



# Business Rule Trends and Directions that Impact You

(Why, How, and Who is Really Doing What?)

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# Who is Knowledge Partners Inc?

- Reputation: National and international reputation for BR thought-leadership and practicality
- Product: STEP™ License
  - Provisional Project License (PPL)
  - Project License (PL)
  - Organizational License (OL)
- Services: Consulting and training in support of STEP™ licenses
- Conferences: Brainstorm's BPM Conference (BR Track)
  - ***Exclusive (no other conferences)***
- Journalism:
  - BPMStrategies writer and editorial board member
  - BR Bulletin writer and editorial board member

## You will learn...

- Most critical trends changing the face of I/T
- Surprising new roles of business people emerging in agile organizations
- An industry yardstick and roadmap for achieving agility with business rules
- STEP by STEP details, especially for analysts
- A snapshot of who is doing what based on an ongoing KPI industry survey
- What does your future hold?



# Most critical trends changing the face of I/T..

## Business Trends

- Business agility
- Business knowledge
- Business compliance

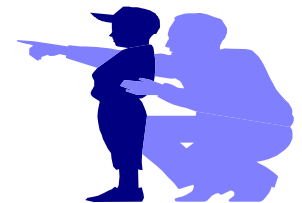
## Technology Trends

- Offshore Development
- SOA
- BPM and BRE technology

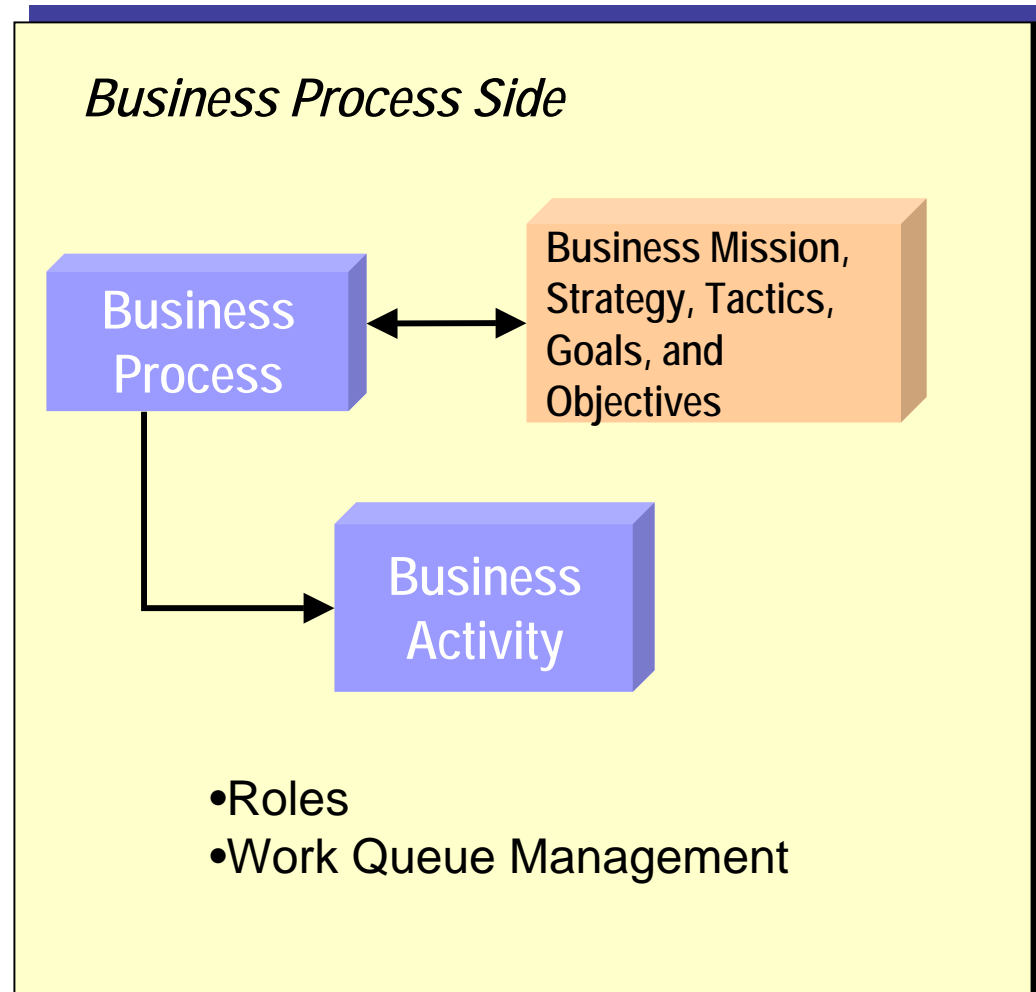
What are we doing about these?

## You will learn...

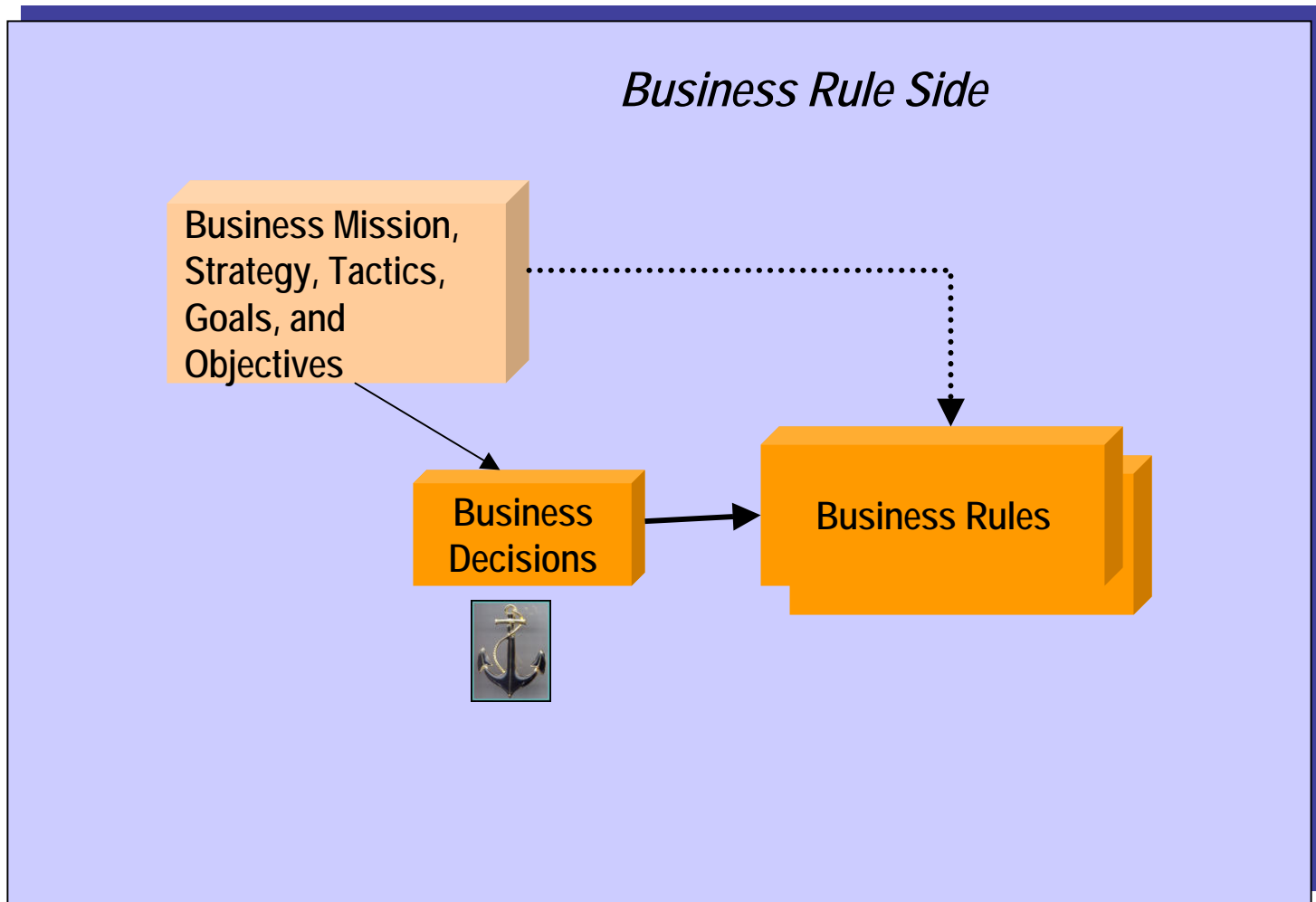
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# A BPM Approach focuses on a business process.

