



Speaker Details

**Shan
Muthvelu**

CEO, UCBS, Inc.

Automate your Business Instincts : From **Data to Foresight**

Targeted Business Outcomes @100X Speed

No-Code: The Smarter Route to Business Intelligence

UCBS Confidential

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About me



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- **28+ years** of global experience in supply chain transformation, enterprise technology, and digital innovation
- **Founder of UCBOs**, pioneering **Zero-code** enterprise innovation through the **AI-powered Karolium** platform
- **Guided** large-scale transformation programs for **Fortune 500 enterprises**, redefining agility, intelligence, and digital ecosystems
- **Karolium** enables enterprises to deliver strategic outcomes up to **10× faster**, driving complex customer-centric solutions without coding
- **Entrepreneur and investor**, shaping next-generation enterprise platforms and digital ecosystems
- **President of a global systems integrator** recognized by **Gartner & IDC**, transforming enterprise digital footprints through innovative supply chains, ERP/SCM architectures, and AI-powered supply chain ecosystems.

The Hidden Cost of Asset Failures in Modern Manufacturing

Unplanned Downtime

Unexpected equipment failures continue to disrupt manufacturing operations, causing production delays and significant financial losses.



\$50B lost annually to downtime; Automotive lines can lose **\$2.3M** per hour.

SIEMENS



Lack of Asset Health Visibility

Manufacturers are "**Data Rich but Insight Poor**," generating massive shop-floor signals that never reach decision-makers.



66% of manufacturing leaders cite a lack of shop-floor-to-strategy integration as their top challenge through 2026, leaving critical assets unmonitored.

Gartner



Reactive Maintenance

Run-to-failure models are now **3-4x more expensive** than predictive ones due to rising parts costs and labor shortages.



Moving to Predictive Maintenance cuts unplanned downtime by **30-50%** and slashes overall maintenance costs by up to **30%**.

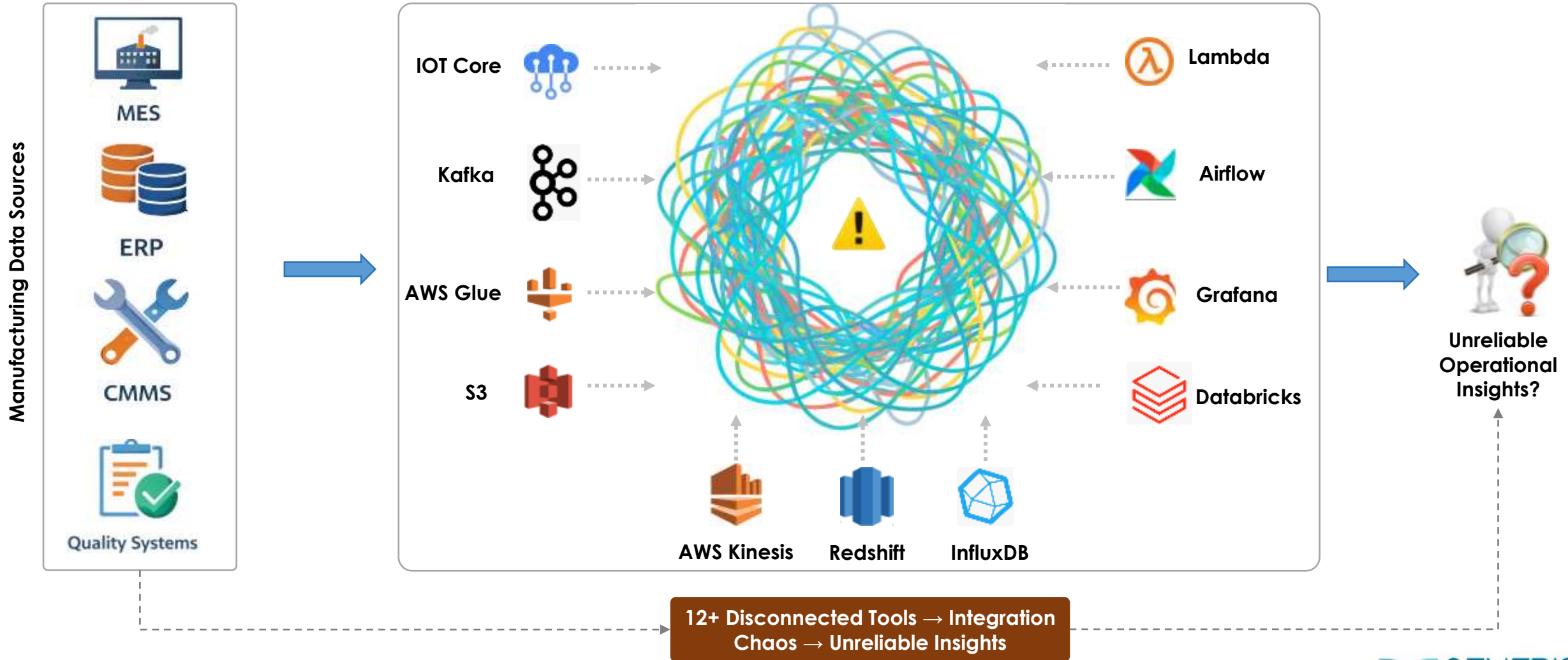
Deloitte



Together, these challenges create the Foresight Gap in Modern Operations

Why Achieving Foresight Is So Complex ? Too Many Tools - (Tool Spaghetti)

Modern AI requires many disconnected tools, making foresight slow and fragile



Why Achieving Foresight Is So Complex ?

Complex & Fragile Architecture

Disconnected tools stitched together with custom scripts create an unstable, break-prone architecture.



What Creates the Fragility ?

- Too many tools wired together manually
- Data, AI, ML, and IoT stacks operating in silos
- Heavy reliance on custom scripts and brittle integrations
- Every change breaks something downstream



Where Complexity Builds Up ?

