EDB
Postgres for the AI Generation

Postgres for Enterprises: From Transactional Databases to Sovereign AI

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GKN Powder Metallurgy

- World leader of Powder Metallurgy
- Supplier for Automobile Industry
- Locations in Germany, Italy, USA, India, etc.
- 5000+ People

- Business:
  - Sintering (Sinter Metals)
  - Production of metal powders (Hoeganaes)
  - 3D Printing with Metal (Metal Additive Manufacturing)

POWDER METALLURGY

Migration to Postgres – Overview

- Initial situation
  - BI System designed by GKN itself
  - Development started 2005 and still ongoing
  - Divided on three Oracle Enterprise Databases and one Standard

- Reason to move
  - Last own designed Software on Oracle
  - Scope of functions
  - Cost efficiency
  - Support of Postgres Databases
  - Performance increase

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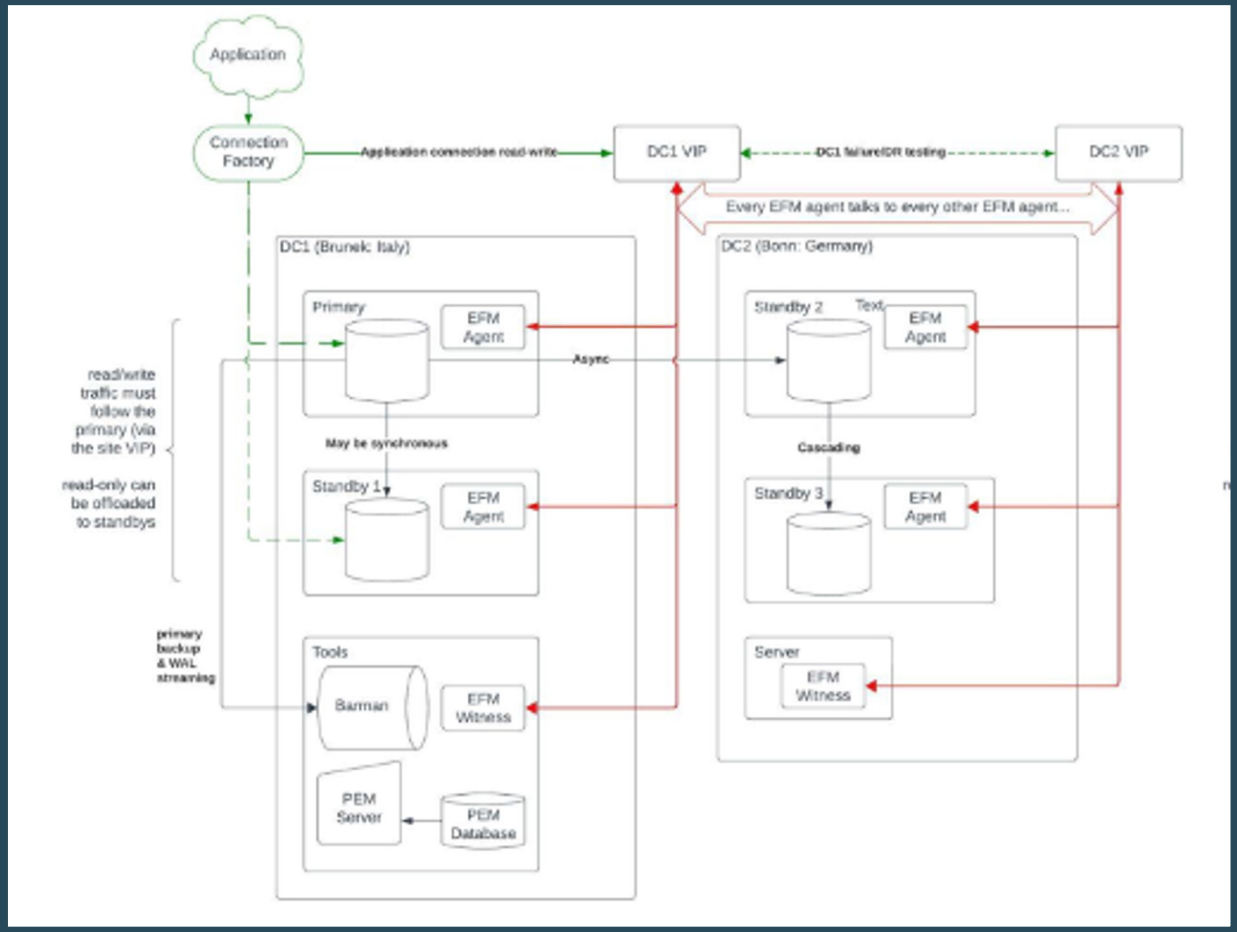
Migration to Postgres – Architecture



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Migration to Postgres – Next Step: AI

- Goal to **integrate AI into our daily processes**
- Reasons:
  - Make better use out of our Data
  - Automation
  - Efficiency
  - Etc.

