

AWS European Sovereign Cloud

The background of the slide features a dark blue, atmospheric scene. At the top, there are large, billowing clouds in shades of purple and blue. Below the clouds, a faint grid pattern is visible. In the center, a stylized map of Europe is outlined in a light blue color, with several yellow stars scattered across it, reminiscent of the European Union flag. At the bottom center, there is a 3D architectural rendering of a modern server data center building with glass facades. Light rays emanate from the base of the server building, extending outwards across the foreground. The overall aesthetic is futuristic and tech-oriented.

A New Cloud for Europe

AWS User Group Meetup - January 2026

The Big Picture

 LAUNCH ANNOUNCEMENT

A new cloud vendor has arrived in Europe. AWS European Sovereign Cloud (ESC) represents a fundamental shift in how cloud infrastructure addresses digital sovereignty. Fully API and feature compatible with AWS, ESC delivers the power and innovation you know, while meeting strict European data residency and operational requirements.

Launched

January 15, 2026

Investment

€7.8 billion through 2040

Location

Brandenburg, Germany

First Region

eusc-de-east-1

Why Does This Exist?

REGULATORY CONTEXT

The need for AWS European Sovereign Cloud stems from a fundamental legal conflict between US and EU data protection frameworks. Understanding this tension is critical to appreciating why ESC matters for your organization.



CLOUD Act (2018)

US law allows government access to data stored anywhere by US companies

The Conflict

Comply with GDPR = risk CLOUD Act violation. Physical location alone doesn't guarantee sovereignty

1

2

Schrems II (2020)

EU Court invalidated Privacy Shield, questioning US company data handling

3

What is Digital Sovereignty?

FOUR PILLARS

Digital sovereignty isn't just about where servers live. It's a comprehensive framework ensuring control, transparency, and independence over critical digital infrastructure. AWS ESC addresses all four dimensions to deliver true sovereignty for European organizations.



Data Residency

Where data physically lives and is processed



Operator Access Restriction

Who can touch it and under what conditions



Resiliency & Survivability

Can it operate independently if needed?



Independence & Transparency

Legal jurisdiction and control mechanisms

AWS Partitions Explained

INFRASTRUCTURE ARCHITECTURE

AWS operates multiple completely separate "clouds" called partitions. These aren't just different regions—they're isolated environments with separate control planes, APIs, and governance. AWS European Sovereign Cloud is a new partition, not just another region.



Commercial (aws)

What most people use worldwide



European Sovereign (aws-eusc)

NEW - Dedicated EU partition



GovCloud (aws-us-gov)

US Government workloads



China (aws-cn)

Operated by local partners

Key Insight: ESC is completely separate infrastructure. You can't VPC peer between Commercial AWS and ESC. You can't share IAM roles across partitions. You can't replicate S3 buckets directly between them.

Think of it as working with an entirely different cloud provider that happens to speak the same API language as AWS.