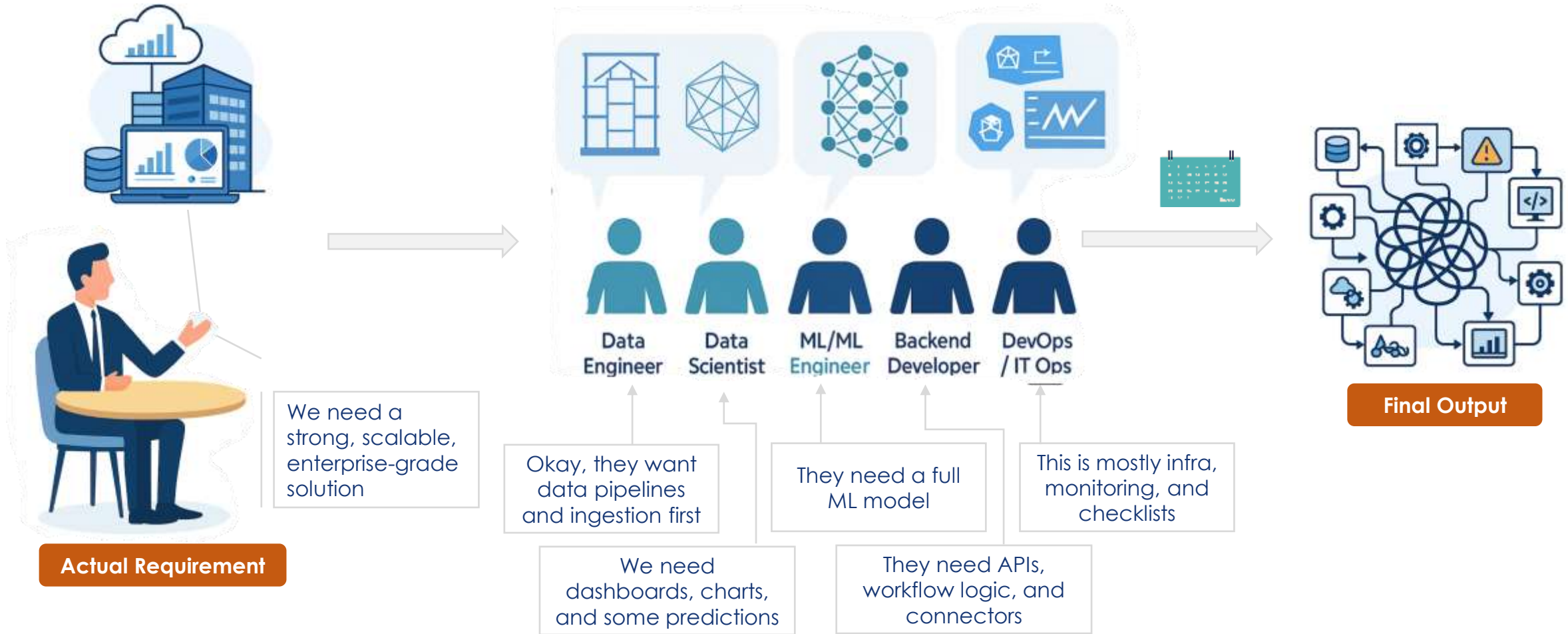
- API and ETL pipelines
- Data orchestration and workflow maintenance
- Dashboard & pipeline upkeep
- ML deployment friction
- Cross-team handoff delays

The Architecture becomes so fragile that even small changes cause major disruptions.

Why Achieving Foresight Is So Complex ?

Too Many Specialized Teams Required

Achieving operational foresight today requires 6–7 niche roles — making it slow, expensive, and unrealistic for most organizations.

