

Interxion Cloud Survey 2011

European IT decision-makers and influencers
give their views on cloud computing

1. Introduction

Cloud is a hot topic for many of today's business and technology leaders. But for all the hype, how many companies are actually using cloud services, or have concrete plans to do so? And if cloud really is a priority, what's driving companies' investment in cloud-based services? Are they looking at cloud to help them meet short-term goals or considering cloud delivery as a long-term solution?

To help service providers and systems integrators gain a better understanding of organisations' objectives in terms of cloud computing, Interxion has undertaken a Europe-wide survey of current and intended cloud usage and attitudes towards cloud computing. This report presents the key findings from that survey.

1.1 About the survey

The Interxion Cloud Survey 2011 was carried out during March to May 2011. It was conducted online, with respondents invited by email and social media (LinkedIn and Twitter). The results in this report are based on responses from IT decision-makers and influencers from 292 companies in 11 European countries.

Definitions

We've included definitions of some terms used in the survey to avoid any misinterpretation. The definitions are based on Wikipedia as the single source.

Cloud computing. The delivery of computing as a service, whereby shared resources, software and information are provided to computers and other devices as a utility over a network (typically the internet).

Public cloud. Cloud computing in the traditional mainstream sense, whereby resources are dynamically provisioned on a fine-grained, self-service basis over the internet from an off-site third-party provider who bills on a utility computing basis.

Private cloud. Infrastructure operated solely for a single organisation, that may be managed internally or by a third party and hosted internally or externally.

Hybrid cloud. A composition of two or more clouds (private or public) that remain unique entities but are linked together, offering the benefits of multiple deployment models.

Service provider. An organisation that provides services to other organisations. This is usually a business that provides subscription or web service to other businesses or individuals.

Systems integrator. A company that specialises in bringing together component subsystems into a whole and ensuring that those subsystems function together.

1.2 Key findings

This summary presents key findings and figures for the topic areas outlined below. As this is a single piece of research with no reference to earlier research, we haven't attempted to identify trends.

When relevant, results are shown according to company size (large, medium and small) and involvement level (decision-maker, influencer, neither).

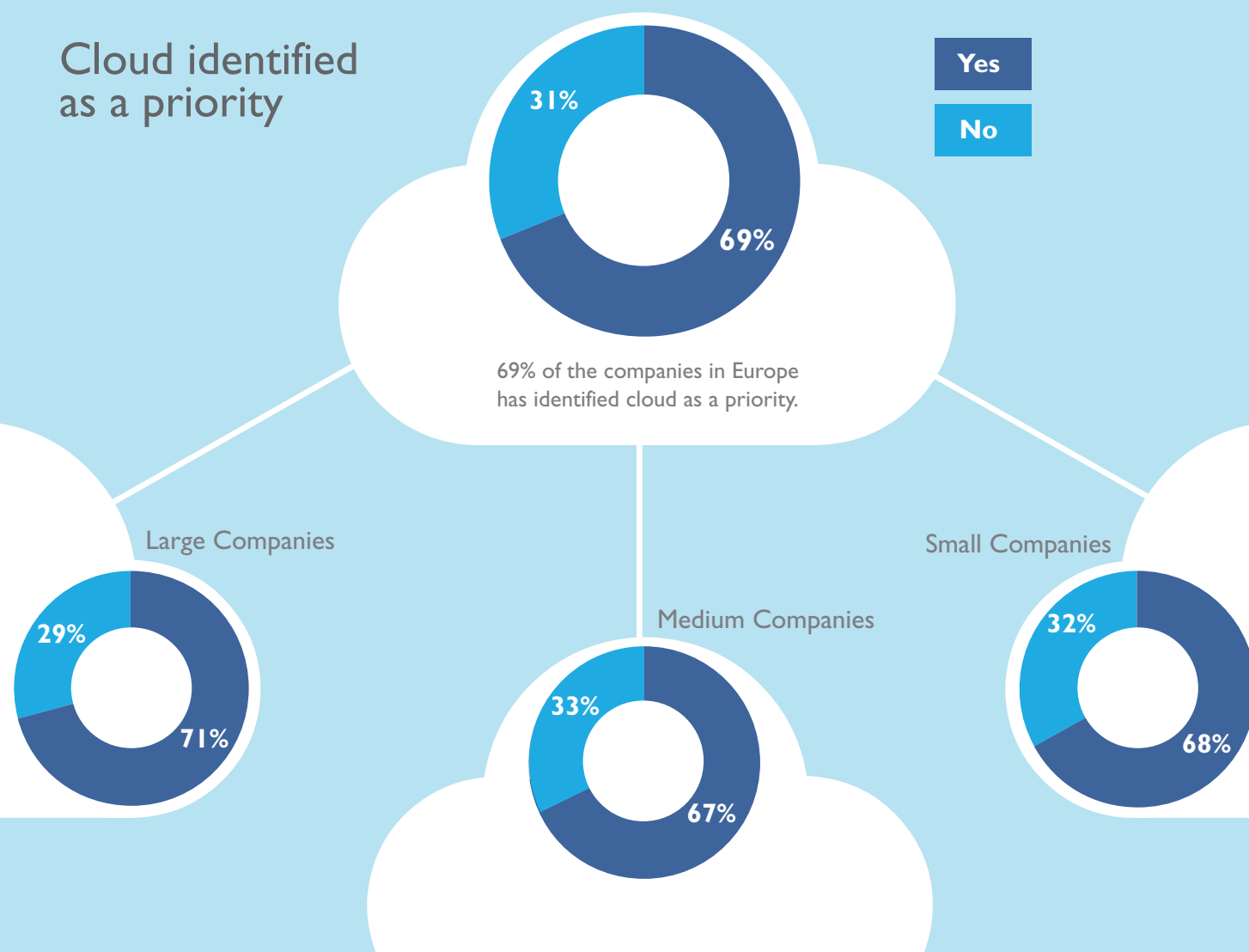
2. Cloud today — where organisations are in terms of cloud adoption today
3. What's driving investment in cloud computing — the identified benefits of cloud
4. Cloud challenges — the potential barriers to cloud computing and perceived issues around security
5. Cloud applications — the applications organisations have moved or are moving to the cloud
6. Cloud tomorrow — how organisations envisage using cloud computing over the coming 24 months, and the impact on service providers and systems integrators
7. About Interxion

