

Enhancing Business Process Management with Business Rules

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Agenda



- » **The Need for Business Agility**
- » The Business Rules Approach
- » Rules Management in Action
- » Driving Agility from Managing Processes and Rules Separately

Agility = the capability of rapidly and cost efficiently adapting to changes

“It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change.”

Charles Darwin

“Life is 10% what happens to you and 90% how you respond to it.”

Lou Holtz

Why do You Need to be Agile?



- » Can you truly automate without agility?
 - » How many cases would you send for manual review if it takes you 3 months to make a change to the business logic?
 - » How many if it takes 3 hours?
- » Can you truly improve without agility?
 - » Almost 50% of companies take longer than 3 months to implement a predictive model, with half of those taking longer than 9 months.
 - » Models don't yield business results until implemented
 - » Models predict better on the moment they are built—their predictive power reducing over time

What the Analysts Say

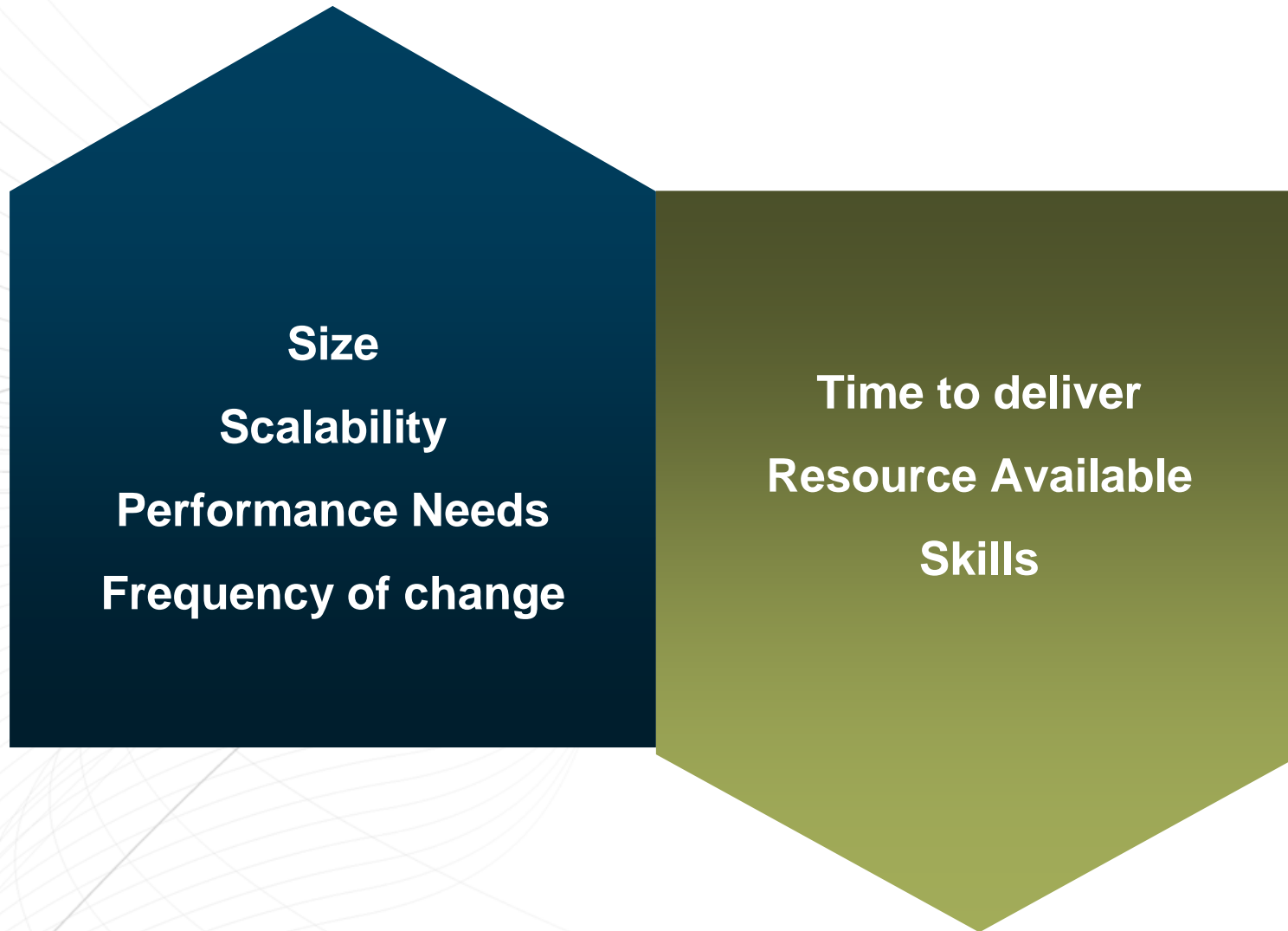
“The increased emphasis on **business agility** is driving many organizations to **Business Rule Engines**, among other agility-focused technologies.”

Gartner, Inc.

You are a Good Candidate for Rules Management if...

