

# WHITEPAPER

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## Mobile technology in the enterprise: the mobile world at work

### Background

Based on recent trends, there can be little doubt that the penetration and use of wireless technologies will continue to grow over the next few years. Mobility strategies will mature as companies and staff become more familiar with flexible ways of working. But will organisations eventually take control of the mobile technology opportunity, or will the tail continue to wag the dog? Will real, measurable business benefits develop or will wireless continue to be seen as a nice-to-have, but far from core, business tool?

The options are clear: organisations can allow the operational use of mobile devices and platforms to develop piecemeal, often on a departmental basis, as has been the case up to now. Or they can build mobility into their business strategy and invest in the infrastructural and cultural changes needed to maximise the opportunity.

The situation is made more difficult by the fact that there are many different views of what mobility within an organisation actually is. For some, it is software-related and describes remote access to business applications. For others, it is job- or function-related, such as field sales, remote support or logistics.

In reality, it is all of these things. Enterprise mobility is a complex collection of applications, functions, initiatives and technologies linked purely by the fact that real business benefits await the company that can successfully harness them.

### Mobile technology in the enterprise

Avanade, an established thought leader and solutions provider in the global technology market, has taken the lead in helping major organisations understand the issues surrounding adopting mobile technology in their organisation and making informed strategic decisions that produce real benefits.

This, Avanade's first European research initiative, identifies and measure the trends in the use of mobile tools and technologies. The research highlights the latest issues facing major organisations with respect to the move to a mobile culture and the ongoing impact mobility solutions are having on the enterprise.



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## Survey methodology

The findings outlined in this document are based on an original market research study designed, managed and delivered by Coleman Parkes Research Ltd, an independent market research consultancy specialising in global technology and communications research in the business-to-business space.

The study consists of 210 carefully structured and detailed telephone interviews carried out with IT Directors and CIOs in blue-chip organisations equally spread across the UK, France, the Netherlands, Germany, Italy, Spain and the Nordic region (Denmark, Finland, Norway and Sweden). Respondents were drawn at random from lists consisting of the top 250 companies in each country. The questionnaire, used in all countries, was drafted by Coleman Parkes Research working from a detailed brief, and finalised in conjunction with Avanade and LEWIS PR.

For all non-UK countries the questionnaire was translated and all interviews conducted in the local language. The average interview length was 15 minutes. All interviews were carried out in February and March 2006 by fully trained interviewers working to quality assurance standards and conducted in strict accordance with the guidelines set by the Interviewer Quality Control Scheme (IQCS).



## RESULTS



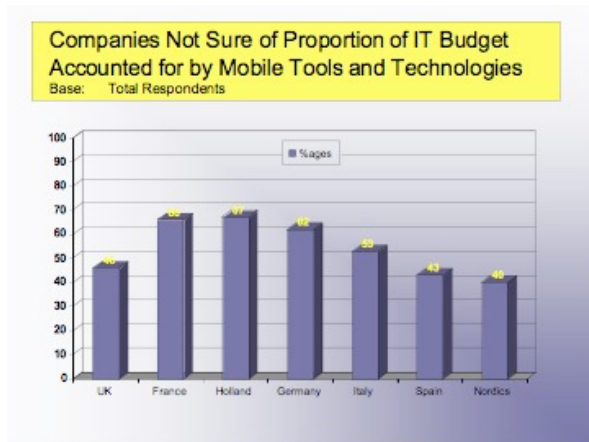
### 1. Technology adoption

#### Still scope for growth

While the vast majority of major blue-chip companies within the European region have embraced the use of mobile tools and technologies, to date it's been a tactical rather than strategic play, and additional rather than core. The use of mobile devices has grown, but not in a controlled or planned way, and with little attempt to monitor the costs or even measure return on investment.

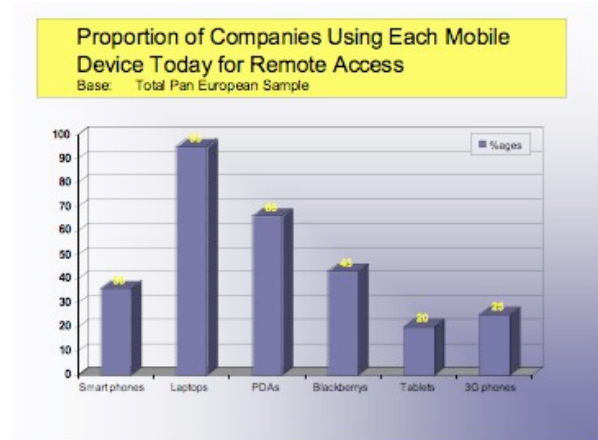
Just over half of leading European companies, rising to two thirds in France, the Netherlands and Germany, admit they do not know what proportion of their IT budget is currently consumed by wireless tools and technologies. Although surprising, it provides the core evidence that companies are not thinking strategically about wireless technology. Investments, it seems, are being made reactively – to solve immediate issues and provide mobile workers with the tools and technologies they need to carry out their primary function.

