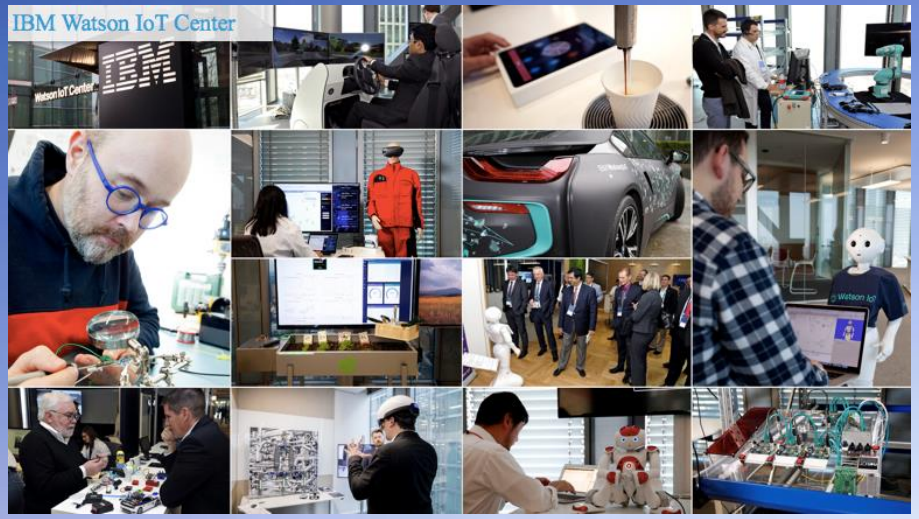

Industrie4.0 Data&Integration PoV

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IBM Industrie 4.0 Cognitive & Digitization Platform Solution, *a Twin Approach*

Forces Paint points

Focused on:
- *=> Operational Excellence*
- *=> Costs Reduction*
- *=> Cognitive processes & operations*
- *=> Process Automation & Smarter Resources*

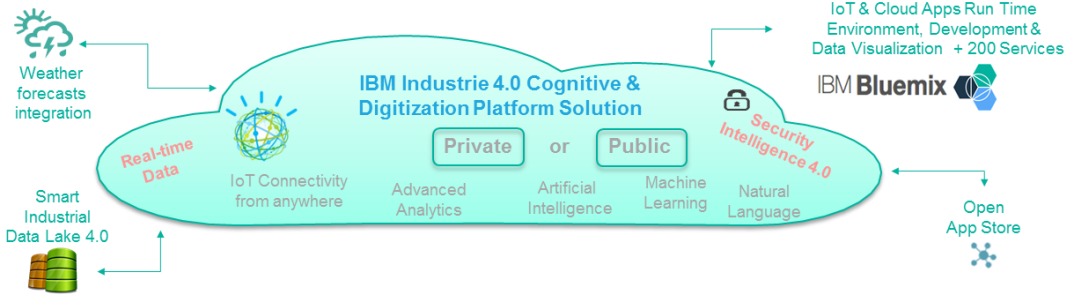
Focused on:
- *=> Data-driven Business Models*
- *=> New Revenue Streams*
- *=> Remote Control IoT Services*
- *=> Intelligent assets & equipment*

Twin Approach

Cognitive Factory & Production 4.0 ↔ Data ↔ **Smart Products & AfterSales Service**

