

# Maximizing Data Value: A Comprehensive Infrastructure Proposal



## Design & Analysis Team:

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# Introduction



- At PwC we develop a data strategy by creating a data vision, defining data reports and analyzing data platform maturity. We develop a group-wide data strategy and enable clients to add value by helping them efficiently analyze their own data, produce reports and create dashboards.
- As the financial landscape evolves, the client recognizes the significance of harnessing their extensive data assets for strategic decision-making and operational efficiency.
- This presentation outlines PwC's proposal for building a robust data infrastructure that empowers the client to unlock the full potential of their data resources.



# Key Questions

## ► Data Sources:

1. Can you provide an overview of the existing data sources within the organization?
2. Which departments generate the most critical data?

**Importance:** Understanding the various data sources is fundamental for designing an effective data infrastructure. It helps identify the diversity of data and the potential complexity in integration.

## ► Data Quality:

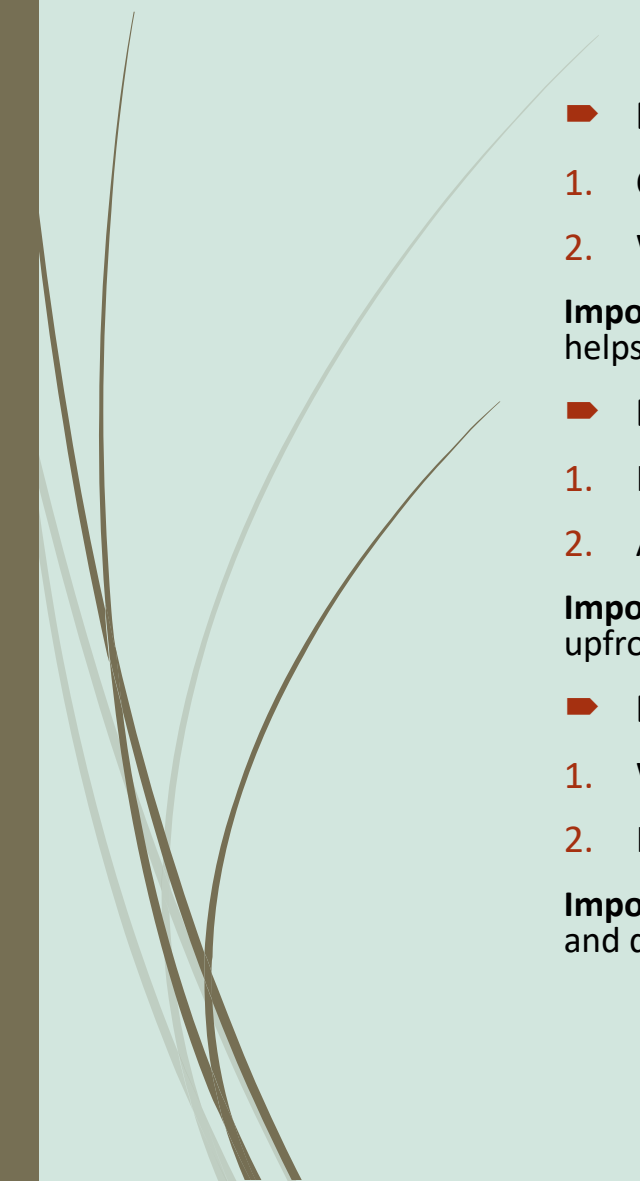
1. How confident are you in the accuracy and completeness of your data?
2. Are there any specific data quality concerns we should address?

**Importance:** Data quality is paramount for reliable analytics and decision-making. Identifying data quality concerns upfront ensures that the proposed solution addresses potential issues, enhancing trust in the data.

## ► Data Usage:

1. What are the primary use cases for your data?
2. How is data currently utilized for decision-making?

**Importance:** Knowing how data is currently used provides insights into the specific requirements for analytics, reporting, and decision-making. It guides the design of the infrastructure to meet these specific use cases.





