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# **Technology Business Management: In-House Solutions**

**Complex Problems, Simple Solutions**

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# Agenda

- Introduction
- Technology Business Management (TBM)
- Key Components of TBM
- Why In house?
- Case Studies
- Lessons Learned
- Q&A

# Biography



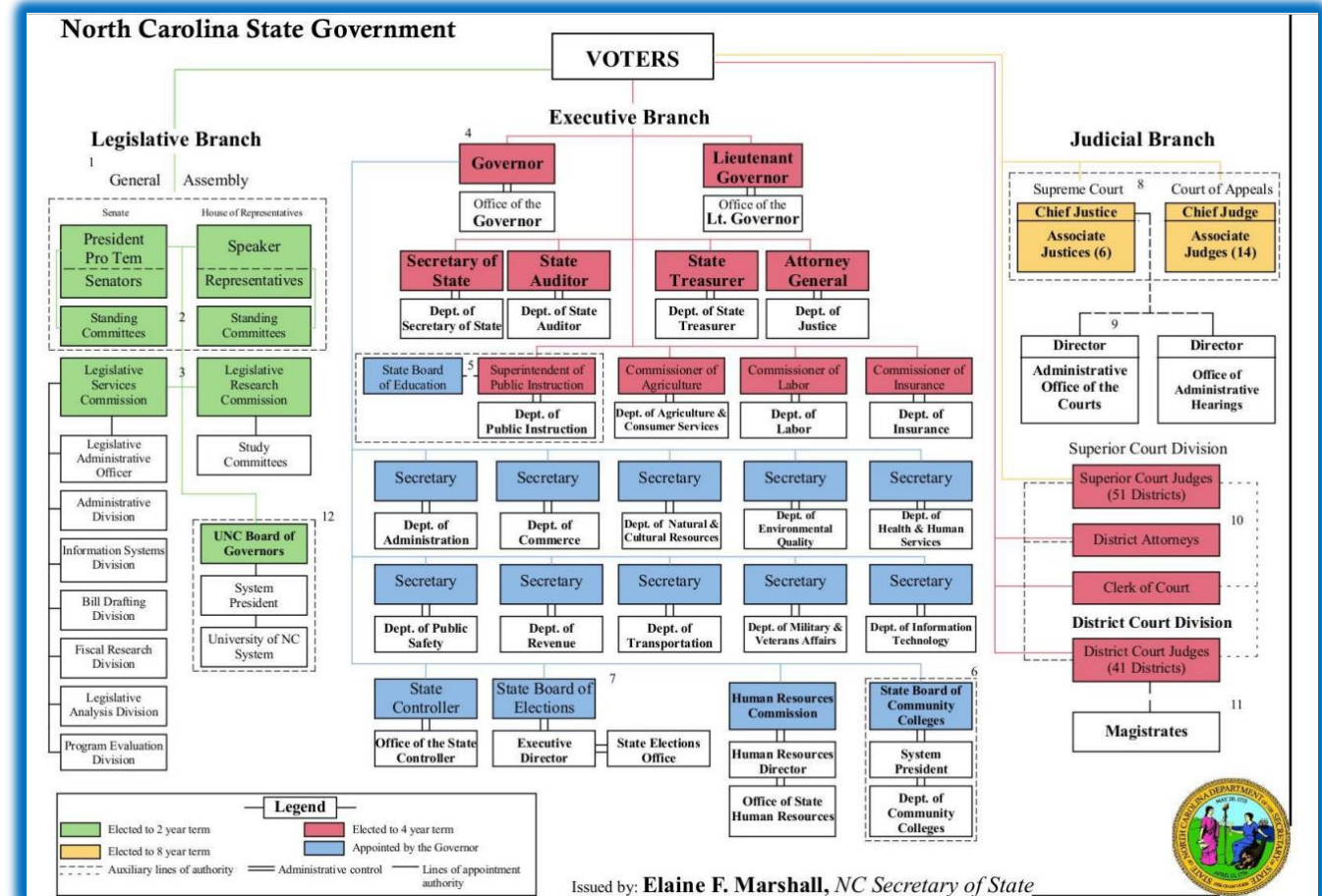
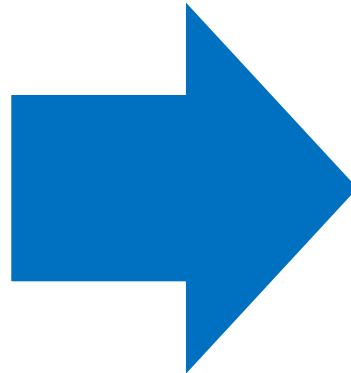
## Career Highlights:

- **Director of Technology Business Management (TBM)**  
– Manages a \$250M IT budget for North Carolina, optimizing costs and driving financial transparency.
- **Global IT Leadership Experience** – Led R&D database and document management teams at GlaxoSmithKline (GSK), overseeing global IT operations.
- **Strategic Innovation & Public Service** – Enhances IT financial management, fosters collaboration, and mentors the next generation of IT professionals.

