Master Data Management Framework

SYSTECH

Making Information Matter.

Master Data Management (MDM) - Objectives

- Consolidate critical Information across enterprise, while reducing redundancy
- Improve data integrity and ensure accuracy, validity and completeness
- Assess & Prioritize different data
- Single Version of Truth (Domains) (MDM)
- Provide a clear understanding of the information a company collects
- Measure Enterprise wide performance
- Simplify complex and non-integrated data management processes

Master Data Management is a data strategy that companies implement via a collection of tactical initiatives that feature a common view towards a broader strategy

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Data Challenges

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MDM – Value Proposition

Better data hygiene drives better **data matching**

Better matching drives better **Advisor & Firm identification and modeling**

Better identification and modeling drives better **Advisor interactions & campaigns**

Better interactions and campaigns drive higher **Advisor Knowledge**

Greater knowledge enhances **Advisor Experience, Confidence, & Revenue Opportunities**

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Core Features

1. CORE Engine

How efficient is the core engine in terms of cleansing, matching and de-duping, Unique Keying and Concept Standardization (Address)

2. Business Rules

Interfaces for Workflows, Exception (bucket) handling, Approvals and Human Task Delegation

3.Taxanomy

Support for Business Taxonomy, Common Domains (Products, Customers etc.) and Hierarchy

4. Inter Operability

How well it integrates with current Data Management & Data Governance tools and other application systems / databases.
Real-Time Data Integration abilities

5. Human Roles

Ability to support multiple data governance and data steward roles

6. Reporting

Data Quality Monitoring and Reporting

7. ML Abilities

Does the solution use AI or ML abilities to enhance its efficiency

8. Cost

How justifiable is the cost of the solution compared to its features

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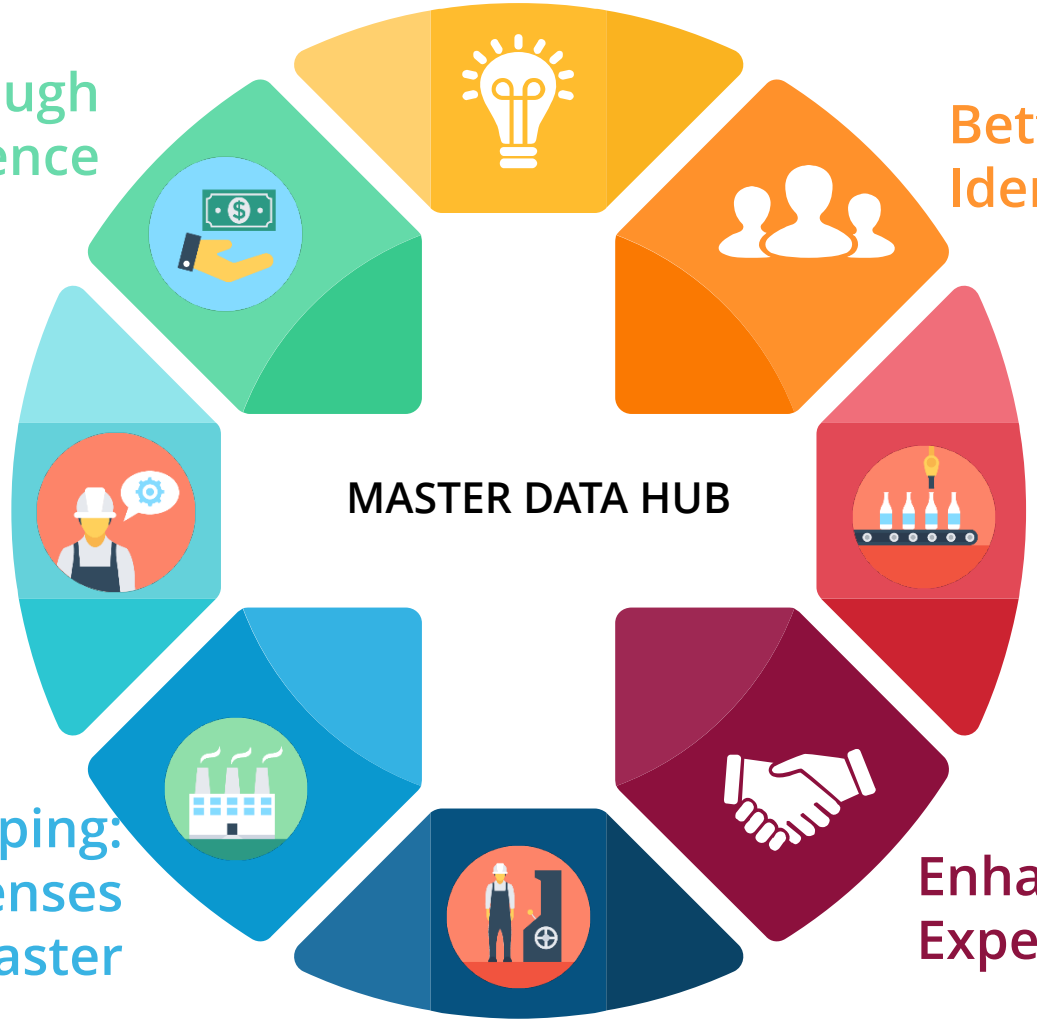
Key Benefits

