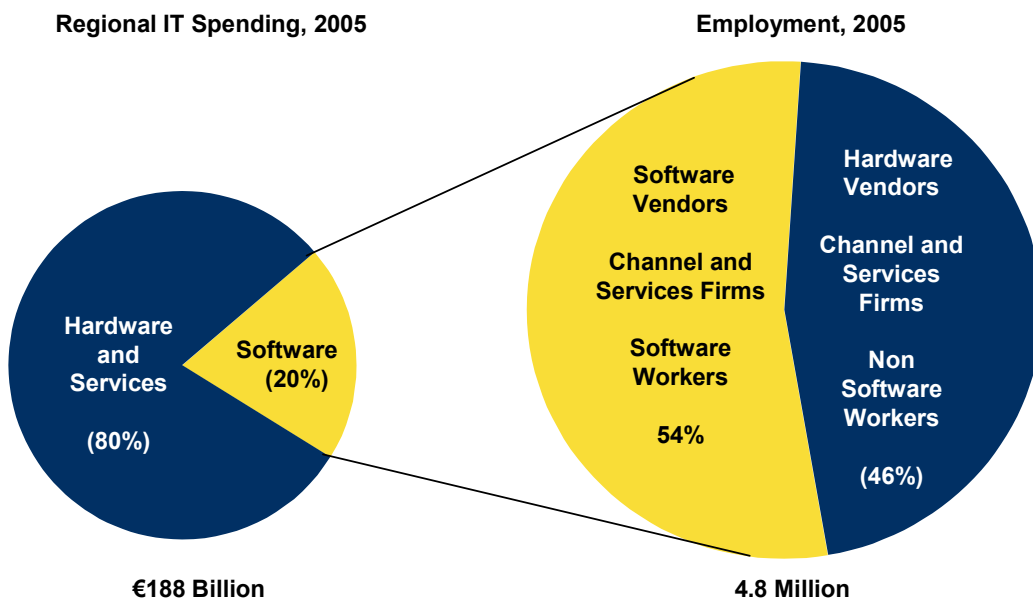
IDC's analysis of the IT services market shows that for every euro of packaged software sold, there is another €1.25 in revenue to IT service firms. That software revenue and additional services revenue also drive revenue in the distribution channel. These multiple revenue streams pool to help fund employment.

IDC's interviews with user organizations also confirm that in IT organizations, the allocation of staff is quite disproportionate in favor of software in comparison to software's share of the external IT budget.

Figure 2 shows how spending on software compares to employment driven by software in the region. In short, while packaged software accounts for 20% of IT spending in the six countries studied, it *drives* more than 50% of IT employment.

FIGURE 2

Software's Outsized Influence



Source: IDC, 2006

This is one of the important reasons why Windows Vista can have a much larger impact on an economy than Microsoft's revenues alone.

The Regional IT Landscape

The six-country region will show modest but healthy growth in IT spending between now and early 2007, when Windows Vista will be fully available, and good long-term prospects — about 6% a year in IT spending growth through 2010.

Because the six countries in this study represent almost 67% of IT spending by countries in the European Union economic zone, they are quite representative of Europe as a whole, and, for that matter, much of the developed world.

For the region, the overall forecast for 2007 looks like this:

- ☒ IT spending, €214 billion (\$267 billion)
- ☒ Packaged software spending, €42.8 billion (\$53.5 billion)
- ☒ IT employment, 5.2 million
- ☒ Software-related IT employment, 2.8 million

This is the environment into which Windows Vista will be launched. Conditions are good for the investment required of user companies and Microsoft business partners in making the rapid transition from Windows XP or NT to Windows Vista predicted by IDC.