- **Why work together with EDB:**
  - AI Platform on premise
  - Good experience in collaboration

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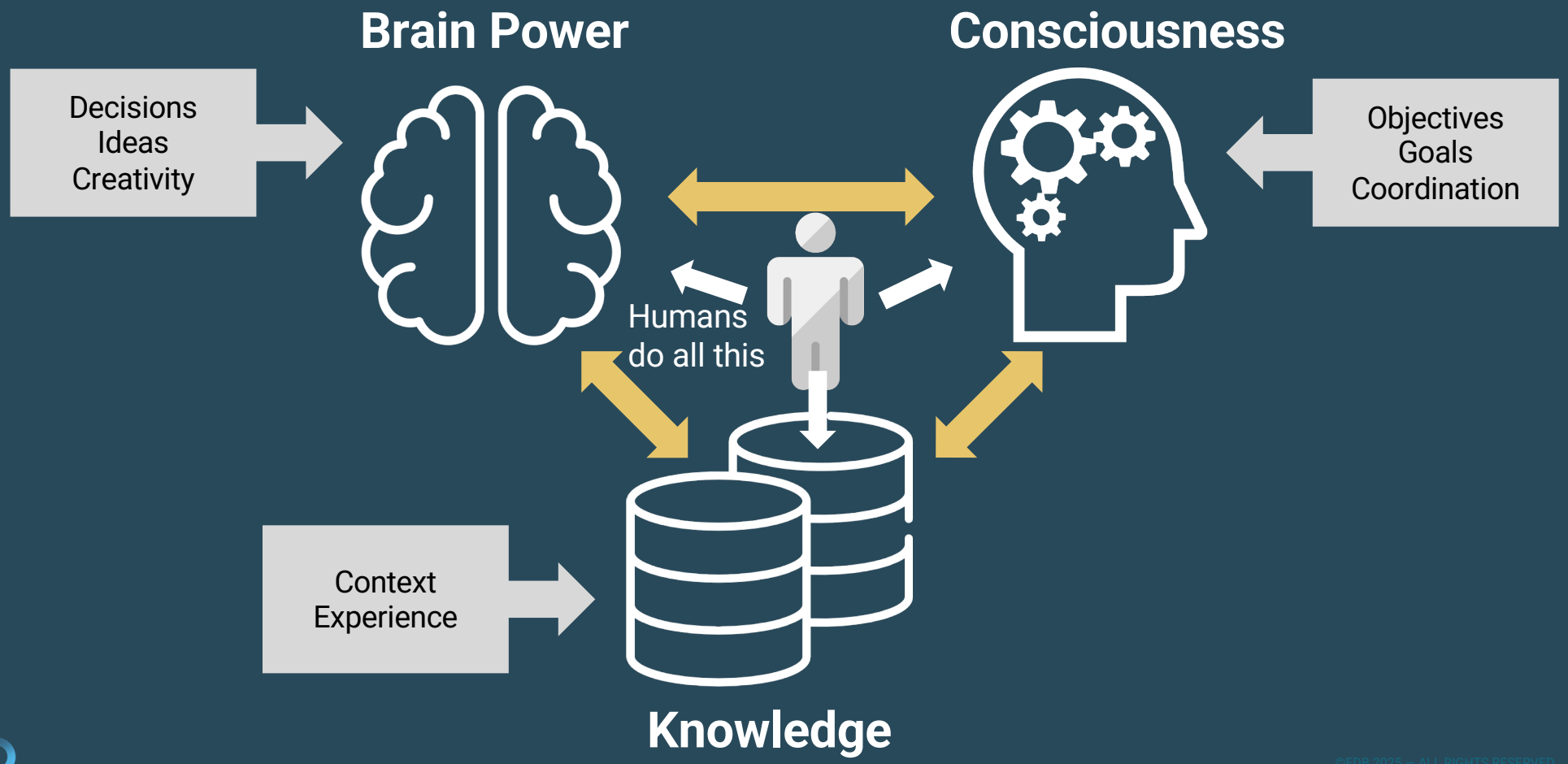
Human Intelligence



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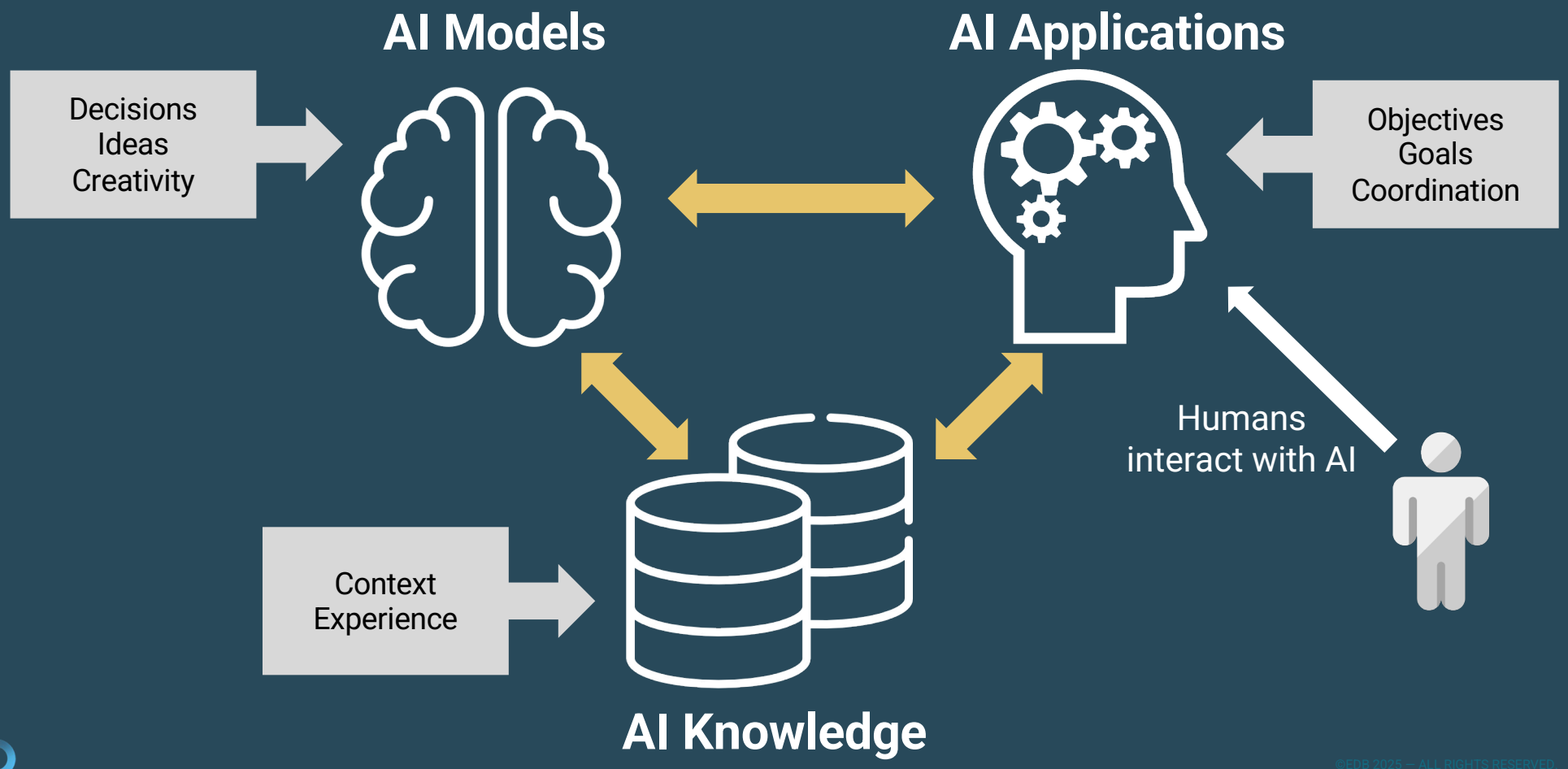
Artificial Intelligence