Shorten Time-to-Market

Increase revenue through better customer experience

Better Procurement: Identify most profitable Suppliers



Centralize internal & industry standard codes

Minimize Product Development Complexity

Better Shipping: Reduce Operational Expenses through Sites Master

Enhance Customer (& Supplier) Experience

Centralize Asset Management and automate auditing & validation

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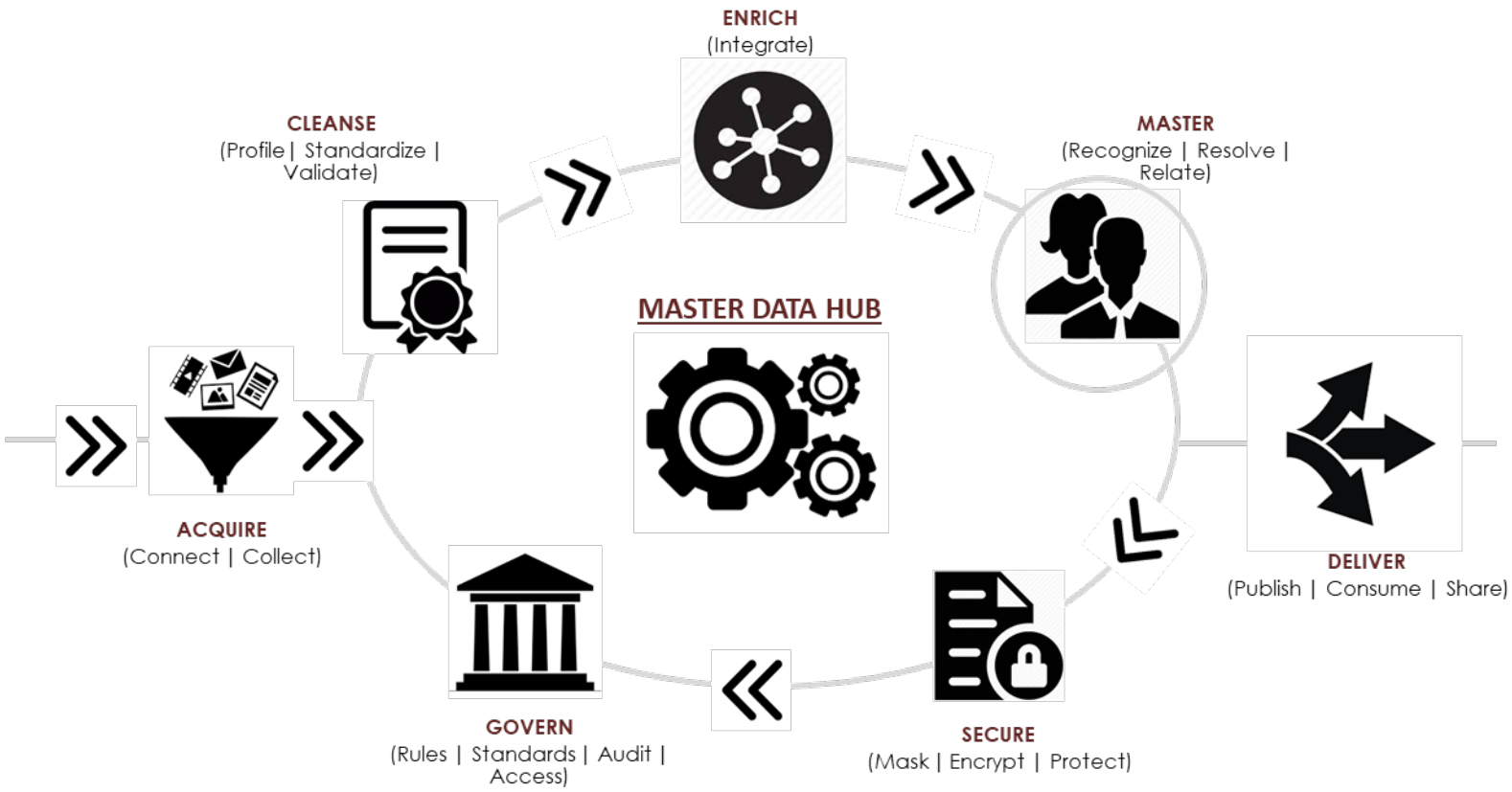
MDM - Framework

Data Producers

Enterprise Apps
Cloud Apps
Enterprise Content
Legacy Systems
3rd Party Data
Interactions
IOT
Social Data



Data Consumers

Portals
Analytical Apps
Dashboards/Reports
Data Warehouse/
Data Lakes
3rd Party Feeds
Compliance

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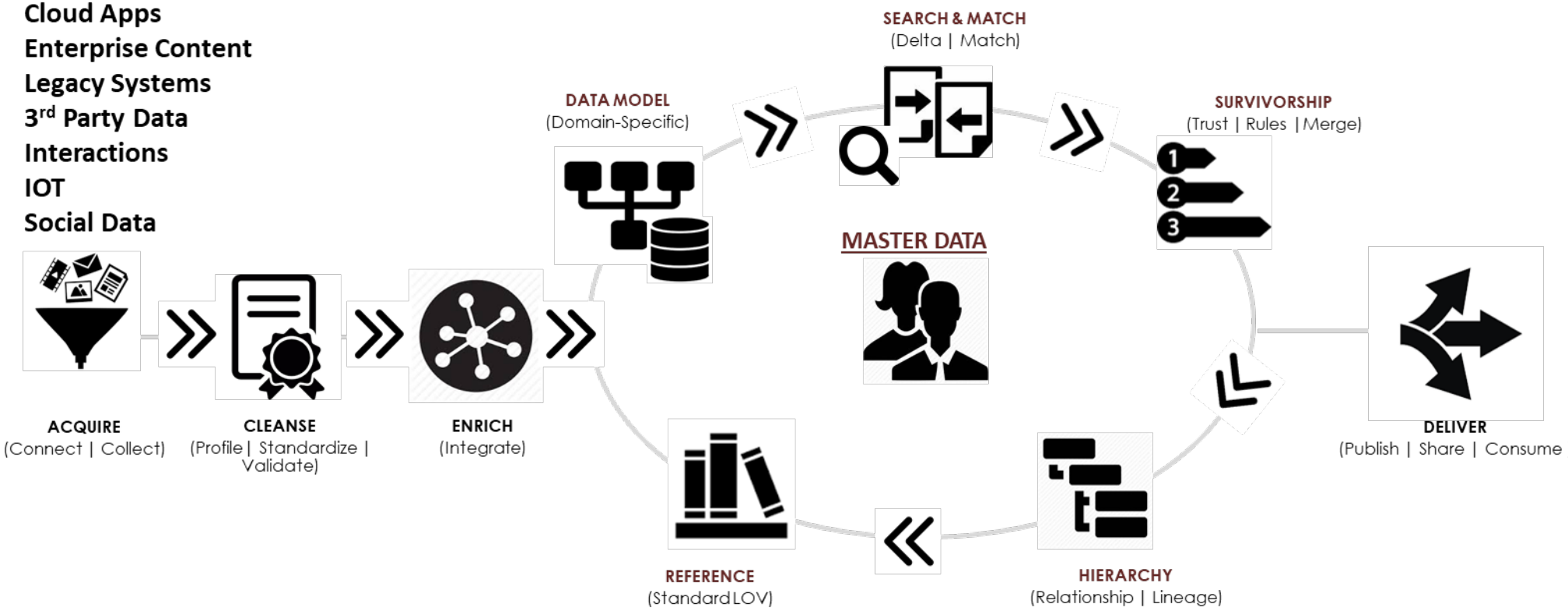
MDM – Building Blocks

