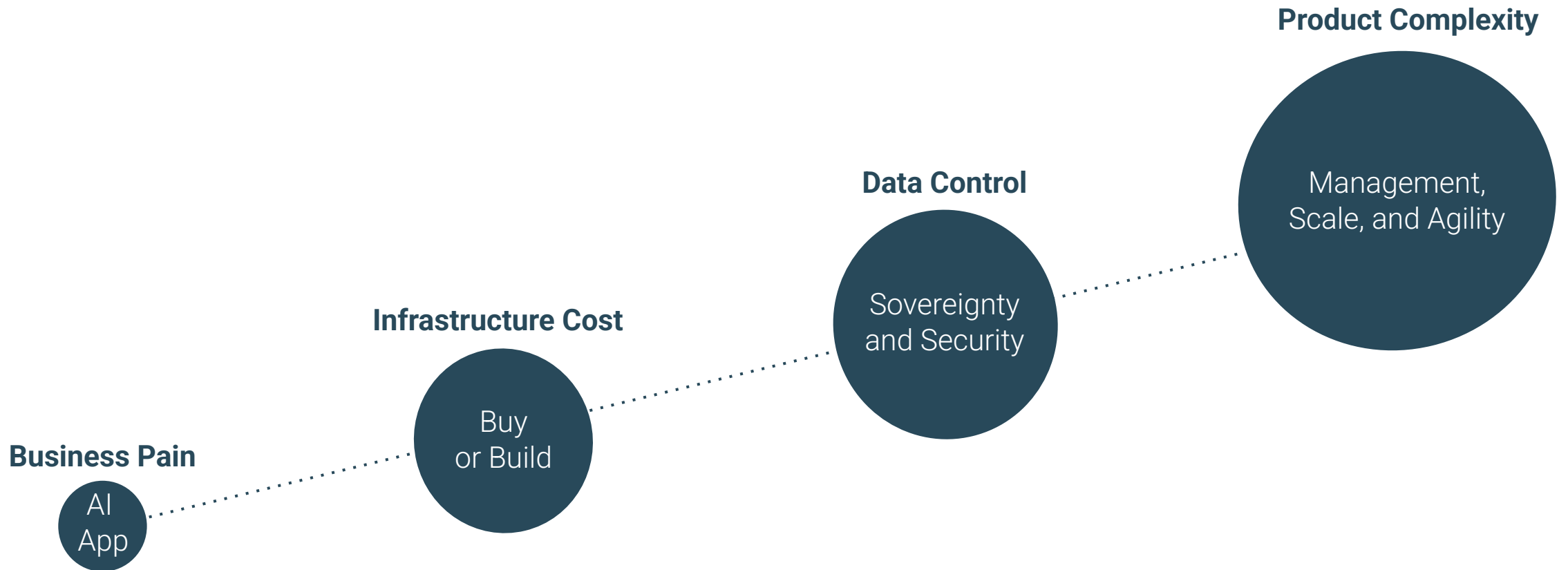# What is Sovereign AI?

Making your AI platform secure, controlled and adaptable—bringing AI to where your data lives.

