

Big + Small

How to do bigger things in business

How mobile technology shapes learning and
collaboration for large organisations and startups

October 2017

Executive summary

Companies and their employees have high expectations for mobile technology.

Decision-makers responsible for buying the technology expect it to deliver gains in productivity, reduce costs and improve employee satisfaction levels.

Most employees think mobile technology has had a beneficial effect on their company.

Approaches to mobile technology differ according to the size of organisation. Large companies and small startups have different priorities and expectations.

Each has strengths and weaknesses. The future success of both types of organisation lies in how well they can bridge such differences, learn from and understand each other. Collaboration, not competition, will define the winners and losers in the open, digital economy over the next decade.

Most large companies are less productive than they were almost 10 years ago. Lacking agility and innovation, they are encumbered by process, older technology, IT cost constraints and rising security concerns. A survey by CCS Insight found that one third of employees in large organisations feel their IT provision is completely out of touch with their needs. In contrast, small startups can be highly agile and innovative, but lack the processes needed for growth and increased scale.

They use more personal technology in the workplace but are worryingly dismissive of cyber-threats, arguably one of the most important challenges that businesses face today. Less than one in five employees in small businesses are given training on security threats, for example.

This report, the first in a three-part series, builds on Samsung's Open Economy Report published in 2016 and draws on several surveys conducted by CCS Insight since 2015. The surveys measure attitudes to mobile technology among IT decision-makers and employees. They offer insight into current trends and practices, and likely scenarios for the future. These CCS Insight reports provide greater detail of the findings cited here:

[Decision-Maker Mobile Technology Survey 2016](#)

[Decision-Maker Mobile Technology Survey 2017](#)

[Employee Mobile Technology Survey 2016](#)

[Employee Mobile Technology Survey 2017](#)

The following pages set out to build better knowledge, insight and learning between large organisations and small startups. We examine the most important and intersecting attributes that contribute to business success for both types of organisation and explore unique approaches to buying mobile technology. As a practical guide for CIOs, IT managers and business decision-makers, this report should prompt organisations to implement the technologies, partnerships and processes needed to succeed.

The importance of collaboration

Startups are a hot topic.

The past few years has seen the high-profile rise of so-called unicorns — startups valued at more than \$1 billion.

Larger organisations have recognised the significance of startups in the past 18 months, making substantial investments and forming partnerships with them.

More than half of the world's 500 largest public companies now work with startups, according to a 2016 report by EU-funded project OpenAxel. European large businesses are particularly active: of the five countries with the highest number of large companies engaged with startups, four are in Europe.

Large businesses and small startups have realised that future success lies in how well they understand one another and work together. But in many areas, they are like chalk and cheese: they think and behave differently and appear to be on diverging paths to reaching

their business goals. What is needed is a greater understanding between them.

We have identified four key attributes that contribute to business success for both types of organisation:

[Adoption of new technology](#)

[Role of productivity](#)

[Approaches to innovation](#)

[Strategies for cyber security](#)

We look at all four in the following pages, offering a deeper insight into how they affect businesses. We define large organisations as those with more than 250 employees. Small startups are defined as businesses under five years old and with fewer than 50 employees.

A man wearing a VR headset is seated at a desk in a modern office at night. He is gesturing with his right hand. The office has large windows and glass partitions, with other people visible in the background. The lighting is dim, with some ambient light from the office fixtures.

77%

of employees in large firms and

60%

of employees in small companies
state that technology will change
the way they work in the future.

01 Adoption of new technology

Digital Darwinism

We are in an age of digital Darwinism, where new technologies such as mobility, the Internet of Things and artificial intelligence will rapidly shape business over the next decade. Companies of all sizes face greater urgency in putting new technology at the heart of their competitive advantage.

But there are some differences between how large organisations and small startups approach new technology.

In large businesses, constraints on IT spending are denting employee satisfaction levels. According to CCS Insight's survey of employees in 2017, 74 percent of employees in large organisations say their company should spend more on technology and 39 percent feel the organisation is cutting back on IT spending.

In small firms, these figures are considerably lower: 54 percent and 27 percent. Worryingly, over a third of employees in companies large and small agree with the statement that their company's IT department is out of touch with their needs.

