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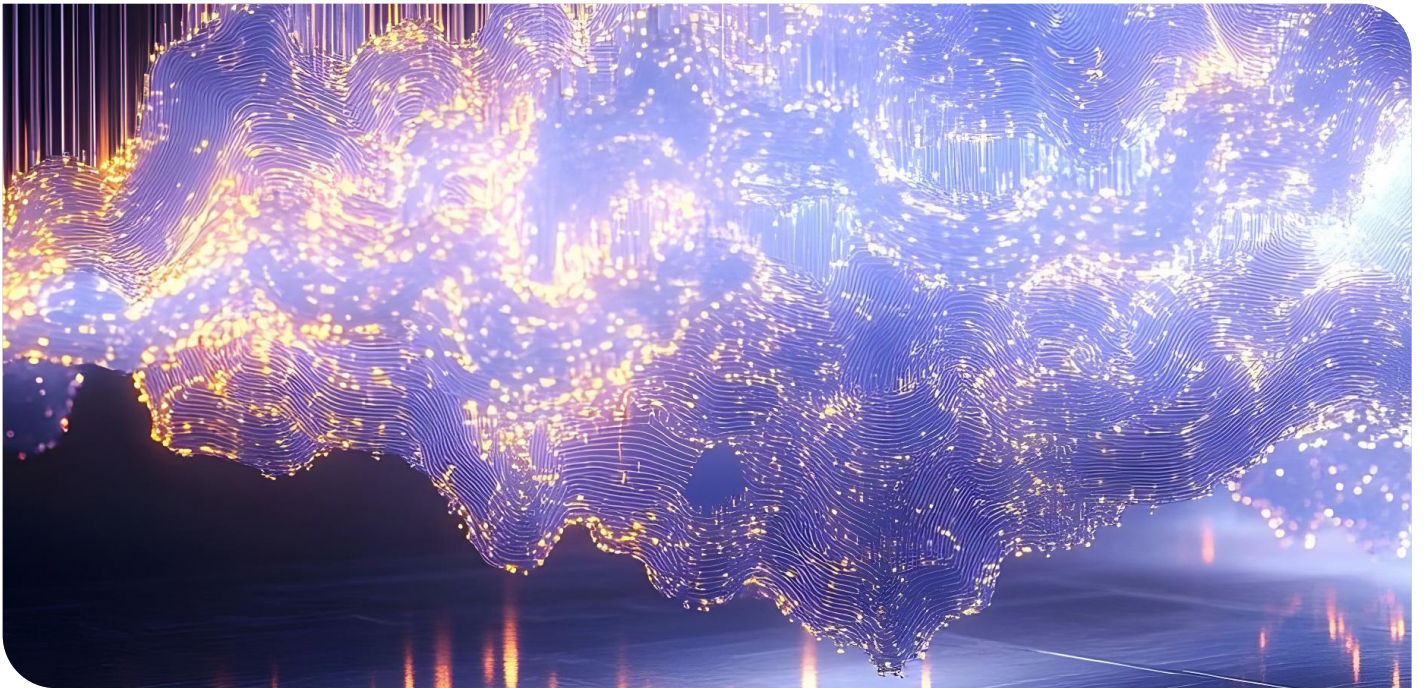
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Le monde est tel que nous le façonnons. |

# Cloud computing in Europe: 2025 and beyond

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Digital Platform Services



**IT spending in Europe is forecast to reach \$1.28 trillion in 2025<sup>1</sup>, representing 8.7% growth compared to 2024, with the European public cloud market set to hit \$223.52 billion, per Statista<sup>2</sup>.**

As a critical component of digital transformation, PAC predicts cloud growth and development acceleration in 2025<sup>3</sup>. Meanwhile, Gartner sees the cloud as a vehicle for business value, forecasting “85% of organisations will embrace a cloud-first principle by 2025,” with cloud-native technologies pervasive.

Cloud computing has transformed the way companies and individuals use technology, and its role continues to develop in several key ways, from edge computing and facilitating artificial intelligence (AI) to rising demand for hybrid and multi-cloud solutions.

