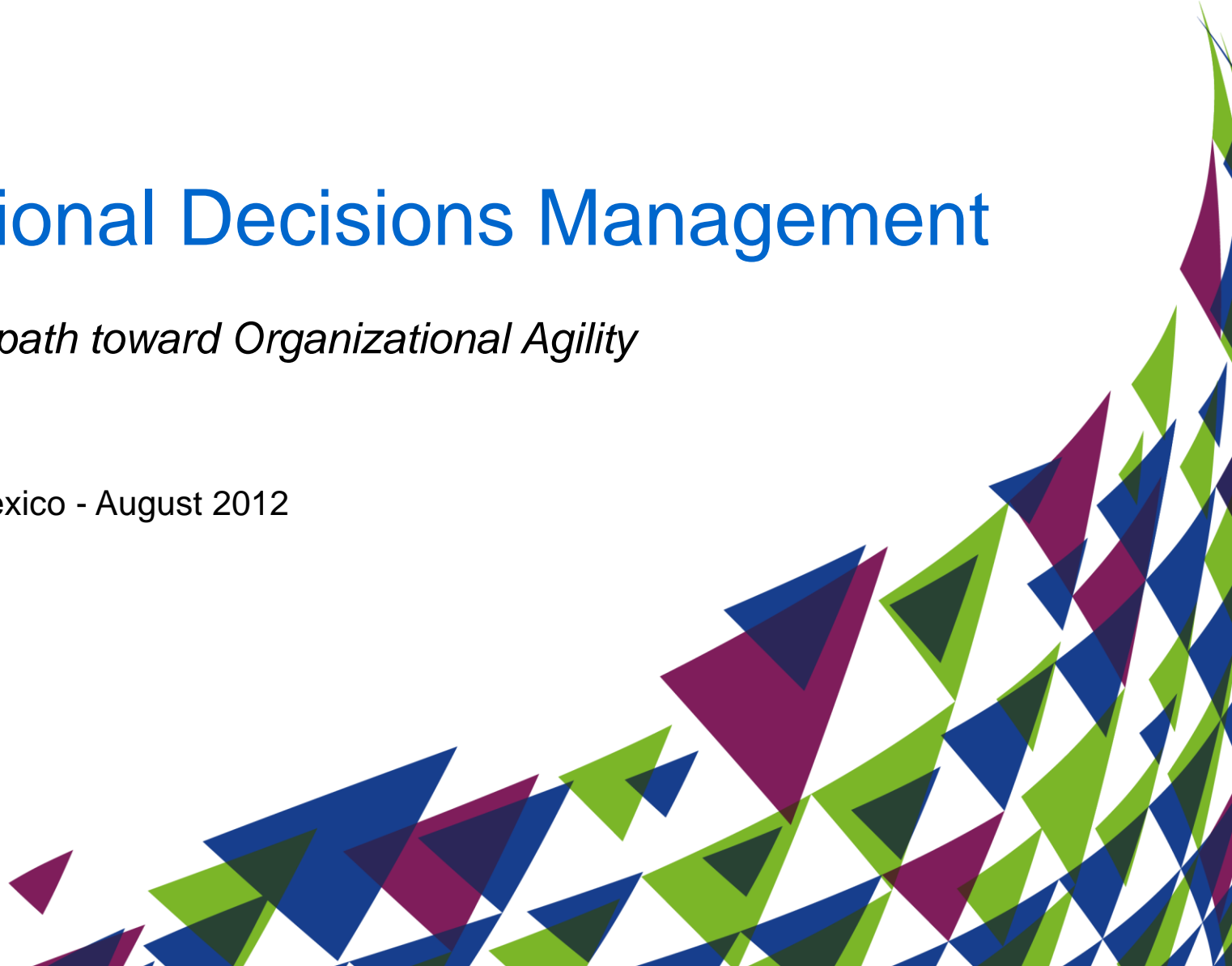# Operational Decisions Management

Walking the path toward Organizational Agility

SW Summit, Mexico - August 2012

Setting the stage

- El concepto de "agilidad organizacional" se vuelve un imperativo para la competitividad

- Las empresas ágiles reducen los tiempos de respuesta al mercado e innovan más efectivamente, logrando una mayor capacidad de adaptación a ambientes de negocios complejos

- Qué es y cómo se gestiona una empresa estratégicamente ágile?