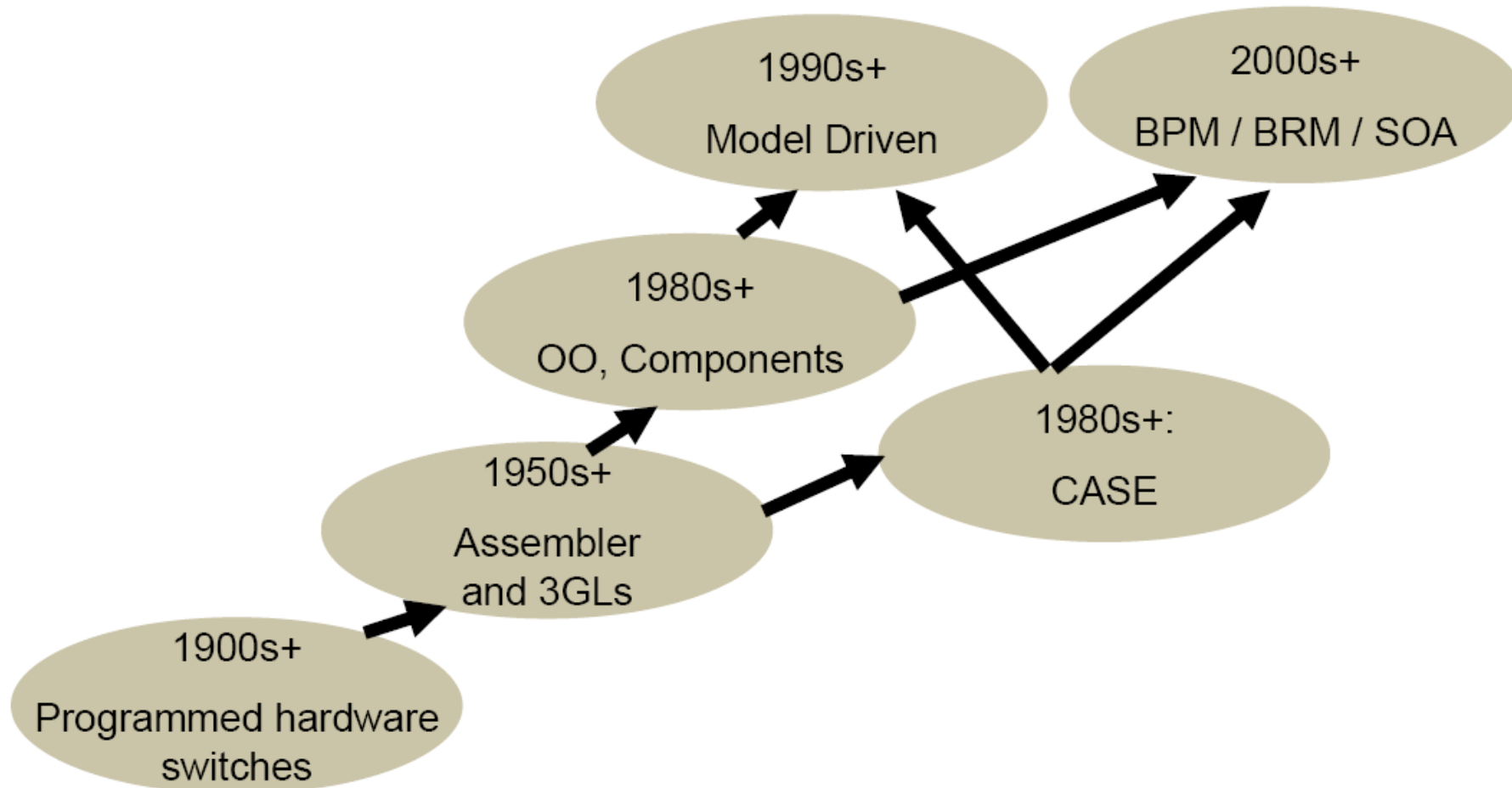


- » Your company does business in a heavily regulated environment
- » You need to change business policies, procedures or information/products frequently
- » Your company has enterprise consistency concerns
- » Business people in your company want or need to make changes to business systems faster or more conveniently
- » You have a competitive strategy that calls for differentiated business decisions and practices
- » Your IT department has a significant application modification backlog and wants to get application maintenance off its plate
- » You need a platform to “operationalize” your business intelligence



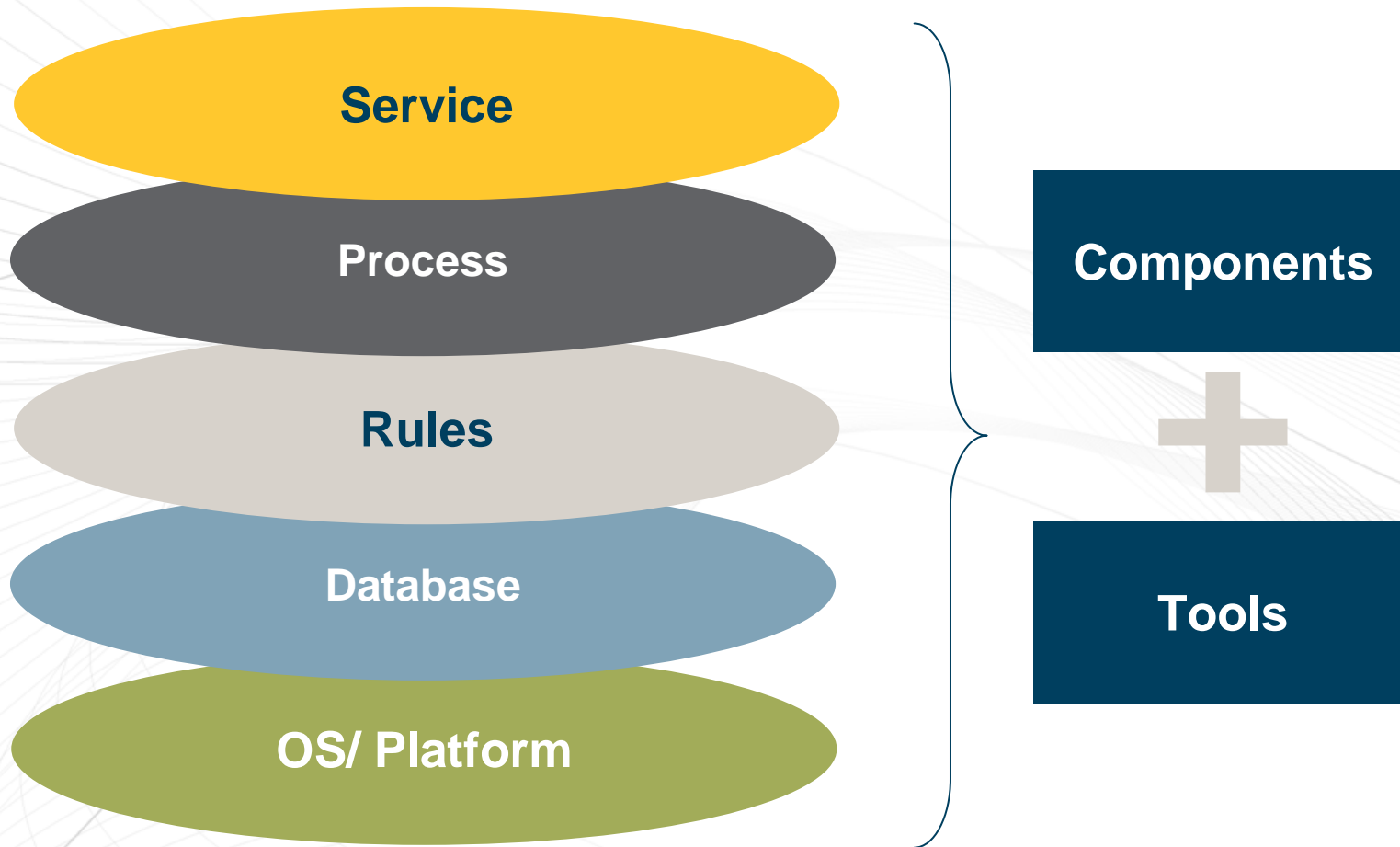
History of Software Development ...

