
End User Productivity Revisited

Getting the most out of supporting technologies

Martha Bennett, Freeform Dynamics Ltd, August 2011

Productivity is a term that has been much used (and abused) to position everything from new devices through unified communications to cloud-based collaboration offerings as the key to increasing workforce productivity. But which technologies are actually being used? And how much is productivity about technology anyway?

Key Points

Productivity improvement is desirable, but elusive

When we asked 357 IT and business professionals in a recent study, a broad consensus emerged on what constitutes 'productivity'. It also became clear that the majority of companies aren't doing that well when it comes to supporting, never mind maximising, individual and team productivity: the right tools and information are often not available to the people who need them, and considerable amounts of time continue to be wasted as a result.

Information access is the biggest problem

Having access to the right information at the right time was singled out as the most important element of productivity. It was also the step-child when it comes to actually providing it: the majority of companies aren't regarded as doing well, and there is much room for improvement when it comes to supporting individual workers with collaboration tools and access to business intelligence.

Changing work patterns are making the issue more acute

Most companies today have distributed workforces, and many office-based employees don't exclusively work from the office any more. Mobile working is on the increase, as are nomadic and home working. Team structures are becoming more fluid, with temporary teams forming and disbanding, often in different locations, and across different time zones. Issues arising from lack of the right tools to support tasks as well as collaboration are magnified, and ever more time is wasted.

There is little direct support for productivity improvement

Few companies take any structured (in the shape of training) or unstructured (in the guise of mentoring or coaching) measures to improve individual productivity. There is also a strong sense that many organisations aren't aware of what can – and should – be done to improve productivity.

The role of technology to support productivity could be greater

Comparatively little use is made of many of the technologies that can help people work better as individuals and as teams, and uncertainty remains regarding the value of particular technologies. Whether or not they are planning to make improvements, most companies could benefit from taking a more structured approach to assessing the role of technology in the context of productivity.

The study upon which this report is based was independently designed, interpreted and reported by Freeform Dynamics and executed in collaboration with The Register news site. Feedback was gathered via an online survey of 357 IT and business professionals from the UK, USA, and other geographies. The study was sponsored by Microsoft.

The Microsoft logo, consisting of the word 'Microsoft' in a bold, sans-serif font with a registered trademark symbol.

The state of 'productivity' today

Increasing workforce productivity is a mantra recited by many managers; and if vendor marketing is to be believed, it shouldn't be too much of a problem to achieve that goal, given how many gadgets, software and services are available – and continue to be launched – that are key to enhancing productivity. Equally loud, at times, are the voices of those who claim that the proliferation of devices and software has actually resulted in reducing productivity.

But what does productivity actually mean to companies? What role does technology play in supporting workforce productivity? Which technologies are seen as key? And what are the limits of technology in supporting productivity, and productivity enhancements?

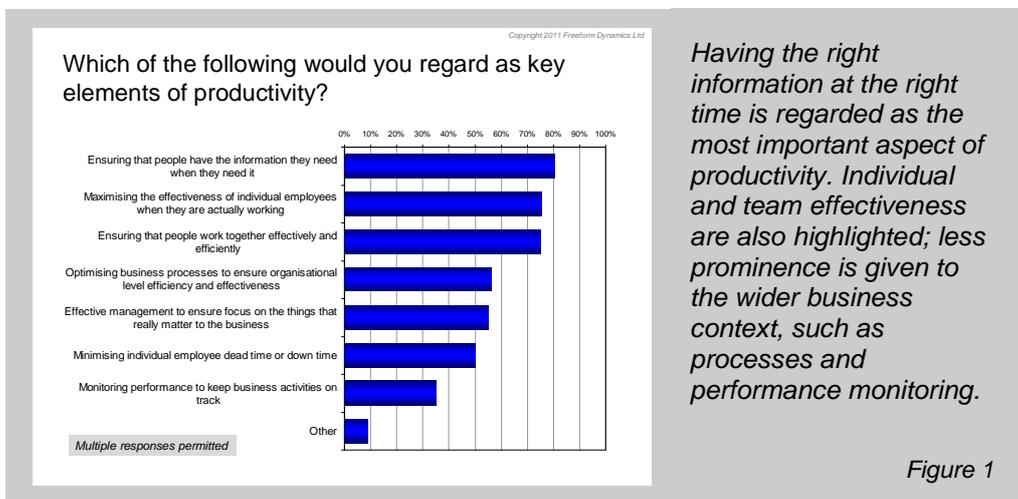
To answer these (and related) questions, in May 2011, we surveyed 357 IT and business professionals around the world (see Appendix A for more details). In addition to requesting responses to very specific questions, we also gave respondents ample opportunity to introduce additional topics and viewpoints.

As the discussion of the findings will show, we found a high degree of recognition of what the issues are; but only a minority of companies feel that they have successfully tackled them. But while many respondents stress the importance of non-technology factors in addressing productivity issues, productivity is mainly seen through an efficiency lens.

In order to provide a framework for our approach to the analysis of the survey results, we have applied the following definition of 'productivity' in the context of this report:

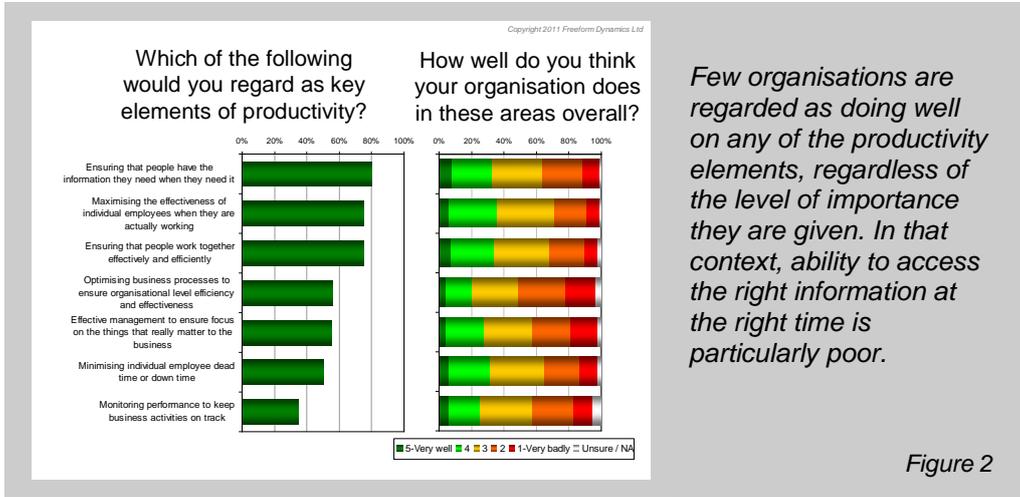
"The ability of management and staff to complete their tasks in the most efficient manner, to the required standards of quality and accuracy, in a business environment that ensures maximum effectiveness"

First of all, it's important to unravel what actually constitutes 'productivity'; to that end, we asked respondents to indicate what they regarded as the key elements (Figure 1).