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1. Gartner press release, November 2024

2. Statista, Public Cloud - Europe

3. PAC Horizons 2024 reportis

In this white paper, we'll explore European cloud computing today and beyond, including:



# 01 | What is cloud computing?

— *Cloud computing is the delivery of services such as storage, processing power, databases, networking and software over the internet – ‘the cloud’.*

Instead of owning and maintaining physical hardware or infrastructure, users can access these resources on demand from cloud providers, usually on a pay-as-you-go basis. The model enables scalability, cost-efficiency and flexibility.

**McKinsey estimates**<sup>4</sup>, “The value the cloud generates from enabling businesses to innovate is worth more than five times what is possible by simply reducing IT costs”.

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# 02 | Strategic importance for digital transformation

Alongside those benefits, cloud computing is a key enabler of digital transformation. How? It provides businesses with the infrastructure and technological foundation to modernise, adapt and evolve with market demands – more rapidly than with legacy systems.

For example, cloud computing’s flexibility, agility and scalability support technologies such as AI and composable architectures, helping companies access and analyse vast swathes of data and automate processes.

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4. McKinsey & Company, What is cloud computing?, July 2024

# 03 European cloud computing landscape

According to research by PAC , the software and IT services market in Western Europe is valued at

**\$513.09**

(447.42€) billion in 2024

By 2028, they forecast

**\$610.67**

(564.61€) billion.

Within that, software and cloud platforms account for

**\$219.46**

(202.91€) billion in 2025

compared to

**\$199.93**

(€184.85) billion in 2024

with projections for 2028 at \$281.55 (€260.31) billion. Figures are based on current prices and constant exchange rates.

The public cloud – infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS) – is huge, comprising almost

**60%**

of the software and cloud platforms market in 2024,

and expected to reach around

**73%**

by 2028

Meanwhile, infrastructure-related services are experiencing growth due to rising public cloud adoption.

In terms of leading software and IT services providers in France, PAC ranks<sup>6</sup> Sopra Steria third, behind Microsoft and Capgemini.

## Key European cloud computing players

### US hyperscalers

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**With 72% of the public cloud market share in Europe<sup>7</sup>, Amazon Web Services (AWS), Microsoft Azure and Google Cloud dominate. For these behemoths, major 2025 trends include sizeable investments in AI infrastructure, agentic cloud and regional data centres.**

Alongside that, hyperscalers are expanding beyond Frankfurt, London, Amsterdam, Paris and Dublin (FLAPD) to new European zones, including Sweden, Norway, Spain, Italy and Greece. Why? Factors such as demand for generative AI and high-performance computing, lower costs, renewable energy availability and government incentives. At the same time, these CSPs are repositioning around sovereign cloud and hybrid solutions.

Funds are also being funnelled towards regulatory certification frameworks such as the European Union Cloud Services (EUCS) Scheme. As part of that, local compliance qualifications such as France's SecNumCloud label are being leveraged to enrich pan-European standards.

### Local providers

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The second set of players are local providers, with emphasis on compliance, data residency and public sector needs, and major investments in edge computing and regional proximity. For example, OVHcloud and Equans Digital lead in sovereign offerings.

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<sup>6</sup> PAC, Ranking by country

<sup>7</sup> Synergy Research Group, European Cloud Providers Continue to Grow but Still Lose Market Share, September 2022

## News entrants

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The final group are new entrants, often with agile go-to-market strategies and vertical specialisation, competing on latency, transparency and sustainability. They may also target underserved regions due to resource constraints in major hubs. Examples include:

- ▶ **Mistral AI:** French startup that's entered into a strategic partnership with NVIDIA to co-develop Mistral Compute, a sovereign European AI cloud platform.
- ▶ **Filigran:** Cybersecurity AI startup offering sovereign cloud-native threat intelligence.
- ▶ **Kinetix:** Cloud-based 3D animation platform using generative AI.
- ▶ **Bodyo:** Healthtech using AI and cloud for remote diagnostics.
- ▶ **STACKIT:** German cloud provider launched by Schwarz Group (Lidl's parent company), positioned as a European alternative to AWS, offering sovereign, GDPR-compliant cloud services from data centres in Germany and Austria.
- ▶ **CoreWeave:** Niche American startup focused on AI-optimised cloud.

