The analytical lifecycle on Viya

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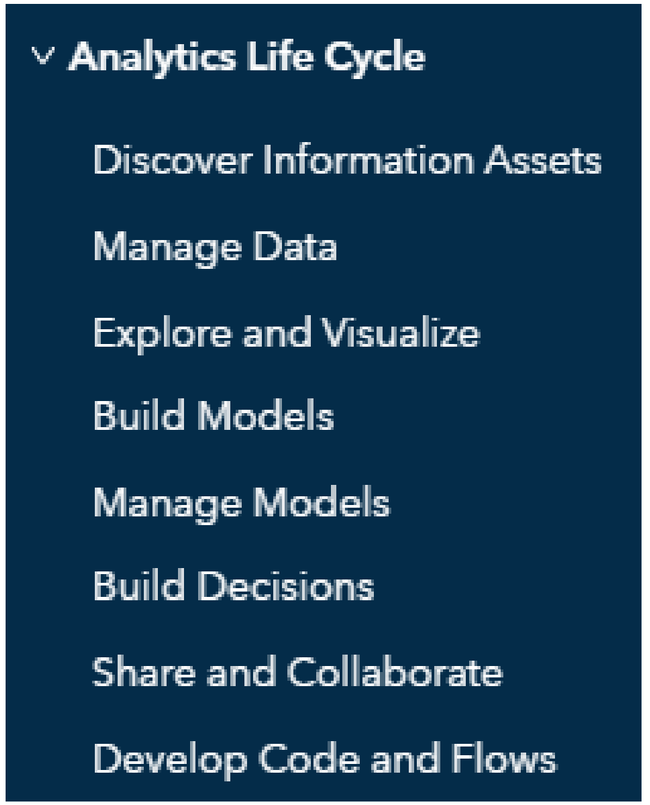
The analytical lifecycle on the SAS Viya Platform

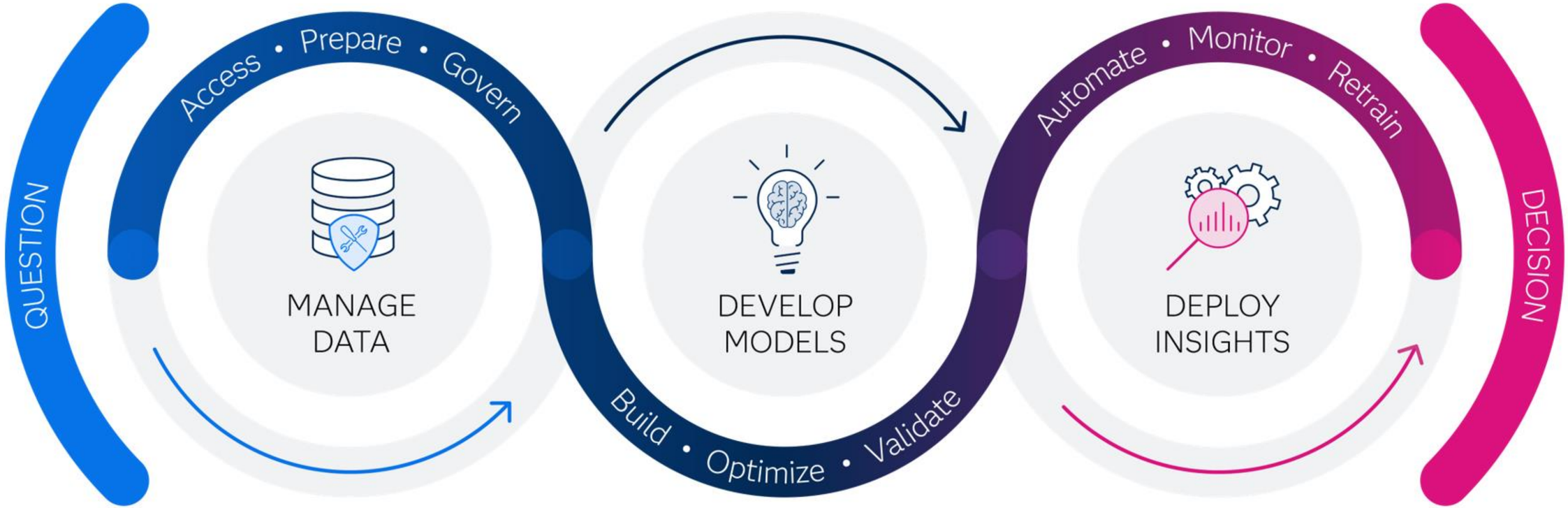
How SAS can support
the Analytical lifecycle
in one Platform.

or

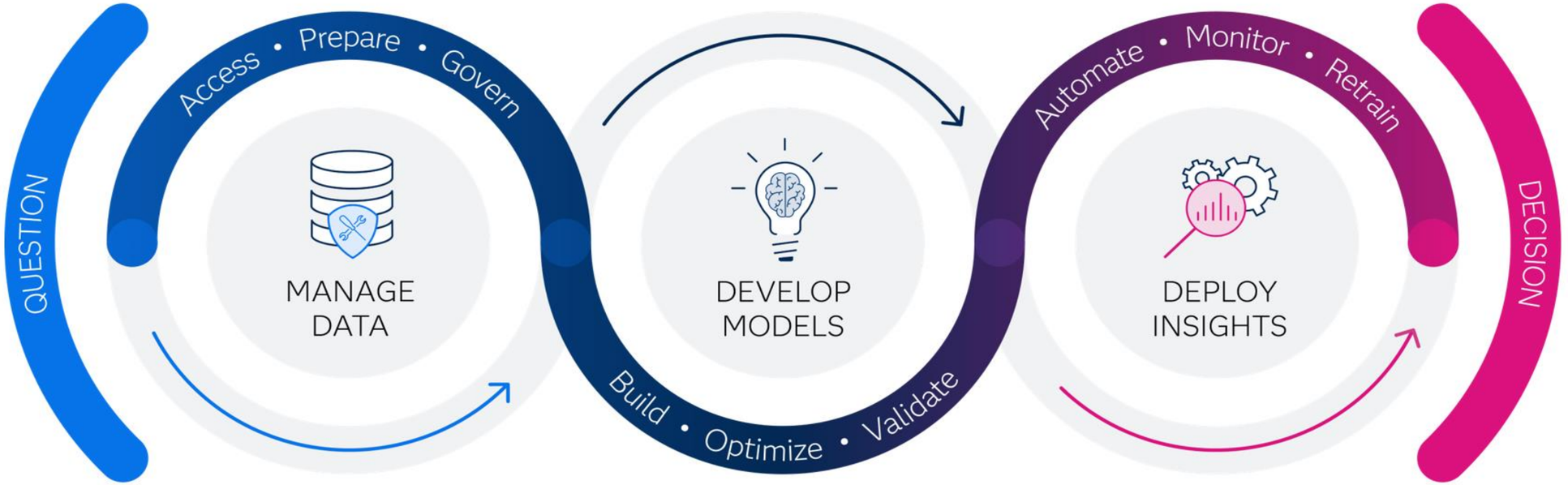
How a SAS Platform solves the critical
data and analytical challenges
for organizations today



