4PLUS & IBM
Enterprise Data Warehouse Solution

Agenda

- Business requirement

- Solution Propose

  I.   Infosphere Information Enterprise: Real time data for improve insight

  II. IIAS: Hybrid Data Management

  III. Cognos: Intelligent Reporting Tool

Executive Summary

Given the shift in the market due to the impact of COVID-19, cost cutting, risk mitigation and business continuity are top initiatives for your customers and prospects. As a result, we are coordinating a repositioning of our offerings to align our value propositions to align with the market needs. The initiative "IBM Enterprise Data Platform" focuses on messages that illustrate how IBM can help Business Entity and prospects realize cost savings and risk mitigation value propositions. This is a shift away from "value add" to "dollars saved".

"Provide Fact Base information to support decision making process with timely and effectively
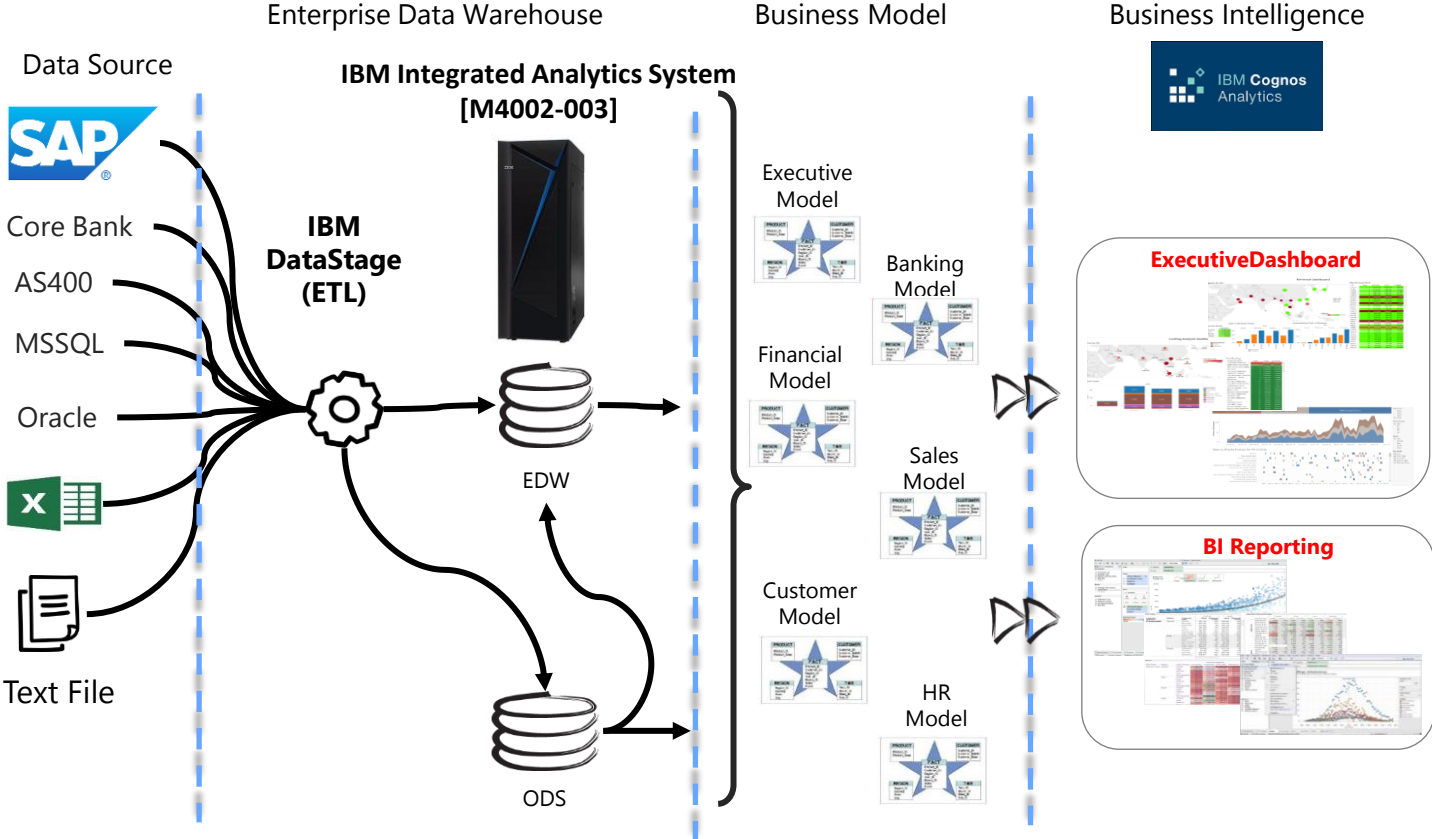**Up to 50%****"**

