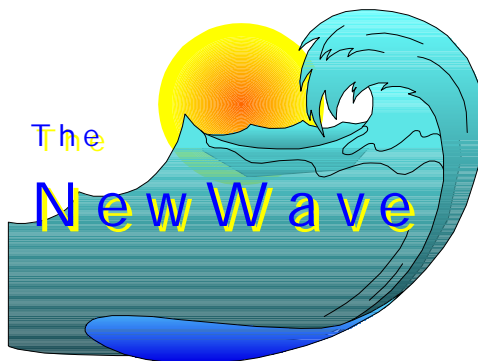


Rule Track

The BRS Meta Model for Rule Management

Version 5.0



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The Questions you need to answer ...

- What:** What is the *rule*?
- How:** What are the *support* components?
- Where:** What *jurisdictions* is the rule enforced in?
- Who:** What *parties* are involved with the rule?
- When:** What *changes* affect the rule?
- Why:** What are the *reasons* for the rule?

Reference:

The BRS Approach to Rule Management: RMSolutions,
by Ronald G. Ross and Gladys S.W. Lam,
Business Rule Solutions, Inc., 1999.

Answering “What”

What is the rule?



Rule Statement

Example:

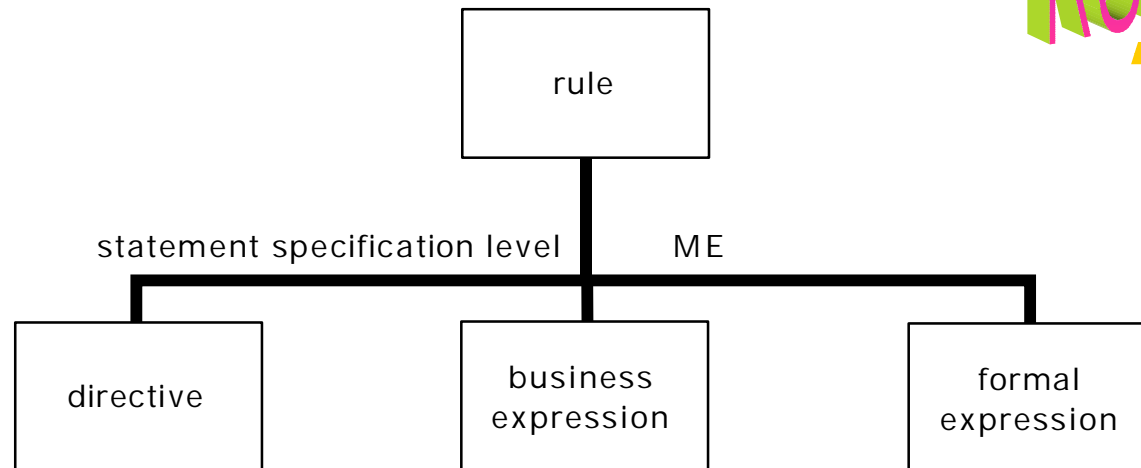
A group must not include any union members if it includes any non-union members, and vice versa.

Rule Topic:

Union Group Rules

Answering “What”

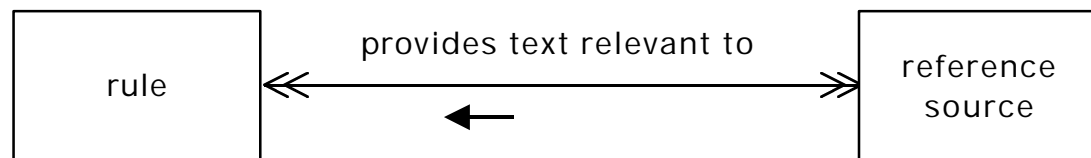
What is the rule?



Note: Statement Specification Level refers to the textual expression of the rule in the Rule Statement.