Organizational Agility: Challenges

- Detect and Evaluate the opportunity
- Implement the opportunity
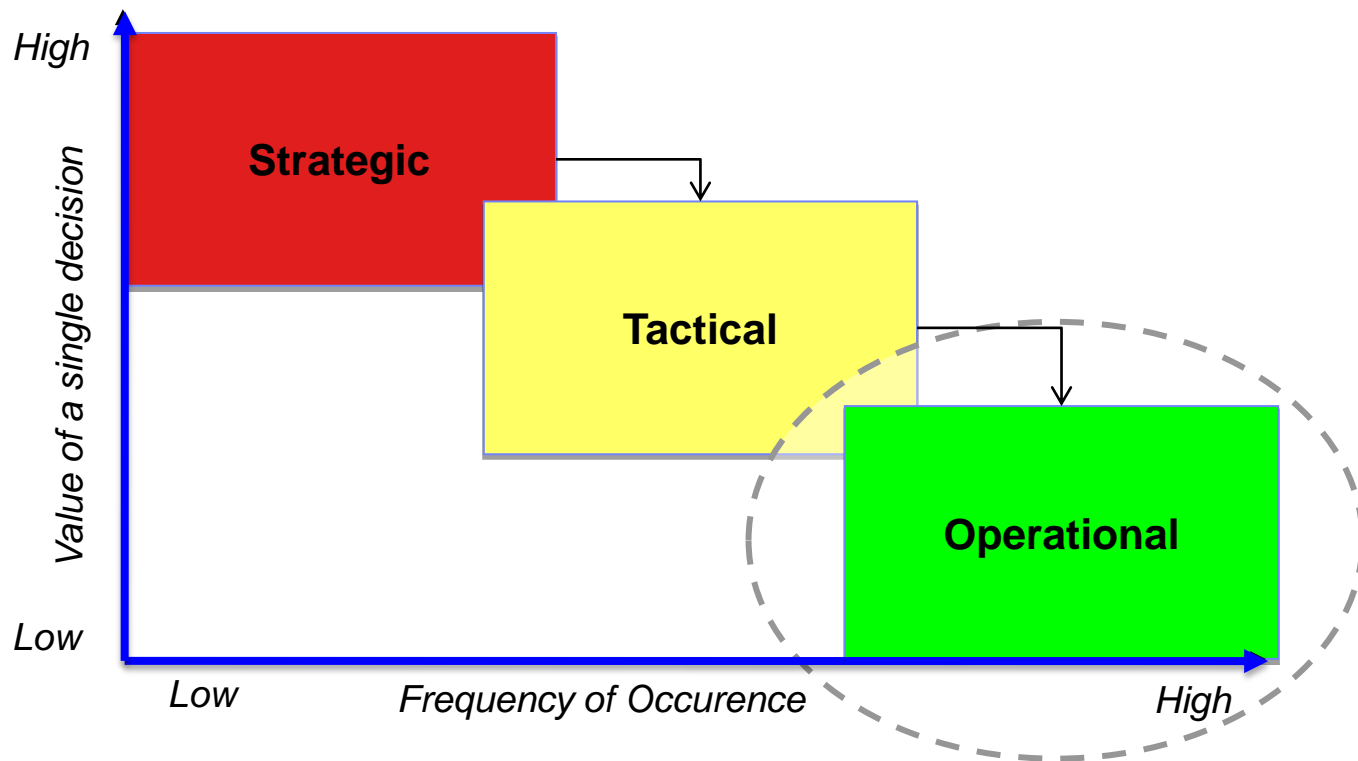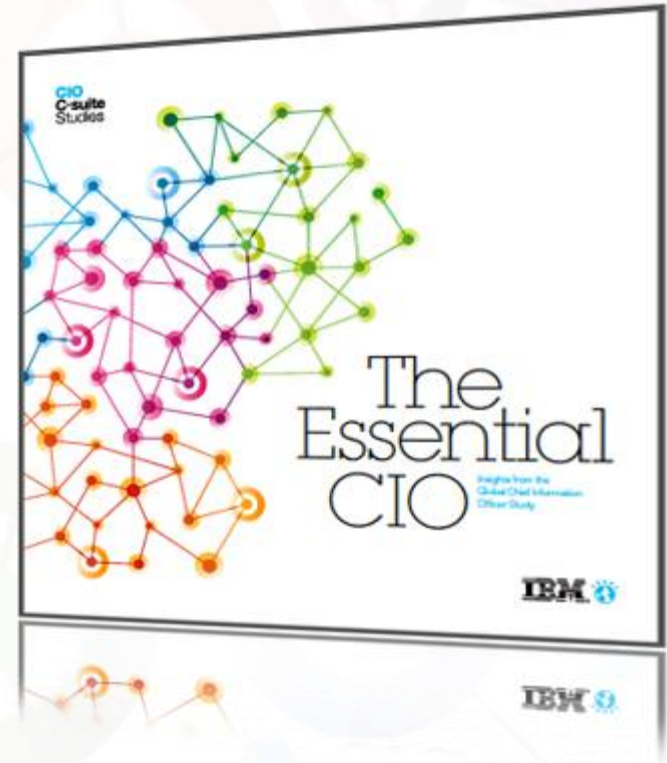
Transformation and Growth Require Better Decisions

CIOs recognize that effective decision automation is key to success

75% of CIOs with mandates to transform the business are looking to "drive *better real time decisions*."

72% of CIOs with mandates to expand cross-enterprise growth are leading the charge to "drive *better real time decisions*."

The Essential CIO

Source: IBM Global CIO Study 2011

Entry Points to Decision Management

IBM Operational Decision Management   *IBM Analytical Decision Management*

(Business rules and events)

Focuses on the automation and governance of repeatable deterministic decisions that control critical business systems and leverage business expertise and compliance requirements

Closely integrated with:

- Analytical Decision Management
- Business Process Management

(Predictive analytics and optimization)

Focuses on the development and deployment of decision services bringing intelligence and predictive insight into repeatable decisions while maximizing outcomes

Closely integrated with:

- Operational Decision Management
- Business Intelligence

Operational

Analytical

Decision Management

"
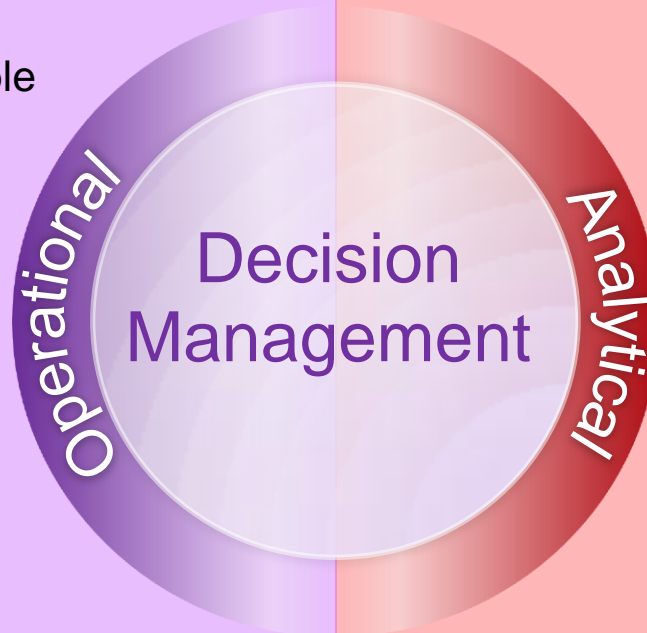
At the core of Decision Management is a focus on *Operational Decisions*.

These decisions are *those required to make day to day operations run effectively*. They ensure that customers are treated consistently, that the right price is offered, that the most effective offer is made.

While the value of each individual decision is small, *the cumulative effect is very large because organizations make these decisions often*.

"

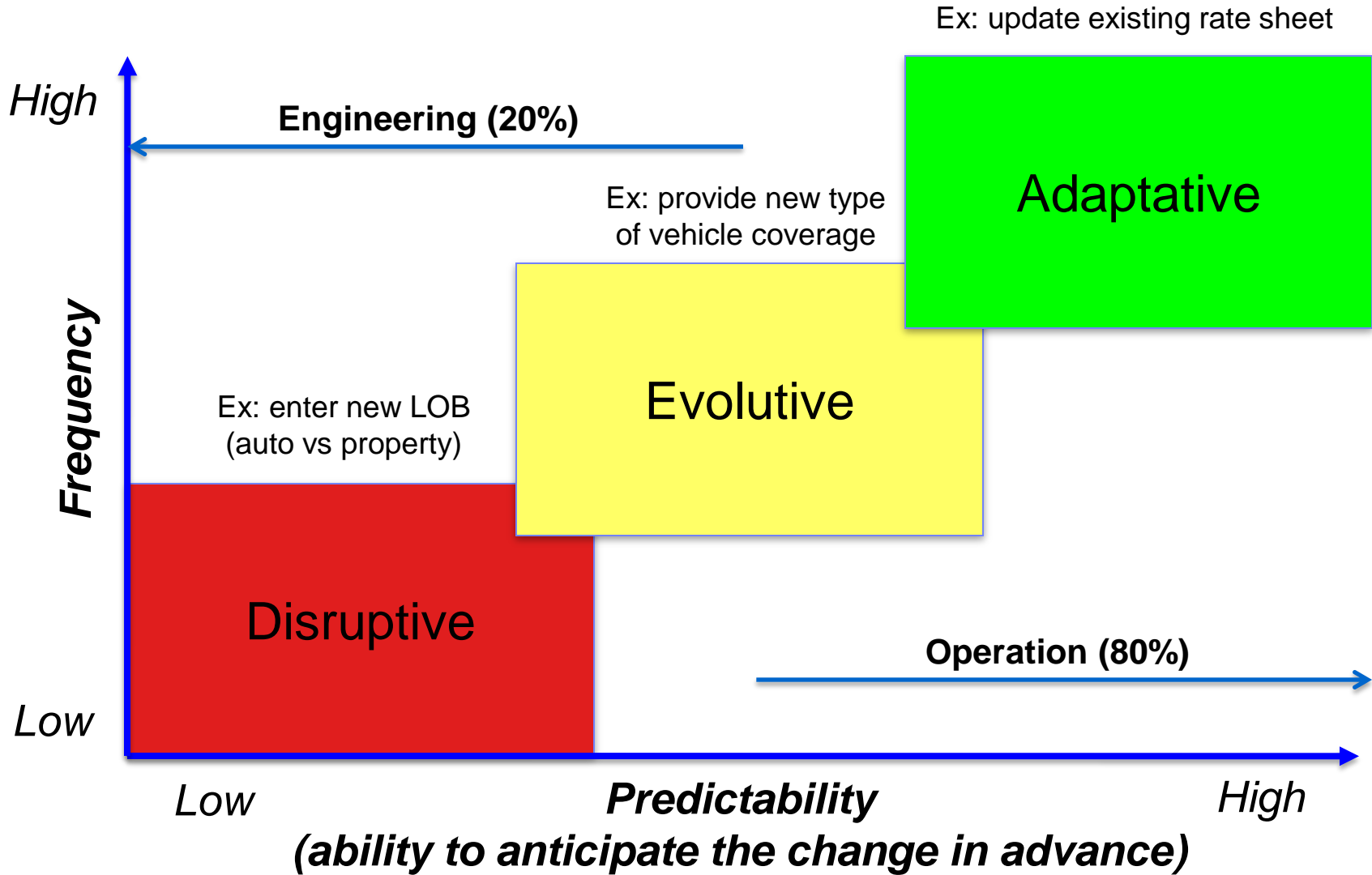*~ James Taylor, Decision Management Solutions*