Data Producers

Enterprise Apps
Cloud Apps
Enterprise Content
Legacy Systems
3rd Party Data
Interactions
IOT
Social Data



Data Consumers

Portals
Analytical Apps
Dashboards/Reports
Data Warehouse/ Data Lakes
3rd Party Feeds
Compliance

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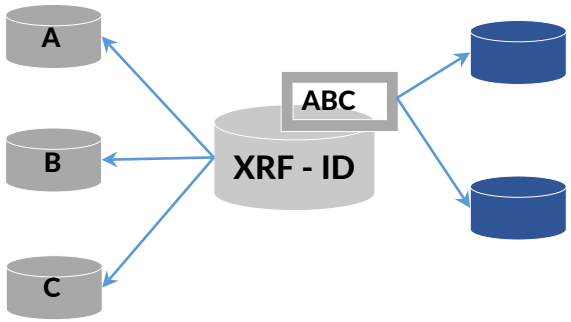
MDM – Implementation Styles

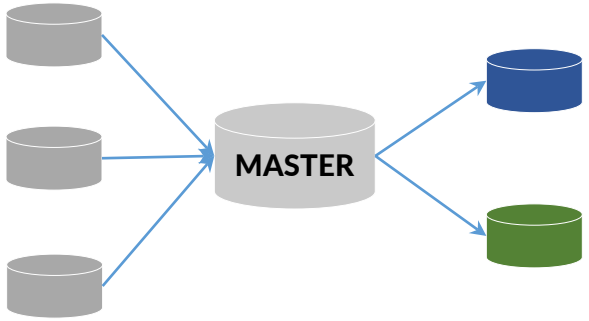
"The variation in data hub model styles is based on the principle that it may contain all data attributes about the data domain it manages, or just some attributes, while other attributes remain in their original data stores"

REGISTRY



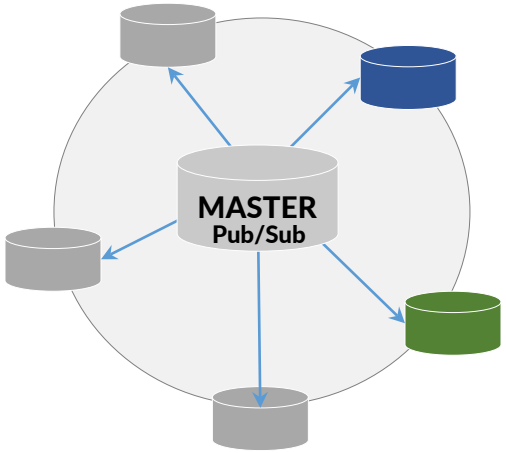
- Hub maintains registry of Unique Identifiers
- Provisions a holistic view (Virtual) to consumer via data services
- Data Hub is an arbitrator rather than owner of Master Data

CONSOLIDATION



- Hub maintains and manages the Master Data across systems.
- The Master Data is primarily used by downstream applications and backward synchronization is not enabled
- Supports Analytical MDM Use pattern

HUB & SPOKE



- Hub maintains and manages the Master Data across systems.
- The Master Data is used across all systems with backward synchronization enabled via SOA framework
- Supports both Operational & Analytical MDM Use pattern

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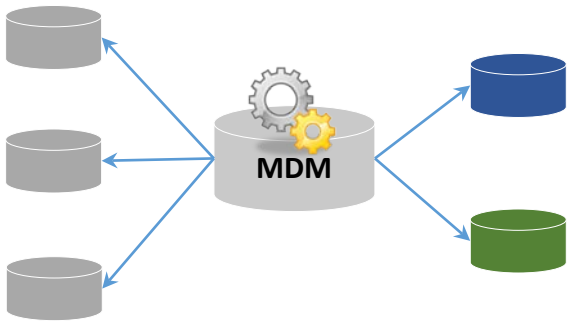
MDM - Deployment Options

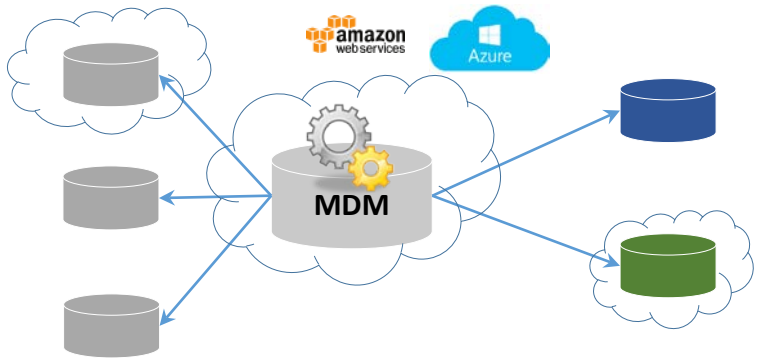
"The variation in data hub deployment styles is primarily based on location (cloud Vs. on-premise) of majority of the data producers for the given domain."

ON-PREM



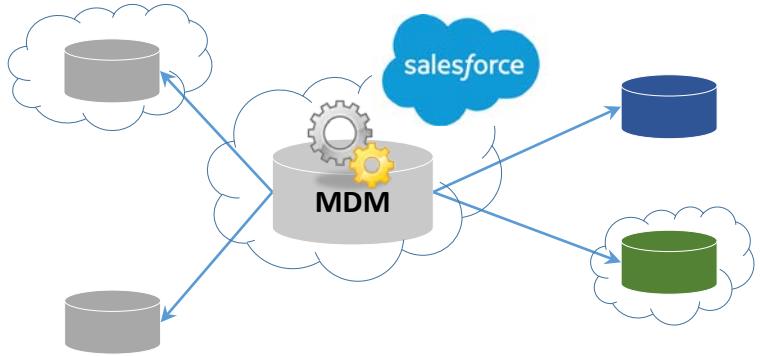
- **Greater Control (Environment/Data)**
- **No Data restrictions**
- Lack of Agility/Elasticity/Cost advantage of Cloud
- Lower Productivity

CLOUD-HOSTED



- **Greater Productivity**
- **Agility/Elasticity/HA advantages of Cloud**
- Less Control (Environment/Data)
- Careful planning of up-stream/ downstream data volumes.