The creation of AI cloud platforms such as **Mistral Compute**<sup>8</sup> highlights growing demand for local alternatives and ambition for European technological autonomy, against a tense geopolitical backdrop.

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8. Mistral AI, Mistral Compute, June 2025

# 04 What's shaping the European cloud market?

Cloud computing impacts the digital world by improving access to powerful computing resources and enabling businesses to scale, driving innovation. A handful of key trends are currently propelling the arena.

## 01

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**Edge computing and the Internet of Things (IoT) integration:** Cloud services are increasingly integrating with edge computing and the IoT to process data closer to the source, rather than relying solely on centralised data centres. This reduces latency and improves efficiency.

## 02

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**AI and machine learning (ML) enhancement:** Cloud computing provides the infrastructure for AI and ML applications, making powerful tools accessible to businesses of all sizes. Cloud-based AI enables automated decision-making, predictive analytics and intelligent applications.

## 03

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**Hybrid and multi-cloud strategies:** Companies are moving towards hybrid and multi-cloud solutions, combining on-premises infrastructure with multiple cloud providers. This approach enhances flexibility, security and disaster recovery.

# 04

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**Security and compliance focus:** As cloud adoption grows, emphasis on cybersecurity, encryption and regulatory compliance increases. Organisations now prioritise secure cloud environments with advanced threat detection and mitigation strategies.

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**Sustainability and green computing:** CSPs are investing in energy-efficient data centres and renewable energy sources to reduce their carbon footprint and make cloud computing more sustainable. Optimising cloud workloads is also gaining importance.

# 06

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**Rise of sector-specific clouds:** Industry clouds across areas such as finance and healthcare prioritise deep, vertical integration, offering bespoke solutions that meet unique regulatory, security, operational, technological and business requirements.

# 07

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**Open-source and cloud-native technologies:** Use of containers and Kubernetes is growing, thanks to the flexibility, scalability, resiliency, speed and cost efficiencies they offer, and the innovation they enable.

# 05 Challenges and barriers to cloud computing adoption

Despite European cloud market growth and game-changing trends shaping the industry, issues remain, with compliance and data sovereignty concerns heavily influencing cloud adoption, as regulations continue to evolve globally.

For example, compliance requirements are complex and vary across regions, with laws such as the EU's and UK's General Data Protection Regulations (GDPRs) and the US's Clarifying Lawful Overseas Use of Data (CLOUD) Act shaping cloud governance.

Sovereign cloud solutions also come into play. Companies are increasingly adopting them, ensuring data remains within specific jurisdictions to comply with local regulations, but they can hinder progress. How? Higher costs due to specialised infrastructure and operational requirements, and limited providers restricting choice and potentially leading to vendor lock-in.

Sector-specific compliance is a consideration too, with industries such as finance, healthcare and government facing stricter regulations, including the Health Insurance Portability and Accountability Act (HIPAA), the Payment Card Industry Data Security Standard (PCI DSS) and the Sarbanes-Oxley (SOX) Act. These require specialised cloud solutions.

**Other factors impacting cloud adoption include:**

- **Security and risk management challenges**, with the shared responsibility model potentially leading to data breaches and compliance issues.
- **Conflicting EU and national cloud initiatives**, where the latter focuses on local priorities – for example, France's 2030 investment plan and its SecNum-Cloud label.
- **Vendor lock-in**, restricting a company's ability to switch providers and their interoperability.
- **Skills gap and talent shortage**, creating problems for organisations seeking to scale their cloud infrastructure efficiently.
- **Cloud strategy fragmentation across business units**, often leading to siloed approaches, varying security standards and duplicated efforts.

# 06 Opportunities for businesses, vendors and governments

There are ways to mitigate these challenges and barriers, from ensuring cloud solutions align with ever-changing frameworks to leveraging multi-cloud strategies.

## Compliance and data sovereignty

CSPs play a part here – for example, Microsoft has expanded its [Cloud for Sovereignty initiative](#)<sup>9</sup> to support public sector and regulated industries, empowering customers with “greater choice, more control over their data privacy and the most robust digital resilience we have ever offered.”