ESC vs Standard AWS EU Regions

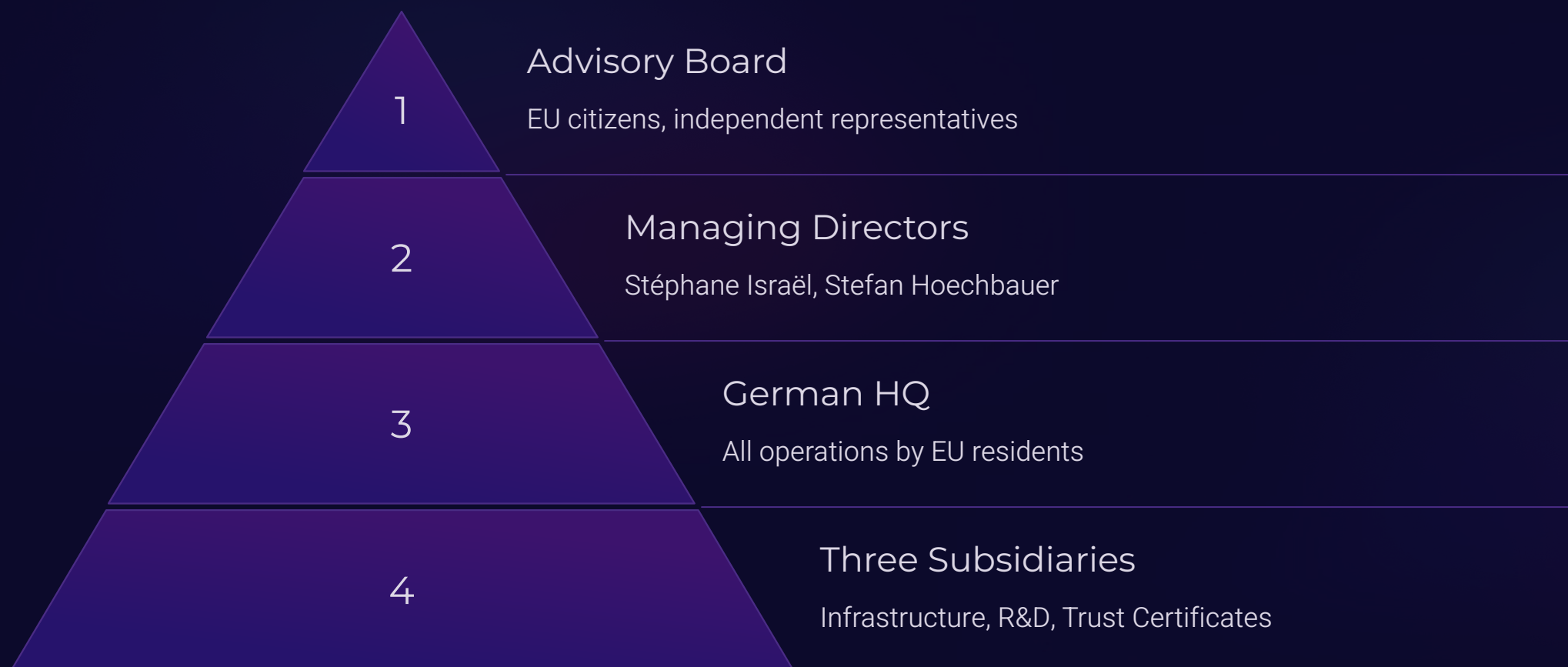
Understanding the differences between AWS European Sovereign Cloud and standard AWS regions in Europe is crucial for making informed architectural decisions. Here's how they compare across critical dimensions.

Aspect	Standard AWS EU	AWS ESC
Data Location	European Union	European Union
Operations Staff	Global workforce	EU residents only
Legal Entity	Amazon.com Inc (US)	German company
IAM Identity	Global directory	Separate, in-region
Billing Currency	USD, global systems	EUR, in-EU systems
Metadata Transit	Can leave EU	Stays in EU

Governance Structure

GERMAN ENTITY

AWS European Sovereign Cloud operates through a dedicated German parent company with comprehensive governance designed to ensure EU control and transparency. This isn't just a subsidiary—it's a purpose-built organizational structure.



All operations are performed by EU residents, with a transition roadmap to EU citizens only. Managing directors are EU citizens residing in the EU, providing accountability and local governance.

Technical Identifiers

 FOR DEVELOPERS

When working with AWS ESC, you'll use different endpoints, ARN formats, and identifiers than commercial AWS. These technical details matter for SDK configuration, infrastructure as code, and CI/CD pipelines.

Key Identifiers

Essential values for your configurations and scripts

- **Endpoints:** *.amazonaws.eu (not .com)
- **Region Code:** eusc-de-east-1
- **ARN Format:** arn:aws-eusc:service:eusc-de-east-1:account:resource
- **Route53 TLDs:** European only (.eu, .de, etc.)
- **Console:** *.aws.eu
- **Availability Zones:** eusc-de-east-1a, eusc-de-east-1b

Update your Terraform providers, AWS SDK configurations, and automation scripts to reference these new identifiers.