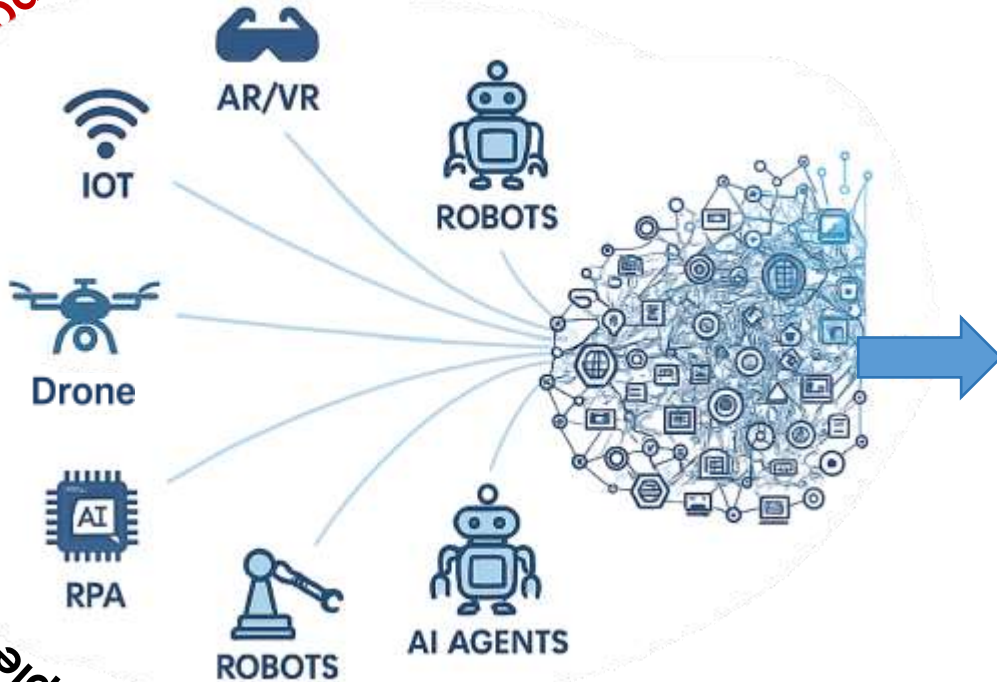


Emerging Trends Adding to the Complexity

High Cost & Long Time to Value

Modern AI requires many disconnected tools, making foresight slow and fragile

Multiple New Technologies → Multiple Data Islands

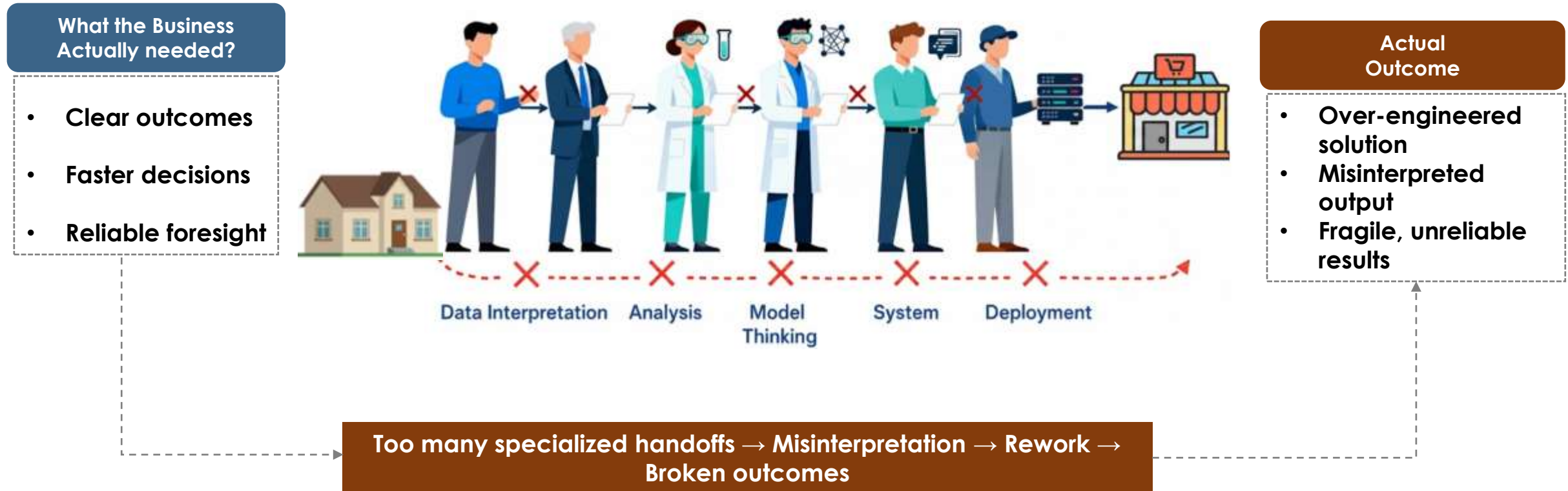


Business Impact of Disconnected Tools

- Slow & Delayed Insights
- High Cost to Maintain Pipelines
- Frequent Breakdowns
- Manual Rework Required
- Low Trust in AI/ML Outcomes

Emerging Trends Adding to the Complexity Operational Burden on Specialized People

Modern AI requires many disconnected tools, making foresight slow and fragile — and every handoff between specialists increases misinterpretation



Emerging Trends Adding to the Complexity

Increasing Integration Pressure

Every new technology trend adds yet another moving part to an already overloaded enterprise architecture

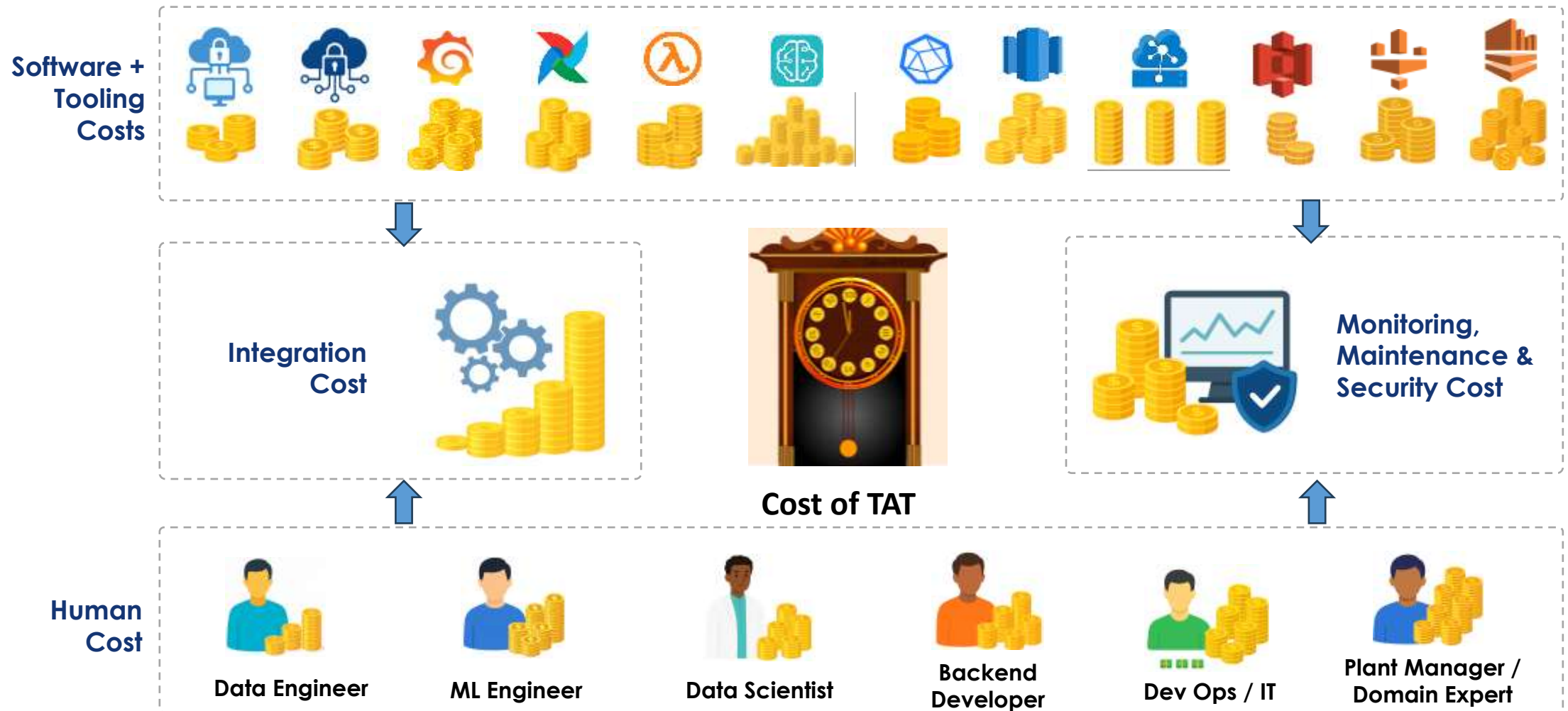
As organizations adopt IoT platforms, real-time streaming engines, ML pipelines, edge computing, cloud storage layers, and DevOps automation tools, the integration footprint expands exponentially.



The result?