A ***B***

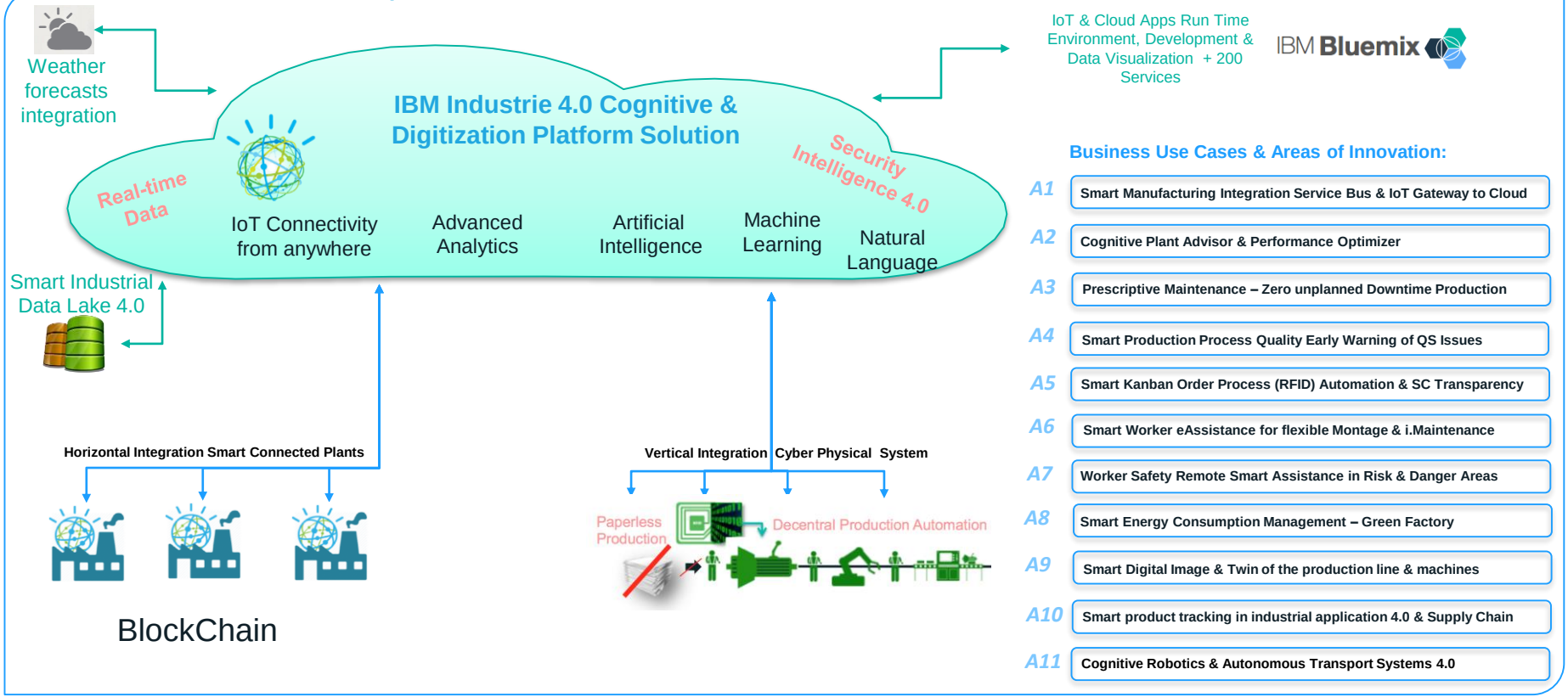
IBM Industrie 4.0 Cognitive & Digitization Platform Solution