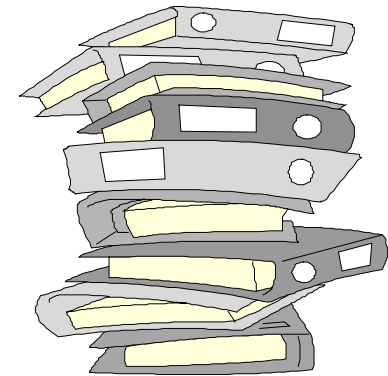
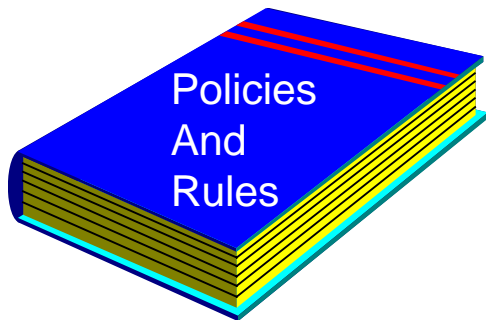


# A BR Approach focuses on the business rules.



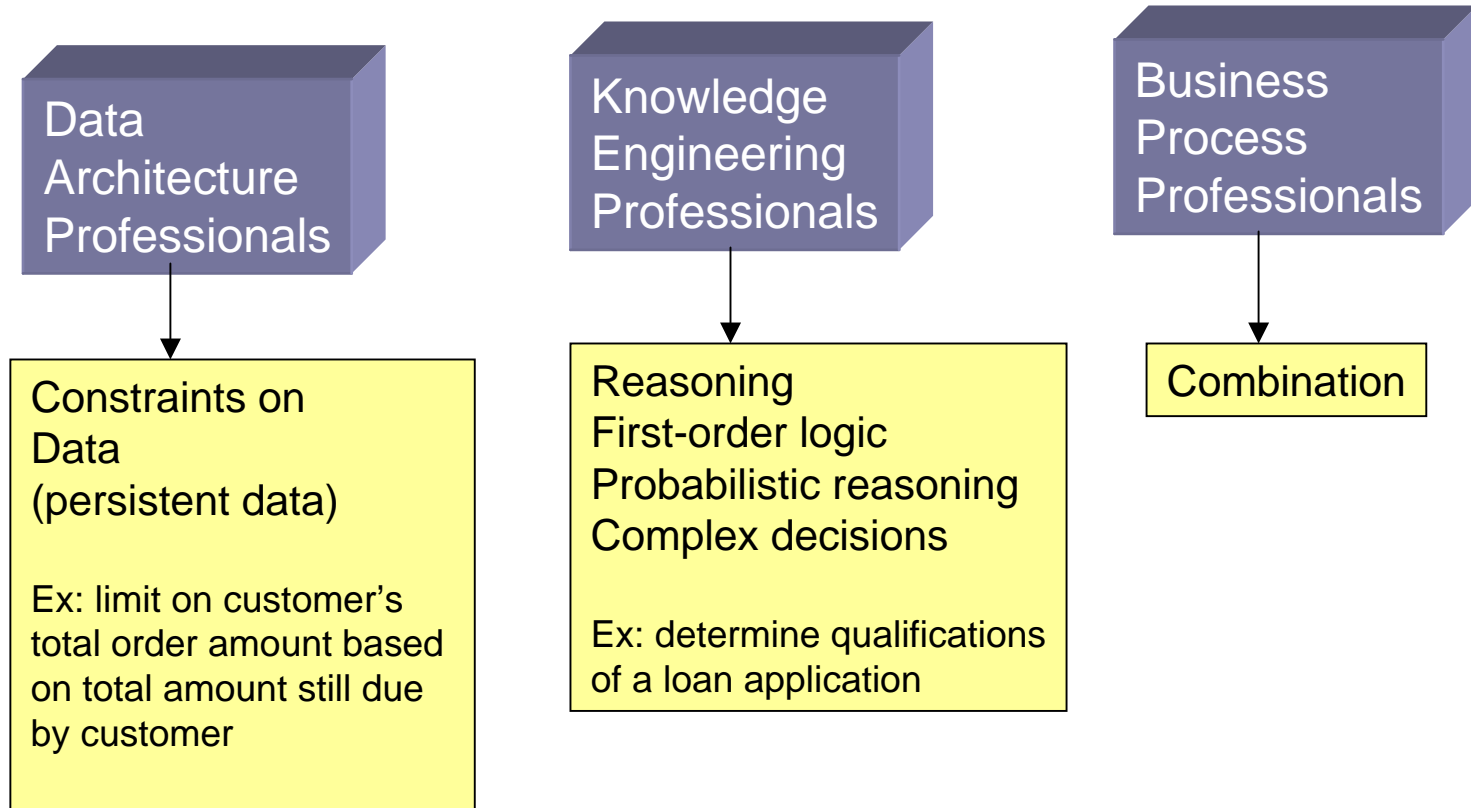
# Business Rules represent an important organizational knowledge asset

- Loosely speaking, business rules are the collection of your organization's business policies, constraints, computations, and reasoning capability.



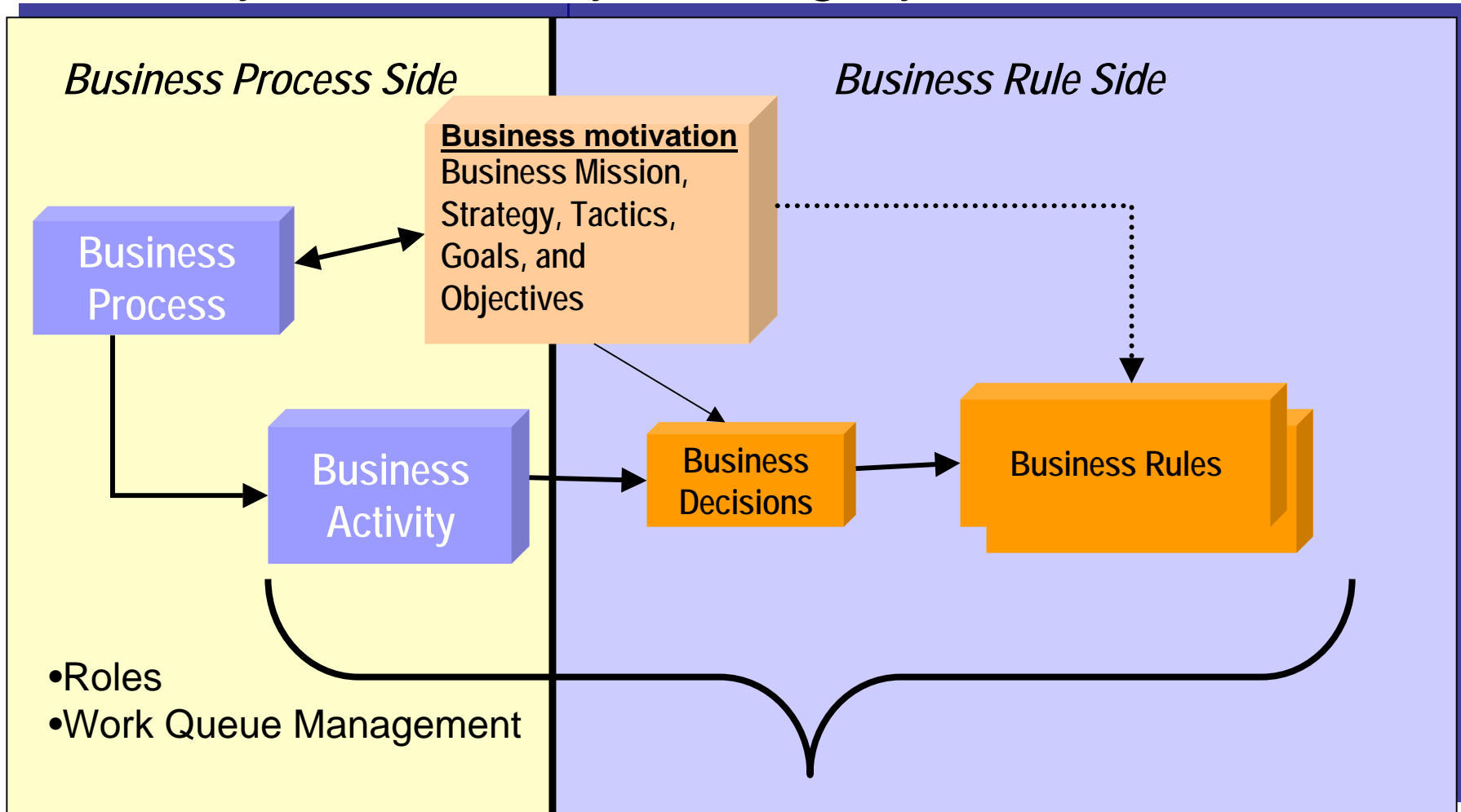
- Your organization runs by these rules whether or not it:
  - Automates them,
  - Puts them in a Business Rules Engine, or
  - Explicitly states them **somewhere** so that people actually know what they are.