Through proactiveness and adapting to stricter data laws, companies such as UK

Cloud and OVHcloud are offering services tailored to regional compliance needs.

Furthermore, as demand for more transparent and secure cloud operations grows, vendors, third-party specialists and customers themselves – for example, businesses and governments – are enhancing encryption, access controls and audit mechanisms.

## Vendor lock-in and interoperability

Here, organisations can adopt multi-cloud strategies to prevent dependency on a single provider, enhancing flexibility and allowing them to switch without major disruptions. Companies can also:

- Improve and streamline interoperability via open-source cloud solutions and standardised application programming interfaces (APIs)
- Leverage containerisation technologies such as Kubernetes and microservices to enhance portability and reduce reliance on proprietary cloud environments.
- Utilise infrastructure as code (IaC) frameworks to automate cloud deployments and cloud-native apps, making it easier to migrate workloads across different providers.

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<sup>9</sup> Microsoft, Announcing comprehensive sovereign solutions empowering European organizations, June 2025

## Security and risk management

When it comes to security and risk management opportunities, some lie at EU and national levels. For instance, **initiatives such as the upcoming Cloud and AI Development Act and associated measures under the Digital Single Market (DSM) strategy aim to create an interoperable, secure and competitive cloud ecosystem across member states.**

They set common regulatory benchmarks – for example, through standardised certifications via the EUCS Scheme – ensuring cloud services meet uniform cybersecurity, data sovereignty and operational resilience standards while facilitating cross-border collaboration and innovation.

At a granular level, individual EU member states are tailoring national cloud policies to address local priorities such as digital sovereignty, supporting local industry and mitigating dependency on non-EU providers.

These initiatives often complement EU frameworks by embedding specific measures such as specialised security certifications, financial incentives or dedicated infrastructure investments.

In turn, they bolster regional competitiveness and ensure national digital ecosystems align with broader European objectives while addressing unique domestic market challenges.

## Skills gap and talent shortage

Here, **opportunities arise by investing in cloud certifications, internal training initiatives and partnerships with educational institutions to develop a more skilled workforce.** Businesses can also consider leveraging AI-driven automation to reduce reliance on specialised cloud talent, streamlining operations and improving efficiency.

Other options include:

- Forming Cloud Centres of Excellence

(CCoE) and platform teams to centralise expertise and optimise cloud management.

- Offering higher salaries, flexible work arrangements and career development opportunities to attract top cloud professionals.
- Mitigating talent shortages by adopting multi-cloud and hybrid cloud strategies, ensuring flexibility and reducing dependency on specific skill sets.

## Fragmentation of cloud strategies

This dispersed methodology can result in a lack of unified governance and inconsistent vendor contracts, ultimately limiting an organisation's ability to leverage economies of scale and enterprise-wide efficiency.

**To address this, they should establish a central cloud governance framework that aligns diverse initiatives under a common strategy.**

This unified approach facilitates shared best practices, streamlined vendor management, coordinated security measures and enhanced data interoperability, ensuring all business units contribute cohesively to the company's overarching digital transformation goals.

# 07 Navigating the regulatory and compliance landscape

**Opportunities are there to be taken, but to achieve a harmonised and secure European digital ecosystem (which cloud computing is an integral part of, per the [European Commission \(EC\)](#))<sup>10</sup>, a handful of laws and initiatives must work together to shape it. These include:**

- GDPR
- EU Cloud Code of Conduct (CoC)
- Digital Operational Resilience Act (DORA)
- Network and Information Systems Directive 2
- GAIA-X
- European Data Spaces
- EU AI Act
- Digital Services Act (DSA)
- Digital Markets Act (DMA)
- Cybersecurity Act
- ePrivacy Regulation

For example, the EU CCoC was developed by the European Data Protection Board as a self-regulatory tool, enabling cloud service providers to demonstrate their commitment to GDPR principles.

This accountability mechanism fosters transparency in data handling practices while ensuring cloud services meet the high standards required for safely processing personal data in a cloud environment.

