

# Federated Insights, Sovereign Data:

A Zero-Trust Data Mesh for the Public Sector



elastic

| The Search  
AI Company

Stored in different formats, locations, and tools.



# Each day, you deal with...



## Fragmentation & silos

Data spread across on-prem, cloud, and edge systems, with different formats, definitions, and ownership



## Data explosion

High-rate telemetry, sensor feeds, logs, chat, media overwhelm pipelines and people



## Tool sprawl

Too many tools and dashboards, incomplete views, and knowledge locked in individuals' heads



## Access & sovereignty friction

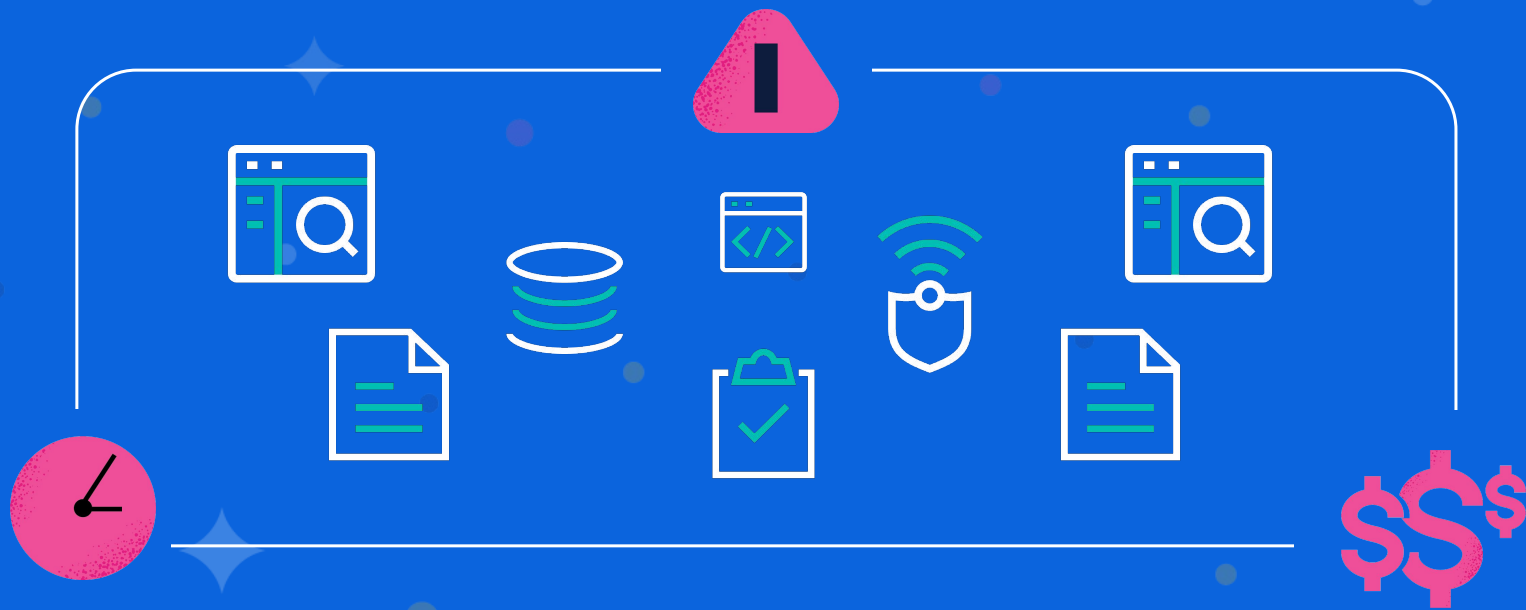
Getting the right data to the right people, while respecting legal, and organizational boundaries



## Decision Fatigue

Too many alerts, reports, and dashboards make it hard to focus on what matters

Many organisations try to solve this by *moving their data*.