CLOUD-APP HOSTED



- **Leverage Existing SF investment**
- **Low Maintenance**
- **Majority of data is generated/consumed in SF.**
- Salesforce dependent
- Careful planning of up-stream/ downstream data volumes.

Operational – Producer | Operational – Consumer | Analytical – Consumer

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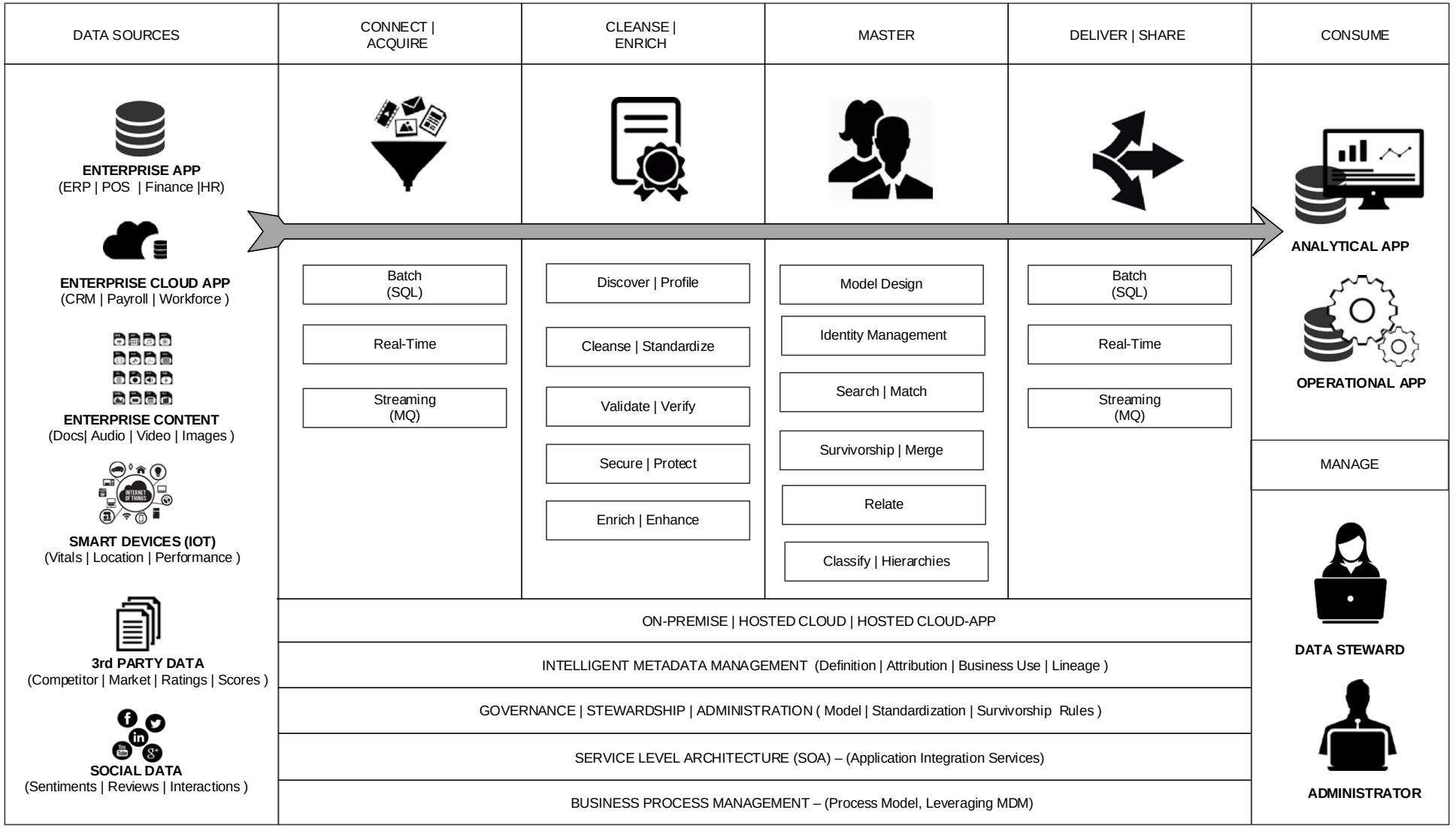
MDM – Reference Architecture



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MDM – Cheat Sheet

- Identify data (sources & targets)
- Identify customers/Products/Suppliers etc
- Identify data owner (usually LOB or product owner)
- Semantics consolidation/data definition
- Gather requirements
- Logical data model
- Get source data into MDM Hub
- Analyze source data
- Identify data quality rules (parsing, matching, standardization, enriching)

- Master data model
- Communicate to Governance council
- Communicate to data stewards
- Define security SLA
- Define access control
- Define business process
- Define business rules
- Create mappings (sources → data hub → consumers)
- Enter metadata into MDM Hub
- Coordinated release of Master data

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Data Governance Applied to MDM

Preparation – preliminary steps to identify key participants, key data elements & sources, and individuals to be interviewed; intent is to socialize operating model with key stakeholders; define scope and approach

Discovery – gain understanding of the data and processes in the current environment, introduce Data Governance concepts, best practices and roll- out of Data Governance program

Analysis – pinpoint and clarify key data touch points, data handling processes, issues and work-arounds; bridge from discovery to synthesis , with focus on clearly defining the current environment

Synthesis/ Recommendation – generate informed recommendations based on discovery and analysis. Tailor and define the near & future state policies and procedures, including gaps and potential remediations