IBM Industrie 4.0 Cognitive & Digitization Platform Solution

Approach A: **Cognitive Factory & Production 4.0**

Focus on: Operational Excellence, Process Automation & Costs Reduction

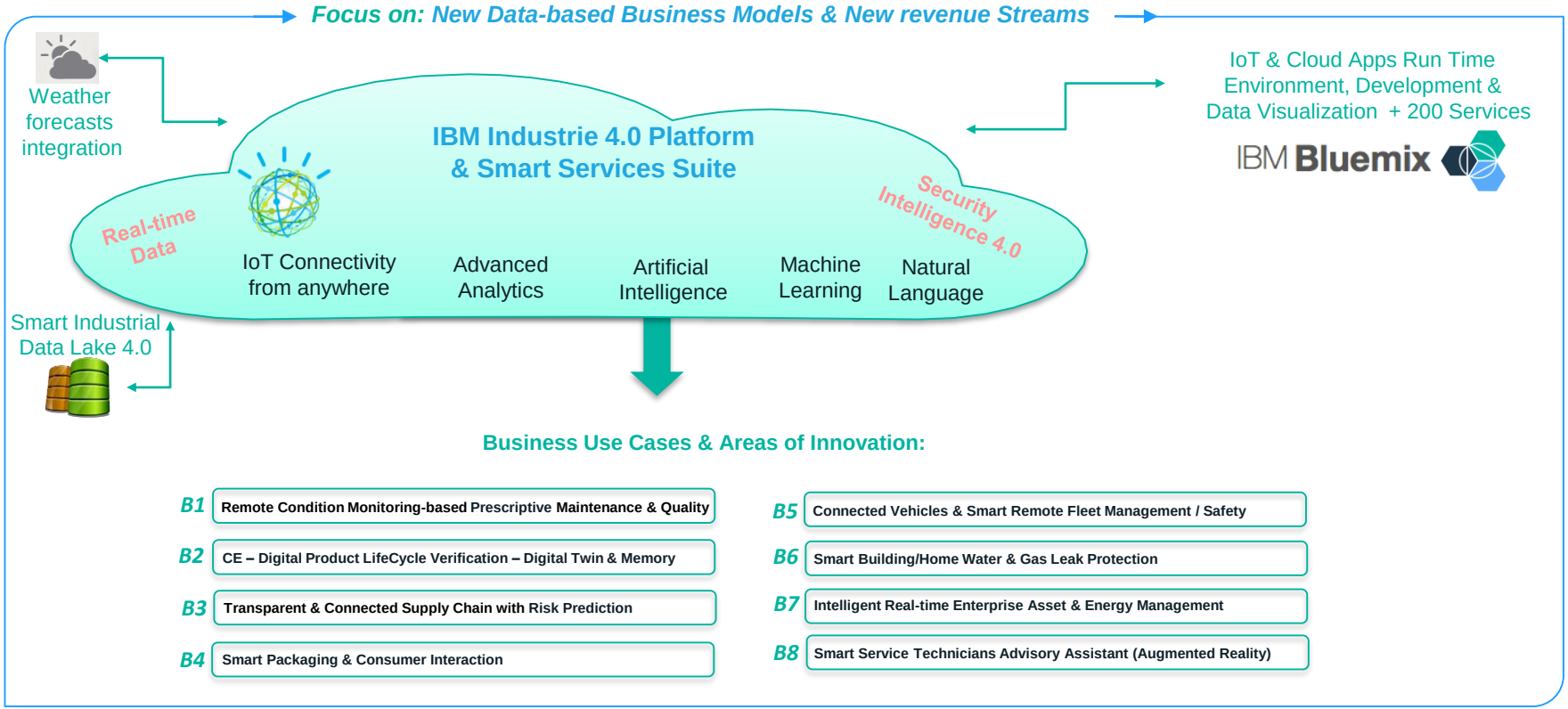


Business Use Cases & Areas of Innovation:

A1	Smart Manufacturing Integration Service Bus & IoT Gateway to Cloud
A2	Cognitive Plant Advisor & Performance Optimizer
A3	Prescriptive Maintenance – Zero unplanned Downtime Production
A4	Smart Production Process Quality Early Warning of QS Issues
A5	Smart Kanban Order Process (RFID) Automation & SC Transparency
A6	Smart Worker eAssistance for flexible Montage & i.Maintenance
A7	Worker Safety Remote Smart Assistance in Risk & Danger Areas
A8	Smart Energy Consumption Management – Green Factory
A9	Smart Digital Image & Twin of the production line & machines
A10	Smart product tracking in industrial application 4.0 & Supply Chain
A11	Cognitive Robotics & Autonomous Transport Systems 4.0

IBM Industrie 4.0 Cognitive & Digitization Platform Solution

Approach B: Smart Products & AfterSales Service



Cognitive Manufacturing
[a “data driven” digital journey]

Data

Prereq

Gather the data

- Instrument your equipment/assets to collect data
- Gather already existing data

Asset needs to be connected, outfitted with sensor or data gathered

Value

Visualize the patterns

- Visualize your data in meaningful dashboards
- Start to see patterns
- Build with Bluemix