But centralising data is:



Expensive



Risky

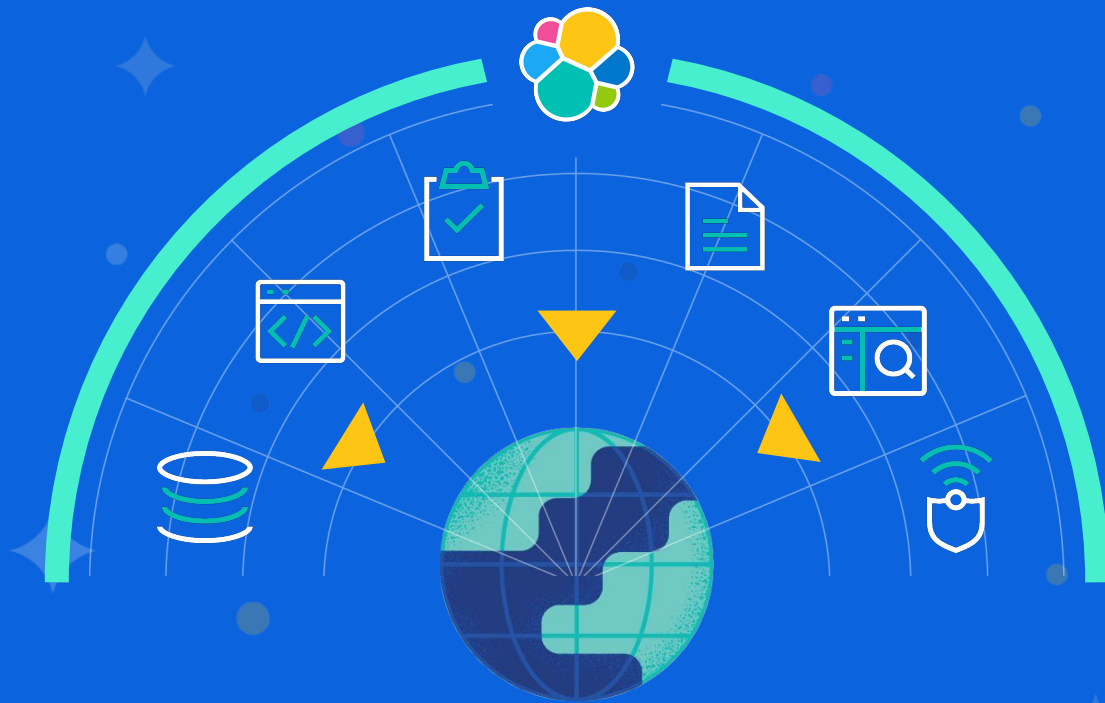


Slow



Resource intense

What if you used a *distributed approach* instead?  
A data mesh wraps around your data — without moving it.



By wrapping around your current systems, a data mesh enables you to search, analyse, and act on **all** data types, in **all** locations, in **real time**.

# What is a data mesh?



## Data Collection at the Edge

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- Collection from the edge to a centralised location is slow
- Duplication is costly
- Network pipes become clogged



## Near-real-time data access on all data, from a common platform

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- Query and result translations need to be available at search time
- Data needs to be accessed via a common syntax



## Integrated security, integrated data functions

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- Relying on each disparate repository to translate controls equally is too slow and prone to errors
- RBAC/ABAC needs to be applied as part of the query



## Truly distributed — no duplication, not centralized

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- We need to be able to query from any one location and get results from **all** remote sites

# Why a data mesh approach works better



## Stewardship

Maintain control over how data is used and distributed within your organization.



## Flexibility

Make it easier to use, collaborate, and maneuver data based on team-specific needs.



## Democratization

Enable your teams to access data faster and make better decisions.



## Visibility

Unify data from disconnected systems and teams in one place.