Operational Decision
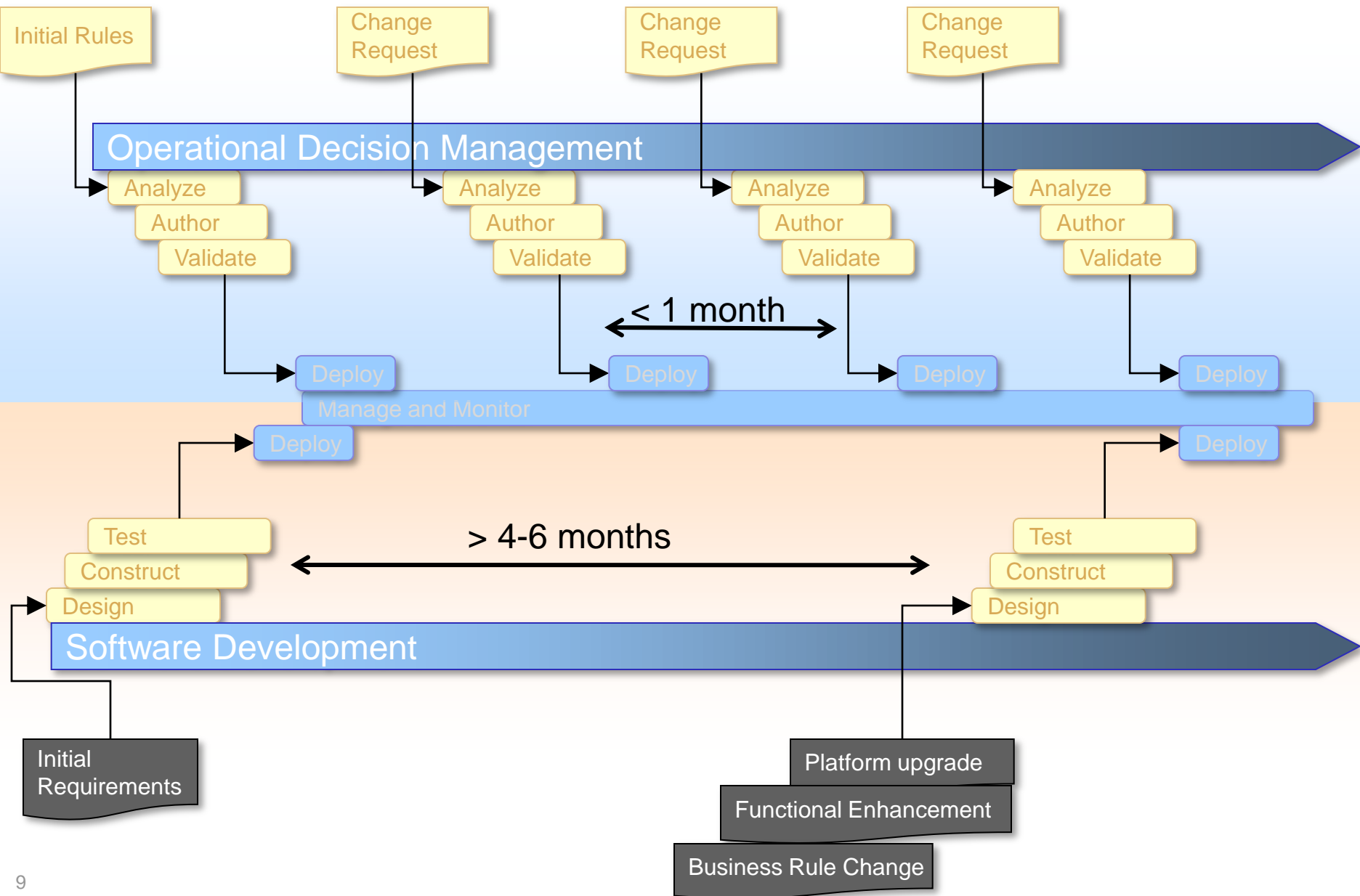## *Variability and Change Dynamics*

- Decision **variations** drive the complexity of the decision making process

- Decision Variations implies related **change dynamics**
  - Few variations => few changes
  - Many variations => Many changes

- Decision **Automation** must support decision change dynamics
  - Otherwise the automated decision quickly become obsolete

Anticipating the nature of Decision Changes

Ex: update existing rate sheet

Engineering (20%)

Ex: provide new type of vehicle coverage

Adaptative

Ex: enter new LOB (auto vs property)

Evolutive

Disruptive

Operation (80%)

High

Low

Frequency

Low *Predictability* *High*

(ability to anticipate the change in advance)

Operational Decision Management

IBM Operational Decision Management

IBM®

Manage

Decision Center
for Business Space

NEW

Social

Business Console
Enterprise Console

Rule
Solutions
for Office

Decision Center

Decision Artifacts

Repository

Access and Control

Versioned Assets

Define

Update

**Visibility
Collaboration
Governance**

Deploy

Measure

| Rule Execution | Event Execution | Decision Monitoring | Connectors |

Decision Server

Web Services – API - GUI

Rule Designer
Event Designer

Design

POS

Enterprise
Application

BPM

CRM

Devices

Decision Server
Console

Monitor

Business Rules to Capture and Act on your Organization's Expertise

Understanding a Business Rule

Business Rule Examples

*If the **Passenger** is a **gold frequent traveler**
and the **flight distance** is more than 40000 miles
and the **flight destination** is in Europe or Asia
Then
Add 10.000 points to the fidelity card of the **Passenger***

