



C-AE24 STRATEGIC BUSINESS ANALYSIS

Module 10: Information System Advisory Part 1

Enterprise Systems & Strategy Analytics

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The IS Advisor: Your Role as the Tech Translator

You are **not** training to become a programmer. You are training to become an **Information Systems Advisory Consultant** — the critical bridge between two worlds that rarely understand each other.

Tech Teams Speak

Algorithms, servers, architecture

Executives Speak

Profit margins, market share, cash flow

You Bridge Both

Strategic alignment & leadership



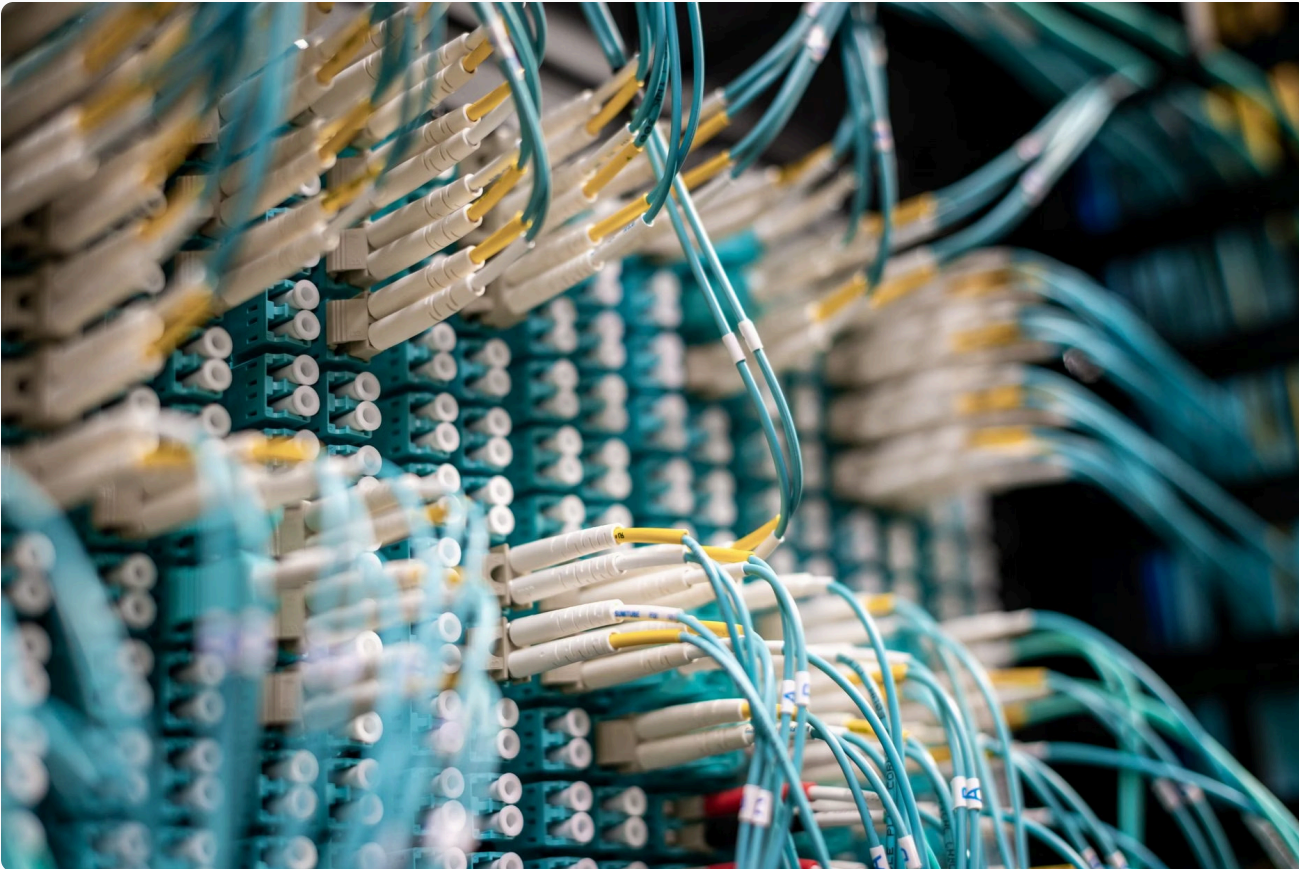
Information Silos: The Silent Corporate Killer

Imagine a fast-growing clothing company where Sales, Warehouse, and Accounting each run separate, disconnected software. A viral influencer post triggers 500 jacket orders — but the warehouse has only 50 in stock, and accounting won't know the sale happened until month-end.