Even in the UK, approaching half of the respondents admit that they do not know the proportion of their IT budget accounted for by mobile tools and technologies.



The relatively low current penetration of mobile devices (other than laptops with 95 per cent) further suggests that companies have not yet fully recognised, or even really started to exploit, the opportunity that wireless technology can bring to a business. Although two thirds

of all companies across Europe use PDAs, less than half use BlackBerry devices, a third use smart phones, a quarter use 3G phones and a fifth use tablet PCs.

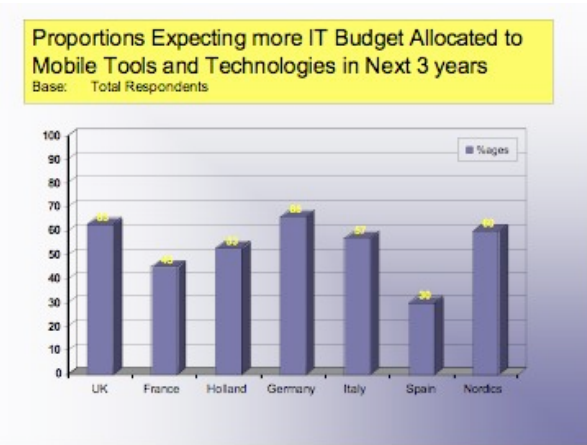


At present, UK companies are the most regular users of BlackBerry devices (two thirds) and over half plan to use them in the next few years (some will be extending their usage). 27 per cent of companies in the Nordic region use BlackBerry devices at present, with growth potential seeming limited, as just 33 per cent plan to increase their usage.

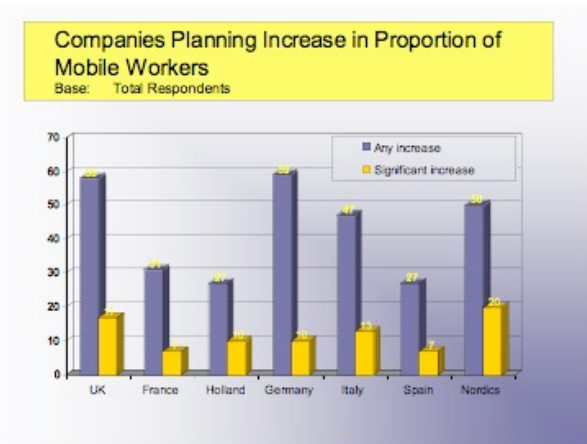
#### More investment is on the way

The move towards a mobile environment may have been piecemeal to date, but the research has uncovered evidence that leading organisations are beginning to wake up to the opportunities and potential benefits mobility can offer.

Over half of our survey respondents are planning to spend more of their IT budget in this area over the next three years, with the lead being taken by companies based in the UK and Germany. In addition, 60 per cent of companies in the Nordic region also plan to invest more on mobile tools and technologies. Spanish companies have the lowest percentage of companies looking to extend their use of wireless technology, with 30 per cent planning to extend their investments in the area.

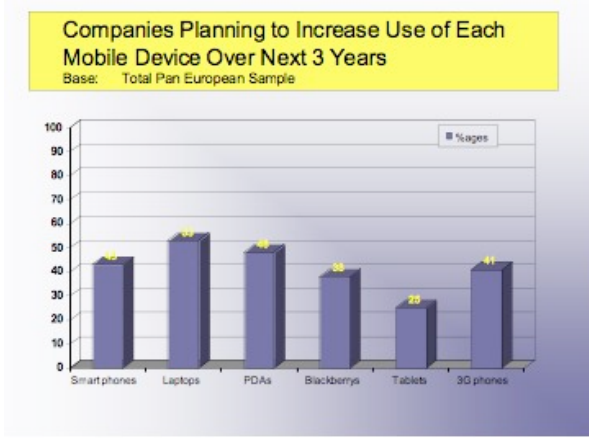


Across the European region, 42 per cent of companies expect the proportion of mobile workers to increase over the next three years, rising to nearly six out of ten in the UK and Germany. Again, Spain seems to have a more modest view of future technology investment, with less than a third expecting an increase in the proportion of mobile workers, and seven per cent expecting a significant increase.



