



Driving Technology-Led Transformation

MIND Smart Manufacturing Capabilities

Mar 2022



Motherson Group

Today we have reached **The Forbes Global 2000**.

- Over 135,000 people worldwide.
- Operating over 270 facilities in 41 countries
- One of the 22 largest automotive suppliers worldwide

Motherson started in 1975 in Delhi as a partnership between A Mother-&-son.



*Group Revenues in USD bn



Our Robust Services.

Cloud

Accelerating Time-to-Market with Industry Leading Cloud Based Solutions.

Infrastructure

Reinventing the Digital Foundation of Businesses by Providing Cutting Edge IT Infra Services

Digital and Engineering

Creating new digital products and services, leveraging data and technology.

Digital & Analytics

Turning Technology into Business Outcomes Through Big Data & Analytics Solutions.

Industry 4.0+

Connecting things, data, process and people

MIND ERP Services

Driving Transformational Results for Global Enterprises Through ERP Services

Cyber Security

Keeping your businesses secure in real-time through our advance security services.

GBS & RPA

Connecting Digital Vision with Business Reality Through Global Business Services (GBS)

Our Flagship Products.

IDACS

An IoT based ERP/ Machine agnostic system from MIND with real time data acquisition & production monitoring capabilities.

MOTIF

A big data and analytics-based solution suite that provides data based intelligent insights across the entire stakeholder value chain.

Prophecy

A Cognitive Platform for Complete Factory Solutions.

HRIS1

Elevating & Energizing Employees Experience with Human Resource Information System (HRIS1)

Rollr Mini

Our OEM-grade hardware and applications are designed and manufactured to meet the exacting standards of the top brands in the automotive industry

Piper

Purpose-built to collect data from a wide range of sources, unify it together to form a comprehensive view of the customer across Channels

eMPRO

Aligning Business Processes to the Customer Needs Through Native ERP

Morango Ledger

A smart logistic software build on IoT, Blockchain, RFID, Barcode and Industry 4.0 for real-time visibility across supply chain.

Synergia

Synergia help IT organization to transform their traditional operation by redesigning processes to make it compatible with the digital world.

