A report from the Economist Intelligence Unit sponsored by Alcatel-Lucent





### **Preface**

Business in motion: managing the mobile workforce is an Economist Intelligence Unit white paper, sponsored by Alcatel-Lucent.

The Economist Intelligence Unit bears sole responsibility for the content of this report. The Economist Intelligence Unit's editorial team executed the survey, conducted the analysis and wrote the report. The findings and views expressed in this report do not necessarily reflect the views of the sponsor.

Our research drew on two main initiatives:

- We conducted a wide-ranging online survey in December 2006. In all, 375 executives took part from around the world.
- To supplement the survey results, we also conducted in-depth interviews with senior executives knowledgeable about their companies' use of mobile technology, as well as with independent experts.

The author of the report was Damian Glover and the editor was Denis McCauley. Mike Kenny was responsible for design and layout.

Our sincere thanks go to the survey participants for sharing their insights on this topic.

April 2007



## **Executive summary**

obile technology has rapidly penetrated the workplace in recent years, leading to widespread changes in working practices and management styles. The impact on employee productivity has been vastly positive across regions and industries, but further gains are likely to be limited until companies begin managing the deployment and use of mobile technology in a more systematic way. This is the key finding of a major programme of research, conducted by the Economist Intelligence Unit and sponsored by Alcatel-Lucent, into how organisations manage mobility in the workplace.

Based on a survey of 375 executives in North America, Europe and the Asia-Pacific region, as well as a series of interviews with practitioners and

Who took the survey?

A total of 375 executives took part in the Mobile workforce survey, conducted by the Economist Intelligence Unit in December 2006. The survey covered 36 countries across the world's regions: 36% of respondents were based in Europe, 25% in North America and 29% in Asia-Pacific, with the balance coming from the Middle East, Africa and Latin America. The main industry sectors represented were financial services (20%), technology (15 %) and manufacturing (7 %). The survev sample was also senior—43% of respondents were C-level executives such as CEOs, CFOs and CIOs or board members, with the rest consisting of heads of business units and other senior managers. 62% of the organisations represented in the survey were large firms (those with annual revenue of US\$500m or more) and 38% were small and midsize enterprises. (For more detail on the sample and results, please see the Appendix to this report.)

independent experts, the research finds reason for optimism and caution as firms increasingly "go mobile". The key findings are highlighted below.

Mobile clearly delivers better productivity...

Over two-thirds of surveyed executives say their personal productivity has improved by at least 20% thanks to the use of mobile technology (including phones, Blackberrys, WiFi-enabled laptops, other mobile devices and applications), while 91% say it has boosted the productivity of their employees substantially or somewhat. These benefits have manifested themselves most clearly in easier, faster access to people and reduced "dead time" while travelling, and overall in an improved level of responsiveness within the organisation.

- ... But inattention to the human factor threatens these gains. By far the biggest downside to mobile use by employees is the blurring of personal and work time, according to 68% of survey respondents. While most firms have addressed the information-security aspects of mobile working, little more than one-third in the survey provide training to employees on mobile technology use, and still less train managers on how to manage mobile employees. Inability to deal with the pressures of "constant availability" as well as, for some, isolation from colleagues could ultimately affect morale and neutralise productivity gains.
- An enterprise mobile strategy is urgently required. The rapid growth of enterprise wireless use has largely occurred in an ad hoc way. Only 36% of executives in the survey believe their company has developed a clear strategy for the use of mobile technology, with plans for implementation,



monitoring and trouble-shooting. It is, however, clearly on their agenda, as is the provision of more thorough training to staff in the use of mobile devices and applications.

- Simplicity of services works well, with a touch of sophistication... Email, messaging and the personal calendar (not to mention voice calls) will remain the most popular uses of enterprise mobile technology over the next five years. Many executives also look with hope toward mobile voice over IP and mobile videoconferencing.
- ... But integration with core enterprise systems is central to continued productivity gains. Surveyed executives view integration of mobile applications with core enterprise systems as among the key measures to ensure further productivity gains from mobile technology. However, firms are likely to be disappointed by the level of uptake and usage of mobile enterprise applications until service design and usability are improved.

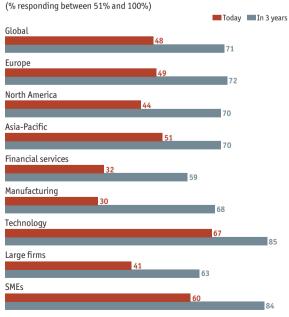


## The enterprise goes wireless

or individuals in most parts of the world, using a mobile device is now as commonplace as using a watch. But how common is the use of mobile technology in the enterprise? Employees, of course, frequently use their personal mobile phones at work, for business as well as personal purposes. But one indicator of how seriously companies attempt to tap mobility for business gain is the extent to which they allocate mobile devices to their employees.