*“TBM is not just about technology; it’s about people, process, and impact.”*

## Services

Data Center Hosting  
 Windows, UNIX, Linux Hosting  
 Cloud Services  
 Database Services  
 Mainframe Hosting  
 Storage and Data Protection  
 Telephony  
 Call Center Services  
 Network Security  
 LAN and WAN Services  
 WAN Services  
 Digital Solutions  
 Testing  
 Electronic Document Management  
 Project Management  
 End Point  
 Unified Collaborations  
 Identity Management

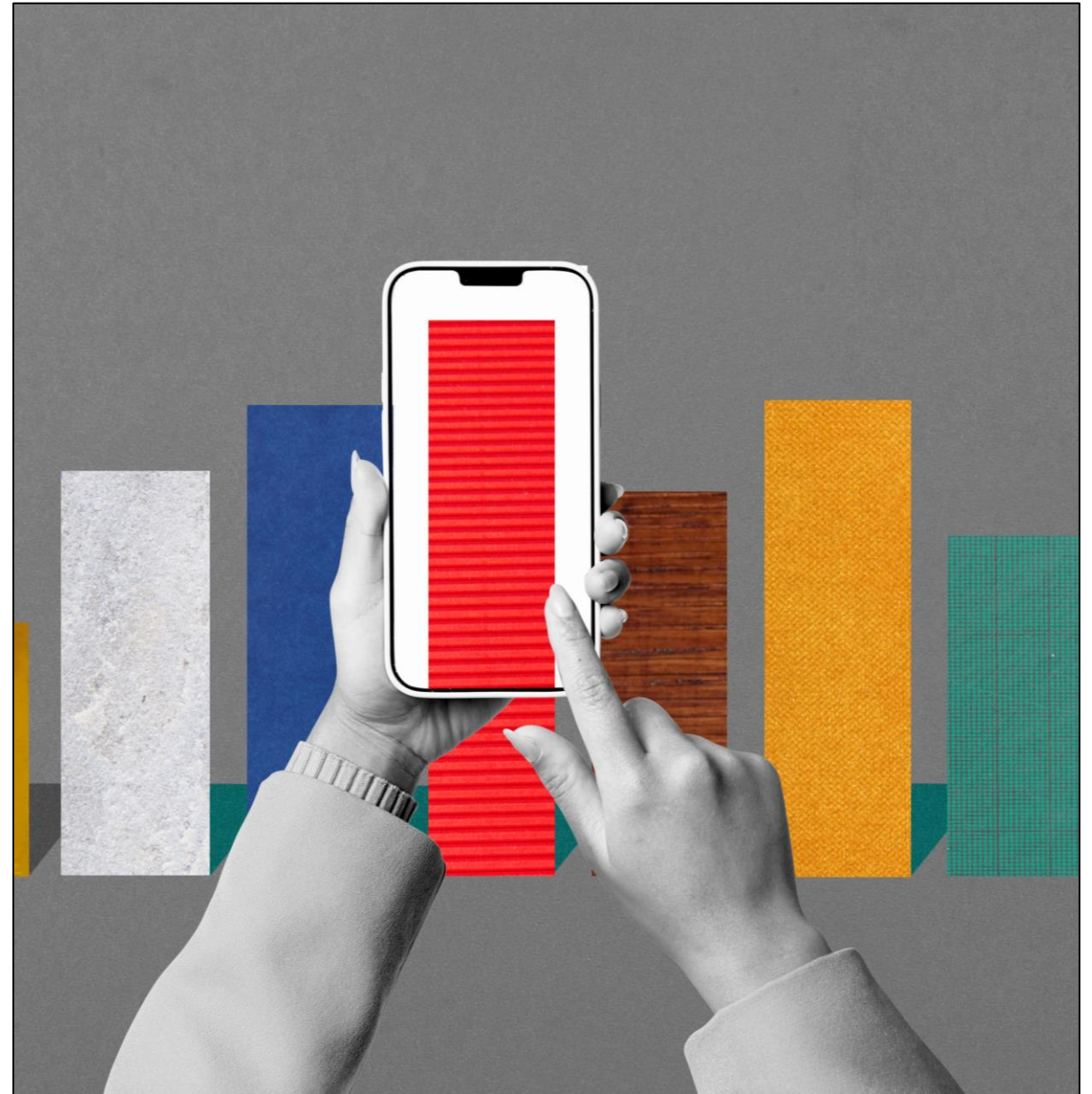




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# What do you get?

- A clear understanding of how to design a TBM tool tailored to organizational needs using existing resources and tools.
- Insight into the common challenges, practical workarounds, and lessons learned from in-house TBM development.
- Actionable steps to initiate or improve an internal TBM solution with a focus on cost-efficiency, integration, and scalability.



- Not Anti Tool
- This approach may not be a good fit for your organization.