The Impact of Windows Vista

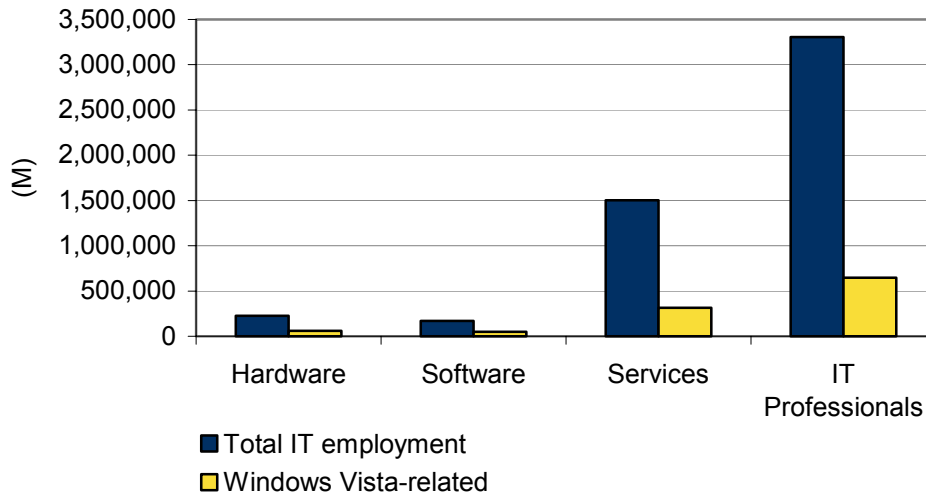
Applying the same methodology used to determine software-related employment, IDC has determined Windows Vista-related employment. As a subset of the software market, Windows Vista will drive a subset of employment. As an operating system, however, it will drive a larger share than the average application package or development tool would.³

Figure 3 shows how Windows Vista-related employment compares to total IT employment by category for the region studied. Within the region, more than 20% of IT employment will be Windows Vista related in its first 12 months of shipment. Windows Vista's influence will be even greater in 2008, when enterprise deployments hit full stride. In 2008, IDC predicts that 80% of Microsoft client operating systems shipped into enterprises will be Windows Vista.

³ The methodology entails examining 20 categories of IT spending and using IDC published research to estimate the percentage that will run on or support Windows Vista in 2007. This determines the subset of IT spending that is reliant on Windows Vista, which in turn is used to estimate Windows Vista IT employment.

FIGURE 3

Windows Vista–Related IT Employment



Note: Windows Vista–related employment in 2007 is expected to be 1.1 million, or 21% of total IT employment.

Source: IDC *Windows Vista Economic Impact Study*, 2006

Table 1 below shows total IT employment and Windows Vista–related employment by country. Within the group, Poland has the highest percentage of Windows Vista–related employment. This is a function of the high percentage of overall hardware spending that is related to personal computers, which, in turn, drives up the importance of client operating systems.

TABLE 1**Windows Vista Impact on IT Employment in 2007**

	Total IT Employees	Windows Vista-Related Employees*	Windows Vista (%)
Denmark	151,000	27,000	18
France	1,250,000	248,500	20
Germany	1,607,000	320,000	20
Poland	274,500	79,000	29
Spain	512,500	114,500	22
United Kingdom	1,406,000	281,500	20
Total Group	5,201,000	1,070,500	21

* Employees in companies that create, sell, distribute, or service hardware or software that runs on Microsoft client operating systems and IT employees at user organization that develop applications, service, or maintain such hardware or software.