ME: mutually-exclusive

Additional Text

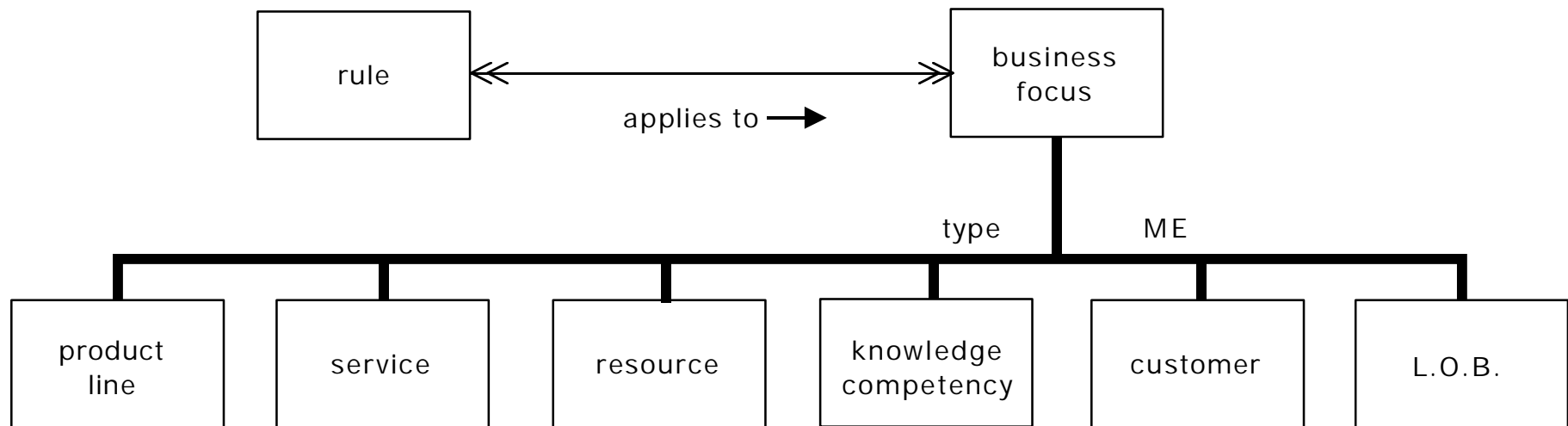


Note: A Reference Source may provide the specific basis for a rule, or provide background, context or explanation.

- Law
- Regulation
- Business Policy Document
- Procedures Manual
- System Documentation
- Memoranda
- etc.



Business Context

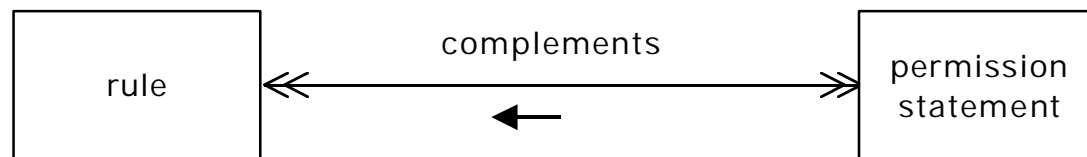


Note: These connections relate to business components, rather than to geographical locations or organizational units.



ME: mutually-exclusive

Permission Statements



Note: Use Permission Statements to bring out the “positive” side, where ...

- Behavior *is* permitted.
- The work space is “open” for actors to act.

Example:

Rule: Orders on credit over \$1,000 must not be accepted without a credit check.

Permission Statement: Orders on credit \$1,000 or under may be accepted without a credit check.



Categorization 1

Business Category



Business Category

- Core Business Rule
- Productivity-Enhancing Rule
- Decision-Making Rule
- Regulatory Rule



Note: Business Category refers to the basic role of the rule in running the business.
(This category is mutually-exclusive.)

Categorization 2

Functional Category



Functional Category

- Computation
- Rejector
- Projector



Note: The kind of a Rule based on its intrinsic operation or effect.
(This category is mutually-exclusive.)

Categorization 3

Enforcement Level



Enforcement Level

- Strictly Enforced
- Allow Convergence over time
- Allow Violation with Authorization
- Suggestion
- Sleeper



Note: Enforcement Level is the particular level or degree of enforcement specified for a Rule.
(This category is mutually-exclusive.)