- Higher operational overhead
- More system fragmentation
- More data pipelines to maintain
- More security surfaces to protect
- More cross-platform dependencies

The Real Cost of Building Foresight

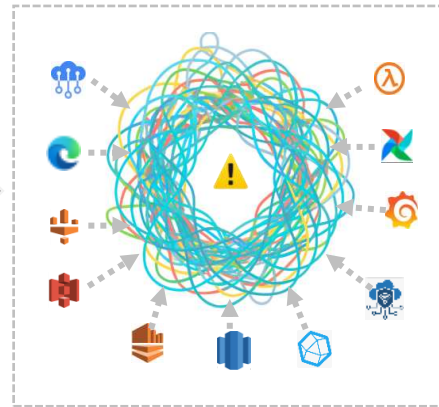


The Gap Between Technology and the Actual End User

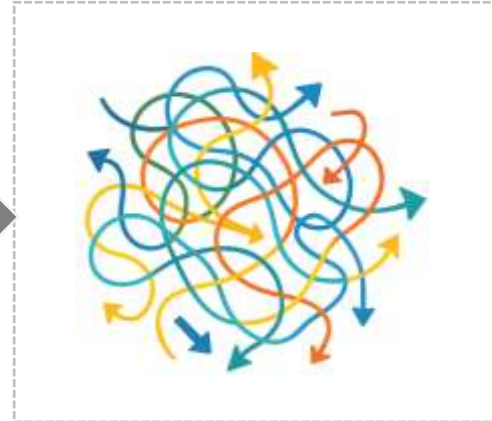
Actual Requirement



Tool Spaghetti



Integration Chaos



Why Traditional Approaches Fail

- Fragile tool chains
- Slow integrations
- High human dependency
- Needs constantly shifting
- Actual outcomes misaligned

The Real Gap 🤝

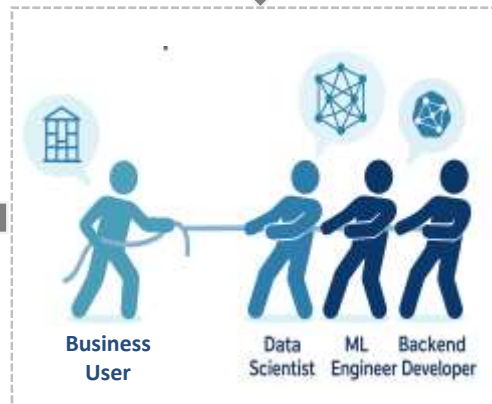
- Functional requirement gets diluted as it moves through multiple technical layers
- Technical spikes force compromises → loss of original functionality
- Final solution ends up technology-driven instead of functional-driven



The final output no longer fits the real operational need - delays, cost, and coordination have shifted the requirement