The Result

Shipping delays, furious customers, canceled contracts, and completely blind executives — all caused by data that doesn't talk to itself.

Enterprise Resource Planning: Unifying the Corporate Brain



An **ERP system** — like SAP, Oracle, or Microsoft Dynamics — is the central nervous system of a modern corporation. Every division shares one real-time database. When a customer submits a 500-jacket order, the system instantly:

- Checks warehouse inventory and flags a shortage
- Drafts a procurement order to suppliers automatically
- Schedules manufacturing and prints shipping labels
- Logs revenue, updates COGS, and balances the books — in real time

A photograph of the Microsoft logo mounted on a building facade. The logo is made of large, white, three-dimensional letters. To the left of the letters are three colored squares: green, yellow, and orange. The background is a dark, textured wall with vertical lines.

The ERP Market: Choosing the Right Digital Architecture

SAP S/4HANA

Heavyweight champion for Fortune 500 conglomerates — airlines, refineries, global manufacturers. Powerful, complex, and costly.

Oracle NetSuite

Legendary database management. Favored by fast-growing mid-market and fintech companies that need extreme agility.

Microsoft Dynamics 365

Integrates seamlessly with Office and Azure ecosystems. Ideal for companies wanting a user-friendly, familiar transition.

As an IS advisor, you act as the **ultimate corporate matchmaker** — aligning transaction volume, technical resources, and scaling targets to the perfect platform.

Process Blueprinting: Designing the 'To-Be' State

As-Is State

Manual approvals,
paper signatures,
operational
bottlenecks



To-Be State

Automated
triggers, digital
approvals,
streamlined ERP
workflow

Two Distinct Lenses

As-Is State: Document the raw, current reality — often a mess of redundant steps, manual data entry, and paper approvals that stall productivity.

To-Be State: Design the idealized, automated blueprint. Configure the ERP so purchase requests under \$10K auto-approve, while larger requests ping a manager's phone for a single-click sign-off.

You strip away the friction and rewrite messy processes into streamlined digital workflows — saving thousands of hours and millions of dollars.

The 70% Phenomenon: Why Enterprise Projects Stumble

70%

Failure Rate

of large-scale ERP rollouts face severe delays, budget overruns, or outright failure

\$20M+

Avg. Investment

at stake when a major enterprise implementation stalls for two or more years



Garbage In, Garbage Out

Dirty data migrated into a new system just automates your chaos.



Scope Creep

Mid-project custom demands balloon budgets and collapse timelines.



Human Resistance

Employees who feel threatened will actively fight new technology.



Winning the Human Element: Driving Adoption



Change Management Framework



Transparent Communication

Show employees exactly how the tool eliminates manual headaches before launch.



Track & Measure

Monitor adoption rates with clear metrics and hands-on, role-specific training.



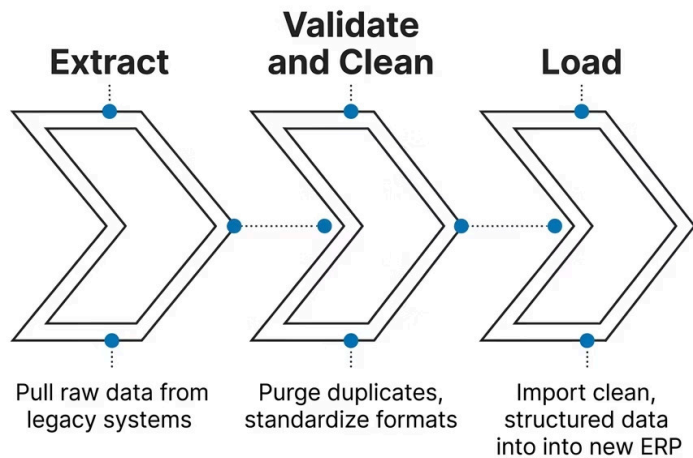
Change Champions

Train respected department insiders early to become local adoption cheerleaders.