Project Objective

As Business Entity needs a centralized view of financial, non-financial and customer data. There are customer data, transaction data and master data that provided by multiple systems with various technologies and various data frequencies. Including data to another systems to serve various reports or downstream systems.
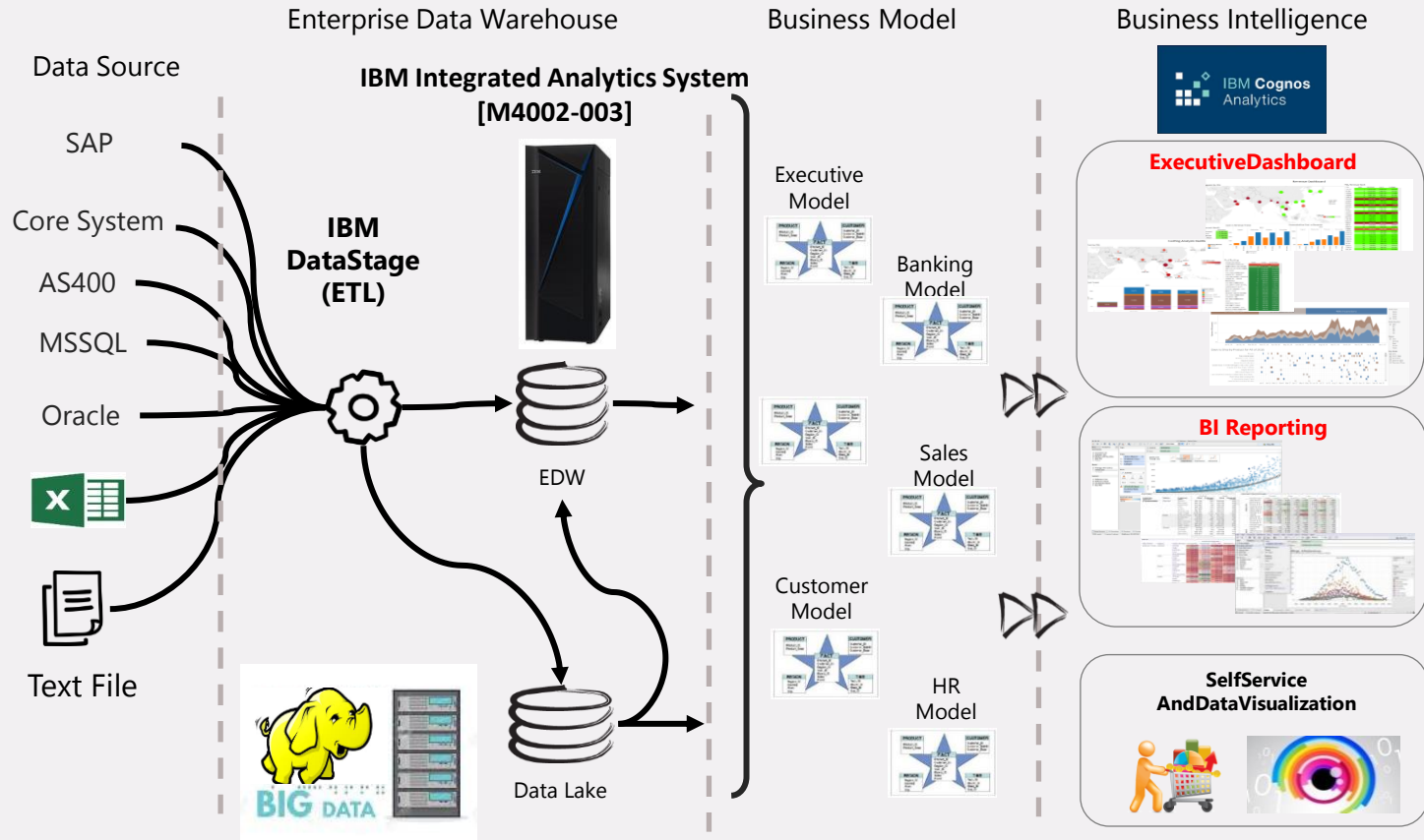
4PLUS & IBM enterprise data warehouse solution will provide the following capabilities:

- o *Provide a single source of the truth*

- o *Provide data to serve operational and analytics purposes*

- o *Provide batch monitoring and management*

- o *Provide simplified and standardized ways to develop interfaces*

- o *Provide fact base information and analytic report to support Management for decision making process.*