Use the platform to quickly build dashboards for data visualization

Advance to analytics & digitization

- Gain insights from the data, produce models, prediction recommendations
- Streamline business processes

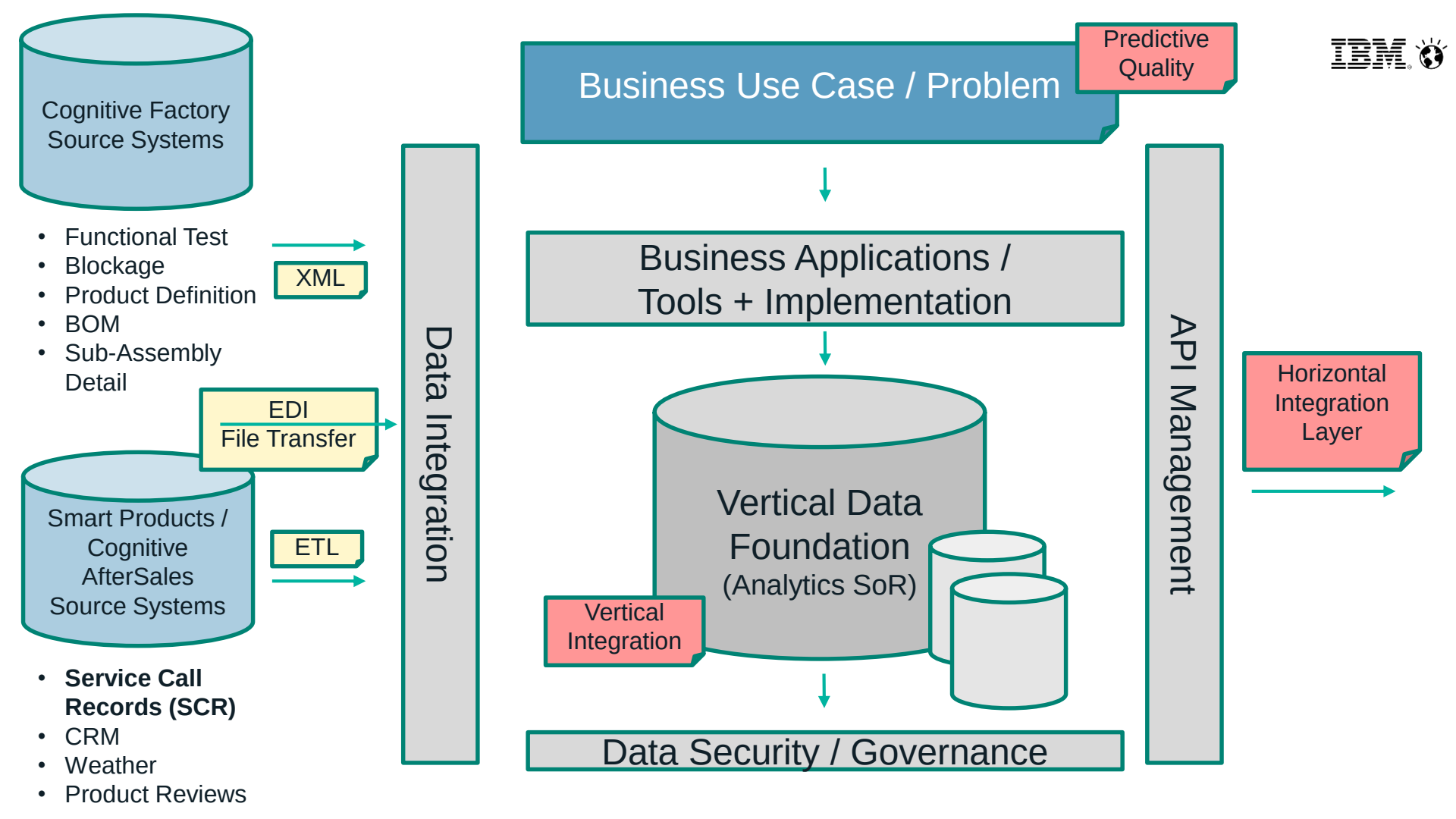
Use analytical models to predict equipment failures and provide recommendations