Market Condition Changed



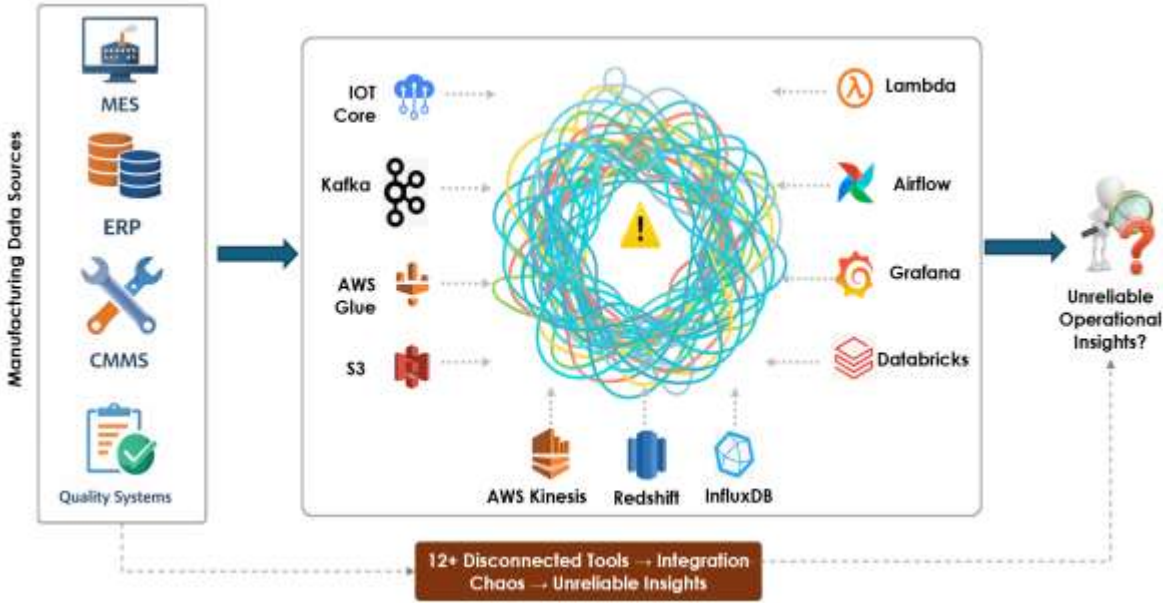
Technical Vs Functional Tug of War

Introducing Karolium

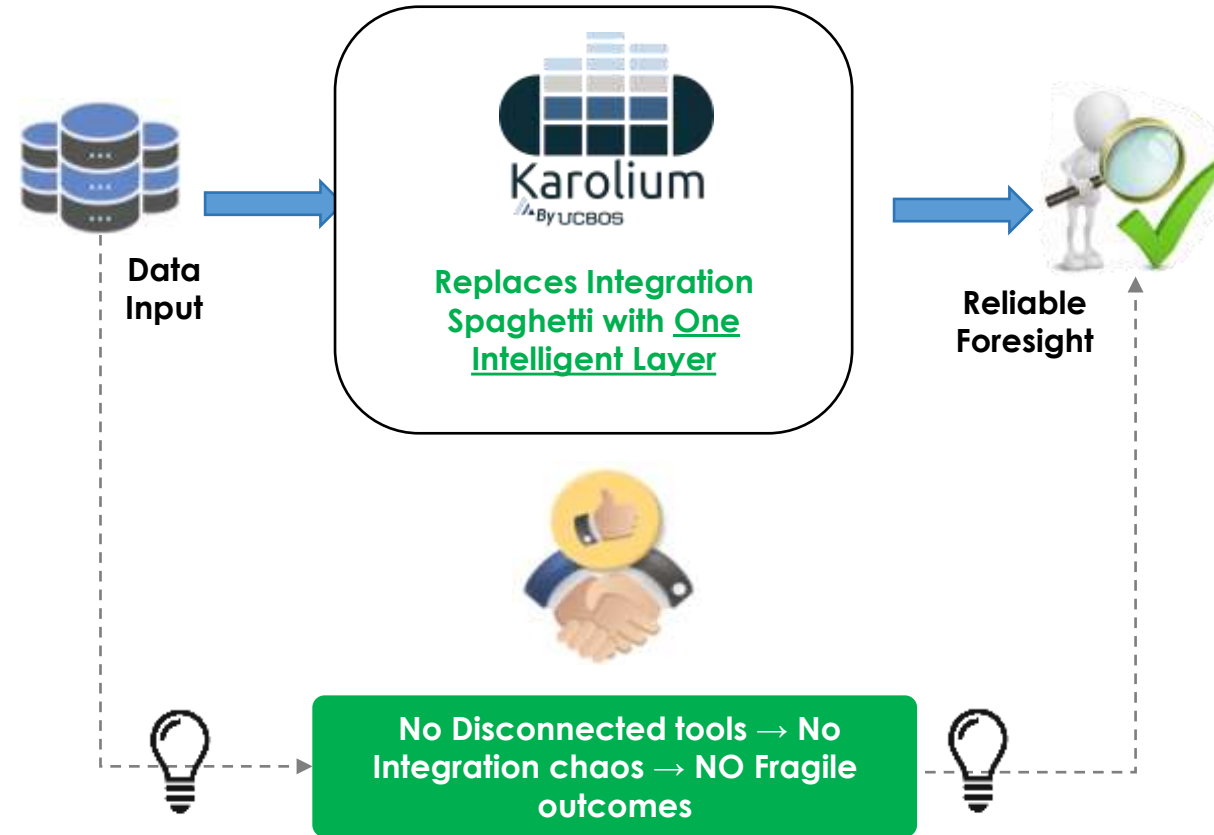
A Unified Low-Code / No-Code Platform for Foresight



Before Karolium



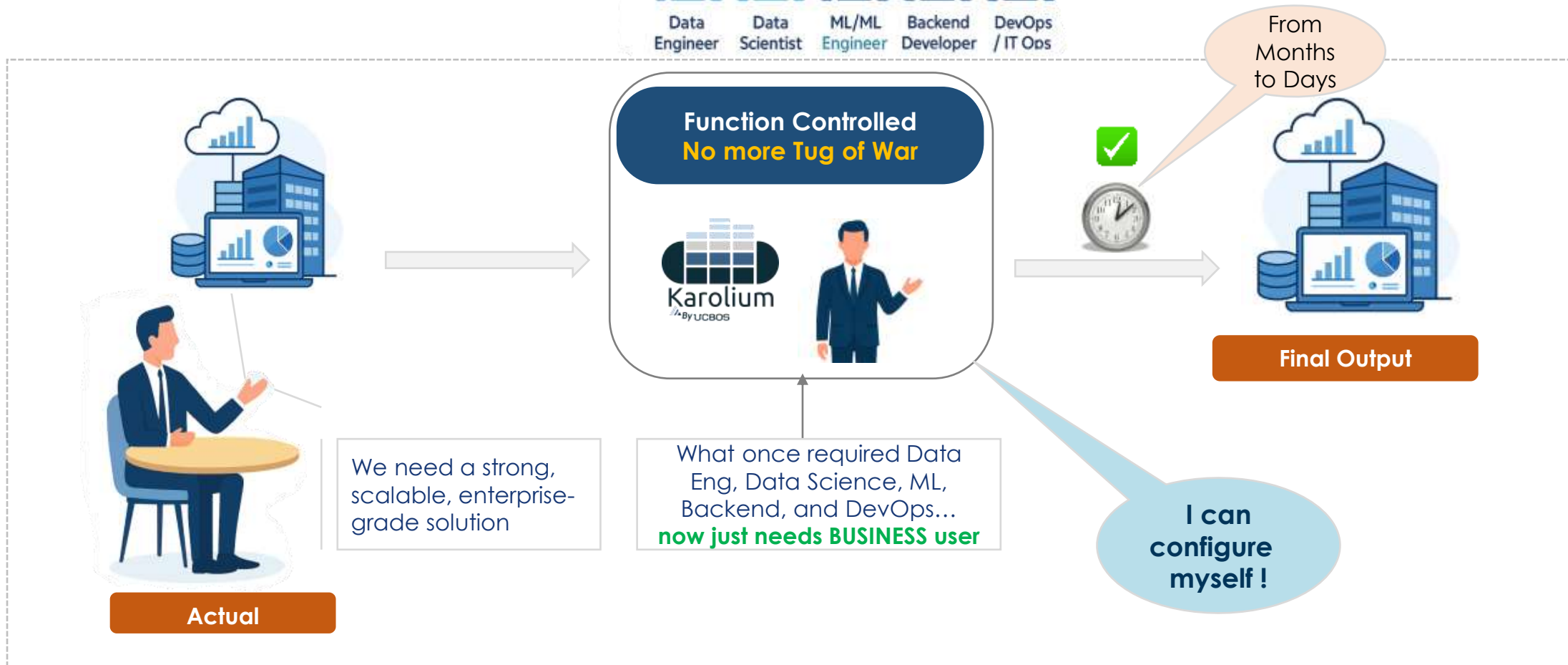
After Karolium



One platform. Zero chaos. Reliable foresight.