On this measure, enterprise use of mobile technology is widespread, according to the results of the Economist Intelligence Unit survey. In nearly half (48%) of surveyed firms globally, the majority of employees today use allocated mobile devices

Approximately what percentage of employees in your firm currently use allocated mobile devices (phones, Blackberrys, voice-enabled PDAs, WiFi-enabled laptops) for business use? What percentage will be doing so in three years?



Source: Economist Intelligence Unit survey, December 2006.

(including phones, Blackberrys, voice-enabled personal digital assistants and WiFi-enabled laptops). This is expected to be the case in over 70% of surveyed firms within five years.

On closer inspection, the picture is mixed, as the extent of mobile use differs widely among industries. Employees in IT and telecommunications firms—inveterate early adopters—are not surprisingly the heaviest users of mobile technology; twothirds of respondents from the technology sector say more than half their staff use allocated mobile devices. Manufacturers and financial services firms, on the other hand, are much more limited in their deployment of mobile devices.

Size matters, too. Small and midsize enterprises (SMEs) are notably more reliant than large corporations on mobile technology: 60% of SME executives in the survey report that over half their employees use allocated mobile devices, compared to 41% of those from large firms.

Small firms have clearly seen an advantage to be gained vis-à-vis larger competitors from the use of mobile devices. "Mobile technology has levelled the playing field, and our business would not be possible without it", says Mortimer Menzel, a founding partner of Augusta & Co, a small, London-based firm of merchant bankers firm focusing on the renewable energy sector.

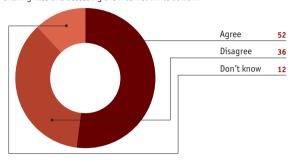
Executives themselves are heavily going mobile. Among the different functions represented in the survey, allocation of mobile devices is most widespread among senior management, along with sales and IT staff. These executives also wax enthusiastic about the prospect of a wireless office: a majority expect to be using exclusively wireless technology for communicating, sharing files and



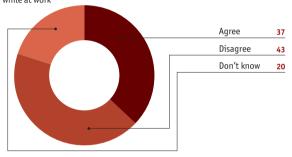
## Please state whether you agree or disagree with the following statements:

(% of respondents)

In five years, I will exclusively use wireless technology for communicating, sharing files and accessing the internet while at work



In five years, employees at my company will exclusively use wireless technology for communicating, sharing files and accessing the internet while at work



 $Source: Economist \ Intelligence \ Unit survey, \ December \ 2006.$ 

accessing the internet at work within five years, although they acknowledge this is less likely to be the case for the wider workforce.

They clearly depend on mobile technology to remain productive while on the move: 48% report they use mobile devices most frequently while travelling on business. More than three-quarters regularly log onto email via their Blackberrys or other mobile devices.

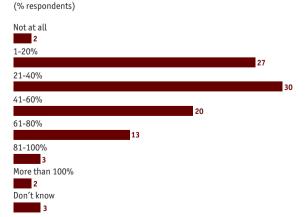


## **Chasing productivity**

oing wireless means more than taking one's phone everywhere to make calls. For the employee, it also means, for example, being able to read email with a Blackberry or other handheld device, or to access network applications using a WiFi-enabled laptop. Wireless technology promises more efficient working not just on the road, but within the office environment as well. The promise of greater productivity is part of the business case that virtually every service and equipment provider puts forward to justify an enterprise's investment in mobile technology.

Happily, it appears to be delivering on the promise. "Mobile technology has played a very important role in increasing collaboration between different areas of the business," says Akira Kaetsu, corporate vice president of workplace efficiency at Nissan Motor, based in Japan. "This cross-functional way of working is taking root and is enhancing the efficiency and quality of work," he adds.

In your estimation, to what extent has the use of mobile technology enhanced your own productivity?



Source: Economist Intelligence Unit survey, December 2006.

Our surveyed executives emphatically agree. Over two-thirds (68%) say their personal productivity has improved by at least 20% as a result of using mobile technology, while 41% say it has also had a substantial effect on the productivity of their employees. (Another 50% say it has "somewhat" improved employee productivity.) This positive experience is shared across industries and regions, notwithstanding the varying deployment patterns mentioned earlier. As we will discover later, greater productivity has come with a cost, namely the further encroachment of work upon employees' personal lives as a result of mobile use, but it is difficult to deny the favourable impact on work efficiency.

### **Eroding barriers**

Easier, faster access to people and reduced "dead time" while travelling are viewed as the main benefits of mobile technology. An overwhelming majority of survey respondents believe it has improved the level of responsiveness within their organisation and interaction with team members, while most say it has also improved collaboration with other departments and interaction with customers. "Marketing and sales have experienced an improvement because key people are doing their jobs closer to the customers," notes Mr Kaetsu.

Mobile technology is also helping companies to control operational costs: 51% of respondents believe it has had a positive impact in this area. Among industries, manufacturers register the most favourable impact, while those from the financial sector are somewhat less sanguine, with only 40% believing mobile technology has helped them control operational costs.