iDACS
Smart Manufacturing MES System

Manufacturing System – Introduction

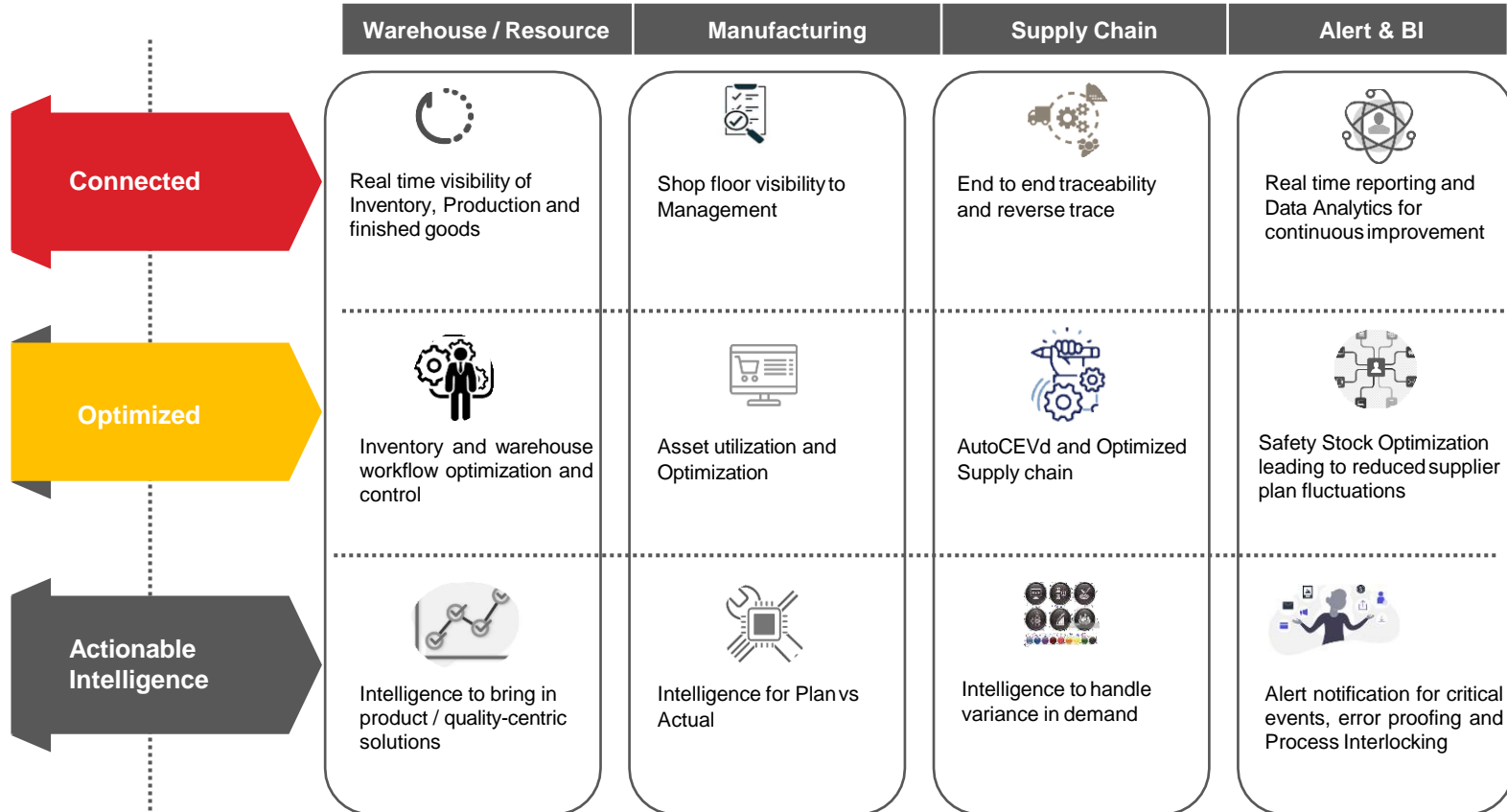


Manufacturing Execution System / Smart Manufacturing / Digital Manufacturing / Paperless Manufacturing / IIoT are the terms used interchangeably which **target to support the manufacturing process** by digitising the manual processes.

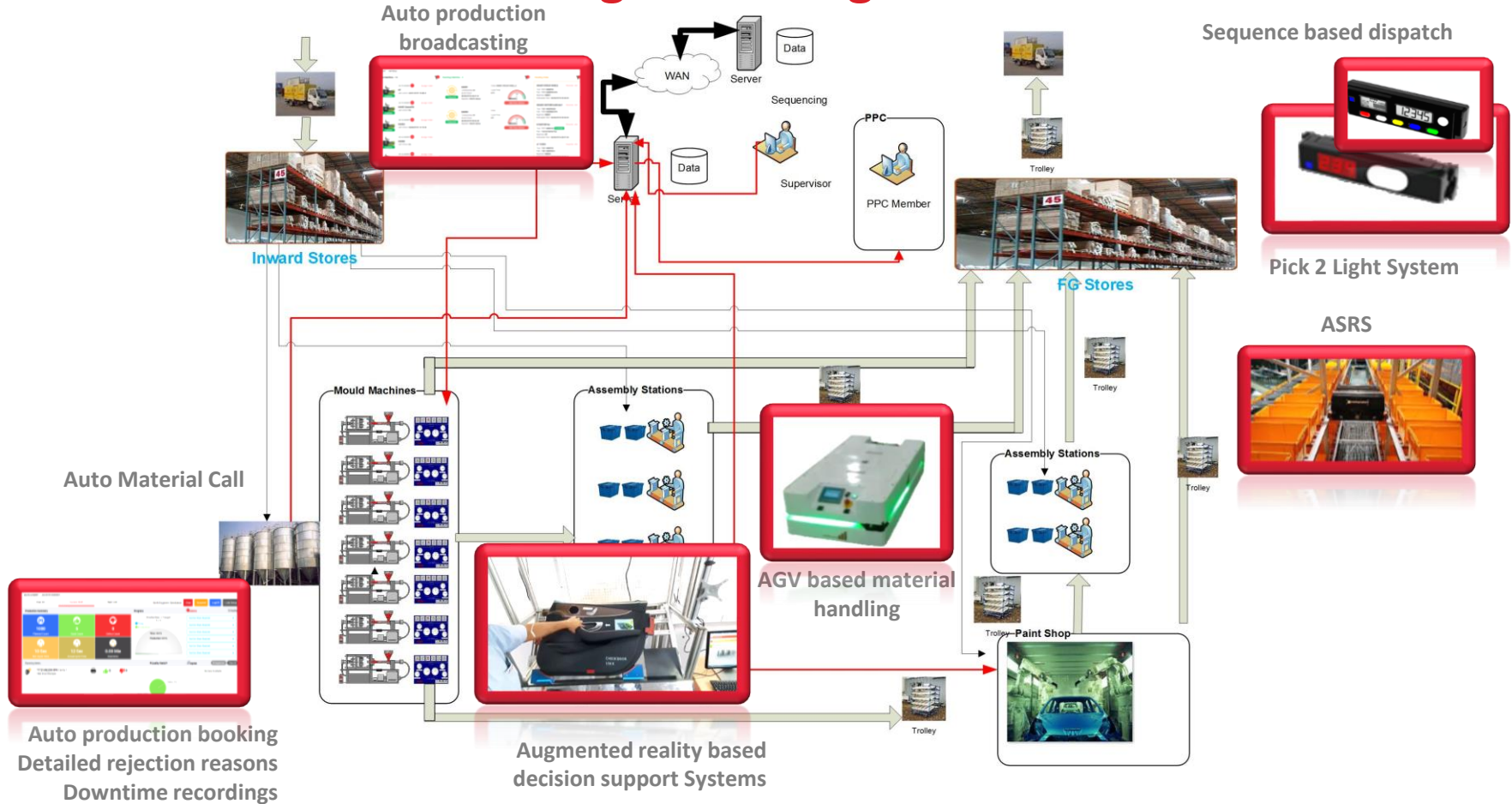


The level of digitisation could be as small as printing a barcode label, automatic production data capturing from the machine, displaying documents electronically and as complex as machine control, production control, traceability, which is addressed by the manufacturing system.