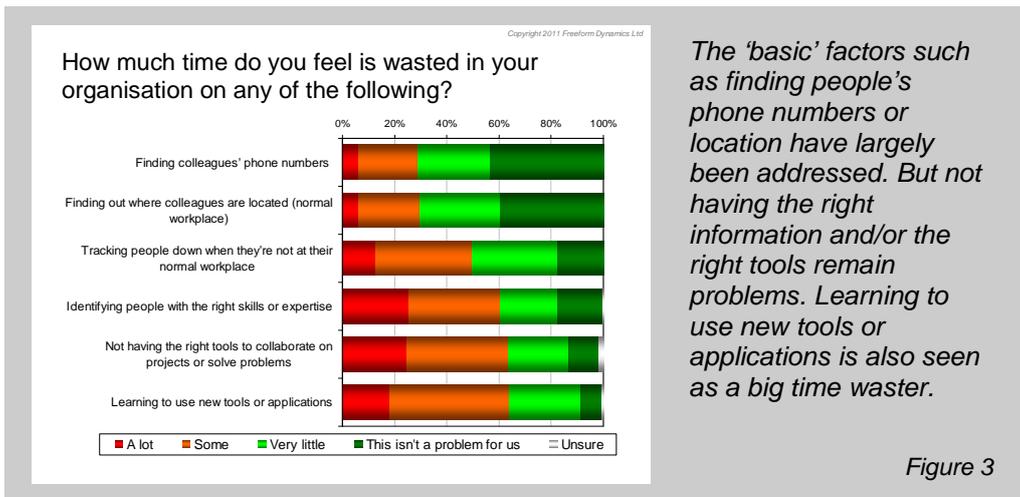


The top three elements chosen by our respondents clearly show that productivity is as much about individual effectiveness as it is about the factors that help an individual to be effective: having the right information to hand at the right time (the top choice), and collaboration. The wider business context - around processes, focus on doing the right things, and business performance monitoring – is given less prominence. To some extent, this may be a reflection of the fact that the majority of our respondents are IT professionals and management; but it does indicate that productivity is mainly regarded as an issue of individual and team efficiency and effectiveness. We'll come back to this point later in the document. For now, let's look at how our respondents assessed the organisations they work for.

If this was a school report, the commentary at the end would no doubt read “could do better”: comparatively few organisations are regarded as doing well. More crucially, there is a yawning gap between the perceived importance of having the right information to hand, and companies’ ability to make it available (Figure 2).



Not having the required information to hand when it’s needed by implication touches upon another aspect of productivity: time wasted (Figure 3).

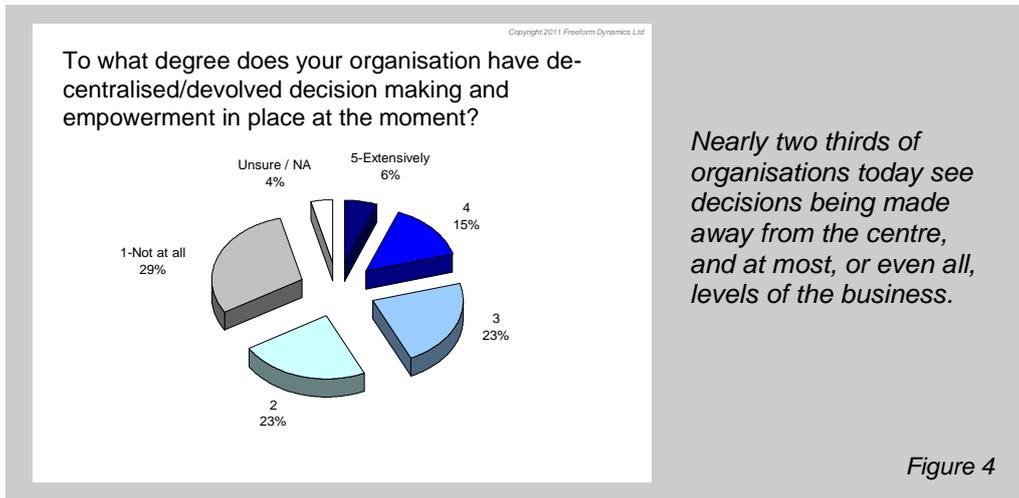


The good news is that finding colleagues’ phone numbers or normal place of work isn’t an issue any more for the majority of organisations; but the moment a person isn’t in their usual location, the picture becomes less rosy. More crucially, though, companies continue to struggle when it comes to identifying people with the right skills and expertise, and making the right tools available for collaboration and problem solving. Not surprisingly, the larger organisations have more of a problem in these areas than small businesses.

Last, but by no means least, learning to use new tools and applications is singled out (albeit by a small margin) as the biggest time waster of all, with very few companies reporting that it wasn’t a problem for them. That said, we need to bear in mind that the introduction of new tools or applications isn’t a daily occurrence. Ideally, of course, learning new tools or applications shouldn’t prove that much of a time-wasting factor in the first place; but once the disruption is out of the way, it’s back to business as usual.

The same cannot be said for time wasted because people can't find their colleagues when they need them, can't identify who's best placed to help them, and generally lack the tools to collaborate and solve problems: this points to a much more deep-rooted issue, with more serious business consequences. By implication, not only is time wasted – there is a high likelihood that mistakes are made, decisions are taken based on partial or incorrect information, and sub-optimal ways of working are perpetuated.

A final point on collaboration, and the need to have the right information to hand: decisions are increasingly being made away from the centre, and at all levels of the organisation (Figure 4).

