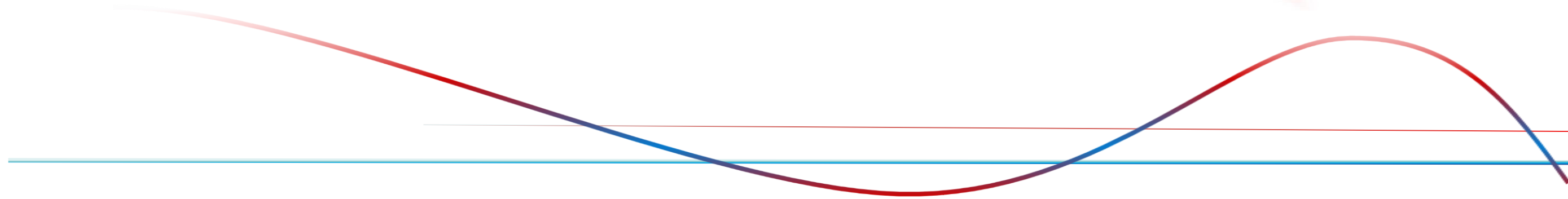


Banking and Capital Markets Joint Value and Case Studies

November 2015



accenture
High performance. Delivered.

sas | **THE
POWER
TO KNOW.**

Accenture and SAS The Best in the Business

Accenture's business solutions, powered by SAS' pioneering analytics, help clients advance on the journey to ROI



- > Positioned in the leaders quadrant for Advanced Analytics Platforms and Business Intelligence and Analytics Platforms (Gartner, Feb 2015)
- > Consistently rated as a leader in Gartner's Magic Quadrants (across 9 categories)
- > Used at more than 70,000 sites in over 134 countries
- > 91% of the top 100 Fortune Global list 2014 make use of SAS®

- > Positioned in Leader's Quadrant for Business Analytics Services (Gartner, Sep 2015)
- > Named leader in the Business Intelligence Services in Asia Pacific by Forrester (Q4- 2013)
- > One of the largest global providers of BI services
- > Market leader in the area of consulting and implementation

Accenture - SAS Partnership



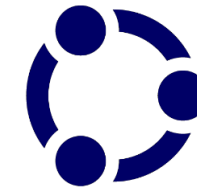
- > **15 year** strategic alliance
- > **CEO to CEO** commitment



- > **2,500+** SAS-trained delivery consultants
- > **12** joint offerings
- > **12+** Accenture centers with SAS expertise



- > **250+** projects completed
- > **New** commercial models and flexible pricing