Solution: 4PLUS & IBM - Enterprise Data Warehouse and BI Solution

Enterprise Data Warehouse

Business Model

Business Intelligence

Data Source

IBM Integrated Analytics System
[M4002-003]

SAP

Core Bank

AS400

MSSQL

Oracle

Text File

IBM DataStage (ETL)

EDW

ODS

Executive Model

Financial Model

Customer Model

Banking Model

Sales Model

HR Model

ExecutiveDashboard

BI Reporting

IBM Cloud

Internal and Business Partner Use Only

IBM

Roadmap Solution: 4PLUS & IBM - Big Data Solution

Enterprise Data Warehouse

Business Model

Business Intelligence

Data Source

IBM Integrated Analytics System [M4002-003]

SAP

Core System

IBM DataStage (ETL)

AS400

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Oracle

Text File

EDW

BIG DATA

Data Lake

Executive Model

Banking Model

Sales Model

Customer Model

HR Model

IBM Cognos Analytics

ExecutiveDashboard

BI Reporting

SelfService AndDataVisualization

IBM

Proposed Solution

Integrated all Data

– ETL/ELT Tools (Text File) : IBM Data Stage

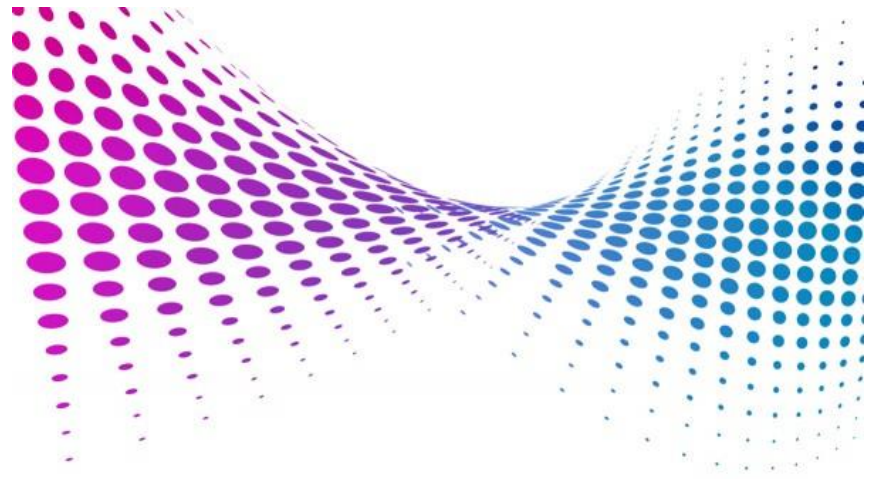EDW : IBM Integrated Analytics (IIAS)
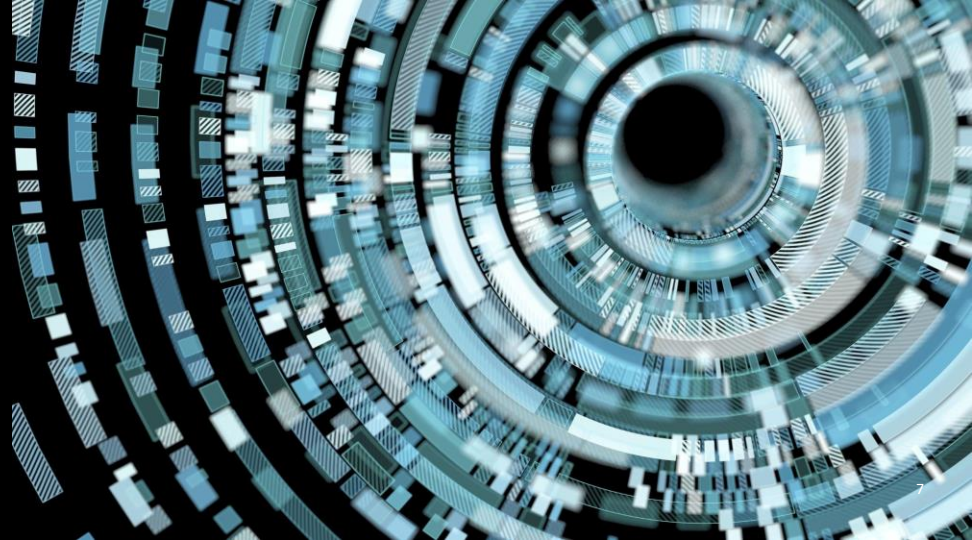
– High Performance Data

– Scale out and Scale up

Integrated KK Bank System

BI and Reporting Tool : IBM Cognos

IBM IIAS:
EDW Integration Analytic Systems

- Flexibility in choosing deployment and consumption models that best suit the business needs