# The Business Rules Approach has roots in two different heritages.

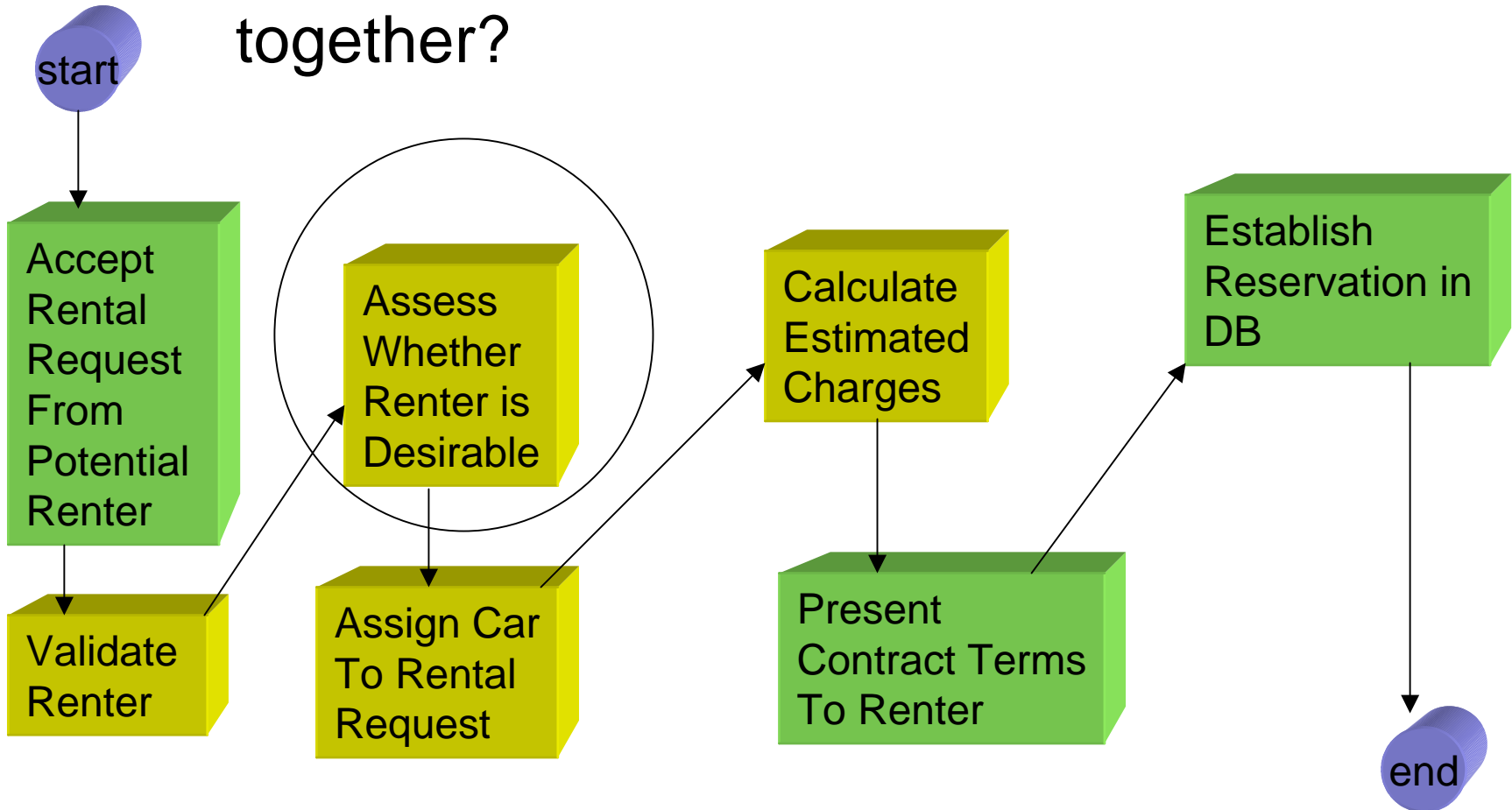


***The two heritages have resulted in the inclusion of different classifications of rules in a Business Rules Approach.***

# A BPM/BR Approach sharpens decisions with accuracy, consistency, and agility.



# How do processes, decisions, and rules come together?



Yellow boxes indicate tasks powered by decisions and rules.

# How is the role of business people changing?

- They know where to find out what the rules are.
- They review rules, argue about rules, suggest changes.
- They settle disputes.
- They author rules.....!!!!
- They analyze rules for logic problems...!!!!
- They change rules in test environment and test rules..!!!!
- They simulate changed rules in the context of process or system.....!!!!
- Pre-store rules for potential future situations (rules-ready-to-go!)...!!!!
- Change rules in production....???

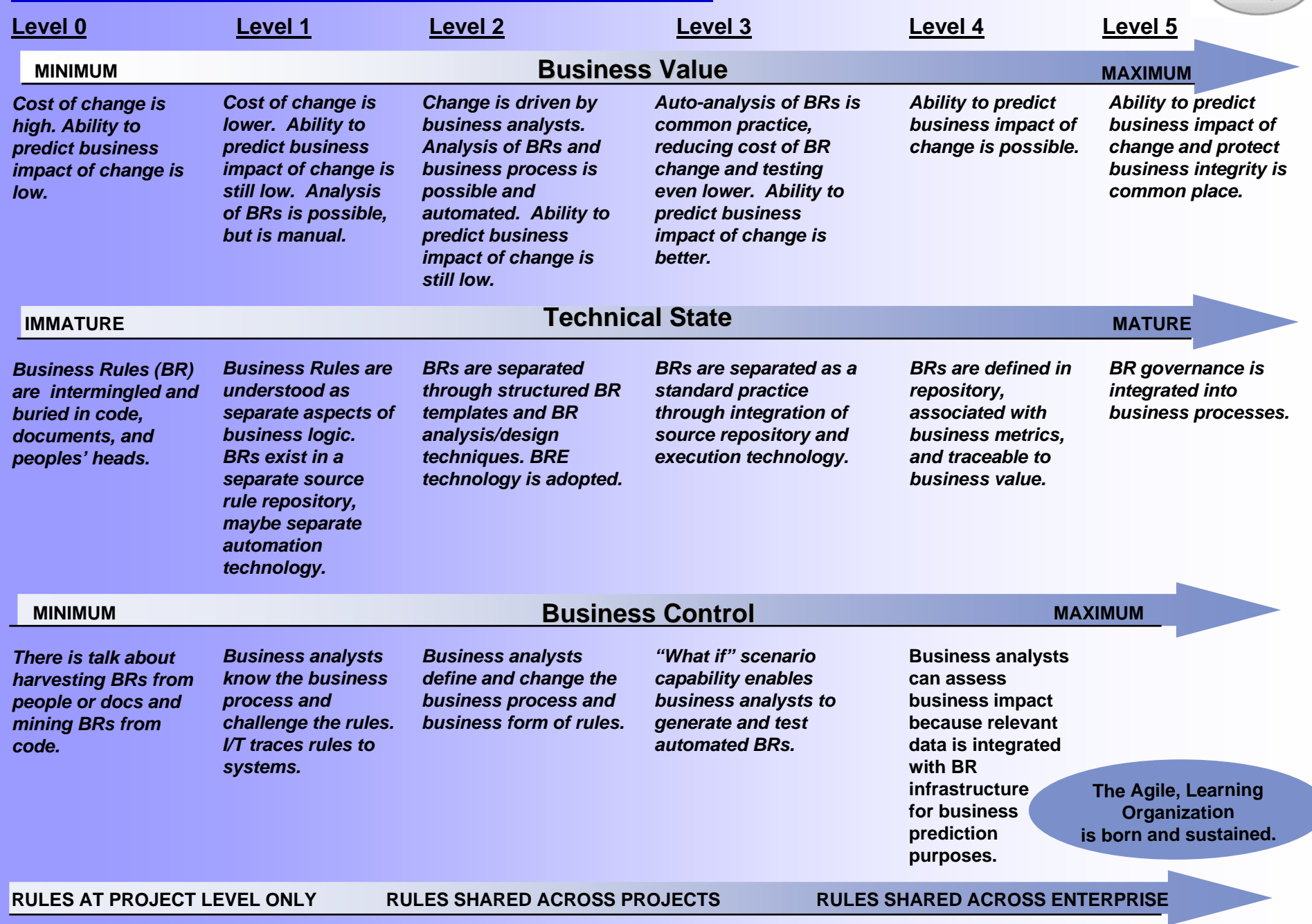
How much of this is realistic? How much is really happening today?

