

SAS FACTORY MINER OVERVIEW

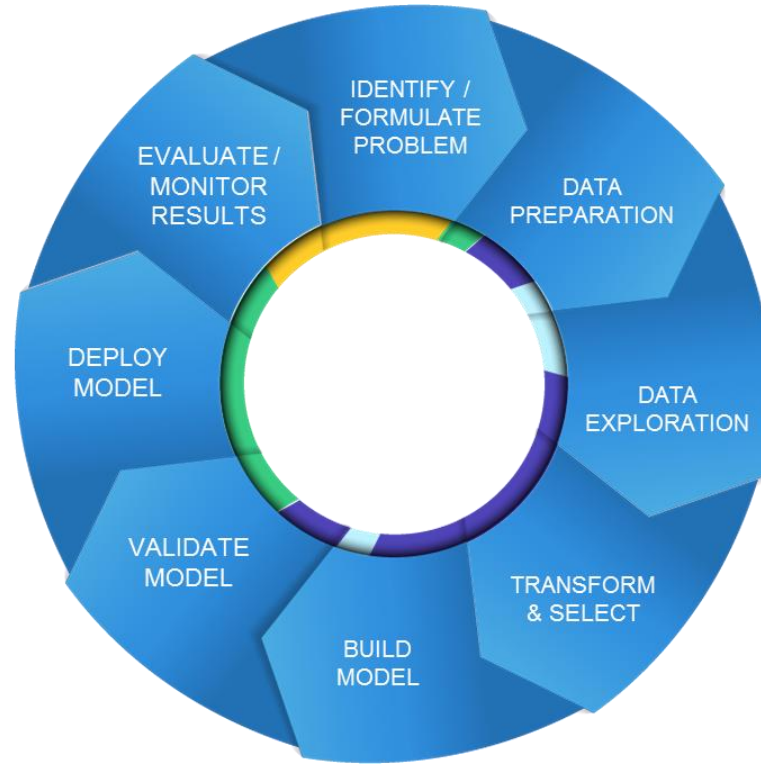
RICHARD HORGAN, PRINCIPAL ANALYTICAL CONSULTANT



NOVEMBER 2015

ANALYTICAL LIFECYCLE

PREDICTIVE MODELLING



Most organizations see the value in Analytics.

We want to:

Solve *MORE Problems*

Solve them *Faster*

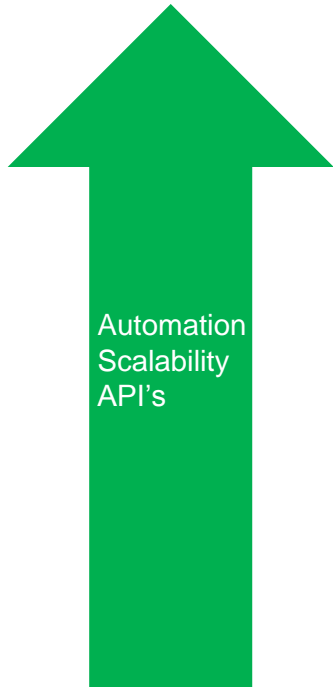
Solve them *More Accurately*

Solve them with the *Same Resources*



CURRENT PORTFOLIO

SAS DATA MINING PROGRESSION



Automation
Scalability
API's



SAS Factory Miner (June 2015)

- Automated Modeling / Segmentation– 1,000's of models, model history
- APIs



Rapid Predictive Modeler

- Easy-to-use, 3 clicks, automated approach.
- Few options to customize



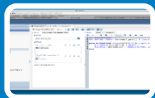
Enterprise Miner

- Full-scale data mining and machine learning, hundreds of options to customize
- Productivity (self-documenting) and operationalized / reusable analytics



Visual Statistics

- Exploratory modeling, part of VA experience.
- Part of pattern discovery process, less about automation/conversion to production