# Poll

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# TBM Definition & Purpose

## **Structured Approach**

TBM offers a structured framework for evaluating and managing technology investments effectively.

## **Transparency and Accountability**

One of the primary purposes of TBM is to enhance transparency and accountability in technology resource management.

## **Alignment with Business Objectives**

TBM ensures that technology investments align with overarching business objectives, improving overall organizational efficiency.

## **Promoting Collaboration**

TBM fosters collaboration across departments, aligning technology goals with business objectives for improved results. (e.g., Rates Catalog)





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# Key Components of TBM

## **IT Cost Transparency**

Provides a detailed view of technology spending to ensure accountability and support informed financial decisions across the organization.

## **Business Alignment**

Connects IT investments with business outcomes to ensure that technology supports strategic goals and delivers measurable value.

## **Data-Driven Decision Making**

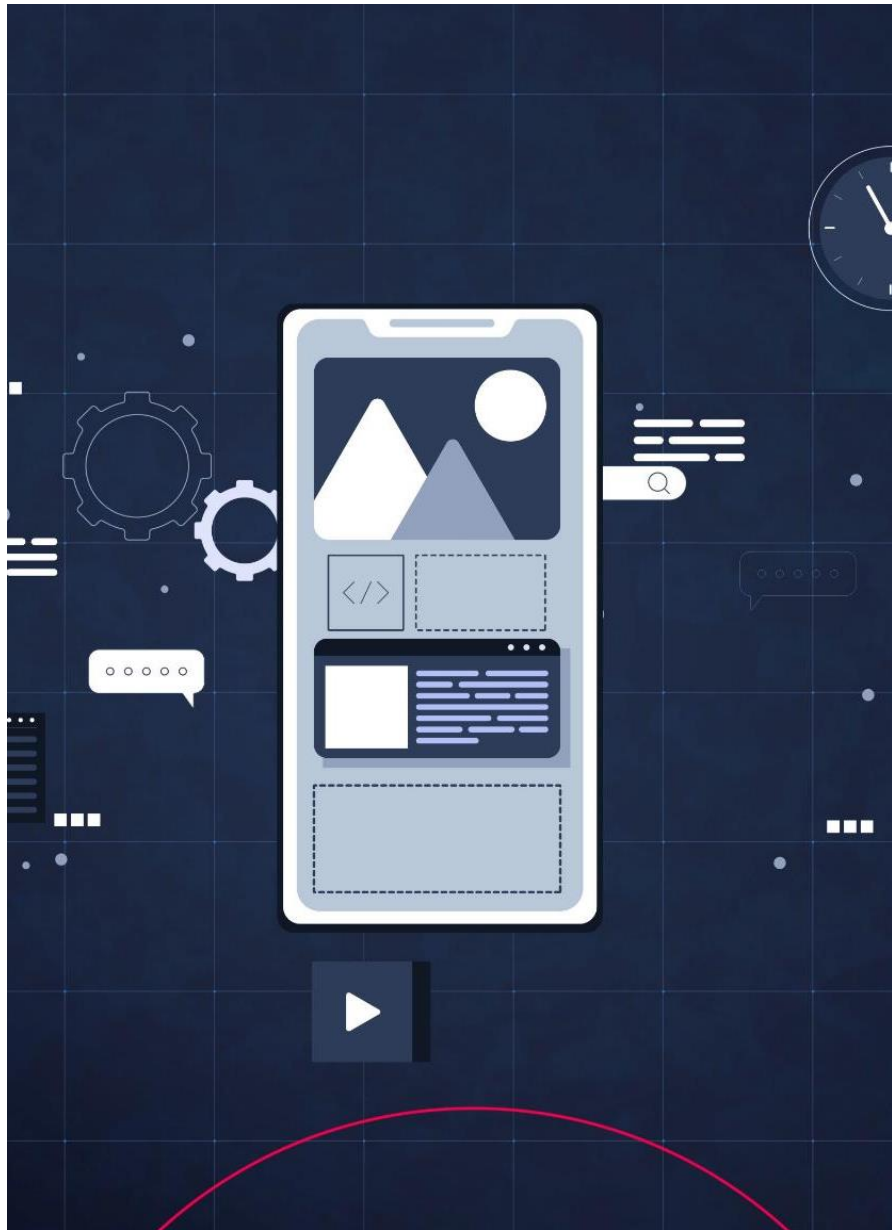
Leverages accurate, structured data to guide prioritization, resource allocation, and continuous improvement across IT services.



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**Why In  
House?**





# Why TBM Services In-house?

## **Cost Management and Funding Constraints**

Strategic response to limited funding.

## **Tailored Solutions**

Provided the flexibility to create solutions that meet unique requirements and operational needs.

## **Enhanced Functionality (MVP)**

Led to improved functionality, allowing users to maximize the efficiency of their workflows.



# Development and Maintenance Costs

## Development Costs

Development costs stayed low by using existing staff and leveraging tools familiar to staff.