Introducing Karolium

A Unified Low-Code / No-Code Platform for Foresight



Codeless Solutions Enabling Total Client Ownership



A unified platform delivers pre-built technology pillars, empowering IT teams to compose flexible solutions tailored to enterprise requirements

Technology Solutions

iPaaS

Middleware Framework

oPaaS

Orchestration Framework

aPaaS

Solution Composition Framework

AI PaaS

Artificial Intelligence & Machine Learning Framework

Business Solutions

Value Chain Solutions

Supply Chain Operations & Planning,
Supply Chain Execution

AI Infused Supply Chain Solutions

Predictive & Prescriptive Apps

Overarching Platform - Modernization Enabler

ERP Augmentation, Multi-Enterprise
Collaboration

Codeless
Application Builder

aPaaS,
iPaaS & oPaaS,
AI PaaS

100%

Flexibility on personalizing

- Data Model
- User Interface Personalization
- Business Strategies
- Integration and Orchestration
- Personalized Analytics and Insights

Empower IT: Flexible, Unified Enterprise Platform

Augment Core Solutions with Customer-Centric Features or
Build Your Own Solutions

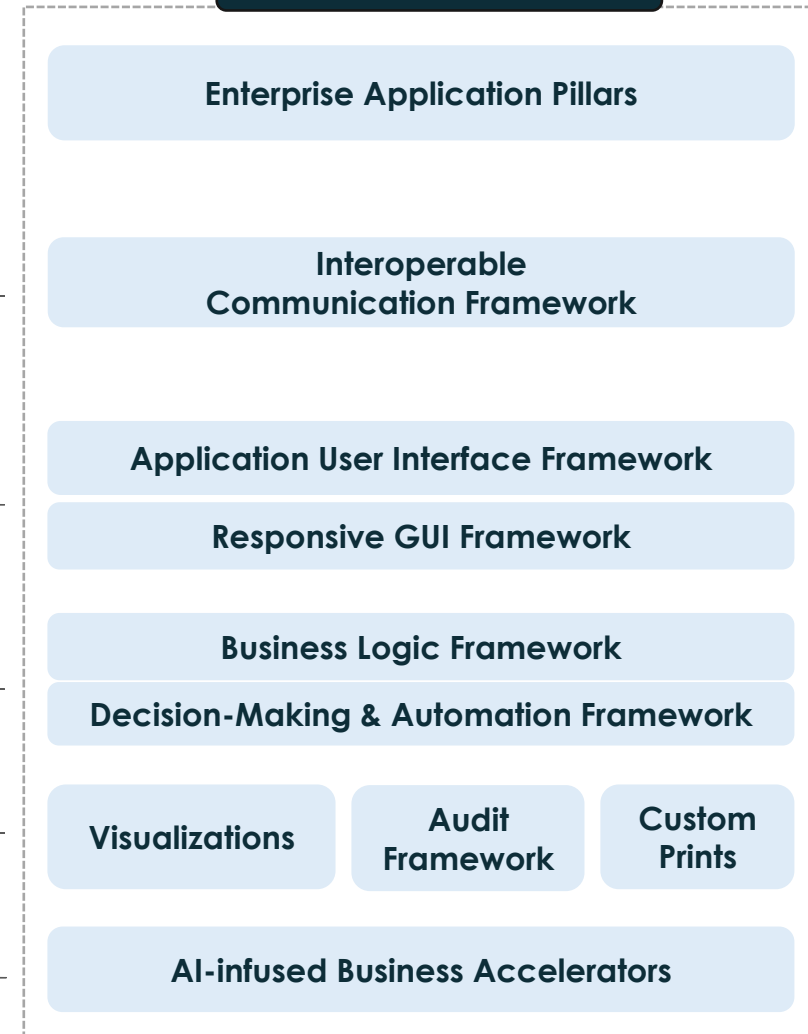
Karolium Codeless Composition Enablers



PLATFORM SERVICES

Company	Authentications	Secret Manager	Base Functions	Param Set Config
Business Unit	Hierarchies	Multi-Tenant	Roles & Permissions	User Personalization
Schema Definitions	Cross-Schema Linkage	Communication Protocols	Transformation Layer	Optical Character Recognition
Smart Integration	Implicit Semantics			
Data Service	Tablet Forms	Mobile Forms	Widgets & Dashboards	Master Planner
Custom Buttons				
Pre & Post Validation Rule	Workflow Automation	Inventory	Tasking and Scheduler	
Advanced Analytics	Transaction Audit	Label Designers	Report Designers	
xAI	Data Prep & Wrangling	Drivers & Optimizers	AIML Modelers	

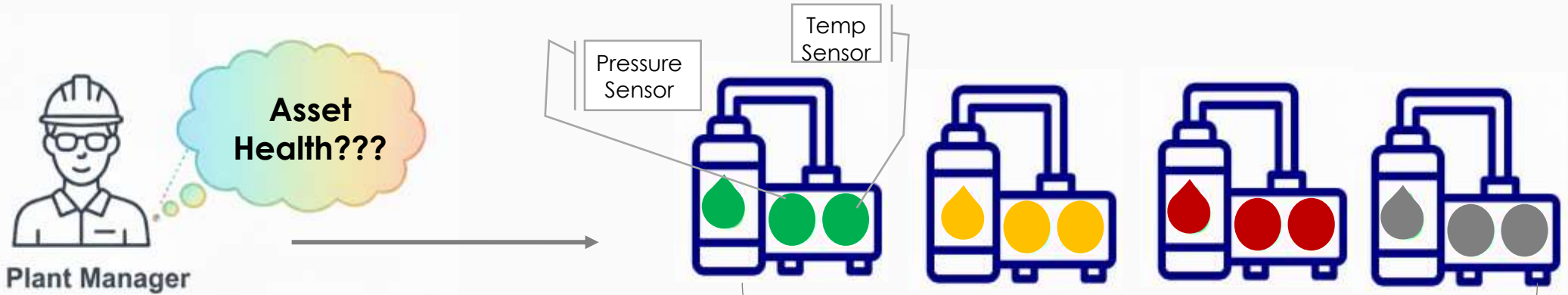
PLATFORM ENABLERS



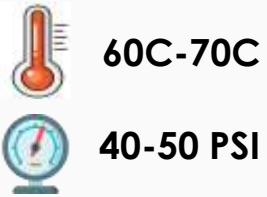
Businesses using our codeless platform services can achieve **outcomes spanning Enterprise Standard Business-Centric Solutions, collaborative efforts across multiple enterprises, AI-driven business simulations, and AI-enhanced analytics and insights.**