SAS Studio / SAS STAT

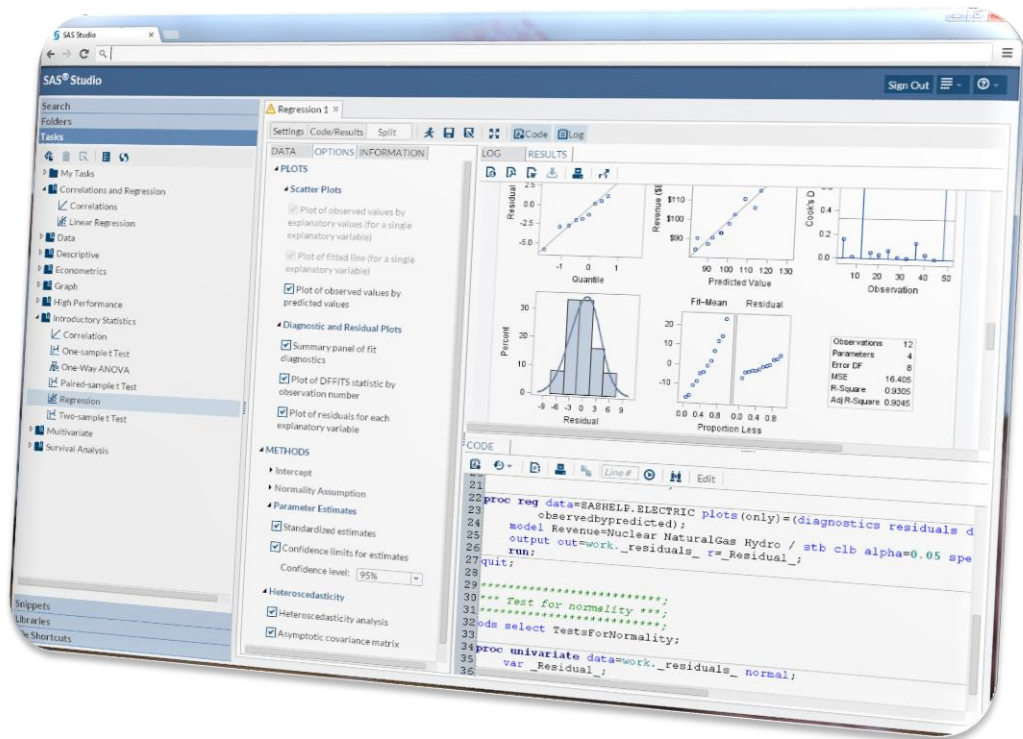
- Procedures, Data Step
- Tasks, Code generation

Model Manager

- Model lifecycle management
- Model profiling
- Overlay with business rules and decision flows
- Manages R, PMML, EM, RPM, STAT models

MODEL DEVELOPMENT SAS/STAT

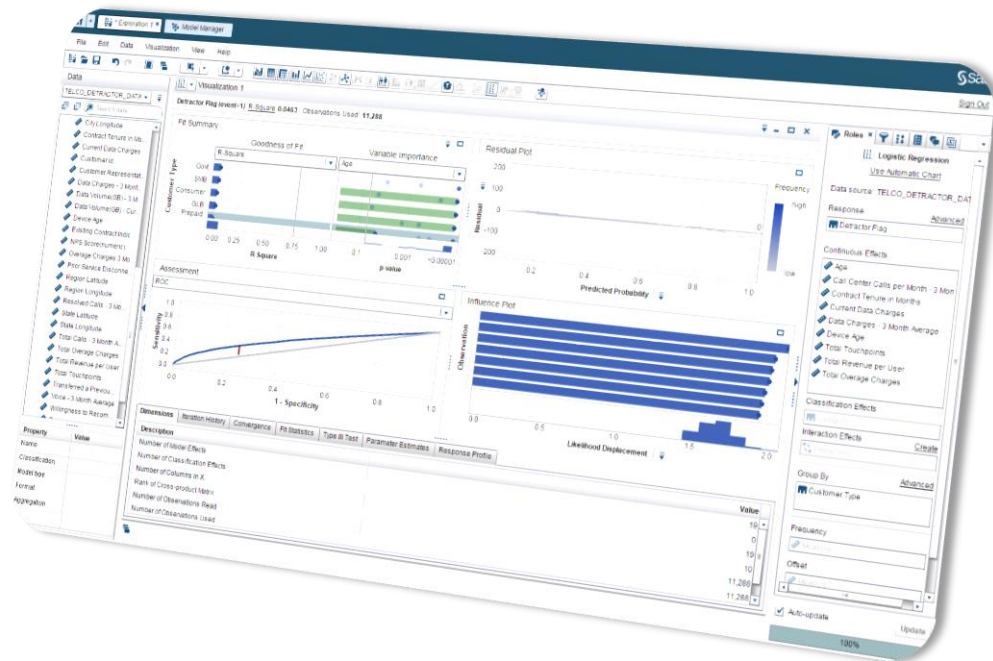
- You're on your own!
- Code based model development
- High level of flexibility
- Small degree of pre-packed model development tasks