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# KPI's Rule Maturity Model™



# KPI's Rule Maturity Model™ begins at Level 0.

## Level 0:

Rules are hidden and somehow the business actually runs, the BRs are an unchartered mess. No one is truly in confident control of rule changes because....the culture prevents it.

*Road Analogy: There are no roads to drive on!!*



## Culture Prevents BR Maturity

1. No special attention is given to rules.
2. No source rule repository is in place.
3. No BRE is utilized.
4. No one in the business manages the rules from start to finish in an easy manner.
5. Rules exist in various forms in various sources, such as peoples' minds, documents, code.

## Level 0 -

MINIMUM Business Value

***Cost of change is high. Ability to predict business impact of change is low.***

IMMATURE Technical State

***BRs are buried in code, documents, and peoples' heads.***

MINIMUM Business Control

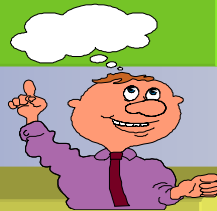
***There is talk about harvesting BRs from people or docs and mining BRs from code.***

# KPI's Rule Maturity Model™ proceeds to Level 1.

## Level 1:

Rules are “simply” separated during requirements gathering. Technical people are in control of rule changes, with business input and access because .....the culture enables it.

*Road Analogy: There are roads now, but only technical people can drive on them*



## Culture Enables BR Maturity

1. Rules are documented in Word, Excel, or ReqPro extensions at a project-level.
2. Business people know what the rules are and where they are executed in the business processes and systems.
3. A BRE product is used on a pilot or first project, perhaps.

## Level 1 -

### Business Value

***Cost of change is lower.  
Ability to predict  
business impact of  
change is still low.***

### Technical State

***BRs are not buried.  
They exist in a simple  
source rule repository,  
maybe separate  
automation technology.***

### Business Control

***Business analysts know  
and challenge the rules.  
I/T traces rules to  
systems.***

# KPI's Rule Maturity Model™ proceeds to Level 2.

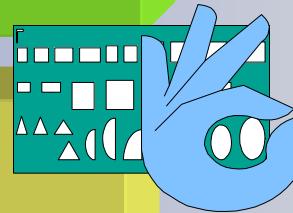
## Level 2

Rules are separated into a more mature source rule repository. Business analysts begin to drive changes because... the culture supports it.

*Road Analogy: Business analysts can drive with a permit, requiring technical presence at all times*

## Culture Supports BR Maturity

1. Rules are managed in a source rule repository
2. Structured methods and standards exist for rule discovery and for analysis for logic errors through reporting.
3. Rule related roles are defined
4. Project-level rule stewardship exists
5. There are one or more BREs in place.



## Level 2 -

**Business Value** MATURING

***Change is driven by business analysts. Ability to predict business impact of change is still low.***

**Technical State** MATURING

***BRs are separated through structured BR templates, BR analysis/design techniques, and BR technology.***

**Business Control** MATURING

***Business analysts define and change the business form of the rules.***

# KPI's Rule Maturity Model™ proceeds to Level 3.

## Level 3

Rule changes are driven by business people who can perform simple testing of those changes with minimal technical intervention along with automated rule analysis because... the culture empowers them.

*Road Analogy: Business analysts have a license to drive on certain roads (testing), technical drivers are needed for highway travel (production)*

### Culture Empowers BR Maturity

1. A common or coordinated Rule Repository environment is established, separate from, but integrated with (multiple) BREs.
2. Automated rule analysis and simulation capabilities are available.
3. **→ Transition from project to enterprise rule management begins.**
4. There are rule stewards for the enterprise rules.



## Level 3 -

**Business Value** MATURING →

***Cost of BR change and testing is even lower. Ability to predict business impact of change is better.***

**Technical State** MATURING →

***BRs are separated, analyzed, tested as a standard practice through a source rule repository and BRE, as needed.***

**Business Control** MATURING →

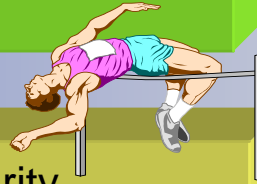
***Business analysts generate and test automated BRs.***

# KPI's Rule Maturity Model™ proceeds to Level 4.

## Level 4

Business people proactively predict the business impact of rule changes because the culture encourages it.

*Road Analogy: Business analysts or business people have a license to drive and are given maps to get where they think they want to go*



## Culture Encourages BR Maturity

1. Various repositories and tools integrate with a common Source Rule Repository.
2. The Rule Repository supports business metrics, traceable to business value.
3. Enterprise Rule Stewardship is in place
4. Business people use BRs to test business changes and future predictions
5. BR Services exist as a standard part of a service-oriented technology architecture.

## Level 4 -

**Business Value** MATURING

*Ability to predict business impact of change becomes available.*

**Technical State** MATURING

*BRs in the source rule repository and management tool are associated with business metrics, traceable to business value and motivation.*

**Business Control** MATURING

**Business people assess business impact (revenue, staffing, customer base).**

# KPI's Rule Maturity Model™ proceeds to Level 5.

## Level 5

Business leaders predict and steer the business dynamically with confidence, protecting full business integrity...because the culture thrives on it.

*Road Analogy: Business analysts or business people have a license to drive and are given a GPS which allows them to make mistakes and self-correct before any harm is done to the business*

## Culture Thrives on BR Maturity

1. Rules (automated and otherwise) are managed through the Rule Repository
2. Rule stewardship is integrated into business processes.
3. Mechanisms for changing business processes and rules independently are in place



## Level 5 -

**Business Value** MATURING

***Ability to predict business impact of change and protect business integrity is common place.***

**Technical State** MATURING

***BR governance is integrated into business processes.***

**Business Control** MATURING

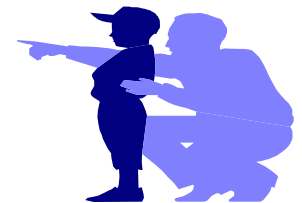
**The Agile, Learning Organization is born and sustained.**

# The six most interesting observations about the RMM™ as practiced in the field are the following:

1. Every organization starts at Level 0.
2. Every organization can experience success with a Level 1 pilot at little cost and little risk.
3. Every organization will begin to experience significant success at Level 2 which is usually the target for a first business rules project.
4. The risks of not attempting to achieve Level 2 may be significant.
5. Very few organizations are beyond Level 3 today. The business differentiators of organizations achieving Level 3 and higher will become apparent over the next few years.
6. There are speakers in the BR Track of the BPM conference at high RMM™ levels!!!