Our view of Industry 4.0



Product & Solution Offering & Coverage



Capabilities

Asset
Monitoring Work Order
Mgmt. Production
Control Quality
Control Track &
Trace Pick 2
Light Supply Chain
Systems
(JIT/JIS) Warehouse
Control 

Modules

Data
Acquisition

MES

Material
ManagementQuality
Management

Enabler

Visualisation

LEAN



ISA95

Work
Order

Sequencing

Job Card

Batch
Production

KANBAN



JIS / JIT

Discrete

Process

Logistics



Advantages

Reduced
Time to MarketEnhancing
FlexibilityBoost
Efficiency

300+ Satisfied Customers

10000+ Devices Connected

Underlying Principles

Hybrid
Architecture No Code &
Low Code Gate In to
Gate Out
Control Highly
Configurable Simple Routing
Definition Hardware,
ERP Agnostic 

Our Value Proposition.



STRATEGIC ACQUISITIONS

- **Automotive, Discrete, Process manufacturing** domain experts
- Identify **use cases**
- Propose the **best fit solution** for your specific use cases



TURNKEY

- **Complete ownership** on project.
- **One stop shop** for hardware, infra, software, installation, support



EXPANSIONS

- **Modular offering**, easy to expand
- **Server + Machine** license to give better price to start



ROI

Immediate

- Modular offering, easy to expand
- Server + Machine license to give better price to start

Long-term

- Analytics to recommend productivity improvement, quality checks, inventory optimization



BUSINESS INTEGRATIONS

- **Single source** of truth
- **Seamless integration with ERP** (SAP, QAD, Oracle EBS, home-grown), PLM, Third party systems



MANPOWER

- **Right combination** of team for MES projects, PLC /SCADA, IoT, networking, software, installation, project management, support
- **Team deployment** for handholding, onsite team to ensure smooth functioning of the system



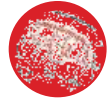
DEVICE CONNECTIVITY

- **Hybrid architecture**, Multi-model connectivity methods to exchange data from Machines
- **Simulation tool** to reduce machine downtime for testing
- API interface, **easy to build** a new driver

Customer Connect



OEM



TIER 1

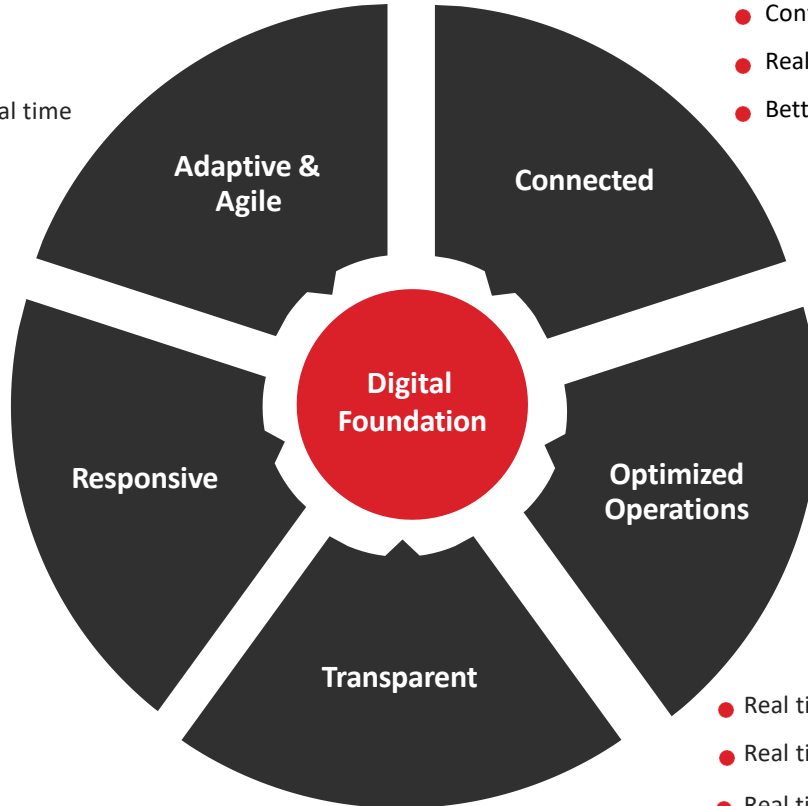


MEDICAL, ELECTRONICS,
ENTERPRISE & OTHERS



MIND Digital & Analytics Portfolio, A brief Look

Smart Factory Ecosystem



- Flexible scheduling
- Implementation of production changes in real time
- Configurable factory layouts & equipment

- Continuous ingestion of data - data sets
- Real time collaboration b/w parties
- Better communication b/w departments

- Preventive & predictive analytics to detect anomalies in real time
- Real time monitoring
- Automated restocking

- Predictable production volumes
- Cost Reduction
- Automated production management