Shared Vision



Analytics and Big Data



High Performance Computing



Cloud



Internet of things



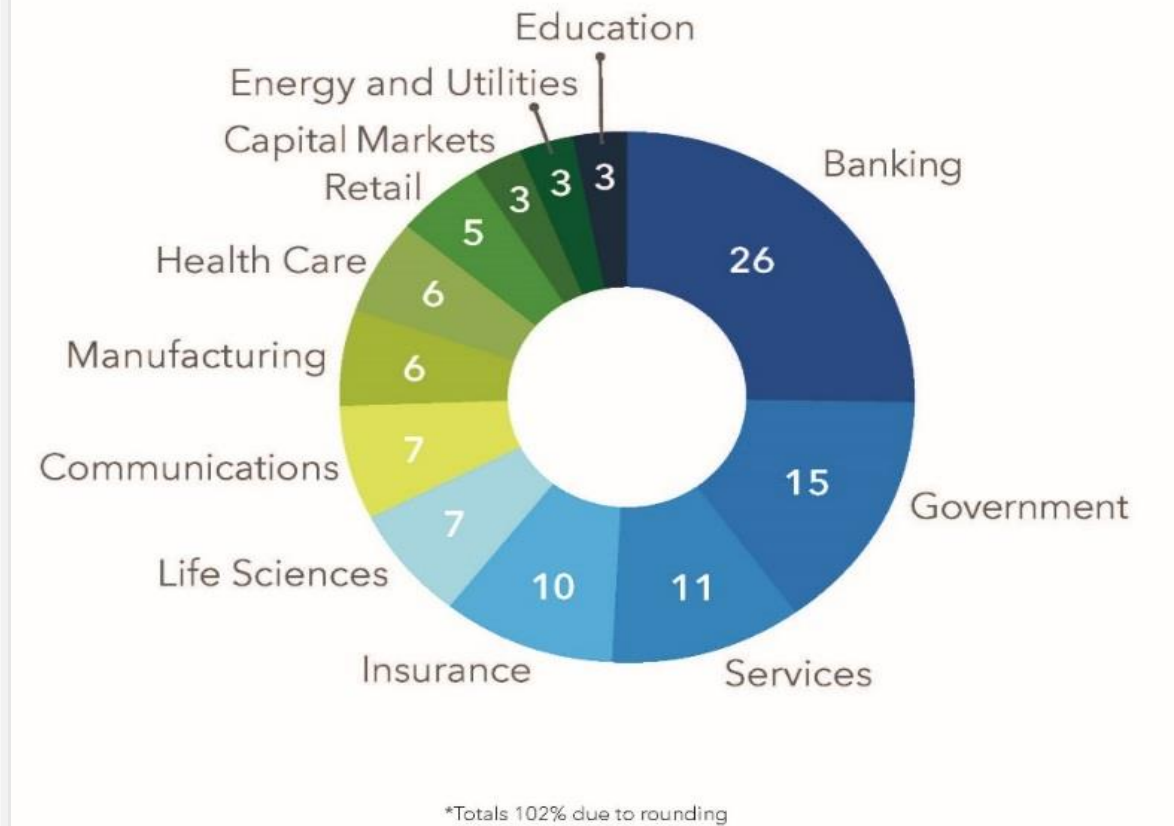
State of the Art Technology Labs

SAS and Banking

Over 90% of the top global 100 banks rely on SAS

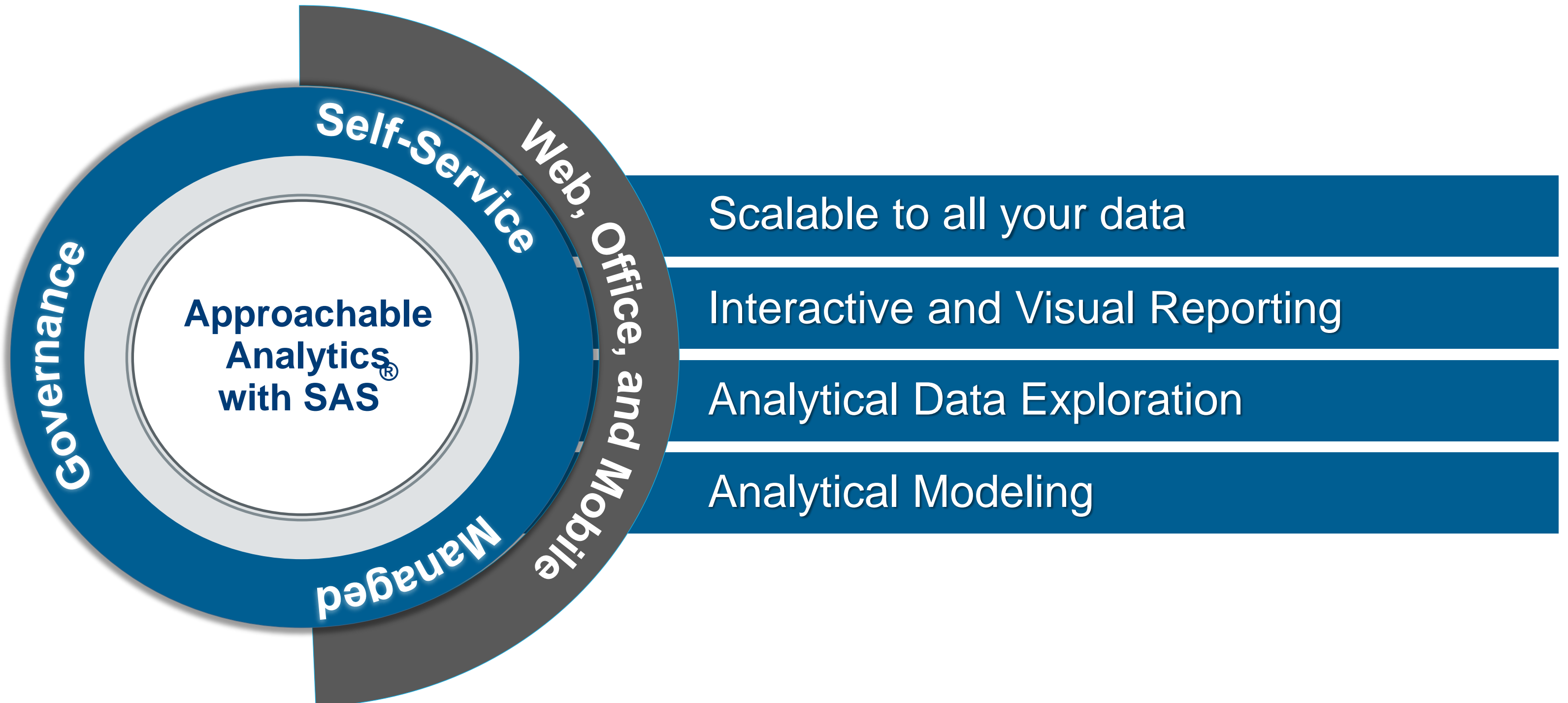


Software Revenue Percentages by Industry



SAS and Banking

SAS provides Approachable Analytics – Bridging the gap between IT and business



SAS and Banking