## Ongoing Maintenance Costs

Existing tools were adapted to meet specific needs, allowing staff to deliver solutions aligned with operational priorities. Maintenance costs were minimal by building only a **minimal viable product (MVP)**.

## Resource Considerations

Staff were trained to use current tools more effectively, improving efficiency without requiring expensive new platforms.



# Integration with Existing Systems

- ERP System (e.g., SAP, Oracle Financials)
  - Imports financial data: actuals, budgets, GL details
- IT Service Management (e.g., ServiceNow, BMC Remedy)
  - Connects services, CMDB, and tickets to cost allocations
- HR System (e.g., Workday, ADP)
  - Supports labor cost allocation and role-based costing
- Cloud Platforms (e.g., AWS, Azure, GCP)
  - Provides cloud usage and billing data for transparency and optimization
- Asset Management System (e.g., Flexera, Lansweeper)
  - Tracks IT\*



## WHAT IS A MINIMUM VIABLE PRODUCT

**M****Minimum**

The most rudimentary,  
bare-bones foundation  
of the solution possible

**V****Viable**

Sufficient enough for  
early adopters

**P****Product**

Something tangible  
customers can touch  
and feel

## Workflow, Budgeting, Forecasting

### Cost Transparency Dashboard

Helps stakeholders understand where money is going—critical for budgeting decisions.

### Basic Cost Allocation

Ensures accurate distribution of shared costs, supporting more precise budgeting by department or service.

### Service and Application Costing

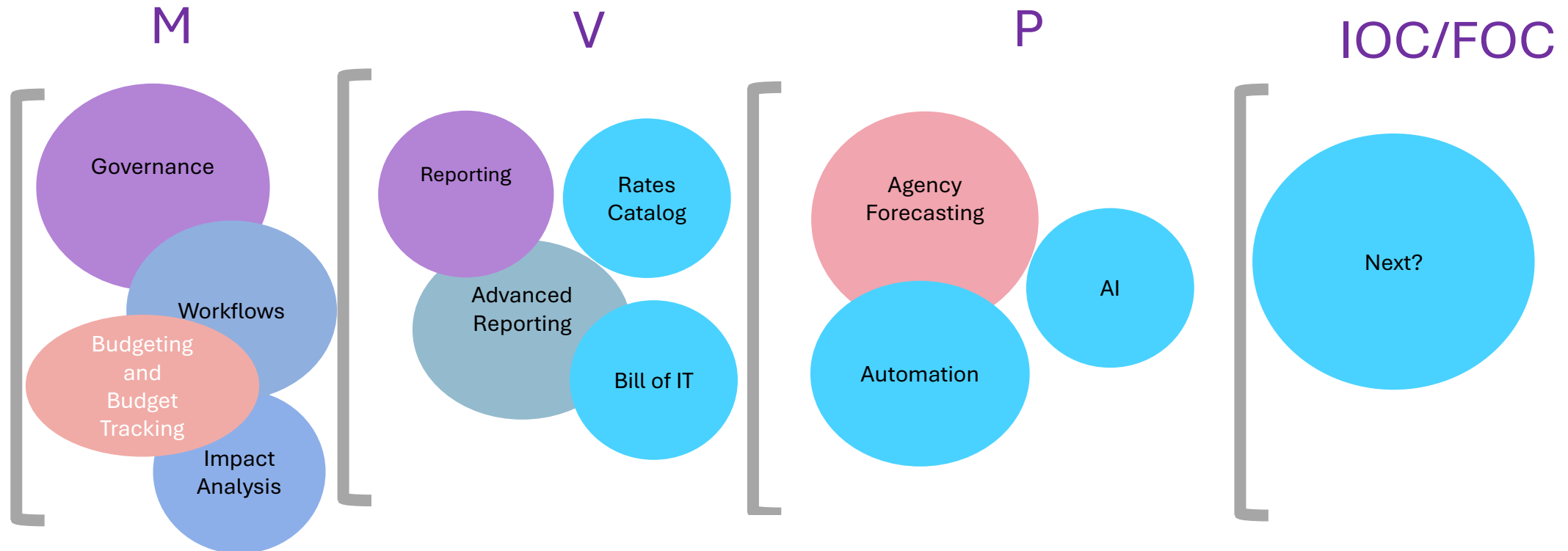
Allows budget planning at the service/application level by revealing actual costs.

### Trend and Usage Analysis

Supports forecasting and budget planning by analyzing historical spend patterns.

# MVP Roadmaps and Time Horizons

- Defining the time horizons that you want your roadmap to address is one of the first steps in building a successful MVP roadmap.





# Integration Techniques and Tools

- **Techniques**
  - **Structure Data** - Structured data enables accurate reporting, automation, integration, and decision-making.
- **Tools**
  - **Excel** has familiar interface supports quick adoption and low training requirements.
  - **Power Query** enables fast, efficient data cleaning and transformation.
  - **MS SQL** connectivity allows direct access to enterprise databases.
  - Seamless integration with **Power BI** for rich data visualization
  - Minimizes development effort while leveraging existing tools
  - **Adobe Sign** enhances data workflow and reporting in in-house TBM solutions.