## You will learn...

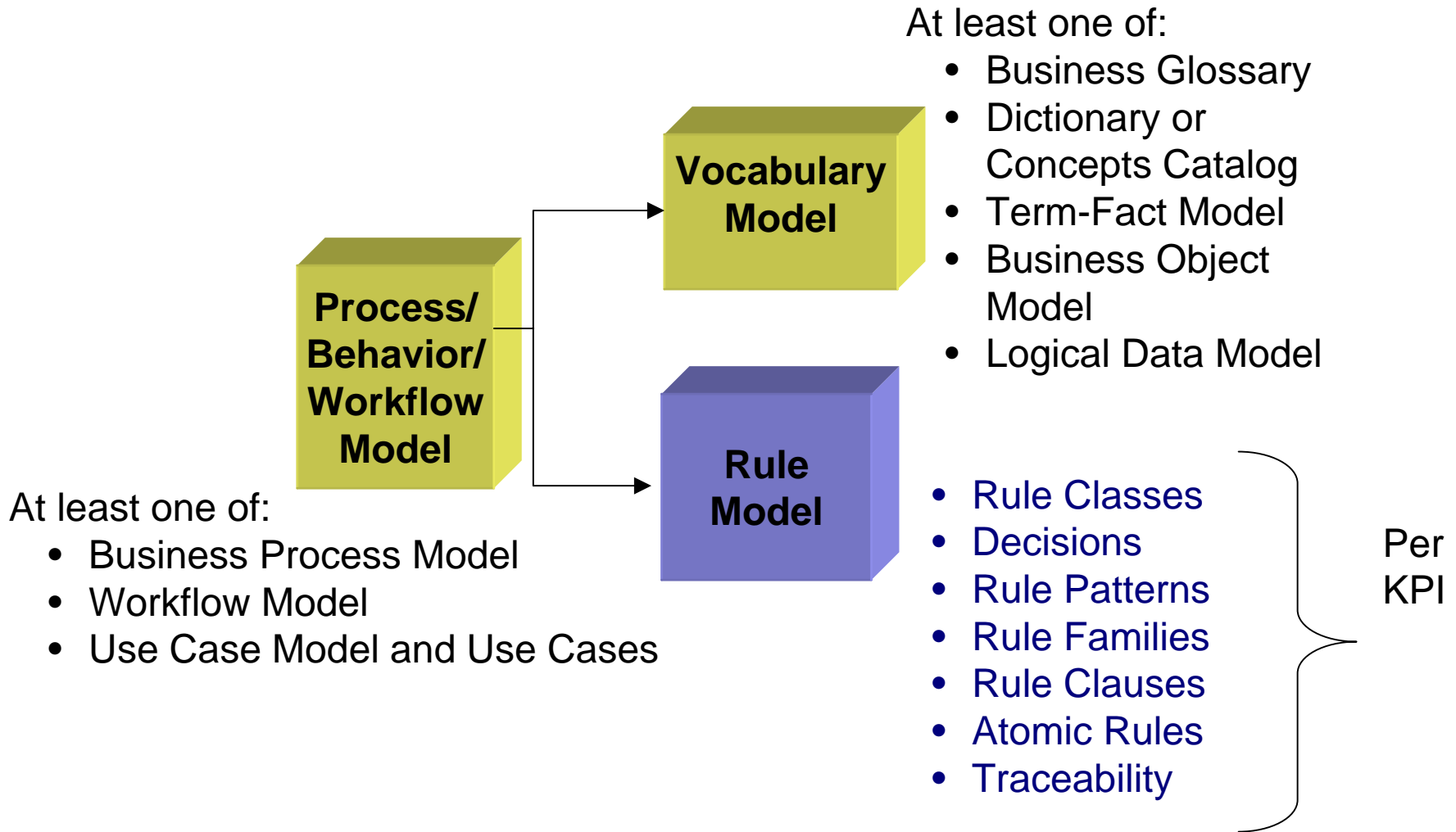
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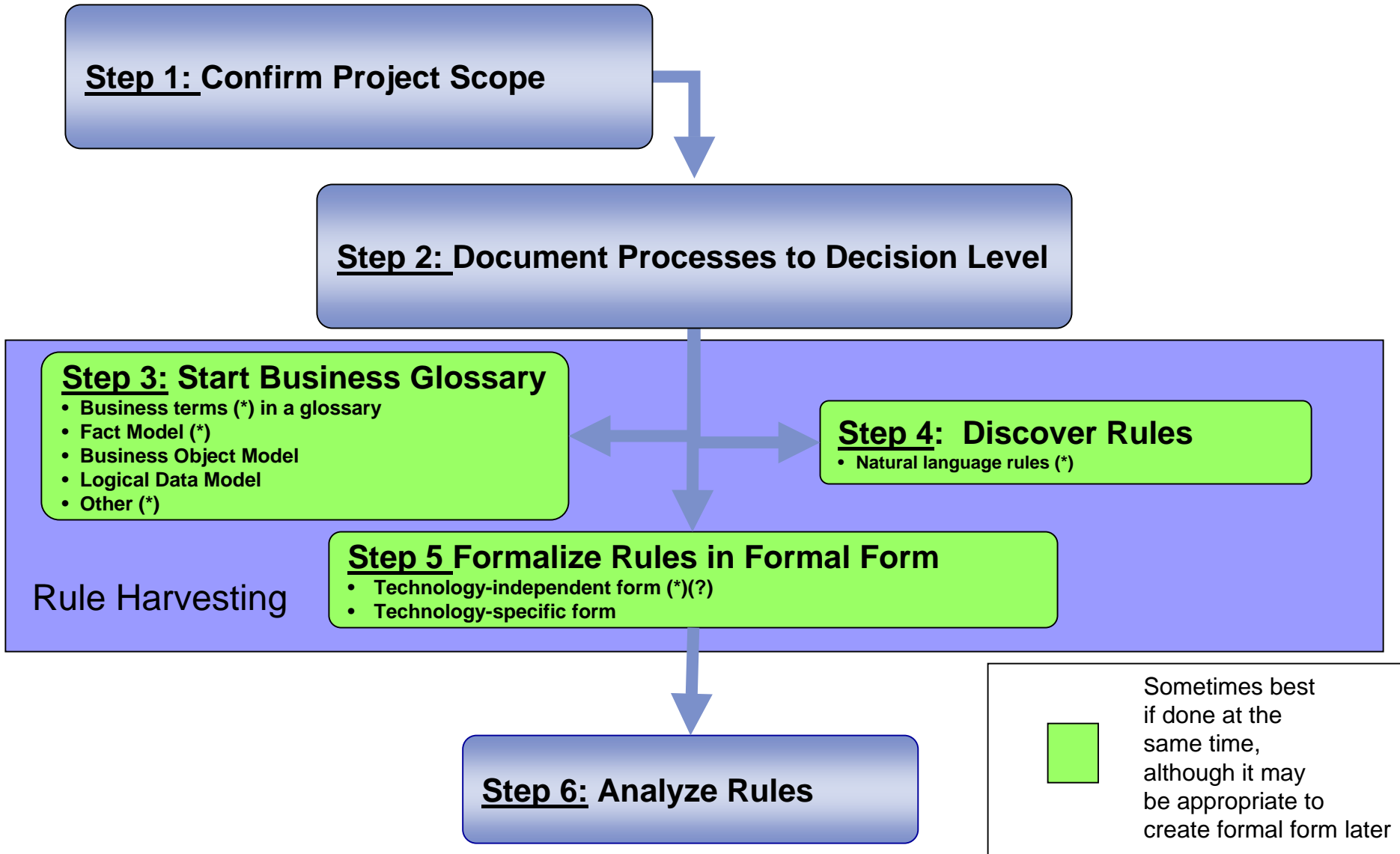
# A business rules approach has the following characteristics which spell **STEP**

- **Separate** the rules so...the business knows where to find them, can apply them consistently.
- **Trace** rules so... the business knows where the rules come from (policies, legislation), why they exist (objectives) and where they are utilized (manual procedures, automation).
- **Externalize** rules so... the business audience can understand the rules in their own language and can challenge them.
- **Position** rules for change so... the business can evolve at its own pace in its own way.