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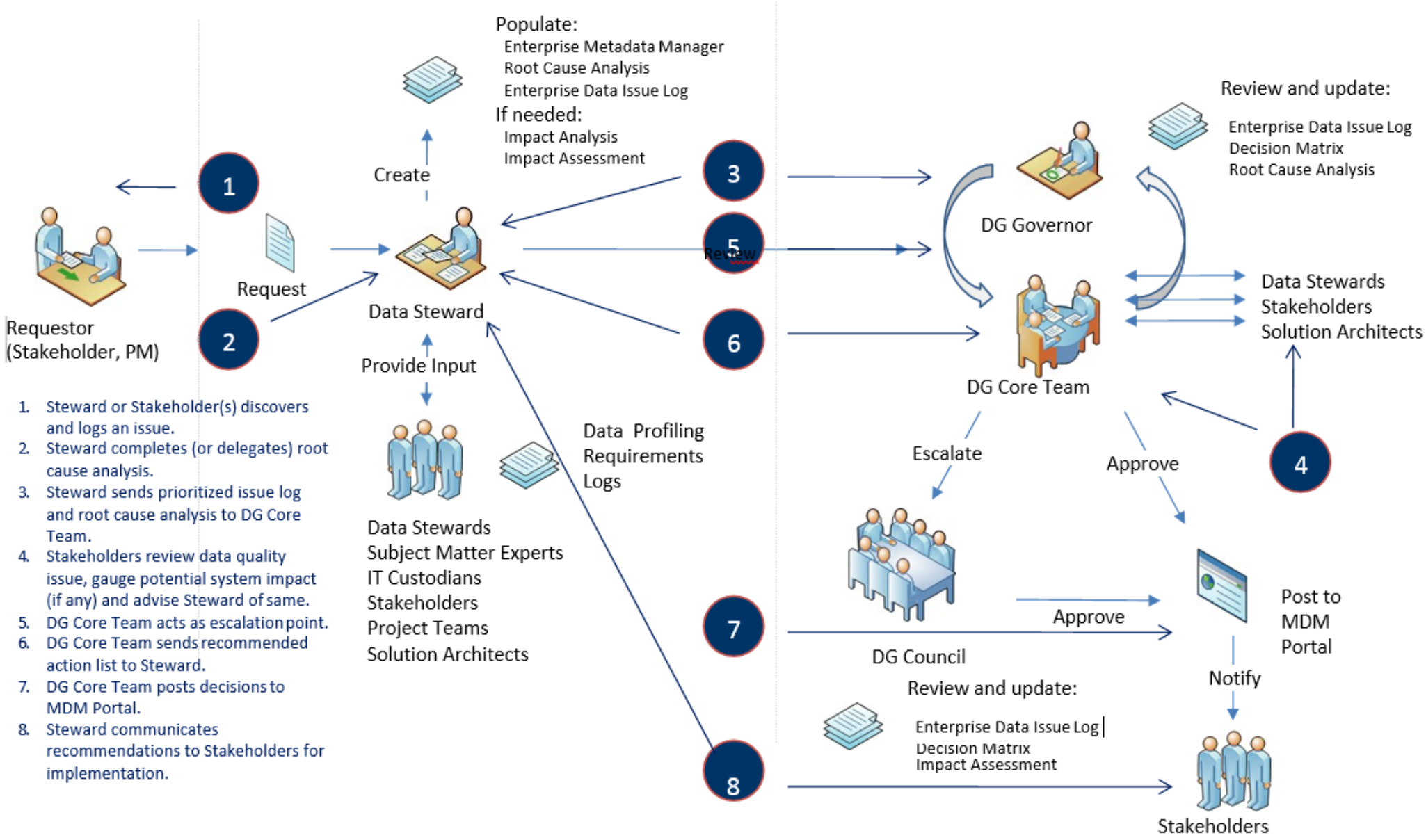
Data Governance Approach



1. Steward or Stakeholder(s) discovers and logs an issue.
2. Steward completes (or delegates) root cause analysis.
3. Steward sends prioritized issue log and root cause analysis to DG Core Team.
4. Stakeholders review data quality issue, gauge potential system impact (if any) and advise Steward of same.
5. DG Core Team acts as escalation point.
6. DG Core Team sends recommended action list to Steward.
7. DG Core Team posts decisions to MDM Portal.
8. Steward communicates recommendations to Stakeholders for implementation.

MDM – Outcomes

01 **Unified View..** provides a unified view of Master data and enables strategic, timely & informed corporate decision making

02 **Redundancy Elimination ..** Enables Reduced redundancy by consolidating various data silos.

03 **Data Consistency..** MDM guarantees data consistency, which enables to create consistent workflows

04 **Integration of Business Processes..** MDM allows to streamline data across whole business creating a more productive process

05 **Propels Data-Driven Culture..** now when data is considered as the new oil, a centralized analytics data hub, can truly evangelize data-first & data-driven culture within the organization

06 **Enhanced Data Controls..** MDM approval workflows enables more control on the data

07 **Growth..** Adopting a data-driven culture in age of digital transformation, offers a competitive edge, opening up avenues of growth via M&A, increased market share and so on..