Services Available at Launch

AWS European Sovereign Cloud launched with robust service coverage across compute, database, storage, networking, security, and AI/ML. Understanding what's available now versus what's coming helps you plan migrations and new workloads effectively.

Ready Now

Compute: EC2, Lambda, ECS, EKS, Fargate, Batch

Database: RDS, Aurora, DynamoDB, ElastiCache, Redshift

Storage: S3, EBS, EFS, FSx

Networking: VPC, Direct Connect, Transit Gateway, Route 53

Security: IAM, KMS, GuardDuty, Security Hub, WAF

AI/ML: Bedrock (Nova models), SageMaker

Coming Soon

Q1 2026: IAM Identity Center

Q2 2026: CodePipeline, CodeBuild

Q1 2027: CodeCommit

Not Planned (yet)

CloudFront, IoT Core, Amazon Connect

Global services that require worldwide distribution aren't compatible with sovereignty requirements

AI/ML Availability

🌟 BEDROCK STATUS

AWS Bedrock is available in ESC, but with important limitations around foundation models. Currently, only Amazon's own Nova models are supported —third-party models from Anthropic, OpenAI, and others are not available due to sovereignty requirements around model hosting and data processing.

✅ Available

Amazon Nova Lite

Amazon Nova Pro

❌ Not Available

Claude (Anthropic)

