Predictive Perspectives 2011

IBM

Breakthrough Results with Decision Management

Business Analytics

www.spss.com/perspectives

What impacts your decision making?

Where you want to be!

A decision with a favorable outcome

What's in your way!

Data? Process?
Policy? People?
Location? Politics?
Knowledge?
Legal Constraints?
Time?

Agenda

- Decisions– what are they, who makes them and how
- Transformation and Breaking Away
- Practical Advice as You Leave Today
- Q&A

Average Companies Are Way Behind on Decision Making

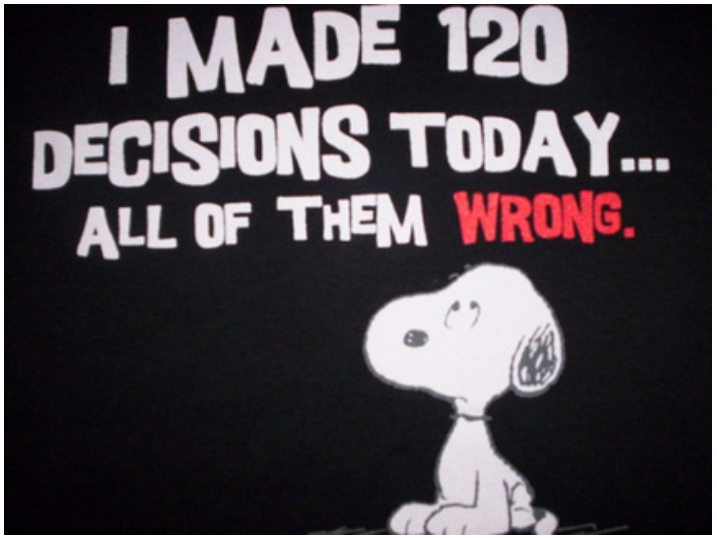
The average organization has the **potential to more than double** its ability to make and execute key decisions**. On a decision-effectiveness scale of 0 to 100, the best companies score an average of 71, while most companies score only a 28,**

Harvard Business Review

Marcia W. Blenko, Michael C. Mankins, and Paul Rogers, authors of *Decide & Deliver: 5 Steps to Breakthrough Performance in Your Organization.*

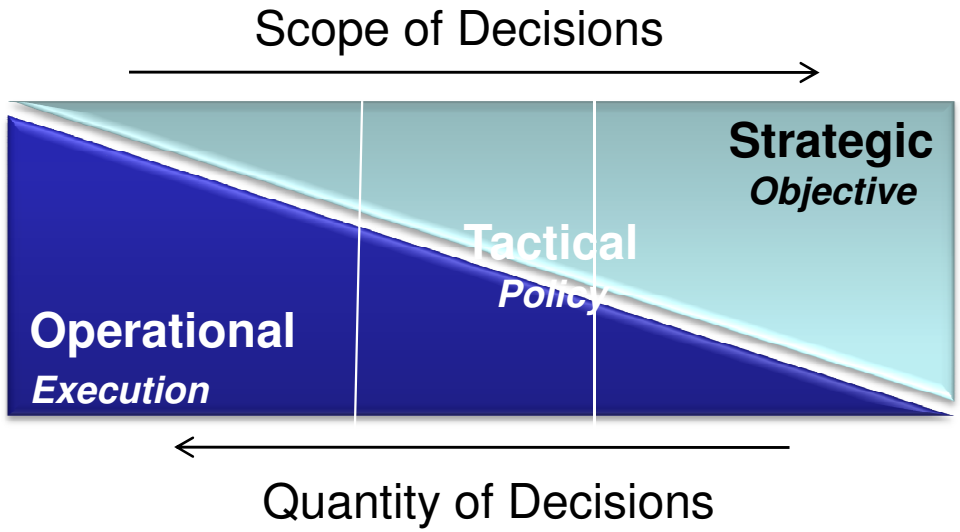
Who makes decisions?

- Different kinds of people
  - Consumers
  - Call Center Reps
  - Sales People
  - Line of Business Managers
  - Executives
- Different kinds of systems
  - IVR / Phone system
  - Website
  - CRM system
  - Custom risk management database



Decisions vary in scope

- **Strategic decisions**
  - Set the long-term direction for the organization. An initiative which results in guidelines within which operational decisions are made.
- **Tactical decisions**
  - The formation of policy or process. Focused on a specific project or objective which is executed at a tactical level.
- **Operational decisions**
  - Applying a policy, process, or rule set to a specific case. Lends itself to automation



Problems Inevitably Lead to Operational Decisions

- Public Security
  - Problem: I can't search every car that crosses the border.
  - Decision: Which car should I search?
  - Who: Border Control Guard
- Insurance
  - Problem: I can't investigate every claim for fraud.
  - Decision: Should I investigate this claim?
  - Who: Claims Specialist
- Telecommunications
  - Problem: I can't save every customer.
  - Decision: Is it worth trying to save this customer?
  - Who: Call Center Agent

Practical Advice

When you get home

- Identify a business objective where you care about the results
- Identify the limiting factor of the decision – the problem.
- Identify WHO makes decisions which impact this business problem – cover strategic, tactical and operational perspectives
- Articulate the value of making a better decision

How Mature is Your Decision Making?

Business Operations Maturity

How the business applies information to achieve its goals

- *Policies*
- *Business Processes*
- *Organization*

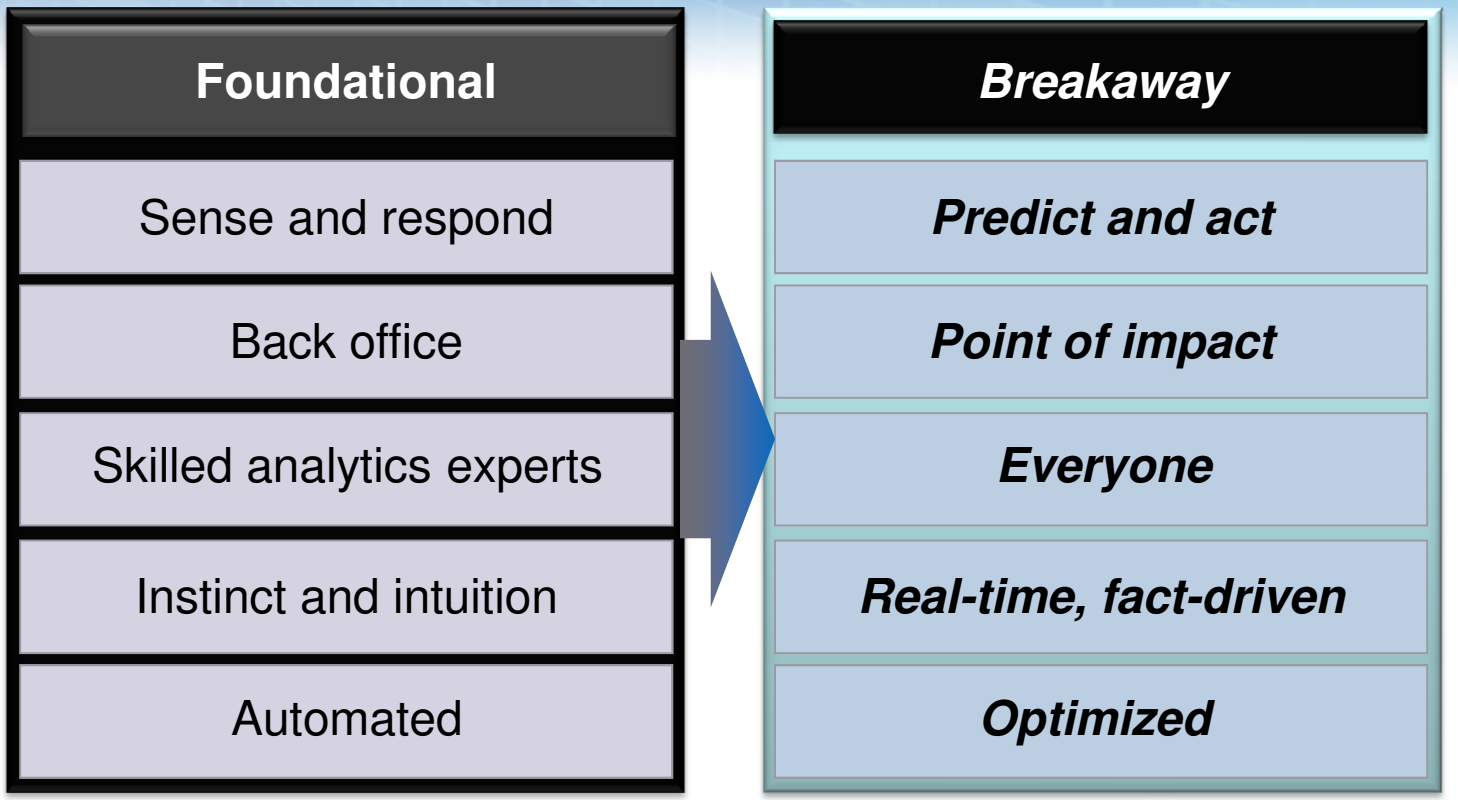
Information and Analytics Maturity

Source: *Breaking Away with Business Analytics and Optimization; Q4 09*
www.ibm.com/gbs/intelligent-enterprise.