Digital transformation is 50% technology — and 50% people.

Data Migration: Cleaning the Corporate DNA



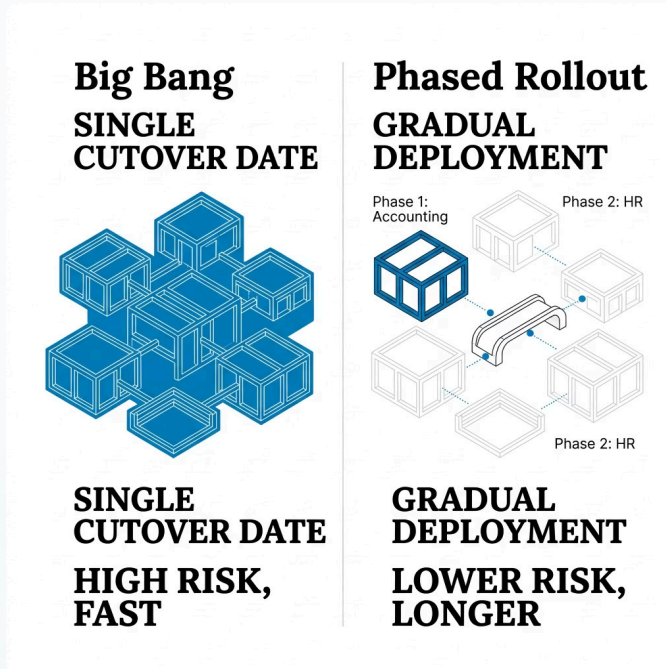
Before any ERP goes live, a company's entire corporate memory — customers, vendors, inventory, ledgers — must be migrated and **ruthlessly cleaned**.

Two entries like *"John Smith Corp"* and *"J. Smith Inc."* become one clean, unified profile.

Master Data Governance

Once data is loaded, an ironclad rulebook defines who can create or modify core fields. A cashier can't change a price. A sales rep can't invent a vendor. Every downstream report is built on **uncompromised truth**.

Go-Live Strategies: Managing Deployment Risk



Guiding this critical choice — based on the client's **risk tolerance and operational complexity** — is where your advisory expertise truly shines.

Big Bang

Full switch on a single date. Fast and cost-effective, but a major issue halts the entire enterprise instantly.

Phased Rollout

Deploy by module or region. Failures stay isolated and manageable, but the timeline is longer and requires temporary data bridges.