Categorization 4

System Aspect



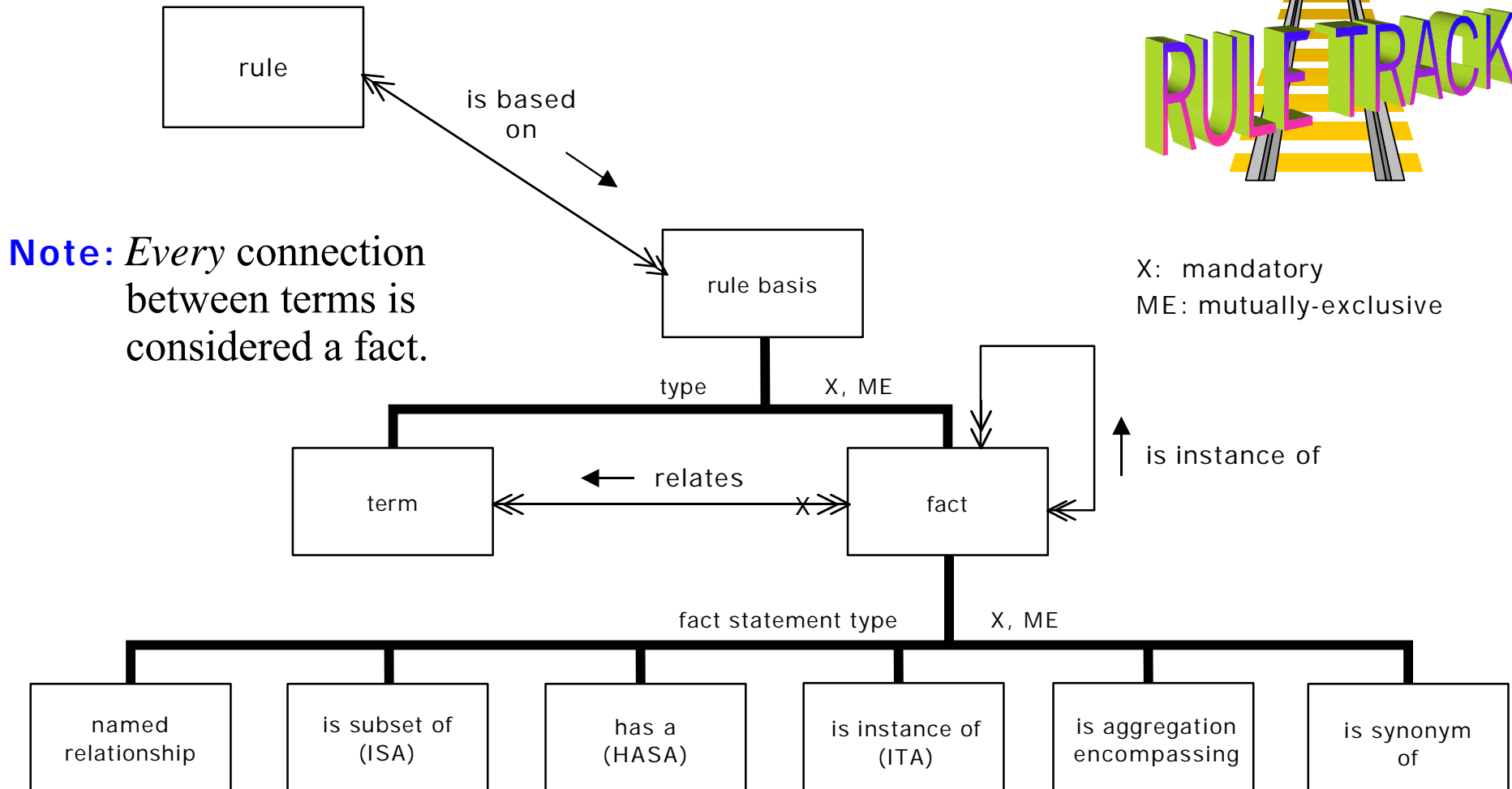
System Aspect

- Integrity
- Calculation
- Access & Security
- Presentation & Work Sessions
- Intervals & Timing
- Derivation & Reasoning