## Accuracy

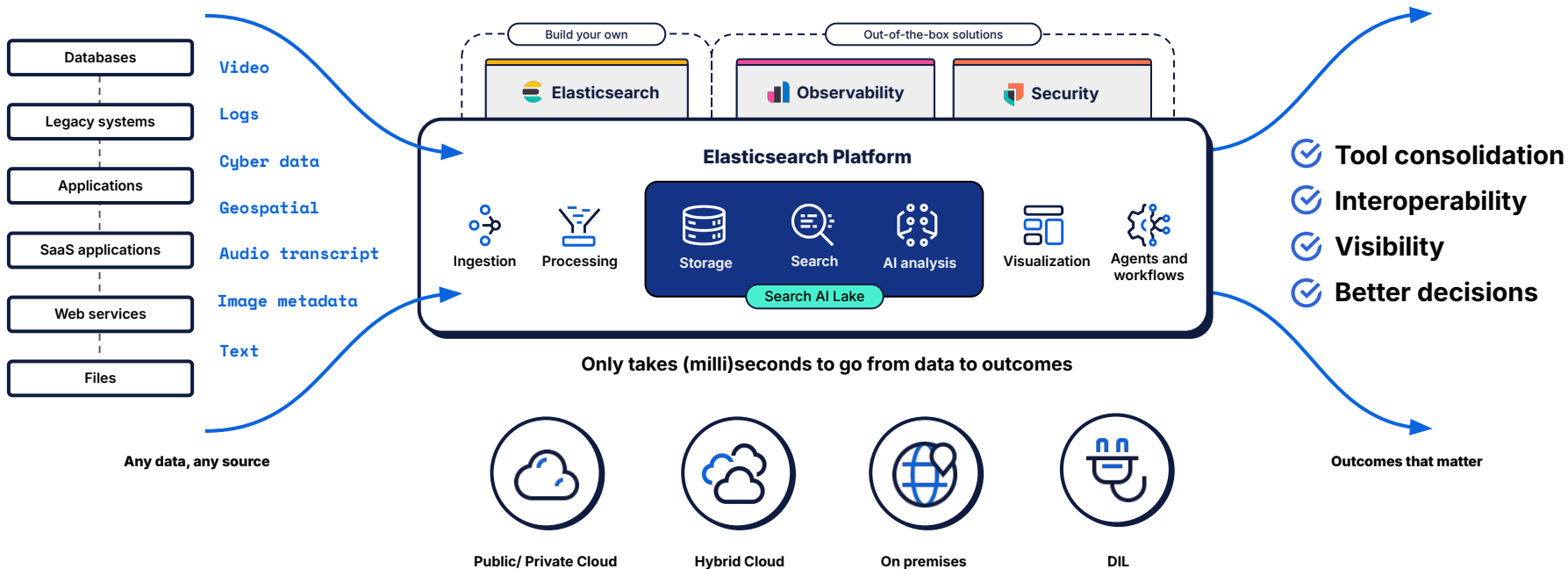
Improve data accuracy and trustworthiness by keeping data at its original source.



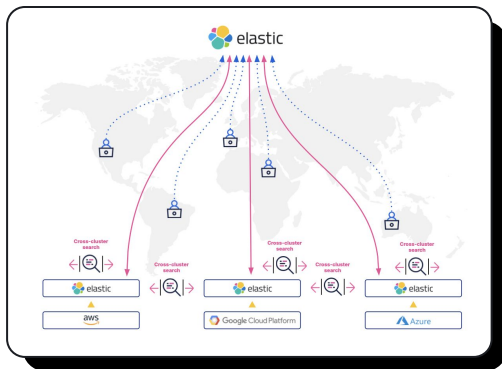
## Tool consolidation

Reduce the complexity of managing multiple systems with a single, unified platform.

# Your mission, any data use case, one data platform



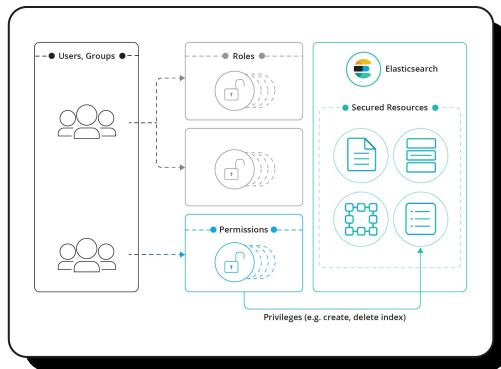
# Elastic's data mesh is the foundation for mission critical operations