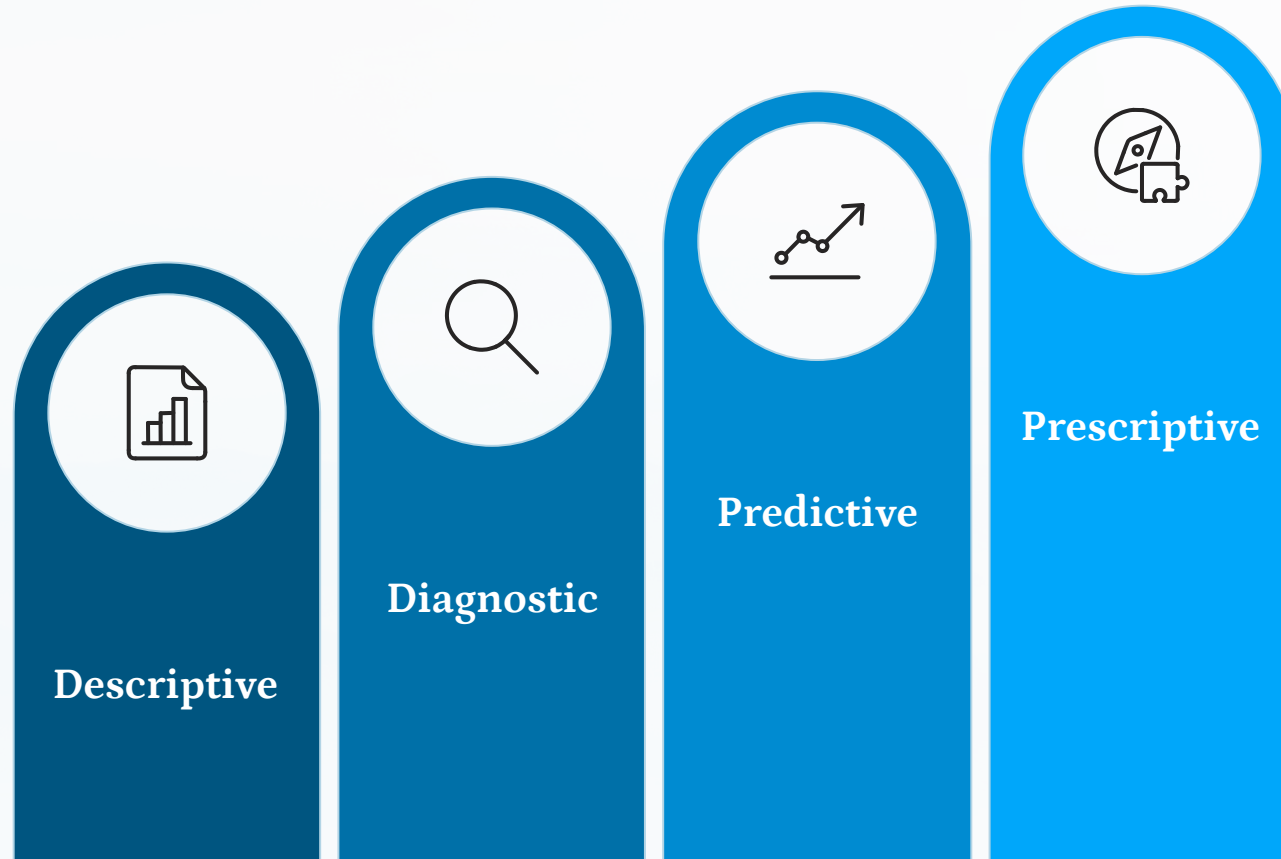
SECTION 2

Strategy Analytics & The Power of Data Storytelling

Building an ERP is like constructing a corporate rocket ship. Every transaction it processes adds to a growing mountain of raw operational data. But raw data alone has **zero strategic value**.

True power lies in acting as a **data storyteller** — transforming that overwhelming wall of numbers into clear, visual, actionable intelligence that drives profit.

The Analytics Staircase: Elevating Value



As a company climbs higher on this staircase, mathematical complexity increases — but the **strategic value delivered to the business grows exponentially**. Advisors guide companies past the rearview mirror and toward controlling their future destiny.



LEVEL 1

Descriptive Analytics

Summarizing the Historical Baseline

Core Question: What happened?

Every traditional accounting department operates here — income statements, balance sheets, aged AR reports, year-end inventory counts.

It is absolutely essential for compliance and baseline tracking. But it tells you where you *were*, not where you are *going*. It's driving by staring at the rearview mirror.



Descriptive analytics is your starting line — not your finish line.

LEVEL 2

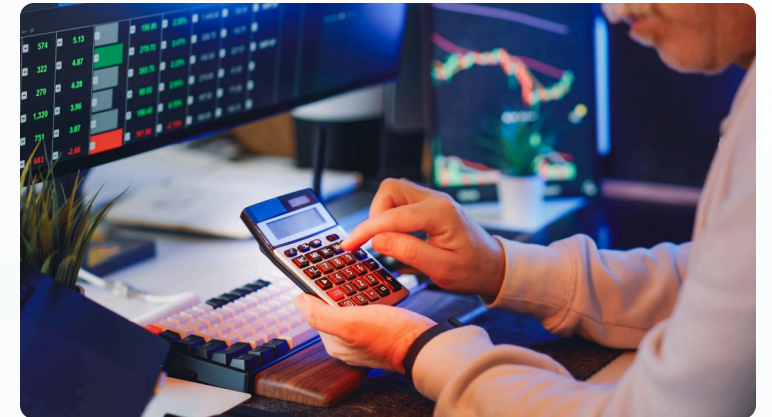
Diagnostic Analytics

Excavating the Root Cause

Core Question: Why did it happen?