# Integration Techniques and Tools

## Tools

### AI Capabilities

- Generate insights from large datasets
- Automate repetitive analysis tasks
- Enhance decision-making with predictive models

### Microsoft Teams

- Real-time chat, video calls, and meetings
- Seamless integration with Office 365 apps
- File sharing and collaborative editing

### DocuSign

- Streamlined e-signature workflows
- Automate document approvals and routing
- Legally compliant and secure signing

### Excel for Data Organization

- Tables, filters, dropdowns
- Sorting & validation

### Excel formulas & Functions

- SUM, IF, XLOOKUP, INDEX/MATCH
- Logical, text, and date functions

### DAX (Data Analysis Expressions)

- Build custom measures and KPIs
- Perform row-level and time-based calculations
- Power BI and Excel data modeling language

### Excel Analysis & Visualization

- PivotTables, charts, conditional formatting
- What-If tools (Goal Seek, Scenarios)

### Excel Automation

- Macros & VBA for repetitive tasks

### Integration & Sharing

- Import data, Power Query
- Real-time collaboration & protection

### Copilot Assistance

- Natural language prompts for formulas
- Smart insights and suggestions

### Python Integration

- Advanced analytics with Python libraries
- Ideal for modeling, forecasting & custom visuals

### MS SQL Capabilities

- Query large datasets with T-SQL
- Build views, procedures, and functions
- Secure, scalable data storage

### Power BI Capabilities

- Interactive dashboards and reports
- Drill-through & cross-filtering
- Connect to multiple data sources

## Integrations

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  - Tracks IT\*

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# Case Studies and Examples

People







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# Key Elements for Effective Technology Service Management

## Governance

The organization is a mid-sized technology company that offers innovative solutions but struggles with operational efficiency.



# Case Study Overview - Governance

**Problem Statement**

Establishing a defined governance framework presents a valuable opportunity to enhance decision-making, strengthen accountability, and reduce risk. By moving beyond informal processes, the organization can benefit from clear guidelines and structured oversight, ultimately supporting more effective and consistent operations.

*How can we best address the problem statement with existing software*

**Outcome Statement:**

- 1. Enhanced Governance Oversight – Real-time visibility and audit trails will ensure accountability.
- 2. Better Stakeholder Collaboration – Centralized governance documentation will improve coordination. Documented user engagement will be tracked.
- 3. Improved Governance Efficiency – Streamlined workflows and clear authority will reduce delays.
- 4. Reduced Decision Ambiguity – Formalized processes will decrease informal decision-making, with documented guidelines.
- 5. Increased Compliance Adherence – Standardized controls will minimize deviations. Documented reductions in non-compliance and process compliance reports will show improvement.
- 6. Documented Governance Effectiveness – Comprehensive tracking of key metrics will ensure measurable success.
- 7. **Data-driven insights will support continuous improvement.**

Recommended Courses of Action
1. Charter
2. Guidelines, Policies, Statues
3. SOPs
4. OLAs



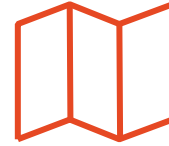
## **ROLES CLARITY & SUPPORT**

Making sure everyone understands their role and we have set those roles up for success



## **SERVICES DEFINITION**

Making transparent what is included in a service and associated costs



## **CUSTOMER SERVICE**

Fully understanding the customer experience with an eye towards continuous improvement



## **SERVICE LIFECYCLE**

Ensuring a clear process from the start of a service to the decommission process

# TBM Metric Slide



- **Decision-Making Efficiency** – Ensures faster, data-driven IT investment decisions, optimizing cost, value, and business alignment.
- **Compliance & Risk Management** – Reduces financial, security, and regulatory risks by enforcing standards and accountability.
- **Stakeholder Accountability & Engagement** – Strengthens collaboration between IT, finance, and business leaders, ensuring transparency and strategic alignment.
- **Innovation:** Optimizing technology investments to drive business value through data insights..

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# Case Studies and Examples

## Processes

Workflow  
Budgeting  
EoY Forecasting





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# Key Financial and Operational Challenges

