CBI
Ministry of Foreign Affairs

Cloud computing services on the European market

The European market for cloud computing is growing rapidly. Europe's increasing IT-skills shortage creates interesting opportunities for outsourcing. Your best options are to develop your own cloud services and offer them to European buyers (SaaS), or offer cloud development services for a European partner (classic outsourcing). Generally, the more specialised your services, the better your opportunities. Focusing on a niche market improves your chances on the European market.

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1 . Product description

What is cloud computing?

Cloud computing is a major trend in the European service outsourcing market. Industry experts expect it to become the standard for businesses worldwide. Companies use it to make their IT environment more flexible. Another main reason to use cloud computing is cost saving. It allows companies to use online remote servers to store, manage and process their data. This means they don't have to use local servers or computers for these services.

There are several types of cloud computing. Providers offer infrastructure, platforms or software as a web-based service. Instead of purchasing these components, clients subscribe to them as a variable-cost service. The service provider owns the components and is responsible for housing, running and maintaining them.

Infrastructure as a Service (IaaS)

- the service provider offers computer infrastructure components as a web-based service
- for example servers, storage, data centre space and network equipment

Platform as a Service (PaaS)

- the service provider offers a computing platform as a web-based service
- this typically includes an operating system, programming language, execution environment,

database and web server

Software as a Service (SaaS)

- the service provider offers software applications as a web-based service
- for example horizontal business applications like Customer Relationship Management (CRM), Enterprise Resource Planning (ERP), Content Management (CM), Human Resource Management (HRM) or finance and accounting.

Figure 1 Cloud computing structure
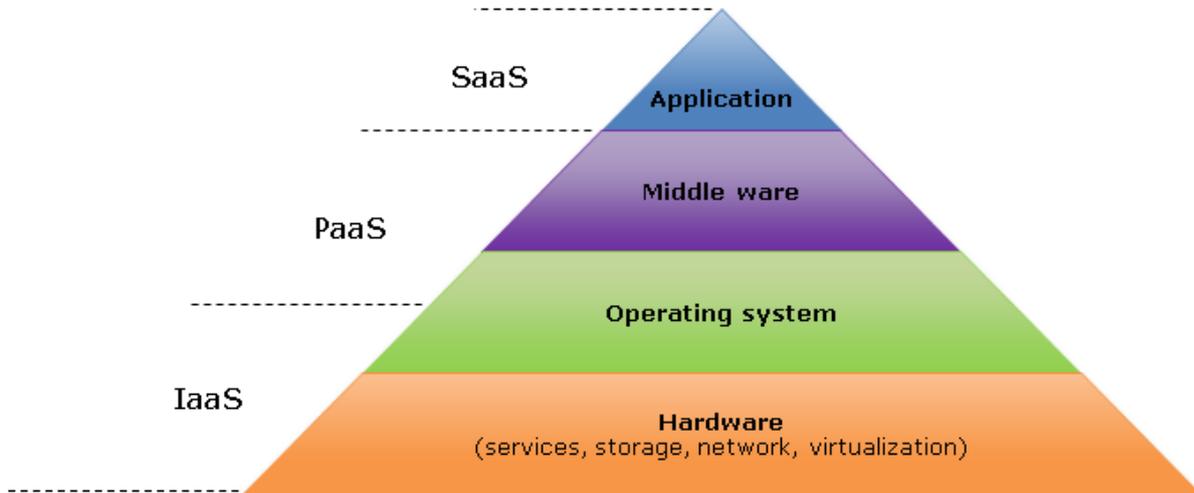
Source: Peergroup ITO/BPO by CBI

Important benefits of cloud computing over traditional outsourcing are:

- self-service - clients can order/create new services online
- scalability - the infrastructure is virtually infinitely scalable
- pay per use

The cloud model allows you to work from any place at any time. This makes it ideal for outsourcing to nearshore/offshore locations.

Why do European companies outsource cloud computing services?
Cost reduction

Cost reduction is the main reason for European companies to outsource cloud services. They save money by:

- not having to purchase the systems they use
- not needing in-house expertise to run and maintain the systems
- paying per use

This can give you a clear advantage, as labour is relatively cheap in developing countries. To attract European buyers, your pricing should be competitive, clear and transparent.

Tips:

- Offer competitive pricing, but don't compromise on the quality of your services.

- Be transparent in your pricing: avoid hidden costs.