Source: IDC, 2006

The Windows Vista Effect

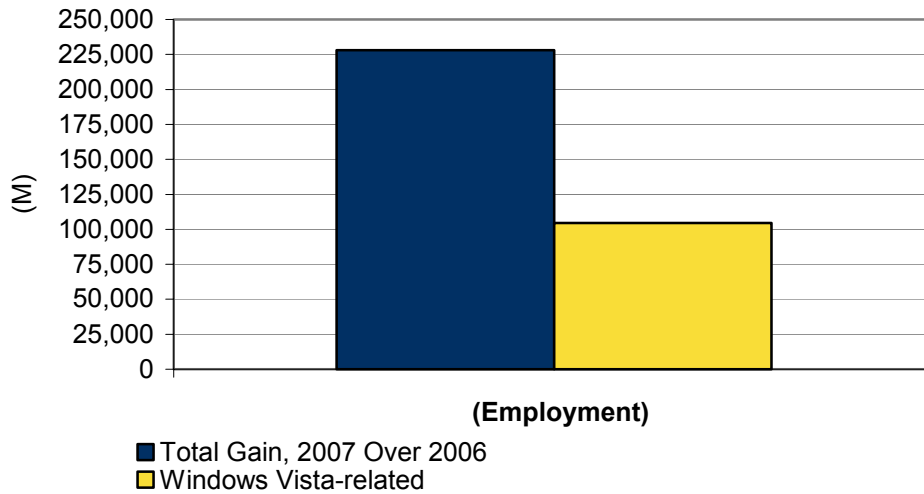
The methodology so far only depicts the total employment related to Windows Vista in 2007. But how does Windows Vista's economic impact compare to the impact of its predecessor client operating systems in 2006? Is there a significant net gain, or economic "bounce," from Windows Vista?

To determine whether there will be such a gain, IDC applied the same economic impact methodology it used on Windows Vista in 2007 to the other Windows client operating systems in 2006 to obtain a baseline of Windows client-related employment.

Figure 4 shows *net difference* between the economic impact of Windows Vista in 2007 and its predecessor client operating systems in 2006. Windows-related employment is expected to jump by 100,000 jobs.

FIGURE 4

The Windows Vista Effect



Note: Net Windows Vista-related gain in 2007 compared to 2006 baseline

Source: IDC *Windows Vista Economic Impact Study*, 2006

While some of this gain would likely happen as a result of general market growth, between 2006 and 2007 Windows Vista's *share* of total IT employment is expected to go up. Based, however, on expected growth in overall IT employment, IDC believes that more than half of the gain in Windows-related employment will be specifically related to Windows Vista. It is growth that IDC believes would not occur were Windows Vista not in the market.

Windows Vista, then, will infuse significant new energy into the market in its first 12 months of shipment, driving important job growth and new industry revenues.

The Reach of the Microsoft Ecosystem

While it is easy to think of Microsoft as simply the world's largest software company, it is more than that. It is an economic force that has a direct, positive impact on the countries in which it operates.

Microsoft partners and OEMs sell PCs and servers running Windows; software vendors write applications that run on Windows using Microsoft application development tools; retail outlets and resellers employ people to sell and distribute these products; and service firms install and manage Microsoft-based solutions, train

consumers and businesses on Microsoft products, and service customers for their own applications.

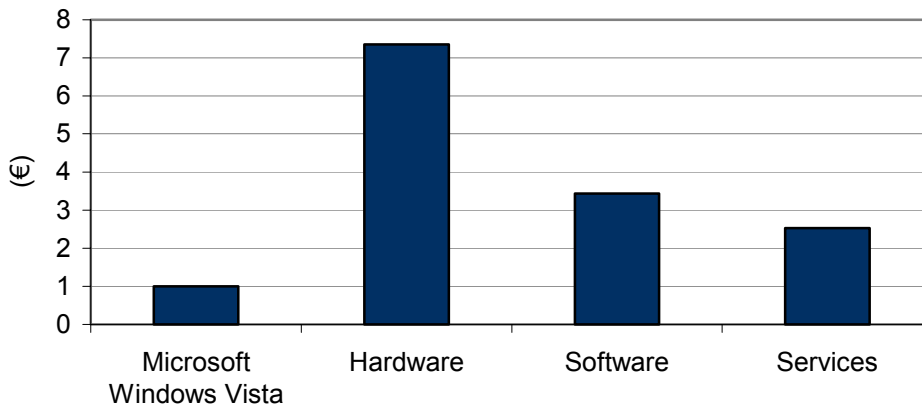
If you add up all the spending on hardware and software that run on Microsoft operating systems as well as all the services around installing and maintaining Microsoft applications and solutions, you quickly come up with a number much bigger than Microsoft's revenues. It grows even *larger and more significant* when compared to the subset of Microsoft revenues for operating systems.