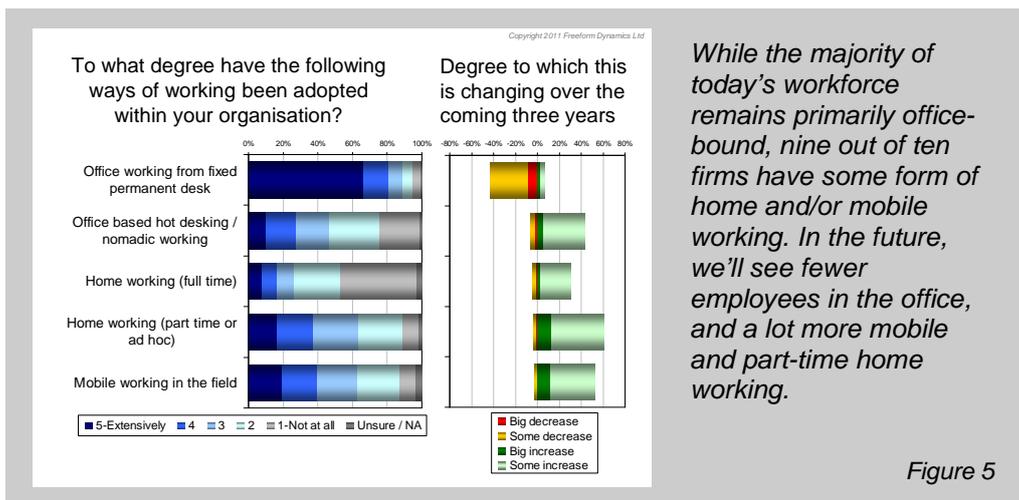


This in turn indicates the need to have processes and tools in place that help minimise time wasted and – more importantly – avoid decisions taken based on incomplete, out-dated or just plain wrong information.

Workforce location and ways of working

Before we examine how companies support workforce productivity, we need to take a look at the back-drop against which to consider productivity issues and potential solutions.

It will come as no surprise that the majority of today's workforce remains office-bound (Figure 5).



As we can see, however, this doesn't mean that office-based employees aren't also doing work when away from their normal workplace – of the companies whose workforce predominantly works

from permanent desks in an office, nine out of ten have some form of home working going on, and about the same number also report varying degrees of mobile working in the field.

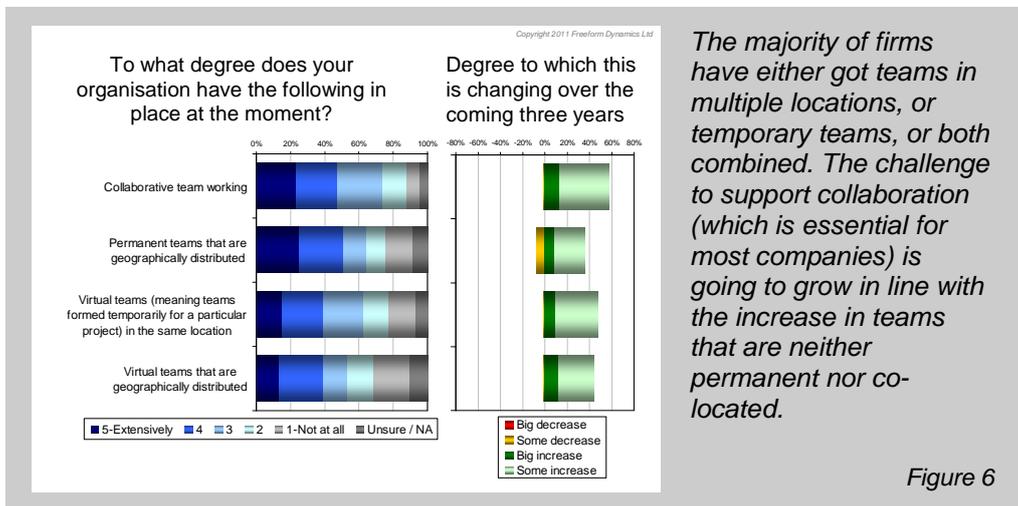
Looking into the future, only a minority of companies expects a significant decrease in the number of desk-bound employees. But there is a groundswell towards more flexible working (as illustrated in the right-hand chart in Figure 5). While companies aren't expecting a massive increase in full-time home working, more employees will be hot-desking, working from home or from no fixed location for at least part of their time.

To make this moveable feast even more moveable, there's another aspect that can influence individual and team productivity: teams and their location. The key variables are whether teams are temporary or permanent, whether they're in the same physical location, and whether they're in the same time zone. Each combination of these variables brings different challenges in terms of supporting collaboration – a key element, given that nearly all companies have collaborative team working in place - and ensuring people can be productive whenever they need to be. It's beyond the scope of this report to drill down into all possible combinations of these variables, so we focused on three key variants:

- Permanent teams that are geographically distributed
- Virtual teams (formed on a temporary basis, usually for a particular project) in the same location
- Virtual teams that are geographically distributed

What we found will not come as a surprise to anybody: the majority of firms have teams that are not co-located (and may not be in the same time zone, either), and also have to support the formation – and by implication, dis-banding – of temporary teams. While we didn't ask about this in the survey, there is plenty of anecdotal evidence that few firms have solid processes in place to support the setting up of virtual teams, with the result that a lot of time is wasted because the right email distribution lists haven't been set up, team members don't have access to the required information resources, and so on.

Going back to the survey results: even more so than with workforce location, companies are expecting to see a considerable increase in the use of geographically distributed and temporary teams (Figure 6).



Taking all these factors together, and also reflecting the prevalence and increasing importance of collaboration, it is clear that there are implications for the processes and tools companies have put, and are putting, in place to support employee productivity. For the majority, it means being able to support not just collaboration, but also remote working and collaboration between individuals who aren't in the same place at the same time, and for whom team composition can be fluid.

Support for employee productivity

As we already know from the data presented in Figure 2, few companies feel they're doing particularly well in any of the elements that are part of 'productivity'. A look at the responses to a number of questions around how companies support their employees as they go about their day-to-day tasks begins to tell the story of why this is so (Figure 7).