The analytical lifecycle on the SAS Viya Platform



Innovate by using all AI capabilities responsible



Responsible AI in Data

Bias detection
Data quality & privacy
Governance & data lineage

Responsible AI in Modeling

Bias assessment & mitigation
Model interpretability
Governance & model lineage

Responsible AI in Deployment

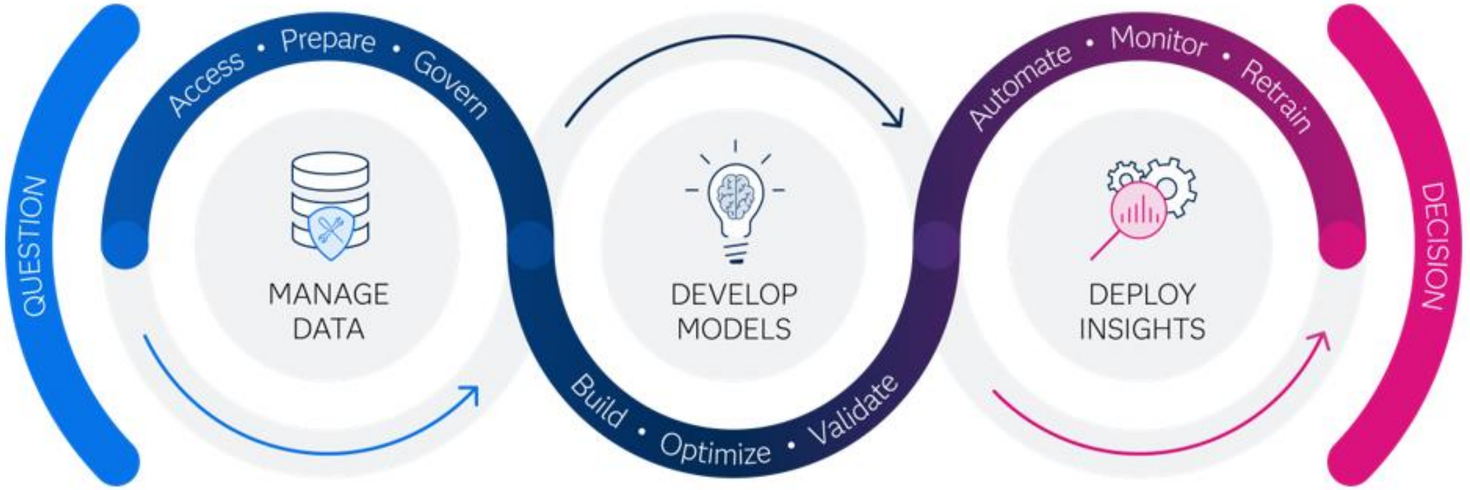
Bias monitoring
Fair decisions monitoring
Decision governance

Data Visualization

Machine & Deep Learning

Statistics

Decision Management



Data Management

Investigation

Natural Language Processing

Machine & Deep Learning

Forecasting & Optimization

Borrowing from agile software development practices, DataOps provides an agile approach to data access, quality, preparation, and governance. It enables greater reliability, adaptability, speed and collaboration in your efforts to operationalize data and analytic workflows.

Take data from anywhere – including data lakes, historians, ERPs, CRMs, and locked PDFs – then clean and govern it.