In the region, Microsoft ecosystem-related activity is expected to be more than 16 times Microsoft's expected Windows Vista revenues in 2007, or somewhat over €32 billion (\$40 billion). These are revenues of OEMs selling hardware running on Windows Vista, revenues for software packages (excluding Microsoft packages) running on Windows Vista, and services supporting Microsoft Windows Vista. Some of the hardware revenue, much of the software revenue, and most of the services revenue accrue to local companies.

Figure 5 shows the euro relationship between estimated Windows Vista revenues in the region and revenues on Windows Vista-enabled hardware, software, and services.⁴ For every euro of Microsoft Windows Vista revenues in the region, other companies make €13.30.

FIGURE 5

Windows Vista and the Local Economy



Note: For every euro of Microsoft Windows Vista revenue expected in 2007, IDC expects €13.31 to be generated in revenues by other companies in the Microsoft ecosystem.

Source: IDC *Windows Vista Economic Impact Study*, 2006

⁴ Microsoft revenue from Microsoft applications, such as Microsoft Office, that run on Windows Vista are not included in the chart.

Table 2 below breaks down the Windows Vista–related revenues compared to Microsoft's revenues from Windows Vista by country.

TABLE 2

Euro of Windows Vista-Related IT Spending Per Euro of Windows Vista Revenue, 2007

	Total	Hardware	Software	Services
Poland	€ 12.17	€ 8.99	€ 1.17	€ 2.01
Denmark	€ 14.16	€ 6.77	€ 3.86	€ 3.52
France	€ 12.64	€ 7.36	€ 2.78	€ 2.49
Germany	€ 14.72	€ 7.23	€ 4.86	€ 2.63
Spain	€ 10.70	€ 7.37	€ 1.57	€ 1.76
United Kingdom	€ 13.63	€ 7.24	€ 3.64	€ 2.74
Group Total	€ 13.31	€ 7.35	€ 3.43	€ 2.53

Source: IDC, 2006

Within the group there are some minor differences. Poland's high share of hardware spending on PCs helps drive up its hardware ratio; Spain's smaller software market compared to total IT spending shows up in its software ratio; and Denmark's strong services sector — 50% of total IT spending — shows up in its services ratio.

But the overall trend is clear. Across a diversified set of countries, Windows Vista will still drive many more euro for other companies than for Microsoft.

The Microsoft Partner Community

Within the Microsoft ecosystem is a subset of vendors that are recruited and supported by Microsoft as OEMs and registered partners. Depending on the level of business and commitment to Microsoft products, there are different tiers of partners.

Microsoft partners are a diverse group of companies, running the gamut from large international vendors, like major PC manufacturers, to very small national resellers and software entrepreneurs. (In fact, IDC estimates that within the European Union economic zone, 70% of IT employees work in companies of 500 employees or less.) In aggregate, Microsoft partners account for most of Microsoft's revenues and a good portion of Microsoft-related revenues.

Because these companies often have a specialty in the Microsoft product line and invest in additional training and certification, they tend to get more out of their investment in Microsoft software than non-affiliated members of the general ecosystem.

With the Windows Vista launch, those partners and OEMs will drive their own revenues by:

- Reselling Windows Vista
- Reselling other Microsoft software that runs on Windows Vista
- Selling their own software
- Selling services on the Microsoft software
- Selling services on their own software and that of others that run on Windows Vista
- Reselling partner-developed software that runs on Windows Vista
- Selling or reselling hardware that runs Windows Vista

Figure 6 shows the various permutations by which Microsoft partners, excluding OEM PC suppliers, will drive revenue off Windows Vista in the region, with proportions to scale.⁵

Note that in Figure 6, Microsoft's Windows Vista revenues are depicted by the left-most column. All other columns depict: partner revenues from selling their own software that runs on Windows Vista (the second column); partner revenues from servicing either their own software or Microsoft software, including applications that run on Windows Vista and Windows Vista itself (the third column); partner revenues from distributing such software and services (the fourth column).