- Real time insights for decision making
- Real time predictions
- Real time tracking & tracing



MIND Digital & Analytics Portfolio

Synergia Studio

Microsoft CoE

DPDS

Legacy Transformation

Immersive Interactive

Decision Science

Testing CoE

Data Visualization

MIDLabs

Salesforce

FP&A

Big Data & Data Management

PRACTICES

 Synergia

PRODUCTS

 mOTIF

 PIPER

 GENIE

 mOTIF Lakehouse

 HENKAN

 eMPro-Docs
Document Management System

 TESUTO

 PROPHECY

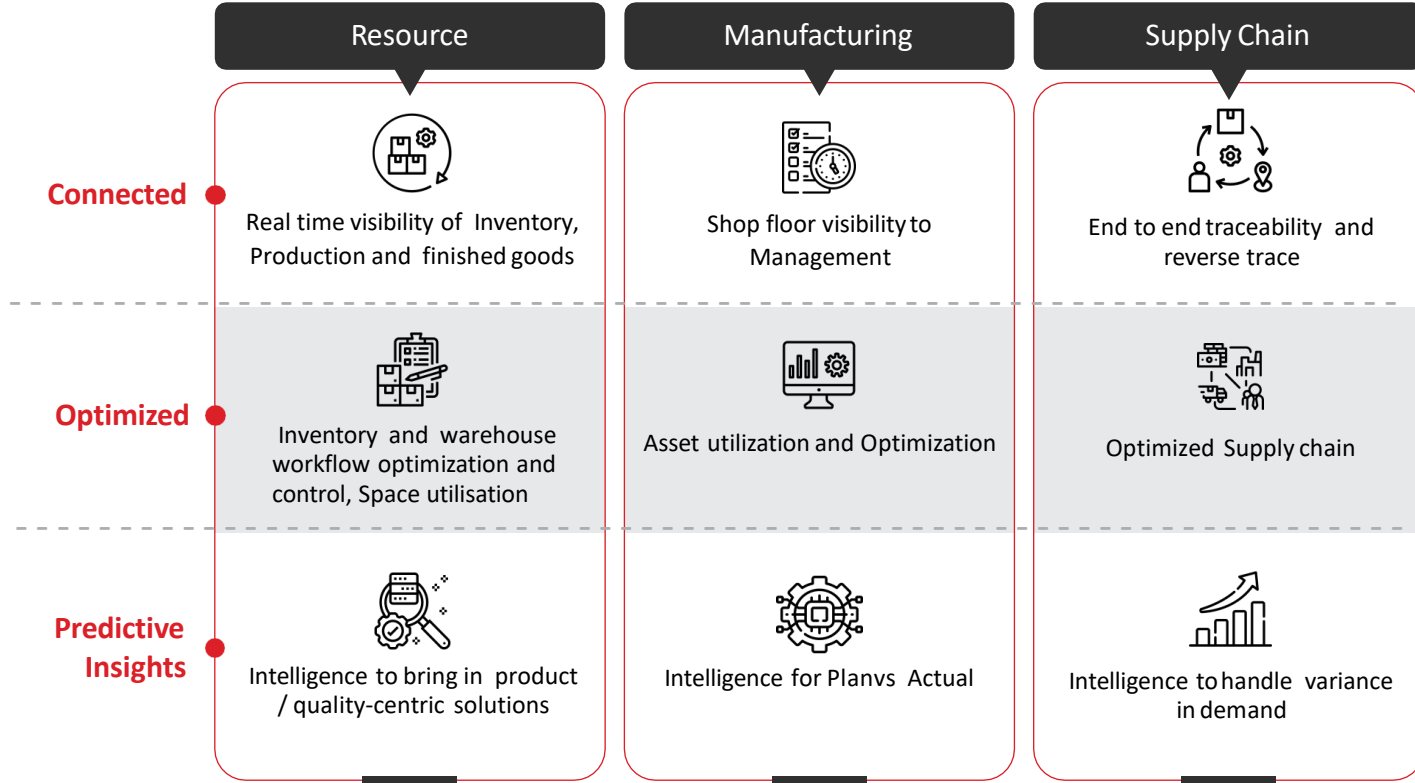
 HRIS

 L1 Legal 1

 Morango
LEDGER

Our Value Proposition- Connected Ecosystem

Drive Greater Value Both Within The Four Walls Of The Factory And Across The Supply Network



We are Helping Clients re-imagine Business Processes & Operations



| Manufacturing | Life Science | Healthcare | CPG | Retail | Education | Automotive | Energy & Utilities | Oil & Gas | High Tech |

MOTIF is a transformation framework leveraging Big Data & Analytics that provides data based intelligent insights which helps redesign business processes across the value chain

m TIF

MotherSON Intelligence Framework



Vision

Help organizations to use intelligent insights helping to take in time decisions across the ecosystem.

Mission

To leverage the power of advanced analytics across Operations, Finance, Procurement, Sales and Audit functions for improving plant operational efficiency and productivity.