Demo: Experience the Power of Automated Foresight

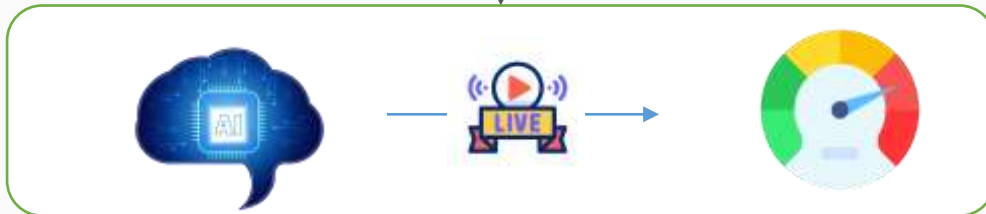


Anomaly Condition



Failure Probability

More than **21000**
Anomaly
detections per hour



Karolium
Training



Data
Engineer



Data
Scientist



ML/ML
Engineer



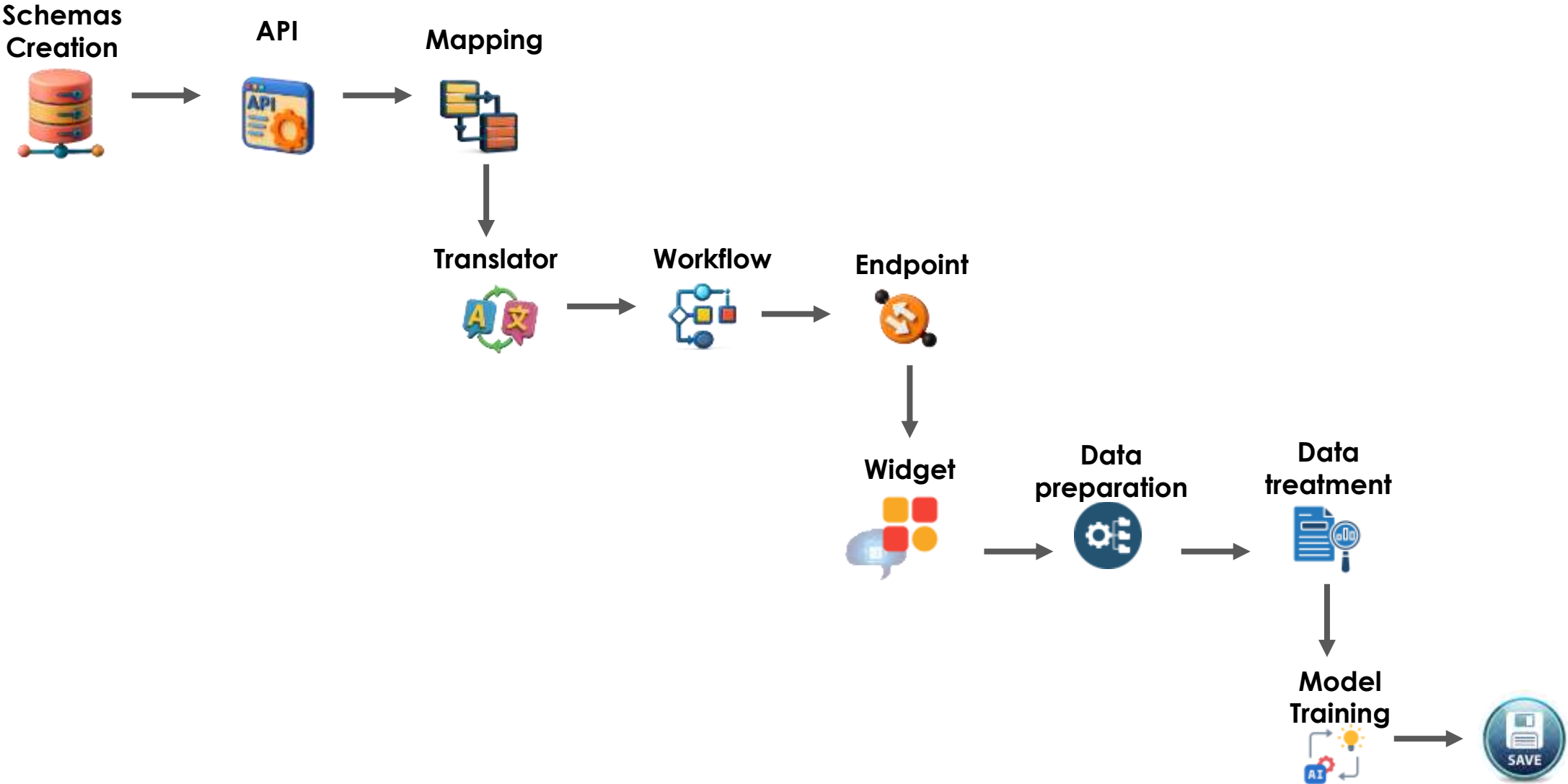
Backend
Developer



DevOps
/ IT Ops



End-to-End Karolium Data Orchestration Flow



Development Video



A screenshot of a web application interface. At the top left is the Karolium logo. To its right is a search bar with the text "Sandbox" and "Search" and a magnifying glass icon. Further right are several utility icons: a square with a plus sign, a book icon, a bell icon with a red notification dot, a question mark icon, a gear icon, and a GA icon. Below the search bar are two main cards. The first card is titled "Base Configs" and features a plus sign and a small icon. The second card is titled "Intelligent Asset Module" and features a blue robot icon. The main content area below these cards is a large, empty light blue rectangle.

