## Manufacturing Operations Analytics

(Automotive Accessories Manufacturer)

Defined and developed key business performance indicators to track manufacturing processes and benchmark operational performance across plants and functions through a robust BI dashboarding suite

# PRODUCTION PERFORMANCE VISIBILITY FOR AUTOMOTIVE ACCESSORIES MANUFACTURER

## ABOUT THE CLIENT

Client is an automotive accessories company that manufactures and sells accessories and spare parts for trucks, jeeps and cars with 18 plants across U.S. and Canada

## SITUATION

- The client had limited operational performance visibility for their manufacturing plants due to inconsistent reporting, legacy data systems, and wide geographical footprint.
- Partnered with the client to provide detailed visibility into complex manufacturing processes and benchmarked operational performance of plants across functions through real-time reporting in a BI dashboard suite.

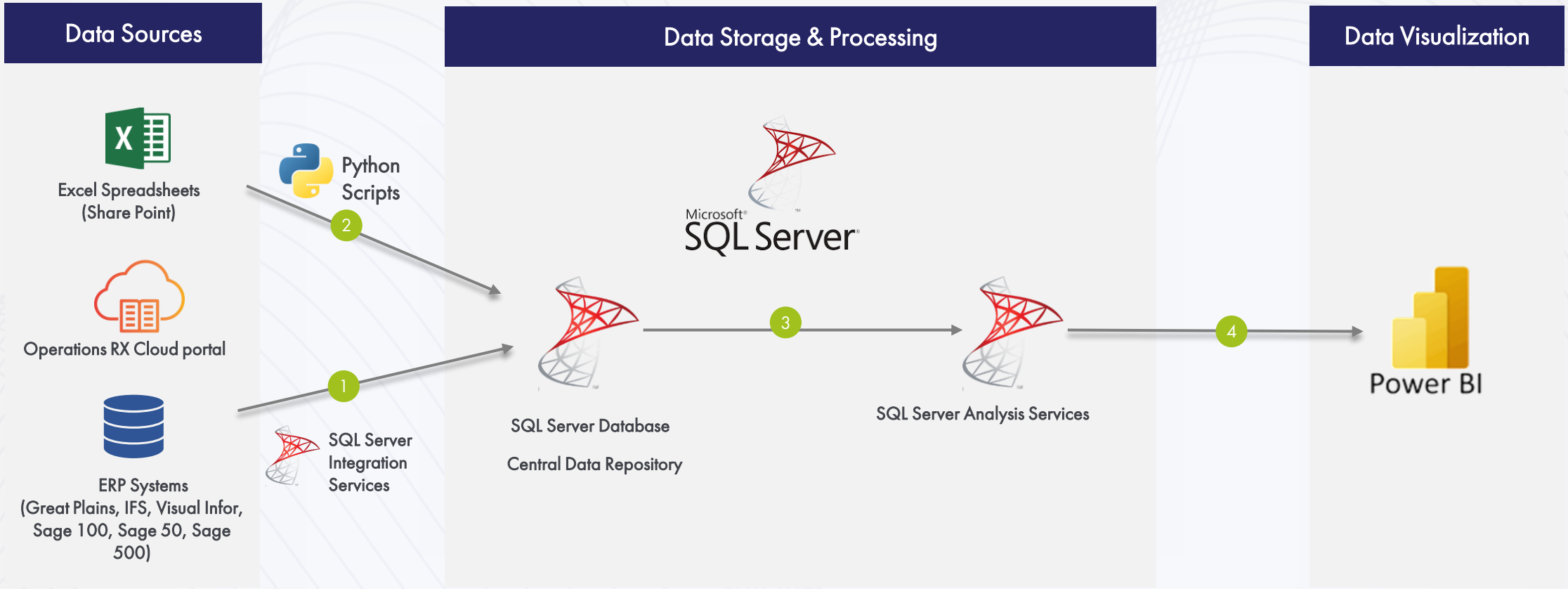
## VALUE ADDITION

- Built centralized data repository with automated data flows and developed processes to consolidate/integrate operational, sales, and financial data from multiple ERPs (Microsoft Dynamics GP, Infor Visual, Traverse, Sage 500, etc.), legacy databases, and manual excel files.
- Standardized and automated reporting of 30+ KPIs including to establish a single source of truth for all plants and benchmarked performance against budget/forecast to provide leadership real-time visibility into the business performance
- Enhanced visibility into plant operations and manufacturing productivity to improve sales and inventory planning. Tracked metrics across functions including safety, sales, HR, logistics, manufacturing and inventory.