Alongside that is the EU CS Scheme, a certification framework to ensure cloud providers meet European standards for security and sovereignty by aligning with existing EU rules such as GDPR, NIS2 and the Data Act.

Meanwhile, GAIA-X is a pan-European initiative designed to create a secure, transparent and interoperable digital ecosystem that upholds European values and digital sovereignty.

By establishing a common compliance framework for cloud services, GAIA-X reinforces trust and security across digital infrastructures, while European Data Spaces build on these principles by facilitating controlled data sharing between businesses and public institutions.

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10. European Commission, Cloud computing

## National vs. EU-level cloud initiatives

The debate here reflects a broader tension between strategic autonomy and collective digital resilience in Europe.

For example, the EU is pushing for a unified approach to digital sovereignty through initiatives such as the Cloud and AI Development Act. This aims to:

- Promote sovereign cloud solutions for public sector use.
- Triple the EU's data processing capacity by 2030.
- Offer preferential access to European cloud providers in public procurement.
- Encourage sustainable data centres and reduce reliance on non-EU tech giants.

**By contrast, at national level, countries such as France and Germany have launched their own initiatives to build trusted cloud ecosystems.** These efforts often reflect diverging preferences on how sovereignty should be implemented, as well as concerns over technological capabilities and the dominance of US providers.

Moreover, tensions exist between national industrial policy and EU-wide regulatory frameworks, including the following.

- Competence disputes: National governments and EU institutions sometimes clash over who should lead digital sovereignty efforts.
- Fragmentation: Without alignment, Europe risks a fractured cloud landscape that undermines its strategic goals.
- Public sector as an anchor: Both levels agree that public procurement can drive demand for sovereign solutions, but differ on execution.

Meanwhile, the EUCS Scheme has sparked discussion over how far sovereignty provisions should go.

In short, while the EU seeks cohesion and scale, member states often prioritise control and tailored strategies. The challenge lies in balancing these forces to build a truly sovereign and competitive European cloud ecosystem.

## Strategies for compliance and governance

Compliance and governance strategies are also important. They've evolved beyond routine checklist exercises and are integral to an organisation's vision and operational resilience.

**By leveraging AI and automation, companies can continuously monitor and manage regulatory risks in real time, turning compliance into a proactive process. Alongside that, establishing a centralised framework for risk management and IT security ensures policies remain consistent and effective across all departments.**

Cultivating a culture of continuous learning and collaboration with internal teams and external regulators further strengthens an organisation's ability to adapt to rapidly changing regulatory landscapes. This integrated approach enhances security and accountability, transforming compliance into a competitive advantage.

# 08 Cloud computing: lessons and innovations

When considering cloud computing migration, how can companies position themselves for success, and how can cloud-native technologies, in particular, help them?

## Lessons learned from cloud migration

A handful of factors can make or break cloud migration journeys across industries. In general, it's about being strategic and technical, reflecting a mindset shift towards agility, resilience and continuous improvement.

**At the outset, it's important to define a clear business case: migration without purpose is just motion. Organisations that start with a strong 'why' – for example, agility, cost savings or innovation – have clarity, aligning teams and guiding every decision.**

**The biggest gains come when companies go beyond 'lift and shift' – moving to a cloud environment with minimal or zero modification or redesign. By making more substantial changes, such as rebuild-**

**ing apps using microservices, containers or serverless architectures, they unlock scalability and resilience that legacy systems can't match.**

Additional focus points involve:

- Prioritising security from day one by embedding security and compliance into every strategy layer, especially in terms of handling sensitive data.
- Investing in people, not just platforms, by upskilling teams and fostering collaboration, because cloud transformation is as much about culture as code.
- Continuously optimising by using cloud-native tools to monitor usage, control costs, and fine-tune performance over time.





## Innovations enabled by cloud-native capabilities

Cloud-native architectures have unlocked a wave of innovation across industries by enabling faster development, greater scalability and smarter operations.

For example, they make it easier to embed AI and ML automation into everyday processes, from predictive maintenance in manufacturing to intelligent customer service bots.