Access

Access data, regardless of size or complexity

Prepare

Transform raw data, including AI powered suggestions

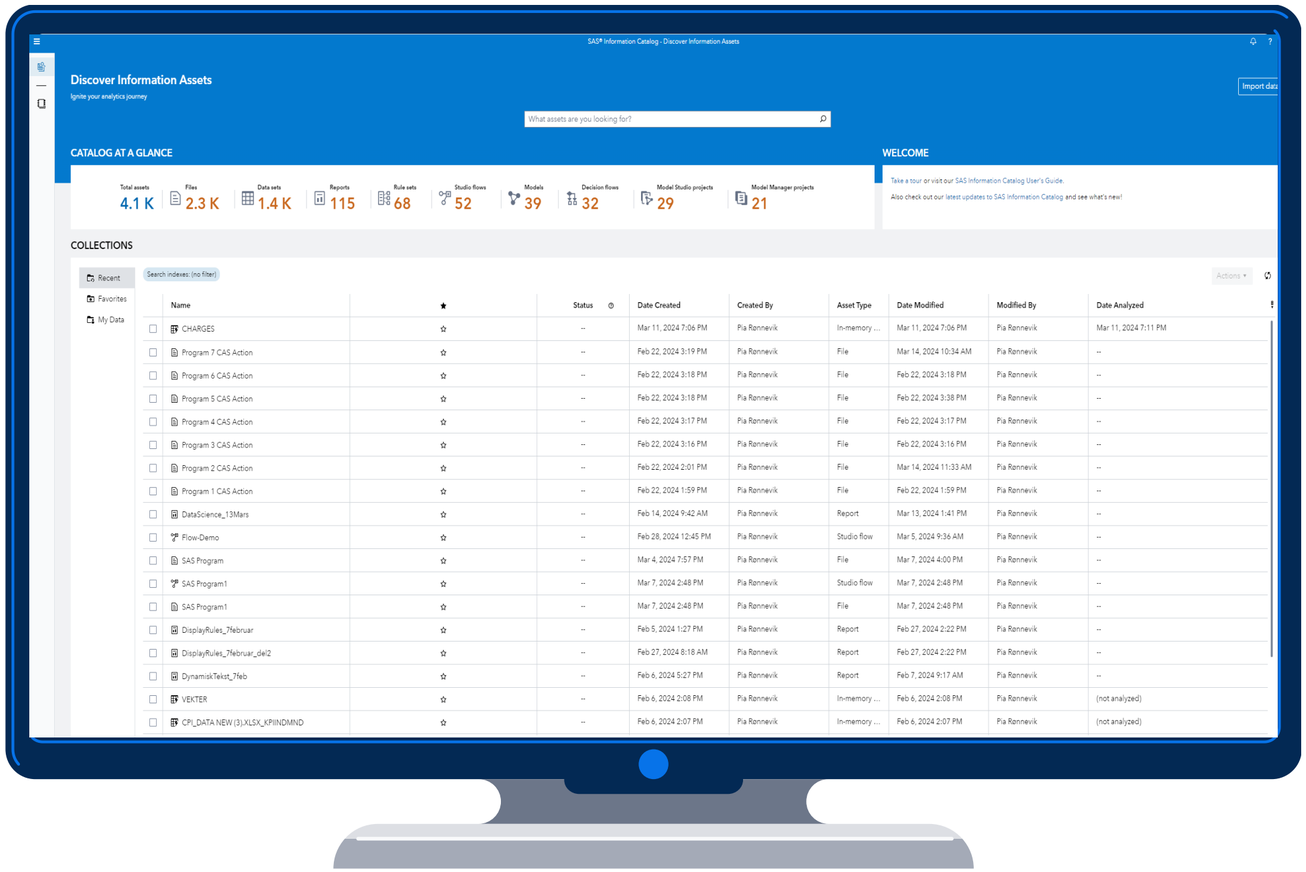
Visualize

View important relationships in data and share insights

Govern

Build trust in data, understand lineage and gain transparency

Establish your single source of truth with Information Catalog

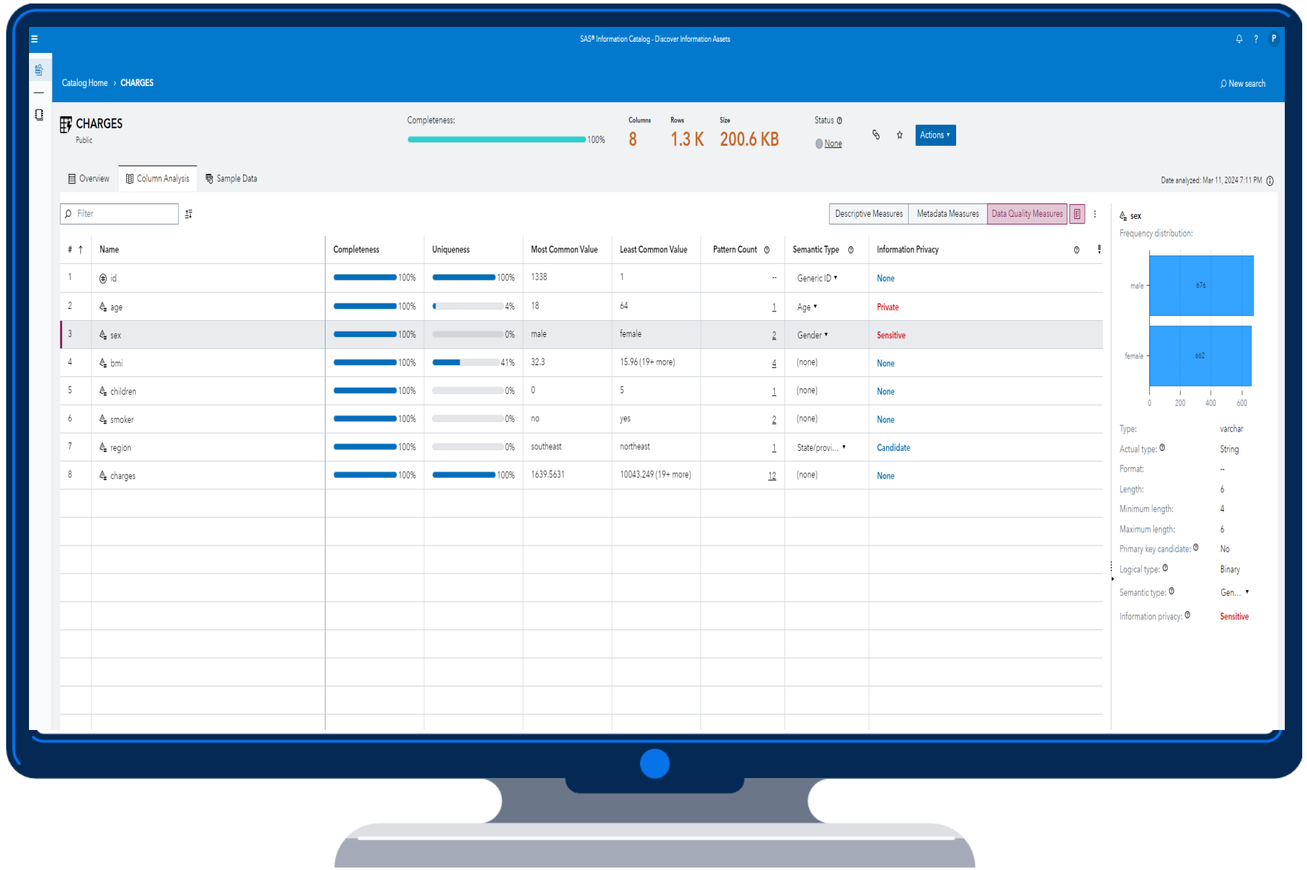


- Centralized location
- Powerful search
- Status of each data asset
- Information on data health

Analyze data with Information Catalog
Automated & prebuilt Data Quality Statistics

Descriptive Measures:

- Distinct Values
- Mean, Median, Minimum etc.
- Missing, blanks & null values etc.
- Outliers



Data Quality Measures:

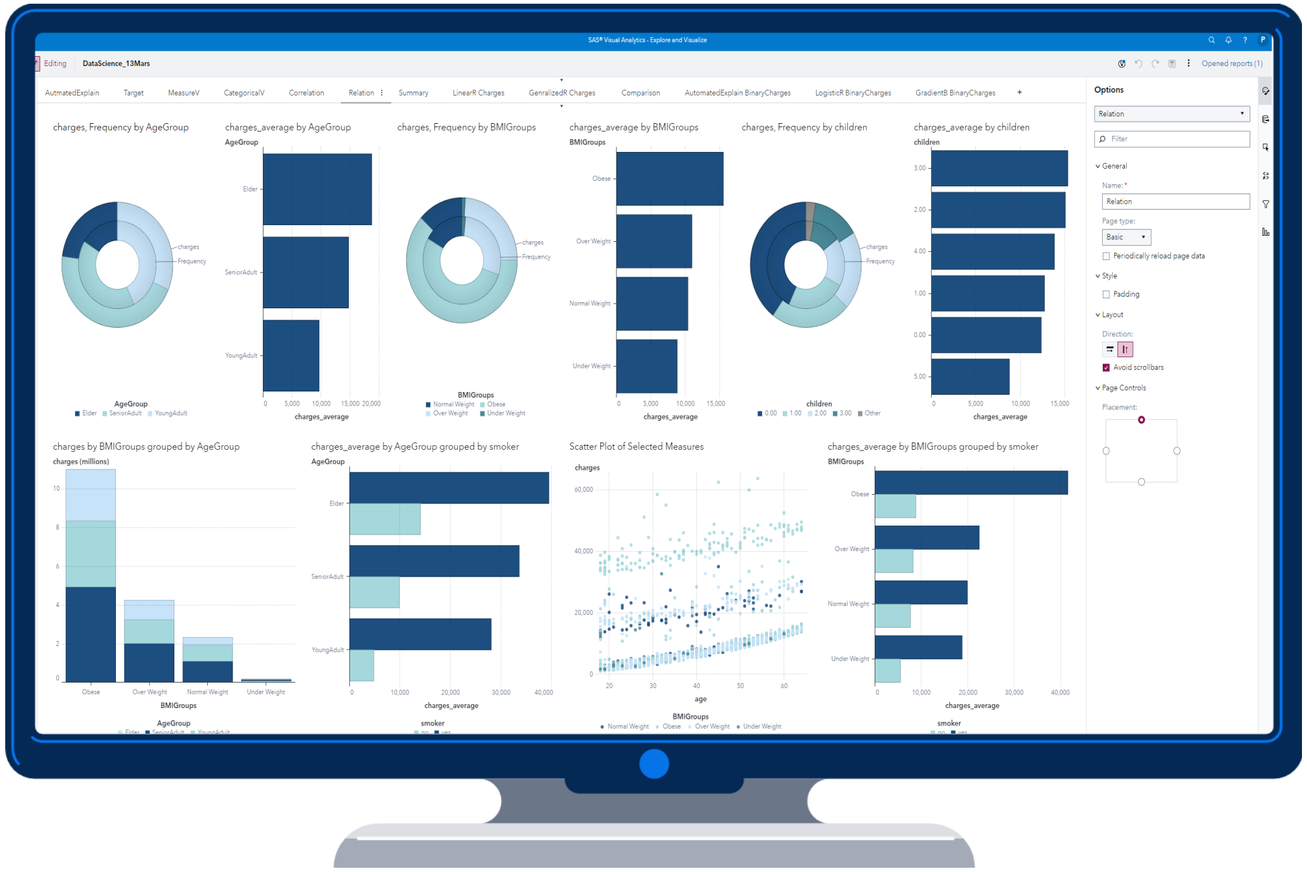
- Completeness
- Uniqueness
- Most Common Value
- Least Common Values
- Pattern Recognition
- Information Privacy

Prepare data for better decisions in SAS Studio

WITH DATA PREP & FLOWS:

- Extract, cleanse, transform, conform, aggregate, load and manage data
- AI-generated suggestions for business users and data scientists

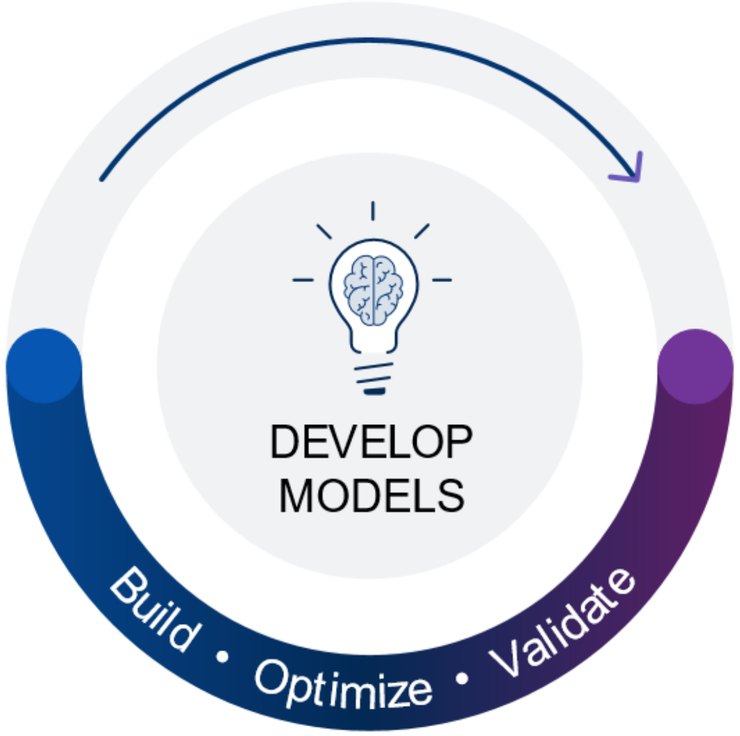
Visualize and interact with your data



- Quickly gain insight through visualization and analysis
- Calculate new variables
- Identify outliers

Data scientists use a combination of techniques to understand the data and build predictive models. They use statistics, machine learning, deep learning, natural language processing, computer vision, forecasting, optimization and other techniques to answer real-world question.

Run models in real time and get predictive alerts on quality issues before they happen.