## IMPACT

- Provided executive and plant leadership better visibility into daily operations allowing them optimize plant performance.
- Dashboard suite enabled the client to significantly reduce past due AR by 78%, improve on-time deliveries by 7%, increase labor productivity and streamline inventory.

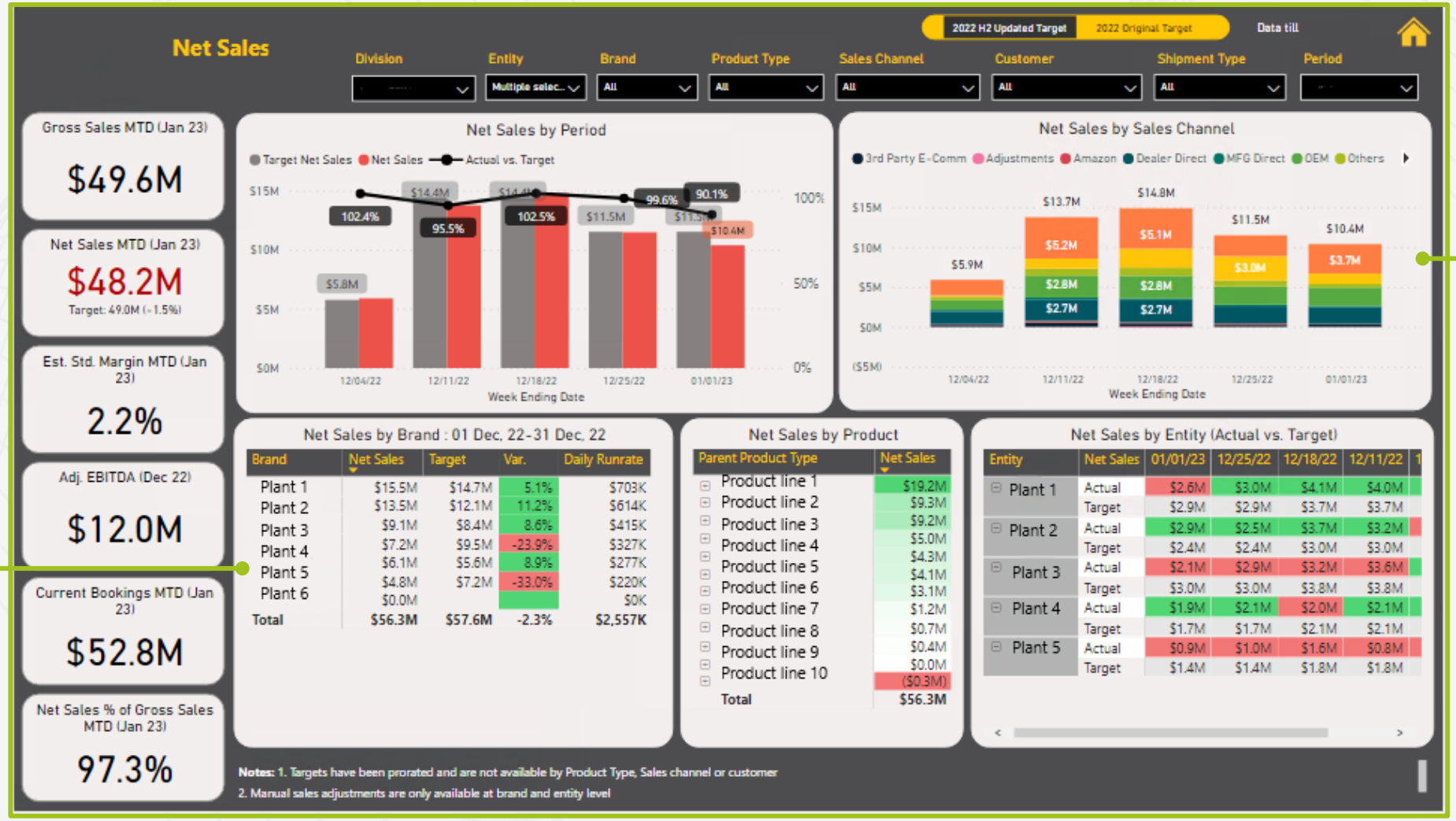
# APPROACH




1. Collate and ingest data from multiple data sources using SQL Server Integration Services (SSIS) to SQL Server to create a central data repository
2. Collate and ingest data from multiple SharePoint source files using Python script to central data repository on SQL Server
3. Build analytical data models by leveraging Analysis Services (SSAS) to calculate KPIs and aggregate them at multiple levels
4. Design and implement Power BI dashboards to automate reporting