When descriptive reports flag a 12% margin drop, you dig. Drill down by geography → isolate the southern region. Drill by product → winter jackets are underperforming. Drill to procurement → a zipper supplier raised prices 40%, and no one adjusted retail pricing.

Diagnostic analytics replaces guesswork and boardroom finger-pointing with **crystal-clear explanation**.



LEVEL 3

Predictive Analytics

Forecasting the Corporate Horizon

Core Question: What is likely to happen next?

- **Demand forecasting:** Predict jacket sales next quarter using 5 years of historical data and seasonal patterns
- **Cash flow modeling:** Forecast exact bank balances 90 days out for CFO planning
- **Predictive maintenance:** Track machine vibration to schedule factory repairs before breakdowns occur

Predictive analytics shifts organizations from **reactive panic** to **proactive preparation**.



Prescriptive Analytics: Autopilot for Maximum Profit

Core Question: What exact actions should we take right now?

Detect

Predictive models flag a boot demand surge in one city and an incoming storm disrupting shipping lanes.

Decide

The system auto-triggers a purchase order and reroutes shipments through a storm-free airport — no human required.

Optimize

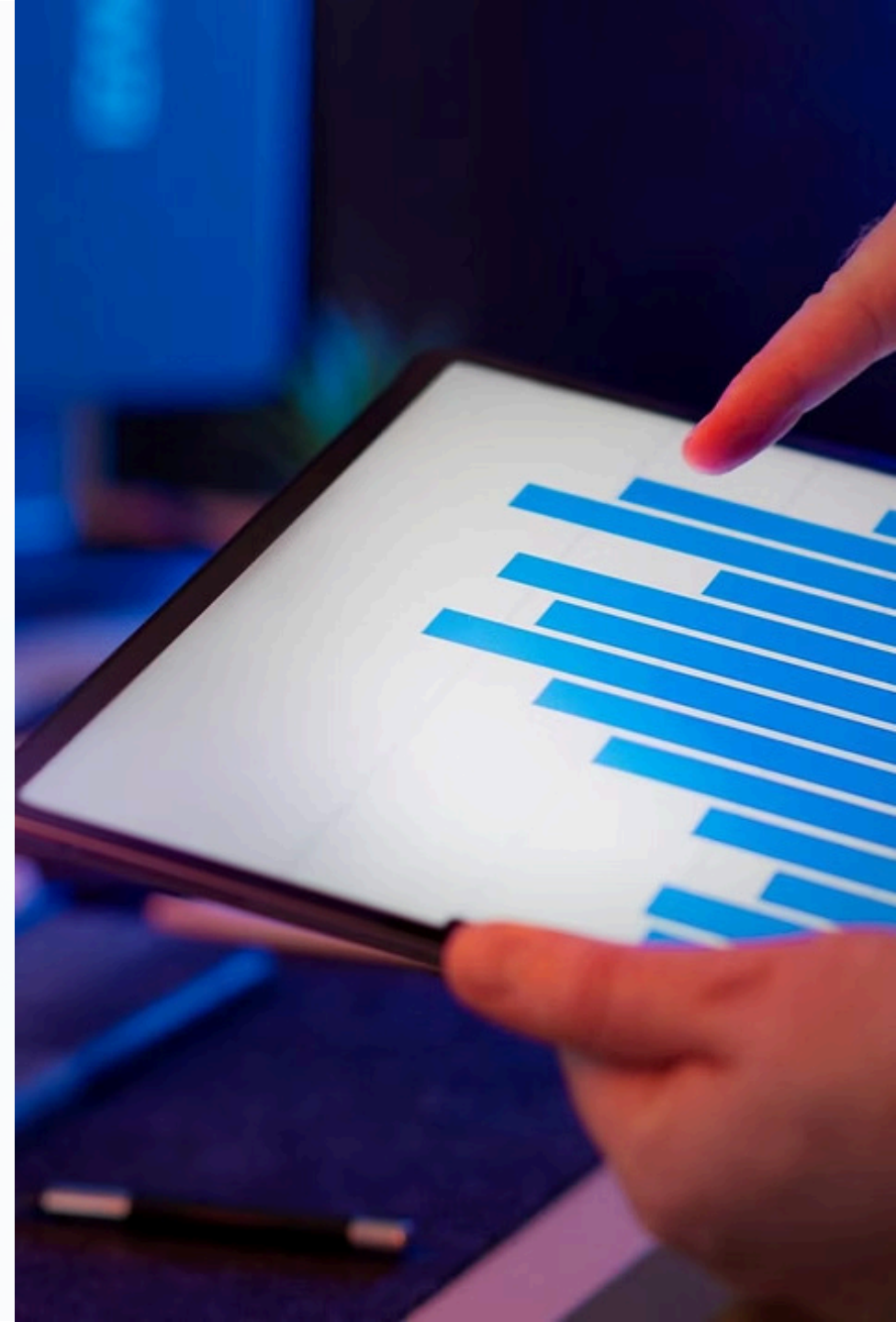
Retail pricing dynamically adjusts +\$3 to capture maximum margin from localized demand — instantly.