Model

Build models with multiple AI techniques to solve real world problems

Automate

Automate manual tasks for feature engineering and model tuning

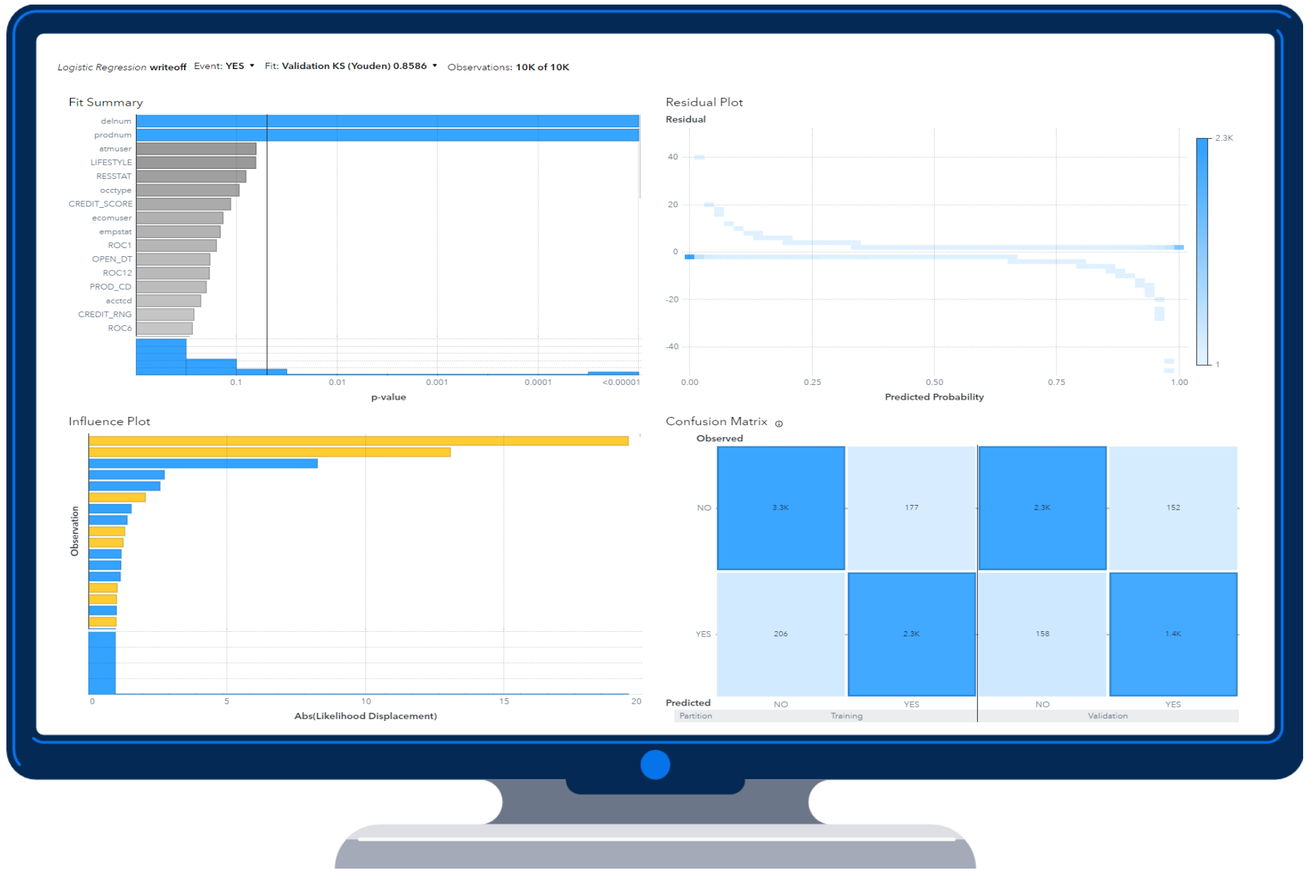
Collaborate

Users with different skill sets collaborate on solving analytics problems

Integrate

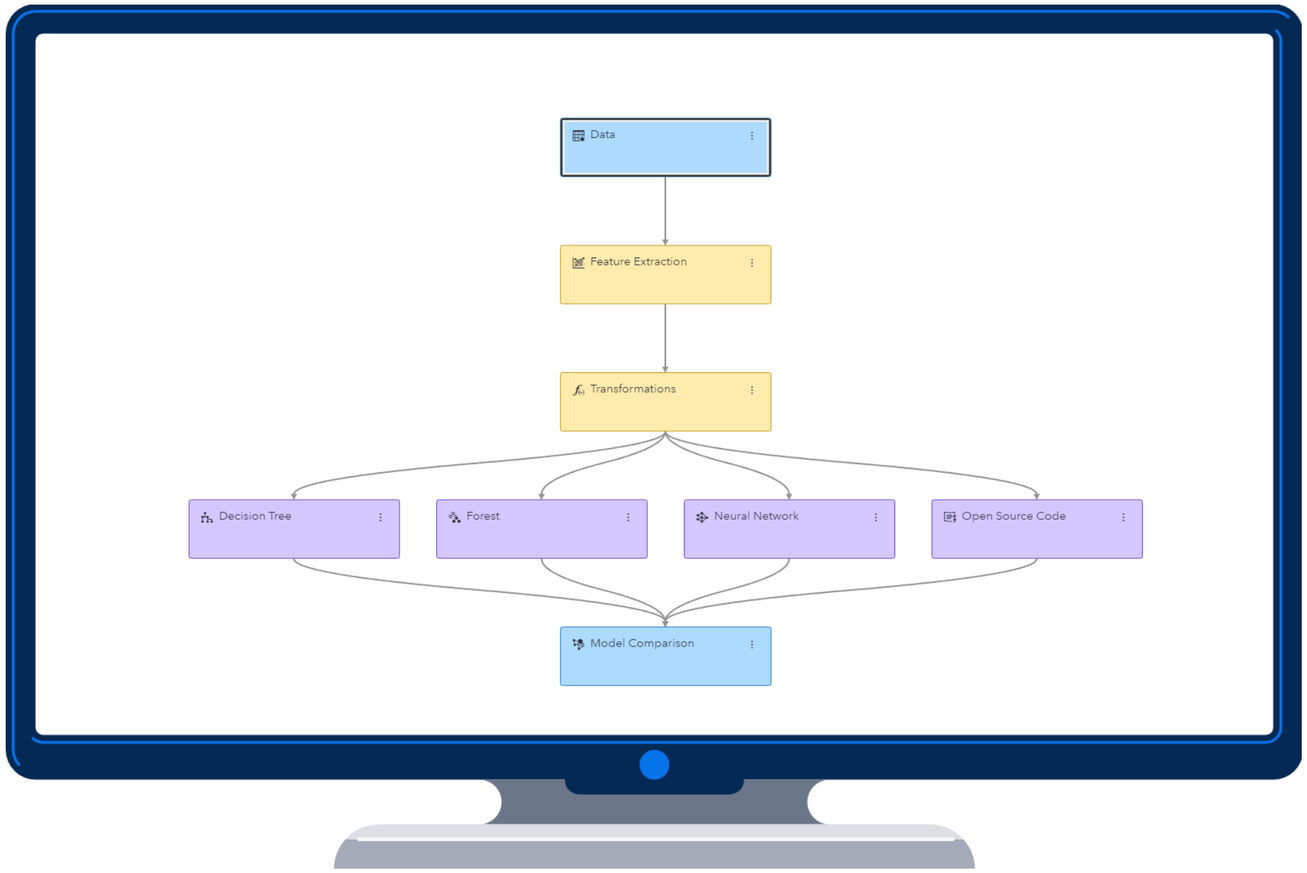
Work smarter with SAS Viya & open source analytics