Vision

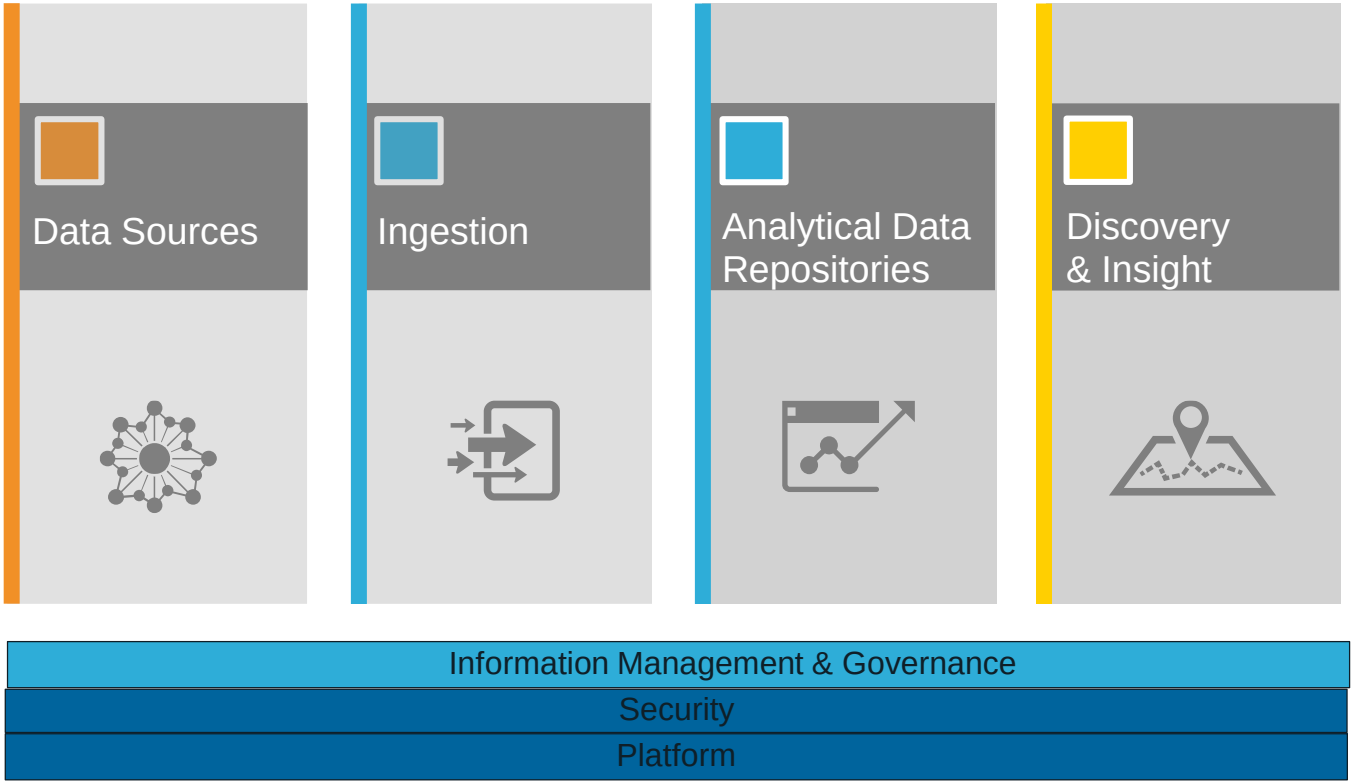
Infuse with cognitive

- Refine models with cognitive machine learning
- Utilize other cognitive functions to improve engagement
  - Visual Inspection
  - Acoustics Analytics