MODEL DEVELOPMENT

VISUAL STATISTICS

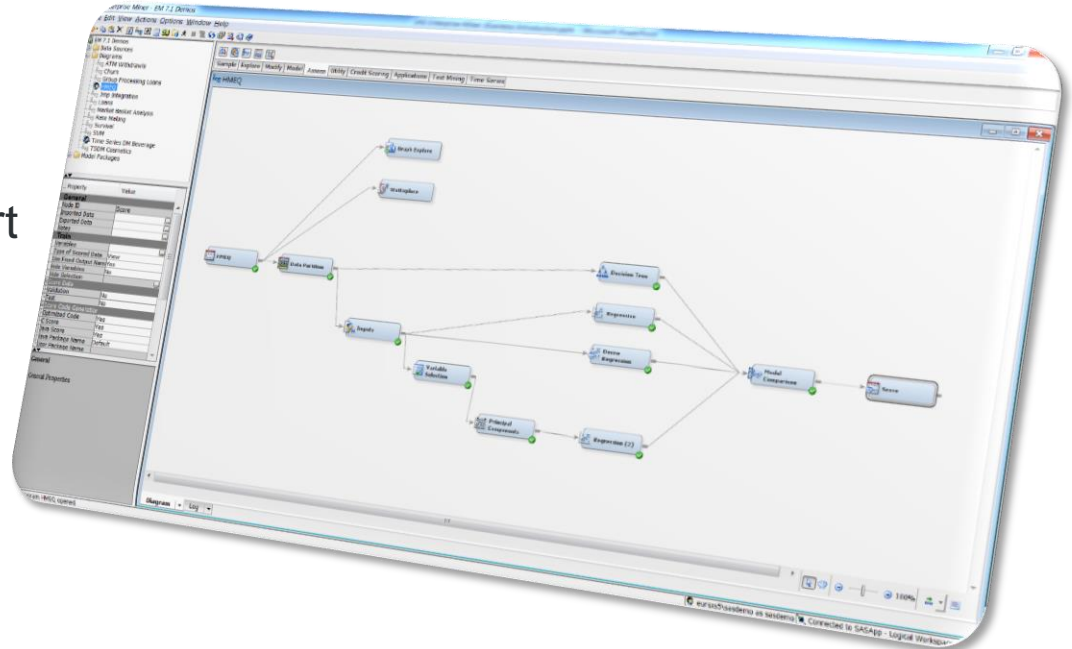
- Fast
- Interactive
- Drag'n drop, no coding
- Visualize impact from changing model parameters
- Deploy through score code



MODEL DEVELOPMENT

ENTERPRISE MINER

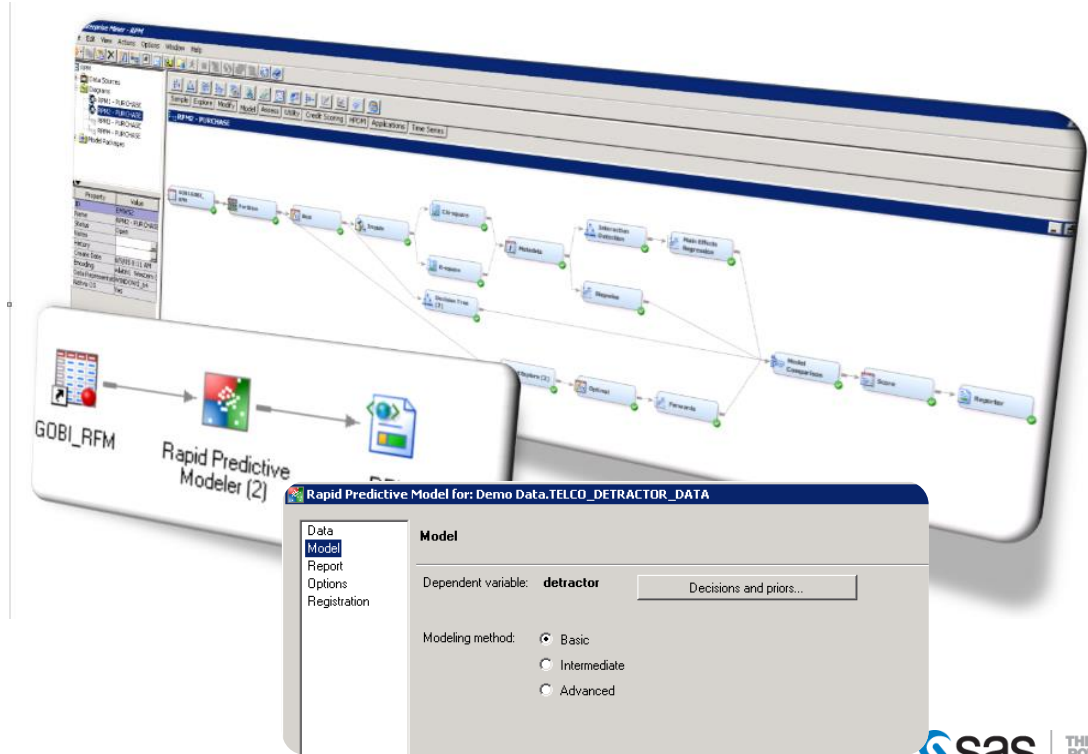
- Full-fledged modelling environment
- Tasks prepared to support and minimize modelling effort
- High degree of flexibility
- Developing one model at a time