Interactive modeling in Visual Analytics with drag and drop



- Generate out-of-the-box reports
- Model degradation alerting system
- Model Validation
- Compliance analysis

Improve data science team's productivity -
Build pipelines in Model Studio application



- Automated model selection

- Automated data transformations

- Model tournament

- Explainability in Natural Language

- Build thousands of models with 1-click

- Retain complete control

Use SAS Studio to start modeling

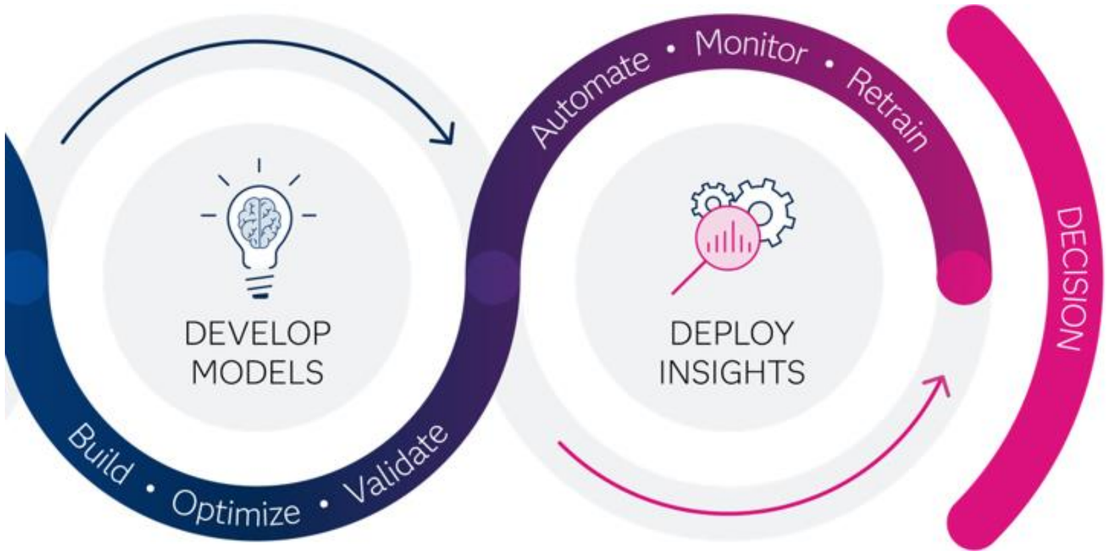
- Build up flows with analytical/modeling tasks by drag and drop

OR

- Use SAS coding to do modeling

ModelOps

ModelOps focuses on getting AI models through validation, testing and deployment phases as quickly as possible, while ensuring quality results. It also focuses on ongoing monitoring, retraining and governance of models to ensure peak performance and that decisions are transparent.