# Considerations

## ► Data Security & Privacy:

1. What are the privacy and security requirements for your data?
2. Are there any compliance standards or regulations we need to adhere to?

**Importance:** Financial institutions deal with sensitive and confidential information. Ensuring robust data security and privacy measures is crucial to comply with regulations, build trust with customers, and protect against data breaches.

## ► Scalability:

1. What is the expected growth rate of your data in the coming years?
2. Do you foresee any changes in the scale of your operations?

**Importance:** Financial institutions often experience data growth. Understanding scalability requirements ensures that the proposed infrastructure can handle increasing data volumes, supporting the organization's future needs without compromising performance.

## ► Integration:

1. How can we seamlessly integrate data from various sources?
2. Are there any legacy systems that need to be considered?

**Importance:** Financial institutions typically have diverse systems and data sources. Ensuring seamless integration is critical for consolidating data, providing a unified view, and enabling efficient data-driven decision-making.



# Proposed Solution

## ► Centralized Data Warehouse:

A centralized data warehouse serves as a single source of truth, consolidating data from various sources. It provides a structured and organized repository, facilitating efficient data management and retrieval.

**Benefits:** Improved data consistency, accuracy, Simplified data access for analytics and reporting.

## ► Data Integration Tools:

Utilizing advanced data integration tools ensures seamless connectivity between disparate systems. These tools enable real-time or batch data integration, addressing the challenges of diverse data sources.

**Benefits:** Streamlined data flow across the organization and Reduced manual effort in data integration.

## ► Scalable Architecture:

Designing a scalable architecture ensures the infrastructure can handle growing data volumes without compromising performance. Scalability accommodates the financial institution's future expansion and evolving data needs.

**Benefits:** Flexibility to scale resources based on demand and Long-term cost savings through optimized resource utilization.

## ► Analytics and Reporting:

Implementing robust analytics and reporting tools empowers users to derive meaningful insights from the centralized data. Interactive dashboards and reporting features facilitate data exploration and decision-making.

**Benefits:** Informed decision-making based on real-time insights and Enhanced agility in responding to market changes.

## ► Data Governance:

Establishing data governance policies ensures data quality, security, and compliance with industry regulations. It includes defining roles, responsibilities, and processes to maintain data integrity.

**Benefits:** Ensured data quality and consistency and Mitigation of risks related to data security and compliance.



# Stakeholders



## ➤ Executive Leadership:

Executive leaders are interested in strategic insights derived from data to make informed decisions. The proposed solution offers a comprehensive view of organizational performance, aiding in strategic planning and goal-setting.

**Benefits:** Improved strategic decision-making and Enhanced visibility into key performance metrics.

## ➤ IT Department:

The IT department is crucial for the technical implementation and maintenance of the proposed data infrastructure. They are interested in the feasibility, compatibility, and scalability of the solution.

**Benefits:** Seamless technical integration and Efficient resource utilization and management.

## ➤ Data Analysts and Teams:

Data analysts rely on accessible and high-quality data for their analyses and reports. The proposed solution provides them with advanced analytics tools and a centralized data repository, streamlining their workflow.

**Benefits:** Improved efficiency in data analysis and Enhanced capabilities for data-driven insights.



# Value Proposition



- **Improved Decision Making:**

The centralized data warehouse and analytics tools enable faster access to accurate and relevant information. Executives can make informed decisions based on real-time insights, leading to improved strategic planning and execution.

- **Cost Efficiency:**

The scalable architecture allows the organization to optimize resource usage based on actual needs, reducing unnecessary costs. Streamlined data processes and automation contribute to operational cost savings.

- **Innovation:**

The proposed solution facilitates innovation by providing advanced analytics and reporting tools. Teams can explore new data-driven approaches, uncovering opportunities for product and service innovation.

- **Compliance:**

Data governance policies ensure adherence to data security and privacy regulations. Compliance with industry standards builds trust with customers and regulatory bodies.

- **User Empowerment:**

Data analysts and teams are empowered with user-friendly tools for data exploration and analysis. The solution fosters a collaborative environment where users can derive insights without extensive technical expertise.