Faster insights

## Cross Cluster Search

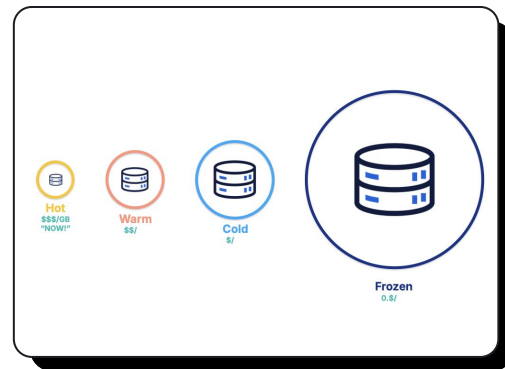
Fast data access and analysis across distributed agencies and systems



Integrated security

## RBAC & ABAC access controls

Granular security controls that enable compliance while allowing real-time collaboration.

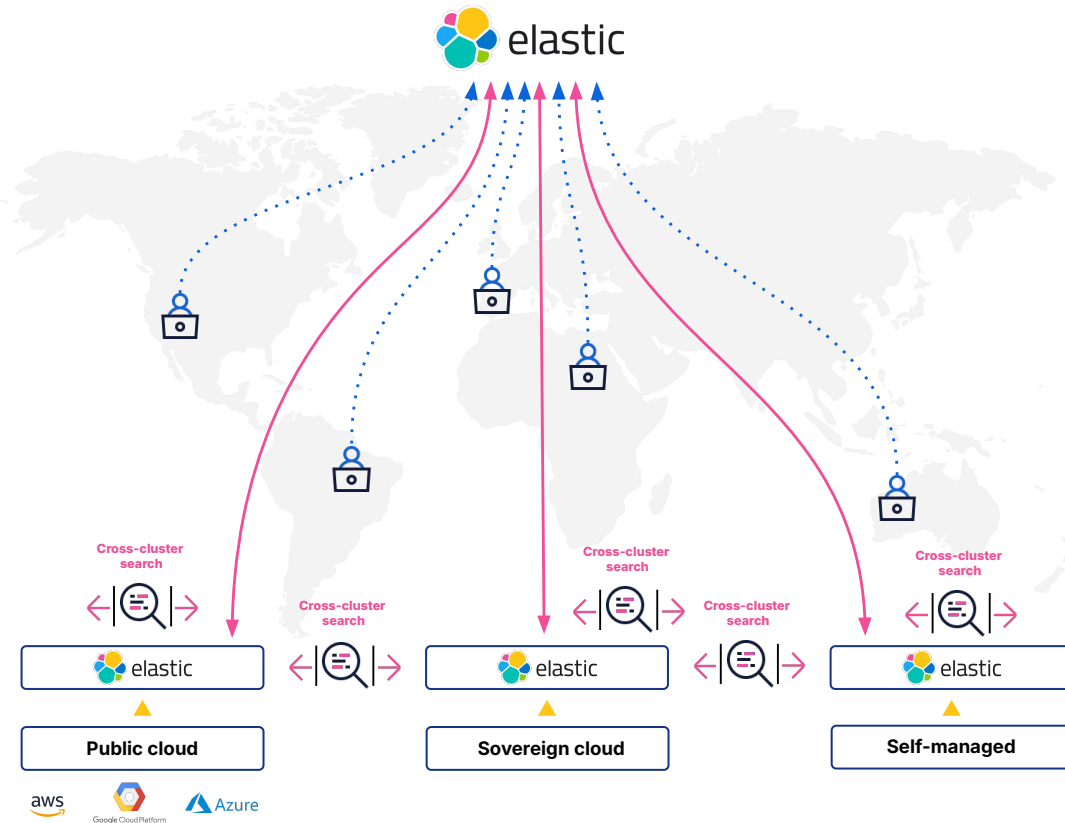


Smarter storage and retrieval

## Searchable snapshots

Data tiering allows you to store and search data within milliseconds for lower costs – and to find historical data in minutes.