Validate

Ensure models will perform as expected in the actual, real world

Deploy

Embed models into operational systems and monitor them

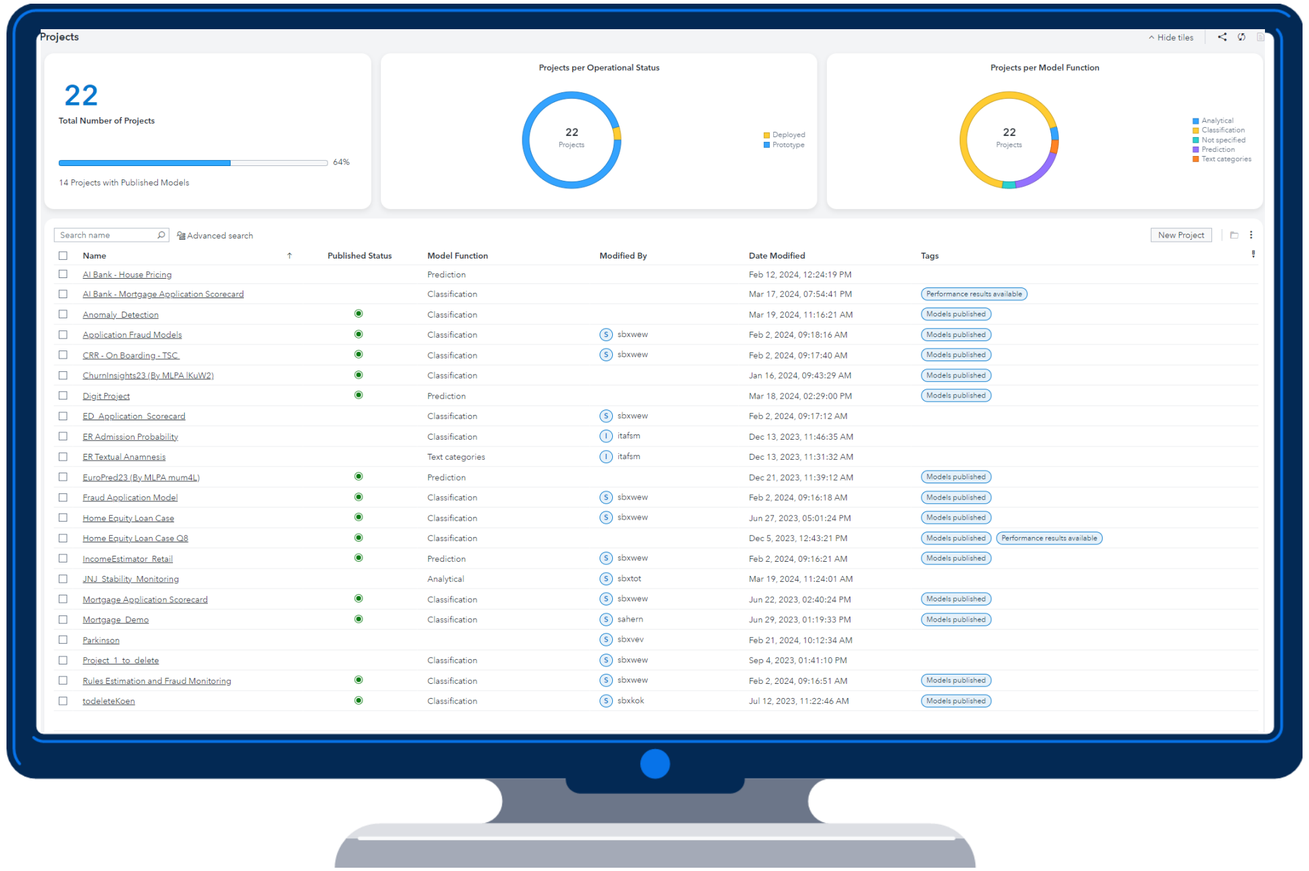
Govern

Ensure decisions are safe and transparent over the life of the model

Embed

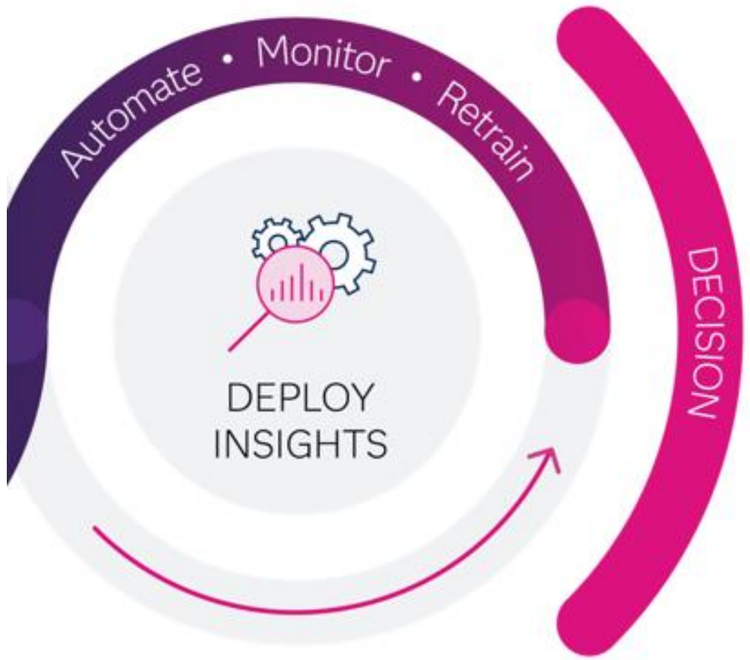
Integrate business rules to ensure up-to-real-time results

Streamline the model life cycle in Model Manager – deploy models everywhere.



- Ensure model governance and transparency.
- Easily validate models to ensure high-quality predictions.
- Build once, deploy everywhere – no additional testing required.
- Automatically monitor model performance to keep them performing as expected.
- Increase efficiency by adapting models to reflect internal or external changes.
- Save time and resources by automating the model life cycle using a CI/CD approach.

Operationalizing with SAS Intelligent Decisioning



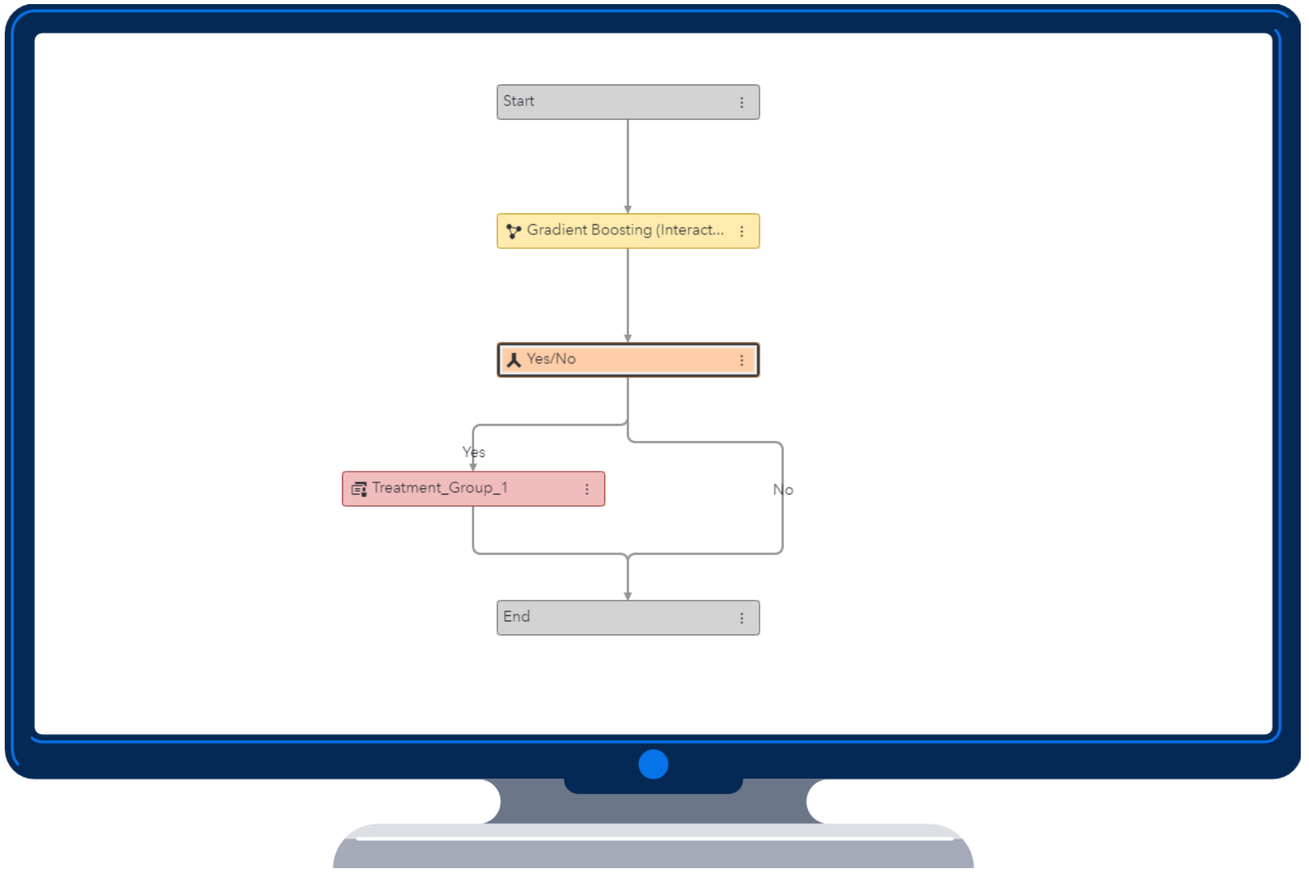
- Manage decisions.
- Business rule and analytical model execution.
- Automated high volume interactions.