**With cloud-native pipelines, organisations can process and analyse massive volumes of data in real time, enabling smarter decision-making, proactive risk management and hyper-personalised customer experiences.**

**Furthermore, the microservices and containerisation aspects of cloud-native platforms allow teams to build modular, reusable components. That means faster innovation cycles, easier updates and the ability to mix and match services across clouds.**

Additional advancements cloud-native technologies support include:

- Edge computing integration, by powering real-time analytics in smart cities, autonomous vehicles and IoT devices, reducing latency and improving responsiveness in mission-critical environments.
- Zero-trust security models, via advanced, AI-powered threat detection and frameworks that protect systems from the inside out.
- Sustainable cloud practices through efficient resource usage, thanks to serverless computing, autoscaling and intelligent workload placement, helping reduce energy consumption and carbon footprints.

Though technical by nature, these innovations can also transform how businesses operate, compete and grow.

# 09 What does the future hold?

When considering cloud computing migration, how can companies position themselves for success, and how can cloud-native technologies, in particular, help them?

## Emerging technologies

These are reshaping the digital landscape, with quantum computing promising unprecedented processing power, and serverless architectures abstracting infrastructure management for scalable, on-demand execution. Meanwhile, confidential computing secures data during processing.

**Additional notable emerging technologies that are poised to drive transformation across industries include:**

- **Edge computing**
- **Next-generation 5G/6G connectivity**
- **Neuromorphic and photonic computing**
- **Blockchain-based distributed ledgers**
- **Augmented/virtual reality**
- **Digital twins**
- **Advanced AI innovations such as generative and agentic**

## Anticipated changes in enterprise priorities

**Beyond 2025, focus will shift to emerging technologies – quantum, serverless and confidential computing – the sovereign cloud and European digital autonomy. At the same time, enterprise priorities are anticipated to change.**

### 1. AI investment and workforce augmentation

- [AI spending is projected to increase by 6%](#)<sup>11</sup>, while overall IT budgets will rise by only 2%, leading to cost-saving strategies to fund AI initiatives.
- Enterprises will prioritise AI-human collaboration rather than full automation, ensuring AI enhances productivity without replacing jobs.
- Companies will seek cost-effective AI expertise, often through global partnerships, as internal capabilities remain limited.

### 2. Cybersecurity and identity-first architecture

- Strategies will shift towards zero-trust models, emphasising identity-based security rather than traditional perimeter defences.
- Cybersecurity will remain a top priority, alongside process automation, IT software and AI-driven cloud adoption.

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11. ISG, Enterprise IT Priorities in 2025: AI Abounds Despite Constraints, December 2024

### 3. Cloud strategy optimisation

- Enterprises will move away from excessive cloud sprawl, opting for fewer service providers to reduce complexity and costs.
- Private cloud adoption is expected to rise due to AI workload demands and compliance requirements.