## **Workflow Challenges**

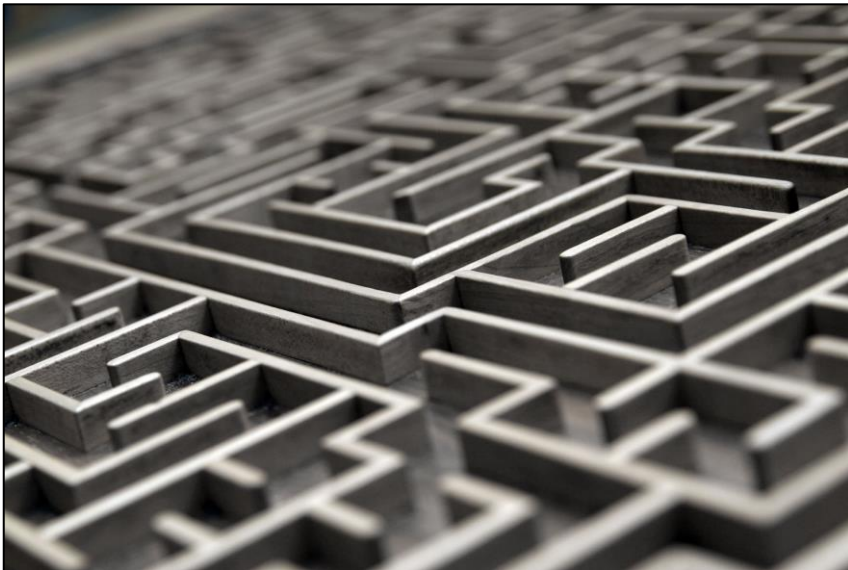
Key workflow challenges include poor communication, unclear roles, inefficient tools, lack of automation, and resistance to change or process updates.

## **Budgeting Challenges**

Key budgeting challenges include inaccurate forecasting, unexpected costs, limited resources, poor tracking, lack of flexibility, and misaligned financial priorities.

## **EoY Forecast Challenges**

Key end-of-year forecasting challenges include data gaps, planning volatility, shifting priorities, timing issues, and aligning projections with actual performance.





# Case Study Overview - Workflow

**PROBLEM STATEMENT**

The TBM team lacks an efficient workflow solution to route, track, and manage documents, causing delays and compliance risks. Meetings are not feasible; a system with real-time tracking and accountability is required.

**Outcome Statement:**

Implementing an automated workflow solution for the TBM team will achieve the following key outcomes:

- 1. Reduced Dependence on Meetings – Automated workflows eliminate the need for constant follow-ups, with documented reductions in meeting frequency.
- 2. Better Collaboration – Centralized access improves coordination across teams, with documented user adoption and engagement metrics.
- 3. Increased Accuracy – Standardized processes minimize errors and miscommunication, with documented error rate reductions and process compliance reports.
- 4. Improved Efficiency – Streamlined document routing reduces delays and manual effort, with documented turnaround time improvements.
- 5. Enhanced Tracking – Real-time visibility ensures accountability and compliance, with documented audit trails and status reports.
- 6. Documented Outcomes – Comprehensive tracking and reporting ensure measurable success, with data-driven insights to support continuous improvements and decision-making.

*How can we best address the problem statement with existing software*

Recommended Courses of Action
1. Excel Forms
2. DocuSign

**Worked Examples -  
Workflow Slides Examples  
to be added.**





# Case Study Overview - Budgeting

**PROBLEM STATEMENT**

Modernizing the organization's budgeting process through a centralized, integrated system offers a strategic opportunity to drive financial efficiency, transparency, and control. By streamlining fund allocation and tracking, and enabling real-time visibility, leadership can make more informed decisions, mitigate financial risks, and align resources more effectively with organizational priorities.

**Outcome Statement:**

- 1. Reduced Budgeting Cycle Time – Automated workflows will streamline approvals and reduce manual data entry, with documented reductions in the time taken to finalize budgets.
- 2. Better Financial Oversight – Centralized data will improve expenditure tracking and adherence to budgets across departments, with documented variance reports and budget compliance metrics.
- 3. Increased Budget Accuracy – Standardized templates and approval processes will minimize errors and inconsistencies in budget submissions, with documented reductions in budget discrepancies and improved forecasting.
- 4. Improved Resource Allocation – Streamlined processes will enable better visibility into funding needs and resource utilization, with documented improvements in alignment of spending with strategic priorities.
- 5. Enhanced Financial Accountability – Real-time tracking of expenditures and clear audit trails will ensure accountability for budget adherence, with documented audit logs and spending reports.

*How can we best address the problem statement with existing software*

Recommended Courses of Action
1. Excel, Power Query
2. VBA
3. SQL
4.

**Worked Examples -  
Budgeting Slides Examples  
to be added.**







# Case Study Overview – EoY Forecasting

**PROBLEM STATEMENT**

Streamlining the End-of-Year (EoY) forecasting process offers a strategic opportunity to improve accuracy, accelerate planning, and enhance decision-making. A standardized system with real-time visibility and collaboration will simplify data consolidation and deliver timely, actionable insights.

**Outcome Statement:**

- 1. Better Forecasting Accuracy – Centralized data and consistent methodologies will minimize errors and improve prediction reliability, with documented reductions in forecast variance.
- 2. Increased Stakeholder Alignment – Collaborative platforms and transparent data will improve communication and agreement on projections, with documented user engagement and feedback.
- 3. Improved Resource Allocation – More accurate forecasts will enable better planning and allocation of resources for the upcoming year, with documented improvements in budget alignment.
- 4. Enhanced Strategic Decision-Making – Timely and reliable forecasts will provide valuable insights for informed strategic decisions, with documented use of forecasts in planning processes.
- 5. Documented Forecasting Performance – Comprehensive tracking and reporting of key forecasting metrics will ensure measurable success, with data-driven insights for continuous improvement and accuracy.