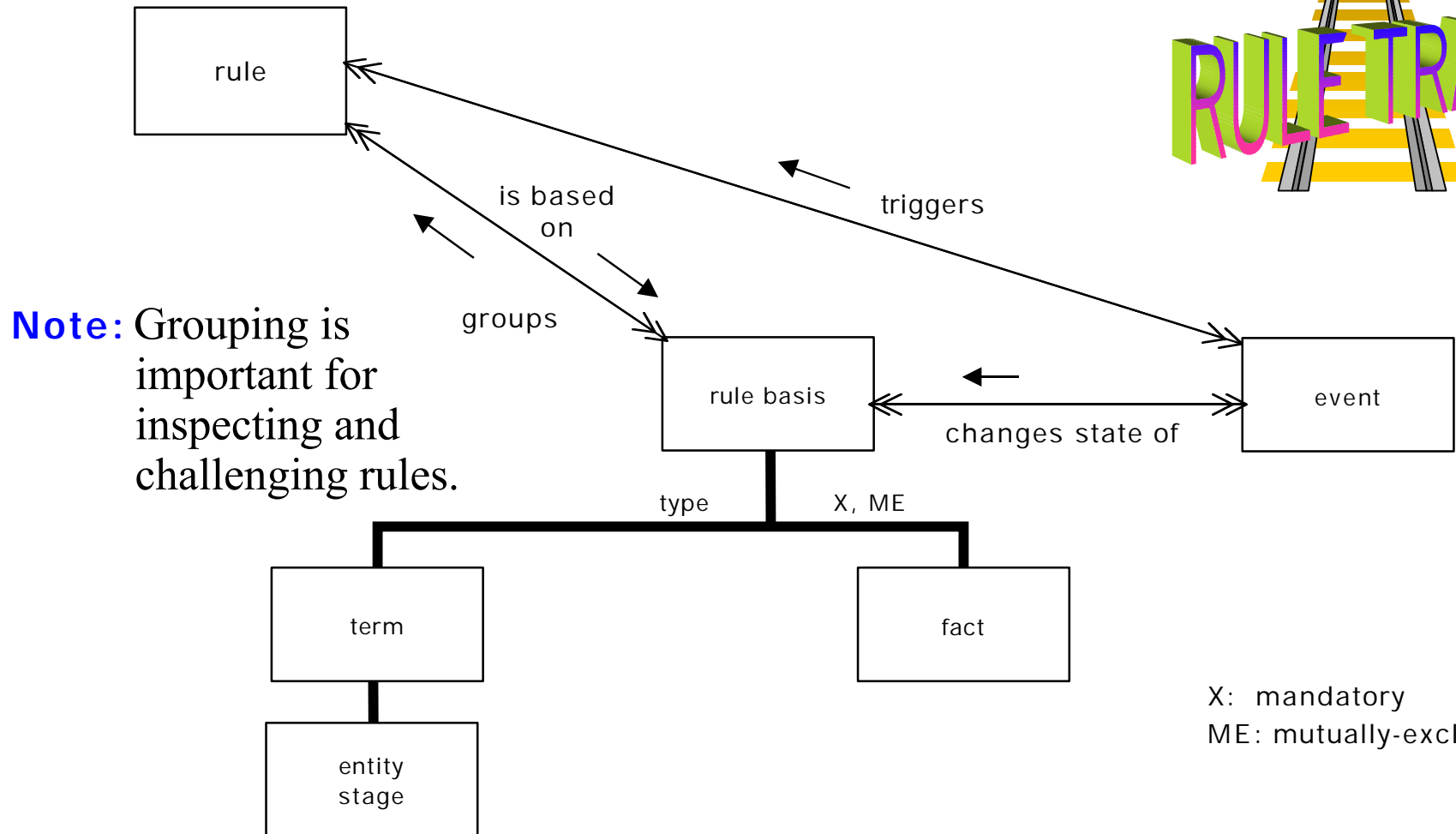
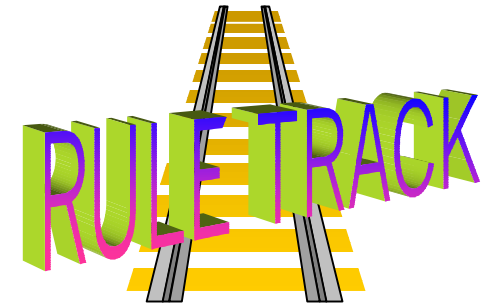


Note: The System Aspect indicates the target of a rule's action or operation within the system design. (This category is mutually-exclusive.)