Looking at this chart, we can make a couple of important observations:

- **Team sites / portals to support collaboration:** while the majority of companies have these in place to at least some degree, only a minority reported "extensive" use
- **Business intelligence:** aside from the fact that a significant number of organisations have little or no business intelligence capabilities, the discrepancy is striking between what's available to senior management and what's available to the broader workforce

These are of course only two supporting technologies, and we will take a more detailed look at technology in the next section. What's worth noting in this context: given that having the right information at the right time was identified as the most important element of 'productivity' (as outlined above, and shown in Figure 1), the comparatively low deployment levels of business intelligence solutions and team sites suggests that many employees don't have access to the support and information they require.

But let's consider the wider corporate environment for a moment – what policies and procedures do companies have in place to support productivity? And what about other non-technology factors?

Training is a good starting point, as it's an essential element – if well done – in equipping people with the tools and knowledge to do their jobs properly. We found that little support is available in terms of formal training or other forms of guidance to optimise productivity: while just over a third of companies use on-going coaching or mentoring, only a mere one in five provide guidance or training to help people use email most effectively (Figure 8).



It can be argued that general initiatives to increase productivity tend to be too ambitious and ill-specified to be successful; and to improve employees' productivity takes more than teaching them effective email use. But the point about email is a useful proxy: unless people know how to make best use of the tools they are given – whether that's email, a CRM system, a spreadsheet or an analytics tool – they are unlikely to be as efficient and effective as they could be.

This was also confirmed by many of our survey respondents, who stressed the importance of training in addition to knowledge transfer between colleagues, with the strong implication that not enough formal training was being provided.

“Don't just dump software on people and leave them to find a way to make it do something. Explain what you want them to use it for, and how you want it used”

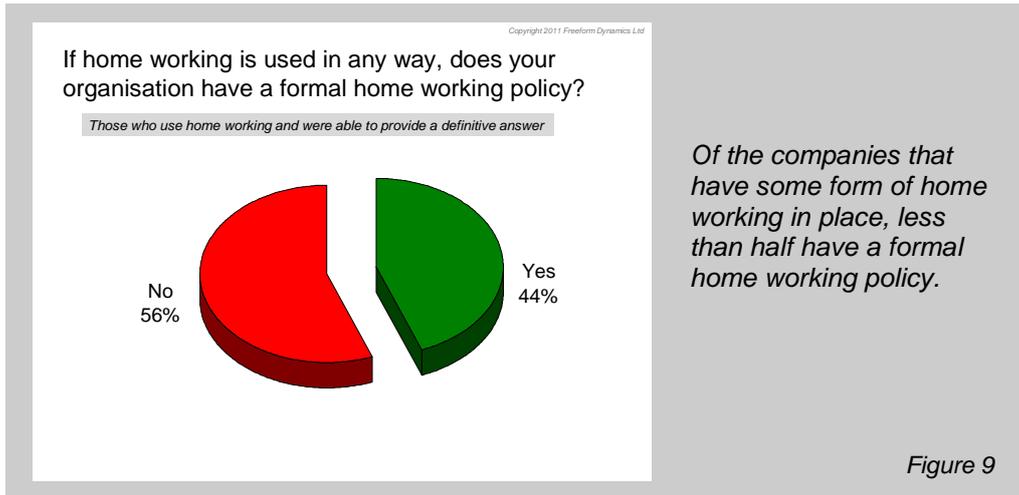
This implied reliance on colleagues when it comes to learning how to use a tool, or how to extract information from company systems, suggests that productivity in many organisations suffers further as a result – by definition, people who are helping a colleague are not doing their own work.

Productivity in the wider management context

Beyond having the right tools (more of which later) and knowing how to use them, people also need to have an appropriate working environment, both literally and metaphorically. We didn't specifically ask about this, but our respondents told us anyway: several stressed the importance of having quiet areas in the office. Employee satisfaction and keeping staff motivated were also singled out; being mired in unnecessary process was another bug bear.

This brings us to another dimension of the productivity debate: processes, policy, and the overall management environment. Aside from the fact that out-dated, ill-suited and superfluous processes get in the way of employee productivity, well thought-out and properly implemented policies and processes are necessary to support effective individual working as well as collaboration.

We weren't able to explore this aspect in detail in this survey; we did, however, ask a question that can be used as a proxy for management focus on what it takes to support the effective running of a business: whether or not a company had a formal home working policy in place. Given that most companies have home working of some kind, we felt this was a relevant indicator against which to assess how well organisations were doing in some of the aspects that we have already explored.



As shown in Figure 9, less than half of the companies that had people working from home in some way have actually put in place a formal home working policy. There are of course many reasons why an organisation may decide that it's not required or appropriate to have a formal home working policy, ranging from failure even to consider it, to actively deciding not to in order to avoid potential legal issues. But it is nevertheless striking that those companies who have a formal home working policy in place also appear to have given more thought to what their employees need to do their jobs.

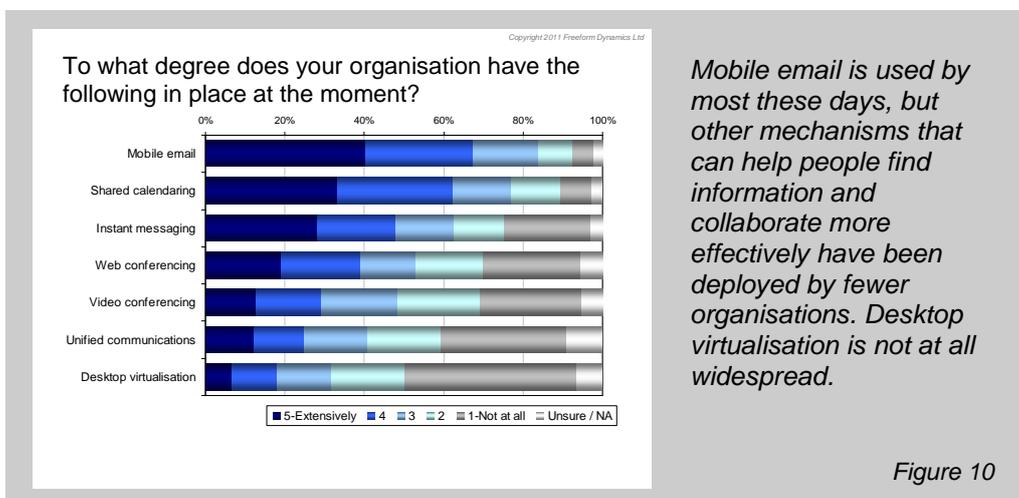
We found that companies who have a formal home working policy in place

- Are more likely to provide business intelligence for senior management
- Are further advanced in making available business intelligence for the broader workforce
- Make greater use of team sites or portals

The companies with a formal home working policy were also more likely – to varying degrees - to have deployed other supporting technologies, such as mobile email, shared calendaring, and instant messaging.