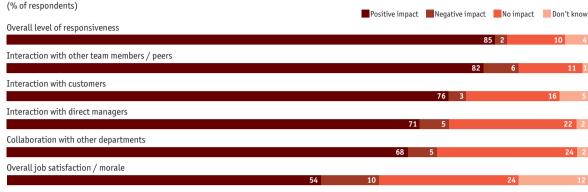
Nevertheless, the financial sector's smaller firms

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Source: Economist Intelligence Unit survey, December 2006.

appear to be reaping substantial benefits. Mr Menzel of Augusta & Co says the advent of cheap and reliable off-the-shelf communications software has equipped his firm with capabilities that were previously the preserve of larger players. "Clients pay us to do things quickly and comprehensively and need us to be flexible. People are constantly changing the times of meetings and conference calls, which isn't a problem as we all have access to a shared calendar, email and deal files."

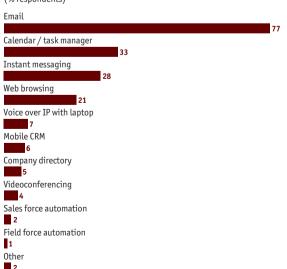
"There is nothing the guy at the large bank has access to that we don't", he adds.

#### Services today and tomorrow

Accessing email, managing the personal calendar and keeping in touch with colleagues via messaging are the currently the most popular mobile applications among executives (not to mention, of course, making voice calls). Looking ahead five years, these are

## Which of the following mobile applications do you personally use most frequently today?

Select up to two responses. (% respondents)



Source: Economist Intelligence Unit survey, December 2006.

Which of the following mobile applications do you expect to be using most frequently in five years?

Select up to two responses. (% respondents)

Email

Calendar / task manager

18
Instant messaging

21
Web browsing

18
Voice over IP with laptop

23
Mobile CRM

10
Company directory

5
Videoconferencing

22
Sales force automation
6
Field force automation
4
Other

Source: Economist Intelligence Unit survey, December 2006.

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expected to remain the managers' favourites—but with a couple of twists. A significant proportion of respondents also expect to become frequent users of mobile voice over IP (VoIP) and videoconferencing. They also hold out hope for much greater use, by sales and service teams, of mobile CRM (customer relationship management) tools.

While basic voice and email functions will remain dominant, many believe that firms will increasingly turn to mobile technology to improve knowledge work in future. This is the view, for example, of Carsten Sorensen of the London School of Economics (LSE), who writes frequently on the use of mobile technology in the workplace. In his view, advanced services enabling employees and managers to view team members' location and activity status will help mobile workers to co-ordinate their efforts. This would also enable firms to measure the efficiency of business processes and the output of individual employees with increasing accuracy.

#### **Challenging applications**

Enter mobile access to enterprise applications. As mobile device penetration nears saturation, the focus is switching to the services that run on these devices. Almost half the executives surveyed (47%) believe providing mobile access to core enterprise applications such as CRM and ERP (enterprise resource planning) is the most important measure companies can take to increase productivity gains from mobile technology in future. However, initial efforts in this direction appear to have yielded mixed results: less than 7% of executives are frequent users of mobile CRM themselves, while accessing enterprise applications is considered the most difficult operation to perform on mobile devices.

According to Paul Simmonds, global head of information security with ICI, the UK-based paints and adhesives producer, the key to enabling successful mobile use of enterprise applications is to standardise

### Flying wireless

Continental Airlines began increasing its use of mobile technology as a result of heightened airport security following the September 11, 2001 attacks in the United States. The carrier's initial challenge was to provide reliable connectivity to enterprise applications within the airport setting. This issue came to the fore following the launch of its COBRA baggage tracking application, which was accessed by baggage handlers via handheld devices. "Switching between wireless access points was a problem, which meant users had to constantly re-sign in to the application," says Continental's CIO, Ron Anderson-Lehman. "It was painful on

the field workers and was inhibiting the success of what we were trying to do."

The airline overcame these teething troubles by overhauling its connectivity software. Since then, it has implemented mobile applications in other key operational areas beyond baggage handling, including aircraft maintenance and on-board navigation. Mobile devices are now issued to baggage handlers and runners, ramp supervisors, mechanics and (coming soon) pilots. (Executives and sales teams have been supplied with notebook computers and handheld devices for a number of years). "Before, there was a series of disjointed tasks," relates Mr Anderson-Lehman. "Now these tasks are increasingly integrated and interdependent, and the technology is evolving to reflect this."

Continental will soon be turning its

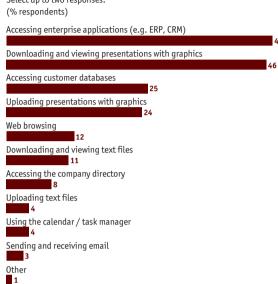
attention to the customer interface. Says Mr Anderson-Lehman: "The next logical step is for employees in the terminal to use it for customer processing, enabling them to roam about and help people. This is about revolutionising the customer experience."