**Device adoption to increase**

Significant increase in the use of the various mobile devices is predicted over the next three years across Europe, particularly the use of smart phones in the Nordic region and BlackBerry devices in the UK. 3G phone use is also set to increase in line with the adoption of smart phones.

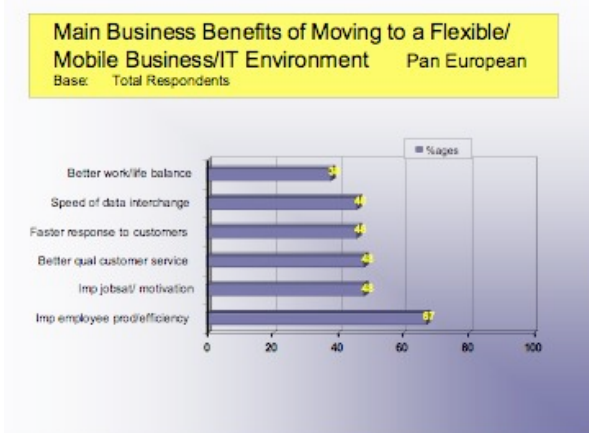


**2. Business benefits**

**The drivers for growth**

That companies predict future growth in mobility and remote access is not surprising because there is widespread appreciation of the potential benefits mobile tools and technologies can bring. On average, two thirds of leading European organisations believe that moving to a more flexible or mobile business and IT infrastructure brings improved employee efficiency and productivity. This a view held very strongly in the UK (79 per cent), Spain (73 per cent) and the Nordic region (93 per cent).

Additionally, around half associate the use of mobile devices with better quality customer service and faster response to customer requests – key competitive drivers in the major markets across Europe.



Furthermore, although not among the main perceived benefits, around one third of leading blue-chip companies attribute increased sales revenue and an improved competitive position to mobility. And this figure is set to increase – as many as one half of respondents judge that remote access tools and technologies have either already increased competitive edge within their business, or will do so in the foreseeable future. German companies are particularly likely to hold this view while those in the Netherlands are the most sceptical.

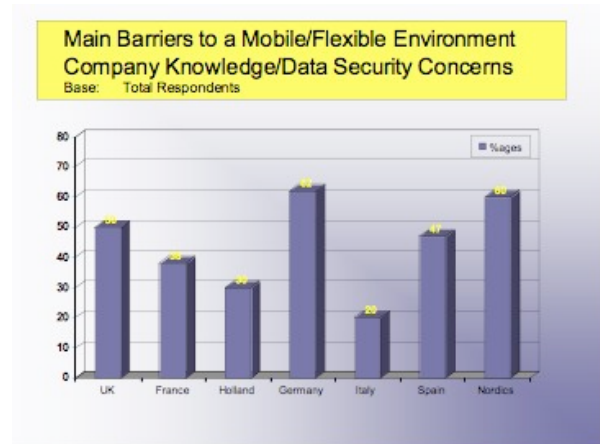
Companies also recognise significant logistical benefits from a flexible working environment. It's no surprise to find that the vast majority of leading organisations in the region have some of their workforce restricted to working from a particular location by IT limitations and, in one third of cases, the proportion of the workforce being limited by IT is more than half. So it is significant that over one third are confident that the use of mobile tools and technologies will enable them to operate in fewer physical locations and less office space within the next three years. Companies in the UK, the Netherlands and Spain, where the proportion rises to around half, are particularly likely to cite this benefit.

Half of all companies on average (72 per cent in Germany and 53 per cent in Spain) also agree that "mobility and remote access technologies have already significantly increased competitive edge within our business or is set to do so within the foreseeable future" – testimony to the real impact that remote technology is having within businesses across Europe right now.

**Barriers and challenges**

Clearly few, if any, European companies question the benefits of a flexible mobile business and IT environment. But they also recognise there are a number of real problems to overcome, some of which sit at the very heart of the organisation – for example data security, the need for many to upgrade or even overhaul IT infrastructure, and company culture or inertia.