# There are three major aspects to a BR Approach.

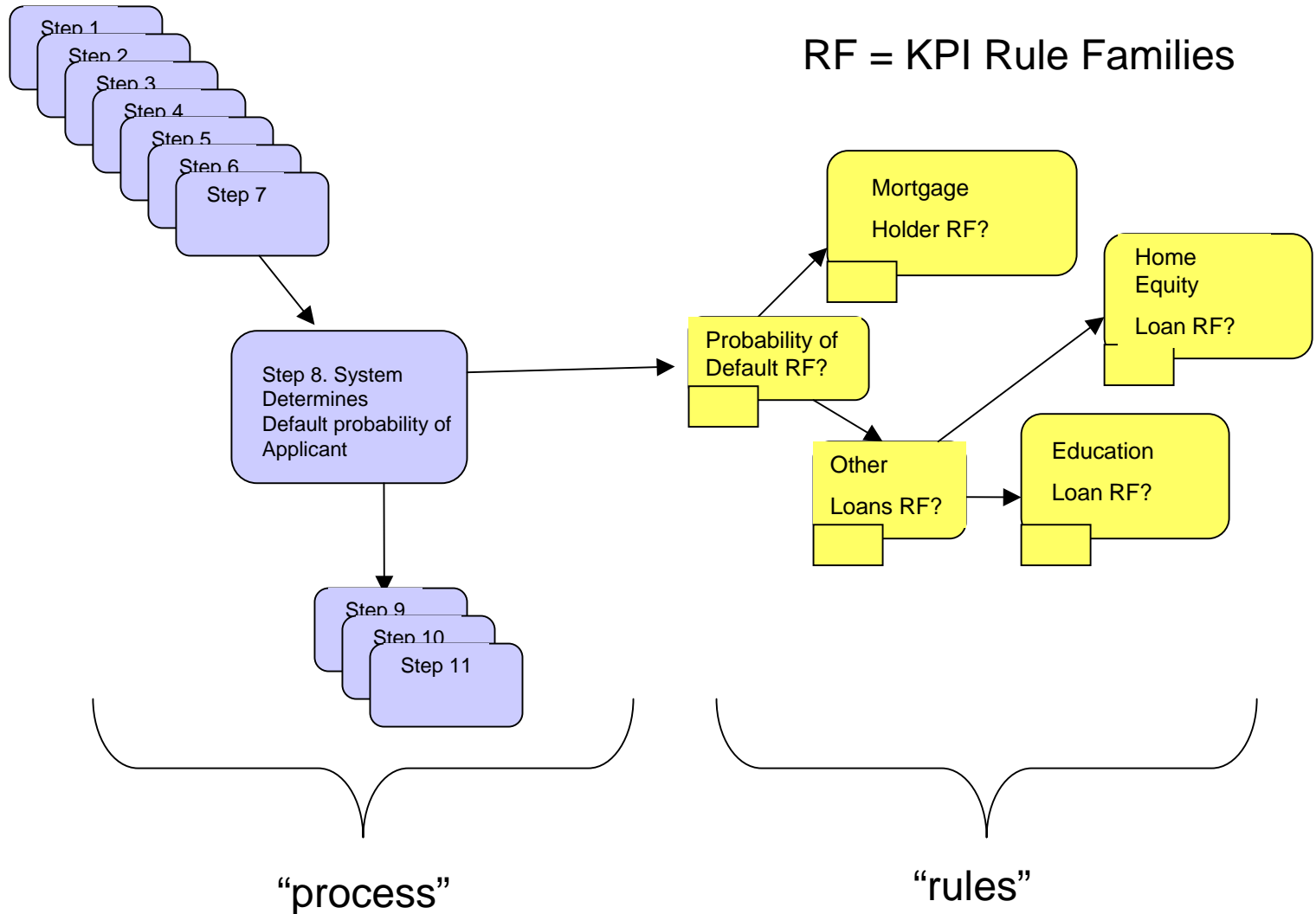


# Core STEP™ Diagram

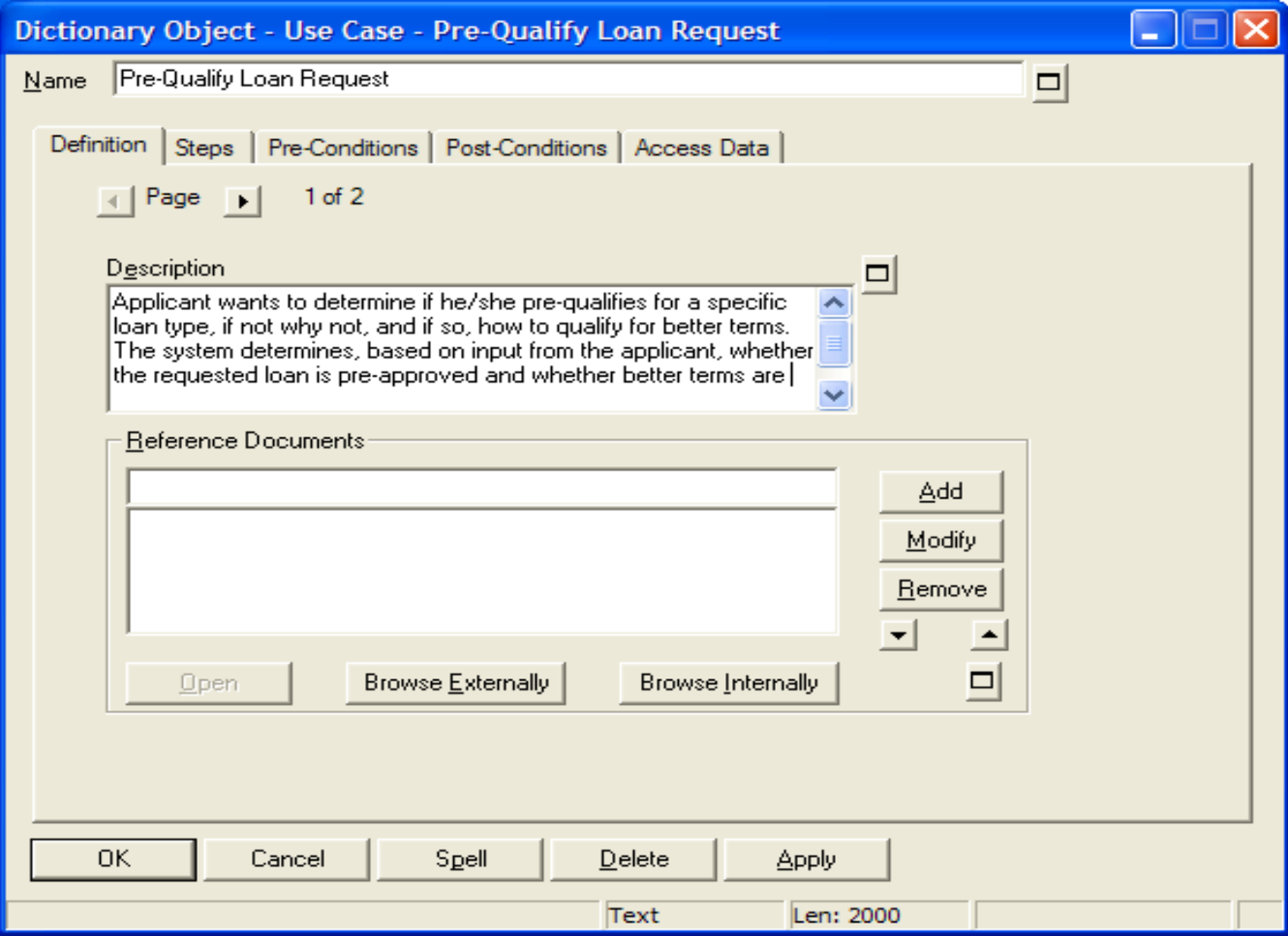


# Discovering the rule model

Pre-qualify Loan Request



# Example of Typical Use Case in a Rule Repository (KPI STEP™ Workbench)



**Typical  
Use Case  
Description**

# Example of Naming Decisions in a Rule Repository (KPI STEP™ Workbench)

Dictionary Object - Use Case - Pre-Qualify Loan Request

Name: Pre-Qualify Loan Request

Definition | Steps | Pre-Conditions | Post-Conditions | Access Data

Use Case Steps

	Na	Step Text	Decision
1	1	Applicant selects loan type.	
2	2	Applicant enters identification information (name, address, etc.).	
3	3	System determines if applicant is known.	Determine if Applicant is Known
4	4	System presents loan-specific input screen.	
5	5	Applicant enters or changes relevant information.	
6	6	System checks for minimum required input.	Validate Minimum Required Input
7	6a	Minimum required input not provided: System prompts for missing information.	
8	7	System determines if applicant income is valid with respect to loan type.	Determine Validity of Income
9	7a	Income not valid: Skip to 'send message' step.	

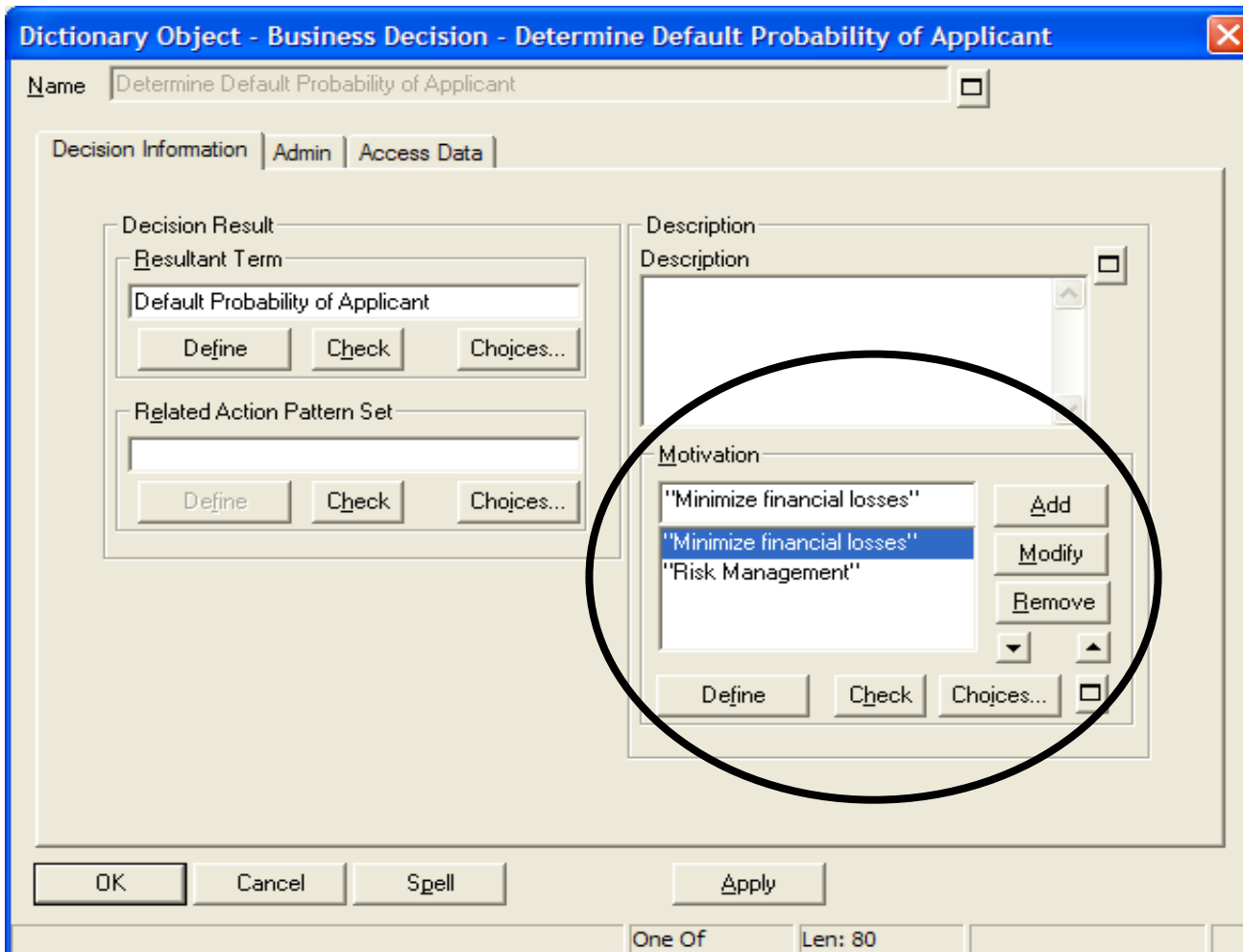
Buttons: Insert, Delete, Define, Choices...