1.3 Next steps

Over the coming months, Interxion will be organising roundtables with the media and industry leaders to discuss and share opinions about cloud computing. If you're an industry leader who'd like to get involved, or you're from a media organisation that's interested in publishing an article based on this survey, contact us at cloud@interxion.com.

2. Cloud today

Cloud identified as a priority

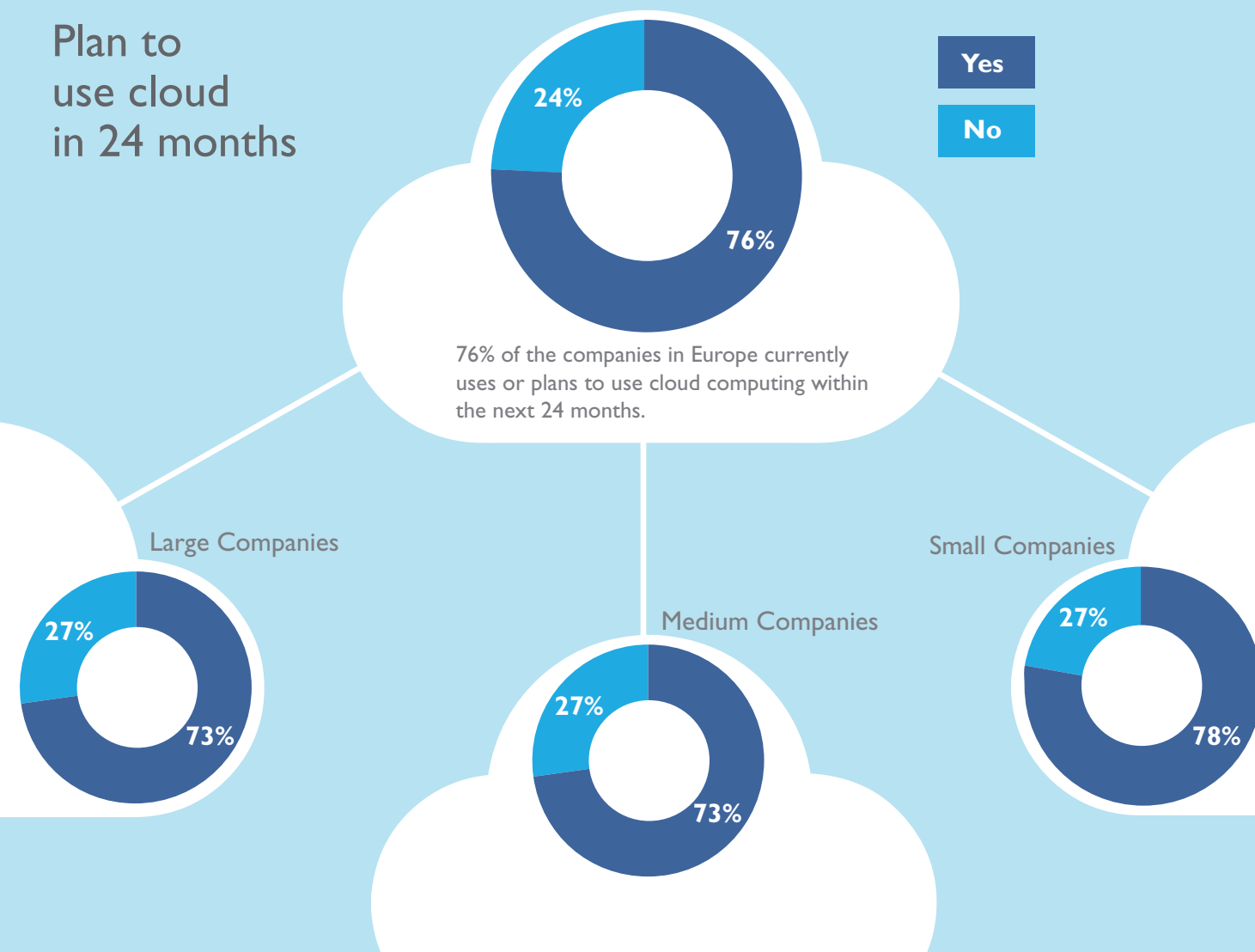


When we asked respondents if their executive teams had identified cloud computing as a priority for the company, 69% said they had. The percentage is slightly higher for large companies (71%) than for medium (67%) and small companies (68%); although it's actually small companies that are leading the way in terms of current usage, as we found out when we asked if organisations were already using cloud computing.