Company knowledge and data security concerns were cited as barriers to the ongoing development of mobile working and the use of remote access technologies by nearly half of respondents to the study. Security is a particular concern in Germany and the Nordic region. Overall, one third are worried about the loss or theft of mobile devices, with nearly six out of ten in Spain saying this is a key issue.

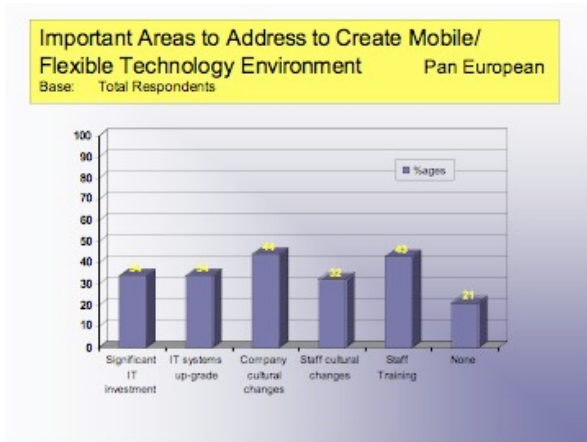


The increasing cost of mobile working tools and technologies represents a significant obstacle for almost one third of European companies, rising to nearly one half in the UK and the Nordic region. But this is not necessarily as big an issue as first perceived. Many companies, as we have seen, fail to monitor the costs of mobile solutions as part of their overall IT investment.

Throughout the European region (with the exception of Germany) company culture poses a significant barrier to enterprise mobility. Results suggest, particularly in the UK, that it is an area where change is needed in order to create a mobile and flexible technology-based environment. Overall, nearly half of blue-chip companies identify this need



In this regard nearly a half of leading companies, rising to six out of ten in Spain, also identify the need for staff training before an effective mobile technology infrastructure could be established, while approximately one third say significant IT investment or an overall systems upgrade would be necessary.



It is encouraging to see that companies are accepting that the move to a mobile and flexible IT environment demands a change in the approach from IT users and IT staff alike, and that training has to form part of the move. In the past, too many companies have moved rapidly down the technology route while forgoing the development of the key human interface and then wondered why they failed to get the promised benefits.

Significantly, only one fifth of leading European organisations say they are ready to exploit the mobility opportunity in the sense that they have already created a technology-based environment capable of supporting mobile and flexible working.

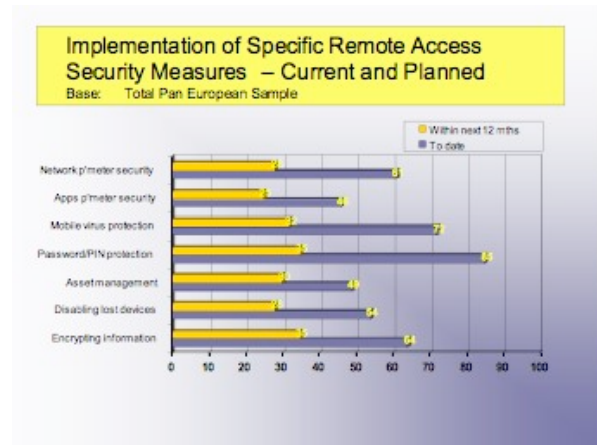
### Achieving data subject

There is no doubt that Europe's leading organisations are well aware of the potential pitfalls associated with mobile working. As they move forward, companies have identified data privacy, patch/anti-virus management and authentication as the biggest challenges.

Undoubtedly, fears relating to company knowledge and data security represent the main barrier to the future growth of enterprise mobility. But encouragingly, companies are not simply living with the problem, or using it as an excuse to revert back to traditional ways of working.

In fact, nearly all respondents have implemented a range of security measures specific to remote access equipment. Around nine out of ten already use password/pin protection, three quarters use mobile virus protection and two thirds encrypt information. Furthermore, many companies are planning on enhancing their procedures over the coming 12 months.

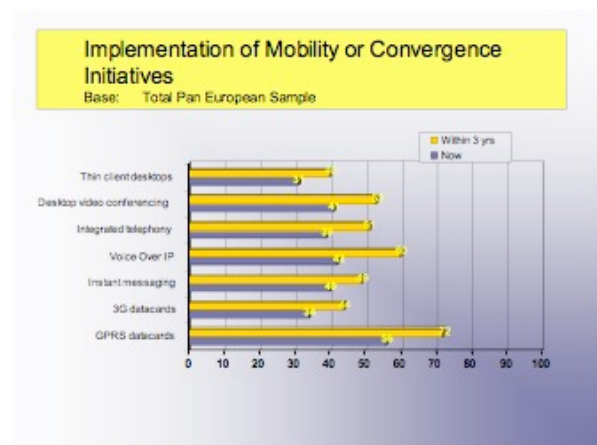
The importance of the data security issue is further underlined by the fact that IT security is the responsibility of the CIO in two thirds of major companies in the European region.