Improvement in quality

Better quality of the processes is also reason for European companies to adopt cloud computing. The benefits that cloud computing offers are growing each year, including:

- higher availability
- greater geographic reach
- higher cost savings
- higher business continuity

[Businesses using productivity-enhancing cloud services grow 19.6% faster](#) than those that don't.

Tips:

- Give examples of how your cloud services improve the quality of the outsourced processes.

- Listen carefully to your customers' ideas, problems and wishes to assure high-quality services.

Industry expertise and reputation

Another key advantage of outsourcing cloud services is that European companies don't need to hire in-house expertise. When they select a service provider, relevant industry expertise and track record are important selection criteria. They increasingly look for specialists in a specific service or industry. To make sure their operational needs are met, European companies may require a try-before-you-buy experience. For example, a pilot project or online demo.

Tips:

- Specialise in a specific vertical, horizontal or niche market. Identify what your company does best and focus on doing that better than anyone else. This gives you added value and a unique selling proposition.

- Emphasise your specific expertise in your marketing activities.

- Use customer testimonials about the quality of your services, ease of transition and the benefits of your services. This proves your expertise and enhances your reputation.

- Offer potential buyers a pilot project or demo to demonstrate your capabilities and gain trust.

Flexibility

Cloud computing also offers European companies flexibility. Both in the customisation of the cloud service and in contracts and Service Level Agreements (SLAs).

European buyers require flexibility in, for example:

- pricing

- contracting terms (length, review)
- scale
- change management process
- additional services
- scope
- service levels
- technology change

What are the challenges when it comes to outsourcing cloud computing? Data security and intellectual property protection

Data security and intellectual property protection remain a main barrier for cloud computing. [39% of European companies were concerned with the risk of a cloud computing security breach](#) in 2014. With the increasing use of cloud services, this challenge is becoming more relevant. [68% of executives in EMEA (Europe, the Middle East and Africa) were concerned about cloud security](#) in 2015.

European companies generally perceive offshore data security to be of inferior quality. [The European Union currently considers data appropriately protected in a select number of countries](#):

- the 28 countries of the EU
- the three countries inside the European Economic Area - Iceland, Liechtenstein and Norway
- countries with "adequate" data protection laws - Andorra, Argentina, Canada, Faroe Islands, Israel, New Zealand, Switzerland and Uruguay, as well as the British Islands

This makes it even more important for you to show potential European buyers that your cloud computing services are secure.

- Avoid markets that are especially data security and privacy sensitive. These are generally 'regulated' industries and industries that use personal/corporate data in large quantities. For example finance and banking, healthcare, aviation or telecommunication.

Integration capability

Integrating outsourced cloud services with European companies' in-house solutions can be complex. The compatibility with other solutions is a challenge in cloud computing. Integration capability of a cloud service is an important requirement when selecting a service provider. Offering easily or already integrated cloud services gives you a competitive advantage. In fact, good integration can actually be an advantage of cloud services over in-house solutions.

Tips:

- Offer cloud services that are easily integrated with other tools/solutions. Select for example technologies that are based on open standards. These are publically available standards whose specifications can generally be implemented on a royalty-free basis.

- Provide support in the implementation and integration of your cloud services.

2 . Which European markets offer opportunities for cloud computing?

Still a lot of market share to gain

Cloud services for the enterprise market provide good opportunities. They account for 78% of the total cloud services available. However, only 19% of European companies used cloud services in 2014. In that same year, the rate was 74% in North America. The main reason for European companies not to use the cloud was insufficient knowledge of cloud computing.

As knowledge about cloud computing increases, European cloud adoption is expected to rise considerably in the coming years. This means that there is still a lot of market share to gain. The increasing use of cloud services within European companies illustrates this. The average European organisation used 588 cloud services in 2014. By 2016, this number practically doubled to 1038.

Cloud computing adoption varies greatly

The adoption of cloud computing varies greatly across European countries. The rate of companies using the cloud is highest in Western and Northern Europe. At 51%, Finland is leading. Notable exceptions are Germany and France, with relatively low adoption rates of 11-12%. Cloud adoption is lowest in Eastern European countries, especially in Romania with 5%.