# SAMPLE OUTPUT: SALES DASHBOARD

ILLUSTRATIVE




**Sales distribution by channel (weekly)**

**Sales by plant, product type and product line benchmarked against budget**

# SAMPLE OUTPUT: ON-TIME DELIVERY DASHBOARD

ILLUSTRATIVE

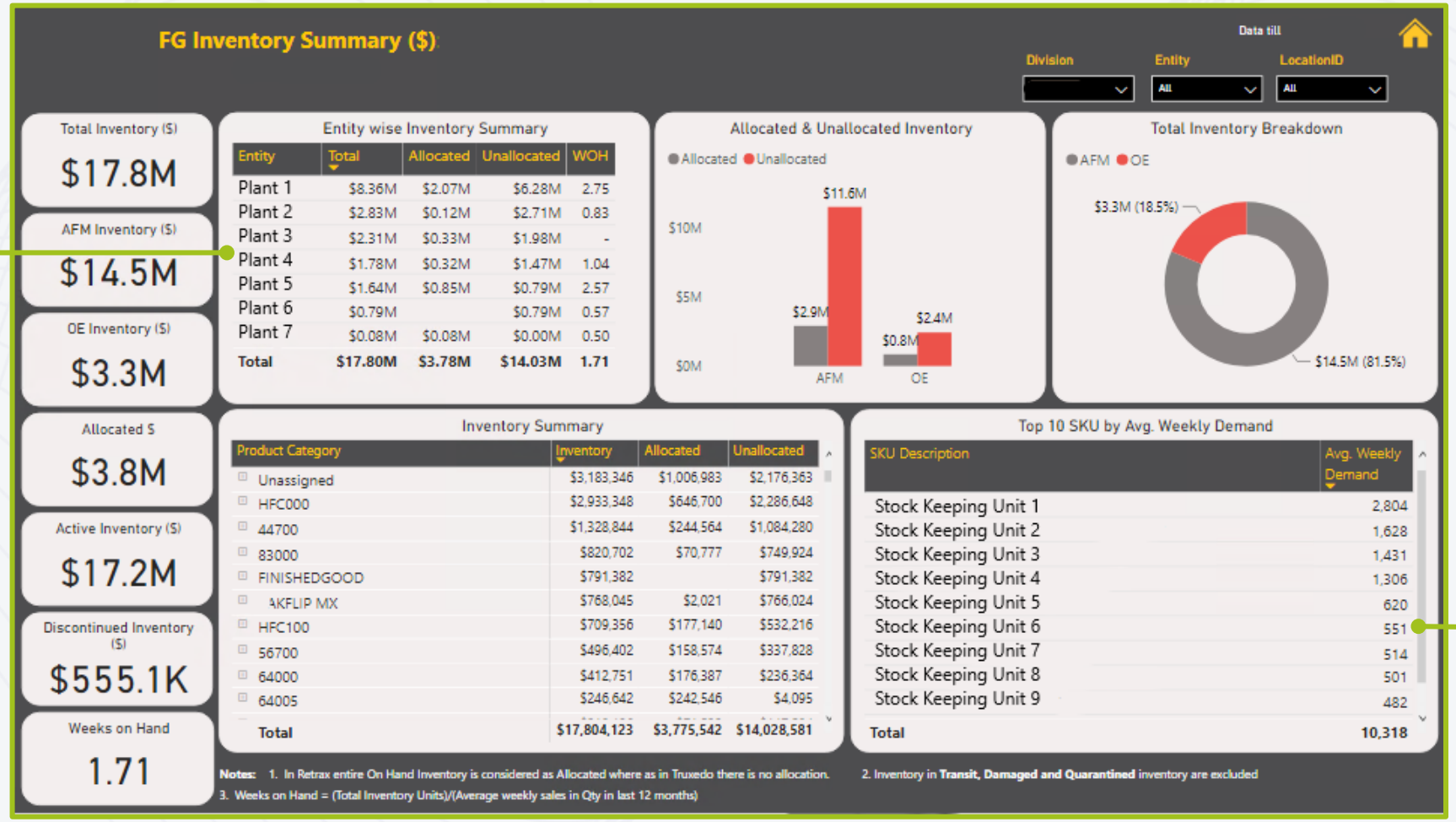
On-time delivery trend for the manufacturing plant capable of analysing unshipped orders (daily)


Channel, piece and order level fill-rates benchmarked against targets (weekly, daily)

# SAMPLE OUTPUT: FG INVENTORY DASHBOARD

ILLUSTRATIVE

**Breakdown of unallocated inventory available for shipping by active/discontinued SKUs and by demand**




**Top-10 SKUs by demand and status**