## 3. Specific mobility initiatives

### Mobility/convergence

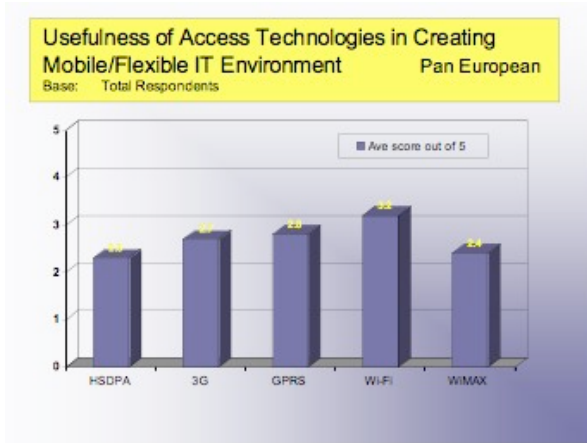
To date, over half of leading companies in the European region have implemented GPRS data cards, (80 per cent in the Nordic countries) and one third have implemented 3G data cards. Four out of ten have implemented Voice over IP and desktop video conferencing. Throughout the region, plans to further implement these mobility initiatives are quite modest.



### Access technologies

Overall, Wi-Fi is rated as the most useful technology in terms of helping to create a mobile and flexible technology-based environment over the next three years. This is the case in all countries except Italy where Wi-Fi is still felt to be useful, but not as

valuable, as high-speed downlink packet access (HSDPA).



### Microsoft .NET

Overall, one quarter of European businesses agree that .NET is set to become an increasingly important part of their overall IT strategy over the next few years, but the UK does not feel this is the case at all. This may be due to the fact that .NET is not seen to be strategic and as such is driven by operational employees and is therefore not on the CIO's agenda.

## CONCLUSION



### The balance of input vs. return

Embracing mobile technology provides significant tangible benefits and the drivers are powerful. But so are the barriers and key challenges – the balance between the two suggests companies will proceed with caution and, as a result, growth may be slower than is often the case with key enabling technologies.

In addition, the drivers for change still focus on issues that are not always quick or easy to alter, such as company culture and skills and staff training. While 42 per cent of European business expect the proportion of mobile workers to increase over the next three years and a similar proportion expect to spend more of their IT budget on mobile tools and technologies over the period, just 12 per cent say the resulting change will be significant. But the impact will be huge as so many benefits are already accruing and companies are becoming more familiar with the core issues surrounding mobile working and how to overcome them.

### Growth set to be significant not spectacular

Leading companies throughout the European region have now realised that, to fully exploit the benefits of mobile working and remote access technologies, it is not sufficient to simply provide relevant staff and management with the latest devices. Real change within a company is necessary, often at a cultural level, to see wireless working make a real impact.

While the vast majority recognise that current IT infrastructures are less than ideal, many also accept that company and staff training is necessary. It seems businesses are ready to accept that they have invested in the technology in a less than strategic fashion – a situation that can not continue if mobility strategies are to take hold. More importantly, many companies are worried about the threat to knowledge and data security and are extremely focused on the need to continue implementing a wider range of security measures specific to mobile devices and remote access equipment. There is common acceptance that mobility will generate increased security risks – including through the loss of the devices themselves or via hacking or theft.

### Strategic by default

Because of these very real issues, growth towards full enterprise mobility will be relatively slow and considered – perhaps even strategic by default. This is no bad thing. Nearly all major European organisations are sold on the potential benefits of mobile working, not only in terms of increasing staff productivity and motivation but also in respect of real tangible benefits such as improving competitive edge and increased sales revenue.

As businesses plan to invest a higher proportion of IT budgets on mobile tools and technologies over the coming years, they need to be prepared to make the structural changes needed and invest in the security measures and staff training requirements. In short, the planned growth will be solid and sustainable and the tactical, piecemeal approach will no longer continue. And because most of these companies have aligned their technology strategy to overall business goals, enterprise mobility will become core rather than fringe over the next few years.