Figure 2: Use of cloud computing services in European enterprises

By country
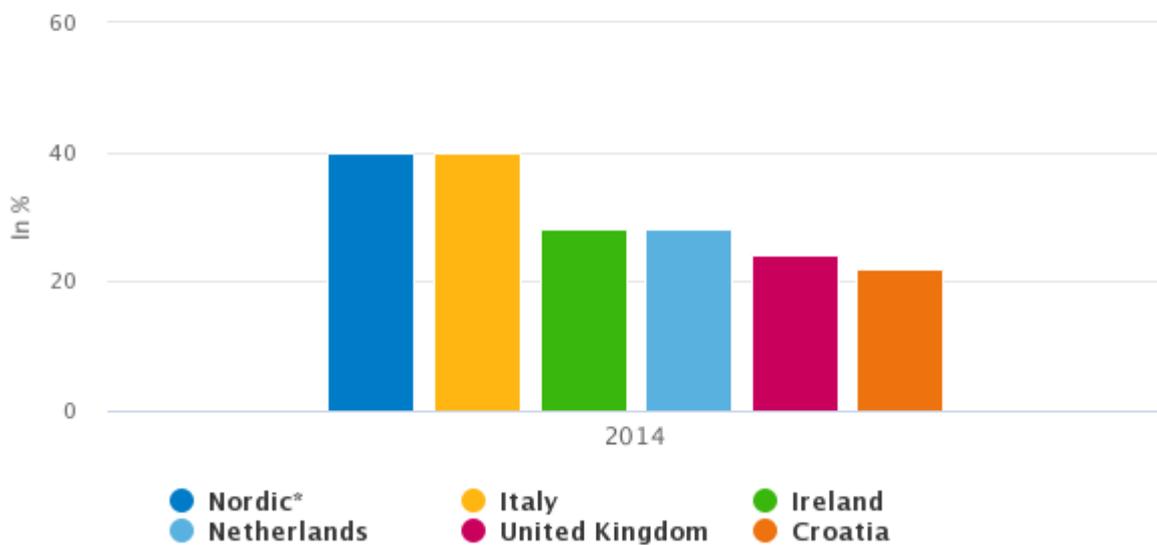
Source: Eurostat

* Nordic countries: Finland, Iceland, Sweden, Denmark and Norway.

Cloud adoption also varies per industry. In Europe, the Information & Communication sector is frontrunner (45%), followed at some distance by professional, scientific and technical activities (27%), administrative & support service activities (20%) and real estate activities (20%).

European companies mainly use cloud computing for:

- e-mail services (66%)
- file storage (53%)
- database hosting (39%)
- office software (34%)

Tips:

- Focus on companies in Northern and Western European countries, as cloud adoption is highest there.

- Focus on providing cloud services for one or two horizontal and/or vertical markets. European companies are more likely to work with cloud service providers with expertise in a specific service or industry.

Software as a Service most promising market segment

The cloud services market continues to grow. SaaS is the largest segment, expected to grow with 20% in 2016. This makes SaaS the most promising market segment for you.

Figure 3: Worldwide public cloud services market
By service
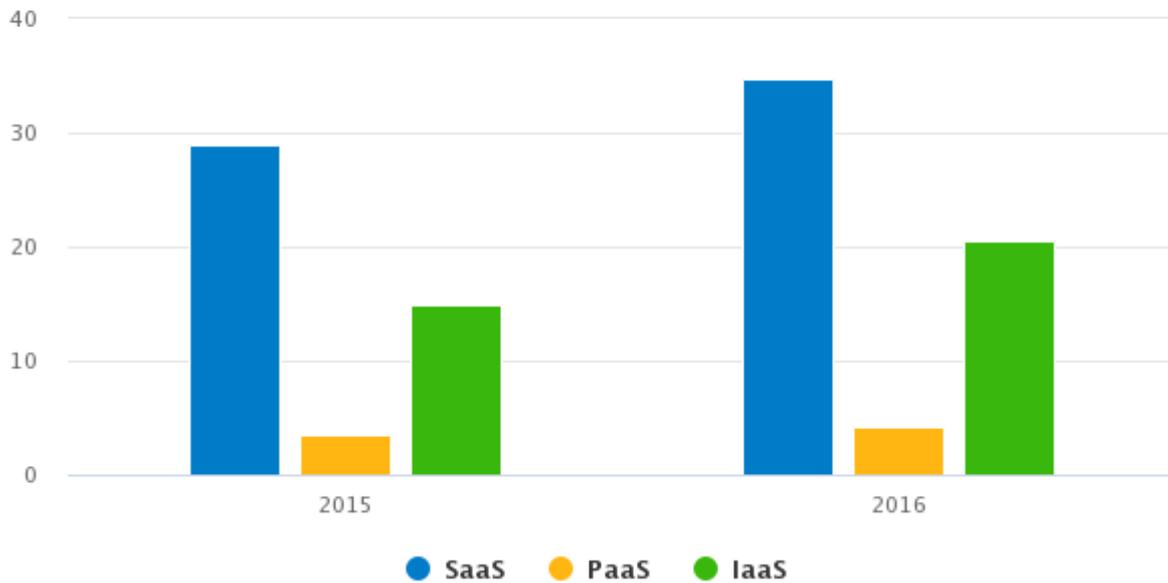
Source: Gartner