Still, satisfaction is higher among small companies: more than 60 percent of employees in smaller firms believe that the technology used at work fully meets their needs. This compares with just 47 percent of employees in large organisations satisfied with their workplace technology.

In addition, small businesses generally have a much greater tolerance for personal technology in the workplace. CCS Insight's survey found that employees in small businesses used more than the average number of connected devices for work purposes — an average of 3.2, compared with an industry average of 2.9. This increase was despite the greater prevalence of bring-your-own device programmes in large businesses — 44 percent, compared with just 22 percent in small companies.

Interestingly, usage of mobile apps for business purposes is more widespread in larger organisations: on average, employees in larger firms use 6.7 apps, while those in smaller companies use an average of only 5.4.

Attitudes to augmented reality and artificial intelligence

Perhaps the biggest indicator of a gulf between large and small organisations is employees' attitudes to future technologies such as augmented reality and artificial intelligence.

According to CCS Insight's latest survey of employees, a higher proportion in large businesses (63 percent) believe that augmented reality is going to have a significant impact on how their job operates over the next decade. This compares with 43 percent of those in small businesses.

The survey revealed similar findings for artificial intelligence, with 77 percent of employees in large firms and 60 percent in small companies stating that the technology will change the way they work.

Employees in small businesses are consequently less worried about the rise of artificial intelligence and automation technologies displacing their jobs. When asked about the prospect of artificial intelligence technology making their job redundant, the majority of small business employees — close to 60 percent — said they were "not at all concerned". This compares with a minority (48 percent) of employees in large businesses who felt the same.

Despite their obvious differences, both sizes of organisation are looking to technology to provide a competitive advantage, making them fitter for the challenges ahead.



Weak spending levels and lack of support for personal technology means employees in large companies are less satisfied.

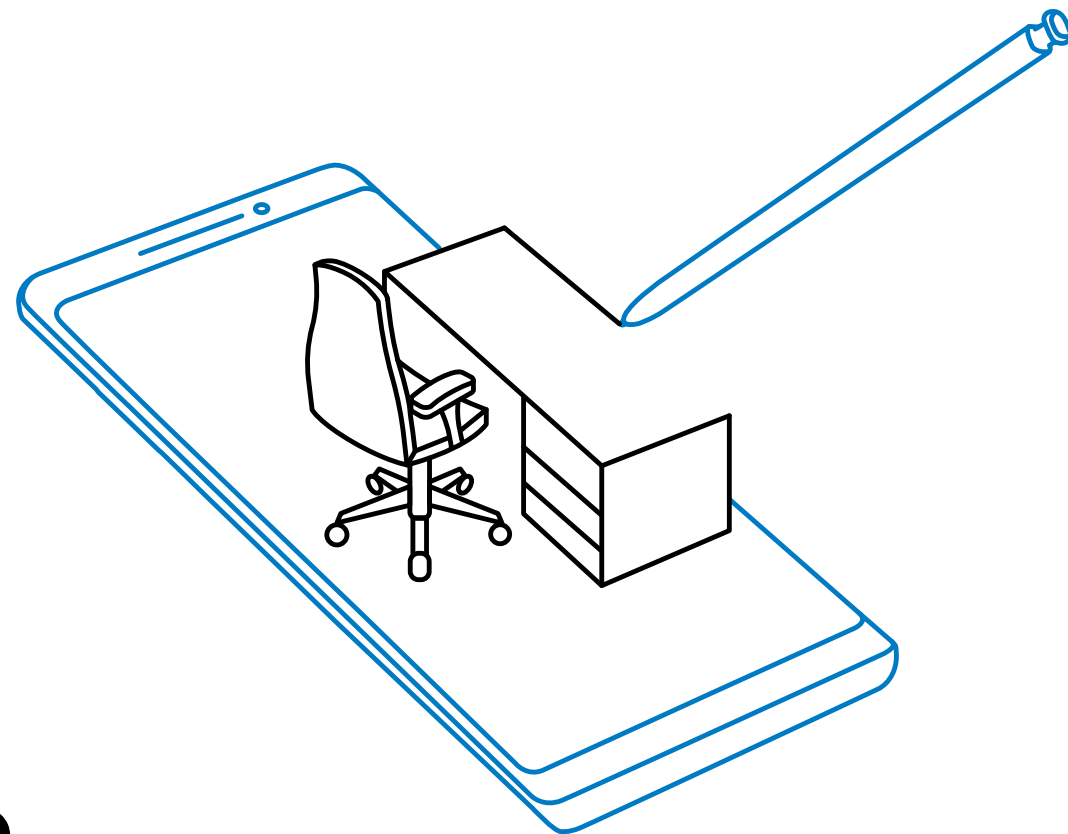


Employees in small organisations use more connected devices for work purposes.