Technology's role in supporting productivity

When we asked companies about their current use of a number of technologies, we consciously excluded standard office software such as email, word processing and spread sheets, on the assumption that these would be almost universally available to those that needed to use them (even if they aren't used in the most efficient and effective manner).



The picture that presents itself in Figure 10 is not entirely surprising: the vast majority of companies have put in place mobile email, and support shared calendaring. Instant messaging is used by only three in four, with extensive or significant use reported by less than half. It also appears that not all of those geographically distributed teams have all the communications mechanisms at their disposal that would help them collaborate more effectively.

So how are these technologies perceived when it comes to supporting productivity? And to what extent are companies intending to deploy these technologies, if they haven't already got them in place? The results presented in Figure 11 tell many stories.



Two of these stories in particular are worth highlighting:

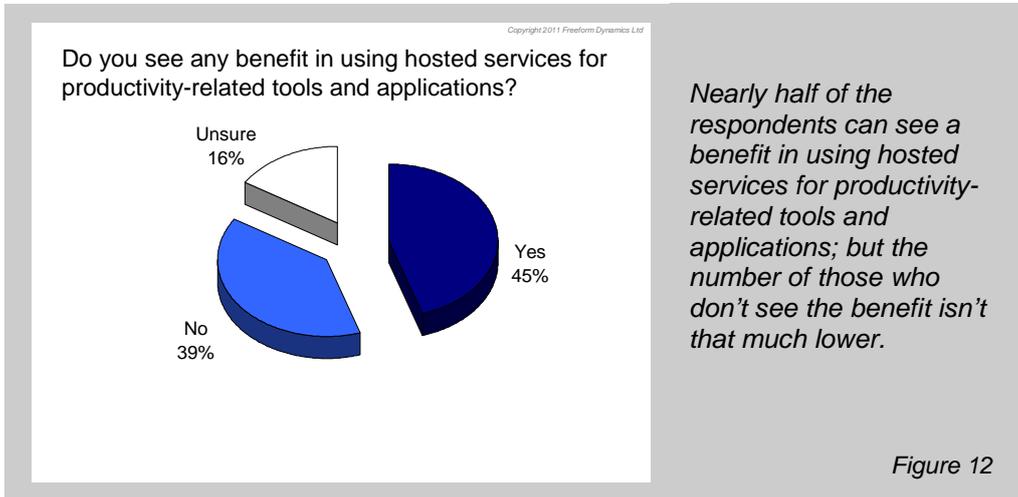
- The comparatively high percentage of respondents who aren't planning to make any improvements to address productivity shortfalls, even though they feel improvements are needed (the orange part of the bars in Figure 11). The chasm between perceived need and reality is especially great with regard to business intelligence and putting in place team sites or portals, in particular if we once again take into account that "having the information they need when they need it" is regarded as the single most important element of productivity. Resource constraints – both in terms of budget and of people – no doubt play a part, and additional comments from our respondents support this view. But it is also fair to argue that cost in itself isn't the prime inhibitor – in the context of hosted services (discussed in the next section), cost was an important, but not *the* most important consideration.
- The number of respondents who didn't see the relevance of a particular technology or solution in the context of addressing productivity shortfalls, or who were unsure whether they had any role to play (the dark and light grey part of the bars in Figure 11). The reasons why are likely to fall into two broad categories: one, those who simply haven't (yet) examined in detail how a particular solution could yield productivity benefits; two, those who have ruled out a particular solution because it truly isn't applicable to their organisation at this time, be it for technical or other reasons. However, it is likely that many of those who feel that a solution is of no relevance to their firms haven't assessed whether their current processes and ways of working remain best suited to today's environment, and following on from that, how specific solutions could bring productivity benefits.

Going back to the wider picture, one thing is clear: technology has a key role to play when it comes to workforce productivity. But with the exception of mobile email, less than half our respondents feel that they already have good capability. Varying degrees of improvement are planned in all of the areas we asked about, and there is also a minority of companies who have facilities in place that

aren't being used effectively. But both of these scenarios are far outweighed by those who feel that improvements are needed, but where nothing is going to change.

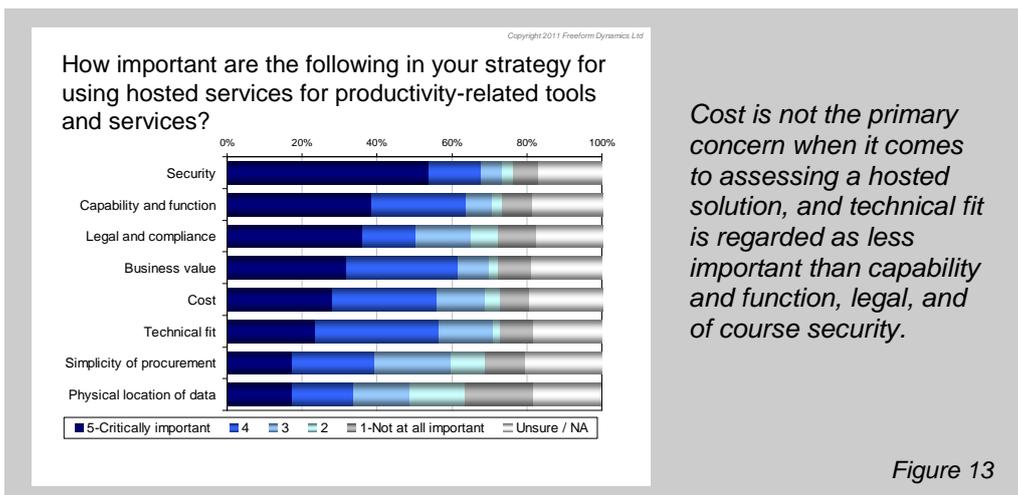
Hosted services and productivity – the jury is out

Where resource constraints are the primary reason for not planning to go ahead with needed improvements to key tools that are likely to improve productivity, it makes sense to consider the potential of using hosted services to provide employees with the required tools and services. Many of our respondents agree: nearly half can see the benefit of taking this approach (Figure 12).