Introducing MOTIF 360-degree advanced analytics data platform

MOTIF
Lakehouse

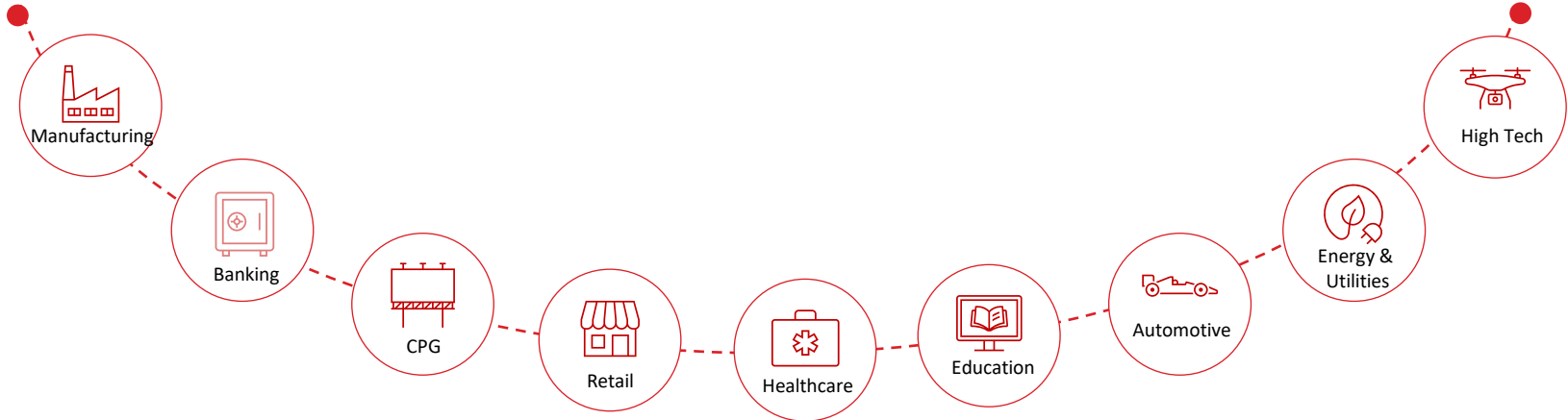
Simplifies data governance with a single point of control

MOTIF
PROPHECY

A prediction engine that studies historical data & identifies pattern.

Piper

A Customer Data Platform



With a dedicated analytics team we work together with the clients to build capabilities for sustainable future. Our solutions range from **use-case-specific** applications to full-scale analytics transformations.



Factory Analytics Solution

Operational Improvements and enhanced Plant Productivity using the power of Data and Advanced Analytics

Industry: Manufacturing



Audit Analytics

Data driven evaluation against audit rules and criteria to Generate, Manage, Notify & Track audit exceptions through workflow

Industry: All



Sales Analytics

Unlocking the power of Advanced Analytics to improve the Return on Sales by analysing the Trends & Patterns in Sales

Industry: All



Spend Analytics

Leveraging analytics for Optimizing the Procurement Cycle, Efficient Supplier Management & Strategic Global Sourcing

Industry: All



Finance Analytics

Effective & Efficient Planning, Budgeting and Management Reporting with the help of Data & Analytics

Industry: All



People Analytics

Supports Strategic Decision Making for accurate Workforce Planning, Attrition Analysis and effective Training & Development