Agenda

- Overview: Challenges in enterprise-grade Generative AI application development
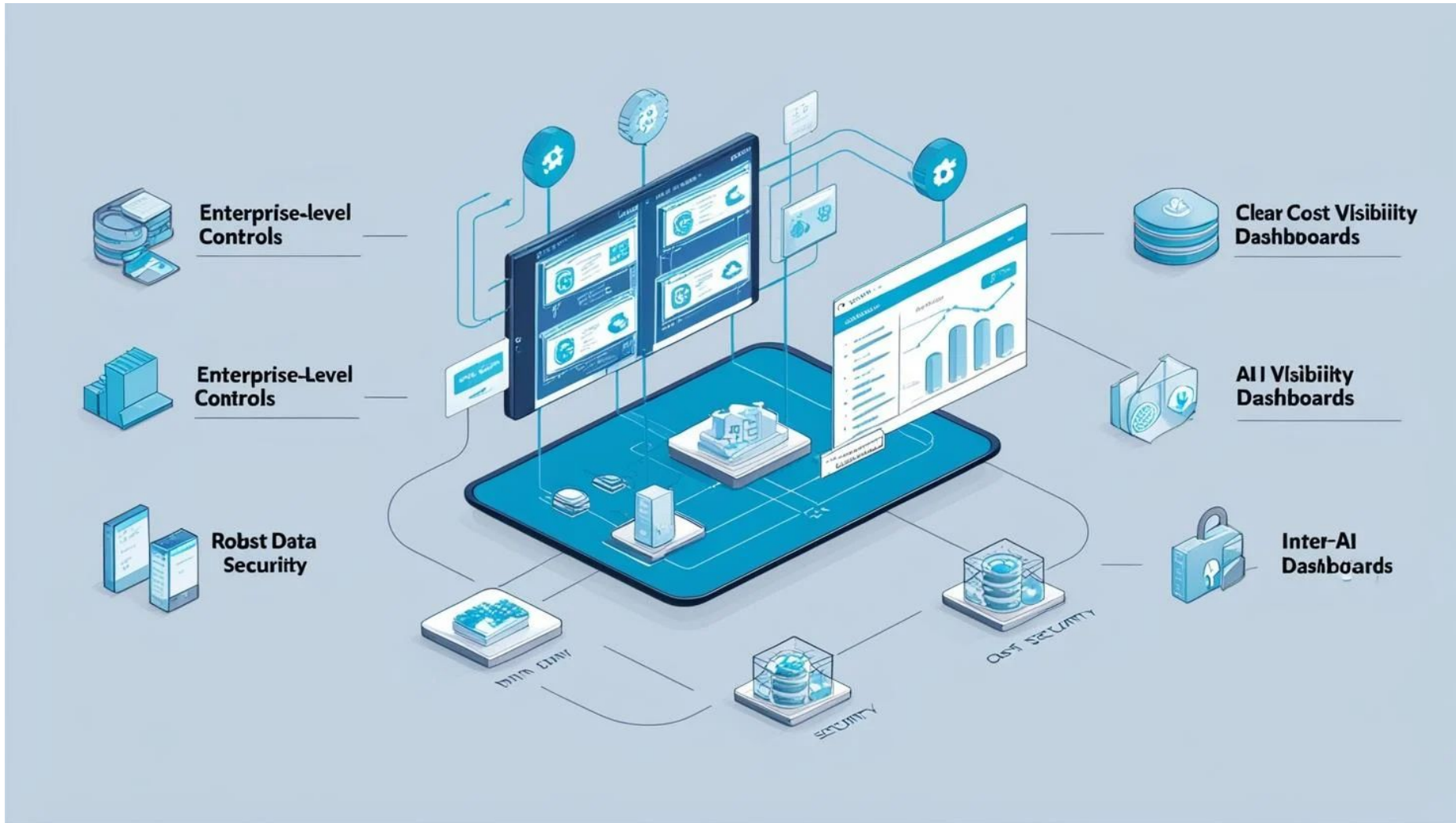
- EDB Solution for Sovereign AI

- Demo

Headwinds for enterprise GenAI success

Product Complexity

Management, Scale, and Agility

Data Control

Sovereignty and Security

Infrastructure Cost

Buy or Build

Business Pain

AI App

Why Sovereign AI?