*If the **Vehicle** is not an SUV
and all the following conditions are true*
- *the **vehicle** is equipped with dual passenger airbag*
- *the **driver** has a good driver certificate*
- *the **driver** age is between 30 and 50*
- *the number of accident the **driver** was responsible for is 0*

*then
Apply a **5% discount** on the premium coverage price*

Business Decisions

Reasoning with

Business Contexts

Passenger(*age, address, gender, frequent traveler level, company*)

Vehicle (*VIN, Manufacturer, Data, Type, Brand*)

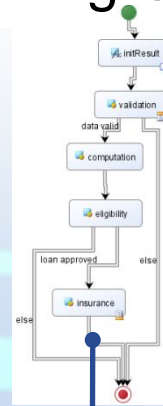**Order** (Amount, items)   **Promotion** (*Code, amount, type, article*)

Flight (*FID, Airline, Depart, Destination, Distance, Date*)
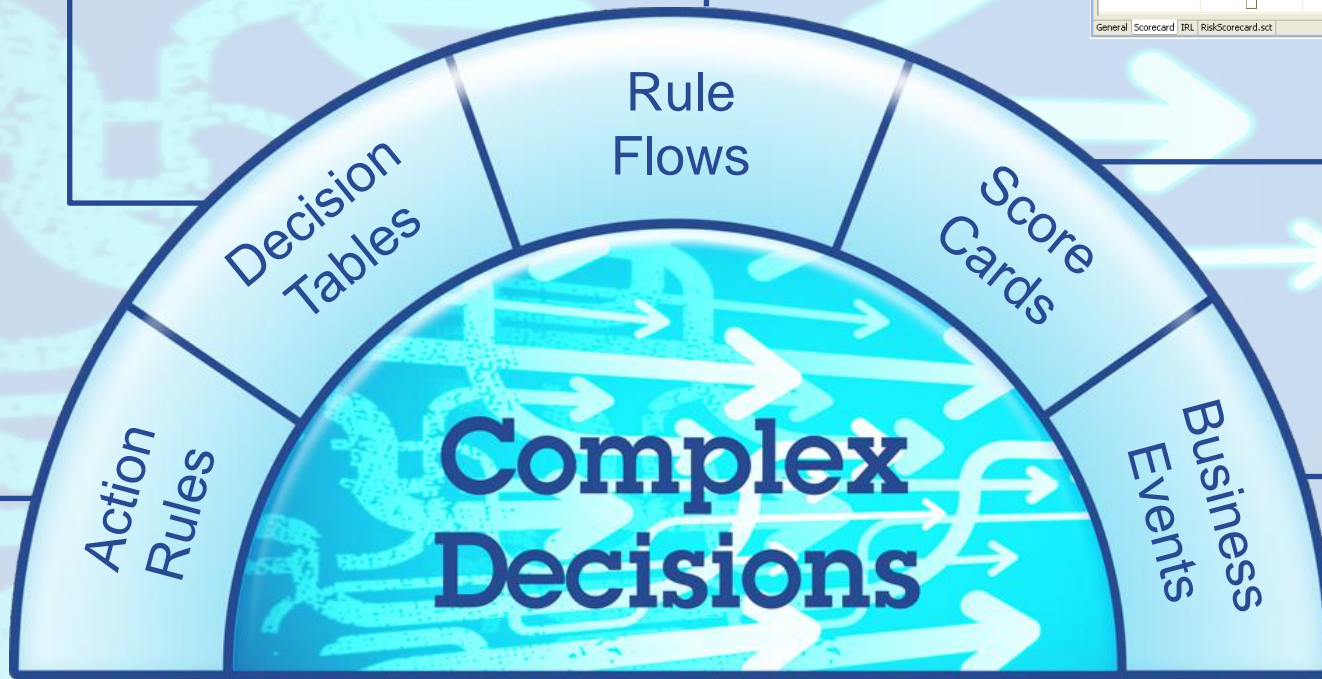
Plant (*Location; production, Profitability*)