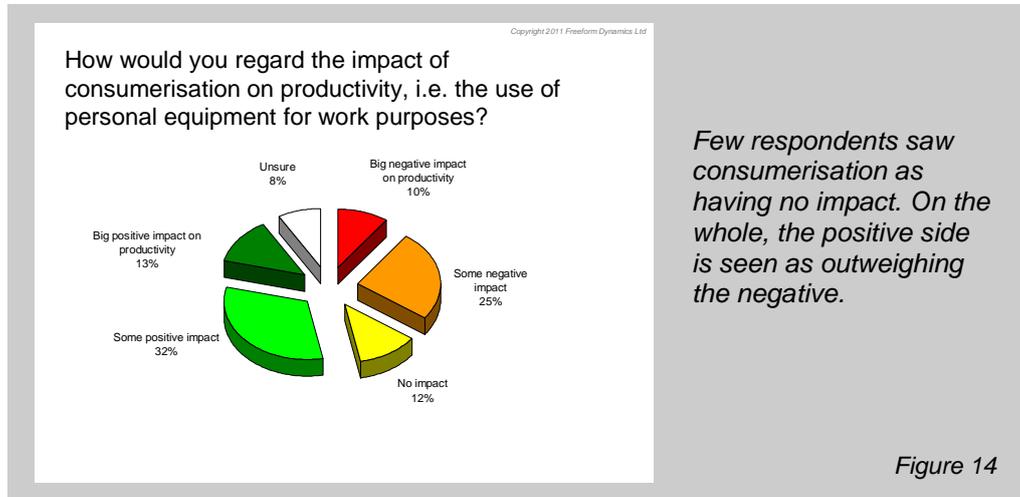
We of course don't know which way the vote would go if those saying they're unsure had the required information at their disposal that would enable them to make a definitive judgement. Nevertheless, there's a sizeable proportion who don't see any advantages in using hosted services when it comes to making productivity tools available to the workforce.

When looking at which critically important factors matter most to our respondents when choosing a hosted solution (Figure 13), security not surprisingly is right at the top, followed by "capability and function". Cost is ranked fifth, after "legal and compliance", suggesting that it isn't the primary inhibitor when it comes to companies investing in productivity-enhancing solutions, hosted or otherwise.



The impact on productivity of 'consumerisation'

Given how much debate there is going on at the moment about the 'consumerisation of IT' – defined here as the use of personal equipment for work purposes – we asked about the perceived impact on productivity.



The responses, shown in Figure 14, indicate that there may not be as negative a view of using personal equipment for work purposes as is often assumed, with nearly half of our respondents seeing consumerisation as having at least some positive impact on productivity. This doesn't, however, equate to a wholehearted embrace of the concept: concerns about security and support are top of mind for many.

"I can see some positives in enhancing personal productivity. Each user has their own means of getting work done. The downside is at what cost and how to support that."

"Issue is balancing information security with [the] benefits of use of personal productivity tools (eg iPhone/Android, iPad, etc)"

There are of course also those who are completely against employees using any of their own devices, be it smart phones or PCs. No doubt there are industry segments where this will remain the case, at least for the foreseeable future. However, there are signs that blanket rejection of employees 'bringing their own' may create the very security exposures it is trying to avoid: in many firms, technically savvy employees are finding ways round corporate policy and are connecting their own devices anyway.

A more detailed analysis of the consumerisation topic is beyond the scope of this report, but it's worth closing the discussion here with a comment from one of our respondents, as the technology aspects mentioned are also of importance in the context of productivity:

"Lack of standardization leads to greater support costs and downtime. Until the majority of our services are hosted/virtualized, and higher speed communication is available at all of our sites I do not think this option will be available to very many of our users."

Corporate commitment to improving productivity

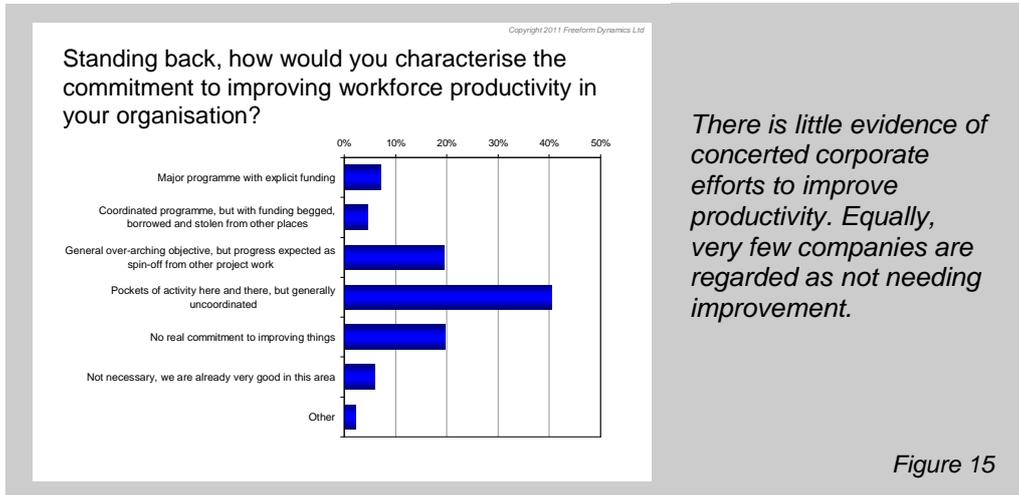
As we have already seen, comparatively little is being done by way of improving employee productivity through formal coaching or training initiatives. There are also plenty of indications that not enough attention is paid to the productivity impact of a disjointed applications landscape. As one of our respondents observed:

“I enter work time in 5 different places for the same effort mostly for reporting purposes. How productive is that?”