As well as being the largest segment, SaaS is also the most suitable for small-to-medium-sized cloud service providers in developing countries. This is because IaaS and PaaS require high investments, which generally only large providers can afford.

Tips:

- Focus on SaaS. For example, you can install your application on an environment (IaaS or PaaS) of a large provider and offer the application as a cloud service (SaaS).

- Give your application a European look and feel in terms of language and interface.

3 . What trends offer opportunities on the European market for cloud computing?

Continuous technological innovation

Technological innovation constantly changes the demand for cloud services. The main technological cloud computing trends for 2016 include:

- hybrid cloud environments - a combination of private and public cloud services
- cloud brokerage - cloud brokers manage multiple cloud services for companies
- hyper-converged cloud solutions - infrastructure systems that integrate computing, storage, networking and virtualisation resources and other technologies
- disaster recovery - storing and maintaining backups of electronic records in a cloud environment
- container technology - virtually packaging the entire runtime environment of an application into a container, so it can run separately

Skills shortage

The increasing demand for cloud computing services has created a shortage in 'cloud-ready' IT workers in Europe. There is a considerable lack of IT training, certification and experience in the European workforce. Due to the rapid technological innovations in IT, the skills of IT-graduates don't match the needs of the market. The European Commission expects the shortage of IT-skilled staff may reach 825,000 by 2020.

Because of this, European companies need to outsource their cloud services to providers with the required expertise. This offers you good opportunities.

See our study about [trends on the European outsourcing market](#) for more information on general trends.

4 . What requirements should cloud computing services comply with to be allowed on the European market?

What legal and non-legal requirements must you comply with?

European data protection legislation

The European Union protects the privacy of its citizens with the [Data Protection Directive](#) (95/46/EC), by regulating:

- the processing of personal data
- the free movement of personal data

For example:

- personal data may only be processed with the consent of the subject
- personal data must be processed confidentially and securely

The vast changes in technology since 1995 demand a stronger, more universal regulation. Therefore in May 2016, the new [General Data Protection Regulation](#) (GDPR, EU 2016/680) and [Directive (EU) 2016/680](#) on data protection came into force. This GDPR is set to replace the original Data Protection Directive. All member states have to implement it into national legislation by May 2018.

The main change you have to prepare for is that the GDPR makes you responsible for data protection. Under the old directive, any data by which an individual can be identified was the sole responsibility of the data controller (owner). However under the GDPR, any company or individual that processes data is also responsible for its protection. This includes parties from outside the European Union, like you. This means your data protection systems need to be in order.

Tips:

- Read more about the [protection of personal data](#) on the website of the European Commission. It also keeps you updated on the reforms of the European data protection legislation.

What additional requirements do buyers often have?

Voluntary data security ISO standards

Because data security is so important in cloud computing, European companies select their service providers based on this. Especially as a provider from a developing country, you need to show buyers that their data is safe with you. Complying with well-known voluntary standards that your European buyers are familiar with gives you a competitive advantage.

ISO has developed two standards for data security in cloud computing:

- [ISO 27017](#) - guidelines for information security controls applicable to the provision and use of cloud services
- [ISO 27018](#) - control objectives, controls and guidelines for implementing measures to protect Personally Identifiable Information in public cloud computing environments

Tips:

- Study the ISO standards for cloud computing and comply with them.

- Clearly communicate that you comply with these standards.

- For more information, see InfoWorld's [ISO 27018 compliance: Here's what you need to know](#).

See our study about [buyer requirements on the European outsourcing market](#) for more information.