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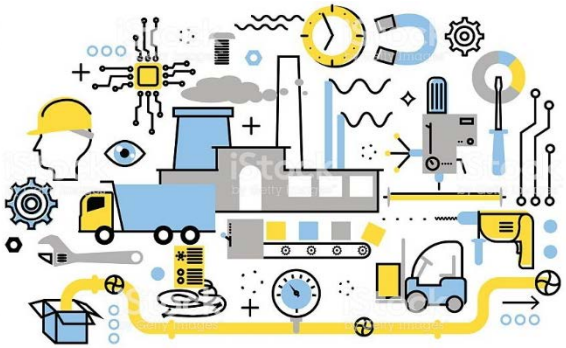
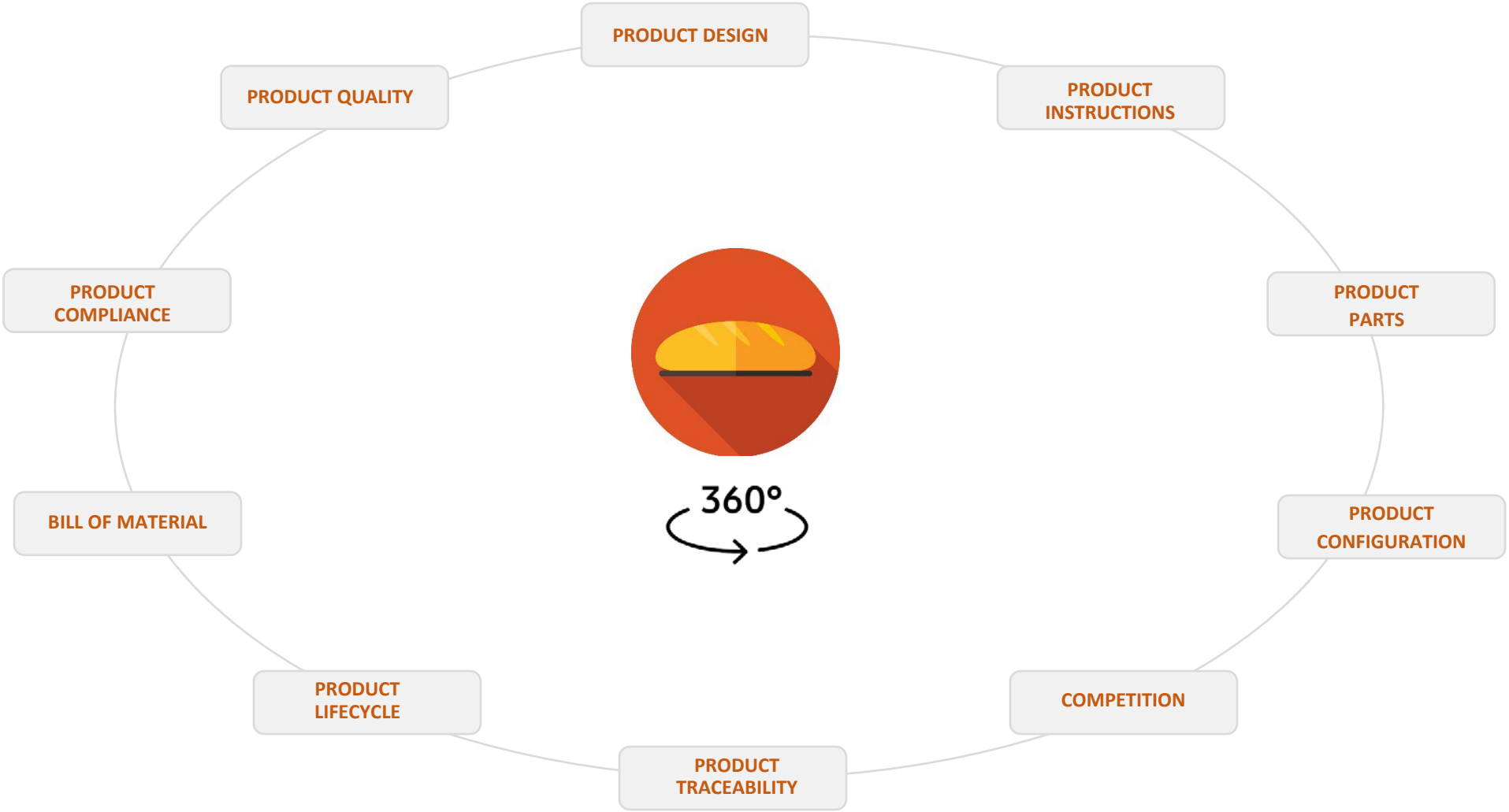
Sample Domains



Product



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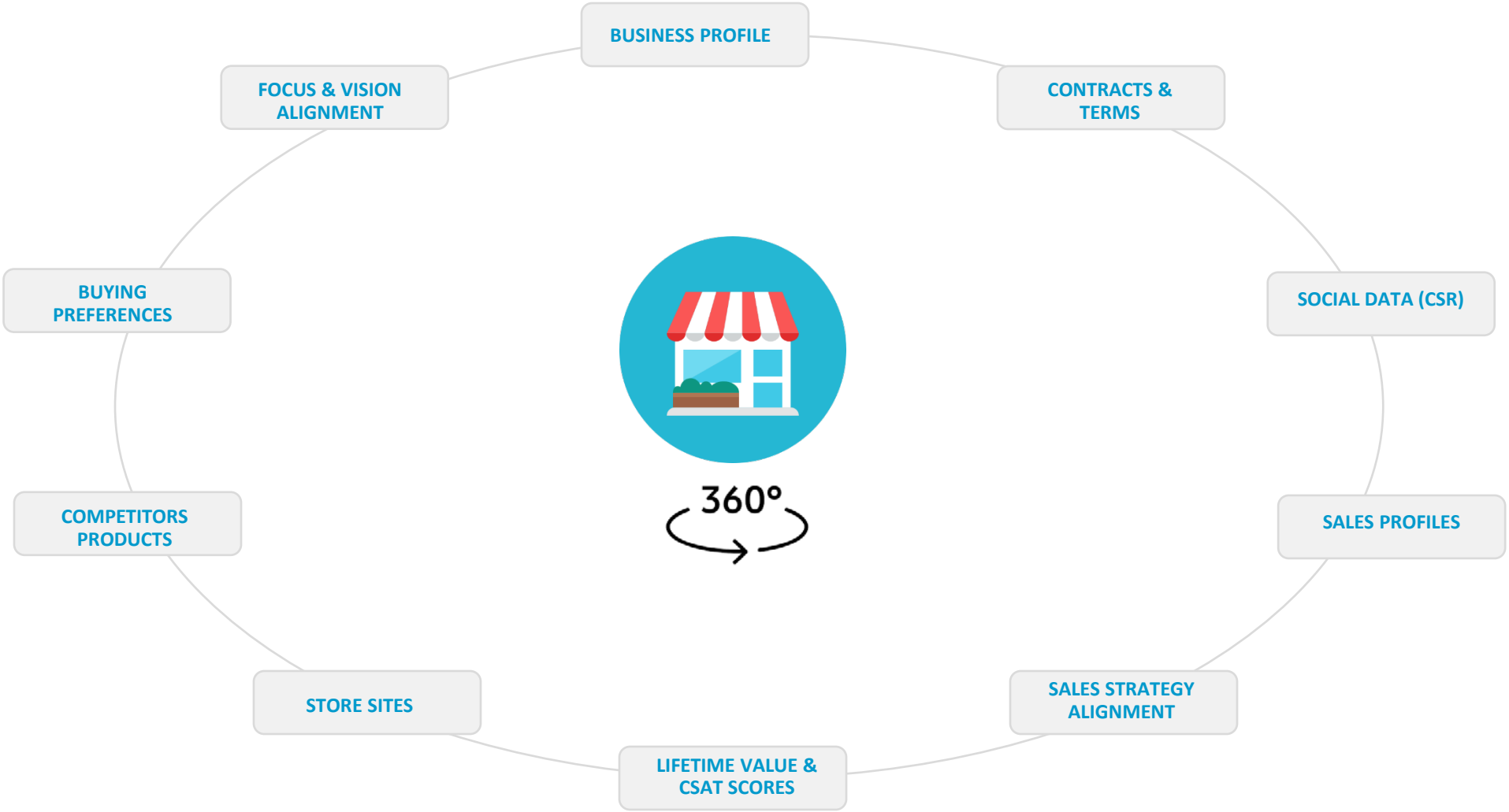
Customer (B2B)