How the business manages information and learns from it

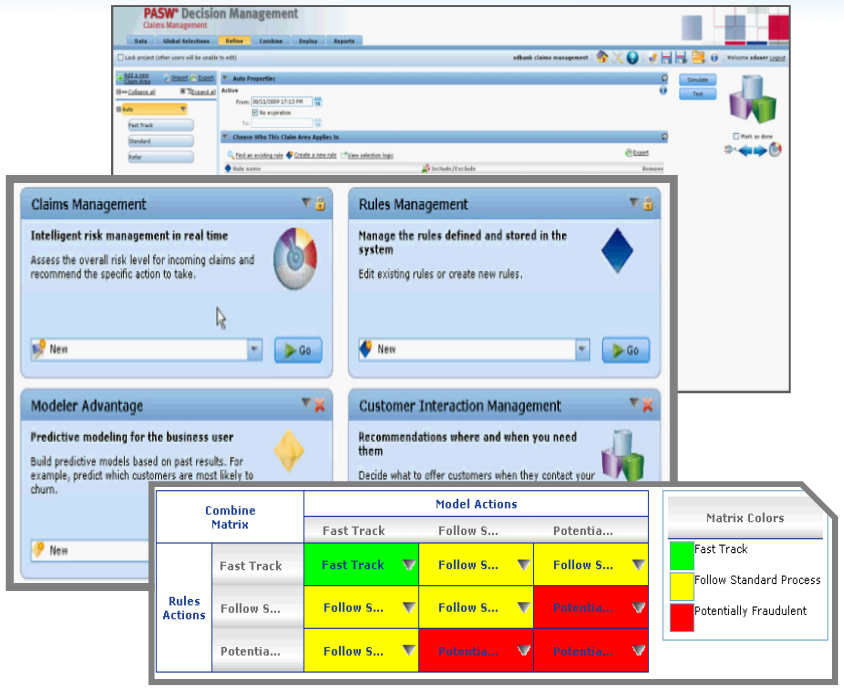
Optimizing Every Decision at the Point of Impact…

The Business Value of Transformation

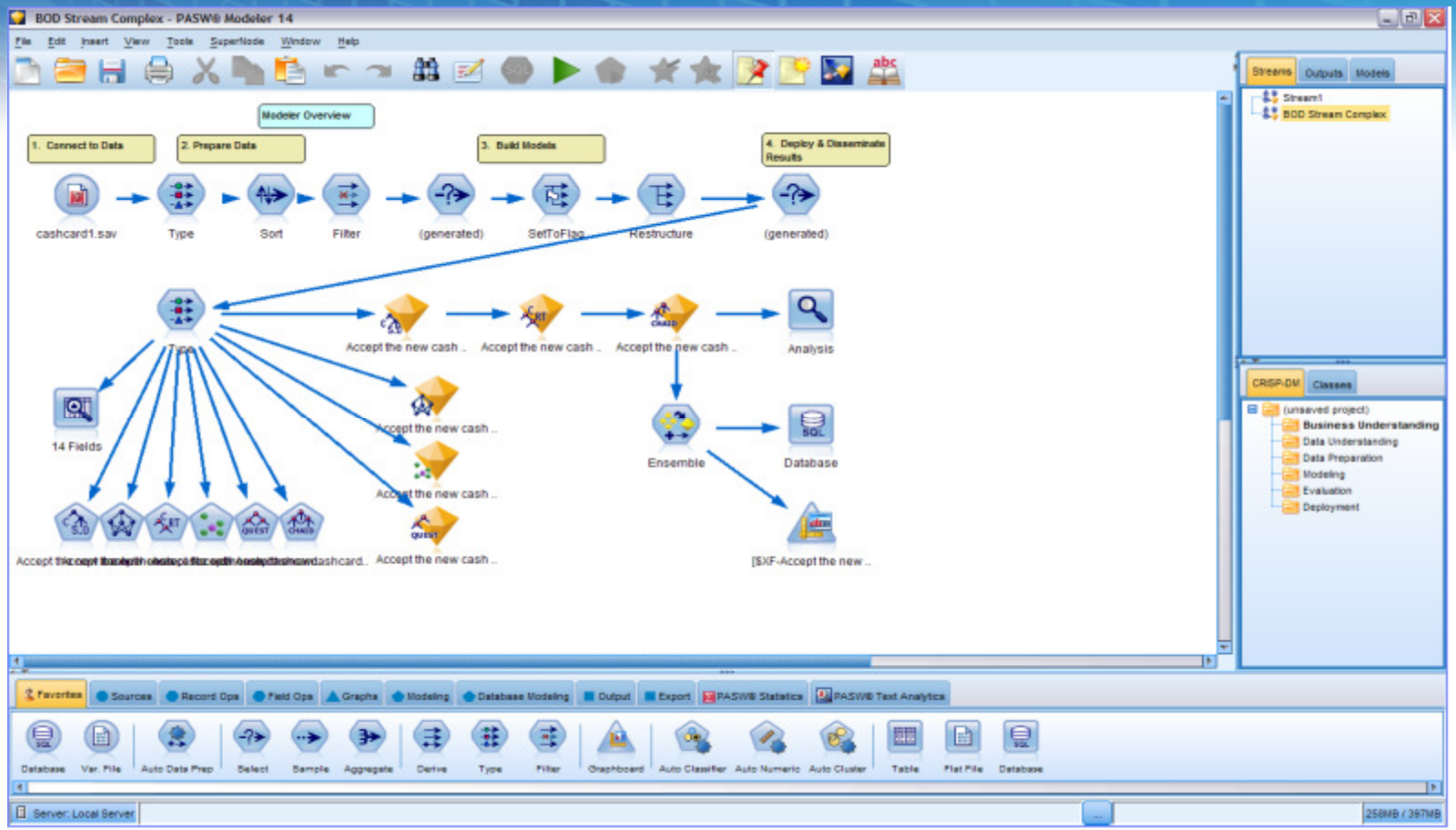


IBM SPSS Decision Management:
Turning Information into Action at Point of Impact

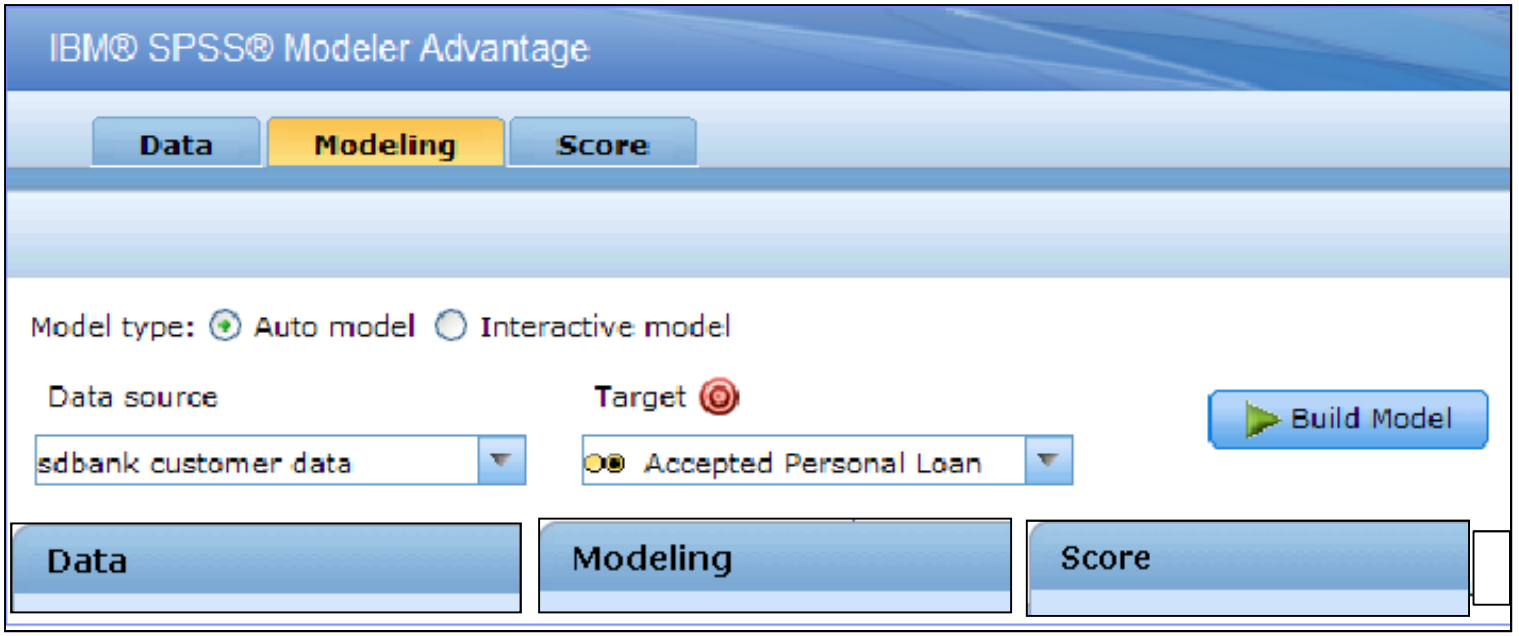
- Turnkey Mission Critical Solutions
  - Built on Time Tested Methodologies
  - Proven & Scaleable Technology
- Empowering Line of Business Owner
  - General Management
  - Marketing
  - Finance
  - Operations
- Best Practice in Decision Making
  - User Definable
  - Completely Configurable