Mr Anderson-Lehman advises firms to start thinking about mobile technology in a strategic way. "It's a cultural change; people here have learned to ask 'how will this plug in to our wireless system?" In his experience, mobile access needs to be incorporated into enterprise applications at the design stage. "Most corporate applications," he says, "are designed for office use with desktop computers and high-bandwidth, always-connected networks. They are big pieces of software that send a lot of data back and forth and tend not to work well on mobile devices".



## Which of the following operations do you find most difficult to carry out using a mobile device?

Select up to two responses.



Source: Economist Intelligence Unit survey, December 2006.

on a small number of devices and "custom package" the application for each device. Much of the work to integrate enterprise applications with mobile devices at ICI has been done in-house, he says, as the applications themselves are heavily customised to the firm's needs. Other pitfalls include poor application design and attempts to "bolt on" mobile functionality to applications that are unsuited to mobile use.

# A.

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### **Unintended effects**

obile technology has had a profound effect on working patterns in a short space of time. For example, a recent survey by IBM's Institute for Business Value found that the proportion of mobile workers permanently based "out of the office" grew by 15% between 2005 and 2006<sup>1</sup>. But it appears that few firms have actively considered the impact of such changes on their employees and company culture.

While employees undoubtedly appreciate the flexibility of being able to work from anywhere, mobile technology has arguably placed added pressures on workers by rendering them constantly available. "People tend to work too many hours when working from home," comments Mr Sorensen of the London School of Economics. "The reason stems from our insecurities over what other people think of us," he believes. "If you are physically separated from your colleagues, you make extra sure you are seen to be working. The out-of-office excuse has disappeared."

What are the main negative aspects encountered by you and your employees with the use of mobile technology? Select up to two responses.

(% respondents)

Blurring of personal and work time

Increased risk of security breaches

Slow speed in downloading or uploading files or data

Higher monthly cost of communications (voice and data) than previously

Poor performance of mobile devices

16
Difficulty accessing enterprise network or internet

Lack of corporate cohesion due to remote colleagues

Lack of corporate corresion due to remote cotteague

<u>Harder</u> to gain consensus on business matters

0ther

2

Source: Economist Intelligence Unit survey, December 2006.

Our survey respondents confirm this view. Some 68% point to the blurring of personal and work time as the chief drawback of mobile technology use. It may also add to workplace pressures in other ways, through its effect of speeding up business processes. For example, if a sales representative visits a customer's location armed with a smart PDA (personal digital assistant), the customer may expect an immediate decision on a request for a discount, knowing the sales person has access to the relevant information. Such stresses could be effectively countered with appropriate training.

#### Frustrated and out-of-the-loop?

The aforementioned IBM research suggests that over half of mobile workers find it difficult to participate in meetings while working remotely; many complain of "fighting" to get online. The lack of frequent exposure to company information and gossip also causes remote workers to feel isolated and disconnected from their informal networks at work.

The implication is that mobile working may have unseen negative effects on productivity, in the absence of an effective strategy to manage mobile workers.

Larry Matarazzi, director of workplace resources at California-based Sun Microsystems, says that one of his firm's biggest challenges with mobility has been to maintain work-group affinity. Sun has found that webbased tools (the staple means of collaboration among its technical staff) need to be supplemented with regular conference calls and one-to-one and team meetings in order to foster cohesion. (See the box, "The challenges of a distributed workforce".)

Our survey indicates that most firms have yet to address such realities. While two in three companies

1. IBM Institute for Business Value: The mobile working experience: a European perspective

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have upgraded information security guidelines and procedures for mobile use, only a minority (36%) of firms currently provide training in the use of mobile technology, while just 30% train managers in how to manage mobile employees. The lack of attention to training is particularly acute in North America, and among financial services firms.

Such added pressures and increased sense of isolation for some mobile employees seem not—at least yet—to be affecting workforce morale. But there are some worrying signs. That 54% of survey respondents believe using mobile devices and applications has helped to boost employee morale and job satisfaction is encouraging. However, one-fifth of financial industry executives, and 17% of all respondents from North America, say that mobile use has actually had a negative impact in this area.

Several of the executives interviewed for this study express the view that personal discipline is the key to managing work-life balance and point out that employees are responsible for controlling their use of handheld email devices. Others hold that employees will only take to more advanced mobile enterprise applications, for example, when privacy concerns have

Please indicate to the best of your knowledge whether the strategy for mobile technology adopted at your company encompasses the following elements. (% of respondents)



Source: Economist Intelligence Unit survey, December 2006.

been comprehensively addressed and a high degree of employer-employee trust has been established. "There needs to be a new deal that limits how these technologies can be used and compensates workers", Mr Sorensen believes.