► ... is one of increasing abstraction



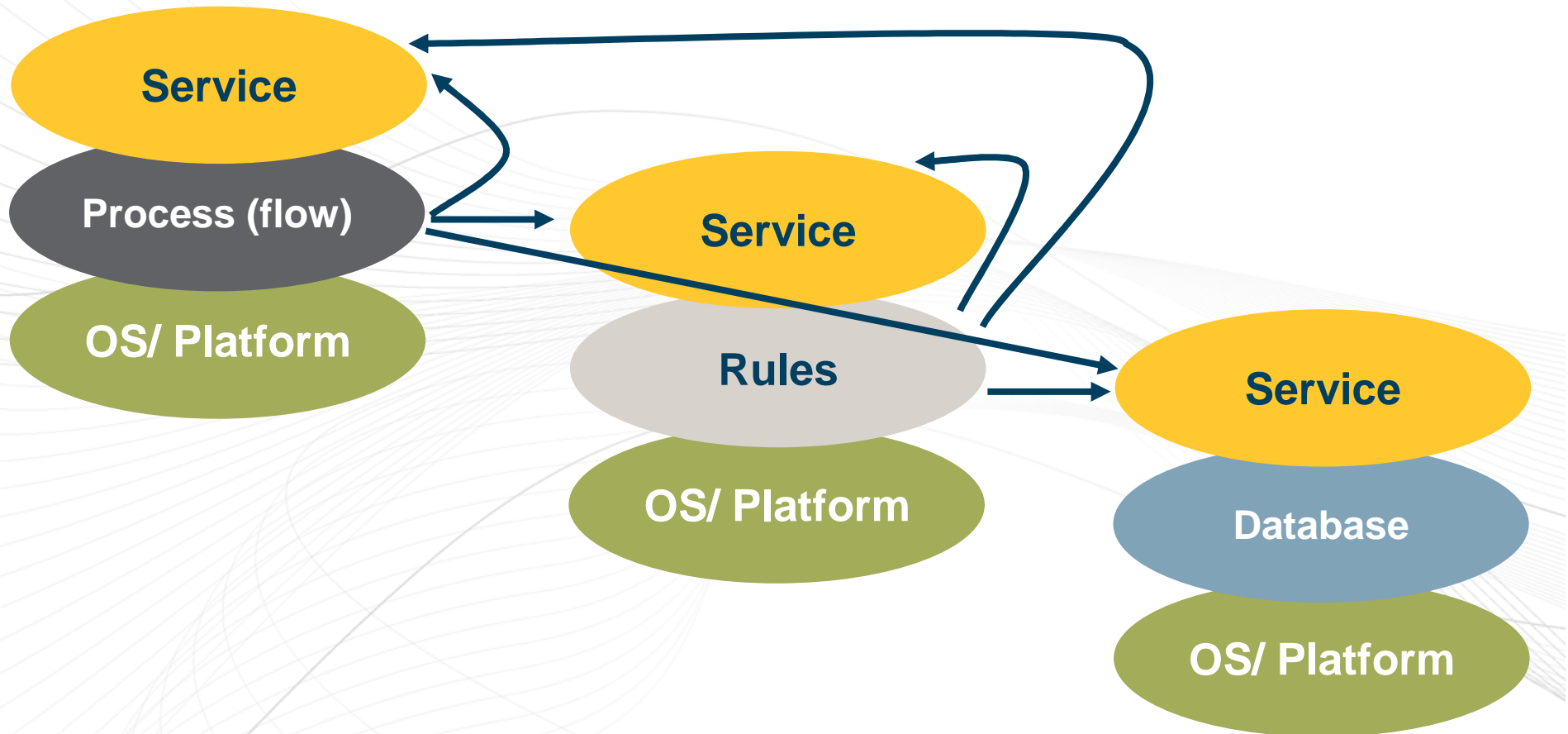
Software Development Today

Recognition of business IT stack:



Software Development Today

Recognition of an optimal service-oriented IT architecture:



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Rules are Applied to Address a Wide Range of Business Areas



Our decision management solutions support a wide range of application services for our customers. These include:

- » Marketing/Campaign Management
- » Account Management
- » Personalization
- » Behavior Scoring
- » Product/Service Recommendation
- » Underwriting (Lending/Insurance)
- » Diagnostics
- » Problem Resolution
- » Sales Commission Calculation
- » Data Validation/Formatting
- » Offer management
- » Business Process/Workflow
- » Self-Service Web Inquiries
- » Regulatory Compliance
- » Order Configuration
- » Call Center / CRM
- » Fraud Detection
- » Authorization
- » Benefits Analysis
- » Manufacturing Process
- » Claims Processing
- » Accounting and compliance

What are Business Rules? ... The Way You Conduct Business



- » Cars should be checked on return from each rental, and on transfer between branches.
- » Under any of the following conditions the car should be scheduled for service or repair:
 - » Accumulated mileage since the last service is greater than 5000,
 - » The brakes are not satisfactory,
 - » The exhaust is noisy or emitting fumes,
 - » There is any damage to body work (apart from superficial dents and scratches),
 - » Broken lights or glass,
 - » There are any significant fluid leaks
- » Rental charge is based on base rental price, optional insurances, and refuelling charge.
- » The number of cars (of a group) that will be available the next day to meet demand is computed as the number of cars of that group currently in the parking lot, plus the number due in today from rental.

- » Business Rules should be defined, stored, reported etc. **separately** from other entities
 - » In business documentation
 - » In business process definitions
 - » In use cases and system requirements
 - » In code

- » Business rules should be defined **declaratively**
 - » Changing one rules definition should not requiring changes in another
 - » Rules should be order-independent

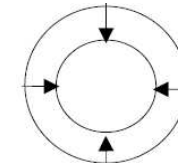
- » Compare with “data management”
 - » **Data** is defined and managed separately as a **common practice**
- » Compare with “object orientation”
 - » Objects should **encapsulate** data, behavior
 - » ... but does not prevent us managing such data and rules separately



Main Drivers for Using Business Rules Approach

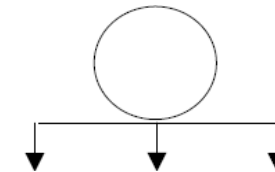
1. Centralize/standard rule execution/management strategy in an organization.

→ Always know what the rules are where



2. Apply rules in a standard way across channels/subsidiaries

→ Always use the same rules from the same source



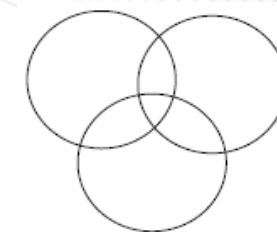
3. Allow businesses to control what rules are executed, and update them as required