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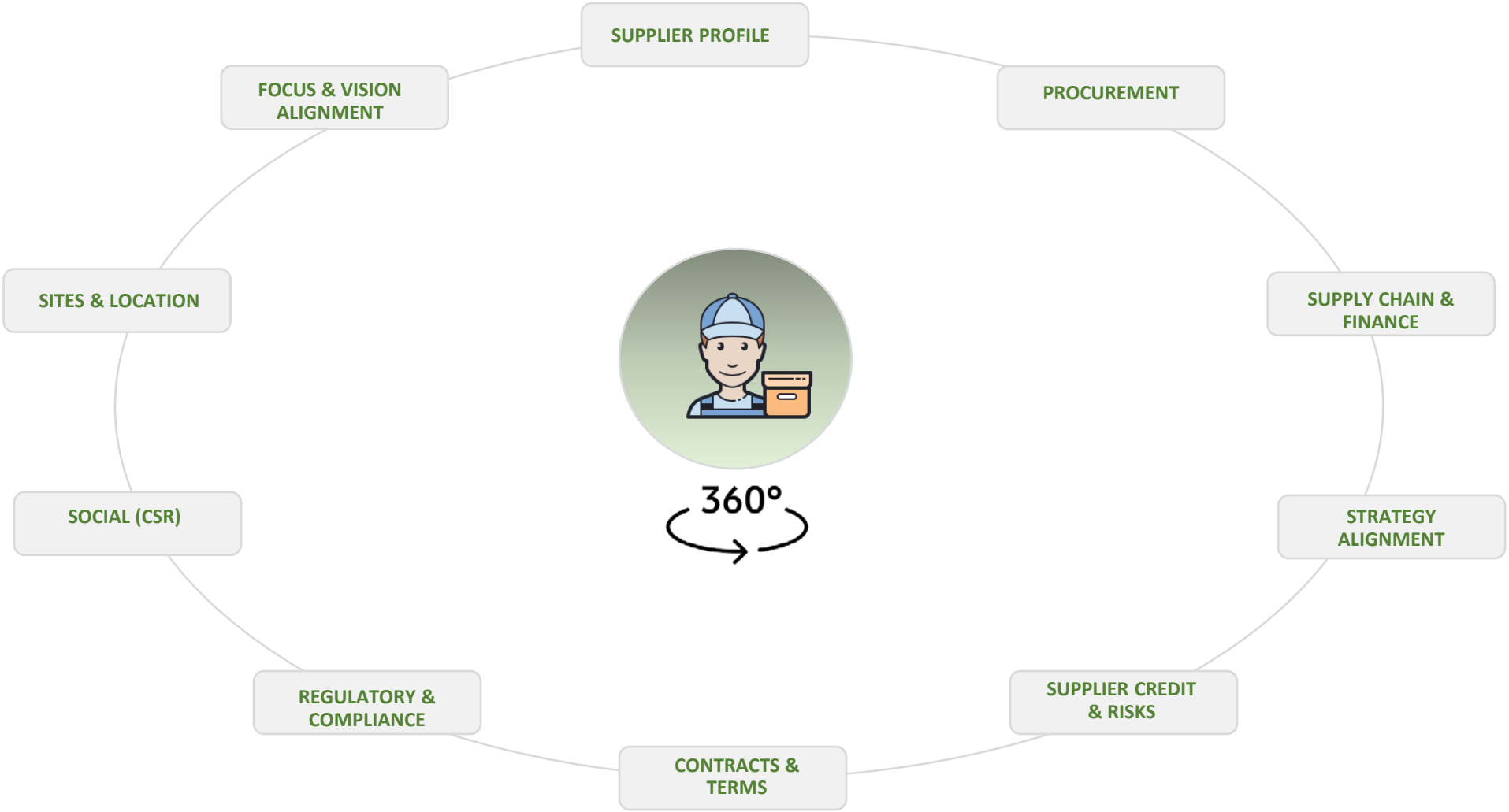
Supplier