Approachable Analytics removes the barriers of traditional approaches



Scarcity of analytical skills

The need to grow analytical talent from within

Tools that aren't right for the job

Learning curve to create, share and collaborate

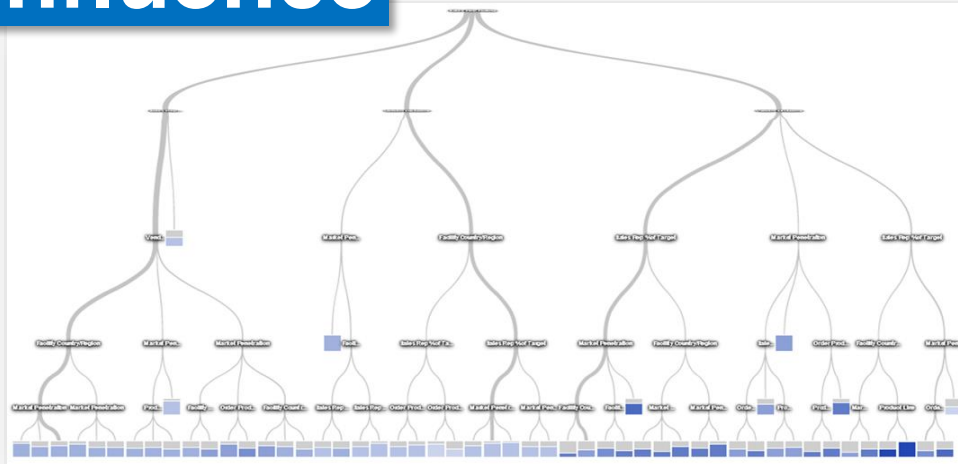
Disjointed, inefficient workflow

How can you fail fast & learn to refine quickly

SAS and Banking

Approachable Analytics – What does SAS provide and look like today?