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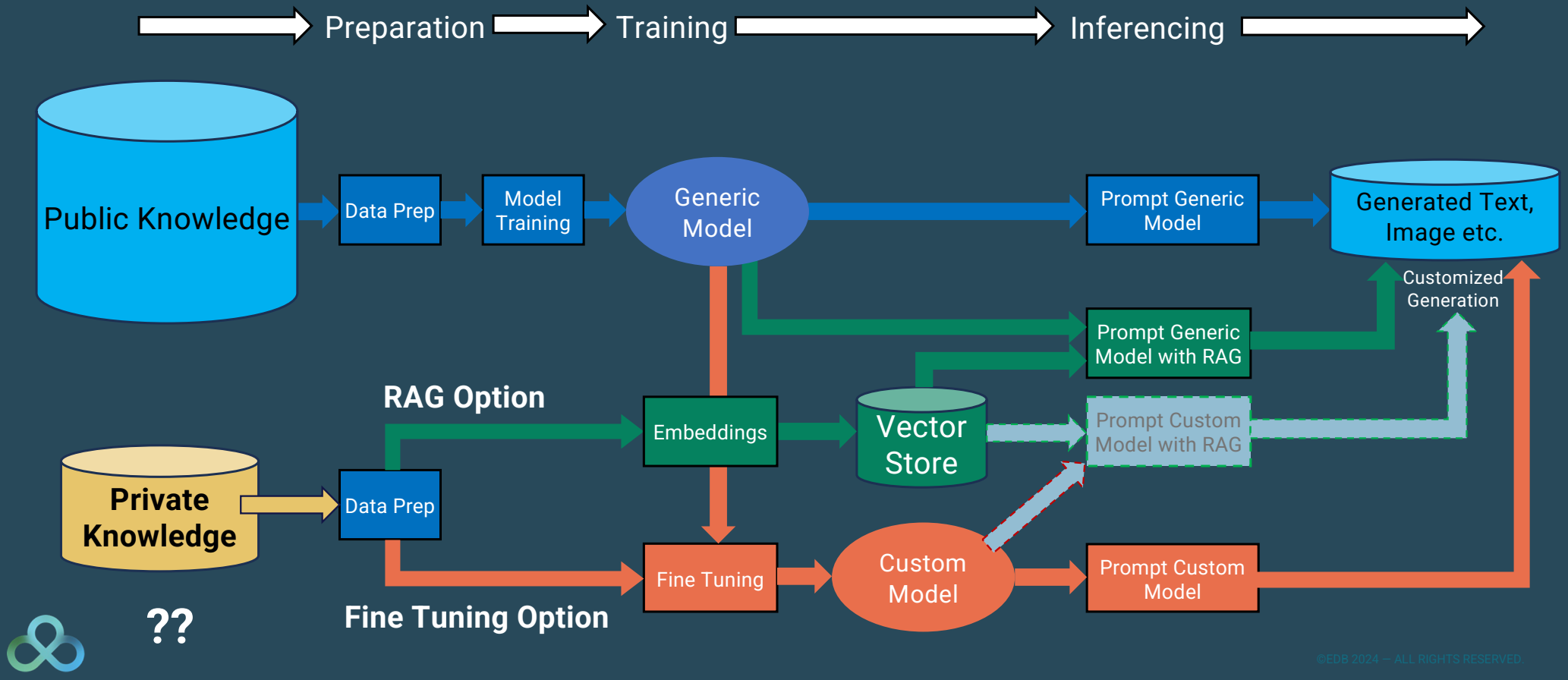
AI and Your Private Knowledge