From Skilled Analytics Experts…..



To Line of Business Owners…



3 Click Automated Modeling

Practical Advice

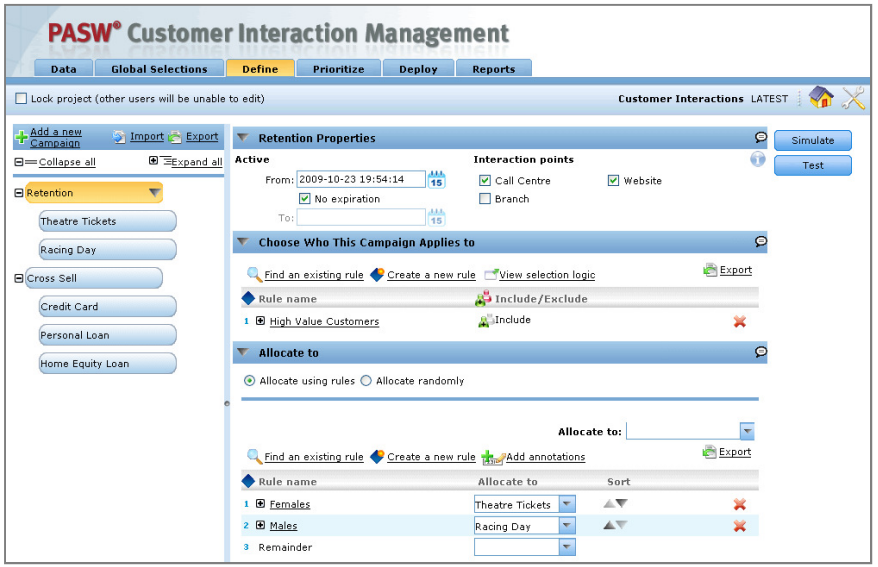
- Take a skills inventory of the people who impact your decisions.
- Understand which questions can only be answered by your analytic experts – what would happen if those people didn't come to work tomorrow?

From Instinct & Intuition to Fact Driven Solutions

Decision Management Solutions Based on Business Problems

Decision Management *for Claims Optimization*

Decision Management *for Customer Interactions*



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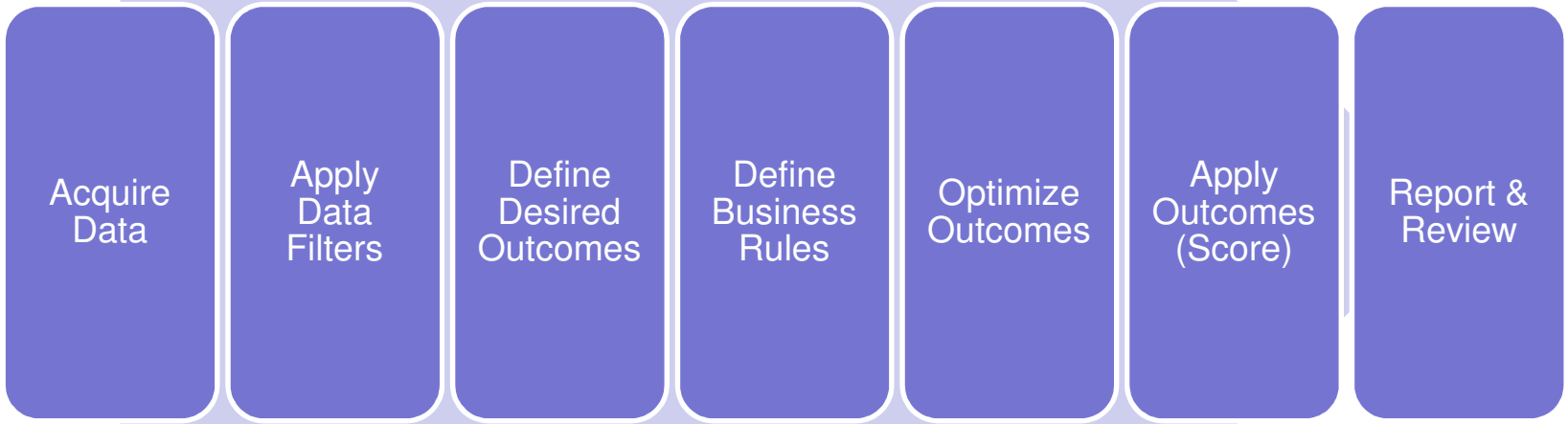
IBM SPSS Decision Management:
Seven Steps to Success



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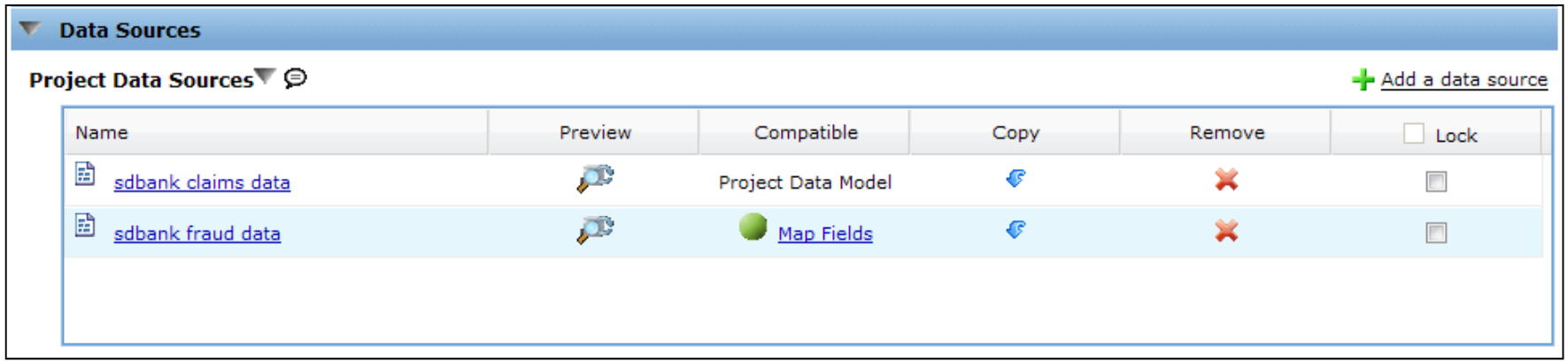
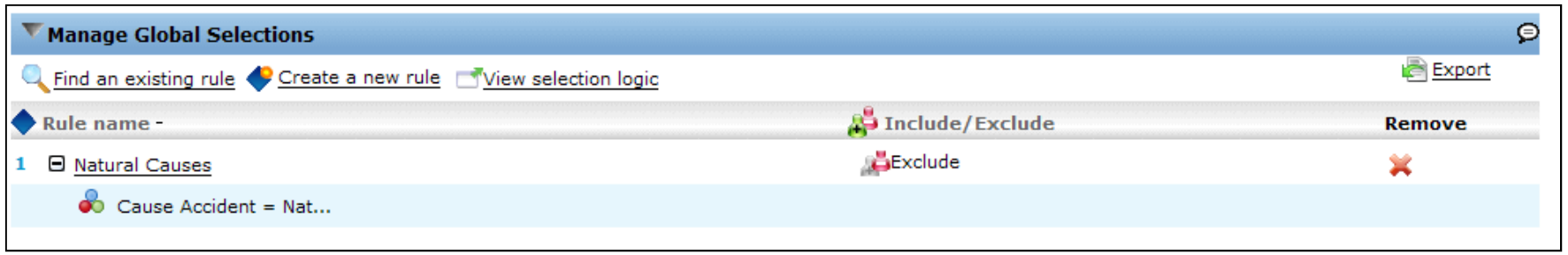
IBM SPSS Decision Management:
Getting Started:

Step 1: Select Data Sources (ETL Style Extraction)



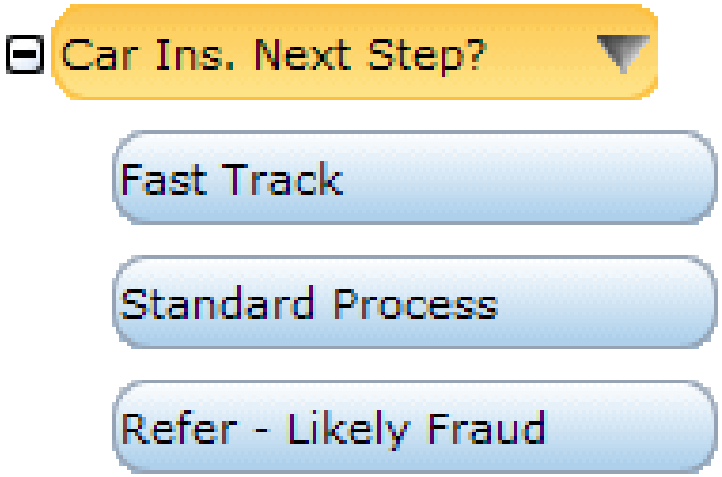
Step 2: Apply Data Filters



IBM SPSS Decision Management:
Getting Started:

Step 3: Define Desired Outcomes

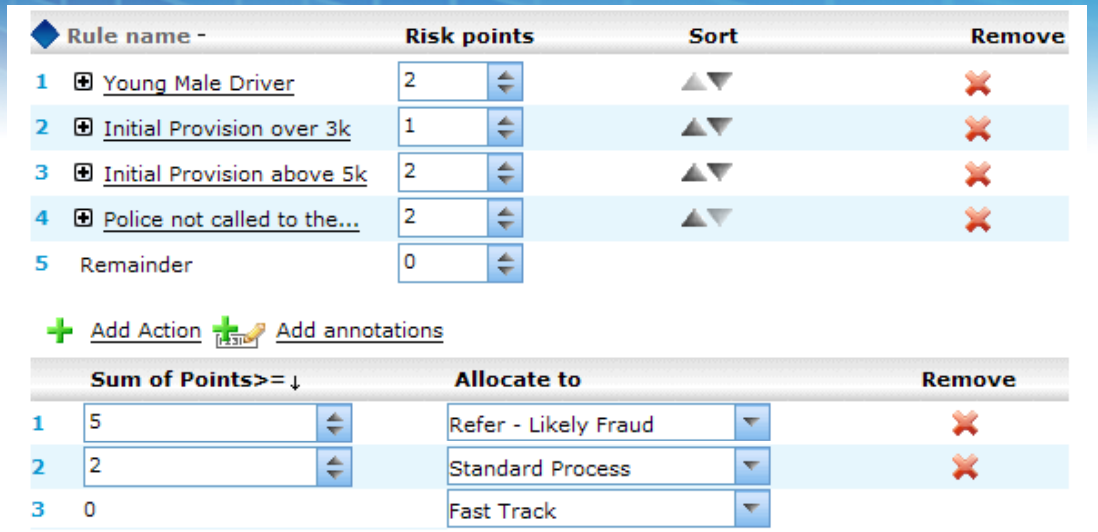
Typically with all decisions there is a finite set of desired outcomes that can be achieved.



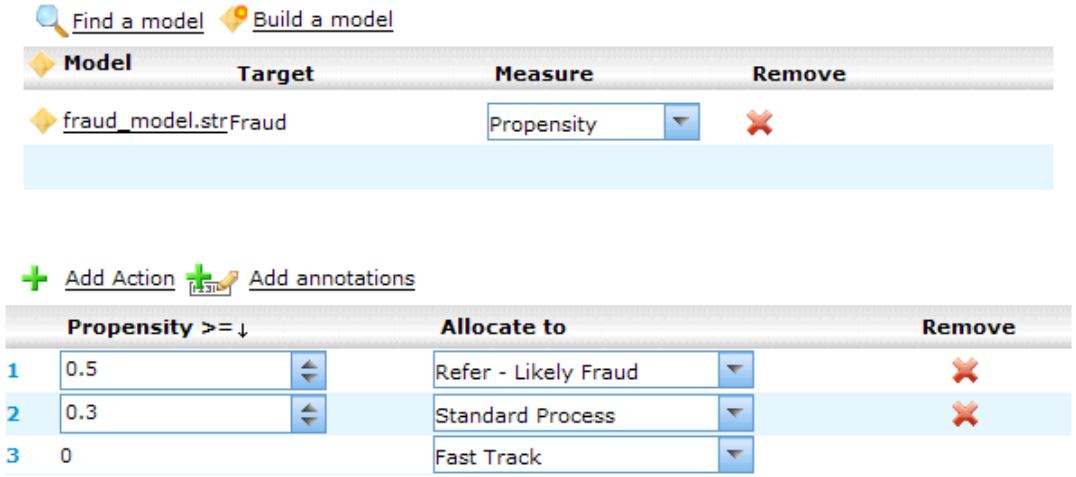
In this example the insurance company has identifies three possible outcomes to a consumers claim.

IBM SPSS Decision Management:
Getting Started:

Step 4a: Define Business Rules



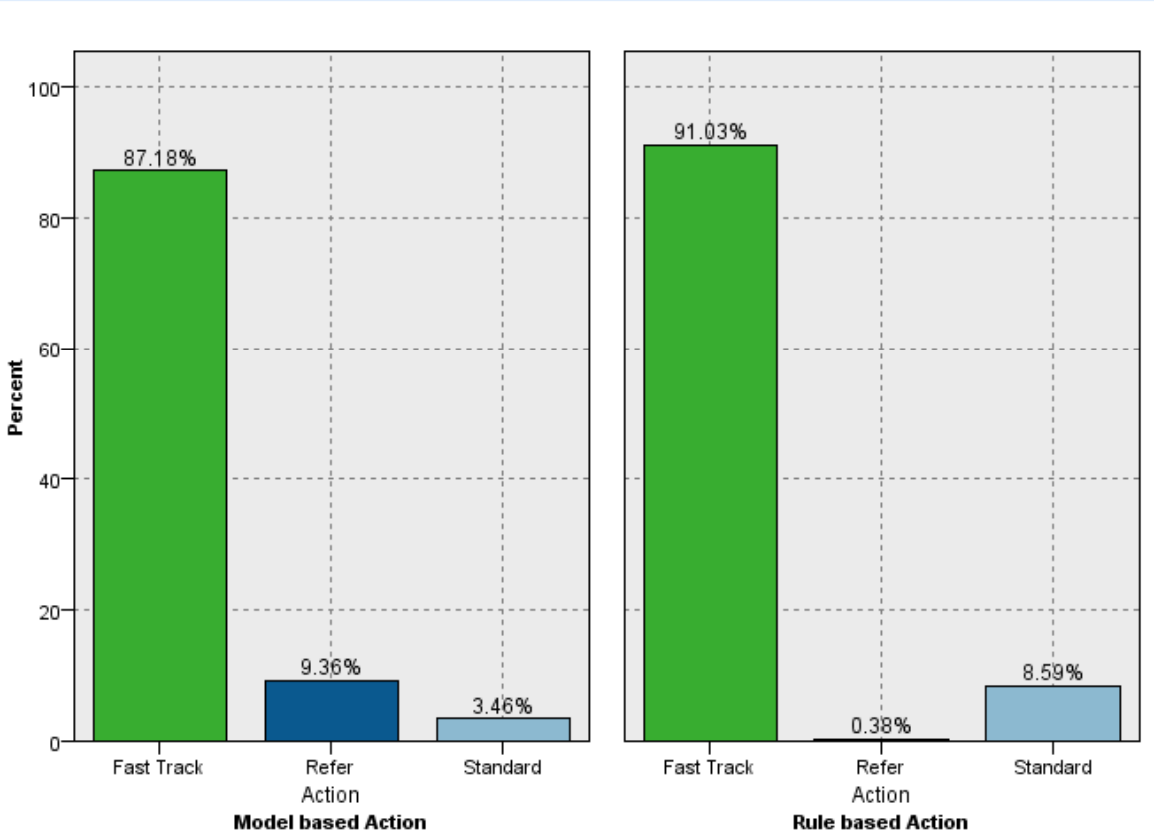
Step 4b: Leverage existing predictive models or create new ones