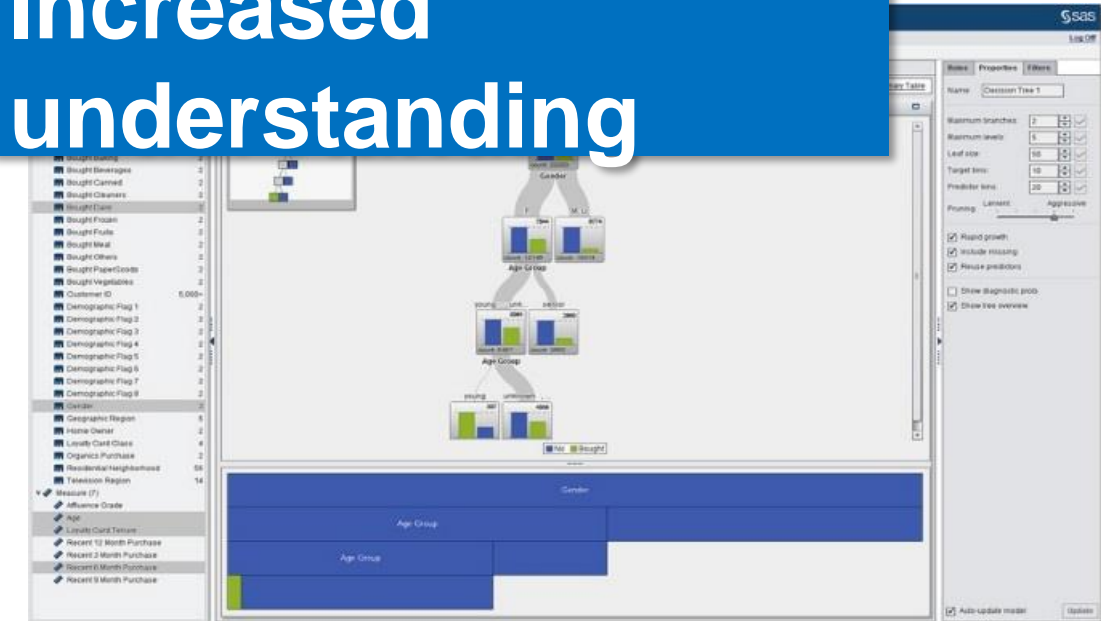
Influence



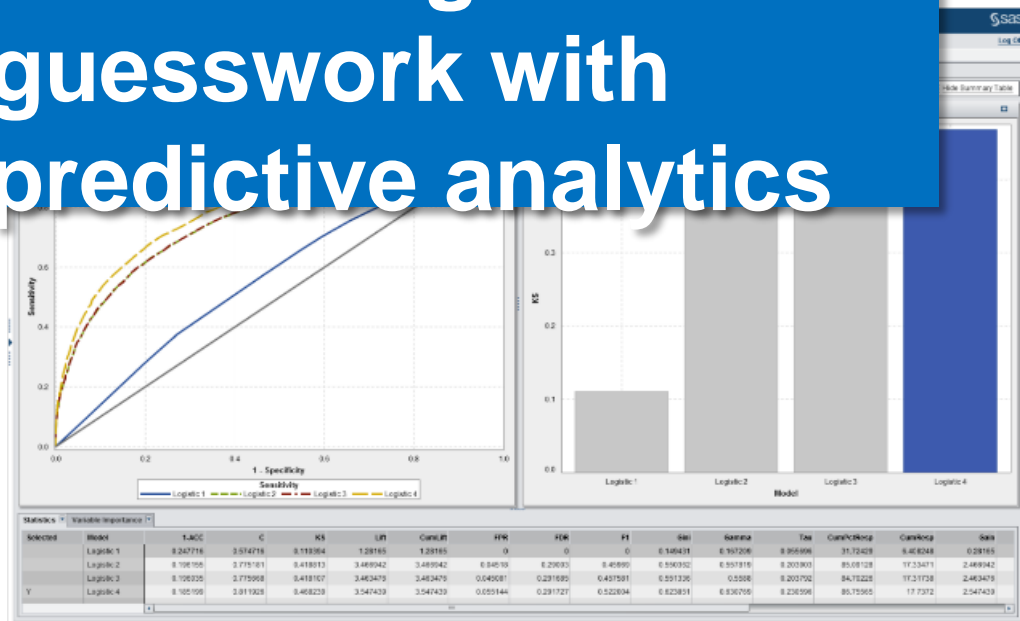
Relationships



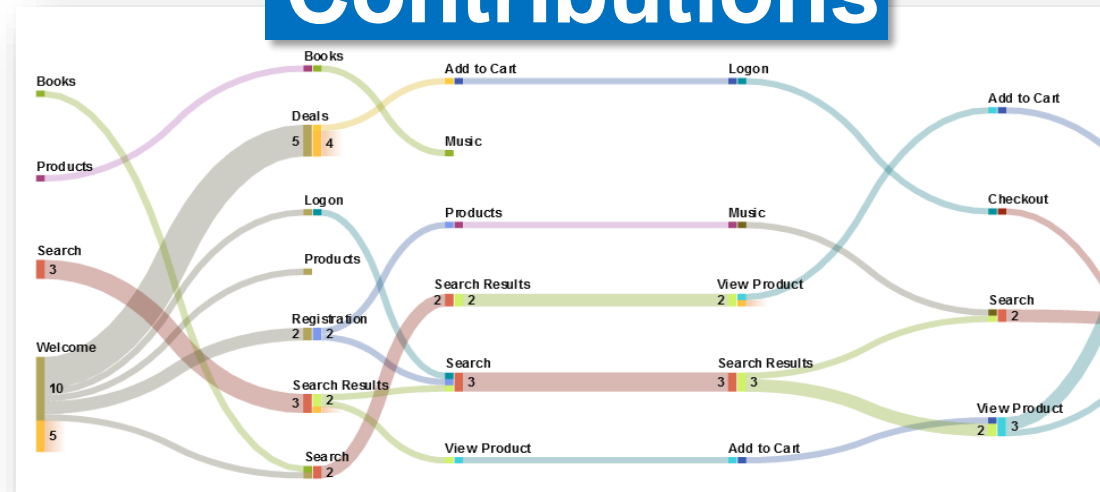
Increased understanding



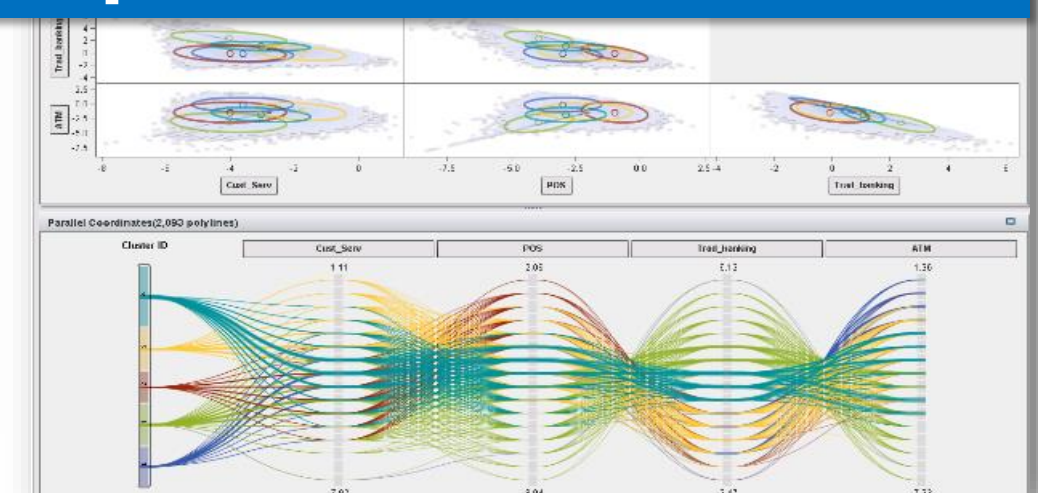
Eliminating guesswork with predictive analytics



Contributions



Data driven exploration