Front-loading Data vs Tail-loading Data – **Fine-tuning vs. RAG**



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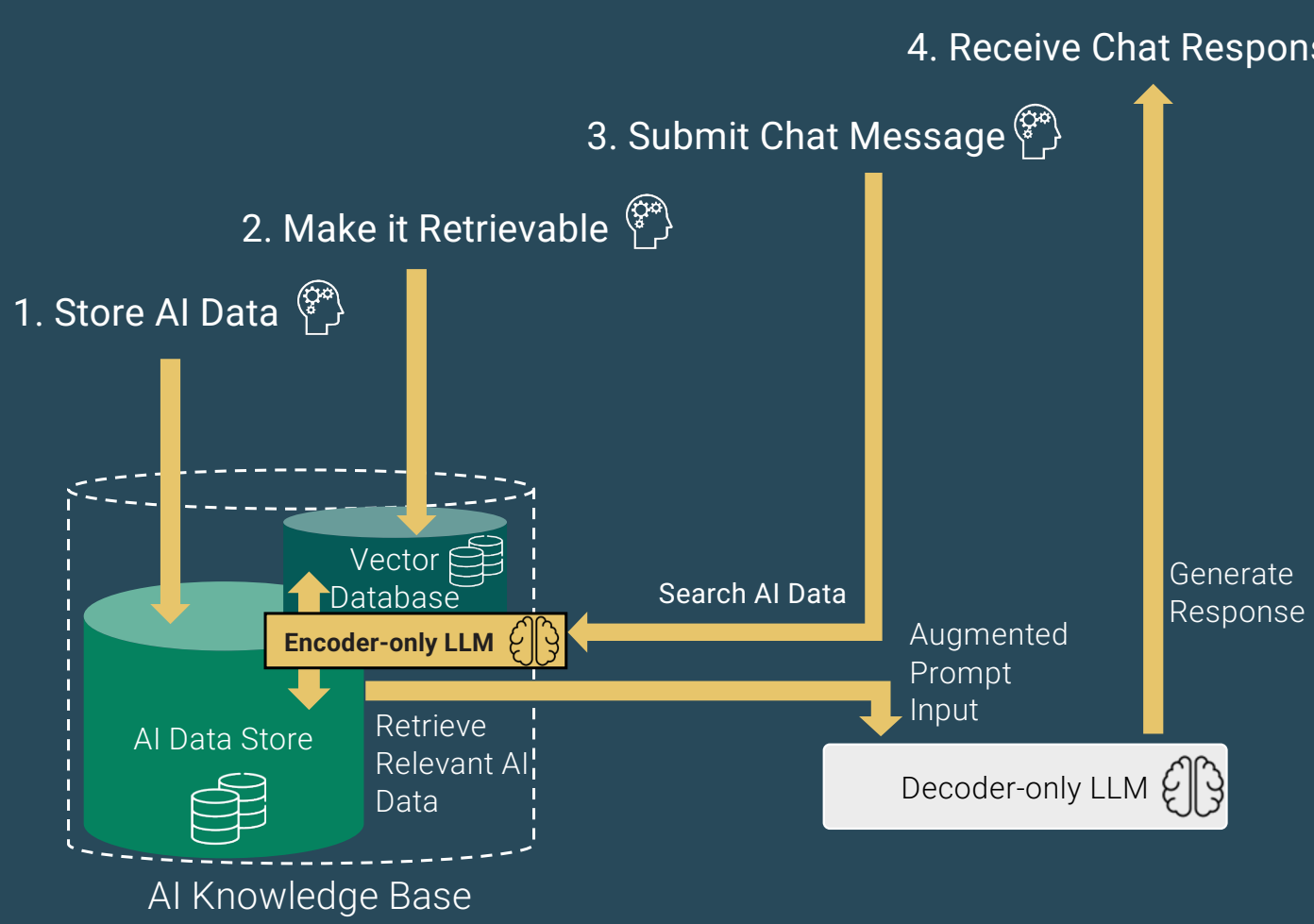
Chat Bots – The Omnipresent Gen AI Application



A.k.a.:
Retrieval
Augmented
Generation
= **RAG**

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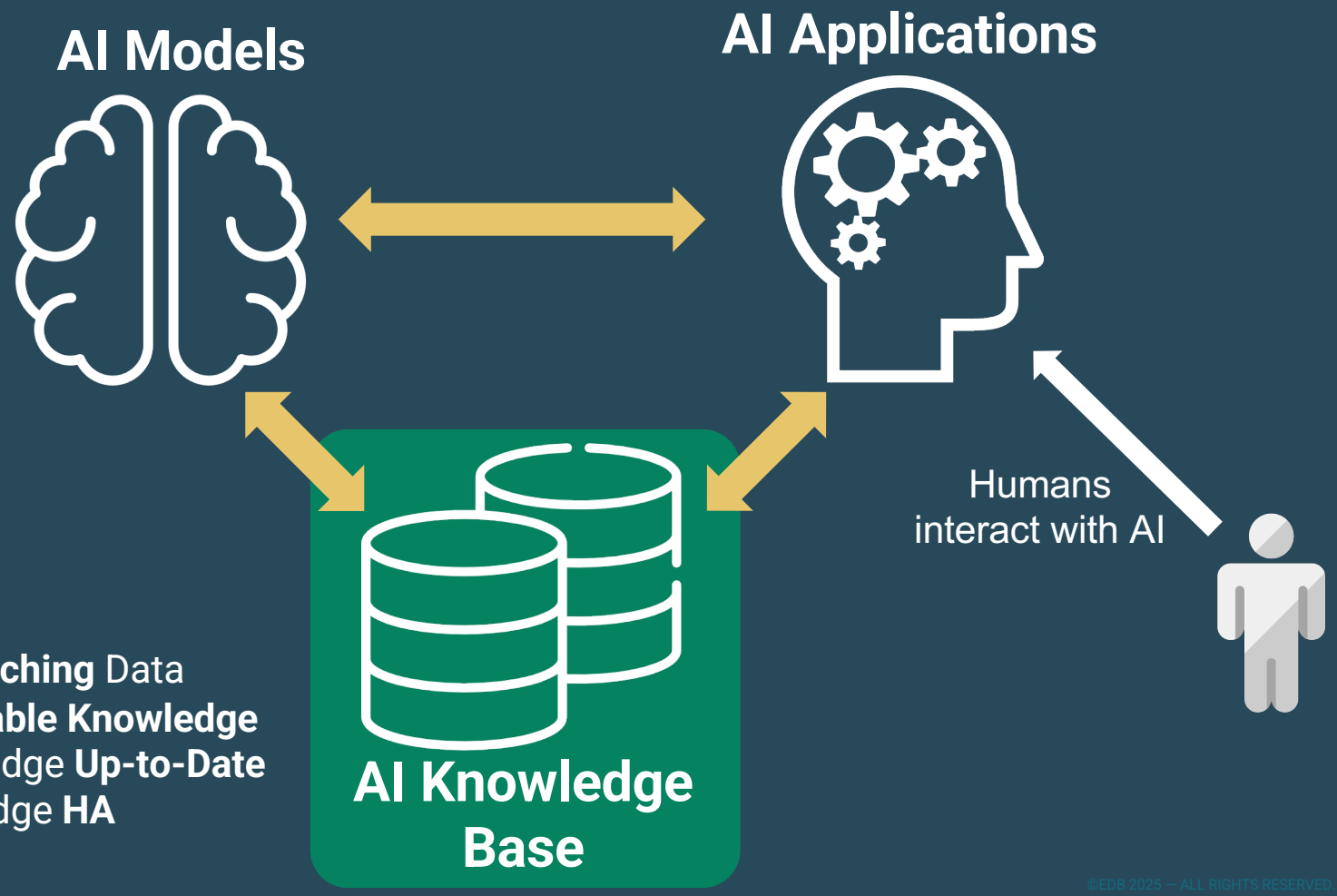
AI Knowledge = A Database's Job