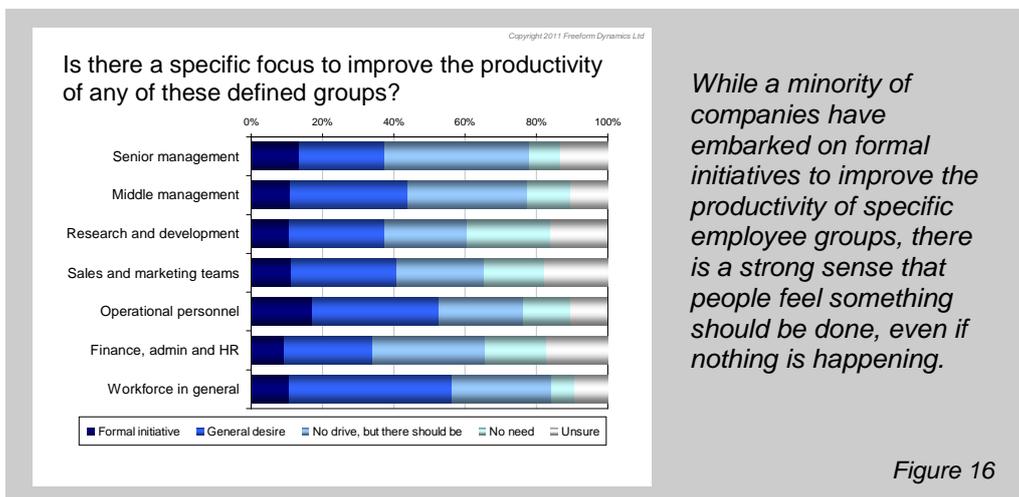
Another comment is no doubt also representative of many when it comes to new initiatives:

“[We are] in the middle of a lot of projects but [I] doubt if [the] actual impact on productivity will be measured”

And what you don't measure, you can't improve. So it's perhaps not surprising that we found little evidence of true, management-level commitment to improving workforce productivity (Figure 15).



Only a small minority of respondents feel that their organisations don't have any productivity issues. Overall, there is a strong sense of 'muddling through' – the majority have no initiatives in place whatsoever to improve productivity, and in most of those that do, these initiatives are either not coordinated, or not funded. Having said that, there is a general desire to improve productivity, and a strong feeling that – for most employee types – something should be done to change things, but inaction remains the order of the day (Figure 16).



This lack of action has many root causes, most of which are interlinked and not easy to address as they involve the two elements that are difficult to control: people, and company culture. Add to that the daily pressures of keeping the business going, and it's easy to see how productivity improvement remains in the realm of wishful thinking and lack of action. But it doesn't have to be like that if we take a different approach to the whole area of 'productivity'.

Discussion and conclusion

As several of our respondents also stressed, technology on its own can't improve productivity: people and process have equal parts to play, or could be argued to have an even more powerful role – if people don't know how to use the technology, feel demotivated, or work in an environment that's not conducive to productive working, then the value of the technology is instantly reduced, potentially even to zero. Equally, if the processes aren't right – and that can mean too few or too many processes, as well as simply inappropriate ones – no supporting technology can compensate for the resulting loss of productivity.

But all of the elements are closely interlinked: out-dated, overly complex or badly designed processes can render technology investments null and void; at the same time, in the majority of cases, there's a limit to what can be achieved with process improvement alone.

So how do we begin closing the gap between the perceived need to improve productivity, and today's reality?

First of all, it's necessary to take an all-encompassing view of productivity, that is 'business productivity' as a whole. Business productivity is made up of two key elements: the efficiency and effectiveness of individuals and teams; and the efficiency and effectiveness of the processes that are in place.

From an individual and team perspective, it's essential that they have the right tools and information to hand, and that they know how to use them. From a business perspective, it's not only important to ensure that the tools, information and generic training are made available, but also crucial that:

- The right tools are selected in the first place.
- An assessment is made of how the tools and information should be used to best effect.
- Training and guidelines are tailored accordingly.

But this is the aspect that's typically neglected, because to a large extent, the impact on productivity of tool and information deficiencies, as well as lack of expertise, is a hidden cost, borne in the first instance by the employee, but ultimately by the business itself.

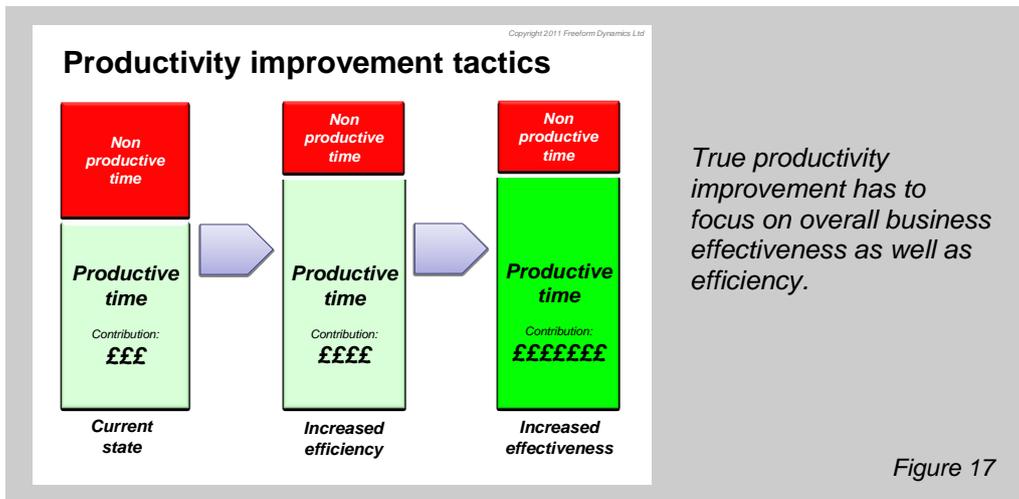
What do we mean by 'hidden cost'? To give just a few examples: Managers and colleagues may not be aware that it takes a particular employee ten mouse clicks for something that could be done in one, or ten minutes for a task that could be accomplished in two, because the person doesn't know how best to use the tools they're working with. The resulting waste of time is not apparent as a loss of productivity, simply because the individuals in question will most likely be working long hours to complete their work – but the impact on the business of a tired, stressed worker will sooner or later be felt, as will the consequences of errors.