# The challenges of a distributed workforce

Sun Microsystems' "Open Work Program" was launched 12 years ago to enable the sales force to spend more time with customers. Today, it is a comprehensive, awardwinning employee support program run by a dedicated staff of 35, and is a major element of Sun's strategy to win the "war for talent", according to Larry Matarazzi, director of workplace resources.

Sun divides its workforce into three categories: Sun-assigned (workers whose

job duties or IT needs require them to be onsite, and are allocated a fixed desk), mobile and home-based employees. Employees assess their ability to work remotely and subsequently consult with their manager on the most appropriate designation—with the employee having the final say. Almost half (48%) of the firms' employees have chosen to be designated as mobile workers, with a further 8% home-based.

Managers are trained in distance collaboration, output-based management and building group affinity, including provision of skills, tools and best practices.

Mr Matarazzi says the program has yielded "extraordinary economic benefits", including efficient use of real estate,

increased sales and improved ability to attract and retain staff. He contends that the "old industrial style" of managing inputs, such as how many hours an employee spends at their desk, is increasingly irrelevant. "We are in a transformational era," he says. "Young people see work as an activity, not a place. We're all in competition for the brightest talent, and they have very, very different perspectives than we do."

Mr Matarazzi acknowledges the difficulty of monitoring the output of knowledge workers, and says firms need to trust employees and managers to do their job. "If an employee says they have become more effective and their manager agrees, we accept that as de facto evidence."

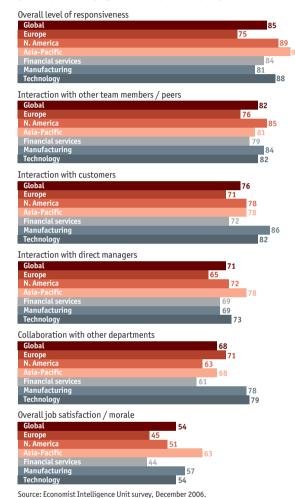


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## How has the use of mobile technology by you and your employees impacted upon the following aspects of working?

(% of respondents saying it has had "a positive impact")



# Other pitfalls

Companies without adequate controls on mobile device allocation and usage risk escalating direct wireless costs (65% of European executives report that mobile working has had a negative impact on communications spend). Firms also face higher IT support costs due to the greater difficulty of providing technical support outside the office environment—especially if the firm lacks an effective policy regarding unsupported devices.

Higher monthly communications costs are a greater concern for smaller businesses: 26% of SMEs cite this as a major concern, compared to 14% of large corporations. Nevertheless, the majority of SMEs (55%) believe mobile technology has had a positive overall impact on operational costs. Services are available to help firms control their mobile communications costs. For example, the UK merchant bank Augusta & Co has hired a specialist provider to continuously monitor and control their mobile data spend.

While the security risks of mobile device usage have been addressed by 71% of large corporations, this issue has been less well covered by SMEs; only 58% of executives from these firms say they have upgraded information security guidelines and procedures to cover mobile usage.



## Thinking it through

orporate use of mobile technology has reached a plateau. In order to move ahead and achieve the next level of productivity gains, companies need to shift to a planned approach, according to ICI's Paul Simmonds. "The problem with mobile is that it has crept into a lot of businesses by osmosis," he observes. "You have to have control over what devices people are using, especially if you want to use mobile technology in a more strategic way."

The survey suggests that a planned approach is lacking in most companies: only 36% of executives believe their company has a clear strategy for use of mobile technology. Wireless working is taking root in many organisations, but largely in an *ad hoc* and unmanaged way.

To their credit, executives appear to recognise this shortcoming and aim to address it in the near future. When asked the most important measures they can

working, the second-ranked response—from 43% of survey participants—is to develop a clear strategy and implementation plan for the use of mobile technology in the enterprise.

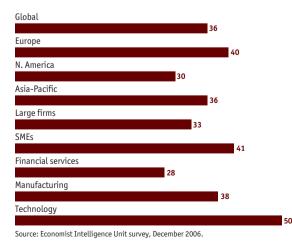
While providing mobile access to core enterprise

take to boost the productivity benefits of mobile

While providing mobile access to core enterprise applications is seen as a key step by survey respondents, the experiences of companies such as Sun show it is just as important to support employees and managers and equip them with new skills in order to reap the greatest benefits from using mobile technology. As mentioned earlier, only a minority of surveyed firms provide training for employees in how to use mobile devices and applications, and for managers in how to manage mobile employees. Among the top three measures executives say their companies must take to maximise productivity gains is to provide more thorough training to employees.

Do you believe that your organisation's management has developed a clear strategy for the use of mobile technology within the enterprise?

(% responding "yes")



In your view, what are the most important measures your company should take in the future to increase the productivity gains that employees reap from using mobile technology?