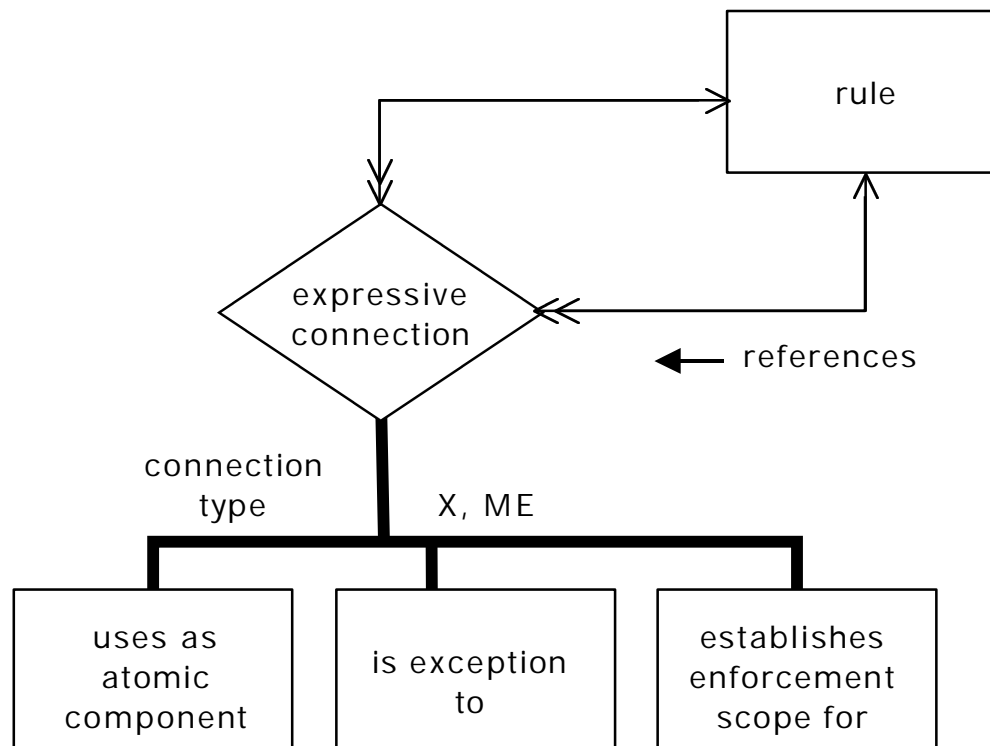
Business Rule Structure



Grouping Rules



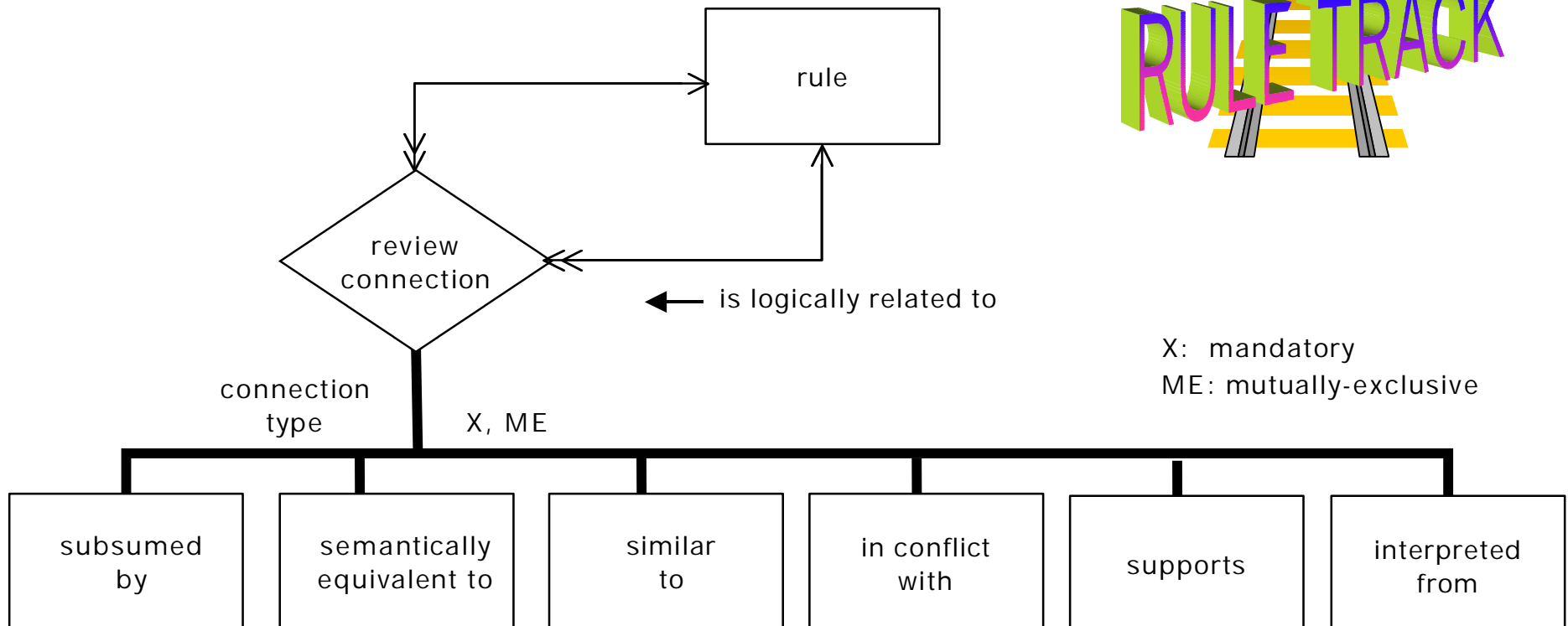
Rule-to-Rule Connections



X: mandatory
ME: mutually-exclusive

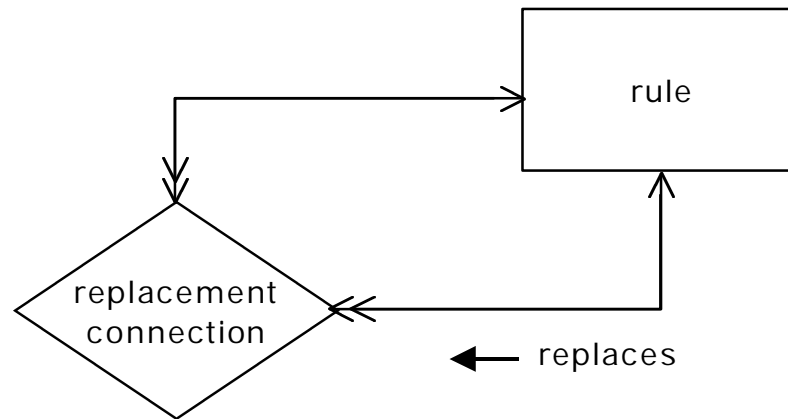
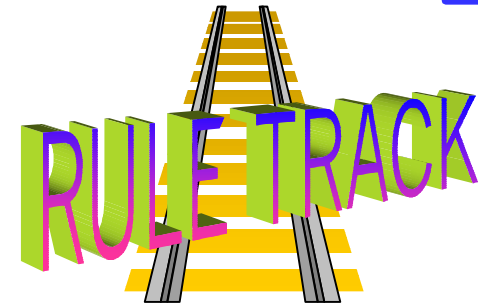
Note: Expressive rule-to-rule connections document explicit cross-references between rules.