Smaller companies are less worried about the advent of new technology such as artificial intelligence.

02 The role of productivity



Faced with falling productivity, large companies are making it their priority when investing in mobile technology.



Growth in mobile working is accelerating, leading to changes in work styles and the definition of an office.



The shift to mobile working is driving changes in the requirements for work devices.

A large business imperative

The role of productivity also weighs differently in big companies and small startups.

For large businesses, productivity growth has become a business imperative. According to the Organisation for Economic Co-operation and Development (OECD), labour productivity in the G7 countries has been flat for nearly a decade, since the financial crisis of 2008.

However, the UK's Office of National Statistics reported in 2016 that companies with more than 250 employees have in fact lower productivity levels than they did in 2008. Additionally, research conducted by the Harvard Business Review in 2016 also found an accelerating "productivity gap" between large companies. The gulf between large firms in the top 10 percent by productivity and those in the bottom 10 percent widened by 14 percent between 2001 and 2012, according to the research.

Three-quarters of decision-makers in large enterprises state that productivity is among the top three most important goals when

investing in mobile technology. CCS Insight's survey of decision-makers also found that almost 40 percent regard it as their top goal. Nearly half of decision-makers in large firms actively measure the productivity impact of their mobile investments as well.

The rise of mobile working

An important trend affecting productivity has been the rise of mobile working. According to CCS Insight estimates, one third of employees in developed economies are mobile workers today, up from 25 percent in 2014. By 2020, 48 percent of the workforce in developed nations will be classified as mobile, with over 70 percent of workers in small businesses being mobile. The growth of mobile working, defined as spending at least 25 percent of work time away from a primary workplace, has led to changes in the definition of an office. The hierarchical, static and physical offices of the past are waning as demands for more flexible, collaborative and digital workplaces increase. Having both physical and digital workplaces has become the prevailing model for many businesses today.

Changing requirements for next-generation mobile devices

Nowhere have technology shifts been more evident than in the criteria applied when buying personal or company mobile devices for work.

As employees do more of their work on mobile devices, they are now prioritising features that make them more productive on the move. These include display size and quality, battery performance, and the ability to edit documents or take notes. CCS Insight's surveys of IT decision-makers found that almost a third of respondents list editing documents and note-taking as a top-three application function needed on a work mobile device today.

The ability to connect to other office devices such as wall displays, keyboards, monitors and printers

has also grown in popularity: this was listed as a priority for mobile devices by almost one in five respondents.

These trends suggest that the smartphone is poised to become the hub of the digital workplace in many businesses.

The established trend of convergence between PCs and mobile devices is opening up new mobile workflows in which employees work from their smartphone and any screen in front of them, be it a monitor, TV, augmented reality smart glasses or a virtual reality headset. Fresh approaches that put the smartphone at the very centre of the workplace will unlock new levels of productivity and efficiency.