- Bridge between data stores for seamless data integration or application movement

- Write your application once and run it anywhere with application portability

- Avoid lock-in

Introducing the IBM Integrated Analytics System

Built-in **IBM Data Science Experience** to collaboratively analyze data

Reliable, elastic and flexible system that reduces and **simplifies management** resources

Real time analytics with **machine learning** that accelerates decision making, bringing new opportunities to the business

Leverages a **Common SQL Engine** for workload portability and skill sharing across public and private cloud

Cloud-ready to support multiple workload deployment options

Optimized for **high performance** to support the broadest array of workload options for structured and unstructured data in your **hybrid data management** infrastructures
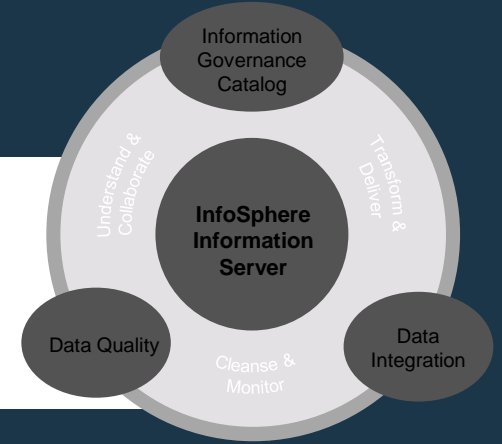
IBM INFOSPHERE:

Flexibly meet your unique requirements — from data integration to data quality and data governance

- Integrates data across multiple systems – This powerful, Scalable extract, transform, load (ETL) platform helps you get flexible and near real-time integration of all types of data
- Understands and governs your information – Use a standardized approach to discover your IT assets and define a common business language to your data.
- Assesses, Analyzes and monitors data quality – Derive more meaning from your enterprise data through integrated rules analysis on a scalable platform that support heterogeneous data.

IBM InfoSphere Information Server
Information Empowerment for Your Data Ecosystem

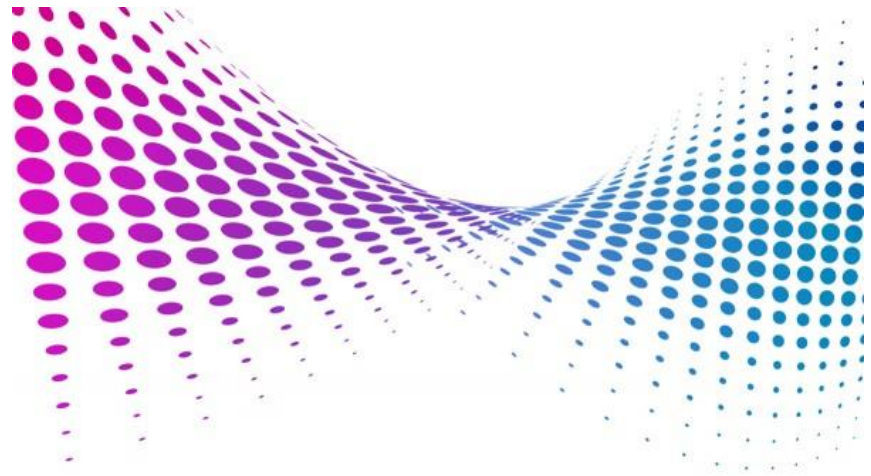| Information Governance Catalog	Data Quality	Data Integration
Understand & Collaborate	**Cleanse & Monitor**	**Transform & Deliver**
– Catalog technical metadata & align w/ business language – Manage (big) data lineage – BCBS compliance reporting	– Analyze, validate, classify – Cleanse & standardize – Define, manage & monitor data rules + exceptions	– Massive scalability – Power for any complexity – Deliver in batch and/or real-time with change capture

Common Connectivity / Shared Metadata / Security /
Common Execution Engine With Flexible Deployments (Hadoop, Grid, Cloud)

IBM Cognos Analytics:
AI Foundation

All the answers you need, in one place.

Complex data often presents analytics challenges. But you could break through the noise and paint a clear picture of what's driving your business.