- **Storing** Data
- **Preparing** Data
- **Indexing & Searching** Data
- Data to **Retrievable Knowledge**
- Keeping Knowledge **Up-to-Date**
- Making Knowledge **HA**

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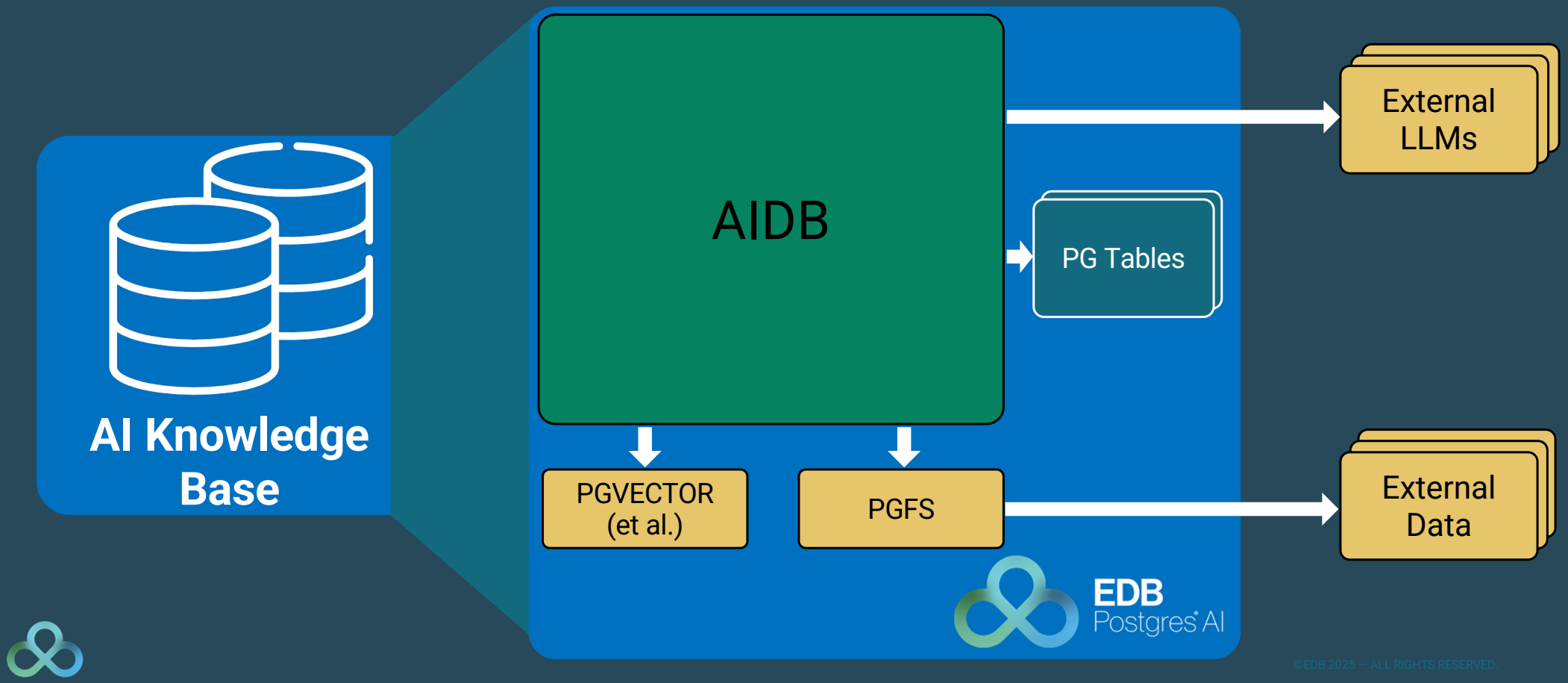
AI Knowledge Base – EDB Summary