*How can we best address the problem statement with existing software*

Recommended Courses of Action
1. Excel Forms
2. DocuSign

**Worked Examples – EOY  
Forecasting Slides to be  
added.**



# TBM Metric Slide



- Cycle Time – Time taken to complete a task or process.
- Throughput – Number of tasks completed in a given time period.
- Budget Variance – Difference between planned and actual spending.
- Reporting - Ability to report and provide what if reporting
- Return on Investment (ROI) – Measures financial return relative to budget spent.
- Forecast Accuracy – How close forecasts are to actual results.
- Forecast Bias – Tendency to consistently over- or under-estimate outcomes.

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# Lessons Learned





# Benefits of Implementing TBM

## **Tailored Functionality**

An in-house TBM tool can be customized to align precisely with the organization's processes, data structure, and reporting needs.

## **Cost Efficiency**

Leveraging existing tools and internal expertise can significantly reduce development and ongoing licensing costs.

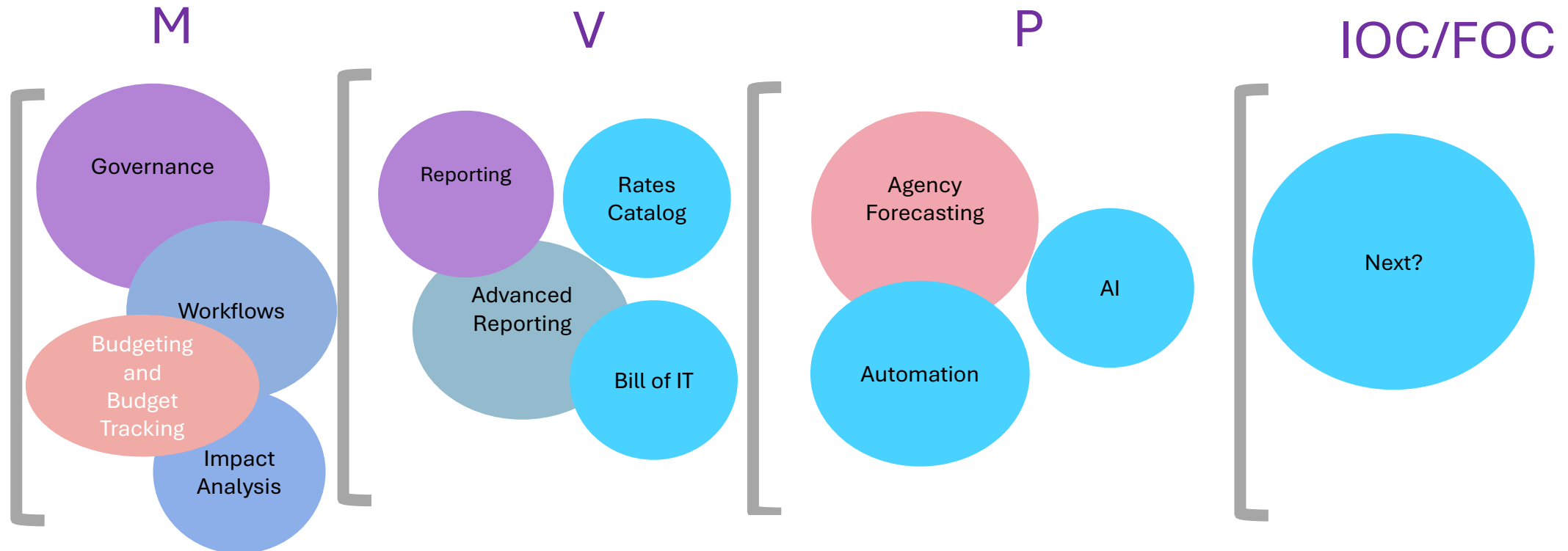
## **Control and Flexibility**

Full ownership of the tool allows for quicker updates, easier maintenance, and adaptability to changing business requirements.