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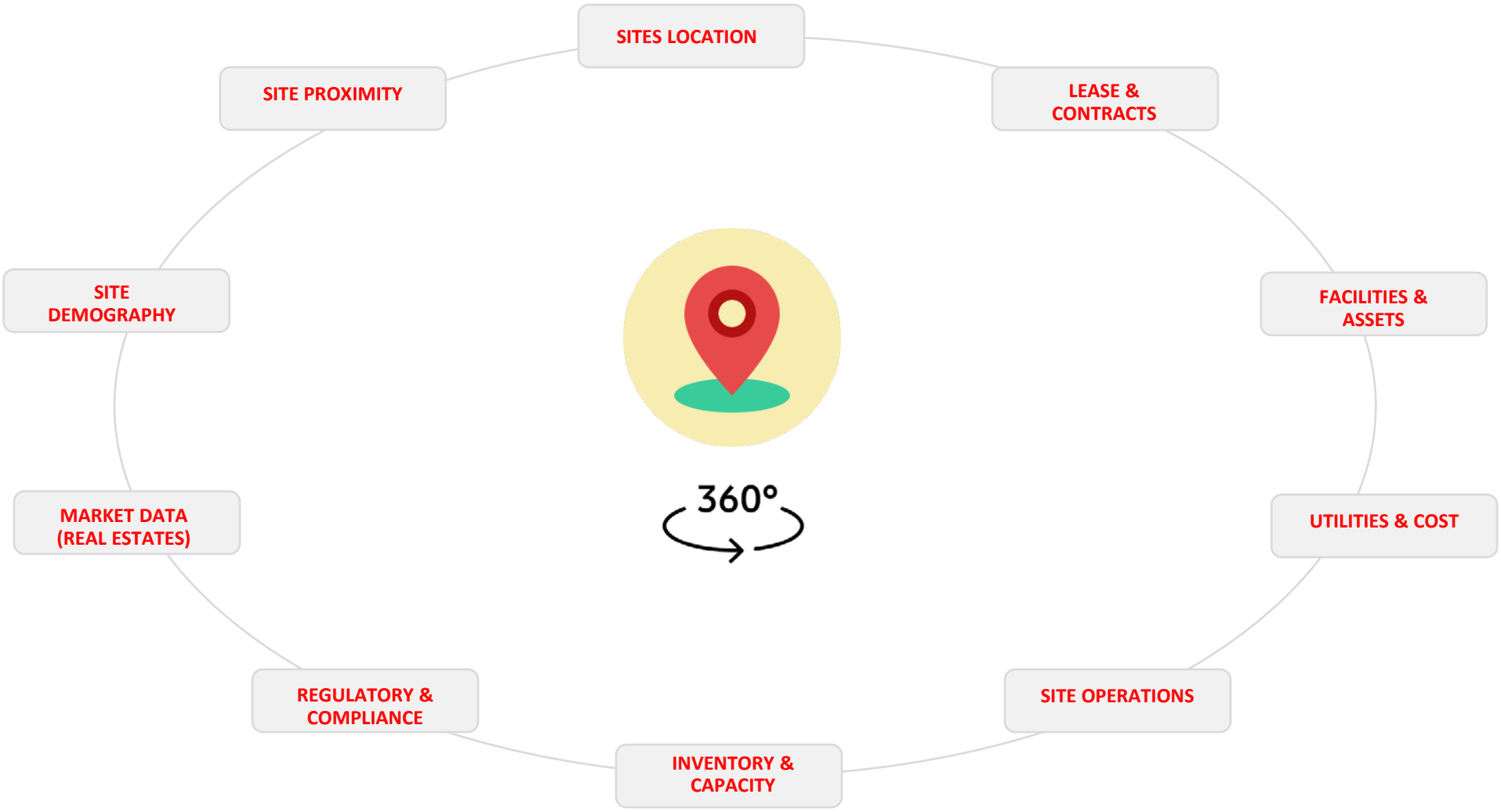
Location (Sites)



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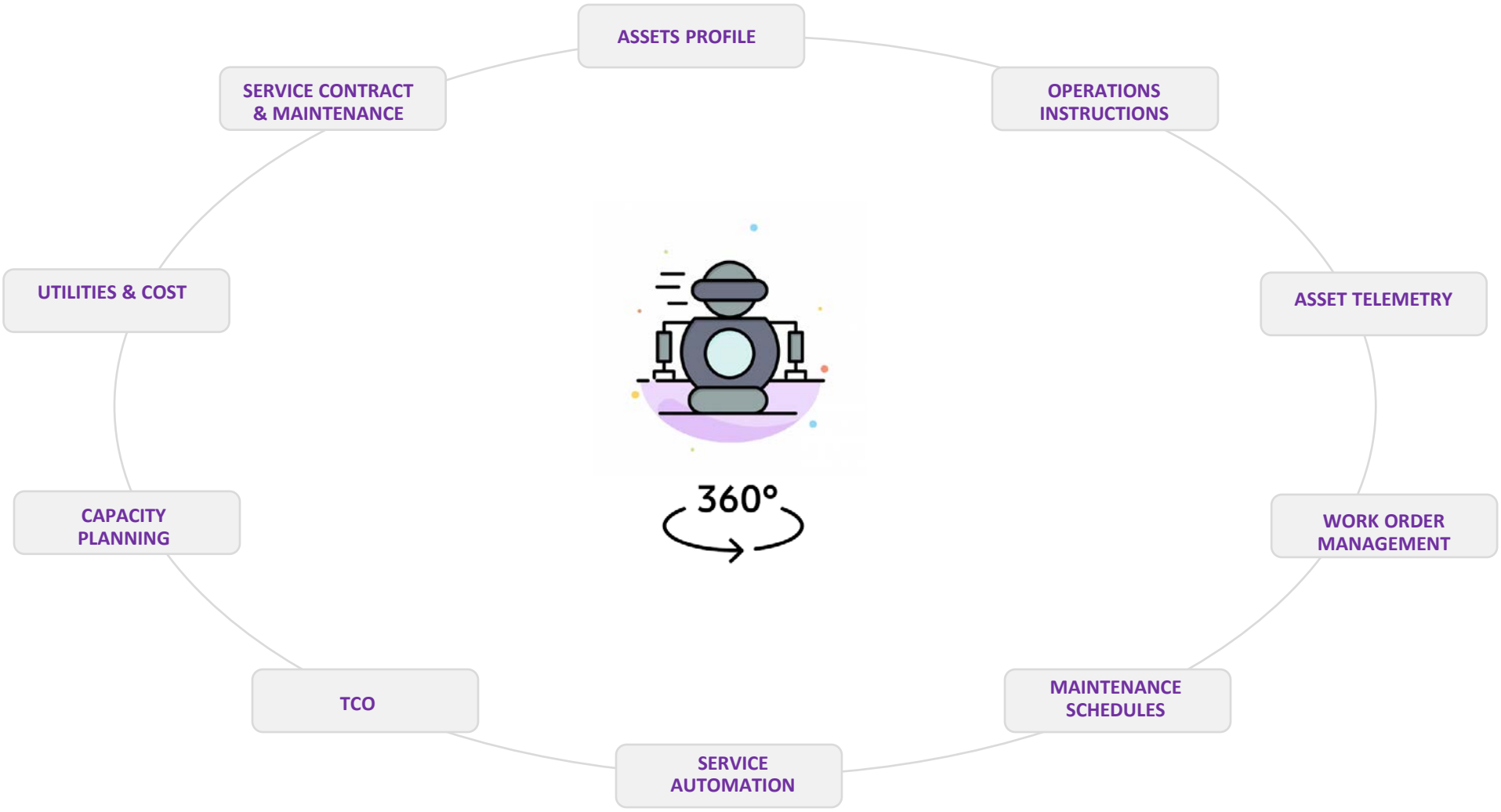
Assets



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Thank You!

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