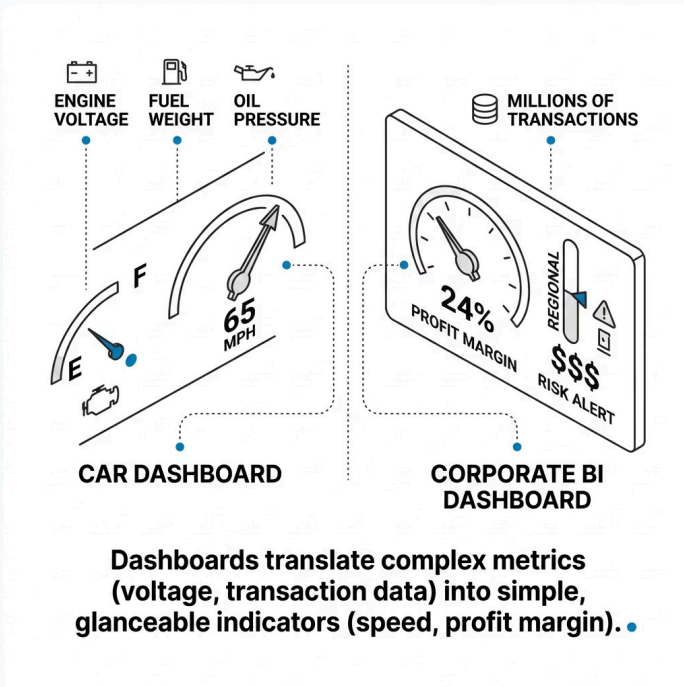
Business Intelligence: The Art of Visual Clarity

Sophisticated analytics are worthless if a CEO can't understand them. **Business Intelligence (BI)** translates millions of complex database rows into clear, interactive visual stories — color-coded charts, trend lines, and performance meters that reveal the big picture instantly.

As an IS advisor, you are not just a number cruncher. You are a **visual designer and strategic communicator** — ensuring insights are understood and acted upon at the highest levels of corporate command.



The Executive Dashboard: Complex Tech, Simple Output



A car hides thousands of raw data variables — voltage, pressure, temperature — behind a clean, elegant dashboard. You glance and instantly know your speed and fuel level.

A **BI executive dashboard** does the same for a corporation. The underlying database is infinitely complex, but the output is clean, visual, and decisive:

- Company-wide profit margins
- Regional sales growth trends
- High-priority risk alerts

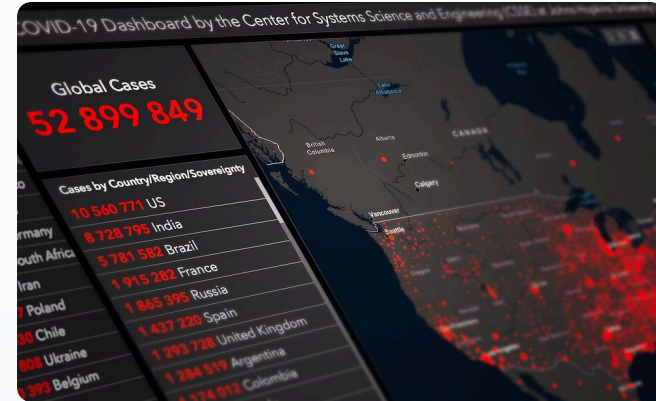
Executives steer the corporate rocket ship — you build the instruments they rely on.