Industry: All

Technology



Power BI



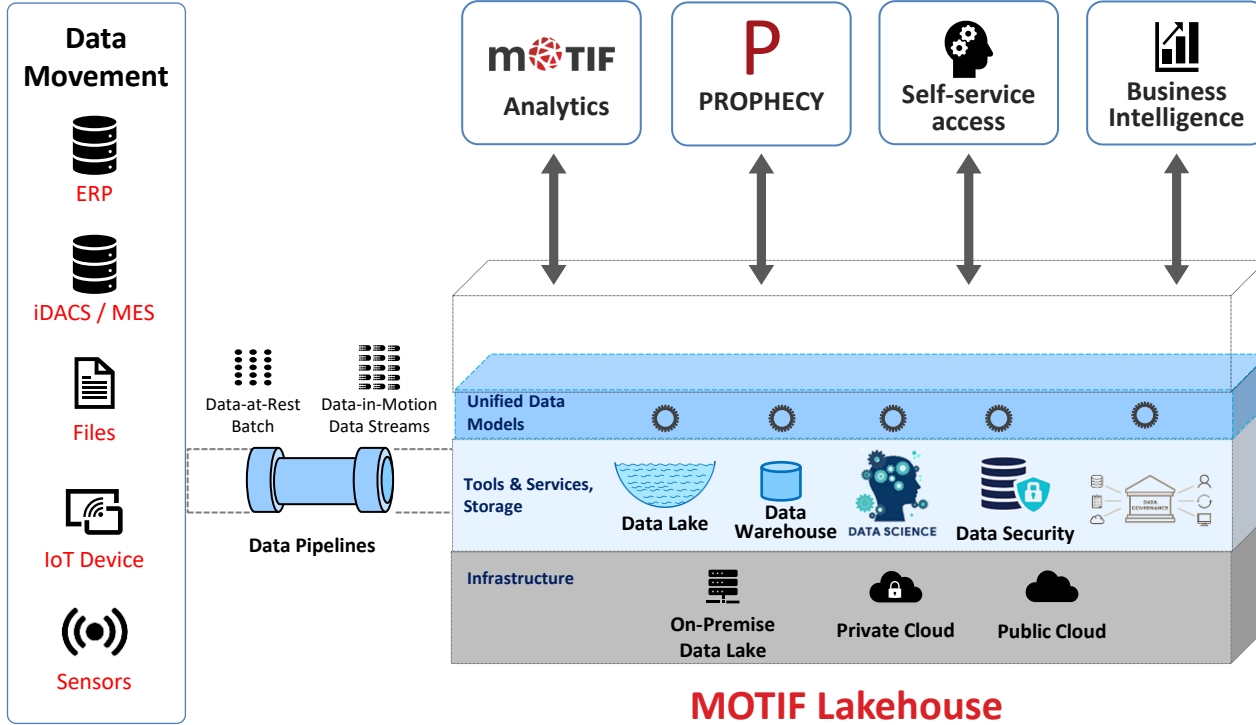
Azure Data Lake Storage Gen2



Azure Data Factory

Databricks

Platform to Prepare Data as a Fuel to Consume Optimally



Data Storage

Hewlett Packard Enterprise

Azure aws Google Cloud

Data Integration

Spark nifi talend

Informatica Fivetran Google Dataflow Amazon Glue

Data Governance

Hewlett Packard Enterprise

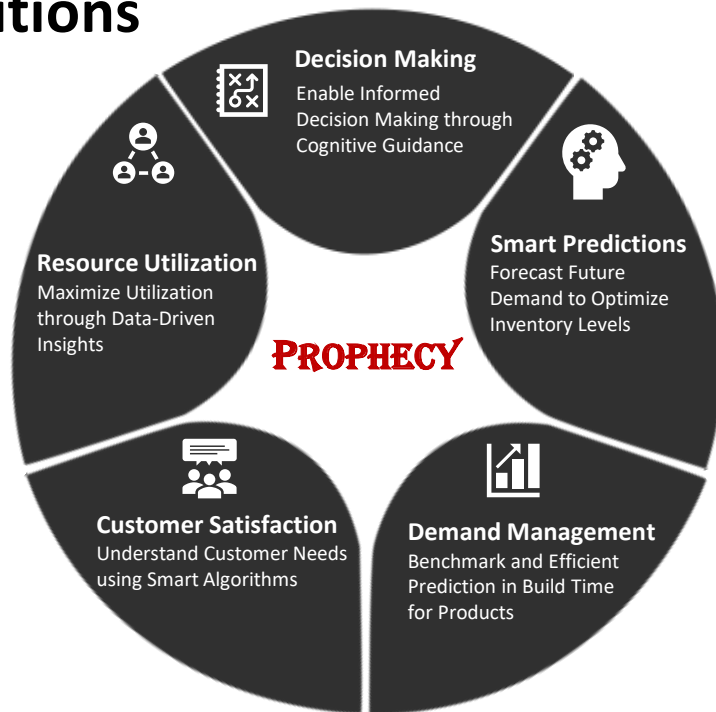
OVALEDGE Informatica talend Azure Purview