Buttons: OK, Cancel, Spell, Delete, Apply

Grid Of Len: 1200

**Use Case Steps  
and Decisions**

# Example of Tracing Motivations to Decisions (KPI STEP™ Workbench)



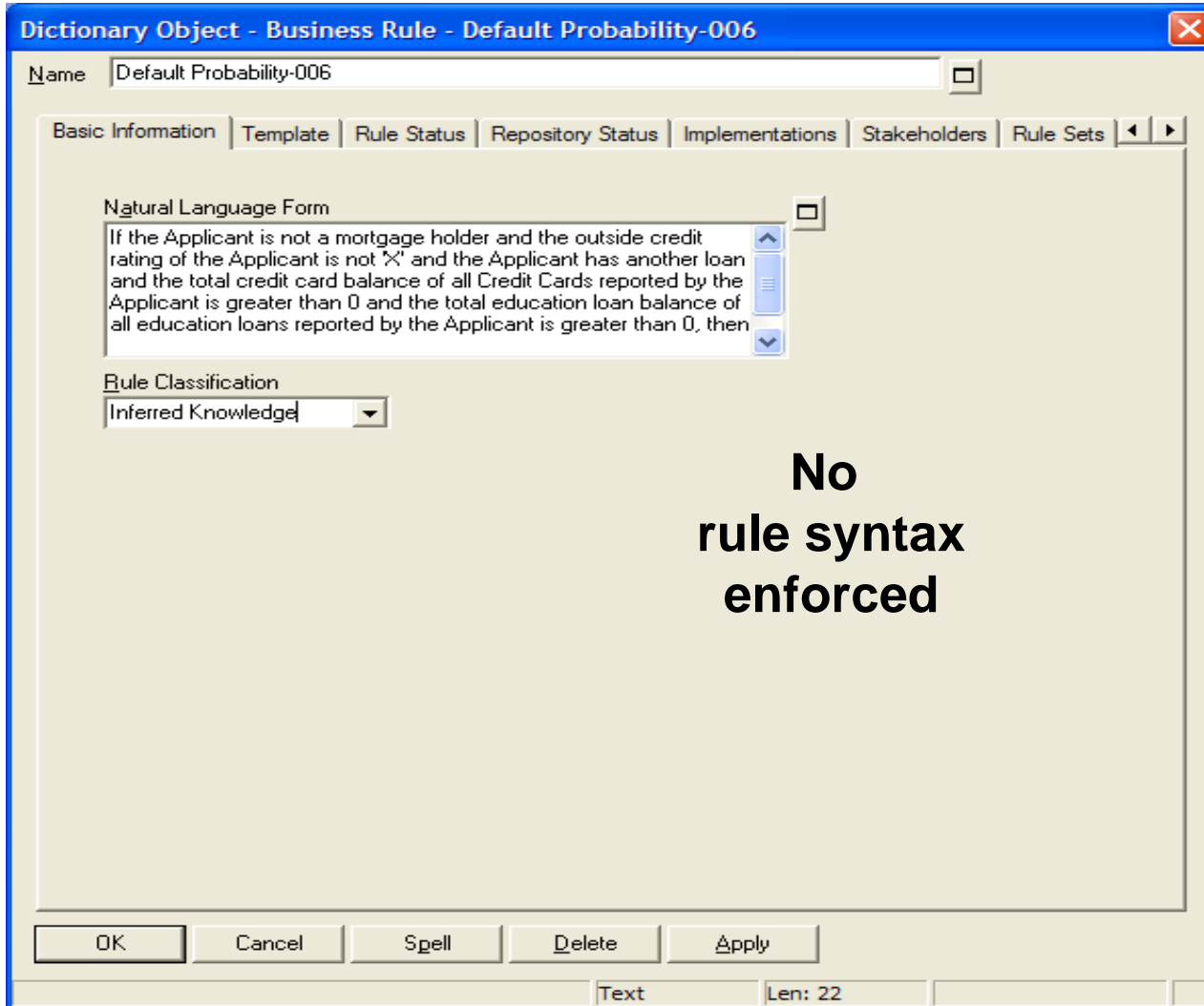
**Decisions and  
Motivations**

***Think traceability!***

You can organize your rules in a way that works for you.

Decision	R#	Rule in Natural Language Form	Rule Classification	Rule in Formal Form		Source	Stakeholders	Implementation

# Example of Natural Language Form of a Rule in a Rule Repository (KPI STEP™ Workbench)



# Example of a Formal Form Rule in a Rule Repository (KPI STEP™ Workbench)

Dictionary Object - Business Rule - Default Probability-006

Name: Default Probability-006

Basic Information | Template | Rule Status | Repository Status | Implementations | Stakeholders | Rule Sets

Inferred Knowledge Rule

IF Conditions - (Conditions will be 'ANDed')

	Name	Term 1	Operator	Term 2
1	Appli	Applicant	IS NOT	Mortgage Holder
2	Outsi	Outside Credit Rating of Applicant	NOT =	X
3	Appli	Applicant	IS	Other Loan Holder
4	Total	Total Credit Card Balance of Applicant	>	0
5	Total	Total Education Loan Balance of Applicant	>	0
*				

Insert Delete Define Choices...

THEN (Set Resulting Term Value)

Default probability of applicant is high

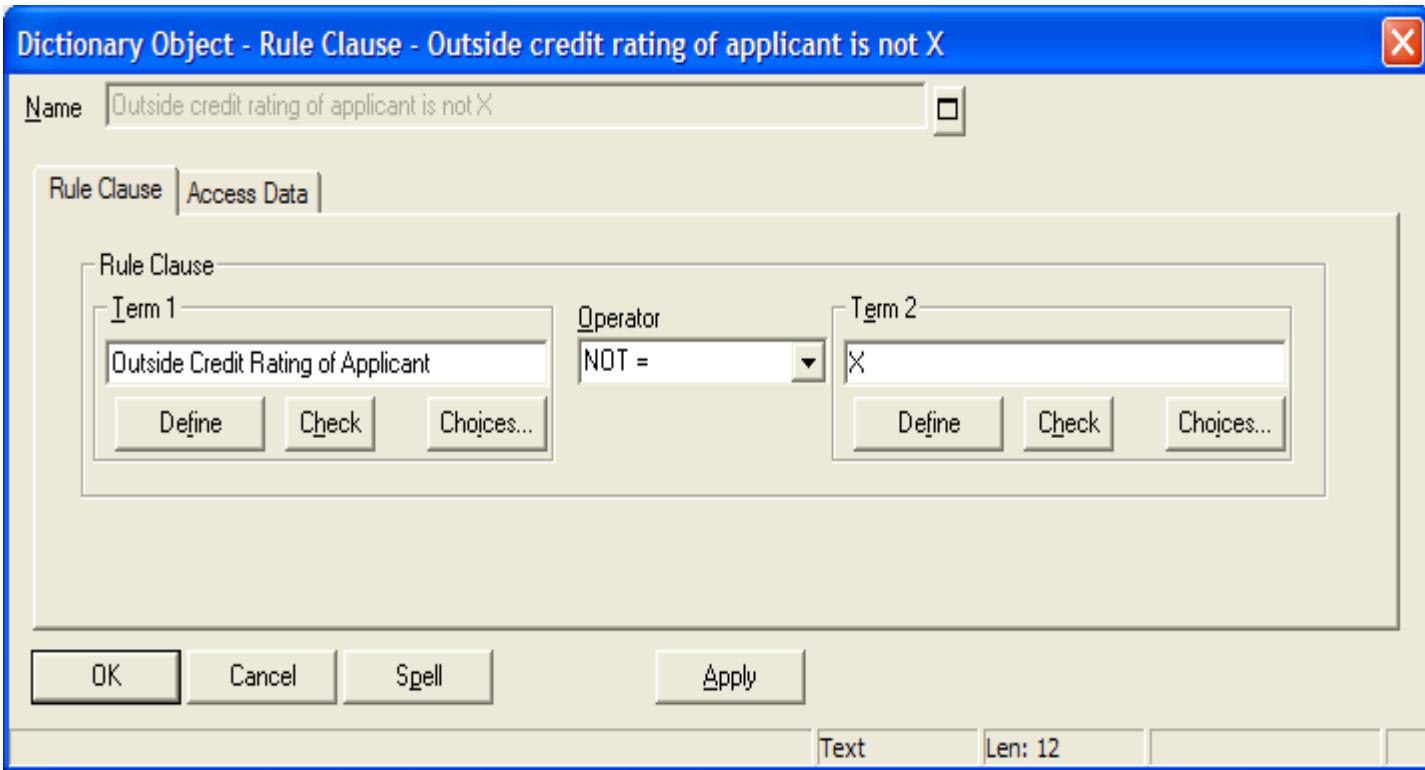
Define Check Choices...