IBM SPSS Decision Management:
Getting Started:

Step 4 (cont.):

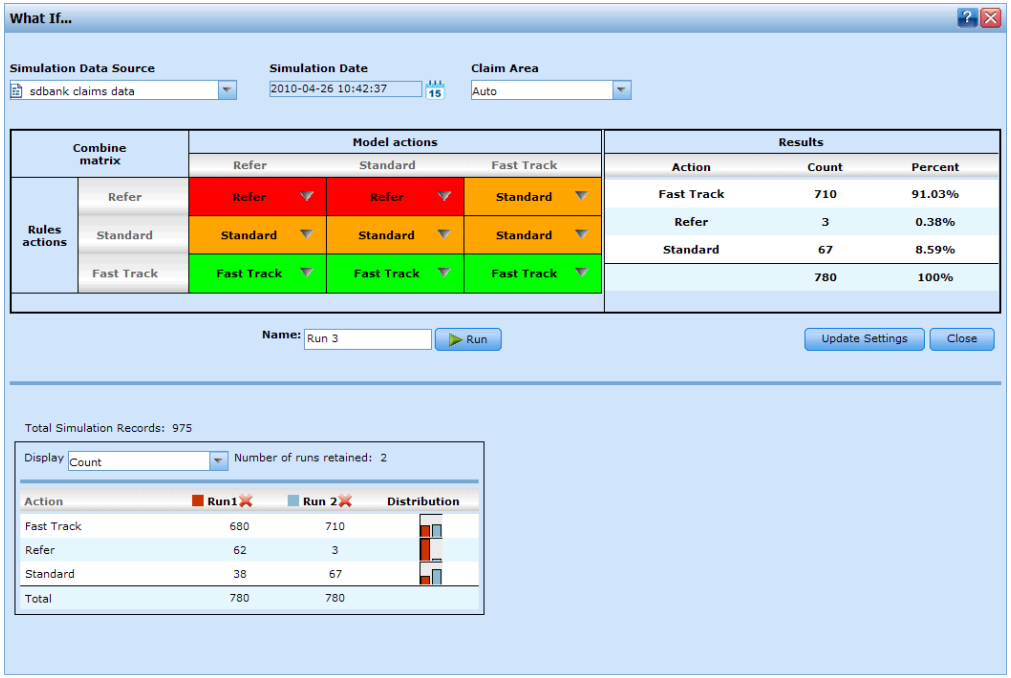
Models and Rules each contribute to support an outcome…valuable standalone…but much more useful together!



IBM SPSS Decision Management:
Getting Started:

Step 5: Optimize outcomes

The decision outcome is optimized and balanced between the predictive models that provide real time insight and the rules that govern the policy and practices of the company

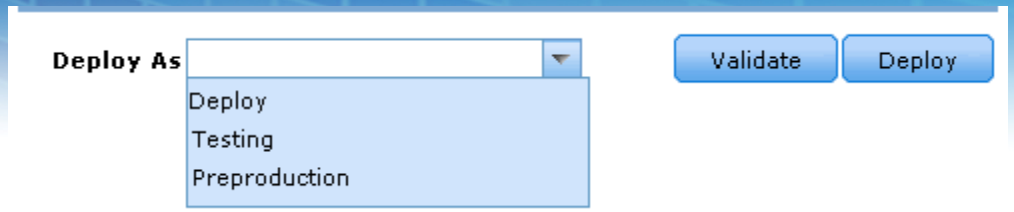


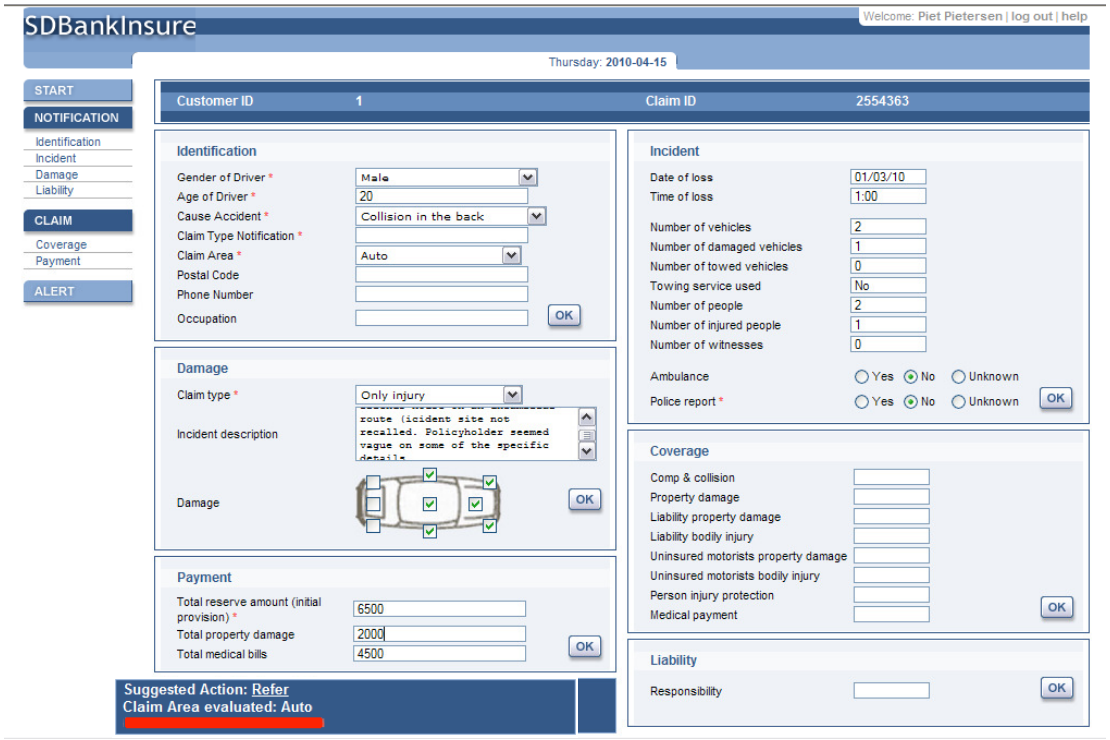
Utilize what-if analysis for optimization and prioritization

IBM SPSS Decision Management:
Getting Started:

Step 6: Apply Outcomes

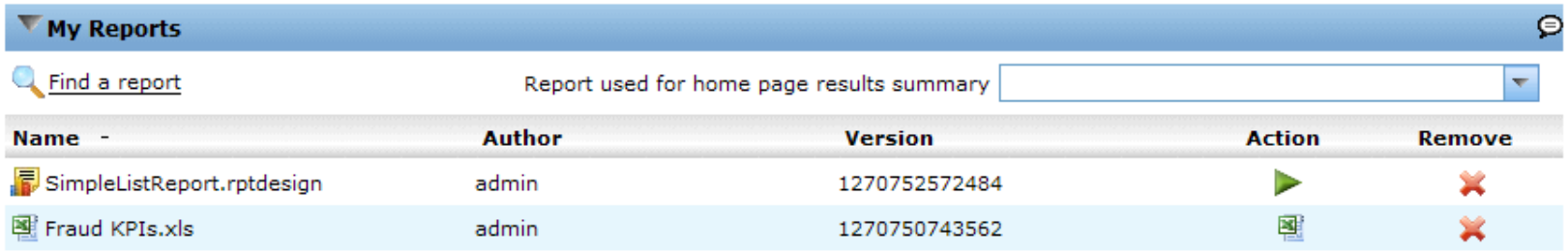
- The project is ready to move into production (for real time inbound decisions) or score in batch to deliver outbound communications
- Model Management capabilities allow ongoing monitoring / improvement of the models in production