Data Platforms

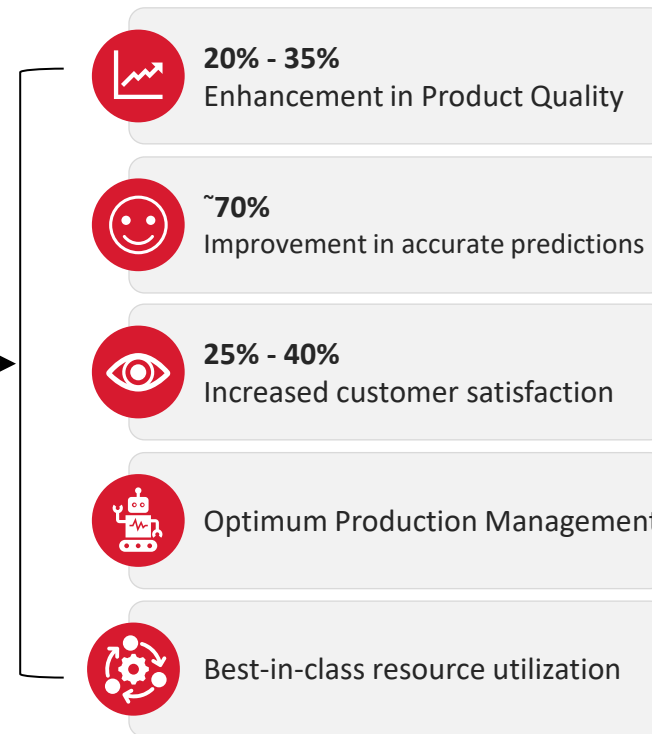
Hewlett Packard Enterprise

aws Google Cloud Azure

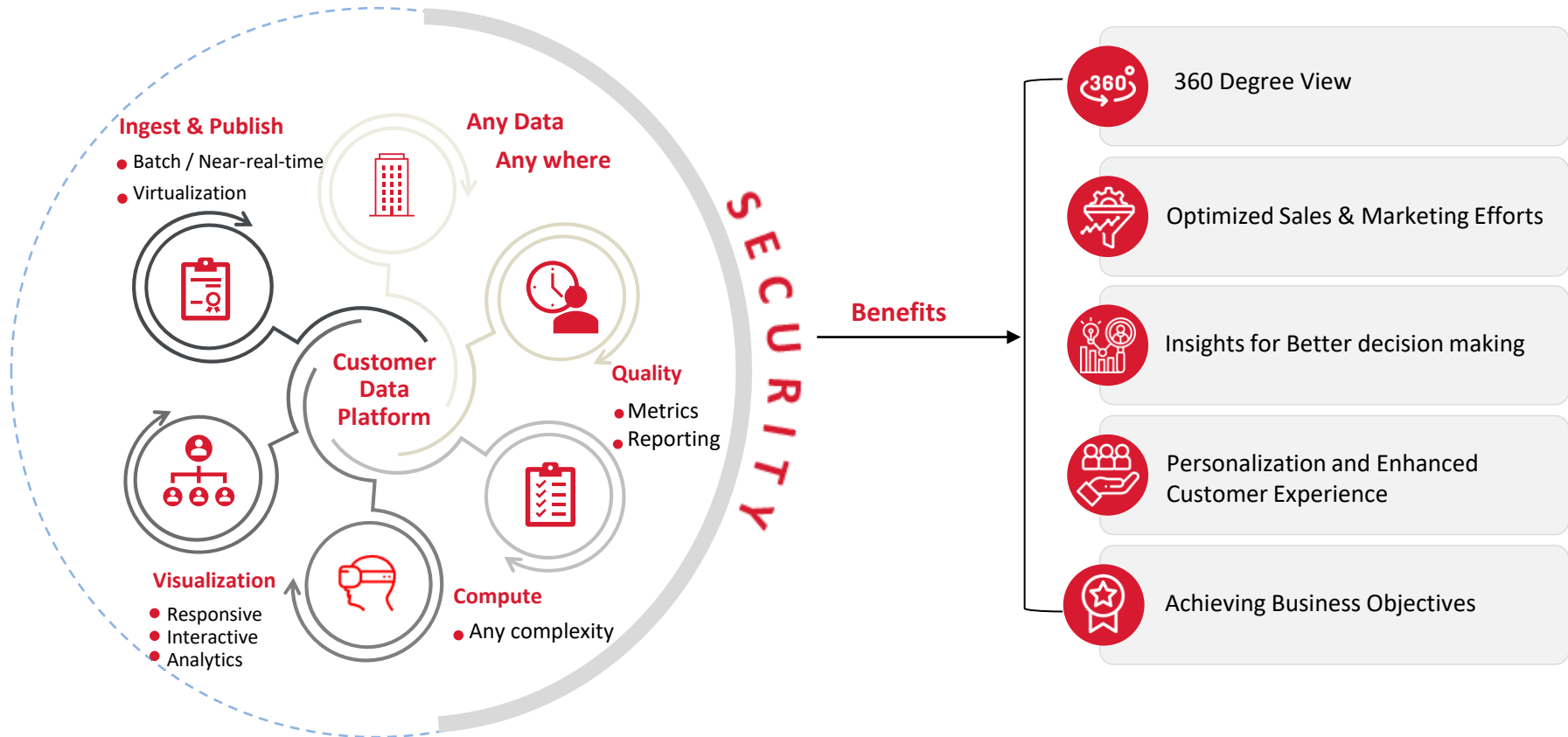
Prophecy – A Cognitive Platform for Complete Factory Solutions