SAS for Banking Big Data Modernisation

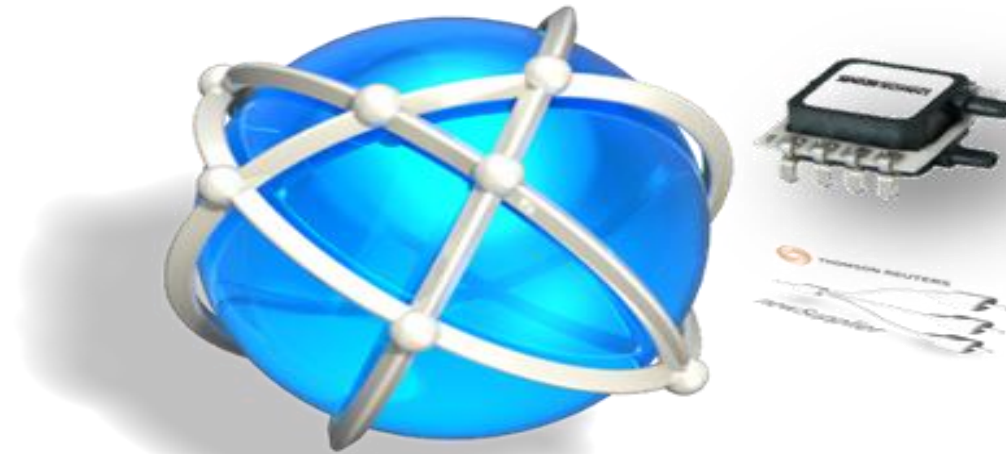
Moving to Real Time - Event Stream Processing



On-line Behavior



Digital Security



Connected Devices



- When milliseconds matter
- When velocity can overwhelm analytics
- Where latency creates great risk
- Monetization by instant gratification