→ Empower your business users

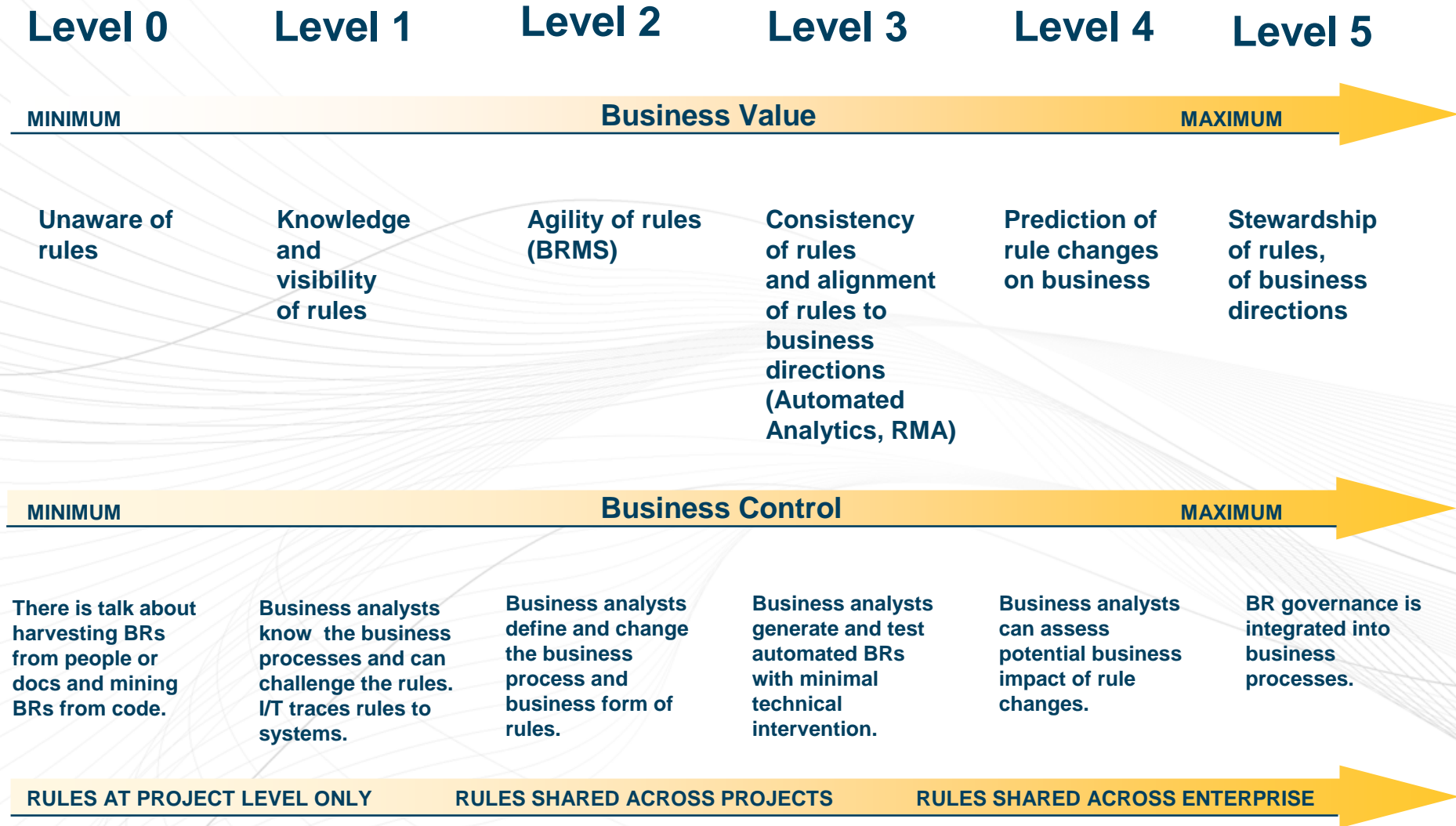


4. Allow more complex processes to be automated

→ Allow for planning, scheduling, best-choice type decisions to be made

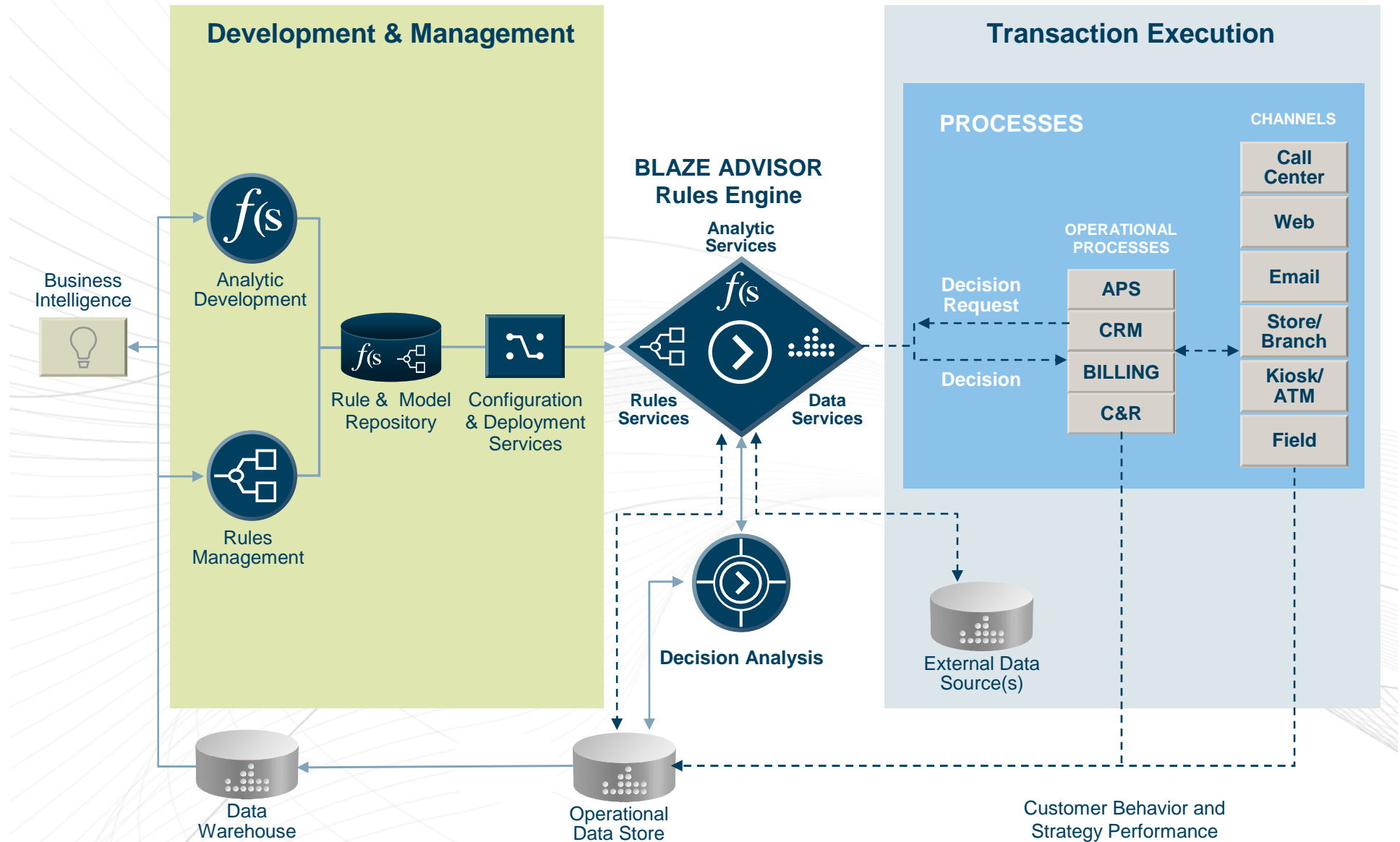


Rule Maturity Model at a Glance



Source: Barbara von Halle, [Knowledge Partners International](#)