Sovereign AI

PRODUCTION-READY AI APPLICATIONS WITH FULL CONTROL OVER DATA

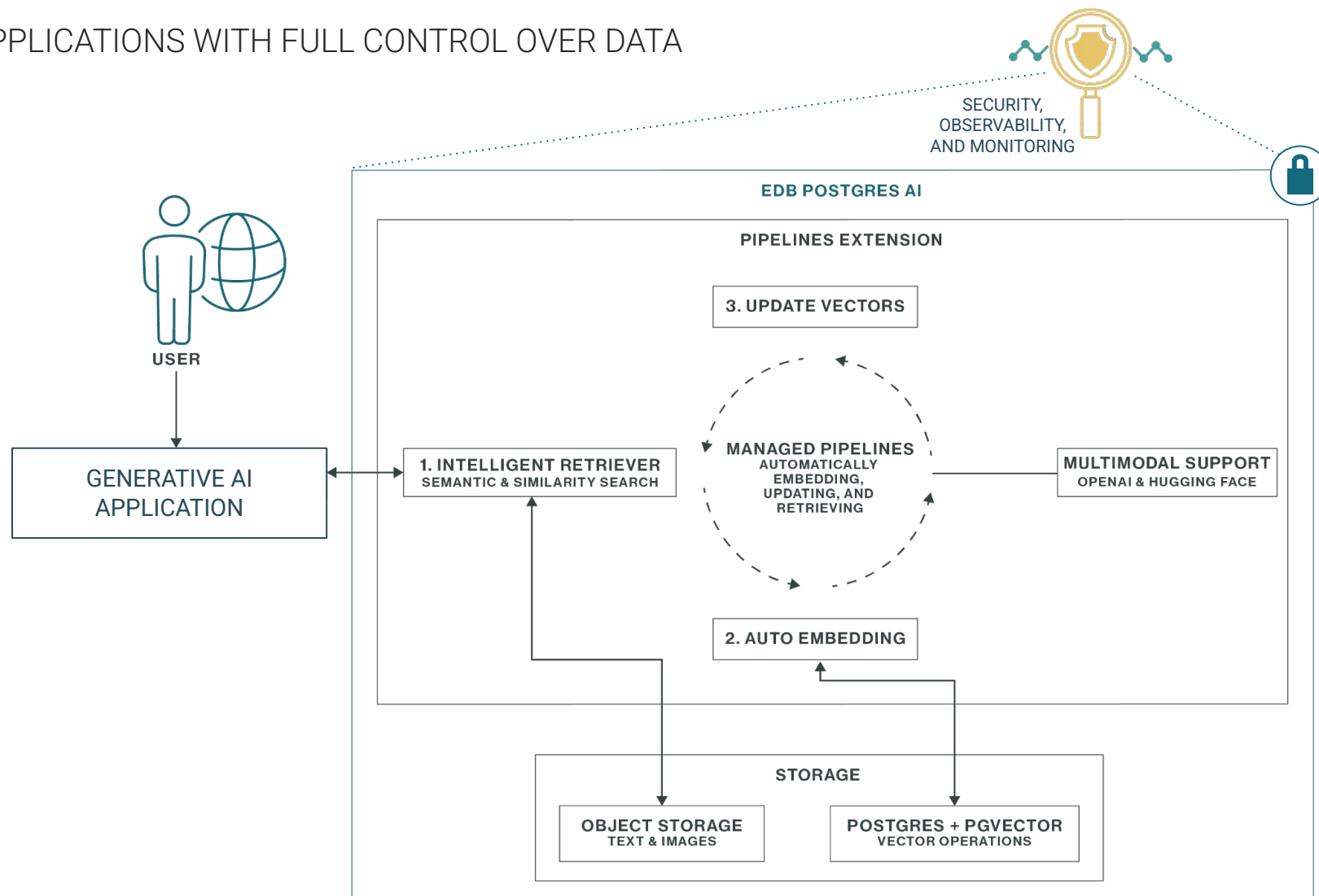SECURITY, OBSERVABILITY, AND MONITORING

Challenges

- AI governance
- Lack of control with cloud-based LLMs
- Speed-security tradeoff

EDB Postgres AI Solution »

Outcomes

- Faster time to market
- Multi-layered security
- 100% data control

USER

GENERATIVE AI APPLICATION

EDB POSTGRES AI

PIPELINES EXTENSION

3. UPDATE VECTORS

1. INTELLIGENT RETRIEVER
SEMANTIC & SIMILARITY SEARCH

MANAGED PIPELINES
AUTOMATICALLY EMBEDDING, UPDATING, AND RETRIEVING

MULTIMODAL SUPPORT
OPENAI & HUGGING FACE

2. AUTO EMBEDDING

STORAGE

OBJECT STORAGE
TEXT & IMAGES

POSTGRES + PGVECTOR
VECTOR OPERATIONS

Key features of our sovereign AI solution

- **Private AI environment**
  - Instead of exposing sensitive data to public cloud-based models, bring a wide range of models close to well-governed data in Postgres — enabling vector search and powerful GenAI inference applications with comprehensive observability and audit logging.
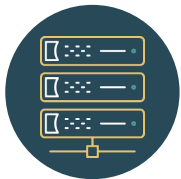
- **Deployment options**
  - Deploy sovereign AI anywhere across private infrastructure — in private data centers, VPC enclosures in the cloud, or hybrid.

- **Access control and encryption**
  - Protect business data with features such as role-based access control (RBAC), row-level security (RLS), and transparent data encryption (TDE).

- **Locally hosted open source models**
  - Open source AI models sit right alongside business data unified in a private Postgres environment, eliminating vendor lock-in and cloud access fees.

Demo

Structure

1. **Similarity Search Engine -** Similarity search to find semantic similarity among customer feedback.

2. **Chat Assistant** - Customer-facing product FAQ assistant based on RAG

3. **Multi-model Search Engine** - Search images based on text input

4. **Virtual Expert** - Conversational AI assistant that answers compliance related queries

Contact EDB
for a Personal Consultation

We're here to help you accelerate innovation without added complexity.

Contact us to discuss your organization's pain points and explore solutions.

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Continue your research:

Read this sovereign AI use case