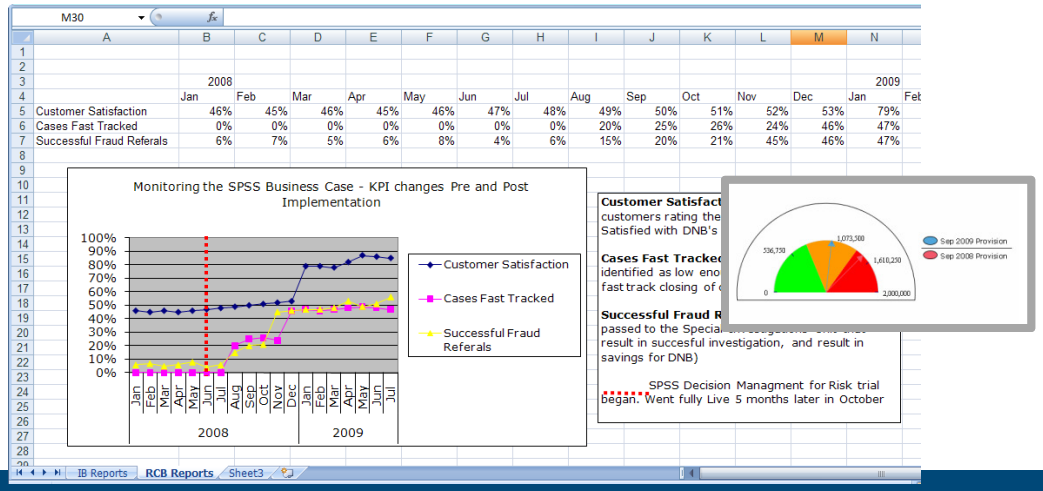




IBM SPSS Decision Management:
Getting Started:

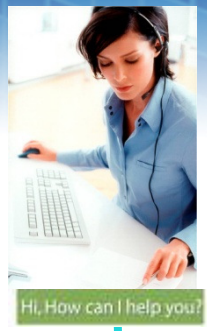
Step 7: Report and Review Outcomes





From the Back Office to the Point of Interaction

Leveraging Service Calls as Sales Opportunities



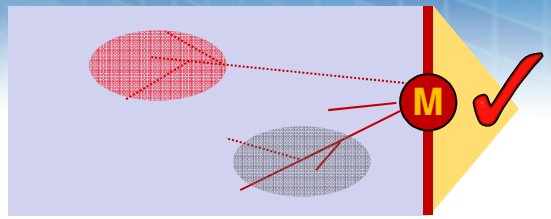
Cross-sell?
<context data>

<customer data>

Potential Campaign	Valid in this case?	Margin	Response Probability	Expected Value
A	No			
B	Yes	90	54%	49
C	Yes	85	62%	64

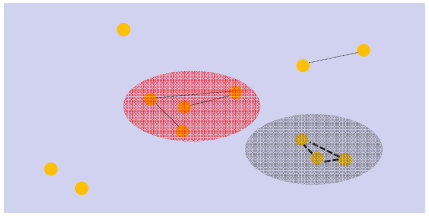
The Predictive Advantage: Today, Tomorrow & Beyond

Predict & Act



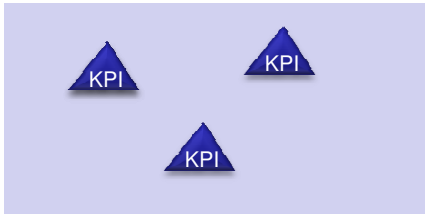
Transformational Deployment of Predictive Models:
- Leverage current data to drive better decisions
- Make robust predictions on current and future cases
- Embed predictive models into points of interaction

"NOW"



Insight Driven Predictive Analytics:
- Algorithms automatically discover significant patterns
- "Learn" from historical data – create *predictive models*
- Valuable insight into behavior improves strategic and operational decision making

"NOW"



Traditional BI and Conventional Analysis:
- KPIs and metrics provide insight
- Aggregate data up to and including current point in time
- Self guided exploration of data

"NOW"

Sense & Respond

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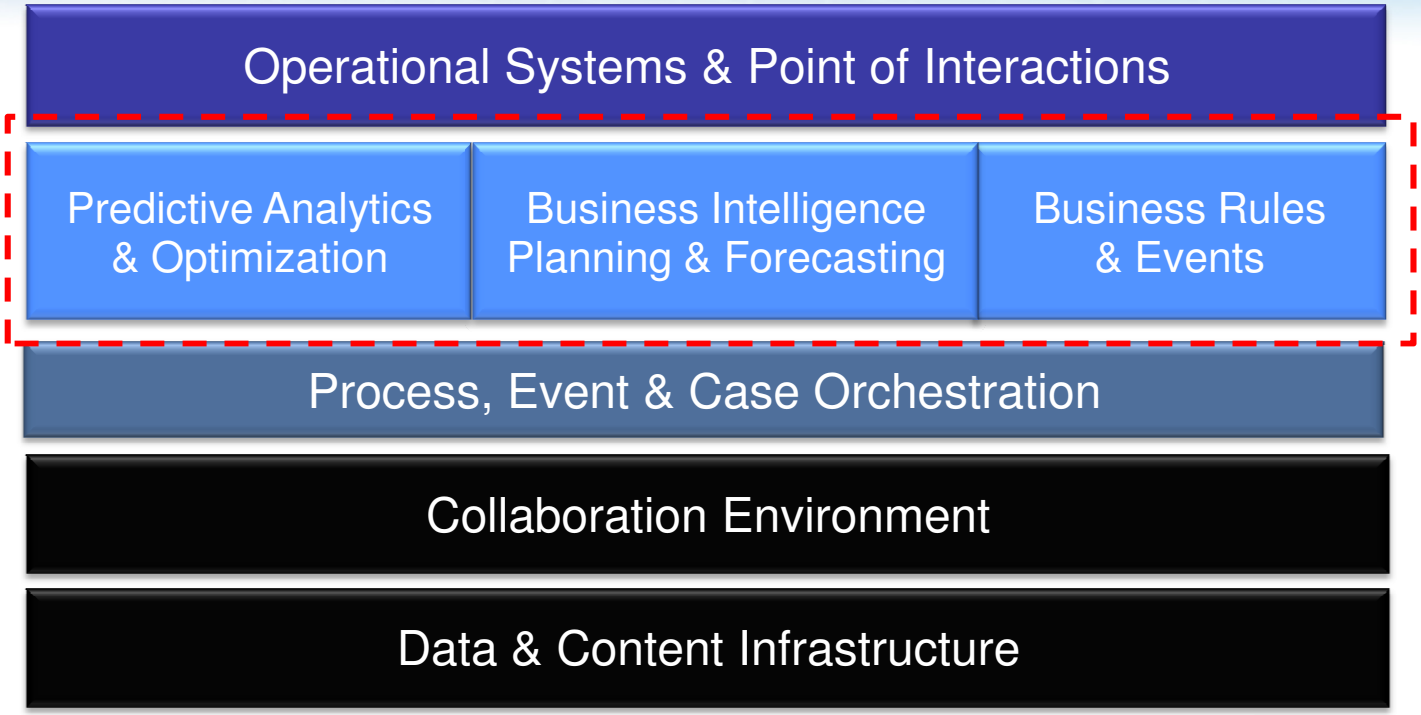
IBM Leads in Transformation

Key Technologies for optimizing the point of Interaction



Summary

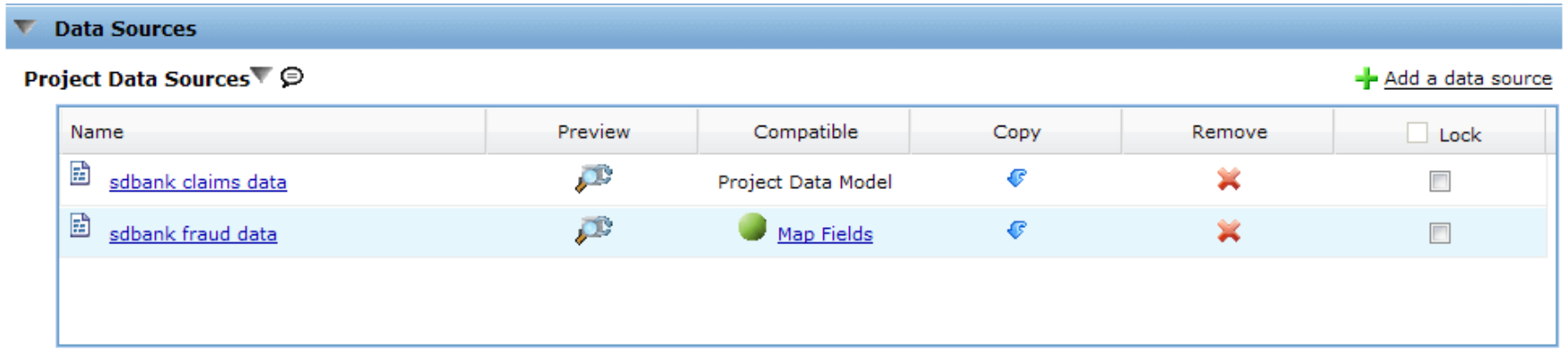
- Decisions are everywhere
- Breakaway strategies mean a shift in thinking
- Transformation builds on your existing investments

Thank You! Questions?