Architecture Blue Print

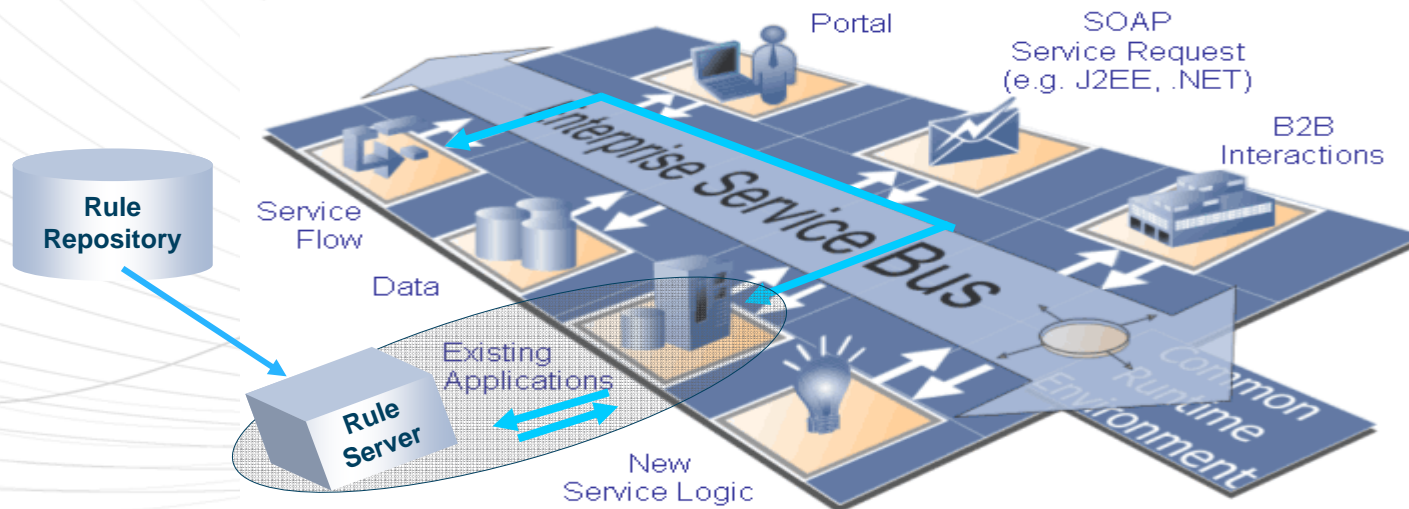


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- » **Rules Management in Action**
- » Driving Agility from Managing Processes and Rules Separately

Rule Service Assisting a Business Service



- » Implement a Rule Service
 - » Accessing resources and services
 - » Use it in the context of a Business Service implementation
- » Delegate the business rules sections of the Business Service to Rule Service

Business-controlled SOA-managed business service

» **Challenges:**

- » Costs and expertise involved in manual interventions
- » Consistency in processes
- » Business objective to double the volume using the same budget

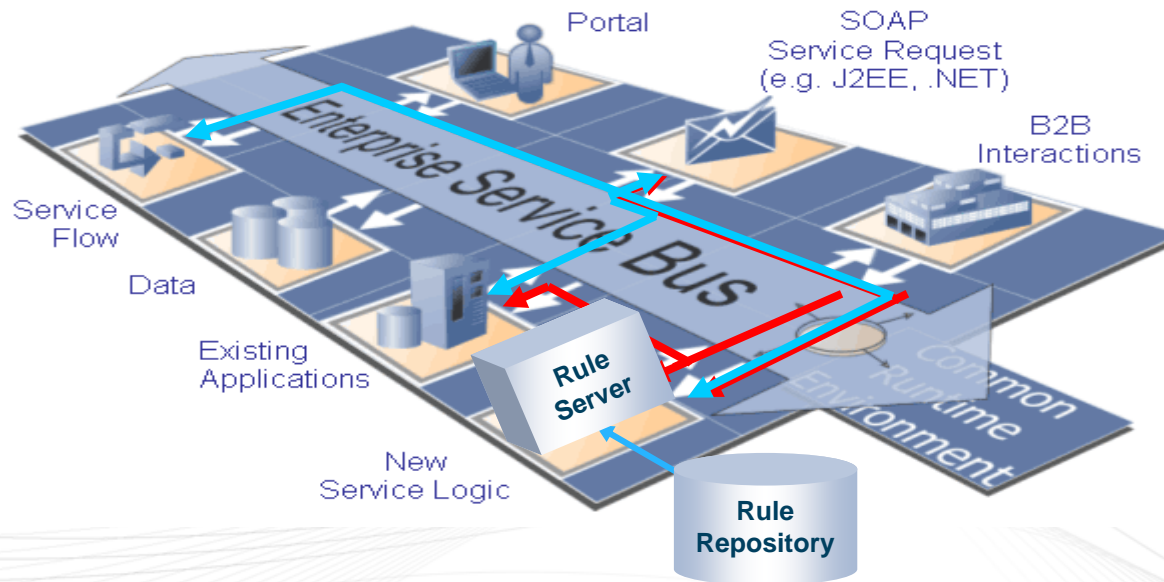
» **Solution:**

- » Configurable services
 - » Underwriting
 - » Rules to drive questioning process in call center
 - » Claims processing
- » Deployed in a SOA using Web services

» **Benefits:**

- » **Cost:** much larger volumes are processed in an automated fashion
- » **Improved strategies:** testing, analytics, capturing expertise
- » **Consistency:** logic can be used in multiple processes
- » **Speed:** accelerated processing resulted in quicker responses

Rule Service Implementing a Business Service



- » Implement the business rule service
 - » Accessing enterprise resources
 - » Possibly accessing other business services through SOA
- » Expose business interfaces to it
- » Generate Web Service or ESB deployment

Business-controlled SOA-managed business service
“The Policy Hub”

» **Challenges:**

- » Expansion to other regions
- » Time required to update of credit underwriting logic
- » Flexibility to develop new customer acceptance strategies

» **Solution:**

- » Rule based credit decisioning framework
- » Deployed in a SOA using Web services
- » Framework configured for credit acceptance and behavior scoring
- » Firstly deployed in two countries, followed by 6 other countries

