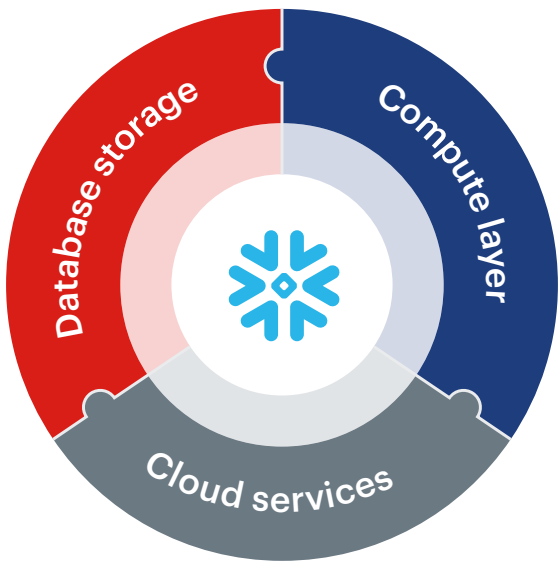## SIGMOID

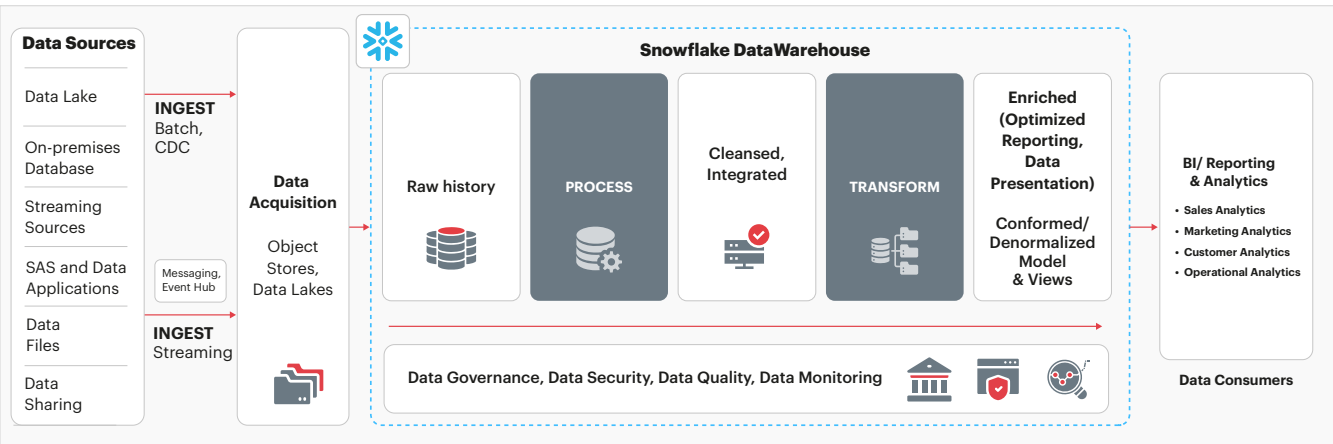# Best practices for Snowflake implementation

Data Engineering workflow for increased success

Data pipeline flow on Snowflake

Snowflake architecture consists of 3 independently scalable layers

Database storage | Compute layer | Cloud services

An overview of the overall system architecture and the most common data pipeline flow on Snowflake:

Data Sources

- Data Lake
- On-premises Database
- Streaming Sources
- SAS and Data Applications
- Data Files
- Data Sharing

INGEST Batch, CDC

Messaging, Event Hub

INGEST Streaming

Data Acquisition — Object Stores, Data Lakes

Snowflake DataWarehouse

Raw history | PROCESS | Cleansed, Integrated | TRANSFORM | Enriched (Optimized Reporting, Data Presentation) — Conformed/ Denormalized Model & Views

Data Governance, Data Security, Data Quality, Data Monitoring

BI/ Reporting & Analytics
- Sales Analytics
- Marketing Analytics
- Customer Analytics
- Operational Analytics

Data Consumers

5 Best practices for Snowflake implementation

1 Selecting a virtual warehouse based on business workloads

2 Optimizing costs by methods like warehouse separation, monitoring compute usage

3 Setting up robust network security policy

4 Developing watertight security and access controls

5 Streamlining data loading and enhancing query performance