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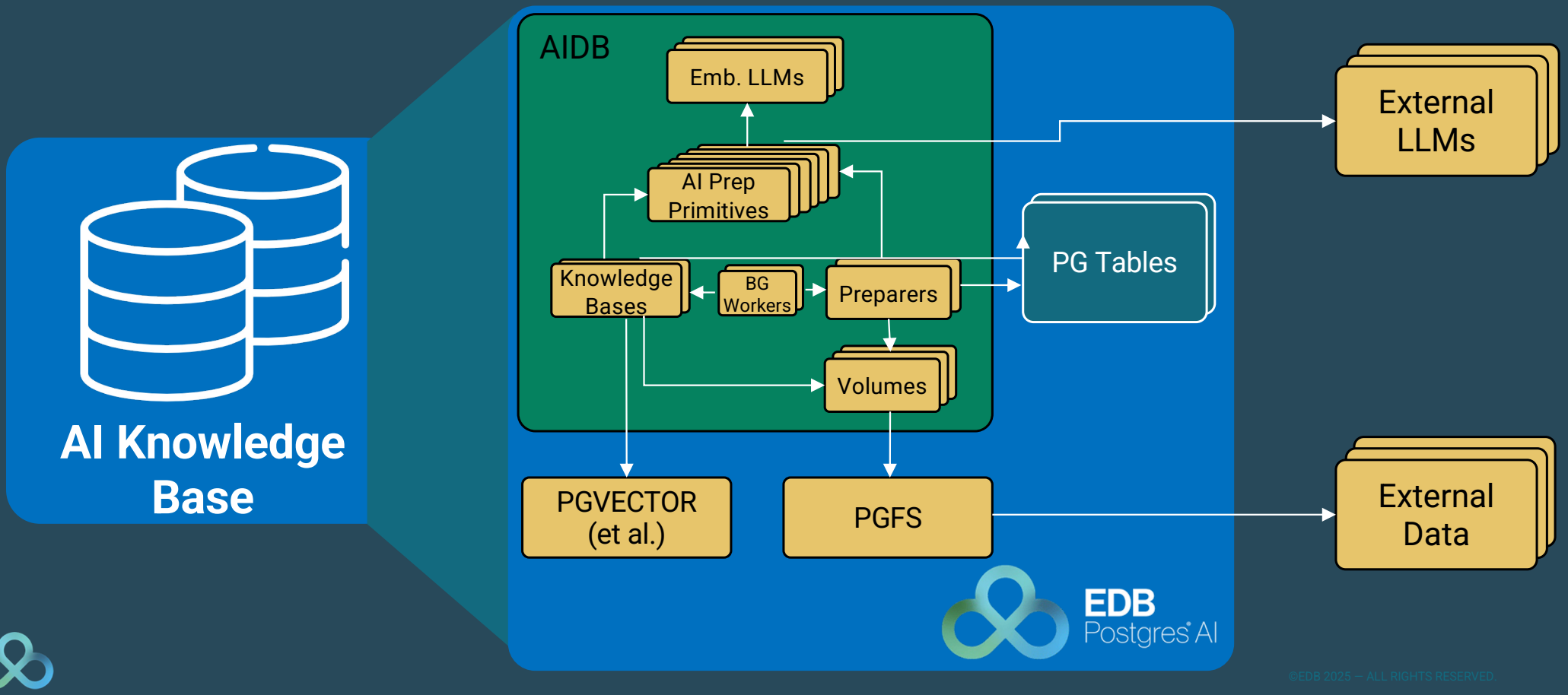
AI Knowledge Base – EDB Summary



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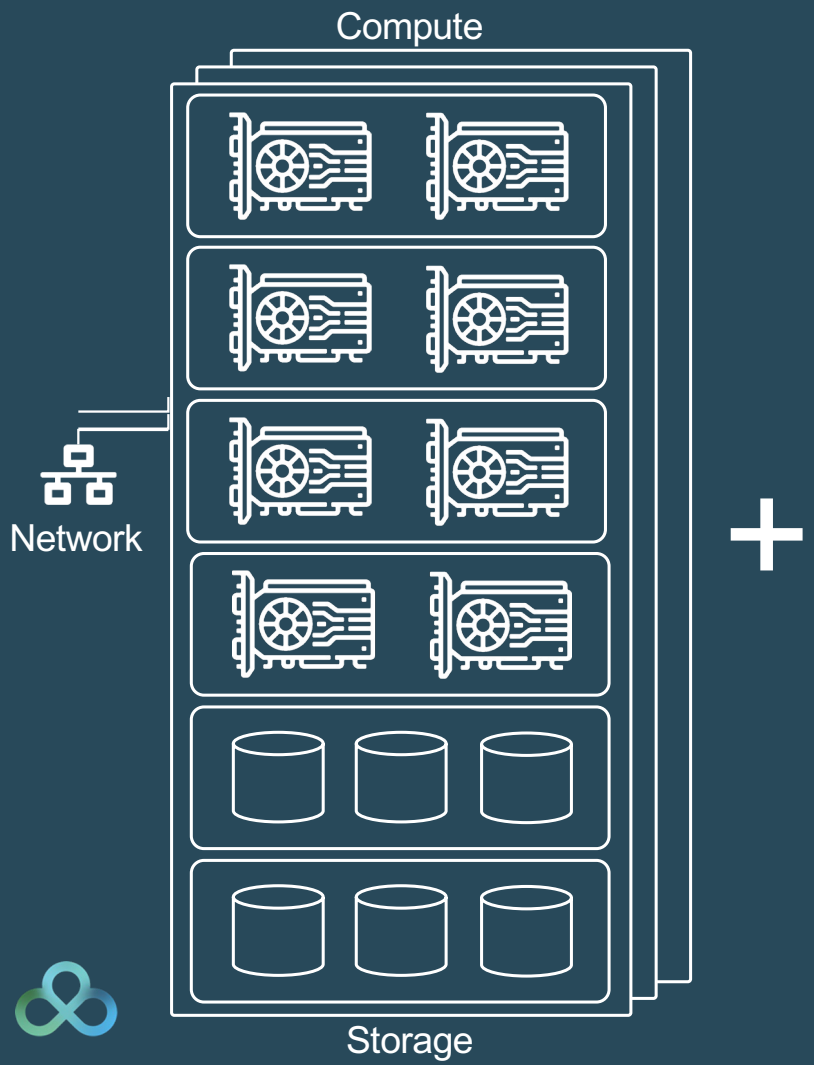
AI Factory