» **Benefits:**

- » **Compliance:** consistency and auditing embedded in the framework
- » **Agility:** Changes to credit policies can be applied within a day
- » **Consistency:** Roll out to new regions in weeks
- » **Speed:** Scoring millions of customers in 3 hours

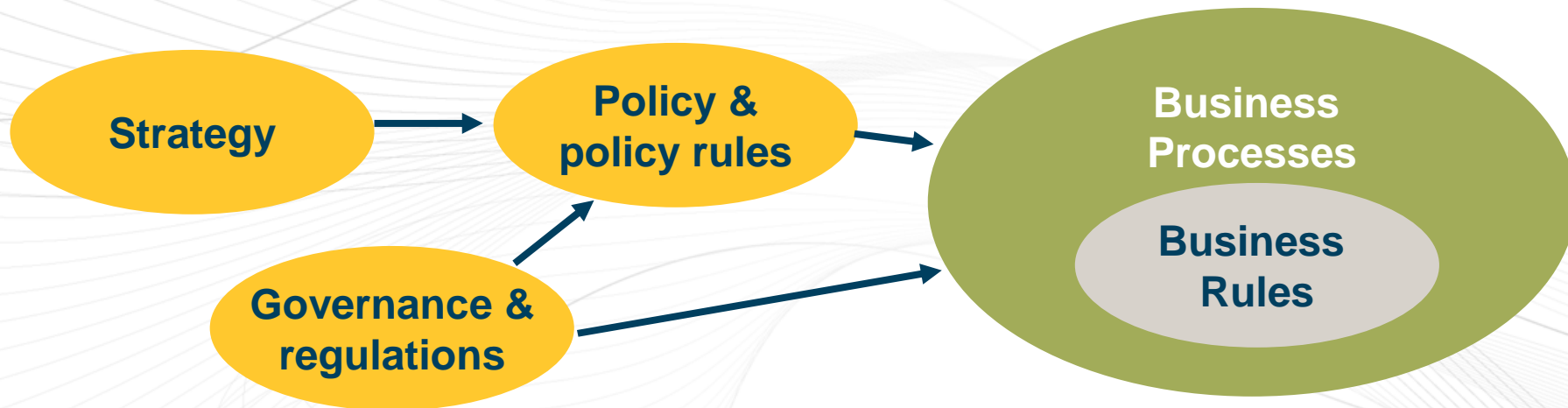
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- » Decision Management in Action
- » **Driving Agility from Managing Processes and Rules Separately**

Processes Versus Rules

- » Processes live at a higher abstraction layer than rules
 - » Rules are used to implement processes
 - » Rules are usually exposed as services: processes consume services



Business Process Management

- » Standardize Processes—**How** should a process be carried out?
- » Facilitate collaboration and compliance
- » Workflow Definition and Management
 - » Process Automation
 - » Activity Monitoring and Exceptions
 - » Process Reports
 - » Integration Broker

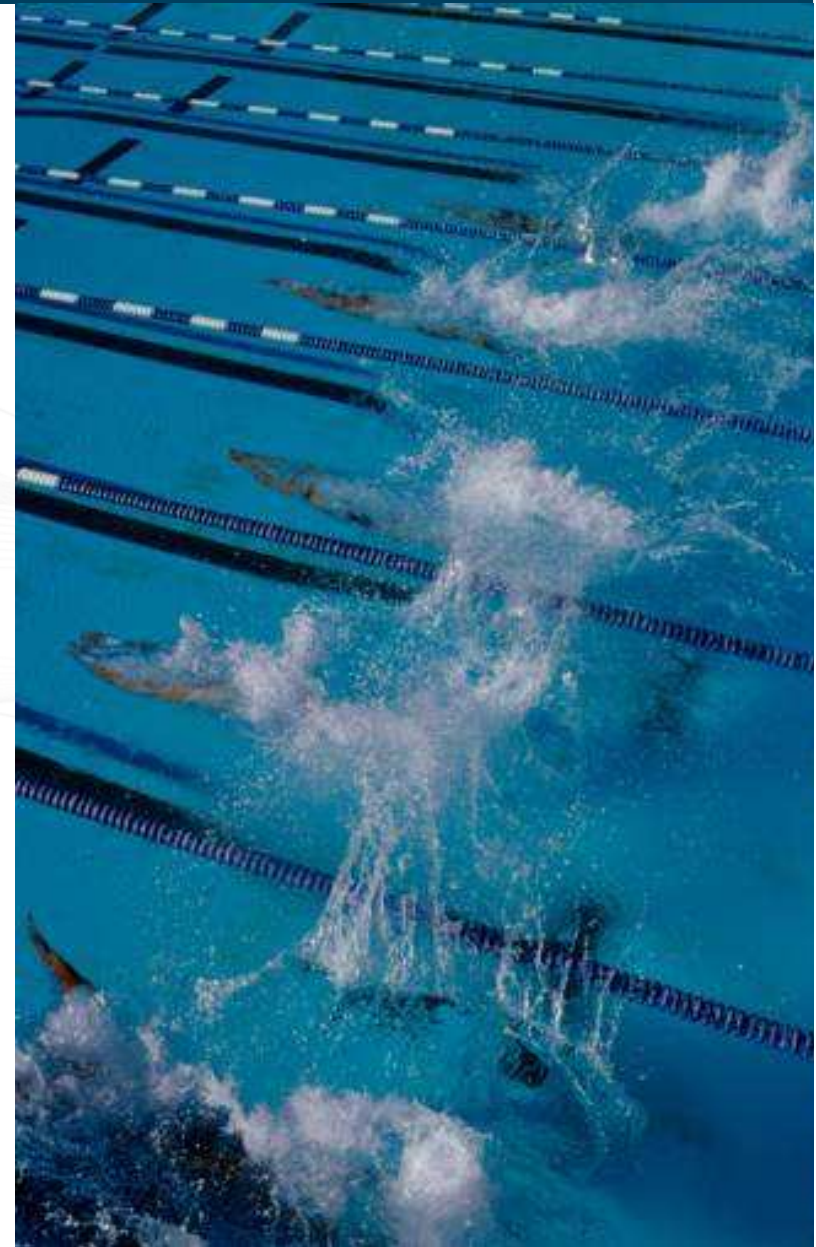
Business Rules Management

- » Standardize Operational Decisions—**What** should the decision-making be based on?
- » Facilitate decision automation and maintenance
- » Centralized Business Rules Repository
 - » Straight Through Processing
 - » Decision Broker