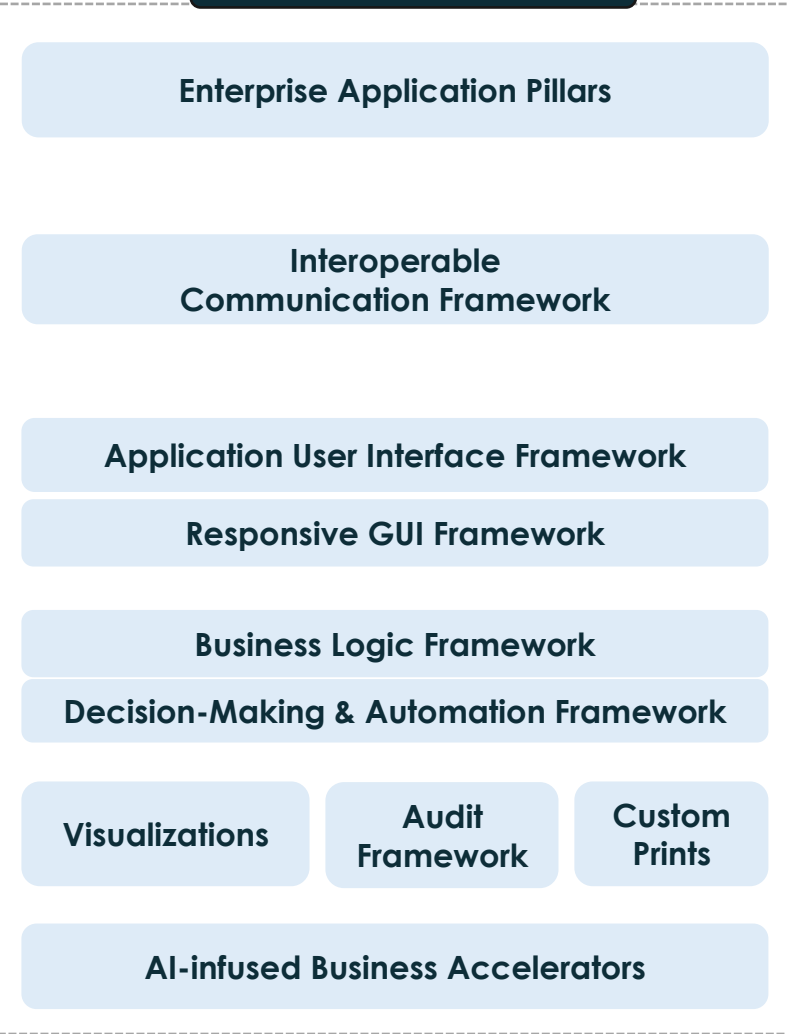
Components used in today's Demo



PLATFORM SERVICES

Company Business Unit	Authentications Hierarchies	Secret Manager Multi-Tenant	Base Functions Roles & Permissions	Param Set Config User Personalization
Schema Definitions Smart Integration	Cross-Schema Linkage Implicit Semantics	Communication Protocols	Transformation Layer	Optical Character Recognition
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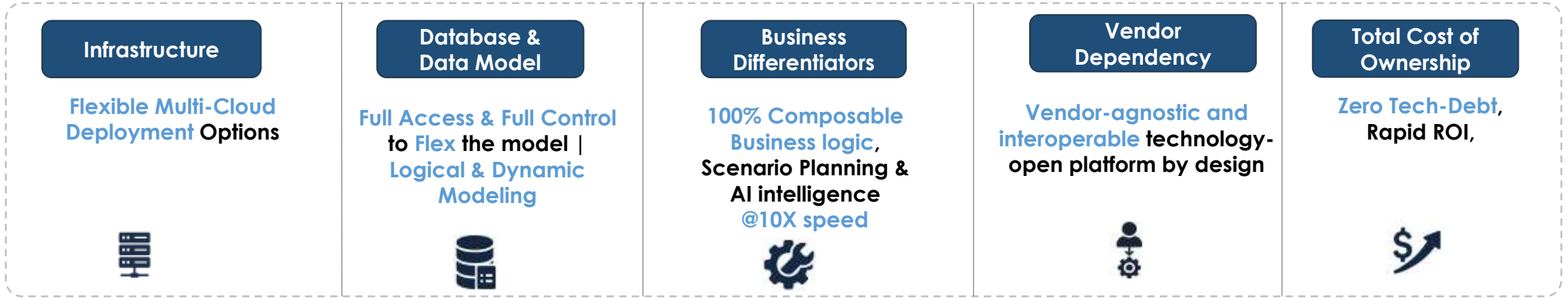
PLATFORM ENABLERS



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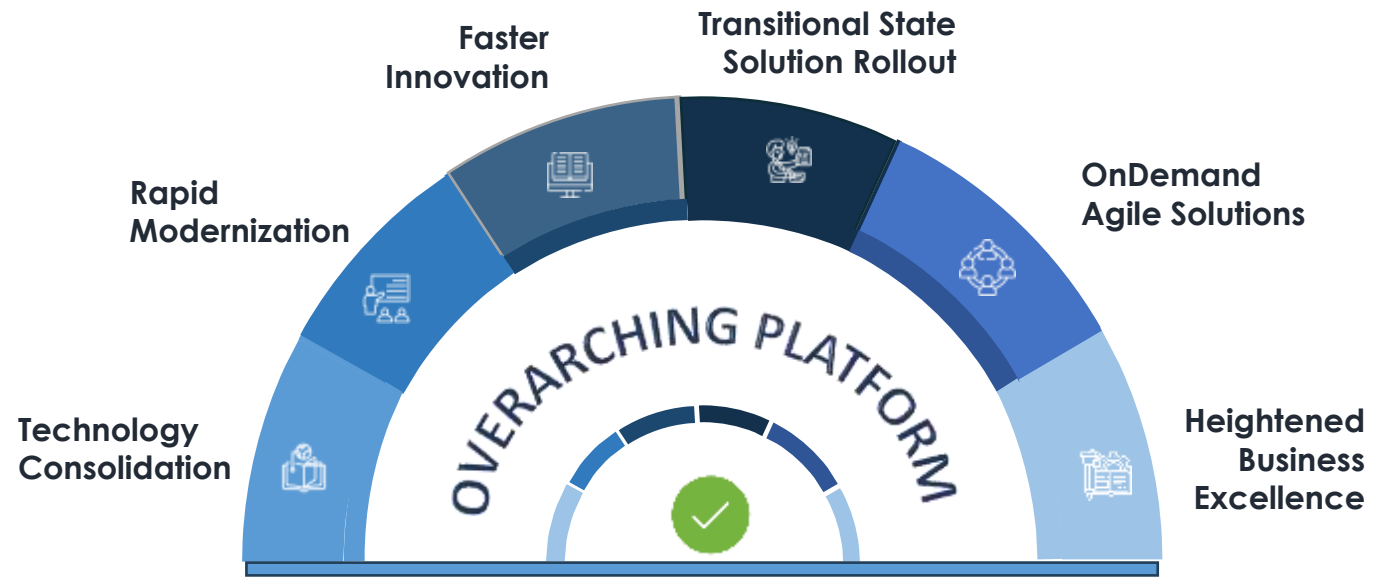


The Karolium Platform – Composable Approach Optimizing Your Build vs. Buy Strategy



Karolium redefines enterprise agility through a **unified data fabric**, ecosystem centric **interoperability, real-time orchestration**, and **development-free** solutions.

It **eliminates lock-in**, enables customer team to lead change, and significantly **reduce total cost of ownership**.



Q&A



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