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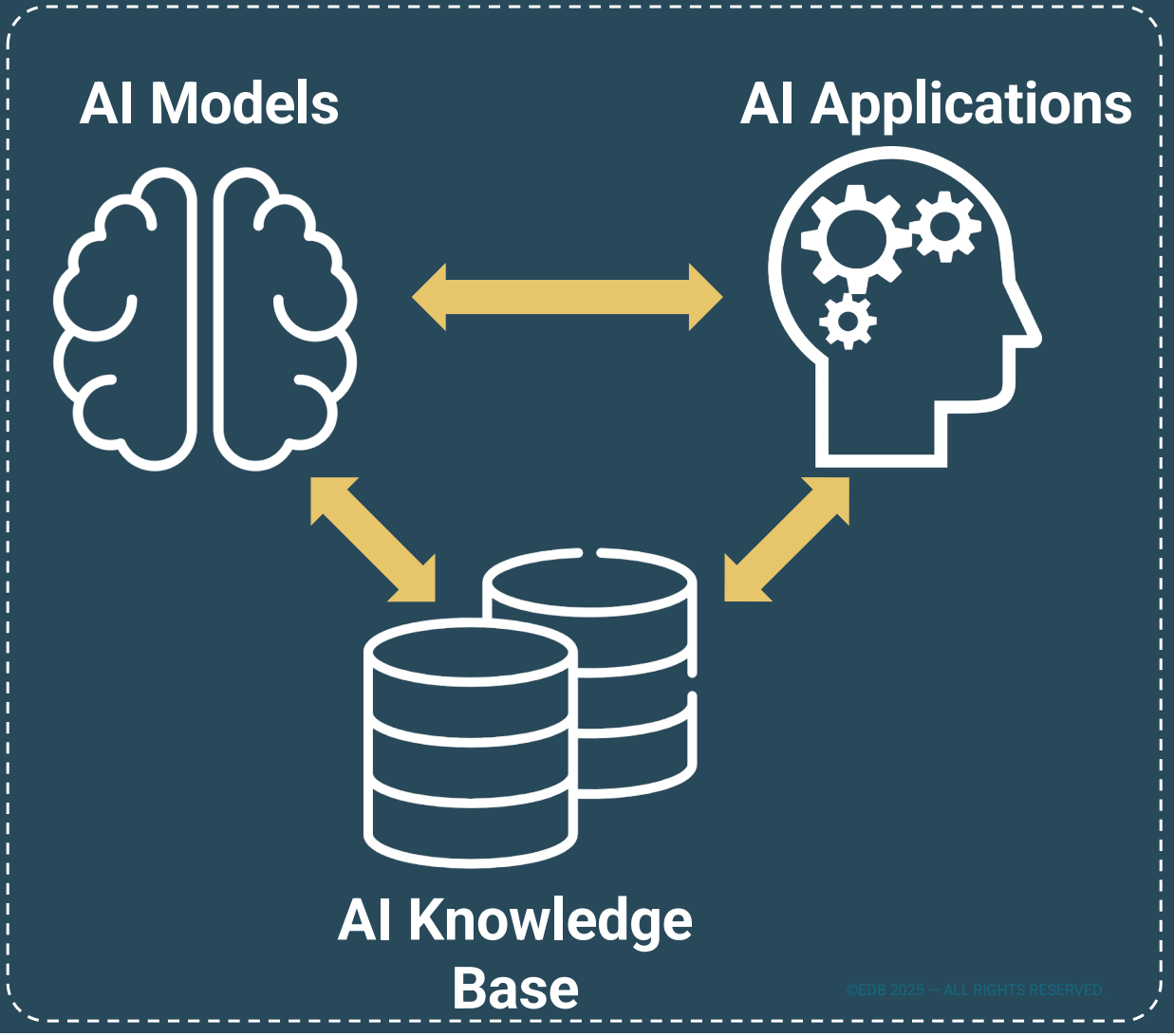
THIS is the **Software Stack of an AI Factory**