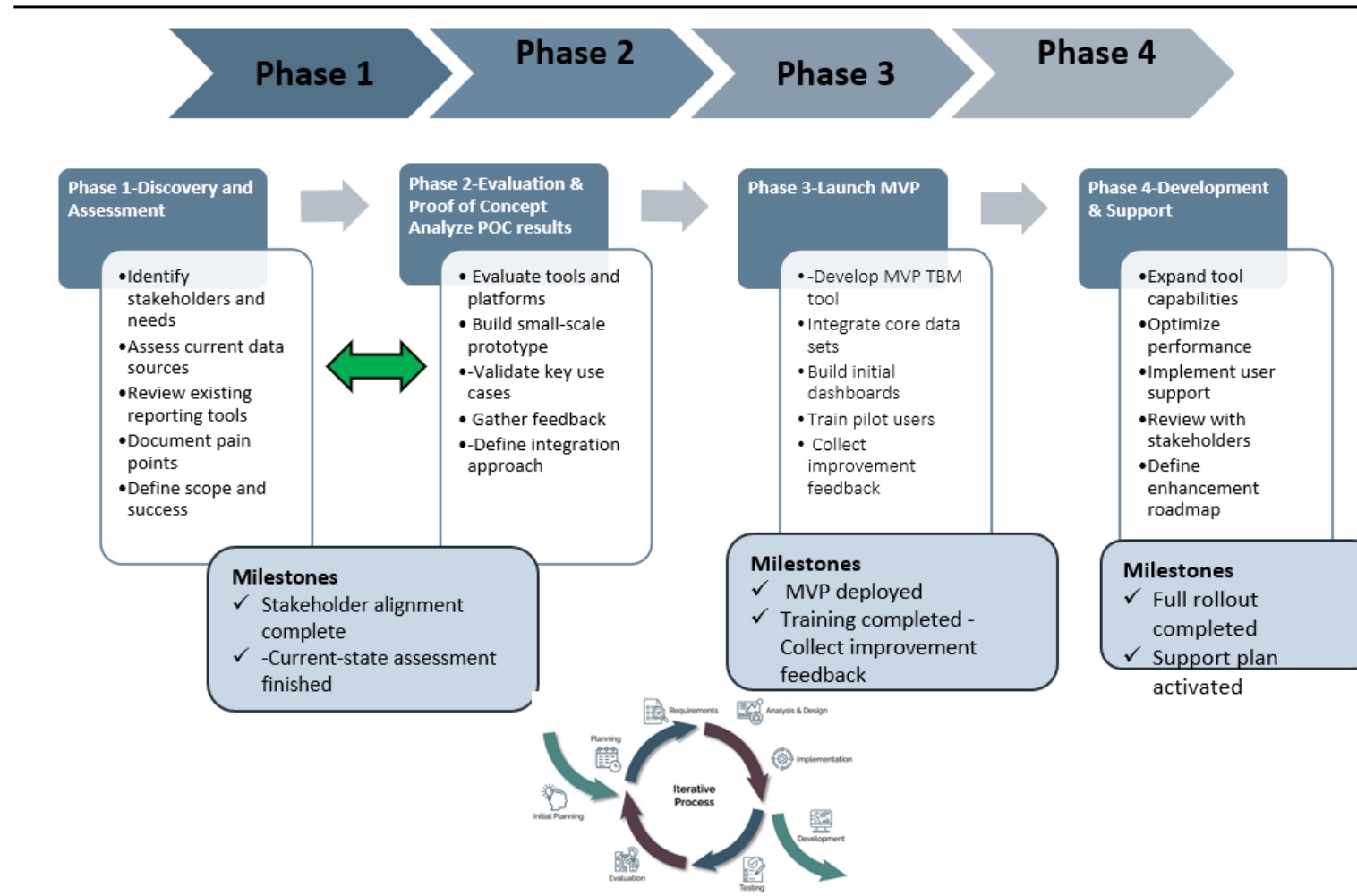


# MVP Roadmaps and Time Horizons

- Defining the time horizons that you want your roadmap to address is one of the first steps in building a successful MVP roadmap.



# ROADMAP AND MILESTONES





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# Challenges and Limitations

## **Resource Constraints**

Limited internal capacity and competing priorities can delay development and impact overall project timelines.

## **Tool Complexity and Scalability**

Designing a tool that balances ease of use with advanced functionality and future scalability can be difficult.

## **Data Accuracy and Governance**

Ensuring consistent, high-quality data and establishing governance practices are essential but often challenging with in-house solutions

# Criteria for Selecting the TBM Tool

## **Ease of Use**

A user-friendly interface ensures team members can navigate and use the TBM tool effectively with minimal training.

## **Know Your Requirements**

The TBM tool must align with defined functionality needs to support the organization's goals.

## **Know Your Data**

The TBM tool must effectively manage, interpret, and utilize organizational data to support decision-making.

## **Know Your Processes**

The TBM tool must adapt to and support existing workflows and business processes.

## **Know Your Integration Capabilities and Data Requirements**

The TBM tool must integrate smoothly with current systems to streamline data flow and operations.

## **ROI and Vendor Support**

Strong vendor support ensures reliability, regular updates, and quick issue resolution for sustained ROI.



# Conclusion and Q&A

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## **The Challenge**

Aligning technical capabilities with business needs while keeping development simple, efficient, and scalable.

## **The Problem**

Limited resources and expertise can delay delivery and reduce the effectiveness of the TBM solution.

## **The Solution**

Use familiar tools like Excel, SQL, and Power BI to accelerate development, reduce training needs, and ensure long-term maintainability.