Overall, 76% of respondents said their companies were already using cloud services or planned to do so within the next 24 months — with 78% of small companies already using or planning to use cloud, compared with 73% of both large and medium-size companies.

To understand more about companies' priorities, we asked about the factors driving investments in cloud computing and the challenges that may stand in the way of implementation. We also investigated the security concerns that companies may have in relation to cloud computing.

Plan to use cloud in 24 months



To find out more about what's driving the adoption of cloud, we asked respondents what cloud-based applications they using or intend to use; and about the likelihood of choosing cloud hosting instead of buying new hardware when it's time for a hardware refresh.

But what about the 24% of respondents who say they have no plans to use cloud? This lack of intention around cloud inevitably leads to questions like 'Why not cloud?' and 'What are the alternatives to cloud computing?' There wasn't scope to explore those avenues in this survey, but they will be an interesting starting point for further discussion. (Respondents who indicated that they had no plans to use cloud took no further part in the survey.)

3. What's driving investment in cloud computing?

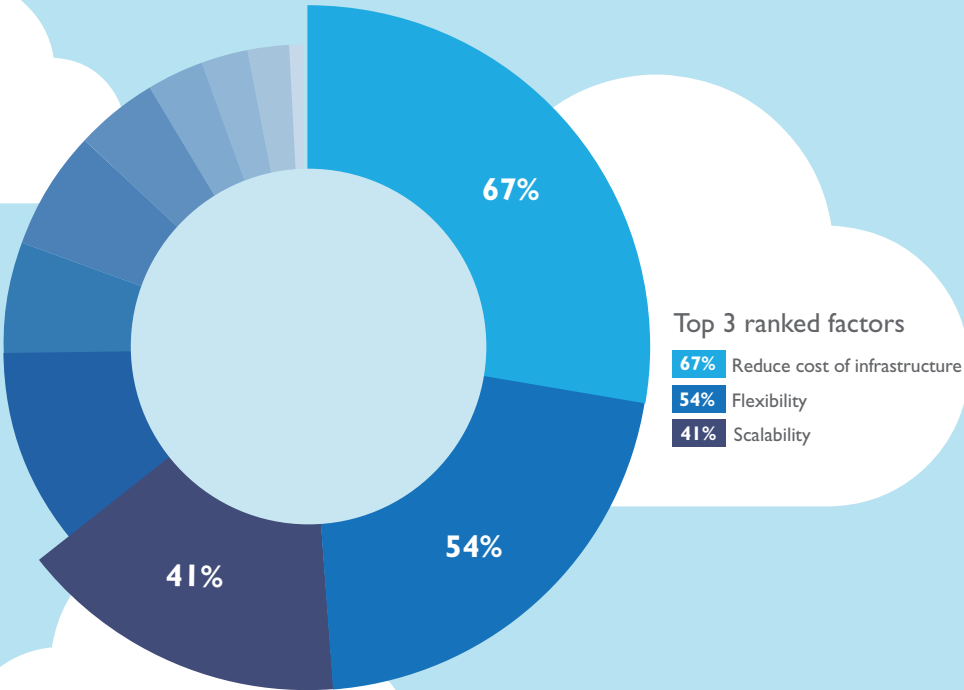
We asked respondents to tell us their top drivers for investing in cloud computing. It came as no surprise that reducing the cost of infrastructure was given as the number one reason for investing in cloud by 67% of respondents. Flexibility — the ability to grow while reducing resources — was second with 54%.

The stated importance of these drivers reflects the economic climate and the fact that most IT departments are currently focused on meeting short-term goals. So there's some work to do to convince influencers and decision-makers of the long-term benefits that cloud can bring to a company.

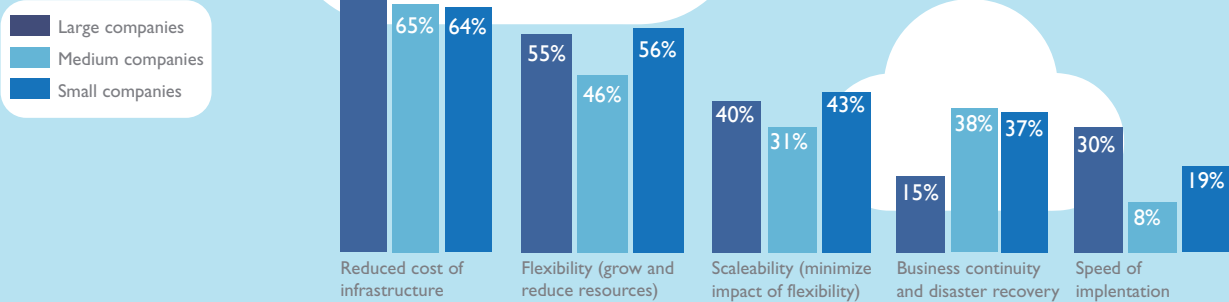
Business continuity and disaster recovery (BC&DR) capability came in fourth with 33% of respondents naming it as a top-three driver. Given that cloud makes BC&DR services more accessible to a wider range of companies, we were surprised it wasn't ranked higher. However, almost 40% of small and medium-size companies described it as a top-three factor, compared with just 15% of large companies, doubtless reflecting the fact that it's harder for smaller organisations to provide that capability in house.