MODEL DEVELOPMENT

RAPID PREDICTIVE MODELER

- Modeling through pre-configured templates
- Quick
- Easy
- Modelling one model at a time
- Can open project in Enterprise Miner for further development



Automated, white box modeling

1

Sharable best practice process templates

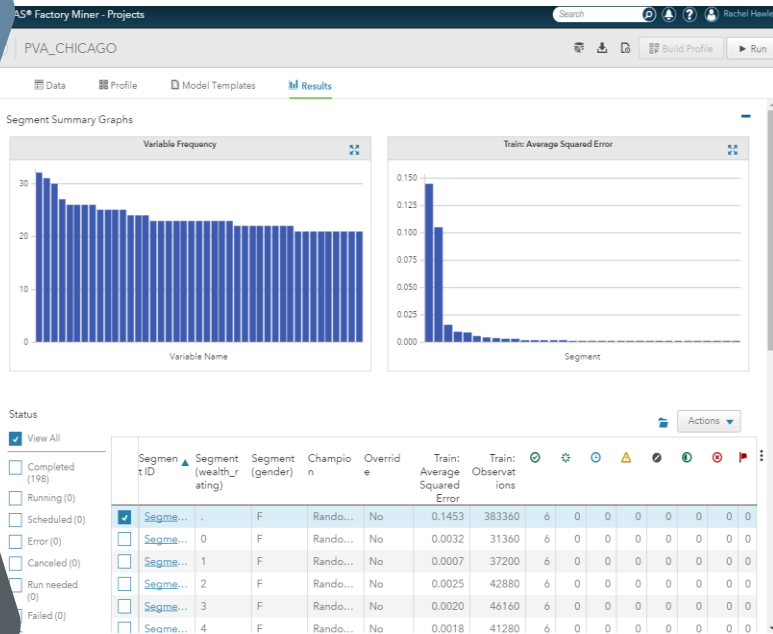