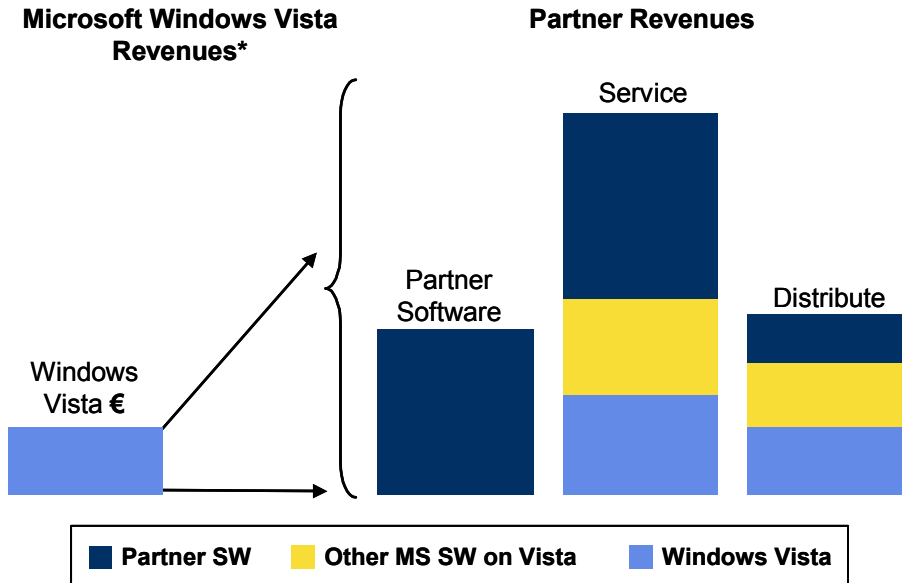
All told, Microsoft partners are expected to make €2.50 more per euro of Microsoft Windows Vista revenue than the general ecosystem.

These ratios show why Microsoft partners have an incentive to invest in Windows Vista, and many have been hard at work learning the new operating system, writing applications for it, and preparing services around it. Based on standard software and services industry ratios for spending on product development, marketing, and training, Microsoft partners should be investing over €4.8 billion (\$6 billion) between now and the end of 2007 readying their products and services around Windows Vista and then rolling them out.

⁵ The revenue allocations are based on IDC data on Microsoft partners studied using surveys conducted several times a year, most recently refreshed in the spring of 2006. The sample used for the allocations included 300 partners offering solutions running on Microsoft client operating systems.

FIGURE 6

Windows Vista and Partner Revenues



Note: *Licenses sold through partners.

Source: IDC *Windows Vista Economic Impact Study*, 2006

IDC research supports the idea that the more partners invest in Windows Vista, the more that investment will pay off. In a worldwide study last year of companies with the highest level of certification in Microsoft operating systems, IDC found that in 14 key performance indicators, partners with the highest certification levels had better results than companies without that certification in almost every category. This top echelon had revenue growth, deal growth, and customer growth twice that of the other baseline companies. Sales cycles and delivery cycles were a third faster. Daily billing rates and capacity utilization were 10% higher.

Windows Vista is not just a product of Microsoft. In the market place, it will be a constellation of solutions and services delivered by an entire ecosystem.

What's more, this ecosystem is rooted, for the most part, within each country's market. Within the six-country region IDC estimates that there are over 150,000 companies in the Microsoft ecosystem; within the European Union economic zone, there are over 300,000. These are companies driving revenues and employment city by city, country by country.

SUMMARY AND OUTLOOK

The IDC research shows that the launch of Windows Vista will precipitate cascading economic benefits, from increased employment in the region and increased taxes to a stronger economic base for those 150,000+ local firms that will be selling and servicing products that run on Windows Vista. At least a million IT professionals and industry employees in the region will be working with Windows Vista in 2007.

These direct benefits — 100,000 *new* jobs — will help the local economies grow, improve the labor force, and support the formation of new companies. The indirect benefits of using newer software will help boost productivity, increase competitiveness, and support local innovation.