Implementing effective BC&DR requires service providers to architect, plan and validate their ability to withstand outages, attacks and performance spikes. As incidents at a number of cloud suppliers (that occurred after this survey was completed) show, service providers must also develop cloud solutions that stretch across multiple data centres and seamlessly integrate with customers' own data centres. We therefore expect cloud service providers to work more closely with data centre providers in the future, and to focus on high availability and the ability to extend infrastructure across multiple data centres.

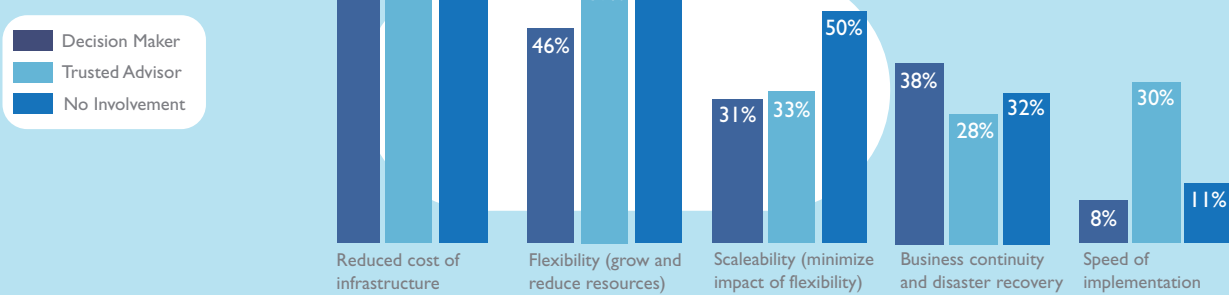
Most important factors driving investments in cloud computing