Select up to two responses.
(% respondents)

Ensure greater integration of mobile applications with core enterprise systems (e.g. ERP, CRM)

Develop clear strategy and implementation plan for the use of mobile technology in the enterprise

Provide more thorough training to employees in using mobile devices and applications

Invest in more advanced mobile devices and applications
35

Provide more thorough training to managers in supervising mobile employees

14

Provide closer monitoring of mobile use by employees to track effectiveness

12

None of the above

0ther

1

Source: Economist Intelligence Unit survey, December 2006.

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Boosting productivity is not the only reason to take a more strategic approach to mobility. Companies which proactively address the human aspect of mobile working will improve their chances of holding on to key employees. This is especially true in sectors heavily dependent on high-value knowledge workers, such as financial services (where, it will be recalled, incidence is relatively high of damage to workforce morale from the pressures of mobile working).

#### Toward a clear mobile strategy

What should an enterprise's mobile strategy encompass? For a start, management should recognise that mobile working touches on issues involving human capital (people), physical assets (offices) as well as, of course, the technology choices that companies make. It also has the potential of impacting heavily on business processes. Thus the need for careful strategy development with all the accompaniments—plans for implementation, training, monitoring and trouble-shooting.

Before devising a formal strategy, management should also assess how mobile technology has already affected business processes, employee-manager relations, employee morale and company culture. Some firms may view cultural change as a goal in its own right, with mobile technology seen as a means of promoting it. Nissan, for example, is actively encouraging its employees to adopt new working styles, and provides mobile access to Value-Up, a tool designed to facilitate cross-functional working, to further this goal. Says Mr Kaetsu: "The weakness in Nissan in the past was in the area of knowledge-sharing. Now that jobs are shifting to a higher value-added role, the emphasis is on optimising knowledge work, particularly imaginative work."

Based on our discussions with practitioners and independent experts, following are some considerations that should guide the development of enterprise mobile strategy:

- Ensure the technology deployed is user-friendly and reliable. This is an essential step to ensure a productive mobile workforce. According to Mr Simmonds, ICI held back from releasing a remote intranet access solution to employees for three years, judging it was necessary to wait until the technology was more reliable. Today, the company provides a remote access service that is seamless and secure, generating high usage and employee satisfaction. At Continental Airlines, says CIO Ron Anderson-Lehman, "We have learnt to get the simple things right, like making the buttons on our handheld scanners bigger for operation with people's fingers."
- Access to mobile applications may not be critical for everyone. "The business case to give handheld devices to executives and selected shop-floor workers is clear," believes Mr Simmonds. "The problem is with the middle ground. At what point does a Blackberry become a toy?" he asks. The preponderance of allocated mobile devices among senior management, sales and IT staff suggests firms are convinced by the productivity benefits of mobile technology for these functions. Mobile applications for other functions may need to prove their worth via limited trials.
- Staff require training in more than device or application use to maximise the benefits. "Our experience is that employees pick up the technology pretty quickly," says Mr Anderson-Lehman. The optimal approach is to ensure mobile applications are easy to use and to focus training resources on helping staff develop new skills that enable them to make the most of being mobile. For example, employees may benefit from training in managing virtual meetings or utilising real-time data during sales appointments. Managers may benefit from guidance on building distributed teams and evaluating employee performance.

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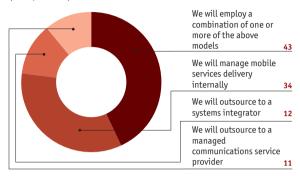
• Define the firm's expectations for mobile workers and show you support them. Mobile employees need to sign up for specific goals and understand how their performance will be evaluated. Companies should make it clear that employees are trusted to manage their own time. Companies may consider developing a mobile working policy covering issues such as when attendance is required at the office (if at all), guidance on when employees can and cannot be contacted and rules governing use of sensitive mobile data.

# How should mobile services be delivered?

Strategy must also address the supply side—how mobile enterprise services will be delivered and supported. The nature of mobility means that external networks will be utilised to one extent or another, at least for carrying voice and data traffic, suggesting that network providers will have unique competencies to manage delivery of a company's mobile services. Yet getting the most out of mobility means integrating advanced mobile voice and data applications with the core enterprise network—systems integrators can offer specific strengths in this environment. At the same time, the use of network-centric mobile

In your view, which of the following will be the most effective model at your company for the delivery of enterprise mobile services over the next five years?

(% respondents)



Source: Economist Intelligence Unit survey, December 2006.

applications means that the company's in-house network managers will be heavily involved in delivery and support in one way or another.

Many companies will see the virtue of utilising all three types of models for delivering different types of services or in different parts of the enterprise. The largest share of executives in the survey, 43%, expect to utilise such a blended model for service delivery, while one-third foresee responsibility remaining squarely in-house. Among the different industries, manufacturers are most likely to look outside for help in managing mobile service delivery.