You need analytic that are reliable enough to guide your business decisions, smart enough to detect hidden patterns, and visually compelling enough to resonate with your stakeholders.
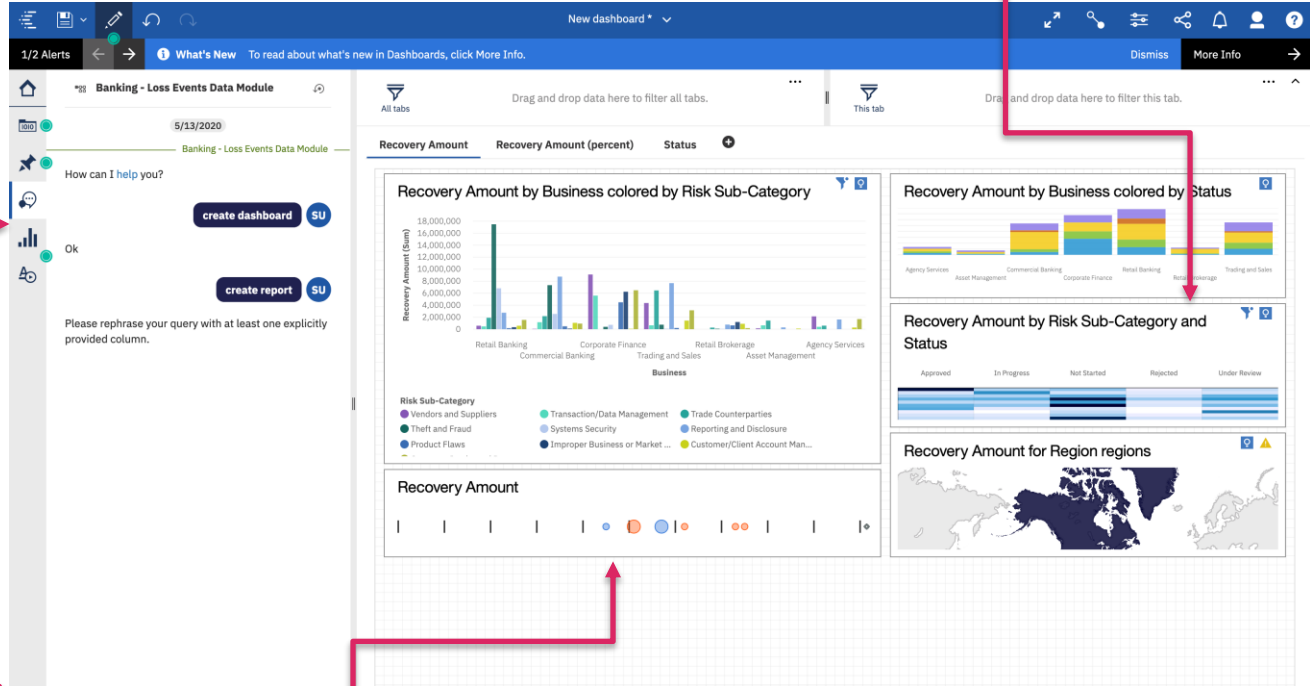
IBM Cognos Analytics is the only solution that uses AI-assisted data exploration to democratize business intelligence so users at any level can analyze and communicate the story of your data.

Find answers others can't

• Provides recommended visualizations and presents additional **AI-generated insights in natural language**

Uncovers the underlying drivers of results and the strength of the relationships among the data fields

• Offers intelligent, contextual responses to your questions via the **AI Assistant**

• Helps eliminate analysis blind spots and guess work by automatically identifying data relationships based on your recent interactions

Make your data work for you—from novice to expert

- Provides a **simpler, faster and easier user experience,** with extended capabilities revealed as you need them
- Surfaces **answers quickly using common search terms**, drawing from all your data sources, widgets, dashboards and reports

A GOOD EXAMPLE OF A DASHBOARD

Interaction feedback
- Clear indication that this navigation is interactive.
- Simple yet effective use of visual cues to indicate which tab/page the user is currently viewing.

Hierarchy
- The primary focus of this dashboard is the dominating column chart "Types of Activities" which has been emphasised by size and takes up more than half the page.
- Sizing has influenced our usual "Z-layout" reading pattern and our eyes are immediately drawn to this chart first, then the dial chart.

Proximity
- Relationships have been formed through effective use of white space.
- Several units have been formed within this dashboard, such as the link between Stage of Activities and Internal Role Activities, imply they are related via close proximity to each other.

Color
- Dark themed dashboard with a simple, plain coloured background.
- There are no distracting patterns or images used but still provides impact with contrasting colours for visualisations.

Alignment
- 2 clear yet invisible columns have been created through white space and the correct alignment of charts.

- **Automates data prep to save time** and enhance data accuracy, letting users upload data and perform cleansing and shaping directly within the tool
- Allows easy mixing and **matching of your data through** a system that recommends data joins and ways to blend data from different sources

97.2% OF ORGANIZATIONS *are investing in building or launching big data and AI initiatives.[2]*

- 2 - Monday
- 3 - Tuesday
- 4 - Wednesday
- 5 - Thursday
- 6 - Friday
- 7 - Saturday