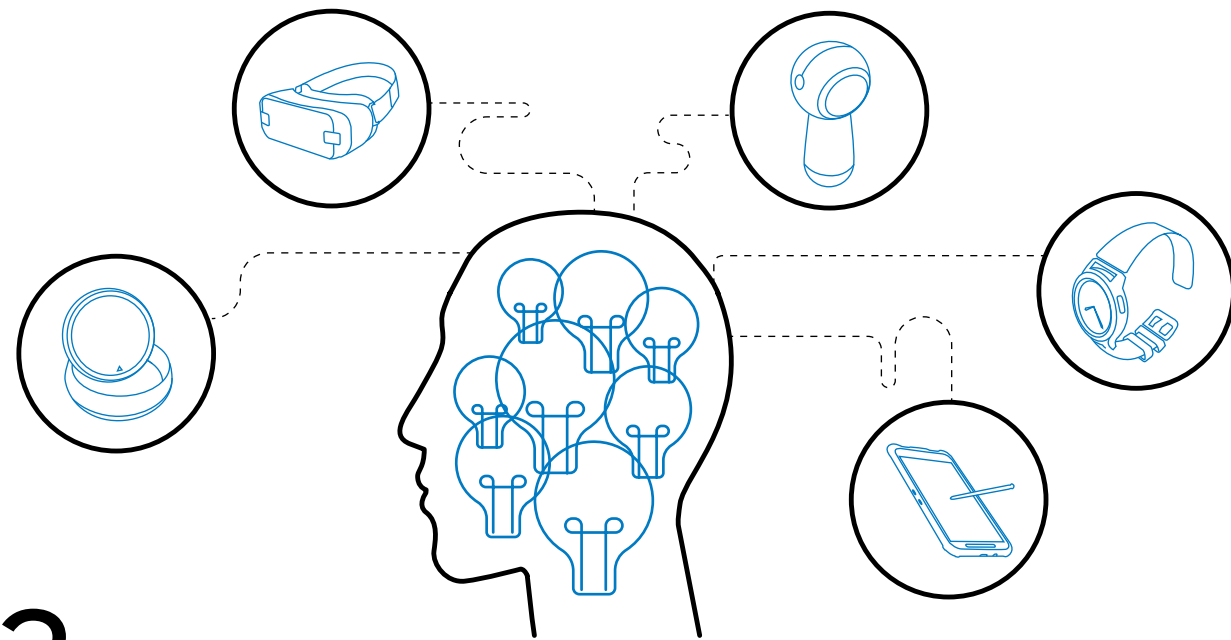


By 2020

48% of the workforce in developing economies will be classified as mobile, with over 70% of workers in small businesses being mobile.



03 Approaches to innovation



Internal processes in large companies are one of the biggest drags on innovation.



More than 50 percent of large companies look to technology innovation to overcome this organisational drag.



Although the lack of formal processes make startups more agile, it also leaves them open to cyber-threats.

The domain of startups

Much has been written on how organisations best enable innovation and a start-up culture. This is because large businesses find it very hard to engender company-wide innovation; the field has largely been led by smaller firms.

There are exceptions, of course. GE, Google and Procter & Gamble are renowned for their cultures of innovation alongside strong processes and corporate structures. But these are rare deviations from the norm. As firms grow, creative

energy can dissipate as the corporate focus turns to quarterly performance, operational stability and incremental improvements in productivity. Larger corporations tend to form organisational “siloes”, with staff less likely to understand the intricacies of the whole business. Innovation affecting the entire company can be difficult to implement because it needs common understanding and widespread support.

By contrast, startups can be much more flexible thanks to the higher

proportion of involved employees, making it more likely that everyone understands the whole company and its business model. Change and adapting to new opportunities can also take place more quickly than in large firms.

Unsurprisingly, over half of large companies surveyed by CCS Insight placed innovation as one of the top three goals for their investments in mobile technology, as they are hoping that mobility will help compensate for their bureaucratic structures.

Organisational drag: a \$3 trillion impact

Organisational processes also play a significant role in inhibiting innovation. Most small companies aren't encumbered by processes that can cause friction for innovation projects. In large businesses, however, employees often have to overcome restrictive bureaucracy to implement new ideas.

Research published by the Harvard Business Review in 2016 found that the average company loses about one quarter of its productive output a year to wasted time and inefficient processes. It called this “organisational drag”, and estimated

that it costs the US economy a staggering \$3 trillion a year.

An important illustration of the differences in process and innovation between big organisations and startups is how they approach deploying new mobile apps for their employees.

CCS Insight found that one third of decision-makers in large firms say that their employer's internal processes are among the most significant barriers to innovative mobile app projects — almost double the proportion in small businesses. Additionally, just

13 percent of employees in small businesses have a corporate process for requesting mobile apps in their firms, compared with 49 percent of employees in large businesses.

This means that the majority of employees in small firms make decisions on business mobile apps themselves, without formal approval by a manager or the IT department. Lax policies may make it easier to focus on innovation in startups, but they also open up IT risks and accentuate some significant differences in approaches to IT security.