SAS for Banking Big Data Modernisation

Event Stream Processing – Sub Second Offer Decisions

- When speed matters, time is money
- Fast filtering of events of interest
- Response time faster by more than an order of magnitude!
- **10x Increase in Offer Acceptance**



SAS and Banking

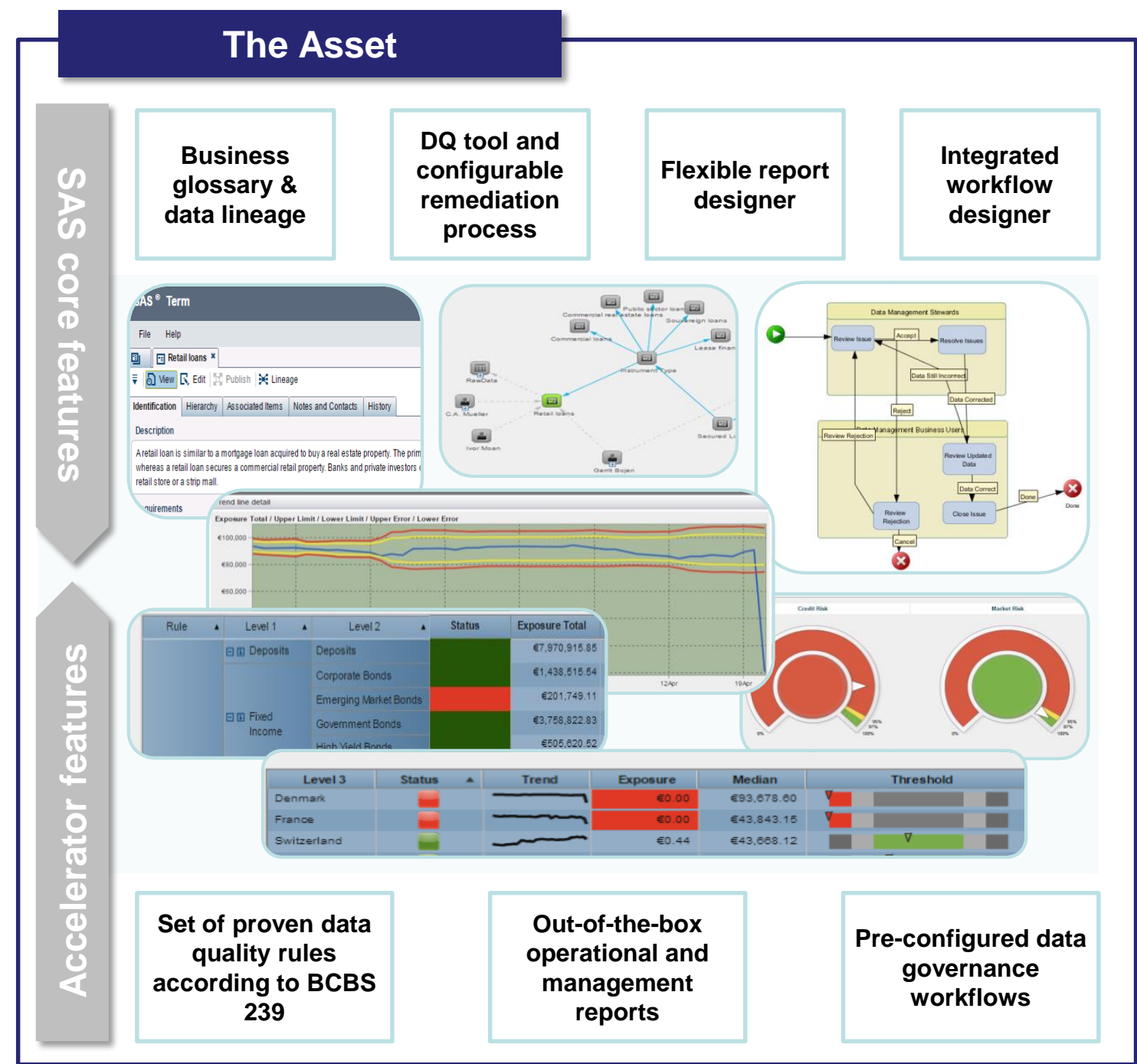
SAS solutions address the key functions within the institution