Factors driving investments in cloud per business size

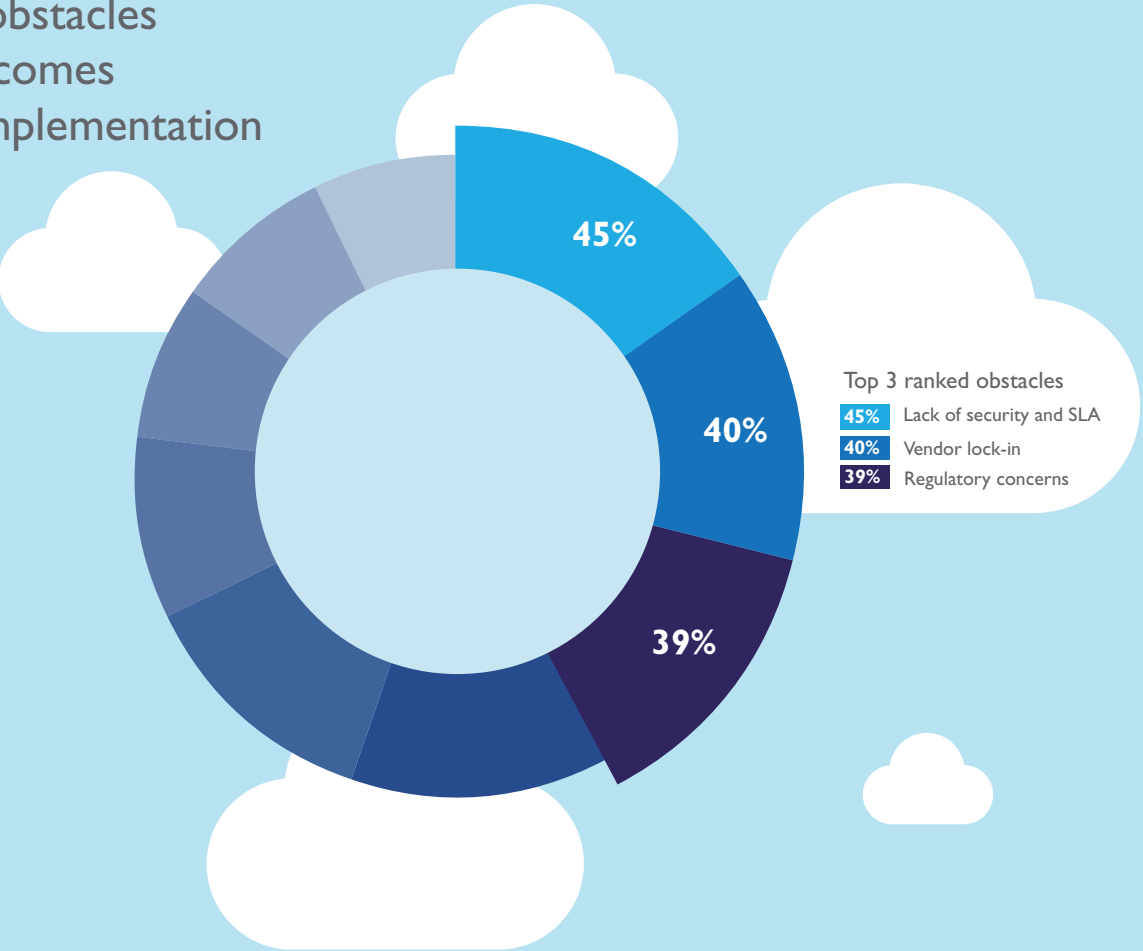


Factors driving investments in cloud per involvement level

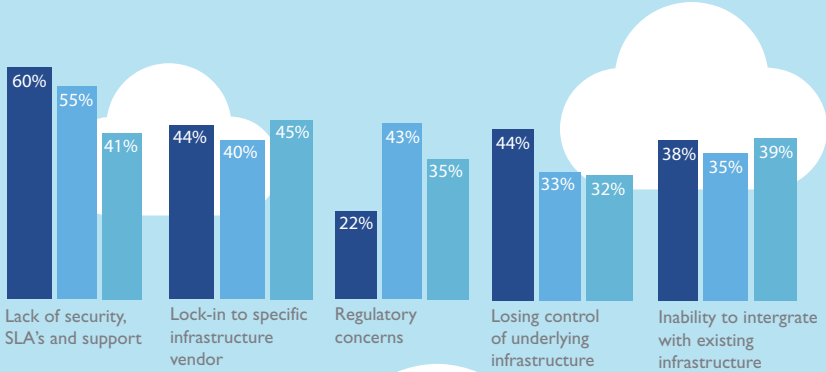
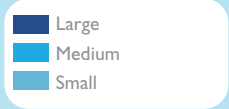


4. Cloud challenges

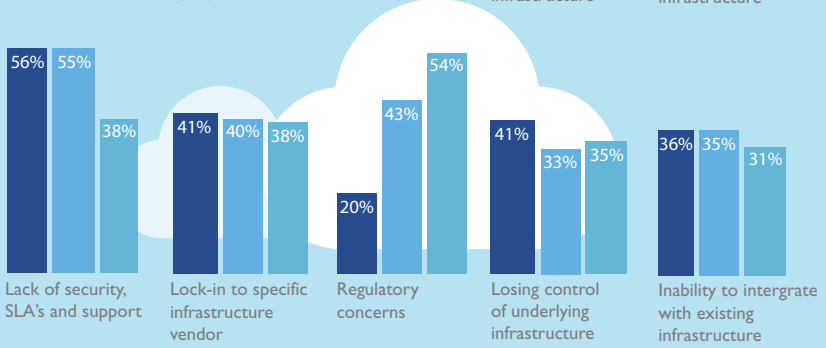
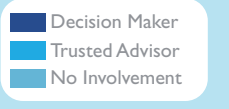
Biggest obstacles when it comes to the implementation of cloud



Biggest obstacles when it comes to the implementation of cloud per business size



Biggest obstacles when it comes to the implementation of cloud per involvement level



4.1 What are the barriers to cloud computing?

There's a lot more to take into account when moving your data and applications into the cloud than when you switch between a PC and an Apple Mac. When we asked respondents what they considered to be the biggest barriers to implementing cloud computing, the top five were all within 8% of each other, yet covered a broad range of topics.

The top issue overall — and of most concern to decision-makers and influencers — was a perceived lack of security and service level agreements (SLAs), with 45% of respondents referring to it. (Security concerns are explored in more detail overleaf.)

Lock-in to a specific infrastructure vendor was revealed to be the second biggest barrier (cited by 40% of respondents) — and a bigger issue for small companies than concerns about security and SLAs. The potential inability to integrate cloud with existing infrastructure came out as the fifth biggest obstacle (37%) to cloud adoption.

The level of concern expressed about these two issues actually represents an opportunity for service providers to prove to customers and prospects that their services don't present these barriers. By doing so, they'll be able to make their cloud offerings stand out in an increasingly competitive marketplace.

Regulatory concerns were ranked number three, with 39%. There's very little regulatory difference between EU countries, as the European Data Protection Directive underpins each EU state's data protection legislation. However, the US Patriot Act is becoming a growing concern for cloud service providers that want to do business with multinational corporations headquartered in the US, as it potentially allows the US government to access any data stored in the US.

Service providers need to ensure that their infrastructure is designed and segmented in such a way that they can provide reassurance that data is stored in a geographical location that meets customers' requirements.

Before starting a cloud implementation, organisations need to cover all these issues and decide whether they are solvable at the technical level or whether they need to be addressed as non-technical issues. SLA must also be examined to determine their impact on an organisation's specific business and IT environments.