# Next Steps



## ➤ Detailed Project Timeline:

### ➤ Phase 1: Data Assessment (Months 1-2)

- Conduct a comprehensive assessment of existing data sources and quality.
- Engage with key stakeholders to gather specific requirements for analytics and reporting.

### ➤ Phase 2: Infrastructure Design (Months 3-5)

- Design the centralized data warehouse architecture.
- Select and integrate data integration tools for seamless connectivity.

### ➤ Phase 3: Implementation (Months 6-9)

- Deploy the data warehouse and integration tools.
- Conduct user training sessions for data analysts and relevant teams.

### ➤ Phase 4: Testing and Optimization (Months 10-12)

- Perform rigorous testing to ensure data accuracy and system performance.
- Optimize the infrastructure based on initial usage and feedback.

## ➤ Resource Allocation:

### ➤ Personnel:

- Data Architect: Responsible for designing and implementing the data warehouse.
- Data Analysts: Involved in the assessment, testing, and optimization phases.
- IT Specialists: Oversee technical aspects, including integration tools and system deployment.

### ➤ Technology:

- Investment in a scalable cloud-based data infrastructure.
- Acquisition of advanced data integration tools.

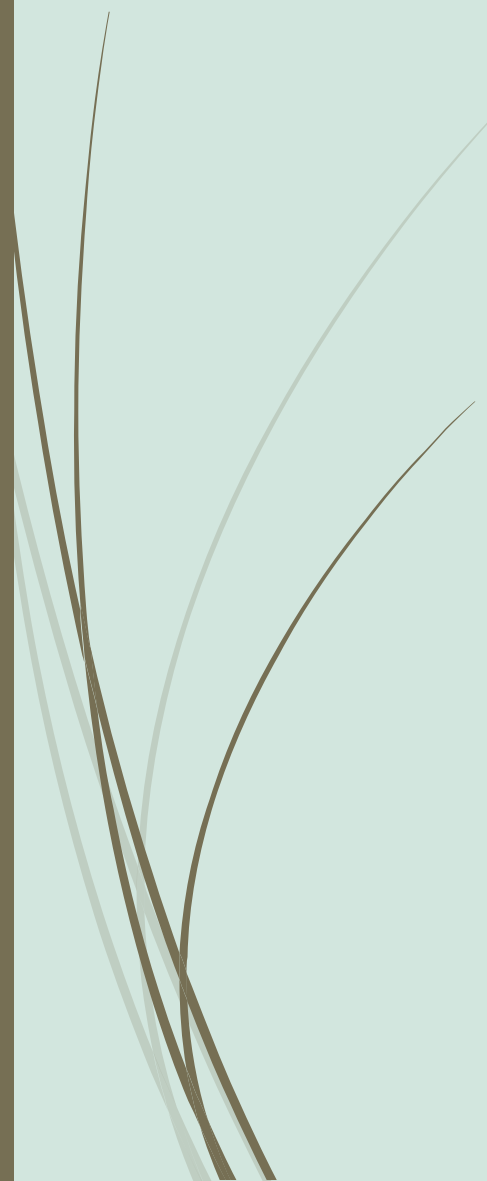
### ➤ Budget:

- Allocated funds for technology procurement, personnel training, and potential adjustments during the project.





# Next Steps (Continued..)

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- **Milestone Checkpoints:**
    - **Checkpoint 1 (Month 3): Infrastructure Design Approval**
      - Review and approve the proposed data warehouse architecture.
      - Ensure alignment with security and compliance standards.
    - **Checkpoint 2 (Month 6): Initial Deployment and Training**
      - Validate the successful deployment of the data infrastructure.
      - Conduct training sessions for data analysts.
    - **Checkpoint 3 (Month 9): Testing and Optimization Review**
      - Assess the results of testing and optimization efforts.
      - Gather feedback from end-users for further improvements.

Thank You  
ANY QUESTION???

