

Digitalization at Siemens

Industry: Industrial Conglomerate / Enterprise Technology

Transformation Theme: Platform Strategy, Enterprise Digitalization

Core Lens: Federated Digital Platform + Business Unit Autonomy

1. Problem Statement

Siemens faced a strategic inflection point as its core businesses in electrification and automation matured. While the company had a massive installed base of physical systems, future growth increasingly depended on extracting value from **software, data, and analytics** layered on top of those systems.

The challenge was not whether to digitalize, but **how**.

Siemens had to decide whether to pursue a centralized digital platform (like GE's Predix) or allow business units to lead digital innovation independently without losing scale benefits.

2. Root Cause Diagnosis (Strategy Perspective)

 **Table 1: Problem Diagnosis Matrix**

Dimension	What Was Broken	Strategic Risk
Business Model	Hardware-centric revenue	Limited growth ceiling
Organizational Structure	Highly autonomous business units	Fragmented digital efforts
Customer Needs	Demand for predictive, data-driven services	Risk of disintermediation
Competitive Landscape	Platform-first competitors (GE)	Loss of digital leadership
Governance	Central vs local decision tension	Slow or misaligned execution

Key Insight:

The risk was not missing digitalization — it was **over-centralizing or under-coordinating it**.

3. Strategic Context: Where Digital Value Lives

Exhibit 1: Siemens Value Stack

Physical Layer

Electrification systems, automation hardware, rail, energy, factories

Automation Layer

Control systems, sensors, operational software

Digital Layer (Growth Engine)

Analytics, predictive maintenance, optimization software

Strategic Meaning:

The highest growth and margins sit **above the hardware**, but depend on deep domain context.

4. Company's Chosen Solution

Siemens launched its **Digitalization Program** under the broader Vision 2020 strategy, anchored around **Electrification, Automation, and Digitalization (EAD)**.

Instead of building a single monolithic platform, Siemens adopted a **federated “push–pull” model**:

- Corporate provided shared infrastructure and direction
- Business units developed use-case-specific digital solutions

Table 2: Company Actions vs Strategic Intent

Company Action	Strategic Intent
Vision 2020 & EAD	Embed digitalization in core strategy
Federated analytics platform	Preserve domain expertise
Business-unit-led use cases	Faster customer relevance
Avoid full centralization	Prevent loss of BU ownership

What Siemens avoided

- One-size-fits-all digital platform
- Forcing top-down adoption

What Siemens prioritized

- Customer-specific digital value
- Speed and relevance over uniformity

5. Strategic Trade-Off Analysis

 **Exhibit 2: Platform Strategy Options**

Option	Upside	Downside	Siemens' Choice
Fully centralized platform	Scale, consistency	Low BU adoption	Rejected
Fully decentralized	Speed	Fragmentation	Rejected
Federated model	Balance of scale + relevance	Coordination complexity	Chosen

Strategic Bet:

Digital value would be maximized when **domain knowledge stayed close to customers**.

6. My Enhanced Solution (Product & Platform Perspective)

Siemens made the right architectural choice, but execution risk remained around fragmentation and duplicated effort.

 **Table 3: My Phased Product & Strategy Roadmap**

Phase	Objective	Key Initiatives	Outcome
Phase 1	Enable BUS	Shared data standards, APIs	Faster experimentation
Phase 2	Prevent fragmentation	Cross-BU analytics modules	Reusable assets

Phase 3 Scale value Unified digital marketplace Platform leverage

Additional Enhancements

- Internal “app store” for BU-built analytics tools
- Shared KPI framework for digital ROI
- Stronger product management layer across BUs
- Selective centralization of high-impact analytics (e.g., predictive maintenance)

This preserves autonomy while **compounding learning across the enterprise**.

7. Metrics That Matter

 **Table 4: Key Metrics Framework**

Metric Type	Metric	Why It Matters
Customer	Adoption of digital services	Proof of value
Business	Digital revenue share	Monetization signal
Business	Margin uplift from analytics	Software leverage
Platform	Reusable analytics modules	Scale efficiency
Strategic	Cross-BU collaboration rate	Organizational health

8. Strategic Takeaway

 **Exhibit 3: Core Strategic Learnings**

1. Digital platforms fail when they ignore domain context
2. Federated models work best in complex, multi-industry firms
3. Digital transformation is an **organizational design problem**, not just a tech problem

4. Speed to customer value beats architectural purity

Conclusion: Siemens didn't win digitalization by copying Silicon Valley platforms, but by designing one that respected industrial reality.