GPT models

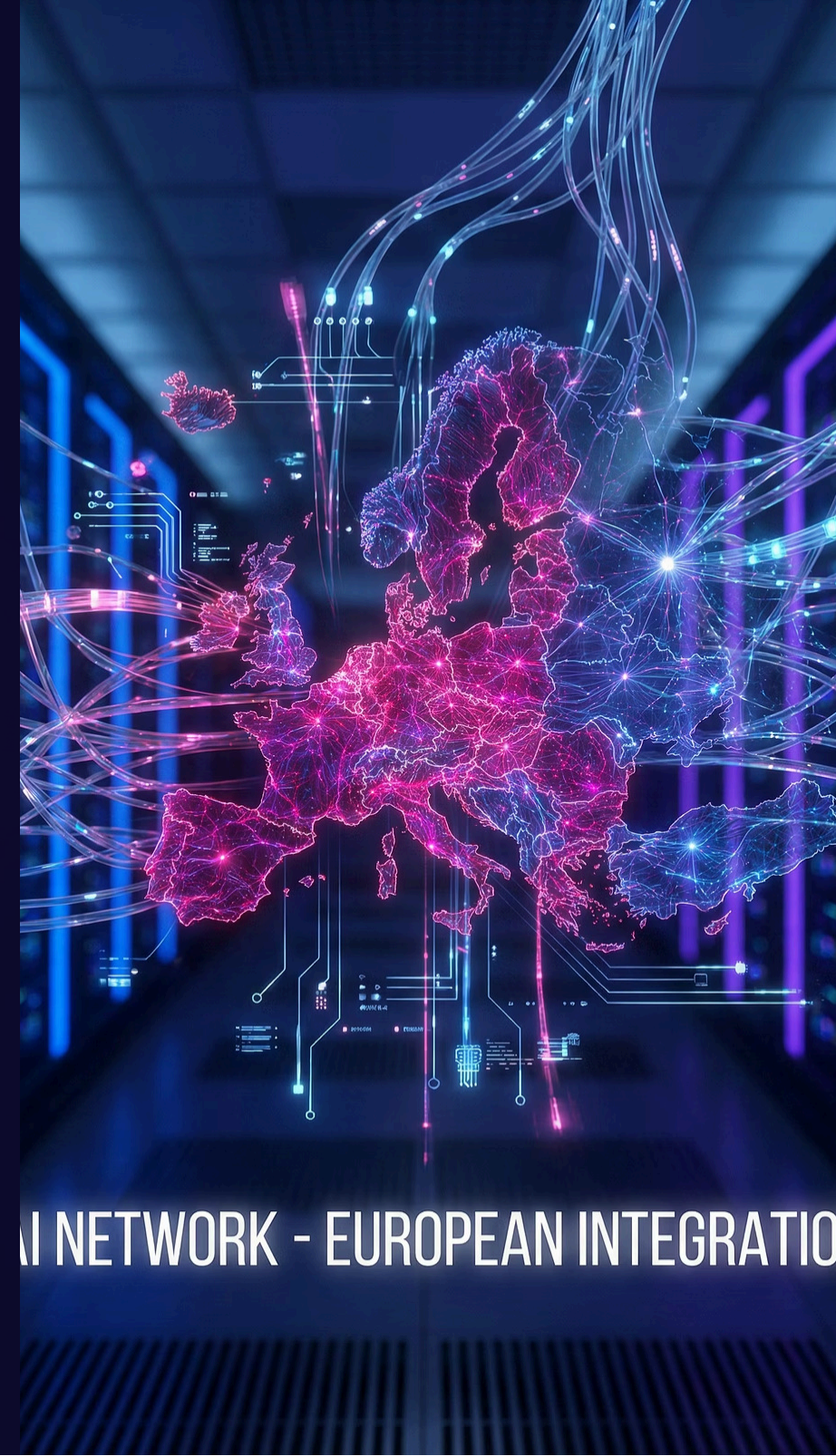
Other third-party models

🕒 Roadmap

Knowledge Bases (TBD)

Additional sovereign models under evaluation

SageMaker offers full availability, allowing you to bring and train your own models with complete sovereignty.

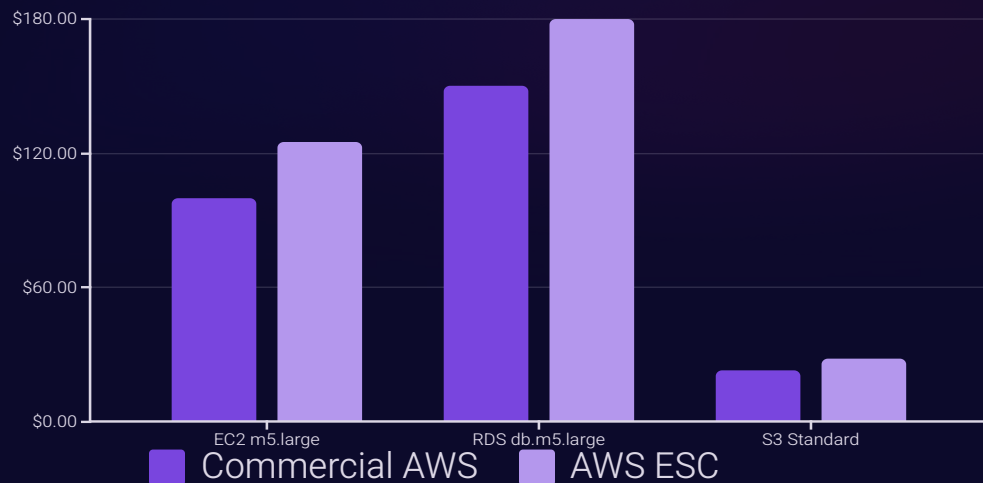


AI NETWORK - EUROPEAN INTEGRATION

Pricing Reality

COST CONSIDERATIONS

Sovereignty comes at a premium. AWS European Sovereign Cloud costs approximately 15-30% more than commercial AWS, similar to the pricing model for US GovCloud. This reflects the dedicated infrastructure, EU-only operations, and enhanced compliance frameworks.



Quick Estimate: Current monthly spend \times 1.25

- Billing currency: EUR by default
- Savings Plans: Available (1-year or 3-year terms)
- Reserved Instances: Standard discounts apply
- Data transfer: Similar premium applies

Factor this premium into business case calculations and budget planning before committing to ESC migration.

Who Should Use ESC?

Not every workload needs sovereign cloud infrastructure. The premium cost and service limitations mean ESC makes sense for specific use cases where regulatory requirements or business needs justify the trade-offs.