5 . What competition do you face on the European cloud computing market?

Competition on the European cloud computing market does not differ significantly from the outsourcing market in general. See our study about competition on the European outsourcing market for an overview. Also refer to our top 10 tips for doing business with European buyers.

Nearshoring more popular than offshoring

European companies prefer to outsource services to providers within the same country (onshoring). When outsourcing abroad, they prefer nearshore locations because of:

• proximity
• language
• cultural similarities
• there being little or no time difference

These are usually Eastern European countries, due to their relatively low wages. For example:

• Poland
• Bulgaria
• Romania

However, prices in nearshore countries are rising. This makes service providers in these countries less competitive compared to offshore service providers. That means you can either form subcontracting partnerships with them, or compete with them.

Offshoring destinations with the strongest potential are:

• India
• China
• Malaysia
• Brazil
• Indonesia
• Thailand
• Philippines

Tips

- Limit the possible disadvantages of being offshore. Provide excellent communication, availability in the required time zone and good security and privacy measures.

- Differentiate yourself from onshore and nearshore providers to remain competitive. Emphasise how you are different in your marketing message. Do not only compete on price, but also analyse what other advantages you can offer. For example access to skills, specialised industry expertise or around-the-clock operations (24/7).

- Research what your competitors are doing right and wrong. This can help you differentiate yourself from them.

- Partner with nearshore service providers, as Eastern European companies are looking for cheaper destinations. Many service providers in developing countries have not yet recognised this opportunity.

6 . Through what channels can you get your cloud computing services onto the European market?

Subcontracting by European service providers

Subcontracting by European service providers is your most realistic market entry channel. It means that European service providers subcontract cloud services to you, which end user companies have contracted to them.

Tips:

- Decide on a business model. Either develop your own cloud solutions, or focus on cloud development services for a European partner.

- Target service providers whose size is in line with your capacity.

- Focus on companies that serve the same industries as your company.

- Attend relevant industry events in your target country to meet potential partners. This also allows you to learn more about their business culture. For example Cloud and DevOps World and Cloud Expo Europe in the United Kingdom, Cloud Expo Europe in Germany and International Conference on Cloud Computing at different locations worldwide.

- Use industry associations to find potential customers in Europe. For example the European cloud computing industry association Eurocloud, Bitkom in Germany, Nederland ICT in the Netherlands and UKITA in the United Kingdom.

- National outsourcing associations can also be interesting sources to find potential customers. For example Global Sourcing Association in the United Kingdom, Outsourcing Verband in Germany and Platform Outsourcing in the Netherlands.

- Develop good promotional tools, such as a professional company website and a company leaflet. Also invest in Search Engine Marketing, so potential customers can easily find your company online.

Direct sales to end users

You can also try to sell your cloud services/solutions directly to European end user companies. New electronic marketplaces may make this easier. These marketplaces are a cheap marketing tool. They are expected to lead to lower transaction costs for searching, evaluating, integrating and monitoring cloud services. Although they mainly contain smaller projects for freelancers, they could lead to pilot projects for companies. However, you need excellent end-market knowledge.

Tips:

- Research the end-market segment that you want to focus on. This allows you to effectively market your company.

- Look for potential leads in the field of cloud services on online outsourcing marketplaces.

For example [UpWork](#) and [Freelancer](#) (freelancers) or [Ariba](#) and [Hubwoo](#) (corporate).

Intermediary

You can approach European service providers and end users of cloud services directly, or through an intermediary. A local contact person is an advantage, especially if you are located in a lesser-known outsourcing destination. Intermediaries, such as a consultant/matchmaker or sales/marketing representative, can therefore be an important channel to establish contact with potential buyers.

See our study about [market channels and segments on the European outsourcing market](#) for more general information. Also refer to our study on [finding buyers in the European market](#).

7 . What are the end-market prices for cloud computing?

Price is the main reason for European companies to outsource cloud services to developing countries. Staff salaries make up a large share of the costs of IT services. This means outsourcing cloud services to countries with lower wages can lead to considerable savings. For example, the average annual salary of a software developer in Western Europe is between €36,000 and €50,000. In offshore destinations, this is usually significantly lower.

Tips:

- Research the average salaries in your European target country. For example via [Payscale](#), a global database for salary profiles.

- Emphasise the potential salary savings in your marketing.

Please review our [market information disclaimer](#).

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