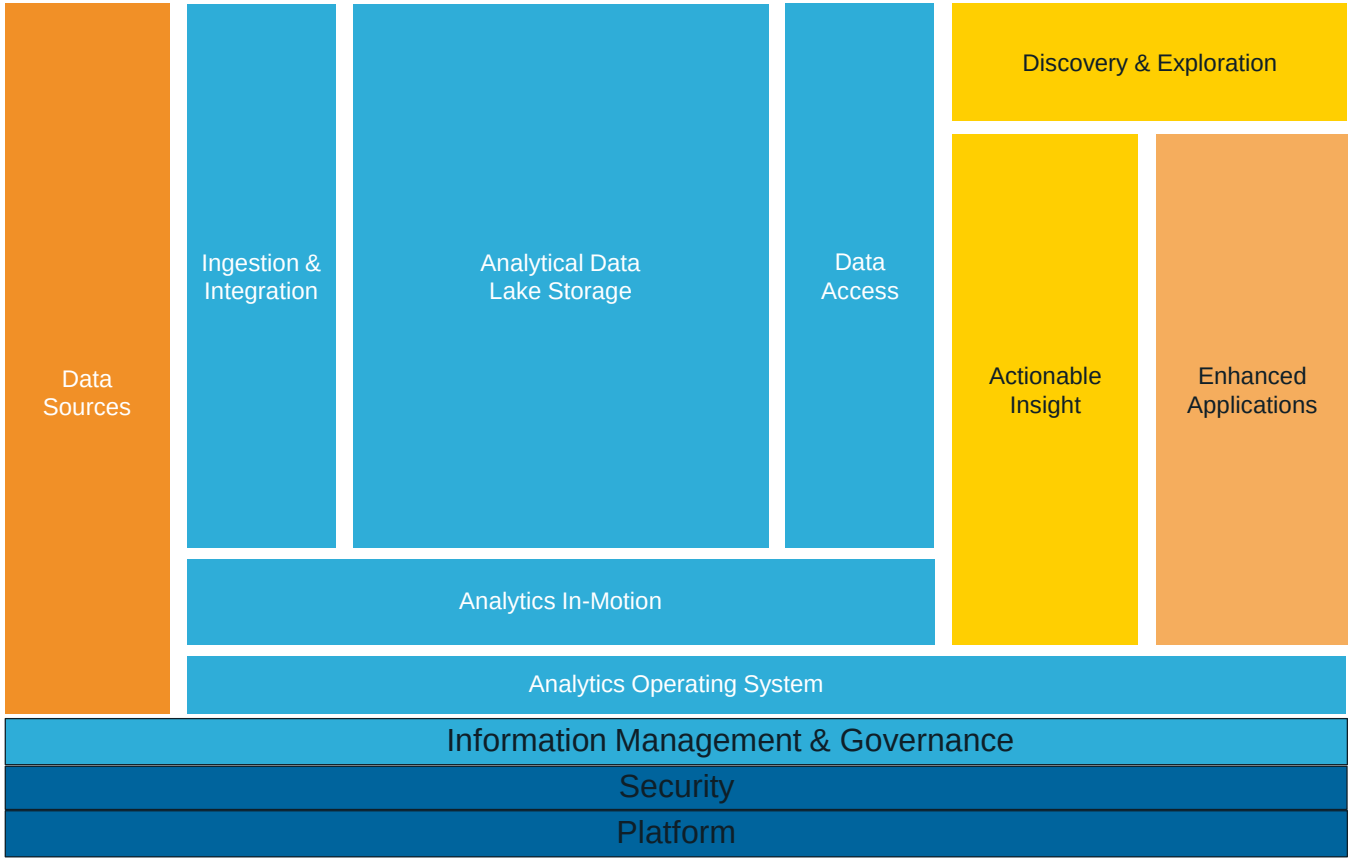
Use speech, video, image to diagnose complex problems


Cognitive Factory Source Systems
Functional Test
Blockage
Product Definition
BOM
Sub-Assembly Detail
XML
EDI File Transfer
Smart Products / Cognitive AfterSales Source Systems
ETL
Service Call Records (SCR)
CRM
Weather
Product Reviews
Data Integration
Business Use Case / Problem
Predictive Quality
Business Applications / Tools + Implementation
Vertical Data Foundation (Analytics SoR)
Vertical Integration
Data Security / Governance
API Management
Horizontal Integration Layer