✓ Worth the Premium

- Regulated industries (finance, healthcare)
- Government and public sector agencies
- Defense and critical infrastructure
- Organizations with strict EU data sovereignty requirements
- Companies with contractual obligations for EU-only operations
- Workloads handling sensitive citizen data

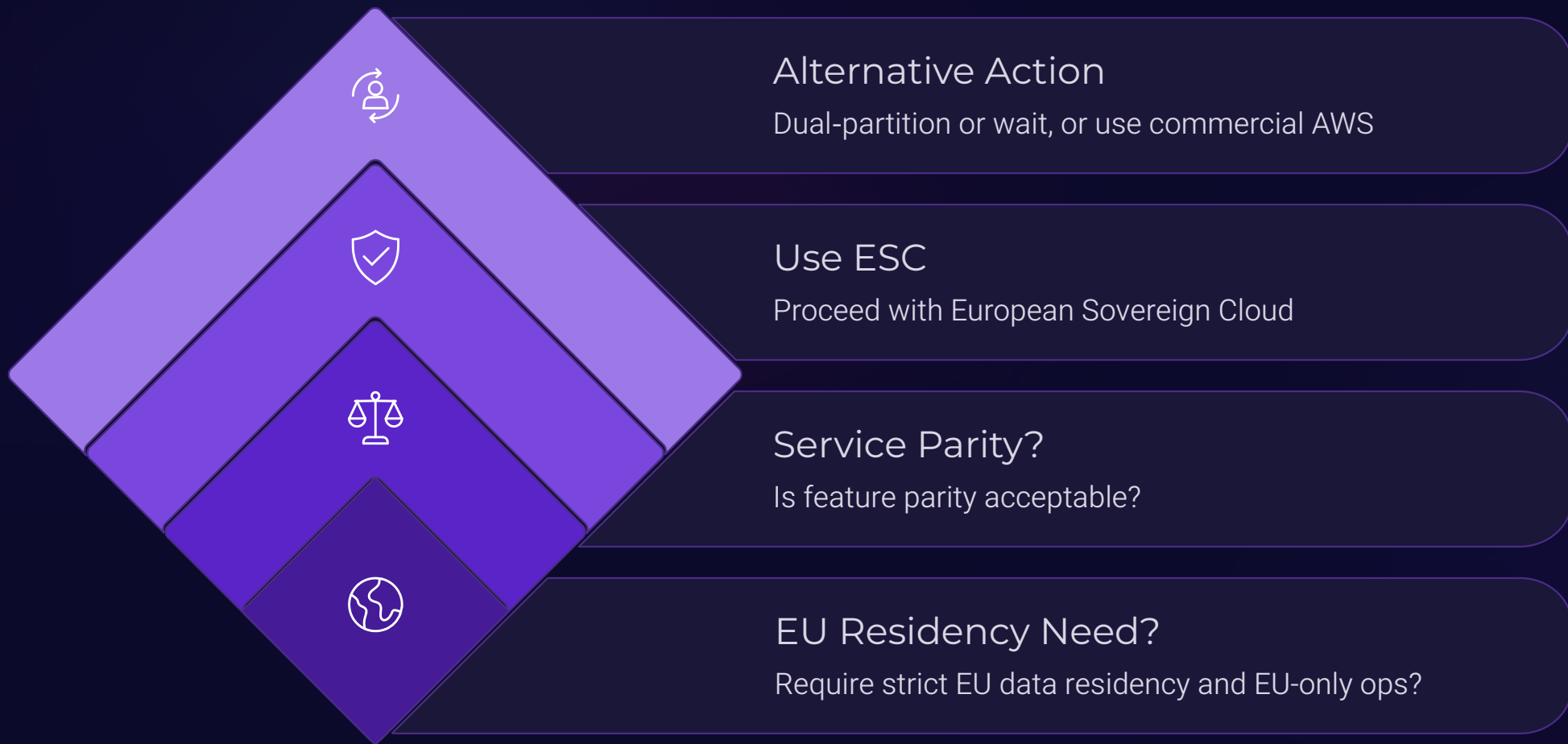
? Probably Overkill

- "Just to be safe" without documented requirements
- Standard GDPR compliance only (commercial AWS suffices)
- Startups without regulatory obligations
- Development and testing environments
- Workloads requiring global distribution (CloudFront, etc.)
- Organizations comfortable with US legal entity

Decision Framework

EVALUATION GUIDE

Use this decision tree to determine if AWS European Sovereign Cloud is the right choice for your organization. Start with your actual requirements, not assumptions about compliance.