While the region studied is just one part of a heterogeneous global market, it is also a leading indicator of global trends in the IT sector. General conclusions about the region would apply to much of the rest of the world. Windows Vista will be an important launch for Microsoft, but it will be an even more important launch for a much larger and more extensive community around the world.

Definitions and Methodology

Economic Impact

IT Spending — Spending by consumers, businesses, governments, or educational institutions on information technology, including hardware, software, services, and data networking, as measured in the IDC's *Worldwide IT Spending Trends* reports (The Worldwide Black Book). This spending *excludes* all telecommunications revenues and some smaller emerging technology areas, such as videogames (although PC gaming software *is* included).

IT Employment — The number of people employed (full-time equivalent) in hardware, software, services, or channel firms and those managing IT resources in an IT-using organization (e.g., programmers, help desk, IT managers). The definition *excludes* employment in occupations in IT-related industries, such as Web graphics design, venture capital, trade magazine publishing, etc.

Headcounts by category were first modeled based on estimated IT revenue per employee for hardware, software, or services companies based on standard ratios, and by levels of spending per employee by technology type for channels employees and IT professionals. Over time, these headcounts have been validated with local country governments and other sources, although they often vary from these sources as a result of definitional differences.

In its forecasts, IDC was conservative in how much growth in IT spending would result in IT employment — in general, if IT spending were to grow 10%, IT employment would grow something less than that. This varied by category.

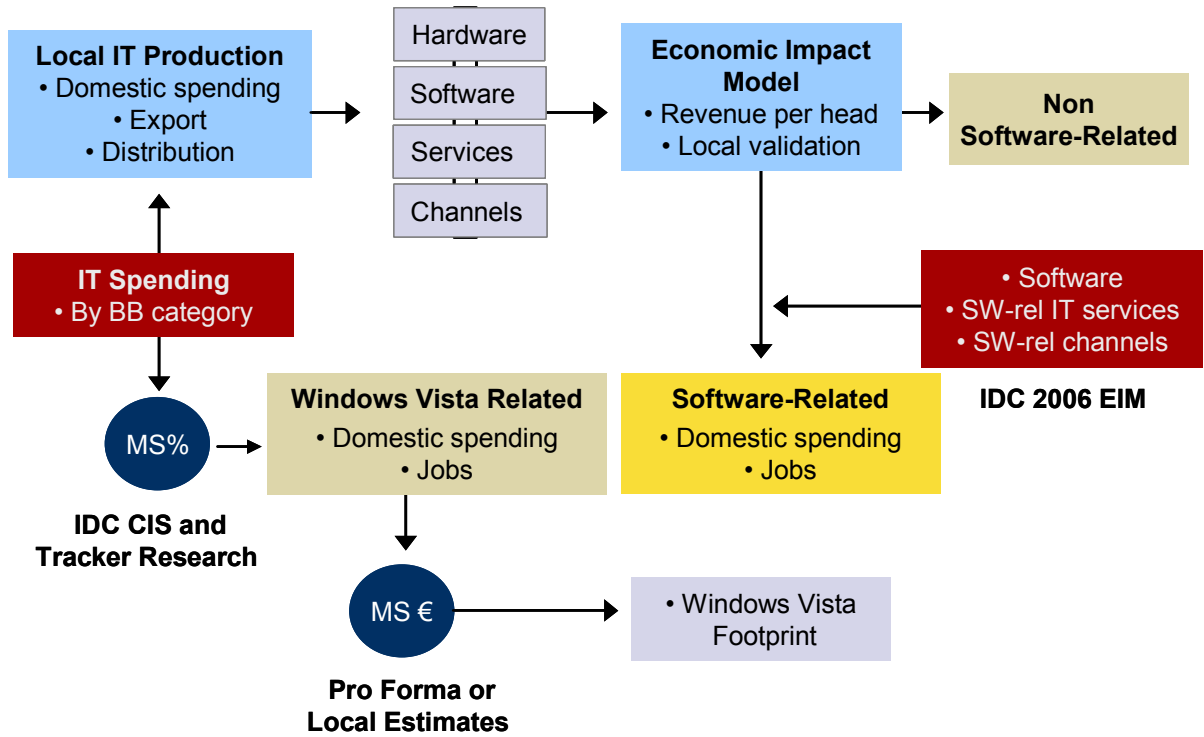
Channel revenues — Within calculations of employment, IDC used a figure for channel revenues to drive estimates of employment. In this case, channel revenues were equated to 100% of IT spending. Most of that goes back to the hardware, software and IT services suppliers, but it is that revenue that funds employment.