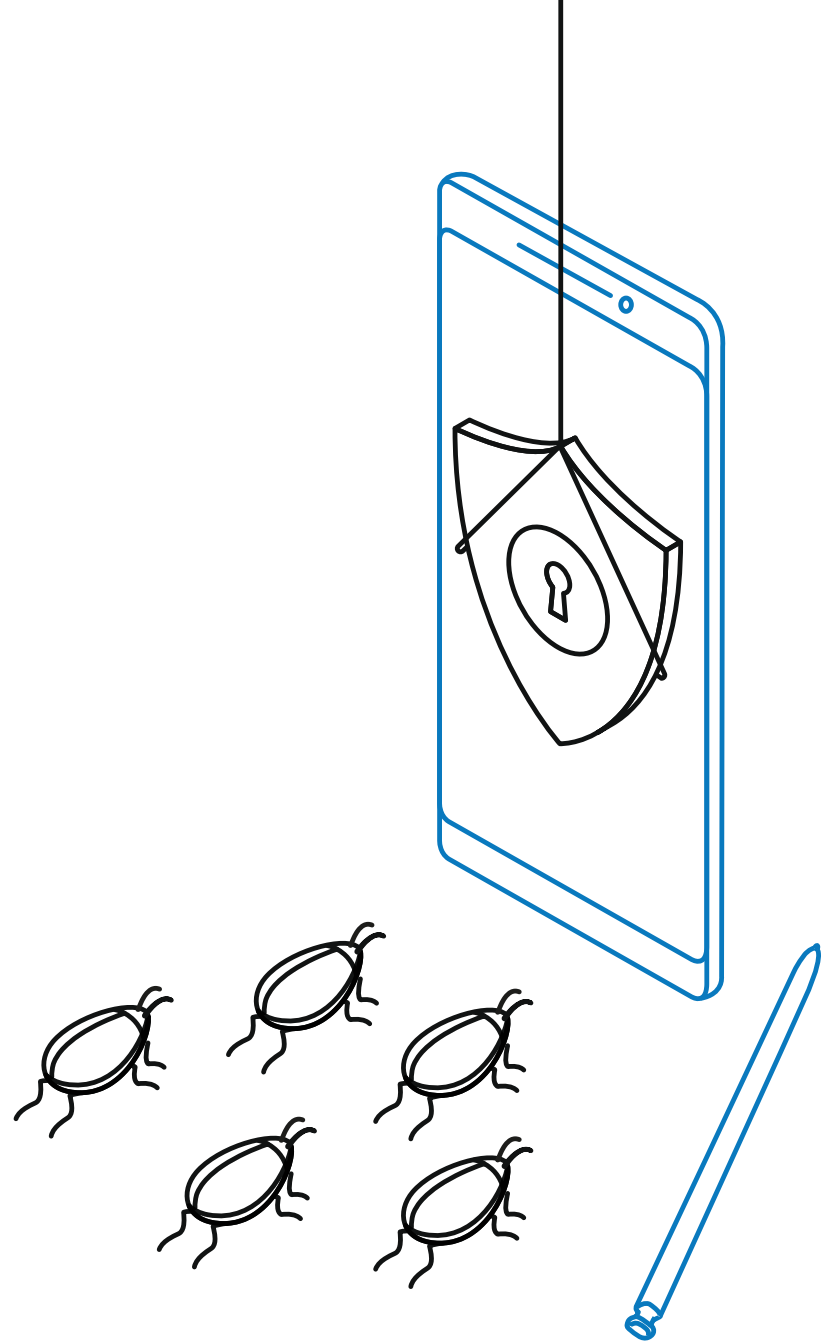
50%

of decision makers
in large enterprises list
device security as a
priority for investment.

In contrast,

30%

of their small-business
counterparts do the same.



Security is one of the biggest priorities for large organisations when investing in mobile technology.



Device security is a particular concern for bigger enterprises.



Small companies are more worried about cost than security in this area.

04 Strategies for cyber security

Attitudes to risk

Attitudes to risk often shape how organisations approach security and here too, large organisations and startups are different. Startups are often in a fast-growth stage, so they are more likely to embrace risk on every level because as an early-stage venture, arguably the entire business is at risk.