- When you get home – identify a business objective where you care about the results.
- Identify the limiting factor of the decisions – the problem inherent to the objective.
- Identify WHO makes decisions which impact this business problem – cover strategic, tactical and operational perspectives
- Take a skills inventory of the people who impact your decisions.
- Understand which questions can only be answered by your analytic experts – what would happen if those people didn't come to work tomorrow?

Steps 1 & 2

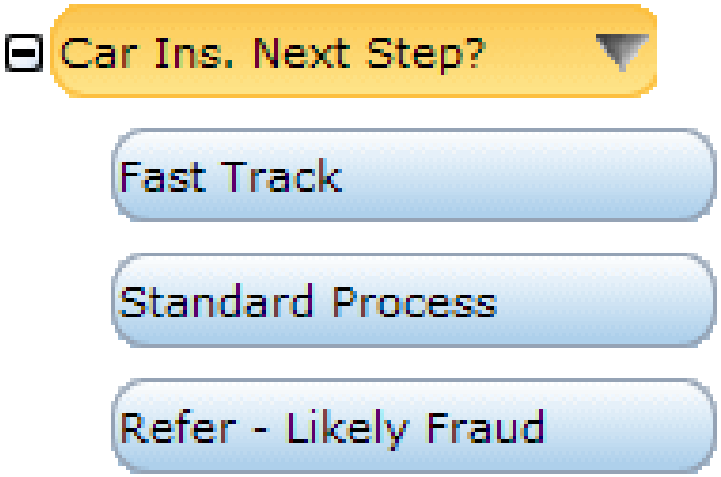
- Select Data Sources… Step 1



- Define Scope with Global Selections… Step 2

Defining Desired Outcomes… Step 3

Typically with all decisions there is a finite set of desired outcomes that can be achieved.

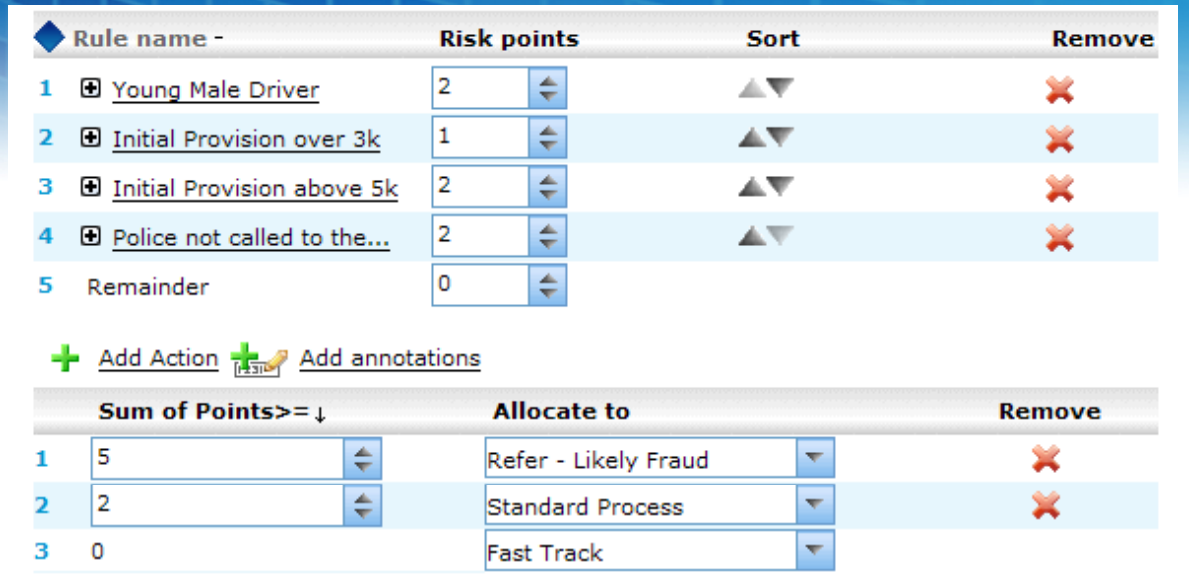


The Insurance Company identifies three possible outcomes to the decision.

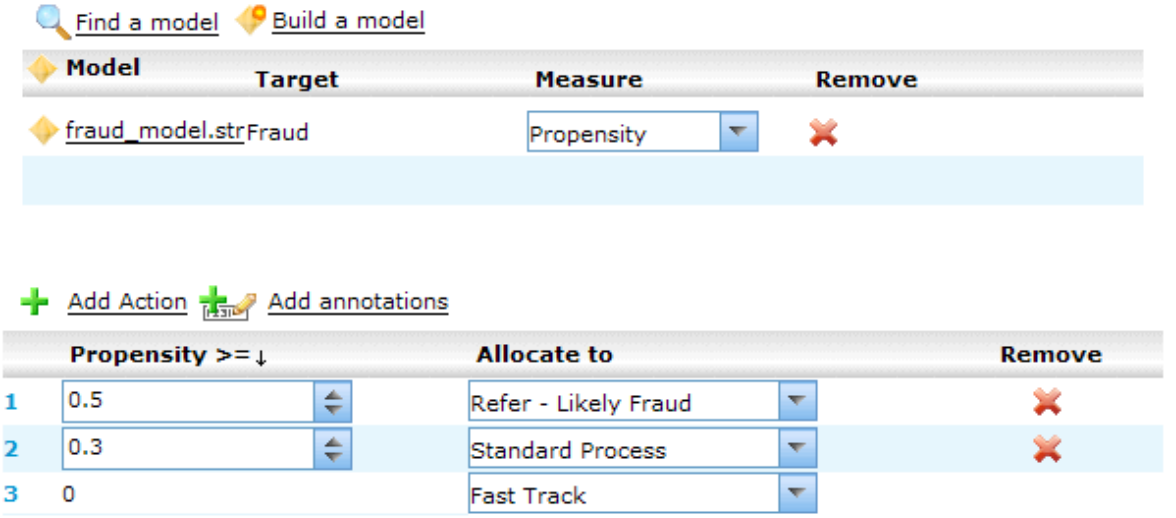
"There's three things we could do: Fast track, Standard process, Investigate"