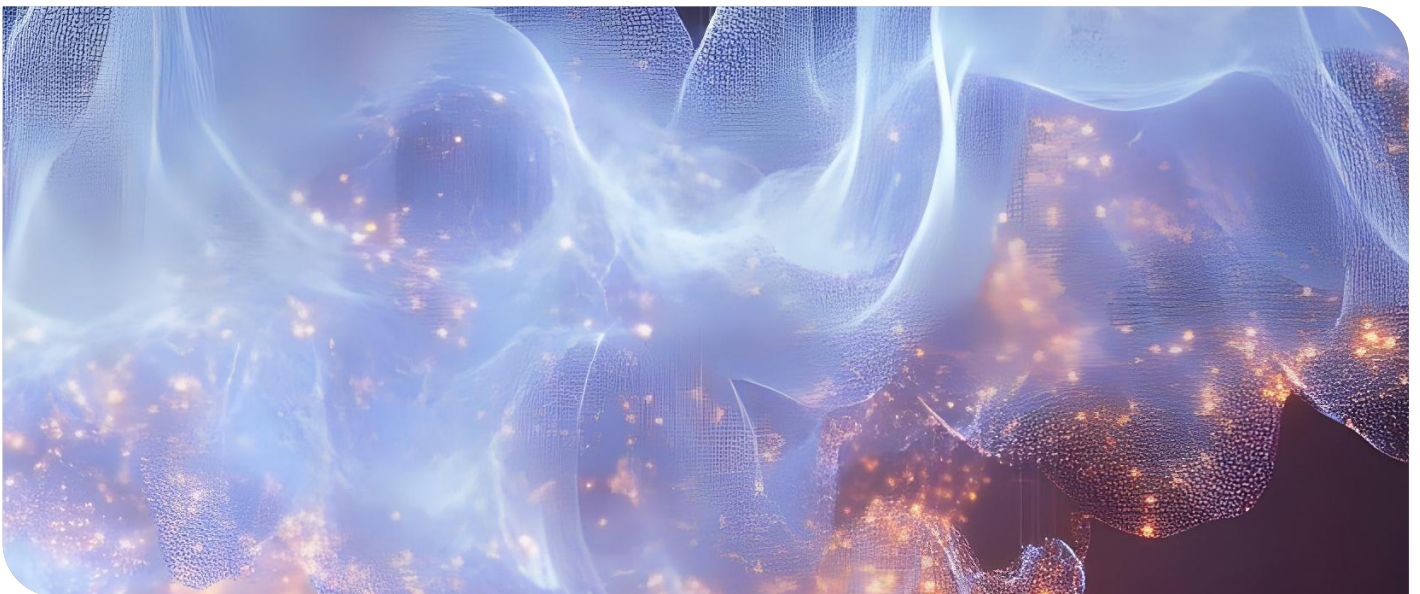
### 4. Enterprise SEO and digital presence

- AI-driven search behaviours will reshape search engine optimisation (SEO) strategies, requiring businesses to optimise for conversational queries and structured data.
- Companies will need to adapt to semantic search and AI-powered content indexing to maintain digital visibility.

### 5. Process automation and IT software evolution

- Automation will remain a priority, alongside IT software advancements in enterprise resource planning (ERP) and customer relationship management (CRM) systems.
- Enterprises will focus on reducing complexity in cloud and IT infrastructure to improve efficiency.

These trends indicate a move towards long-term transformation, where enterprises focus on value creation, AI-human collaboration and scalable technology solutions to remain competitive in a rapidly evolving market.



# 10 Recommendations for stakeholders

Key cloud computing considerations vary for the C-suite, policymakers and providers, from aligning cloud strategies across core areas and facilitating competitive cloud ecosystems to evolving services in line with European-focused requirements.

## C-suite action points

For chief information and technology officers (CIOs/CTOs), it's all about cloud strategy alignment across the following.

### Business and IT integration

Coordinate with core objectives by integrating legacy systems with emerging cloud and AI solutions to drive unified digital transformation.

### Security, compliance and data protection

Establish robust security measures to safeguard data across cloud and AI environments, including a zero-trust architecture and continuous compliance monitoring.

### Cloud architecture and interoperability

Choose the optimal deployment model – hybrid, multi- or single-cloud – and adopt cloud-native architectures to ensure seamless interoperability and scalability.

### AI integration and intelligent automation

Embed AI and ML into cloud strategies to automate processes and enable data-driven decision-making that enhances overall innovation.

### Data governance, integration and management

Implement a unified data governance framework that ensures high-quality, secure and compliant data integration across cloud platforms, supporting effective AI initiatives.

### Vendor and ecosystem management

Rigorously select and manage cloud and AI vendors that meet security, compliance and innovation standards, minimizing lock-in and fostering a robust partner ecosystem.

### Operational readiness and organisational change

Develop dedicated cloud and AI competency centres coupled with effective change management strategies to prepare for persistent digital adaptation.

### Cost optimisation and FinOps

Leverage cloud financial operations (FinOps) practices to continuously monitor, manage and optimise spending, ensuring cloud and AI investments generate measurable return on investment (ROI).

### Sustainability and green IT

Integrate green operations (GreenOps) principles by selecting energy-efficient data centres and technologies, minimising carbon footprint and aligning digital transformation with sustainability goals.

## Considerations for policymakers

**Here, it's all about supporting a competitive and secure cloud ecosystem by harmonising regulatory frameworks with forward-thinking initiatives** such as GAIA-X and European Data Spaces.