## Analyze data holistically, without a central repository

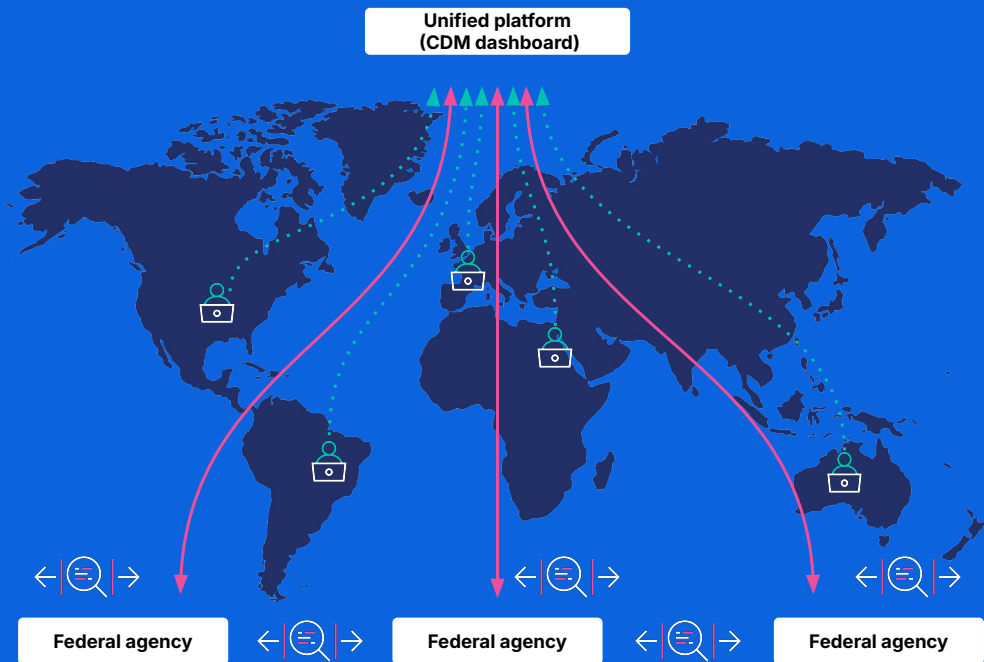


Real world example:

## Data mesh

**CISA** uses Elastic to power its CDM dashboard, connecting security data from hundreds of federal agencies

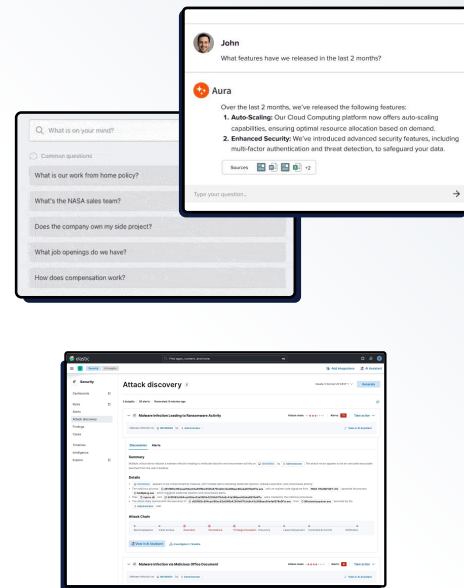
- The data remains at its source within each agency, reducing risk and ensuring data is owned by the people closest to it.
- This distributed approach is enabled by Elastic — specifically our cross-cluster search, cross-cluster replication, and role-based access control (RBAC) functionalities.