Similarly, it's expected that employees simply get used to new or upgraded software; and even in organisations that actively support the concept of a 'super user' who is trained to support colleagues, it is often taken for granted that those super users complete their usual workload even at times when their support is needed almost one hundred per cent of their time.

So that's an area that companies need to pay more attention to if they are serious about improving productivity: gaining a true understanding of what a tool or application does, developing best practice for its use, and providing appropriate training and guidance to ensure employees can use it to best effect. It also means understanding how long a particular task or process *should* be taking, and what information is required to complete it; only then can it be assessed how much that time could be reduced, and mistakes avoided, if employees are given better tools.

Of course that's easier said than done. And it's only part of the battle, as addressing these issues focuses on individual efficiency and effectiveness – it's all about doing things right. Unless management has an equally strong focus on doing the right things, this type of productivity improvement will have limited positive impact on the business if not accompanied by continuous review of processes, and – where required – process optimisation, or at least improvement: it doesn't matter how well, and how quickly, something is done if it's not worth doing in the first place.

Another aspect is the need – and the will – to address the hidden costs that result from deficiencies in a company’s IT systems as well as processes that employees are currently compensating for with their time, and which result in sub-optimal decisions and errors. Tackling those areas addresses both the individual efficiency and business effectiveness aspects.

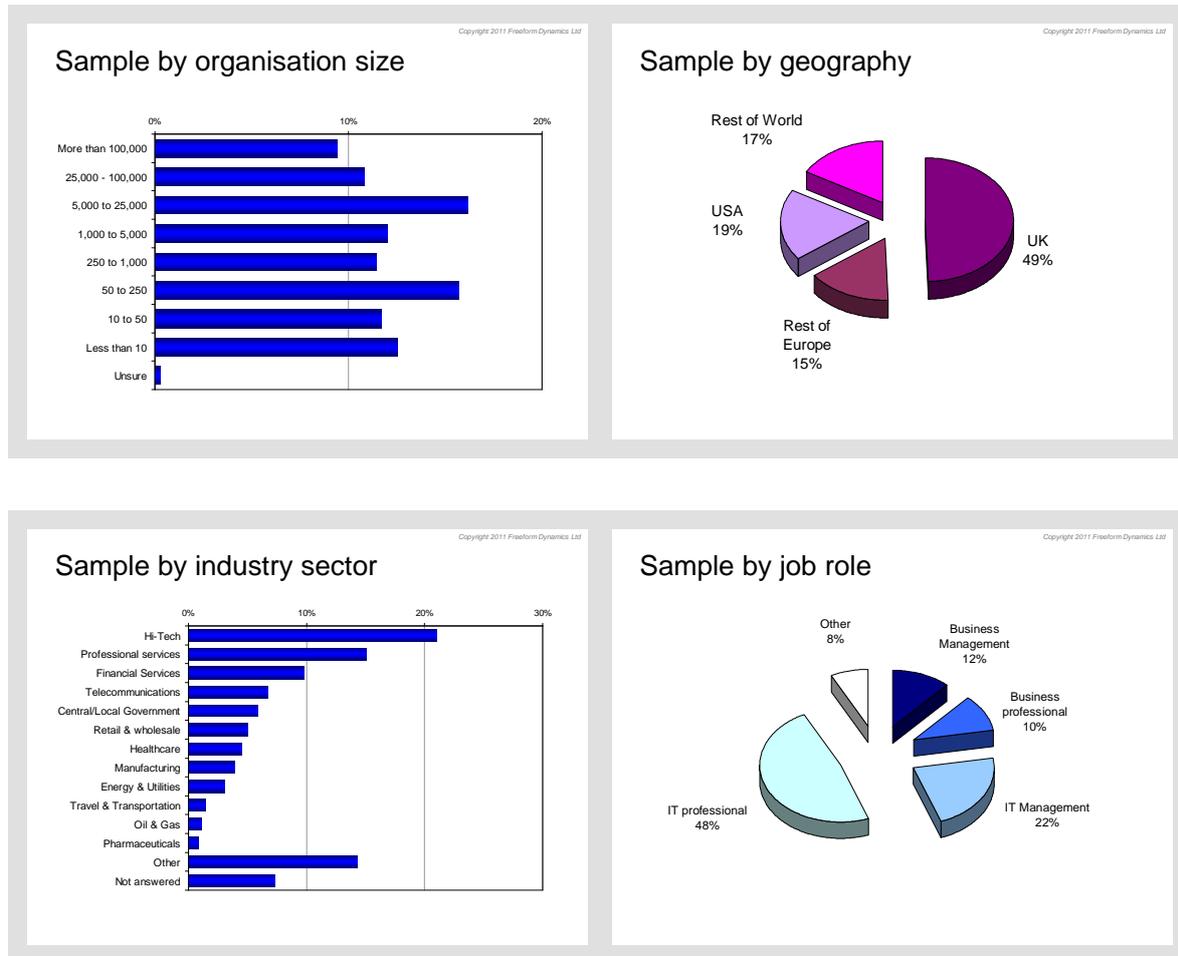


The benefits of true productivity improvement (Figure 17) manifest themselves in a variety of ways, not all of which can be directly expressed in financial terms: reduced costs, reduced risks, and a more motivated workforce all contribute to the bottom line – but there needs to be a way of assessing and measuring them in some way. This in turn means that ‘productivity’ in all its guises needs to be on the management agenda – but it must be in the context of overall business effectiveness.

Appendix: Study Sample

Feedback was gathered via an online questionnaire published on The Register news and information site (www.theregister.com). The respondents, totalling 357, were IT and business professionals representing a good cross section of job functions and working in a range of different industry sectors.

The sample distribution was as follows:



A note on methodology

The web survey approach used in this study is subject to the 'self-selection' principle, which basically means that people with a greater knowledge of or interest in the topic are more likely to have responded.

Such self-selection does not undermine the analysis we have presented here as we have focused on the relative emphasis of different perceptions and types of activity. Indeed, in fast moving areas it is often useful to investigate the views and behaviour of those that are ahead of the curve. It does, however, mean that it would be inappropriate to regard any of the statistics we have used as a representation of the absolute level of need or activity across the business community as a whole.

The study was completed in May 2011, and we would like to take this opportunity to thank all of those who took the time to participate. Your help is very much appreciated.

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