2

Modern machine learning algorithms

3

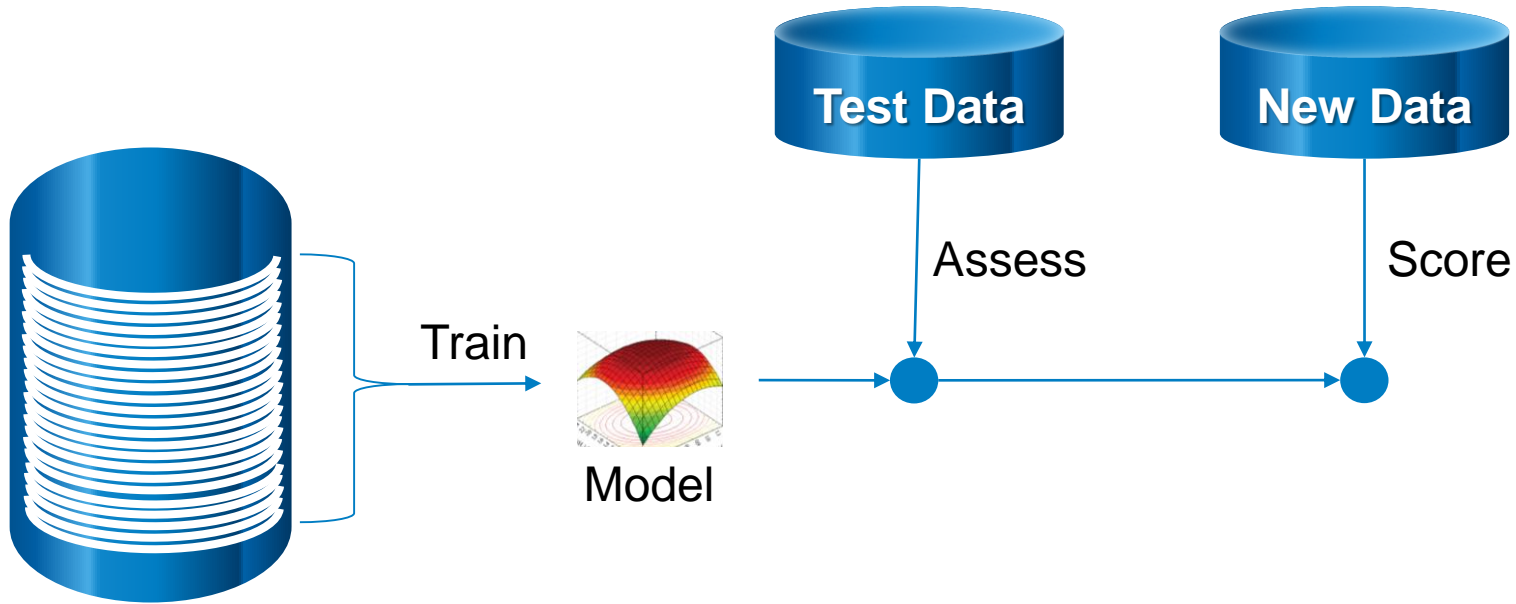
Industrial scalable analytics

4



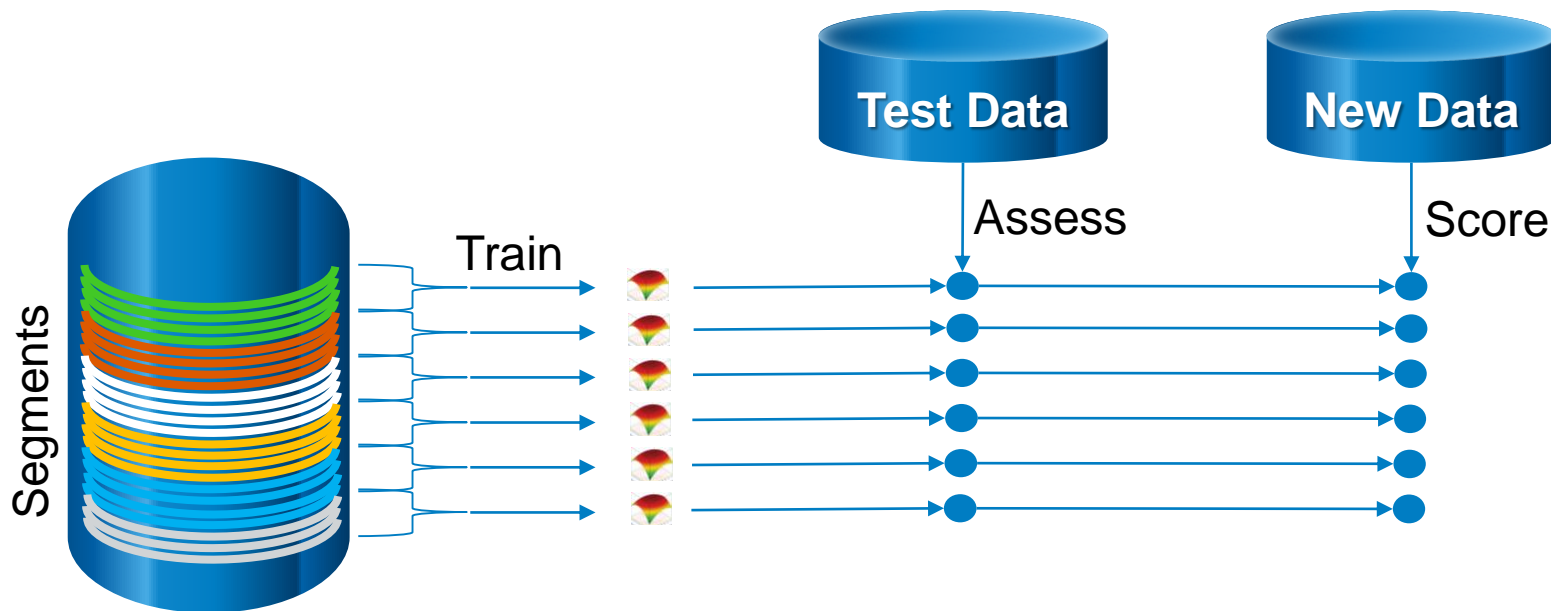
DECISIONS AT SCALE

BOOST MODEL PERFORMANCE AND DATA SCIENTIST PRODUCTIVITY



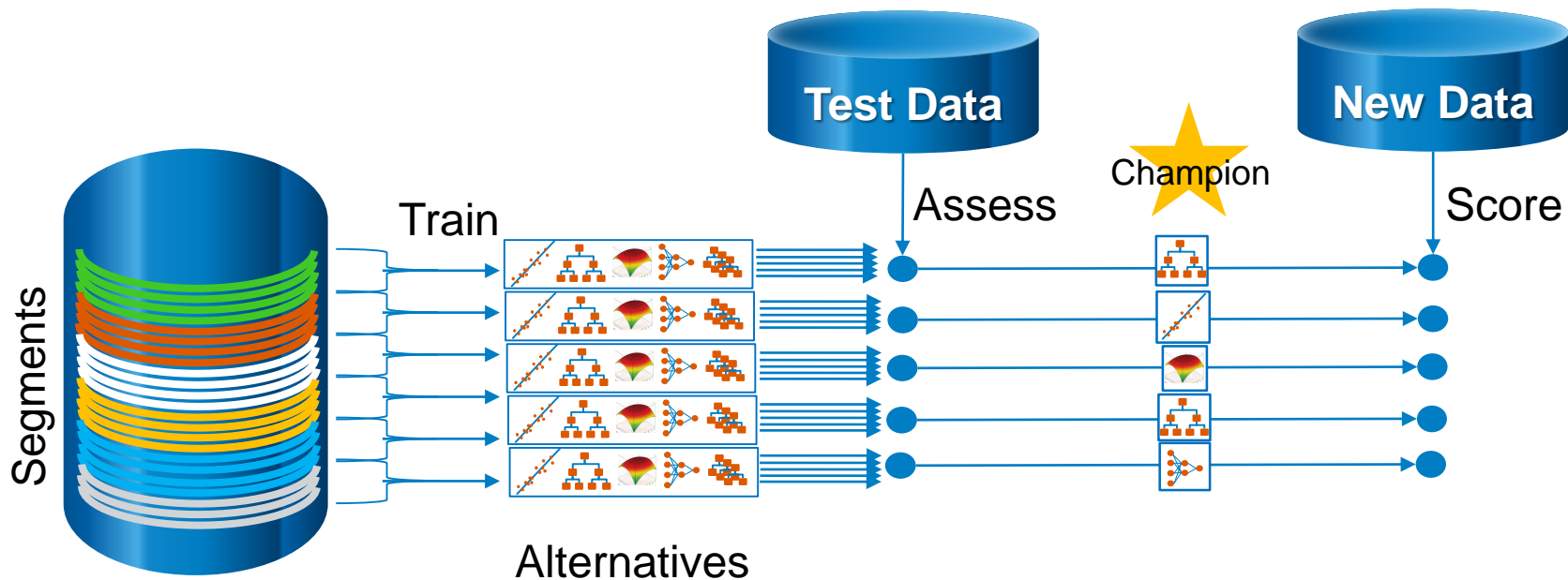