# Data is exponentially more valuable if...



## ...you can connect it to AI



# Generative AI is revolutionizing search



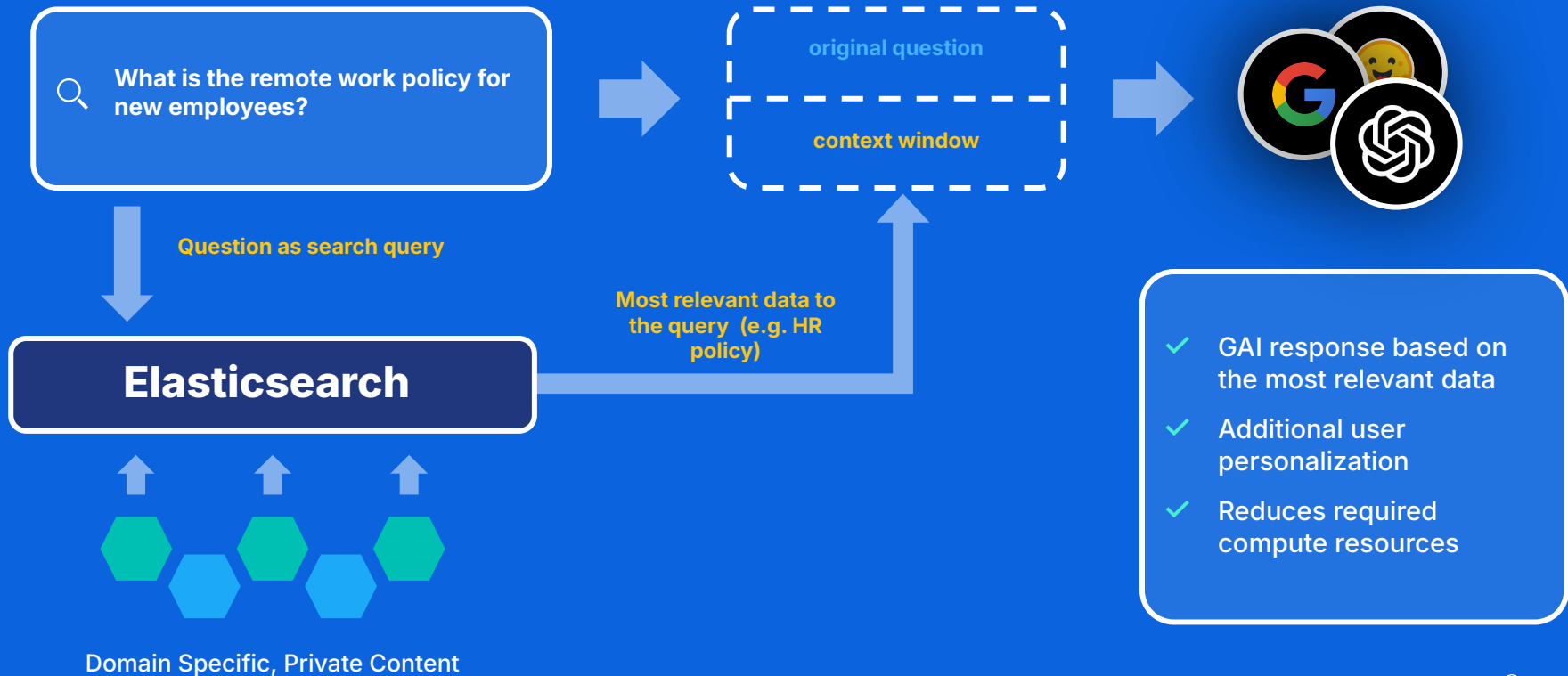
## Excels at human-like, iterative content creation

Natural language processing of large data sets used for creating human-like conversations, writing content, and providing code examples

## Limited by public training data, generic context

It's only as good and as up-to-date as the data it was trained on. It can hallucinate (confident-sounding but erroneous output) especially when asked domain-specific questions

# Elastic + Generative AI



# Responsible AI



## Any Model

Freedom to choose the best-fit model for your specific needs.



## Any Location

Deploy public models or host your own LLMs locally for sovereignty.



## Always Audited

Comprehensive auditing of AI activity, including guardrails and redaction.

# Elastic: Empowering Europe's Data Mission

From mission-critical visibility, to secure, AI-driven insights



## Sovereign by design

Search data where it lives



## Zero-Trust Security

**Granular Compliance** for the data layer



## AI-Ready Architecture

A governed foundation for **sovereign AI**