Contextual

Simple Decision Artifacts Supporting Complex Decisions

Operational change management
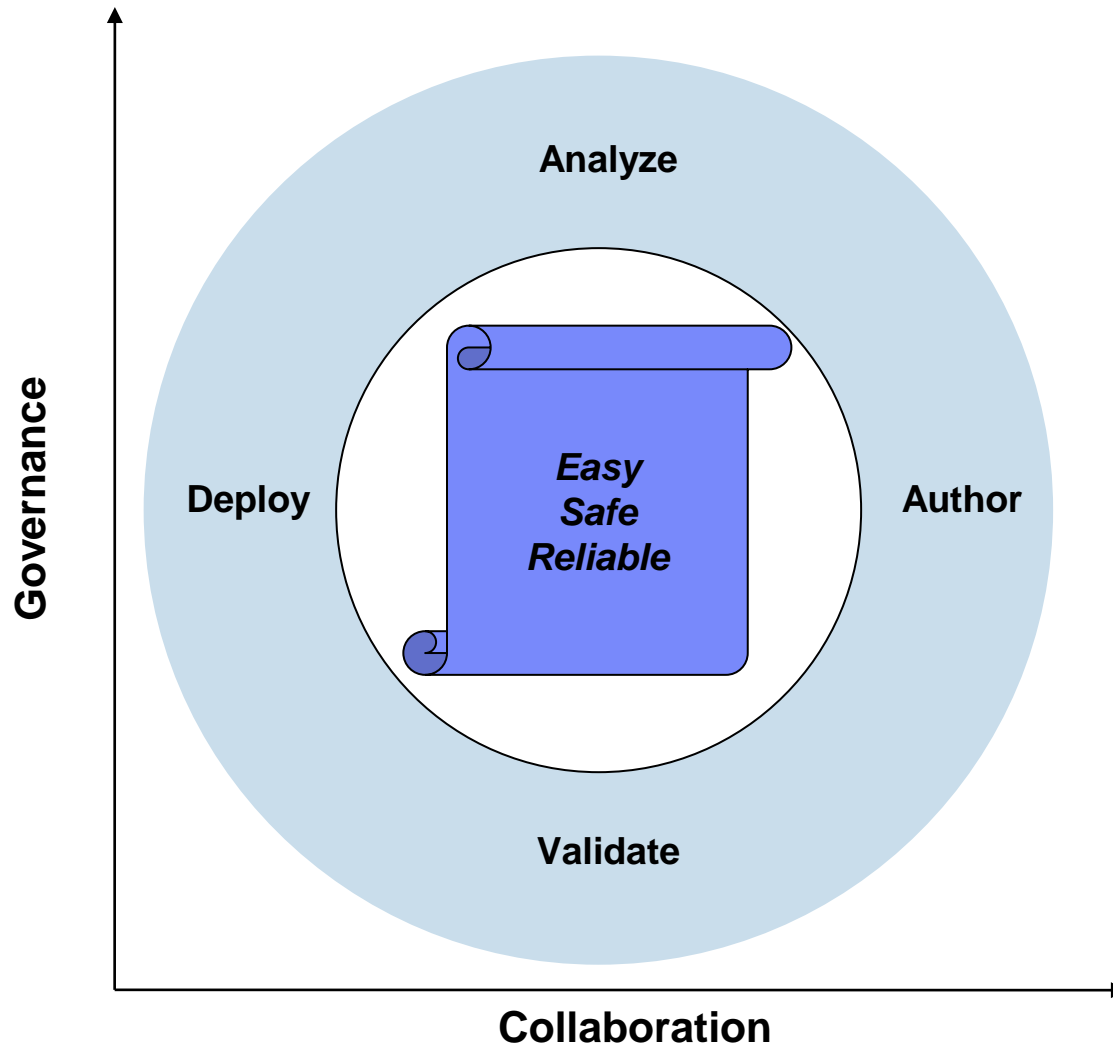
Decision Management: Built for Change vs. Built to Last

The Consumerization of Change through Visibility, Collaboration and Governance

IBM

VISIBILITY — *Achieve clearer line-of-sight to business operations*

- Easily readable business rules in natural language
- Testing and simulation to assess impact of rule changes

GOVERNANCE

Align business operations with strategic intent in the face of change

- Rule versioning and snapshots to safely and reliably change rules
- Auditability of changes to ensure traceability
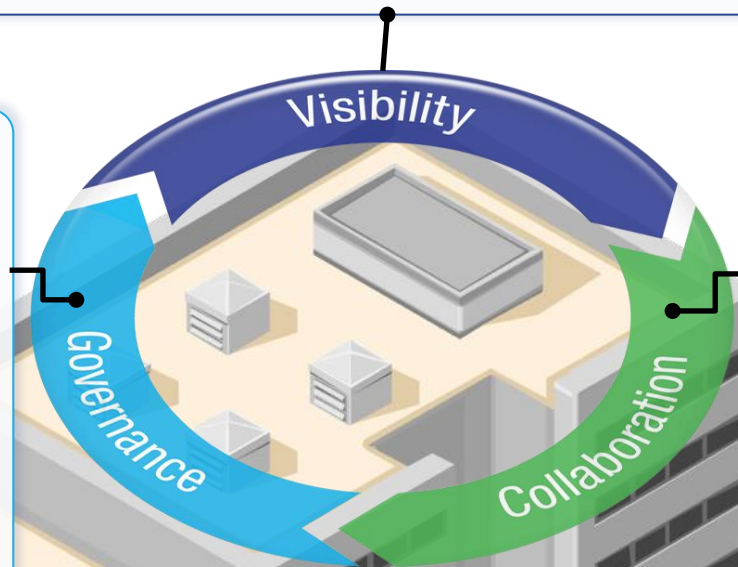
COLLABORATION

Foster cross-functional and cross-divisional outcomes

- Social media style UI to tap into organizational business expertise
- Single repository for business and IT users to collaborate

Visibility

Governance

Collaboration

Enabling regular business people to easily and safely make changes to their business operations

Why Better Decisions are Critical to Success

Accurate, real-time decisions improve business performance and results

Identify opportunities to *increase profitability*

Enforce consistency to *ensure compliance*

Leverage information to *manage risk*

"Decisions are what make strategy real and drive results and performance against metrics… decisions made about how to interact with partners, suppliers, customers, employees."