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DECISIONS AT SCALE

BOOST MODEL PERFORMANCE AND DATA SCIENTIST PRODUCTIVITY



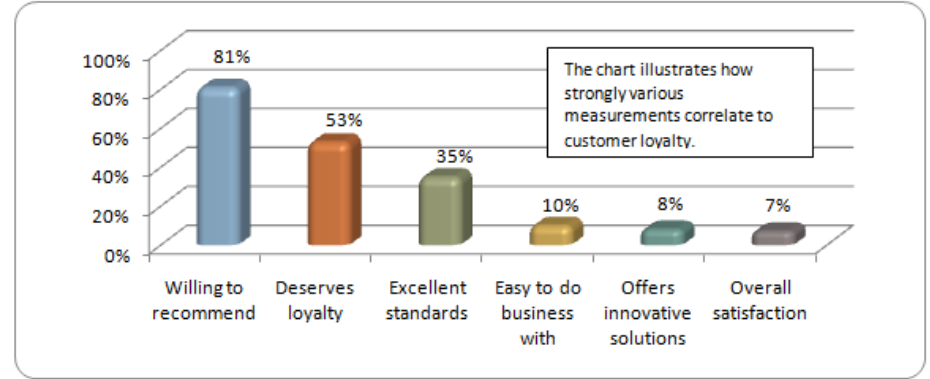
SAS[®] FACTORY MINER
SEGMENTED MODELING OF TELCO DETRACTORS



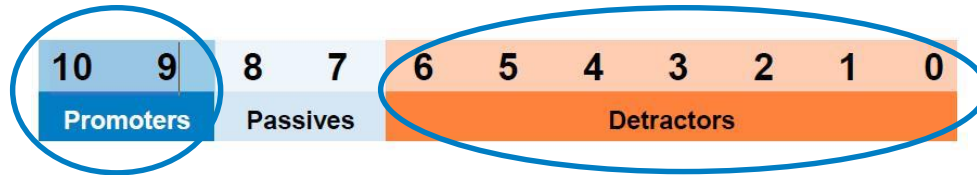
WHAT ARE PROMOTER SCORES?