Power BI & Tableau: The Weapons of Choice



Microsoft Power BI

Market leader for corporate integration. Seamlessly connects with Office, Azure, and Windows ecosystems. Excel-familiar, cost-effective, and ideal for company-wide rollout. **Best for: enterprise-wide adoption.**



Tableau

Gold standard for pure data visualization and complex analytics. Owned by Salesforce. Highly artistic, deeply customizable, and favored by data scientists and senior strategists. **Best for: advanced visual storytelling.**

Both tools require **zero programming skills**. Mastering either instantly elevates your consulting resume.

Dashboard Design Traps: Avoiding Visual Clutter

The Golden Rule

Less is infinitely more. Every dashboard should follow a clean pyramid structure:



Top: Critical KPIs

Highest-level metrics in large, unmissable format — total net profit, revenue vs. target.



Middle: Supporting Trends

A few clean trend lines providing context and directional insight.



Bottom: Drill-Down Detail

Optional click-through for deeper investigation — available but not forced.

Common Design Blunders

- Cramming 30 charts onto a single screen
- Pie charts with 20+ slices
- Clashing neon colors that cause eye fatigue
- No logical reading flow or hierarchy



A bad dashboard forces the viewer to work hard to find the meaning — leading to cognitive fatigue and poor decisions.



Cross-Functional Alignment: One Version of the Truth

When ERP systems and BI dashboards share a **single database engine**, information silos dissolve entirely. Every leader sees the exact same numbers, simultaneously.

VP of Sales

Knows instantly to pace marketing campaigns as inventory tightens

VP of Supply Chain

Adjusts manufacturing speeds the moment the dashboard flags a drop

CFO

Recalibrates the quarterly budget in real time — no conflicting spreadsheets

The result: a disjointed group of departments transformed into a **synchronized, high-speed corporate orchestra**.

Mastering KPIs: Tracking What Truly Matters



A company can track thousands of metrics, but a world-class dashboard features only the **critical few** that truly drive success. Your job: help clients isolate the right KPIs for their model.

Great KPIs are **actionable**: green means beating goals, amber means close, and red means immediate correction required.

SaaS Company

Customer Acquisition Cost + Monthly Recurring Revenue

Retail Grocery Chain

Inventory Turnover + Gross Profit Margin per Sq. Ft.

Strategic Velocity: The Power of Real-Time Data

Traditionally, executives waited **30+ days** for accounting to close the books. By then, the data was ancient history.

Then: Reactive

Monthly financial statements. Decisions made on 30-day-old information. Strategy steered by the wake left behind.

Now: Proactive

Live ERP feeds push data into BI dashboards the millisecond transactions occur — demand surges and cost spikes visible instantly.