Most organizations will find commercial AWS with EU regions sufficient for GDPR compliance. ESC solves a specific problem for a specific subset of workloads—be honest about whether you actually need it.

Important Considerations

⚠️ TRADE-OFFS

Before committing to AWS European Sovereign Cloud, understand the operational and technical implications. These aren't just limitations—they're fundamental design characteristics that affect how you build and run systems.

1. ESC = New Vendor

Separate accounts, contracts, landing zones. Plan accordingly for infrastructure as code and governance.

2. No Cross-Partition Connectivity

Traffic between ESC and commercial AWS goes via internet or VPN only. No VPC peering, no PrivateLink.

3. Service Gaps

Check the roadmap carefully. Missing services like CloudFront affect architecture patterns significantly.

4. Slower Debugging

Isolation adds operational friction. AWS support operates differently with restricted access.

5. The Ownership Question

Amazon.com Inc remains the ultimate owner. ESC provides operational sovereignty, not complete independence.

Competition Comparison

AWS isn't alone in addressing European sovereignty concerns. Microsoft Azure and Google Cloud have announced similar initiatives, but with different architectural approaches and maturity levels. Here's how they stack up.

Feature	AWS ESC	Azure EU Data Boundary	Google Sovereign Cloud
Physical Separation	Full partition	Logical boundary	Partner-dependent
Separate Legal Entity	Yes (German)	No	No
EU-Only Staff	Yes	No	Varies by partner
Service Breadth	Full AWS API	Full Azure	Limited initially
Availability	Live (Jan 2026)	In progress	Select partners
Control Plane Location	EU-only	Mixed	Partner-managed

AWS ESC currently offers the most comprehensive sovereignty implementation among major cloud providers, though each organization must evaluate based on their specific platform and requirements.

Key Takeaways

REMEMBER THESE

01

ESC launched January 15, 2026—available NOW

This isn't vaporware or a preview. Production workloads are running today in Brandenburg.

02

It's a new partition, not just a region

Treat AWS ESC as a separate cloud provider. Plan for separate accounts, networking, and operational patterns.

03

Expect 15-30% cost premium

Budget accordingly. The sovereignty guarantees come with real infrastructure and operational costs.

04

Core services ready, CI/CD tools coming later

Compute, storage, database, and AI/ML fundamentals are available. DevOps tooling arrives throughout 2026-2027.

05

Evaluate actual requirements—don't over-architect

ESC solves specific regulatory problems. Be honest about whether you actually need it versus standard EU regions.

Migration Strategies

IMPLEMENTATION APPROACHES

Moving workloads to AWS European Sovereign Cloud requires careful planning. Most organizations will adopt hybrid or phased approaches rather than wholesale migration.

Recommended Approach

Start with a pilot workload that has clear sovereignty requirements but isn't business-critical. This allows you to:

- Validate operational procedures
- Understand cost implications
- Identify service gaps
- Train teams on partition differences
- Refine deployment automation

Expand to additional workloads only after proving the model works for your organization.

Resources

 LEARN MORE

Dive deeper into AWS European Sovereign Cloud with these official resources. Whether you're evaluating ESC for your organization or already building on the platform, these links provide comprehensive technical documentation and guidance.

AWS ESC Overview

aws.eu/european-sovereign-cloud

Official landing page with product details and announcements

Builder Center

builder.aws.com

Technical guides, tutorials, and architecture patterns

Technical Whitepaper

[Overview of AWS European Sovereign Cloud](#)

In-depth technical architecture and implementation details

Pricing Calculator

aws.eu/european-sovereign-cloud/pricing

Estimate costs for your workloads