Benefits

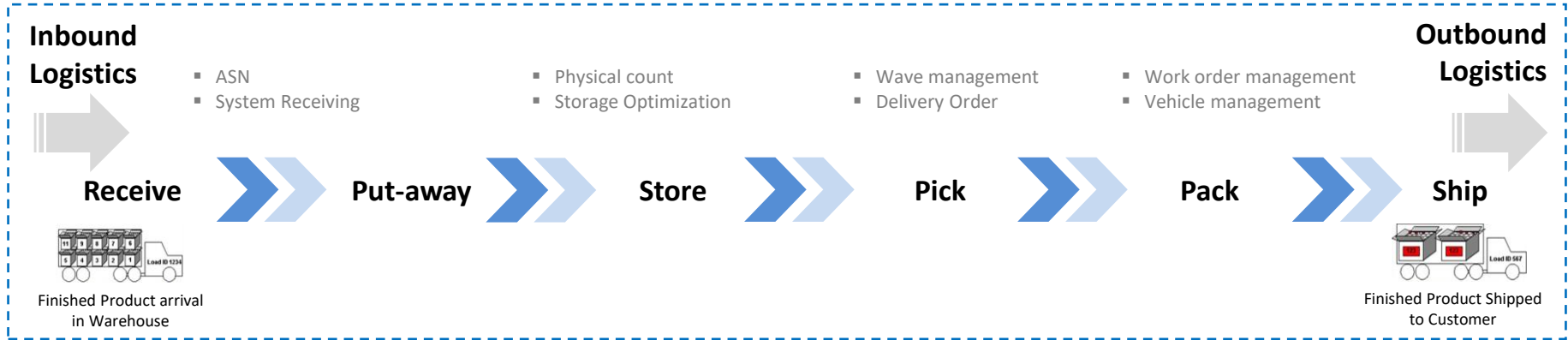


Piper - A CDP integrating across data lifecycle



Smart Warehouse Management System

Warehouse Process Flow



Resource Planning & Scheduling

- ✓ Manpower planning for each shift
- ✓ Inventory planning
- ✓ Supply chain monitoring
- ✓ Equipment maintenance
- ✓ Inbound and outbound bay scheduling for incoming trucks

Warehouse Operations

- ✓ Inbound operations/ Receiving
- ✓ Put away management
- ✓ Advanced Shipment Notifications (ASN)
- ✓ Storage Optimization
- ✓ Picking – Wave management
- ✓ Work order management
- ✓ Outbound operations/ Shipping
- ✓ Physical inventory count
- ✓ Palletization

Finance & Accounting

- ✓ Asset management
- ✓ Book-keeping
- ✓ AR / AP management
- ✓ Fixed asset management
- ✓ Banking & reconciliation
- ✓ Financial reporting and analysis

Environment, Health & Safety

- ✓ Product safety
- ✓ Hazardous substance mgmt.
- ✓ Waste management
- ✓ Occupational health
- ✓ Industrial hygiene & safety
- ✓ Incident management

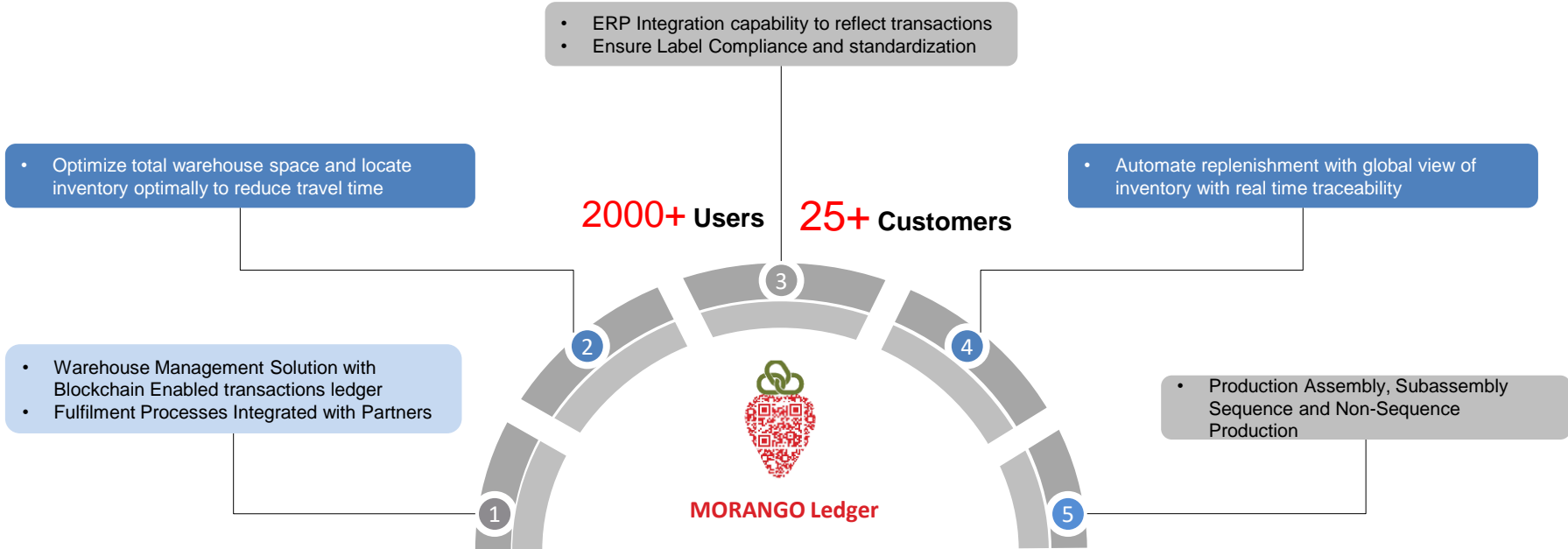
Performance Measurement (SLAs and KPIs)

MORANGO LEDGER

Smart Warehouse Management System



| Industrial IoT | RFID/Barcode | Cycle Counting | Labour Management | UGS | Blockchain | Smart Warehouse | Fleet Management |



One stop solution with end-to-end traceability of the inventory in real-time and serves as a Smart Warehouse Management System

30% Increase in Operator Productivity

100% Inventory Accuracy

50% Improvement in on time shipments

95% Reduction in Overtime

Seamless Integration Capabilities

End-to-End Traceability



Thank you.

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