4. Cloud challenges

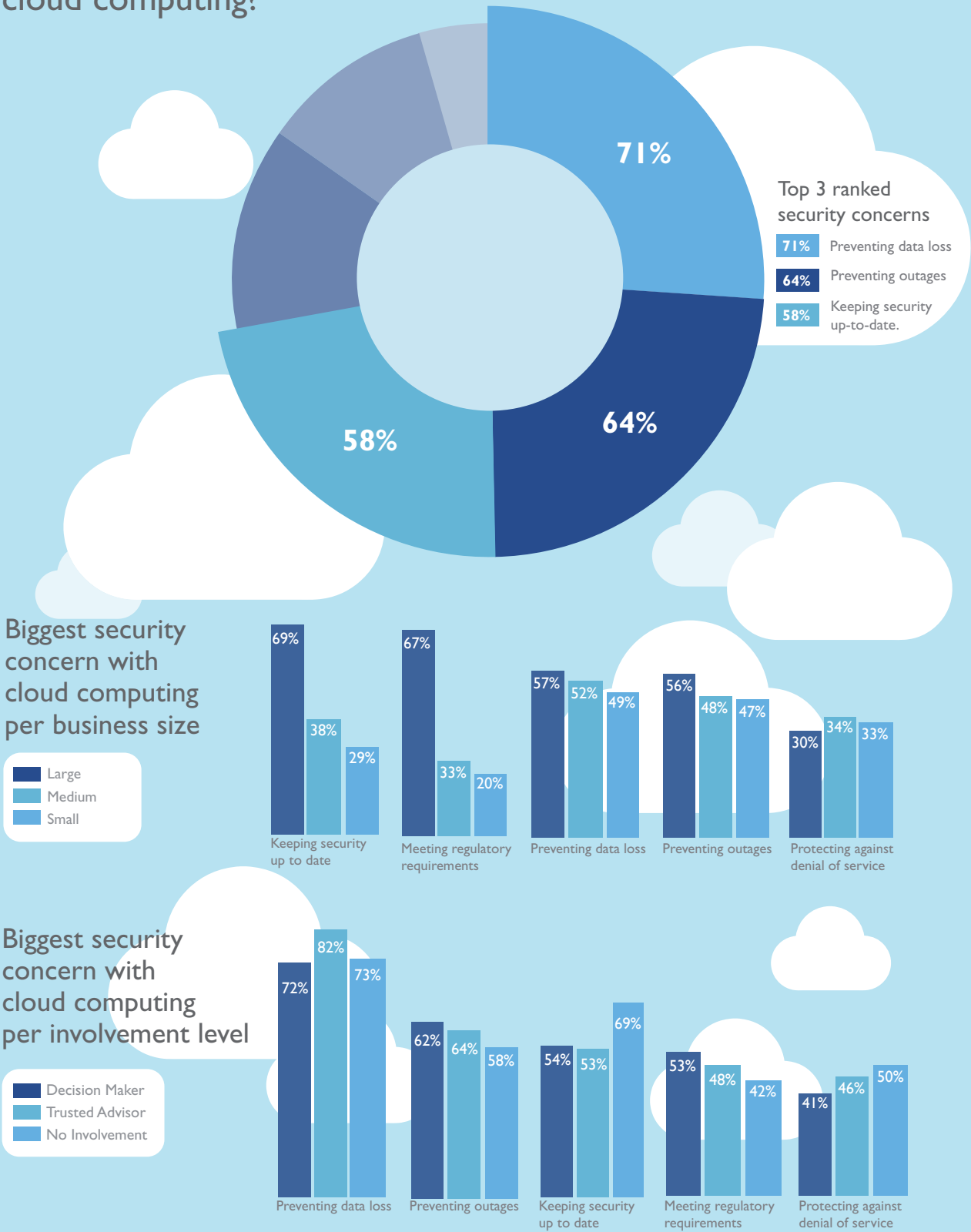
4.2 Security concerns

Preventing data loss was stated as the main security concern overall: 71% of respondents identified it as one of their top three security concerns, and it was the leading issue for all roles within an organisation. However, preventing outages, rated second with 64%, was actually the concern that was most often cited as the top issue, bearing out the fundamental role that ICT plays in business processes today.

Large companies were much more concerned about keeping security up to date (69%) and meeting regulatory requirements (67%) than small and medium-sized companies. This reflects the fact that larger organisations store and protect much greater volumes of data; and that, compared to smaller companies, their risk from exposure would be much higher in terms of the penalties associated with failing to meet regulatory demands.