Other recommendations include integrating robust AI cybersecurity measures, compliance monitoring and sustainability standards to ensure digital sovereignty and resilient digital infrastructure.

### What can providers do?

**Cloud vendors must continuously evolve their services to meet European-specific demands by deploying robust data sovereignty measures.** These include air-gapped, isolated infrastructures and dedicated government cloud solutions that operate independently from American hyperscalers.

At the same time, they need to ensure strict compliance with regulations and deliver AI-driven, localised solutions that align with initiatives such as GAIA-X and European Data Spaces. All that within the framework of sustainable, green IT practices.

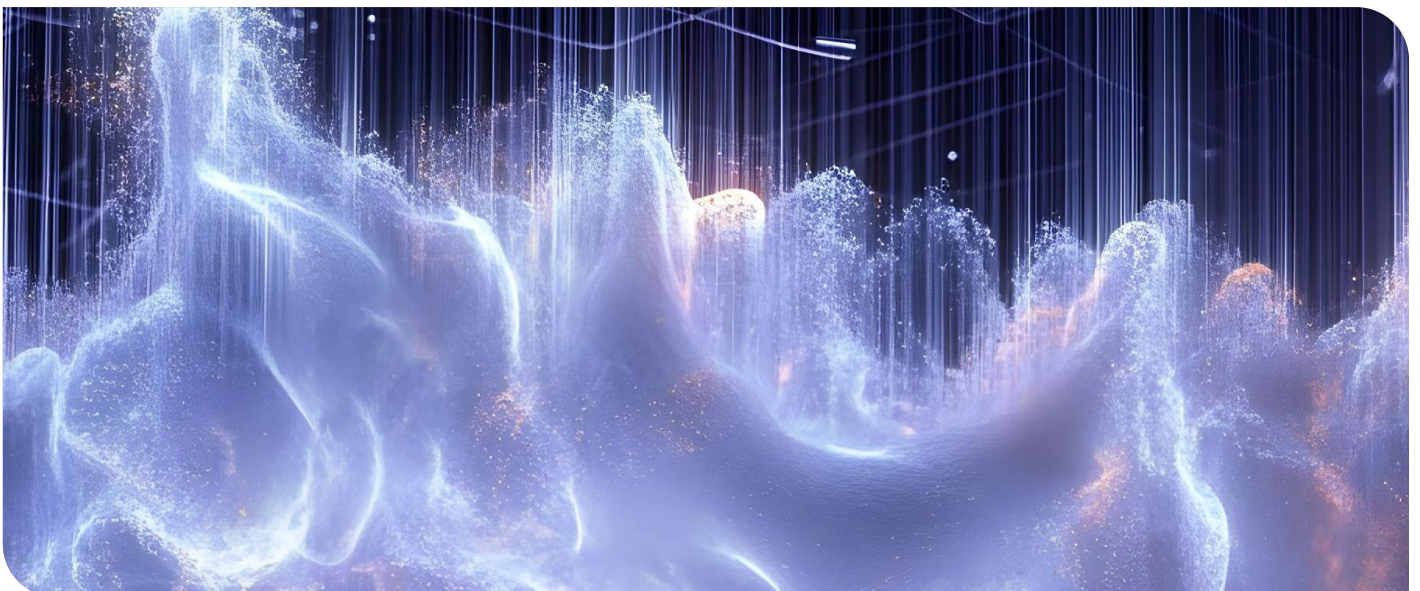
# 11 Unlocking cloud computing's potential

As we move through 2025 and beyond, cloud computing will continue to have a pivotal role, acting as a catalyst for digital transformation. Several trends are driving progress, from AI enhancement to the rise of sector-specific clouds and open-source technologies.

Challenges and barriers remain, be it from vendor lock-in or security perspectives, but there are ways to address concerns, create opportunities and navigate the complex regulatory and compliance landscape.

Looking ahead, emerging technologies and sovereign cloud initiatives will play an increasingly important part in the cloud computing world, and enterprise priorities will refocus towards areas such as AI-driven transformation.

Key stakeholders can take action to steer the path, ensuring cloud strategy alignment in a secure ecosystem that evolves to meet European demands.



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