QUANTIFYING AND CLASSIFYING 'WILLING TO RECOMMEND' RATINGS

Promoter scores are classified into 3 levels from a survey of WTR on a scale of 0 – 10



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PROMOTER SCORE ANALYTICS

FIND THE DRIVERS AND ACT UPON THEM

DETRACTOR



OFFERS



PASSIVE



sas

PROMOTER



TELCO SCENARIO WHAT HAPPENS WHEN A CUSTOMER CALLS?



Individual



Family



PrePaid



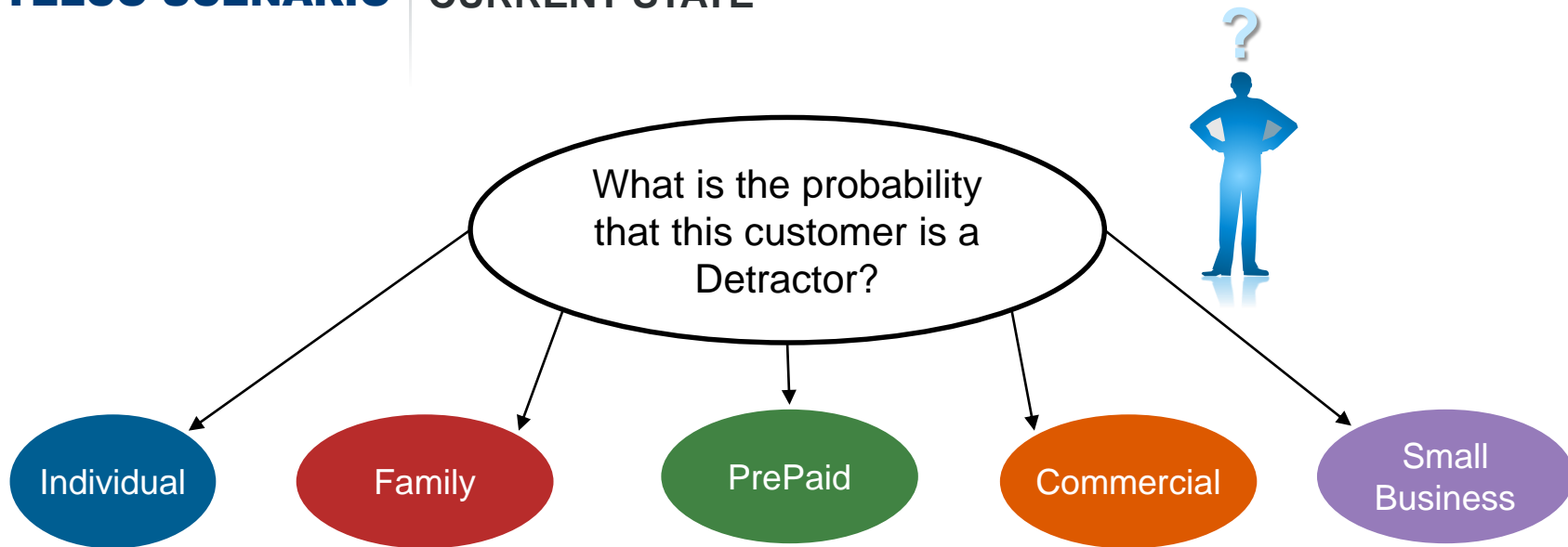
Commercial



Small
Business

**5 different product lines
Handled by 5 different departments**

TELCO SCENARIO CURRENT STATE



Current State:

5 models

One for each Department

TELCO SCENARIO

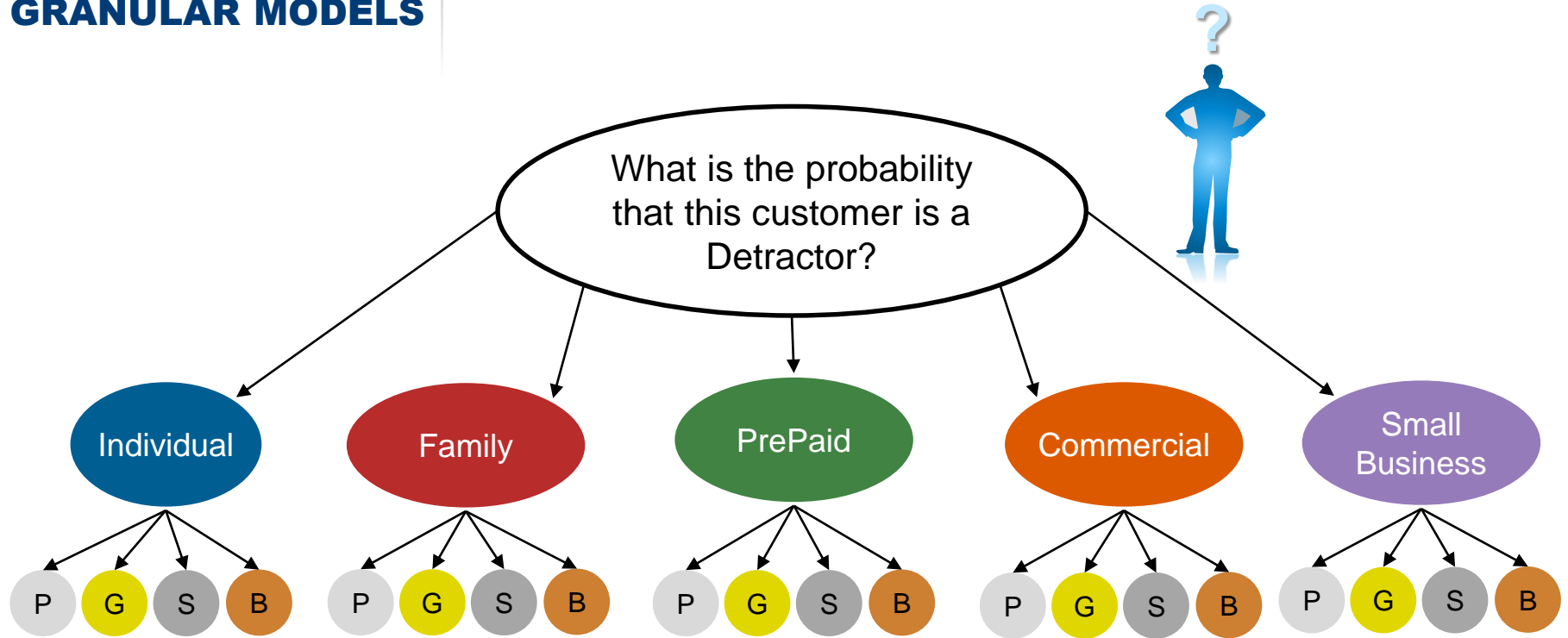
ACCOUNT LEVELS

Customers are categorized into four levels



Can we create a model for each account level for each department?

MAKING MORE GRANULAR MODELS



20 new models

DEMONSTRATION



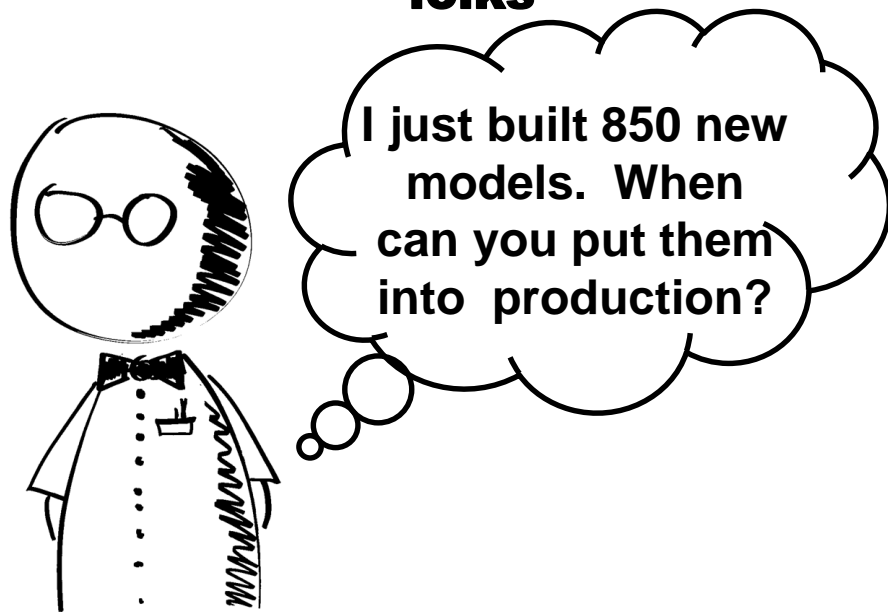
SAS® FACTORY MINER

NOW YOU HAVE LOTS OF MODELS.
WHAT NOW?

The 'IT' folks



The 'Analytics' folks



THANKS!



**THE
POWER
TO KNOW.**