Within its tracking of IT *spending*, IDC looks only at channel mark-up, which is the difference between IT spending and vendor revenues.

Figure 7 illustrates the methodological flow of the study.

FIGURE 7

Economic Impact Methodology



Source: IDC, 2006

Software-Related Revenues and Employment

This is the percentage of spending or employment that can be associated with creating, installing, servicing, or distributing software. It was developed by first analyzing 13 service categories and using IDC research to determine the percentage of that activity devoted to software (e.g., what percentage of IS outsourcing is outsourcing software management and what percentage is related to managing hardware.) This led to a ratio of software spending to services spending. For the purposes of allocating employment, internal IT departments were assumed to resemble external service organizations and headcount is allocated accordingly. The allocation of channels activity to software is the midpoint between the percentage of software spending to the total of software and hardware spending and the percentage of IT services that is software related.

Windows Vista–Related Economic Impact

Windows Vista–related employment was derived using country-level estimates of the percentage of IT spending in 2007 by IT category for products running on Windows Vista or for services supporting Windows Vista.

- ☒ For hardware we counted newly shipped PCs that we expected to run on Windows Vista in 2007 based on IDC forecasts for Windows Vista adoption.
- ☒ For software we counted all software that we expected to be shipped that would run on Windows Vista, including Microsoft software. We started with data from the IDC Software Forecaster on revenues by software category (e.g., development tools, CRM software, collaboration tools) by operating system and adjusted this based on local country research on client software.
- ☒ For services we counted all services related to the design, deployment, management, support, and training for Windows Vista. We excluded maintenance and support on hardware running Windows Vista under the assumption that maintenance was more likely to be related to equipment failures.
- ☒ For Windows Vista–related IT professionals we used the general ratio of services to come up with estimates of headcount percentages in user organizations.

To determine the amount of Windows Vista–related IT spending per euro of Windows Vista revenue, we took the Windows Vista–related spending percentages developed above and compared them to estimates of Microsoft Windows Vista revenue in each country. In the final calculation, we subtracted Microsoft Windows Vista revenues and Microsoft revenues from its own software (e.g., Office 2007) that would run on Windows Vista from the total to come up with the total Windows Vista–related spending that wasn't revenue to Microsoft.

Comparison with Baseline Year (2006)

To develop a baseline Microsoft Windows Vista footprint, we used the 2007 footprint model and plugged in IT spending values and Microsoft client operating system revenue values for 2006. We then adjusted the output for the fact that there will still be some Windows XP/NT/2000 shipments in 2007.

To understand the Windows Vista "effect," we used overall IT employment growth from 2006 to 2007 to adjust the Windows OS employment figure for 2006 to an estimate of Windows OS employment in 2007. The difference between that and the actual derived Windows Vista employment for 2007 constituted the impact Windows Vista would have on employment above and beyond normal market growth.

Partner Revenue Categories

The figure was based on a data base of information on Microsoft partners maintained by IDC and updated using surveys several times a year. The sample used for this calculation was 300 firms that were Microsoft partners that specifically developed solutions based on Windows client operating systems — product-oriented partners, service-oriented partners, and value-added resellers platform solution providers. The

data base information includes average software revenues, average services revenues, and average revenues from resale. IDC used ratios of these categories to estimate the various revenue sources of Microsoft partners using Windows Vista. The data were applied directly to the regional estimate for Windows Vista revenues since the intent of the exercise was to be instructive and directional.

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