OK Cancel Spell Delete Apply

Grid Of Len: 1200

**rule syntax  
enforced and  
reusable terms  
and rule clauses**

# Example of a Rule Clause in a Rule Repository (KPI STEP™ Workbench)



**Think reusability!**  
**Then, think automation possibilities!**

# Where to Learn More About STEP™

- Business Rules Applied (2002: John Wiley & Sons)  
[www.wiley.com/compbooks/vonhalle](http://www.wiley.com/compbooks/vonhalle)
- “Beyond Business Rules Applied” (2004: KPI)  
[www.kpiusa.com](http://www.kpiusa.com)
- RUP Plug-in for BRs  
[www.fairisaac.com/Fairisaac/Solutions/Enterprise+Decision+Management/Business+rules/Blaze+Advisor/RUP+Plug-In+for+Business+Rules.htm](http://www.fairisaac.com/Fairisaac/Solutions/Enterprise+Decision+Management/Business+rules/Blaze+Advisor/RUP+Plug-In+for+Business+Rules.htm)
- BPMStrategies Magazine (BPM Institute)  
[www.BPMInstitute.org](http://www.BPMInstitute.org)
- BR Bulletin (BPM Institute)  
[www.BPMInstitute.org](http://www.BPMInstitute.org)
- BR Track of BrainStorm Group’s BPM Conference  
[www.brainstorm-group.com](http://www.brainstorm-group.com)

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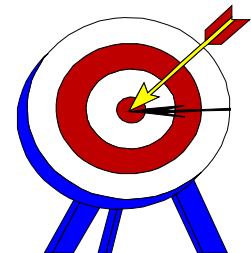
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# The Purpose of the RMM™ survey is to:

- Immediate goal: Establish a BR baseline by documenting current state, desired future state based on the anonymous RMM™ survey group, covering
  - Champion
  - Motivations
  - Obstacles
  - ROI
  - Outstanding Issues
  - Role of Business People
  - Methodology
  - BRE and BPM
  - Scope of BR management
  - Software for business people
- Longer Term Goal: Track the progress of the survey group to determine the economic impact of the BR approach as these organizations progress through the RMM™

→ We are still seeking additional participants. If interested, please let me know.



# Preliminary results of the RMM™ survey so far are:

## ■ Demographics of Participants

- Mostly insurance, financial services, state governments
- Mostly IT who participated with some business attendees
- BR Approach championed most often by business and IT together
- Motivations for BR Approach mostly were
  - Agility
  - Retain knowledge
  - Consistency

## Preliminary results of the RMM™ survey continued:

- All participants are starting at RMM™ Level 0 or 1, with target levels of RMM™ 2 or 3.
- There seem to be two cultures:
  - Those who embarked on AI years ago
  - Those who did not do so and want now to apply a BR approach to traditional transactions
- Participants with AI/KE experience were more likely to have BR Centers of Excellence and a greater comfort with managing rules. (Although they tend to focus on the technical aspect first, business aspect second)
- Most are aiming for project-level rule management, (vs Enterprise or business unit).

## Preliminary results of the RMM™ survey continued:

- Most have plans for BRE and BPM products, although a few did not care.
- Most common classifications of rules they want to manage are:
  - Constraints and validations
  - Complex inferencing rules for decisioning.
- ☛ Most are aiming for business people to have more control (but that does not necessarily mean making changes in production).

Samples of the kinds of business rule systems in production today or under development vary by industry.

■ Insurance

- Product configuration
- Claims processing
- Underwriting

■ Banking and financial services

- Loan qualifications
- Delinquency handling
- Credit scoring

■ Telecom

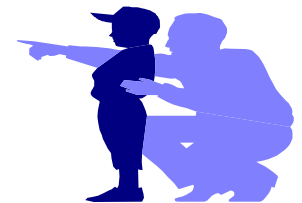
- Customer Relationship Management
- Customer Service Compliance

■ Cross-industry

- Order processing
- Regulatory compliance
- Fraud detection

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# Is Level 1 of the KPI RMM™ sufficient?

## KPI RMM™ Level 1

*Rules are “simply” separated during requirements gathering. Technical people are in control of rule changes, with business input and access.*

Corresponding Rule Repository Functionality:

- Rules are expressed as free form text referenced by meta data.
- Rules can be traced to process models, use cases, etc.
- Rules can be traced to automation, if this relationship is maintained.

### Options for Level 1 Rule Repositories:

MS/Word,  
MS/Excel

Relational  
Database  
With Metadata  
and Free-  
form Rules

Simple  
ReqPro  
Extensions  
(unparsed)

# Is Level 2 of the KPI RMM™ sufficient?

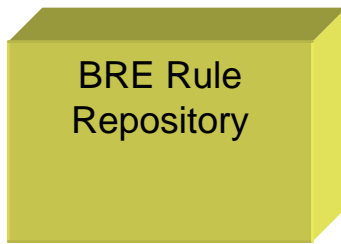
## KPI RMM™ Level 2

*Rules are separated into a more mature repository. Business analysts begin to drive changes.*

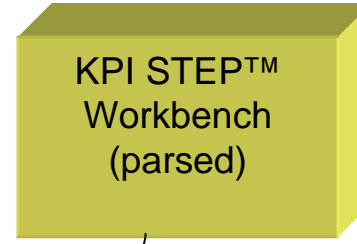
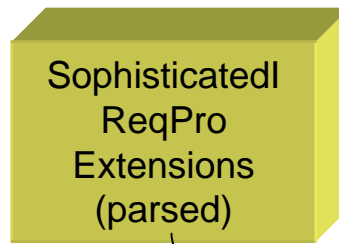
Corresponding Rule Repository Functionality:

- Rules are rendered atomic and cast in a business-friendly non-technical syntax.
- Rules, rule clauses and terms can be compared, reused, tailored and analyzed.
- Repository is easily extensible.
- Rules can be correlated to models for execution.

### Options for Level 2 Rule Repositories:



Provides integration with one executable environment



Provides more integration with Requirements

# Is Level 3 of the KPI RMM™ sufficient?

## **KPI RMM™ Level 2**

*Rule workflow is automated based on roles and workload. Intelligent parsers lead business people through rule authoring to rule testing.*

Corresponding Rule Repository Functionality:

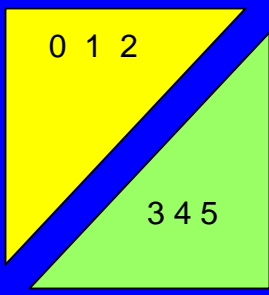
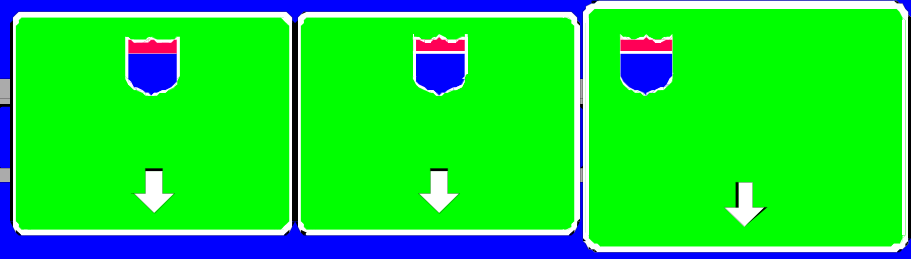
- Workflow management aligned with BR life cycle
- Tight integration between terms and formal executable models
- Business-friendly software for authoring rules, testing rules, simulating rules with minimal technical intervention
- Ability to deploy to any target environment.

**Options for Level 3 Rule Repositories: ????**

# For you today

- KPI STEP™ License Data Sheet
- Beyond Business Rules Applied booklet
- BPMStrategies premier issue

# Thank You



**KPI RMM™ Model**