CUSTOMERS & MARKETING	RISK & COMPLIANCE	FRAUD & FINANCIAL CRIMES	OPERATIONS
<ul style="list-style-type: none">• Segmentation• Acquisition & Loyalty• Cross-sell, Up-sell, Attrition• Propensity & Marketbasket• Next Best Action / Communication• Offer Optimization• Real-time Decisioning• Customer Profitability / LTV• Commercial Banking Customer Analytics• Trade Finance Analytics	<ul style="list-style-type: none">• Credit Decisioning<ul style="list-style-type: none">• Market Risk• Credit Portfolio Risk<ul style="list-style-type: none">• Liquidity• Stress Testing• Regulatory Capital<ul style="list-style-type: none">• Solvency• Model Risk• Operational Risk	<ul style="list-style-type: none">• Anti-Money Laundering<ul style="list-style-type: none">• Card Fraud• Payments Fraud• Internal Fraud• Cybersecurity• Trader Surveillance• Adviser Product Suitability• KYC / Customer Fraud	<ul style="list-style-type: none">• Cost & Profitability Management• Asset / Liability Management• Risk-Adjusted Performance Management• Capital Planning & Management• Branch Optimization• Payments Optimization

SAS and Accenture Joint Market Offerings for Banking

CUSTOMERS & MARKETING	RISK & COMPLIANCE	FRAUD & FINANCIAL CRIMES	OPERATIONS
<p>Customer Intelligence / Decision Hub</p> <ul style="list-style-type: none"> • Integrated Marketing and Cross Channel Campaign Management • Onsite or managed service • 10 joint projects completed <p>Customer Analytics Managed Service</p> <ul style="list-style-type: none"> • Accenture Analytics CoE • Cloud based managed service 	<p>BCBS 239 Data Management Accelerator</p> <ul style="list-style-type: none"> • Pre-configured SAS solution for BCBS239 compliance • Pre-defined customizable DQ rules and reports <p>Enterprise Risk</p> <ul style="list-style-type: none"> • Accenture CoE in Milan <ul style="list-style-type: none"> • ~100 SAS resources • 15 projects completed 	<p>Online Banking Fraud Solution</p> <ul style="list-style-type: none"> • Pre-configured SAS solution for Online Banking Fraud Detection • Pre-defined customizable fraud rules and reports • Currently being implemented in Czech Republic and Poland 	<p>Profitability Management</p> <ul style="list-style-type: none"> • Activity level management and optimisation for cost transparency, process efficiency, customer, and product profitability analysis • On site or managed service • 8 cross sector joint projects completed

Example Offering BCBS239 Data Management



Enterprise Value Proposition



Pre-configured SAS solution for BCBS 239 compliance



Suitable results within short timeframe



Transparency on bank wide data quality



Potential for lower capital requirements

Top Client Challenges

- ⚡ Break through siloed processes and IT architectures and create group wide view on data quality
- ⚡ Align information definitions between business and IT as well as inter-divisional
- ⚡ Create transparency of data flows and create a common data glossary
- ⚡ Timeliness of reporting and remediation actions

Unique selling proposal

- 👍 Set of pre-defined customizable data quality rules
- 👍 Customizable data quality dashboard for root cause analysis of data quality anomalies and risk reporting
- 👍 Ability to seamlessly integrate as a plug-in to existing SAS Risk Customer environment
- 👍 Single platform offer for end to end functionality

Example Offering **BCBS239 Data Management**

Available Assets to Support Sales Efforts

- Internally and externally facing overview presentations
 - Detailed case studies and results
 - Standard pricing models and agreed upon SAS commercials
 - End client contractual agreement templates
 - Pre-defined data quality and business rules
- Pre-defined remediation process spanning across persona based activities, associated orchestration and notifications
 - Pre-defined dashboard and reports
 - Pre-defined risk terminology and allied information
 - Experienced and trained resources

Credentials

- Implementation of customized SAS and Accenture DG solution at DZ bank ongoing
- Was selected as a partner showcase in the SAS Global Forum 2015 in Dallas
- Momentum on NA & EALA markets and focus campaign along with SAS APAC Leadership