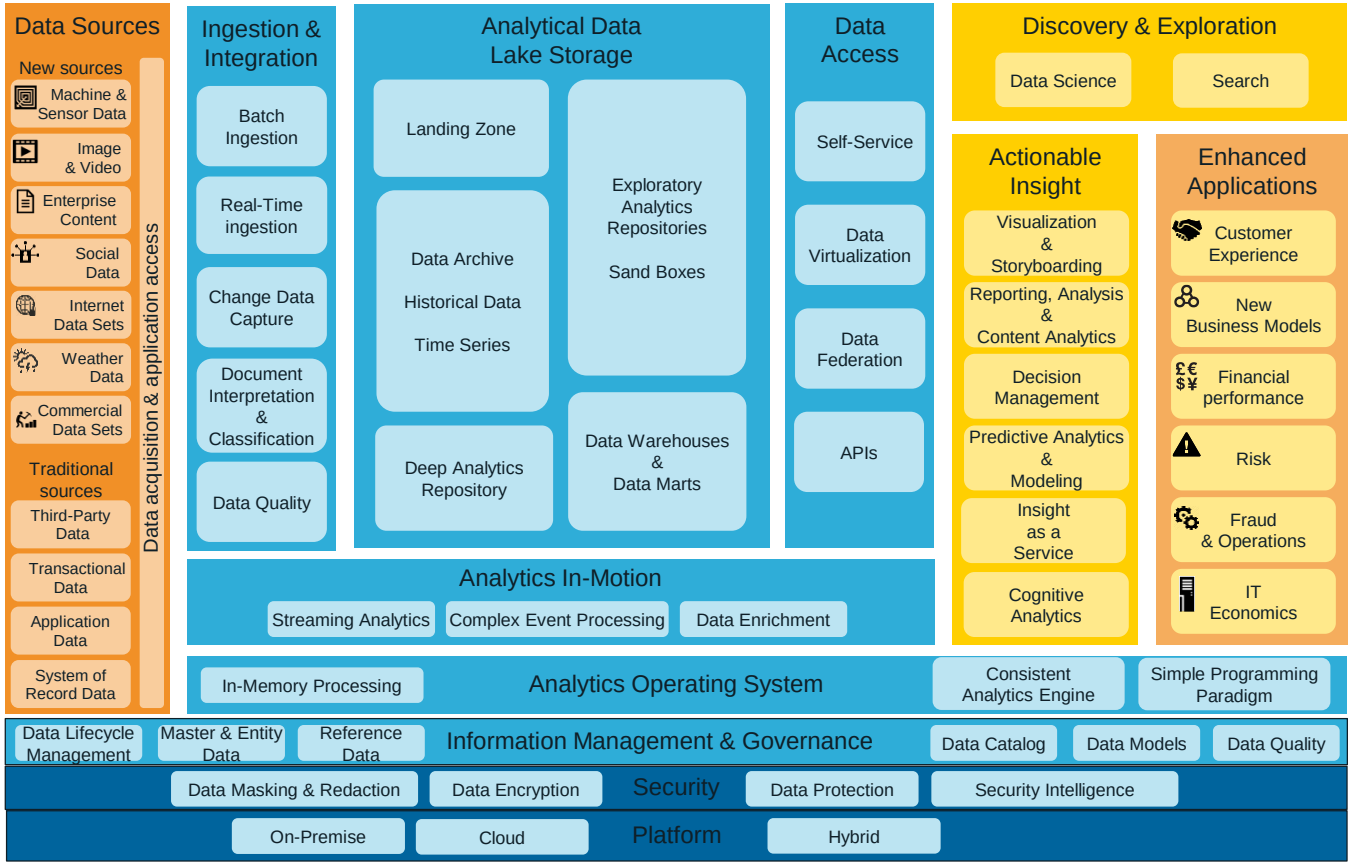
Data&Analytics Platform



Data&Analytics Platform: Components



Data&Analytics Platform: Capabilities



Thank You

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