### **Conclusion**

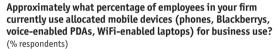
se of mobile technology within companies has been driven primarily by users rather than the business, and has been accompanied by a raft of unintended effects. Now that more firms are taking active steps to analyse their business processes and identify greater efficiencies, many will need help in shifting to a planned approach to managing the mobile workforce.

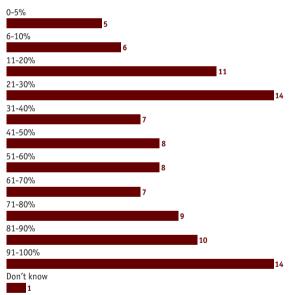
Our research indicates that, while the information management challenges of mobile working are widely recognised and addressed, many companies have yet to come to terms with the personnel management challenges. As work becomes increasingly distributed, companies will need to pay much greater attention to the "human factor" in order to ensure a happy, productive and cohesive workforce.

## **Appendix: Survey results**

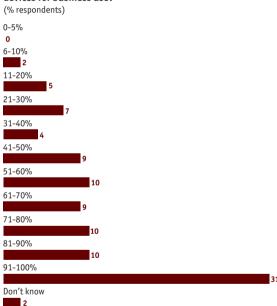
In December 2006, the Economist Intelligence Unit conducted a survey of 375 executives of companies from across the globe. Our sincere thanks go to all those who took part in the survey.

Please note that not all answers add up to 100%, because of rounding or because respondents were able to provide multiple answers to some questions.





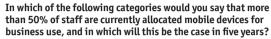
# In five years' time, approximately what percentage of employees in your firm are likely to be using allocated mobile devices for business use?

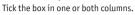


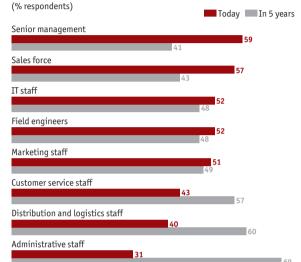
#### **Appendix: Survey results**

Business in motion

Managing the mobile workforce

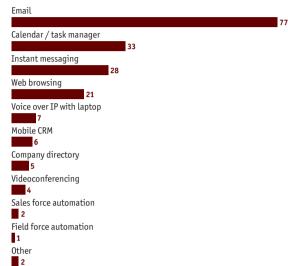






#### use most frequently today? Select up to two responses. (% respondents)

Which of the following mobile applications do you personally



#### Where do you personally use business mobile devices most frequently?

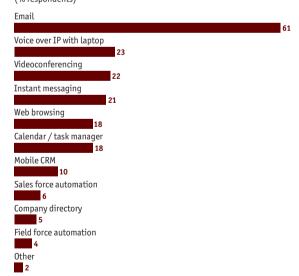
(% respondents)



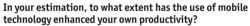


#### Which of the following mobile applications do you expect to be using most frequently in five years?

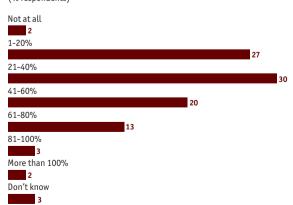
Select up to two responses.



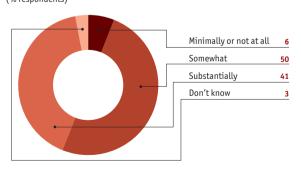
#### Please state whether you agree or disagree with the following statements. (% of respondents) Agree Disagree Don't know In five years, I will exclusively use wireless technology for communicating, sharing files and accessing the internet while at work In five years, employees at my company will exclusively use wireless technology for communicating, sharing files and accessing the internet while at work Which of the following operations do you find easiest to carry Which of the following operations do you find most difficult out using a mobile device? to carry out using a mobile device? Select up to two responses. Select up to two responses. (% respondents) (% respondents) Sending and receiving email Accessing enterprise applications (e.g. ERP, CRM) Using the calendar / task manager Downloading and viewing presentations with graphics Web browsing Accessing customer databases Downloading and viewing text files Uploading presentations with graphics Accessing enterprise applications (e.g. ERP, CRM) Web browsing 12 Accessing customer databases Downloading and viewing text files Accessing the company directory Accessing the company directory Uploading text files Uploading text files Downloading and viewing presentations with graphics Using the calendar / task manager Uploading presentations with graphics Sending and receiving email 0ther 0ther 1 1



(% respondents)



# In your estimation, how has the use of mobile technology affected the productivity of the employees under your management?

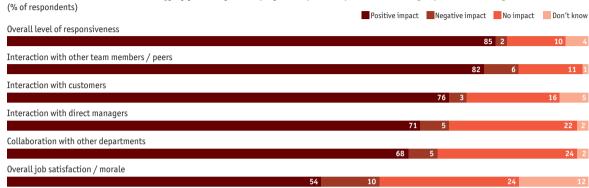


#### **Appendix: Survey results**

Business in motion

Managing the mobile workforce



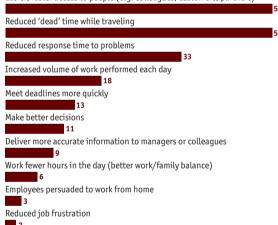


## What are the main benefits that you and your employees have gained from the use of mobile technology?

Select up to two responses.