As a result, startups typically take a more laid-back approach to data security. They lack data security procedures and often don't make it as much of a business priority compared with their larger counterparts.

In large enterprises, half of decision-makers list security (and device security in particular) as one of the biggest priorities for investment in mobility and workplace technology in 2017, according to CCS Insight's surveys. In contrast, 30 percent of their small-business counterparts do the same.

In larger, more established firms, behaviour tends to reflect a more defensive approach, and employees are prone to abide by strict security processes. In these firms, 59 percent of decision-makers say data security is one of the top-three challenges with mobile technology in their organisations. In contrast, small companies are most preoccupied with cost: 27 percent cite it as the top challenge when it comes to mobile technology, and 63 percent place it in the top three. In small, start-up businesses where every penny counts, areas that hit the bottom line are often the most problematic.

Worrying concerns for small businesses

This lack of focus on security among smaller organisations is a concern when escalating cyberattacks and more rigorous compliance are increasing the pressure, especially on those lacking the skills, working practices and capabilities to cope.

Ransomware, mobile malware and stringent legislation are just three examples of the security problems facing smaller organisations. The WannaCry and ExPetya ransomware attacks that hit businesses in May and June of 2017, for instance, infected more than 200,000 computers in 200 countries, including small businesses. The high proportion of mobile workers in small firms raises the risk from mobile malware, which CCS Insight estimates has doubled over the past two years. And Europe's General Data Protection Regulation will come into effect in May 2018, bringing heavy financial burdens for those unable to protect personal data and report data breaches within 72 hours.

According to CCS Insight's latest survey, less than one in five employees in small businesses are given training on security threats. The survey indicates that security training is three times more likely in larger organisations.

Small businesses will need to address these diverging approaches to security. How well they protect themselves against these threats will play a significant role in their success.

Recommendations

Large organisations and small startups demonstrate different approaches to buying mobile technology.

But more than ever, the success of both types of organisation lies in how well they understand one another, bridge their differences and work together.

Collaboration, not competition, will play a crucial role in the open, digital economy over the next decade.

This is because companies that engage with each other not only learn faster, but also better apply expertise and manage risk. Collaborative ecosystems help both large organisations and small startups develop more flexibility and agility — vital attributes in responding to uncertain competitive environments and rapidly changing customer requirements.

In addition to strengthening their focus on partnerships, business decision-makers should also consider the following recommendations:

01

Invest in mobile devices that drive productivity and support the digital workplace

All organisations must prioritise device functions that make employees more productive on the move. Next-generation smartphones will be absolutely vital to meet organisational needs for improved output and employee needs for mobile working.

Pay attention to devices that promote features such as display size, battery performance, the experience of editing documents and note-taking. The ability to connect mobile devices to office peripherals such as wall displays, keyboards, monitors and printers will also become an important requirement for the future.

Plan for smartphones to develop into the hub of the digital workplace in the long term. Increasing convergence between PCs and mobile devices will open up new mobile workflows over the next few years that will unlock new levels of productivity and efficiency for businesses of all sizes.

02

Large businesses must increase support for personal and new technologies

The greater tolerance for personal technology among smaller businesses is leading to higher levels of adoption, satisfaction and confidence.

Don't be one of the 33 percent of large organisations whose employees say their IT department is out of touch with their needs.

Large firms must pursue initiatives such as “choose your own device” programs, which can securely enable safe use of consumer technology in the workplace. Most importantly, they should open up initiatives to enable employees to adopt cutting-edge technologies such as augmented and virtual reality devices or artificial intelligence-based virtual assistants. This will allow employees to become familiar with the technologies they believe will have the highest impact on their work in the future.

03

Startups must prioritise security in their mobility strategies

All firms, but small startups in particular, must focus on the security of devices and data when selecting suppliers of enterprise mobility and digital workplace products.

Opt for a provider that has experience with a broad range of both large enterprises and small startups.

Leading suppliers should be able to offer education and best practices that show how to strike the right balance between growth and innovation on one hand and robust security practices on the other.



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Nick is a regular speaker on enterprise mobility and digital workplace topics and has presented at key events including Mobile World Congress, InfoSecurity Europe, Enterprise Mobility Exchange and the Cloud and DevOps World Forum.

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