The Result: Agility

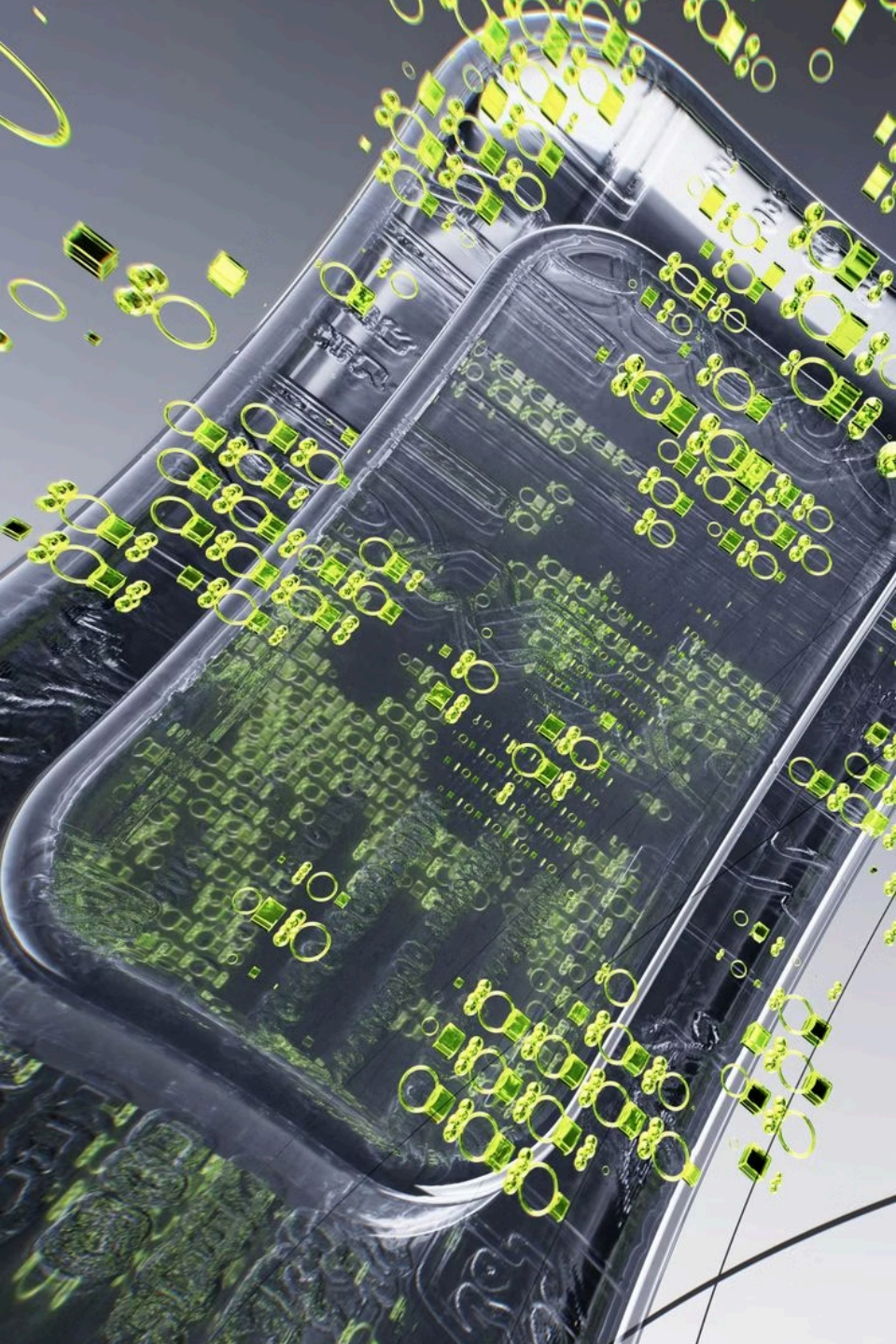
Executives pivot strategy, adjust pricing, and lock down alternative supply chains before competitors even know the market shifted.



The Strategic Blueprint: Connecting the Core Elements

PART 1 SUMMARY

Core Concept	Key Insight	Advisor's Role
ERP Systems	Shatters silos; one unified real-time database	Architect the rules, controls, and workflows
Implementation Risk	70% fail due to data pollution & human resistance	Lead Change Management & Data Migration
Analytics Hierarchy	Descriptive → Diagnostic → Predictive → Prescriptive	Guide clients up the maturity staircase
Business Intelligence	Translates complex data into executive-ready visuals	Design KPI dashboards with Power BI or Tableau
Strategic Velocity	Real-time data enables instant competitive pivots	Build the intelligence engine for corporate agility



UP NEXT

Part 2: Risk Governance & Forensic Assurance

You've built the integrated corporate brain. Now it's time to **defend it**. Financial systems are the number-one target for global cybercriminals — because that's where the capital lives.



IT General Controls

Build ironclad data boundaries and access governance frameworks



SOC Report Auditing

Assess third-party cloud vendors and evaluate their control environments



Forensic Analytics

Use advanced data filters to detect internal fraud and catch ledger manipulation

The foundation you've built in Part 1 is your gateway. **Proceed to Part 2 — the digital fortress awaits.**