James Taylor, "Becoming a Decision-centric Organization," 2011

Operational Decision Management Customer Scenarios:

Identify Opportunities to Increase Profitability

- *20% revenue increase from loyalty programs*

- *Increased customer retention rate to 92%*

- *Weeks to days improvement in time to market for offers*

Personalized Product Recommendations

BNP Paribas creates product recommendations based on customers' individual attributes - ***Read the case study!***

Promotion & Loyalty Programs

EMT Telecom helps dealers make the best offer to each client - ***Read the case study!***

Automated Sales Commissioning

Magazine Luiza, a large Brazilian retailer, improves sales with an intelligent commissioning system ***Listen to the podcast!***

BNP Paribas Provides Personalized Offers to Customers

IBM

Rapidly adapts product recommendations to customers' individual attributes

Challenge:

- Construct grouped offers, such as providing home insurance with mortgage

- Personalize fees based on specific customer profile

- Provide incentive to customers to use multiple company products

Benefits:

- Reduce time-to-market from weeks to days

- Integrate offers across different lines of business

- Enable business users to generate, change and manage offers

Decision Management Solution

- *Allows the bank to precisely define highly variable decision logic*

- *Flexible solution that can be deployed in multiple countries, easily adaptable for differing financial rules and regulations*

BNP PARIBAS

"We needed a platform that could be reused regardless of the country or the types of products… the products which are distributed in Ukraine, for example, are not the same as the products in Italy."

~ Vladimir Milojkovic, Project Manager, BNP Paribas

EMT Telecom Targets Customers More Effectively

Better customer acquisition through multi-channel marketing campaigns

Challenge:

- Target customers across the web, phone or retail store

- Implement new marketing campaigns faster

- Manage the creation of pre-packaged services

Benefits:

- Create a marketing campaign in 2 days

- Single repository for all decision logic, understandable and editable by business users

- IT focused on more strategic projects

Decision Management Solution

- *System that can determine the best offer for each customer based on age, phone usage and membership status*

- *Manages decision logic for over 15 concurrent, multi-channel campaigns.*

"IBM WebSphere ILOG JRules is making a major contribution to the efficiency of our marketing and sales processes, helping us get campaigns and products to market more quickly, reducing workload for our IT team, and reducing our reliance on external IT suppliers."

~ Tiit Tammiste, Chief Information Officer, EMT

Magazine Luiza Motivates its Sellers to Sell More

Large Brazilian retailer revamps its sales incentive compensation system

Challenge:

- Provide sales daily updates on commission earnings

- Resolve transactions daily, eliminate long closings

- Update commissioning logic quickly, to promote specific products

Benefits:

- 30-fold reduction in rule authoring time

- Auditable records for each commission payment

- Simulate the best commissioning allocations using current data

Decision Management Solution

- *Intelligent sales commissioning system that provides transparency and quick rule updates*

- *Over 50 complex commissioning rules to serve over 16,000 employees in 611 retail stores*

"ILOG JRules is helping us refine the compensation rules and see what rules are too difficult to achieve or perhaps not difficult enough… being able to do fine-tuning of the rules themselves… is a very powerful benefit for Magazine Luiza."

~ William Wada, IT Manager, Magazine Luiza

Operational Decision Management Customer Scenarios:

IBM

Enforce Consistency to Ensure Compliance

- *3x faster claims processing*

- *Support for 500 transaction types in 36 diverse markets*

- *50% increased speed to market in heath care enrollment*

Claims Validation

WorkSafe Victoria processes claims invoices faster and pays its providers more accurately **- See the video!**

Payment Authorization

Visa Europe simplifies cross-country credit card use with a a unified payment authorization system **- See the video!**

Eligibility Determination

HealthNow automates enrollment to manage eligibility with clarity and consistency **- Read the case study!**

WorkSafe Victoria Pays Claims More Accurately & Quickly

Up to 85% straight-through processing of claim invoices

Challenge:

- Speed up claims processing

- Comply with increased regulation to reduce irregularities in claims payments

- Reduce the risk of fraudulent claims

Benefits:

- 85% straight-through processing, up from 40%

- 30-fold faster payment cycle

- 300 percent greater throughput rate of invoices

Decision Management Solution

- *Claims processing system that automates 2.4 million paper invoices per year to be filed electronically and processed consistently with 200 complex business rules*

- *Enables business users to directly update decision logic*

"We have seen a increase in the timeliness of payments to our treatment providers and efficiencies within our agents. And at the moment, we are actually achieving 84 to 85 percent straight through processing."

~ Kay Scanlon, Stakeholder Manager, WorkSafe Victoria

Visa Europe Unifies Payments Across 36 Countries

Scalable, automated payment authorization and settlement system

Challenge:

- Complex European market with multiple currencies

- Payment authorization & settlement across 36 countries

- Regulatory requirement to unify payments across countries

Benefits:

- 3x faster time-to-market

- 25% cost reduction to maintain business logic

- Increased flexibility and responsiveness with business users managing the rules

Decision Management Solution

- *Financial payments authorization & settlement system*

- *System handles 30,000 rules and 500 transaction types for 4,000 institutions*

"Within 13 months we've made 60 rule changes… What [the system] gives us is tools that can put key capabilities into the hands of users. They become an integral part of the process, rather than mere consumers of it. That's a tremendously powerful concept…"

~ Justin Snoxall, VP, Head of Development Services, Visa Europe

HealthNow Speeds Up Member Enrollment

Speed to market gains of over 50% to roll out new programs

Challenge:

- Respond quickly to regulatory mandates

- Increase efficiency by streamlining internal processes

- Address growing complexity in healthcare

Benefits:

- Reduce enrollment time and administrative costs

- Increased speed to market by 50%

- Greater consistency from externalized decision logic and process visibility

BPM and Decision Management Solution

- *Member enrollment process to automate eligibility and coverage for new member applications*

- *Comprehensive audit trail of rules and decisions*

"Providing innovative products and services while improving the availability, quality, and cost of healthcare is central to our corporate vision. WebSphere Process Server and ILOG JRules have enabled us to automate, optimize and monitor critical business decisions within our core processes."