(% respondents)

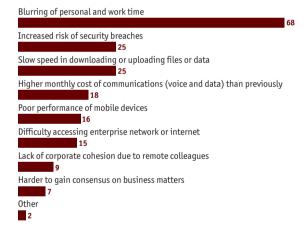
Easier, faster access to people (e.g. colleagues, customers, partners)



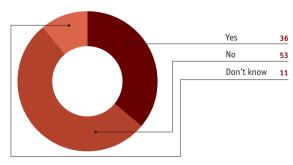
## What are the main negative aspects encountered by you and your employees with the use of mobile technology?

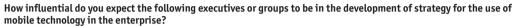
Select up to two responses.

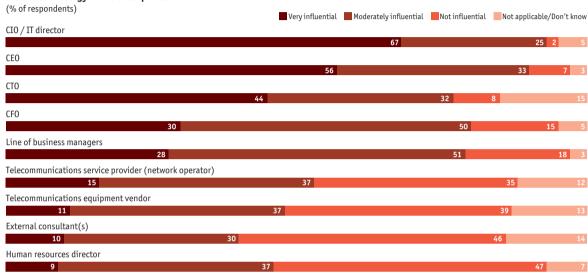
(% respondents)



# Do you believe that your organisation's management has developed a clear strategy for the use of mobile technology within the enterprise?







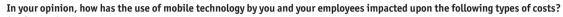
## Please indicate to the best of your knowledge whether the strategy for mobile technology adopted at your company encompasses the following elements.

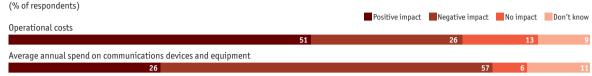


#### **Appendix: Survey results**

Business in motion

Managing the mobile workforce





In your view, what are the most important measures your company should take in the future to increase the productivity gains that employees reap from using mobile technology?

Select up to two responses.

(% respondents)

Ensure greater integration of mobile applications with core enterprise systems (e.g. ERP, CRM)

Develop clear strategy and implementation plan for the use of mobile technology in the enterprise

Provide more thorough training to employees in using mobile devices and applications

Invest in more advanced mobile devices and applications
35

Provide more thorough training to managers in supervising mobile employees

14

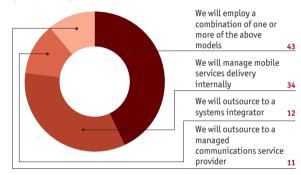
Provide closer monitoring of mobile use by employees to track effectiveness

None of the above

1 Other

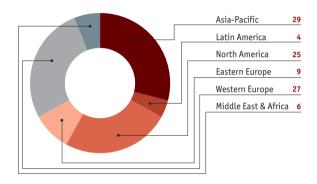
1

In your view, which of the following will be the most effective model at your company for the delivery of enterprise mobile services over the next five years?



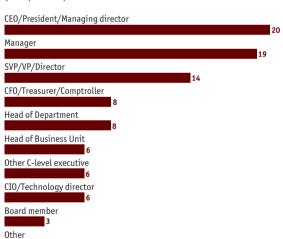
## **About the respondents**

# In which region are you personally based? (% respondents)



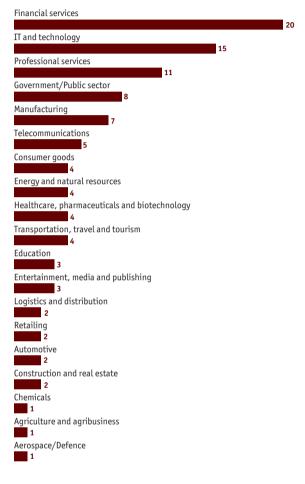
#### Which of the following best describes your job title?

(% respondents)

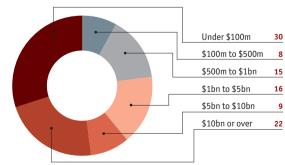


#### What type of business do you work in?





## What are your company's global annual revenues in US dollars?



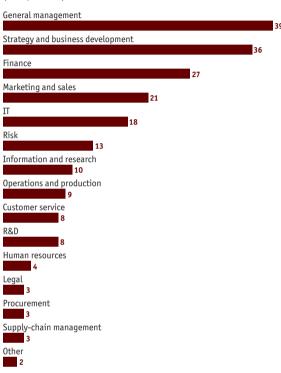
#### **Appendix: Survey results**

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#### What are your main functional roles?

Please choose no more than three functions. (% respondents)



Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this white paper or any of the information, opinions or conclusions set out in the white paper.

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