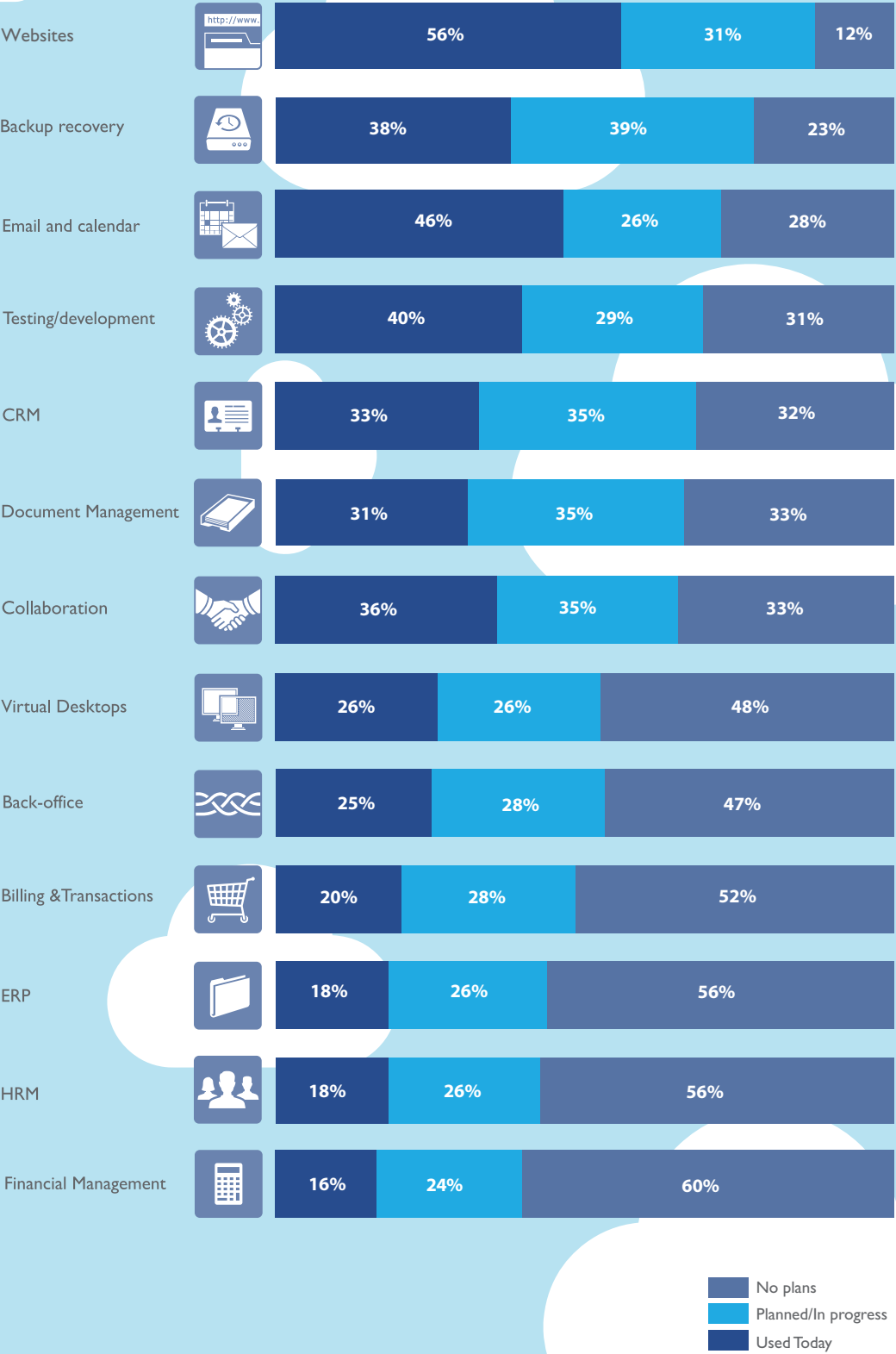
Advances in virtualisation contribute to addressing the issue of keeping security up to date. However, to help reduce security concerns overall, cloud providers need to clearly communicate their practices for maintaining a secure cloud.

What is your biggest security concern with cloud computing?



5. Cloud applications

Cloud application usage



Survey respondents indicated that websites, backup and recovery, and email and calendars were the most commonly used cloud applications at the moment. This isn't altogether surprising, as all those applications are both widely used and closely connected to the development of the internet over the last two decades.

The high ranking (fourth) position for testing and development is explained by the significant proportion of IT professionals and decision-makers among the survey respondents. Cloud delivery makes it simple to set up test and development environments, and equally simple to dismantle them; but this type of usage is largely invisible to end-users and teams beyond the IT department.

Looking at the applications that companies are moving to the cloud, it's clear there's plenty of growth potential for backup and recovery and document management. The comparatively low rates of current usage reflect both the relatively low ranking of BC&DR as a driver for investing in cloud, and the relatively high level of concerns about data loss that are stated as being a barrier to cloud adoption. Customer relationship management (CRM) clearly has potential as a cloud application, but with 32% of respondents saying they have no plans to implement cloud-based CRM, its position is very much at the halfway point of the chart.

For the cloud applications that have low usage today, respondents also indicated they have no plans to implement them over the next 24 months, either. Given that the applications in question, such as billing and HR management, are closely associated with compliance requirements and storage of personal data, this seems to tie in with respondents' concerns about data security and regulatory compliance that are explored on slide 4, Cloud Challenges.

What's clear from our survey is that there's not yet any single 'killer app' that's driving cloud deployment. This bears out the finding that companies' intentions around cloud adoption are driven by a combination of other factors, such as increased flexibility and reducing the cost of infrastructure.

6. Cloud tomorrow

Almost half (47%) of the survey respondents expect that over 50% of their IT will be delivered from the cloud within the next 24 months, with 23% saying that over 75% of their IT will be in the cloud.