Define Rules and Models… Step 4

Business user defines rules that embody their priorities and experiences



Existing Models are leveraged – or new ones are created by the business user

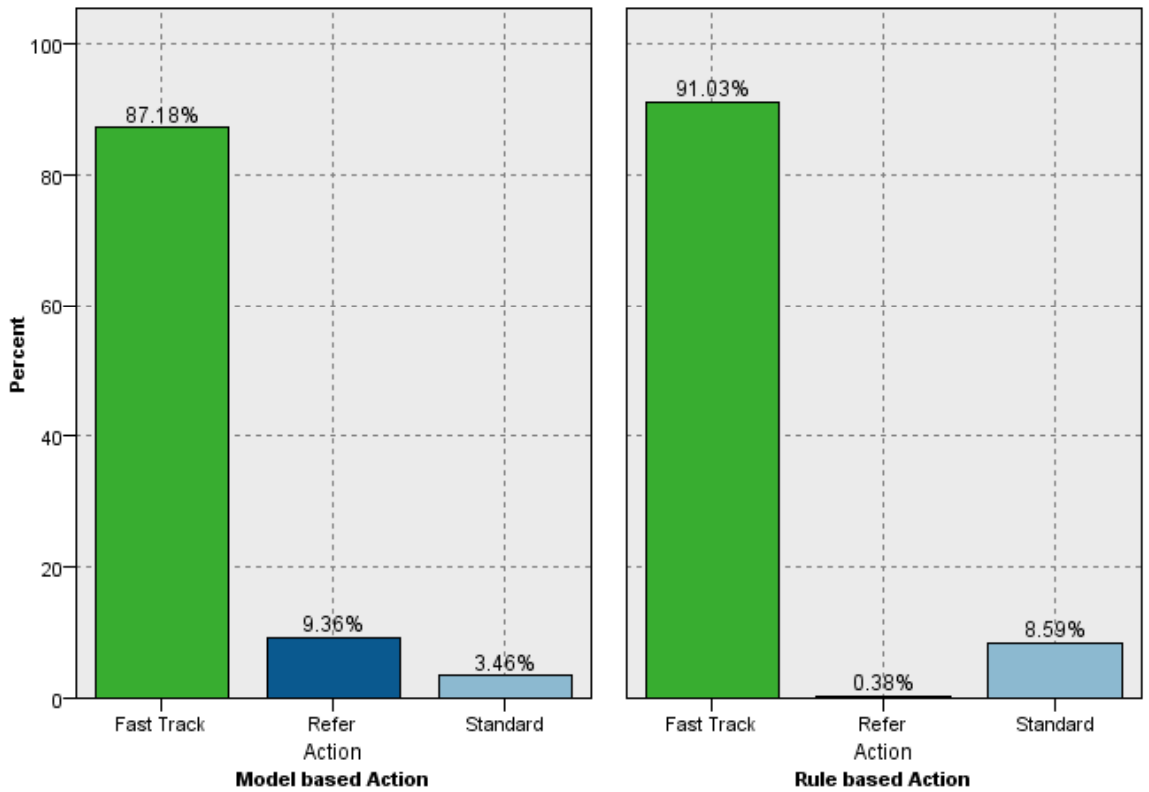


Define Rules and Models… Step 4

Models and Rules each contribute…

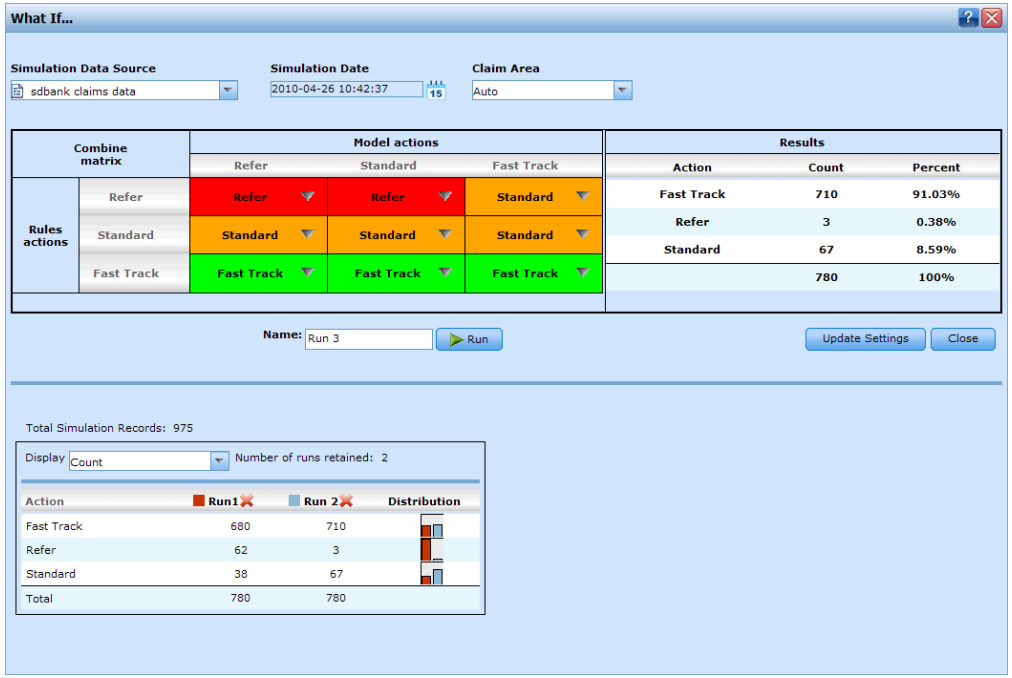
Valuable standalone…

But much more useful together!



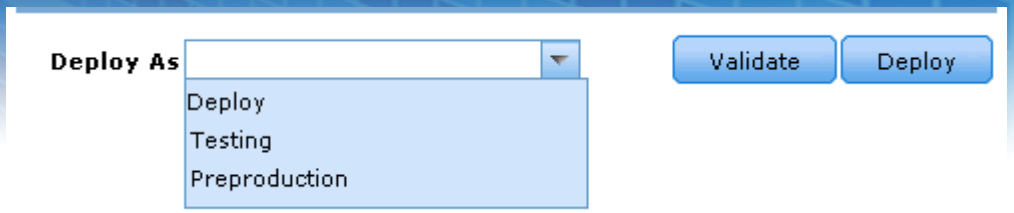
Optimize Outcomes… Step 5

The decision outcome is optimized and balanced between the predictive models that provide real time insight and the rules that govern the policy and practices of the company

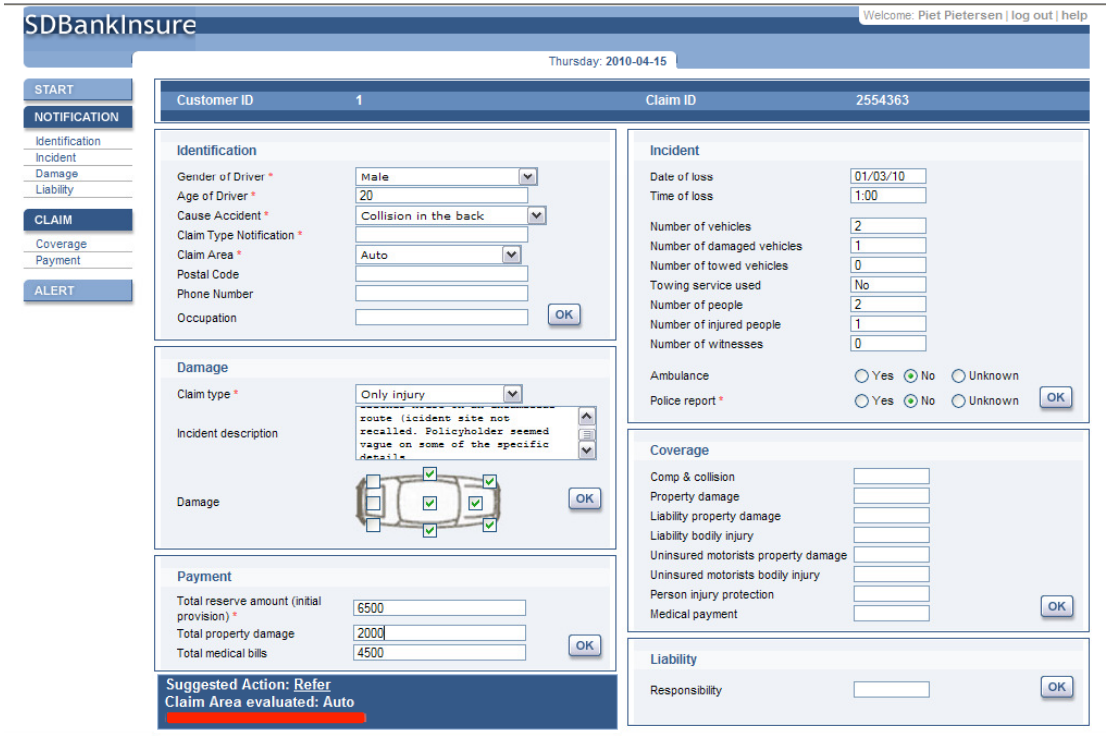


Flexible What-if tools for Optimization and Prioritization

Deploy… Step 6



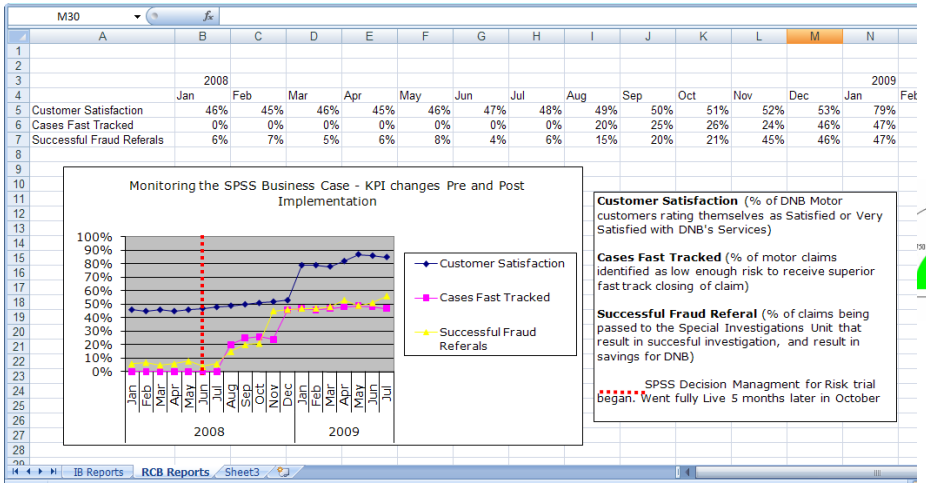
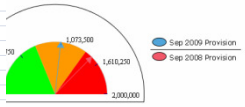
- **The project is ready to move into production (for real time inbound decisions) or score in batch to deliver outbound communications**
- **Model Management capabilities allow ongoing monitoring / improvement of the models in production**



Report on outcomes… Step 7

My Reports

Find a report — Report used for home page results summary

Name	Author	Version	Action	Remove
SimpleListReport.rptdesign	admin	1270752572484		
Fraud KPIs.xls	admin	1270750743562		

The Report tab allows you to monito
the status of deployed applications