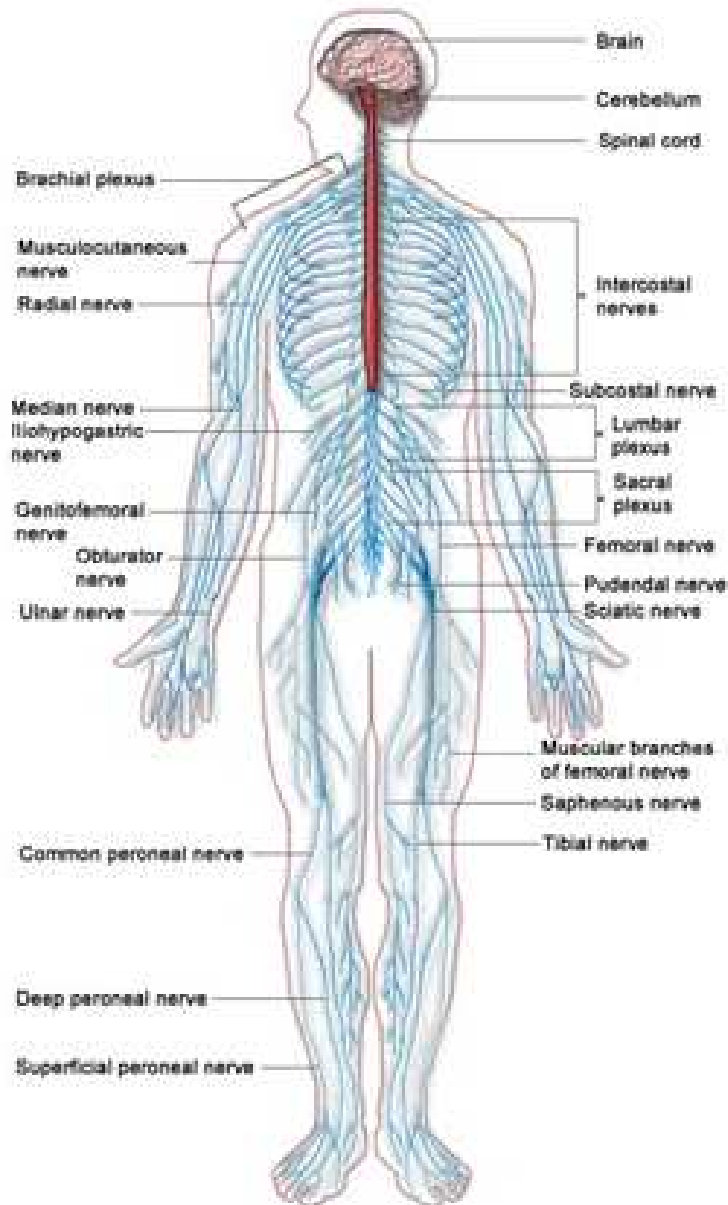
Liberate Your Business Rules from Your Processes



- » Define roles clearly
 - » BRM is responsible for capturing and maintaining the business rules that make **decisions**
 - » BPM is used to turn those decisions into **actions** by stringing those decisions together and routing the documents to the appropriate actor—a Rating system, a Fulfillment Service, a Storage area
- » The Service-Oriented nature of those technologies make it a simple IT task
 - » Business Rules deploy as a Service
 - » Processes invoke Services natively



A Simple Analogy



» BRMS is the Brain

» It does not DO anything

» It sits there and, when exposed with relevant data, can make a decision

It is getting colder, I just turned the AC on, it's normal
It is getting colder, it is getting late too, I need a jacket

» BPM is the Nervous System

» It carries information (Documents) from the organs (Departments) to the Brain

» It transmit decisions taken in the Brain to the involved organs for a coordinated response

Go to the closet, pick the black jacket that matches my outfit and put it on

To Separate or Not To Separate



Risks of BPM without BRM

- » Business rules become an afterthought
- » Business rules are re-buried into the “new process”
- » “New process” becomes complex, burdened by the buried business rules
- » Inconsistency of business rules is likely
- » Non-compliance due to problems with the business rules is likely, leading to fines

Benefits of BPM with BRM

- » “New process” is simplified
- » Rules are organized into discrete rulesets
- » Rulesets are designed, using rule paradigm
- » Rulesets are tied to business objectives and monitored
- » Rulesets are tied to the “new process”
- » Rulesets can be tied to other systems not built with the BPMS
- » Process & rule changes are managed and deployed independently
- » Business process runs with state-of-the-art technology for two very different aspects of the business

In a study, undertaken by independent research company Strategic Focus, of Milpitas, CA, **it took 38% less time to build, deploy and test applications with a combined process and business rules environment** than it did with a modern Java development environment. Further, **it then took 58% less time to change** the completed application.

Business Rules are from Mars & Processes from Venus
by Derek Miers

Want to know more ?
What is next ?



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**POWER UP
PROFIT
IN THE RESET
ECONOMY**

THANK YOU

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