~ John Walsh, Chief Enterprise Architect, HealthNow New York Inc.

Operational Decision Management Customer Scenarios:

Leverage Information to Manage Risk

- *300% improvement in staff productivity issuing credit cards*

- *Over 96% straight through processing of customs declarations*

- *Increased visibility into physical infrastructure*

Underwriting and Credit

A Large Asian Bank automates risk assessment of issuing credit cards - *Read the case study!*

Border Control

Swiss Customs automates the processing of customs tariffs prior to shipment - *Read the case study!*

Physical Infrastructure Monitoring

Case Western Reserve University gets real-time assessments of bridge safety - *Listen to the podcast!*

A Large Asian Bank

Automates the risk assessment of issuing credit cards

Challenge:

- Handle explosive demand for credit cards

- Systematically manage credit risk assessments

- Improve operational efficiency

Benefits:

- Identify potential credit card fraud

- 300% improvement in employee productivity

- Approval process with human intervention only for exception cases

Decision Management Solution

- *Automated credit assessment and card issuing system*

- *Process large volumes of transactions in real time*

"Using IBM WebSphere ILOG JRules and its BRMS, we've decreased the pressure our officers faced at work every day in processing and attempting to approve a myriad of credit card transactions. We have already realized an improvement of more than 300 percent in our staff productivity, and a savings of 1 million Yuan per year using the BRMS …"

~ Chief Engineer, Major Asian Financial Services Firm

Swiss Customs Streamlines Border Control

Increases the speed and precision of tariff processing

Challenge:

- Facilitate trade while reducing threat of illegal goods

- Enforce customs regulations consistently

- Increase effectiveness of 2,500 customs officers

Benefits:

- Faster, yet better border checks with pre-validated customs declarations

- 96% of declarations are processed automatically

- Revenue of 23B Swiss Francs annually through tariffs

Decision Management Solution

- *Scalable system that validates 200,000 customs declarations daily*

- *Customs officers update the rules to keep pace with changing regulations*

"The quick and accurate validation of customs declarations with the IBM rules platform enables straight-through processing without human intervention, saving significant time and resources for both government and business."
~ Stefan Huesemann, Principal Consultant at Innovation Process Technology AG

Case Western Reserve University

Monitors structural safety of bridges in real-time

Challenge:

- 25% of US bridges structurally deficient or obsolete

- Continual assessment of structural deterioration to ensure bridges remain safe

- Prioritize maintenance based on real-time need

Benefits:

- Save money by scheduling maintenance effectively

- Improves safety with continuous monitoring

- Technology can be applied to monitor other physical assets such as wind turbines, tunnels, etc.

Decision Management Solution

- *Continuous real-time monitoring of bridges' structural information*

- *Detect complex patterns of damage events from strain and acoustic sensors, automated notifications can trigger alerts when thresholds are exceeded.*

CASE WESTERN RESERVE
UNIVERSITY · EST. 1826

"Having the ability to evaluate disparate events recorded by sensors affords us the capability to dynamically assess the integrity of material that supports our nation's roadways… we want to help provide a cost-effective means to maintain our bridges and ensure everyone's safety."

~ Dr. Brian Metrovich, Associate Professor, Case Western Reserve University

Why IBM for Operational Decision Management?

IBM

Unparalleled Expertise and Investment

- Expert consulting and implementation services for *fast realization* of business value

- Industry expertise to *customize solutions* for your specific industry

Largest Customer Base

- **#1** in Business Rule Management Systems (BRMS) market share according to all leading analysts

- **#1** in Business Process Management (BPM) market share according to all leading analysts

Strongest Ecosystem and Partner Network

- **800+** Business Partners authorized and certified to support customers
- Strongest global ecosystem including major global and regional system integrators skilled to provide *comprehensive solutions*

Next Steps

IBM

See Operational Decision Management - *In Action*

- Go to ibm.com/operational-decision-management/scenarios to see and hear customer videos and podcasts

- Schedule an online custom demo

Learn what's possible - *Discovery Workshop*

On-site workshop with business and IT stakeholders to evaluate the applicability of decision management for your project

Implement a real project in 10 weeks - *Quick Win Pilot*

- Demonstrate immediate value to your LOB end-users with your first 'Quick Win' in 10 weeks

- Accelerate the deployment of decision management using a proven, incremental approach and a production-ready pilot

- Collaborate with IBM experts on your first win

QUESTIONS?

धन्यवाद
Hindi

多謝
Traditional Chinese

ขอบคุณ
Thai

Спасибо
Russian

Thank You
English

Gracias
Spanish

شكراً
Arabic

Merci
French

Obrigado
Brazilian Portuguese

Grazie
Italian

多谢
Simplified Chinese

Danke
German

நன்றி
Tamil

ありがとうございました
Japanese

감사합니다
Korean