Key Contacts

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❖ Remco den Heijer

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❖ Steven Smith












Steven.Smith@sas.com



Milan Risk CoE SAS Capabilities

Accenture SAS Analytics Top Experiences – Financial Services

Financial Services

NON EXHAUSTIVE			
- Project -	- Description -	- Solution -	- Main Credentials -
A Risk Laboratory	Activation and customization of SAS Credit Scoring Market Solution as a structured Laboratory environment for models estimation and validation	 SAS Credit Scoring	
B Data Quality	Development of a datawarehouse exploiting a data quality framework based on DataFlux tools	 	
C Solvency II	Development of a Solvency II reference framework (solutions and business requirements) based on the new Solvency II requirements	 SAS RMfB	
D Counterparty Risk	System integration of SAS solution Risk Management for Banking (RMfB) in Risk architecture (counterparty risk calculation and add-on calibration, base risk reporting)	 SAS RMfB	
Campaign Management	Customization of the SAS Marketing Automation solution to enable the customer segmentation and the real time decisioning for campaigns.	 SAS Marketing Automation+Real Time	

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Joint Success Story TD Bank

BUSINESS GOALS

- Support the transition from a siloed product centric bank to a customer centric model with centralized operations.
- Drive operational efficiencies and reduce costs thru line of business consolidation.
- Improve the bank's overloaded capacity: only a few models could run simultaneously, thus negatively impacting their customer's experience.
- Establish a high-performance, shared service analytics environment to support all of the bank's channels, products and core business functions.

SOLUTION

- SAS® Grid Manager
- SAS® Model Manager
- SAS® Marketing Optimization

RESULTS and EXPECTED RESULTS

- Drove \$11.6 million in additional cross sell/upsell revenue using six campaigns.
- Deliver campaigns and messages specific to each customer which will require a 6X increase in model development without additional staff.
- Build and run more valuable models in much less time. These will be deployed and re-used across the organization, driving even more savings and efficiencies.
- Drive SAS analytics and models throughout TD using a central grid environment, which has centralized governance and transparency.

- “Scaling our SAS analytics environment to better serve our 22+ million customers as the 6th largest bank in North America will be possible with SAS's High Performance grid enabled environment.

- We have been using SAS across the bank for years in a more siloed approach and have obtained tremendous value in terms of optimizing our marketing efforts with limited resources globally.”

TD Bank Group

CIO and Senior VP of Shared Services

Joint Success Story Large European Bank

Business Issue

- > Instructions from regulators to modernize the bank's model development as the current model life cycle was 18-24 months
- > The bank was not responding in a timely fashion to market risk changes
- > Failure to address the Central Bank instruction would lead to noncompliance with regulatory standards

SAS Components

- > SAS® Credit Scoring for Banking, Scoring Accelerator for Teradata, Model Manager, Grid Manager, Visual Analytics, Visual Statistics

Joint Solution

- > Streamlined model development process
- > Reduction of manual processes with resulting reduction in operational risk
- > Deployment of more accurate models

Results to Date

- > Reduction of internal ratings-based capital costs of more than **\$6million per year**

Accenture and SAS Recent Banking Wins

Customer	Accenture Role	Topic
ABN AMRO	Joint RFP	Customer Intelligence
Banco Popolare di V	Joint RFP	Risk
Bank of Ireland	Managed Service	Customer Intelligence
BNP Paribas	MC	Risk
CheBanca!	Implementer	Customer Intelligence
Cariparma	MC	Risk
SEC Servizi	Implementer	Risk
Intesa Sanpaulo	Implementer	Risk
UBS FS	MC	Customer Intelligence
IW Bank	Implementer	Customer Intelligence
Unicredit	Implementer	Risk
Yapi Kredi Bank	Implementer	Risk
Nordea	Implementer	Risk
Permanent TSB	Implementer	Customer Intelligence
Danske Bank	Implementer	Fraud
Credit Agricole Int'l	Implementer	Customer Intelligence

Customer	Accenture role	Topic
Mitubishi FS	MC	Risk
Alior Bank	Implementer	Customer Intelligence
TD Bank	Implementer	Customer Intelligence
PKO Bank	Implementer	Fraud
KB Bank	Implementer	Fraud
Presidents Choice	MC	Fraud (AML)
European Central Bank	Implementer	Risk
China Guangfa	Implementer	Risk
SMBC Nikko	Implementer	BI
Op Pohjola	Implementer	CPM
SEB	Implementer	CPM
Santander	Implementer	Customer Intelligence
RBS	PMO	Hadoop
Sberbank	Implementer	Risk
Danske Bank	Implementer	Fraud (AML)

Our Team **Key Contacts**

We have a strong global team ready to support you

SAS

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