“ Data science teams are no longer measured by the models they build but by the business value they generate.”

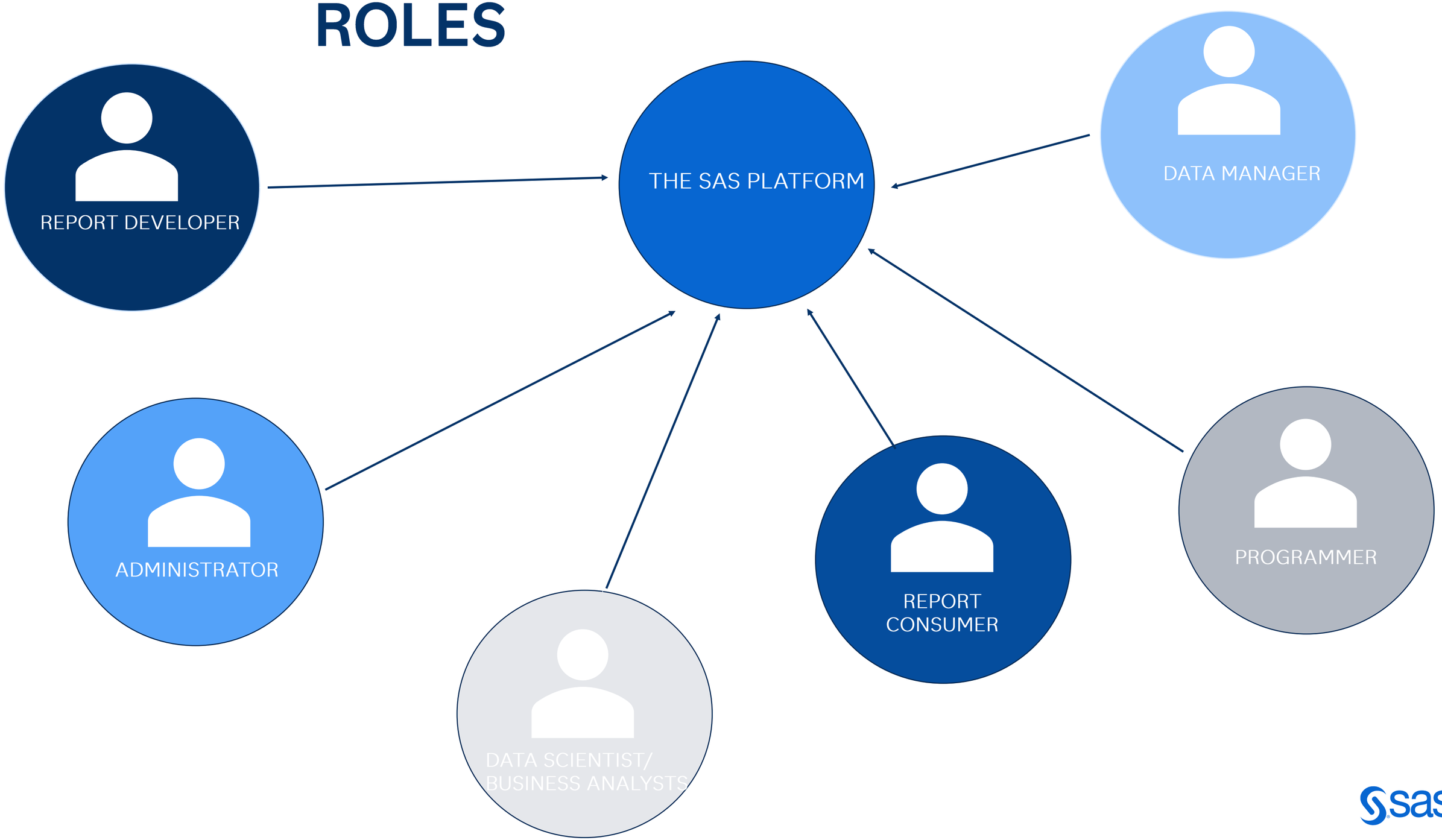
Embed analytics to drive business impact -
SAS Intelligent Decisioning

Combine business rules with machine learning to make optimal split-second decisions.

- Customer contact decisions
- New customer decisions
- Customer churn & loyalty decisions



ROLES


REPORT DEVELOPER
THE SAS PLATFORM
DATA MANAGER
ADMINISTRATOR
DATA SCIENTIST/
BUSINESS ANALYSTS
REPORT
CONSUMER
PROGRAMMER

Gut feeling in decision making

Thank you for the attention!