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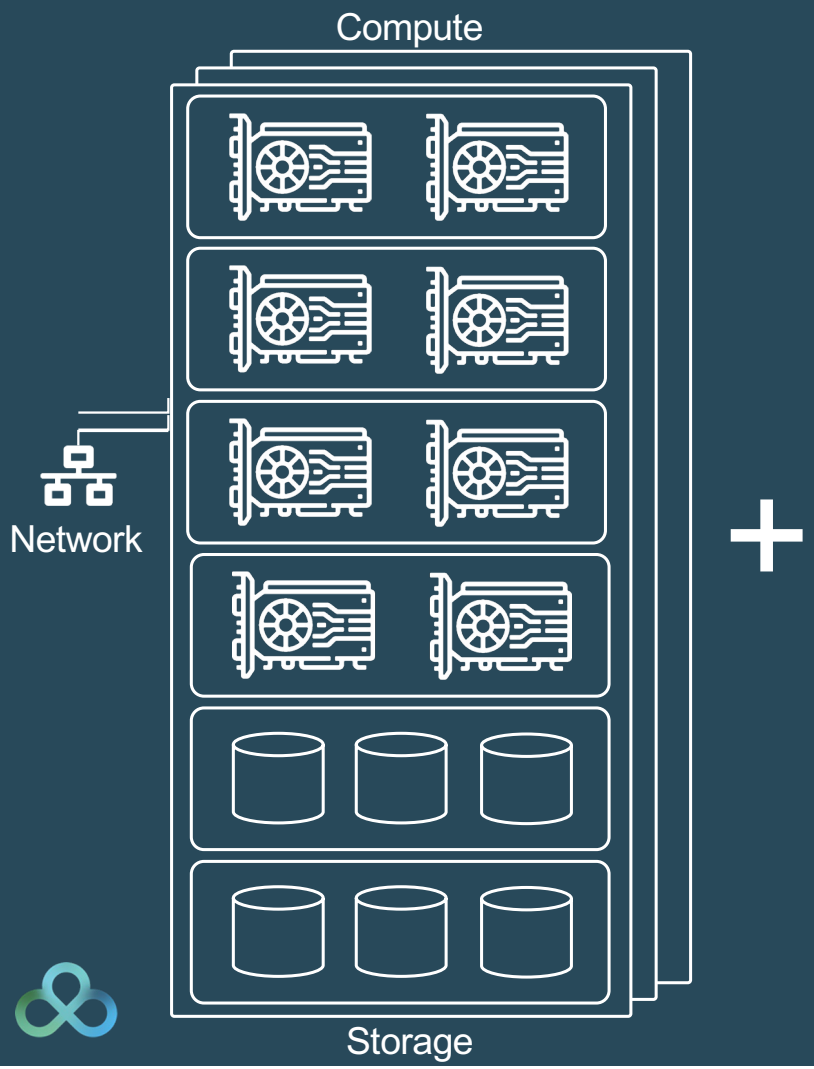
EDB AI Factory

Demo

= Sovereign AI: Run a Complete AI stack ANYWHERE



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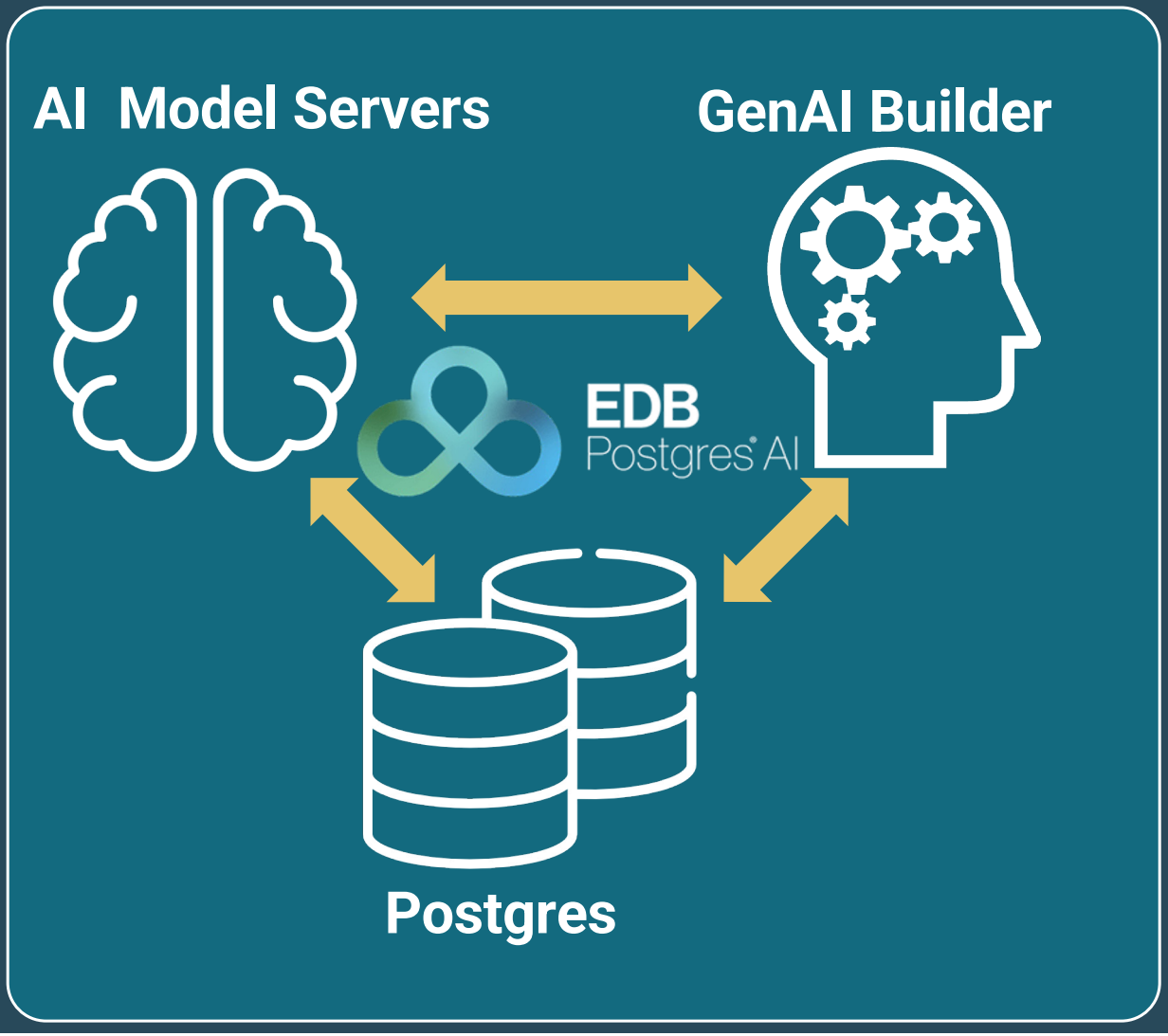

Something Big Is Coming

June 17, 2025 | 11 AM CEST

Meet the Future of Postgres® and AI

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