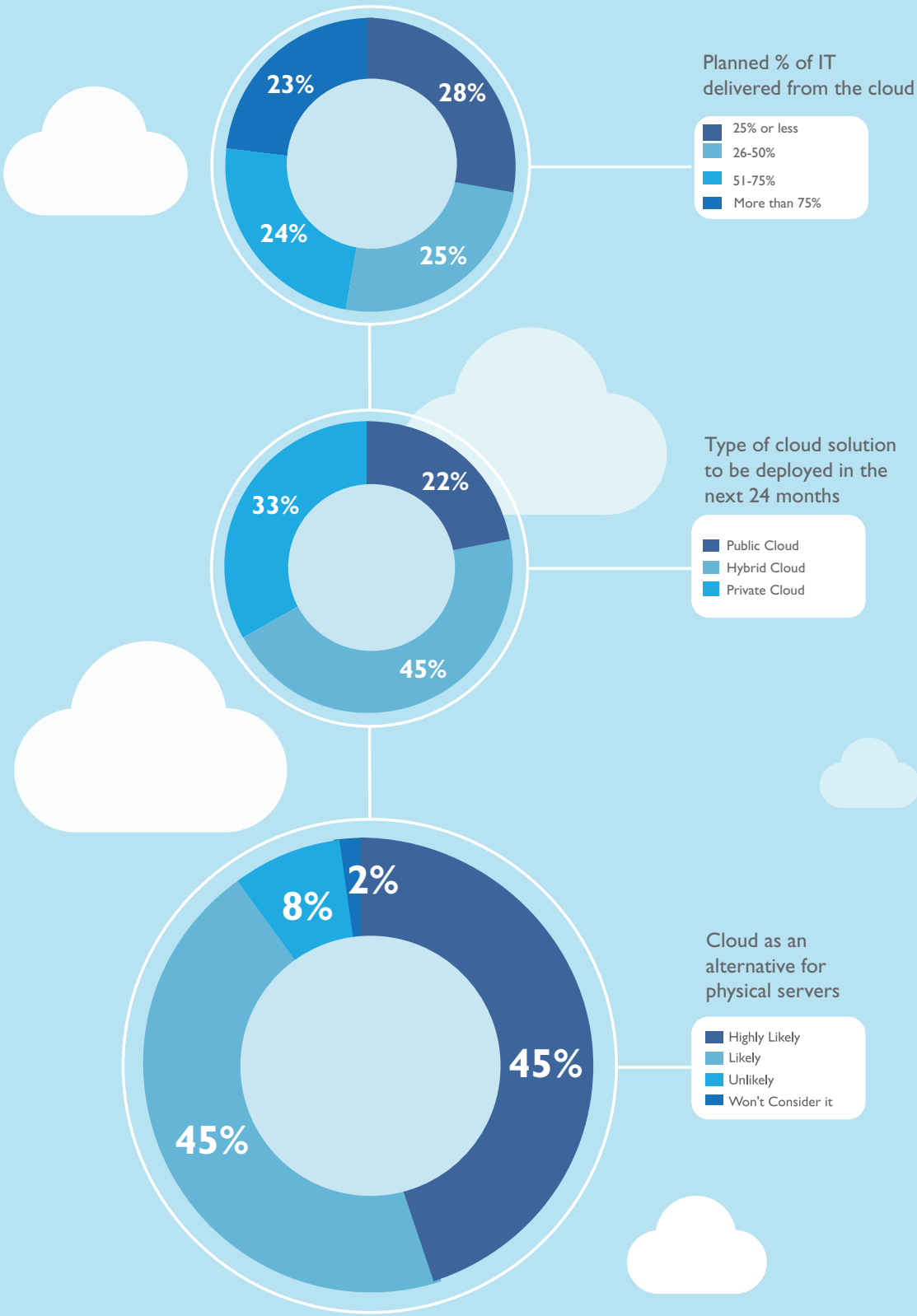
Of those intending to deploy cloud, 78% said they plan to use a private or hybrid cloud, rather than a public cloud, as part of their ICT infrastructure.

As private clouds can be implemented in different ways, we asked respondents whether their companies are more like to buy the hardware themselves or go with a hosted solution from a cloud service provider. Fully 90% of those planning to deploy a private cloud said they are likely or very likely to choose a cloud service provider rather than buying their own hardware.

Hosted private clouds are typically provided by systems integrators, and so we expect that many of them will expand their offering in this area — either by building their own cloud hosting capability or by partnering with cloud service providers.

Whereas cloud service providers are currently the route to the cloud for many companies, we believe that growing demand for hosted private clouds will create a shift in market dynamics, as systems integrators compete against hyperscale platform providers and new entrants — a shift that will also affect traditional channels for hardware delivery and managed services provision. We expect that service providers, value added resellers and systems integrators will increasingly form partnerships to meet market demand for private cloud services.

Cloud deployment



7. About Interxion

Interxion is a leading European provider of carrier-neutral colocation data centre services. We support over 1,200 customers through 28 data centres in 11 countries, enabling them to protect, connect, process and distribute their most valuable information. Our data centres act as content and connectivity hubs, enabling our customers to connect to a broad range of telecommunications carriers, ISPs and CDNs, as well as to each other, and creating profitable and growing communities of interest.

Our carrier-neutral colocation services include the provision of space, power, cooling and a secure environment in which to house our customers' computing, network, storage and IT infrastructure. We also offer a number of additional services, including network monitoring, remote monitoring of customer equipment, systems management, engineering support services, cross connects, data backup and storage.

Headquartered near Amsterdam in The Netherlands, we operate in 13 major metropolitan areas including London, Frankfurt, Paris, Amsterdam and Madrid. Our data centres are located close to the intersection of telecommunications fibre routes and house more than 350 carriers and ISPs and 19 European Internet exchanges. This allows our customers to lower their telecommunications costs and reduce latency, improving the response time of their applications.

Interxion Cloud Hubs

Within our data centres we operate Cloud Hubs that enable networks that support cloud computing services to connect to each other and to end-user networks. Interxion Cloud Hubs provide the optimum environment for cost-effective development, launch and management of cloud-based services for both enterprises and cloud service providers. They also enable fast, easy interconnection throughout Europe's largest and fast-growing cloud community.

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