Rule-to-Rule Connections



Note: Review rule-to-rule connections can record the *results* of inspecting and/or challenging rules.

Rule-to-Rule Connections

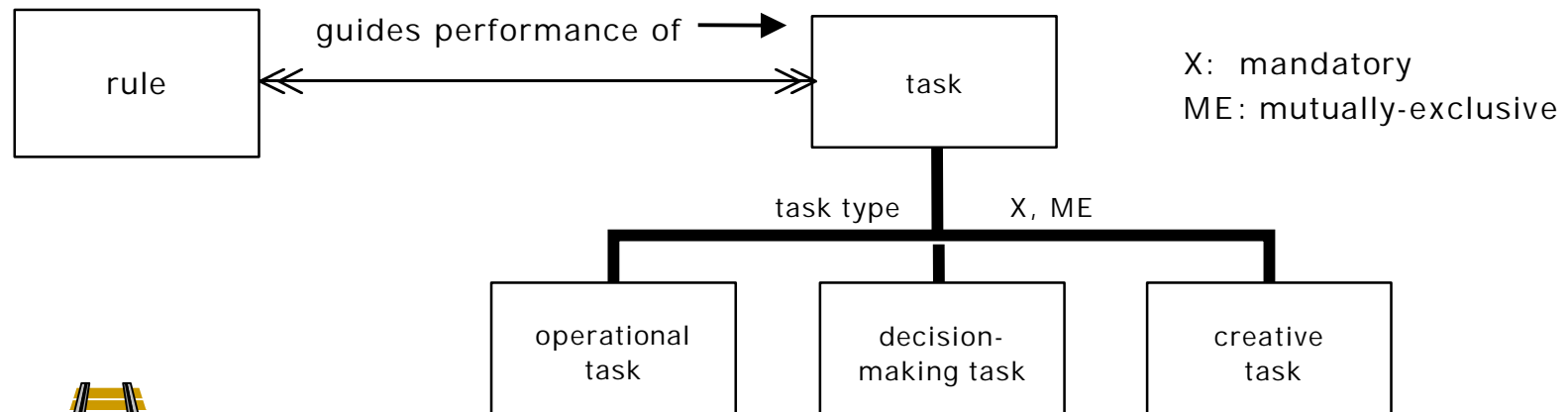


Note: Replacement rule-to-rule connections provide a historical trail.

Answering “How”

How is the rule supported?

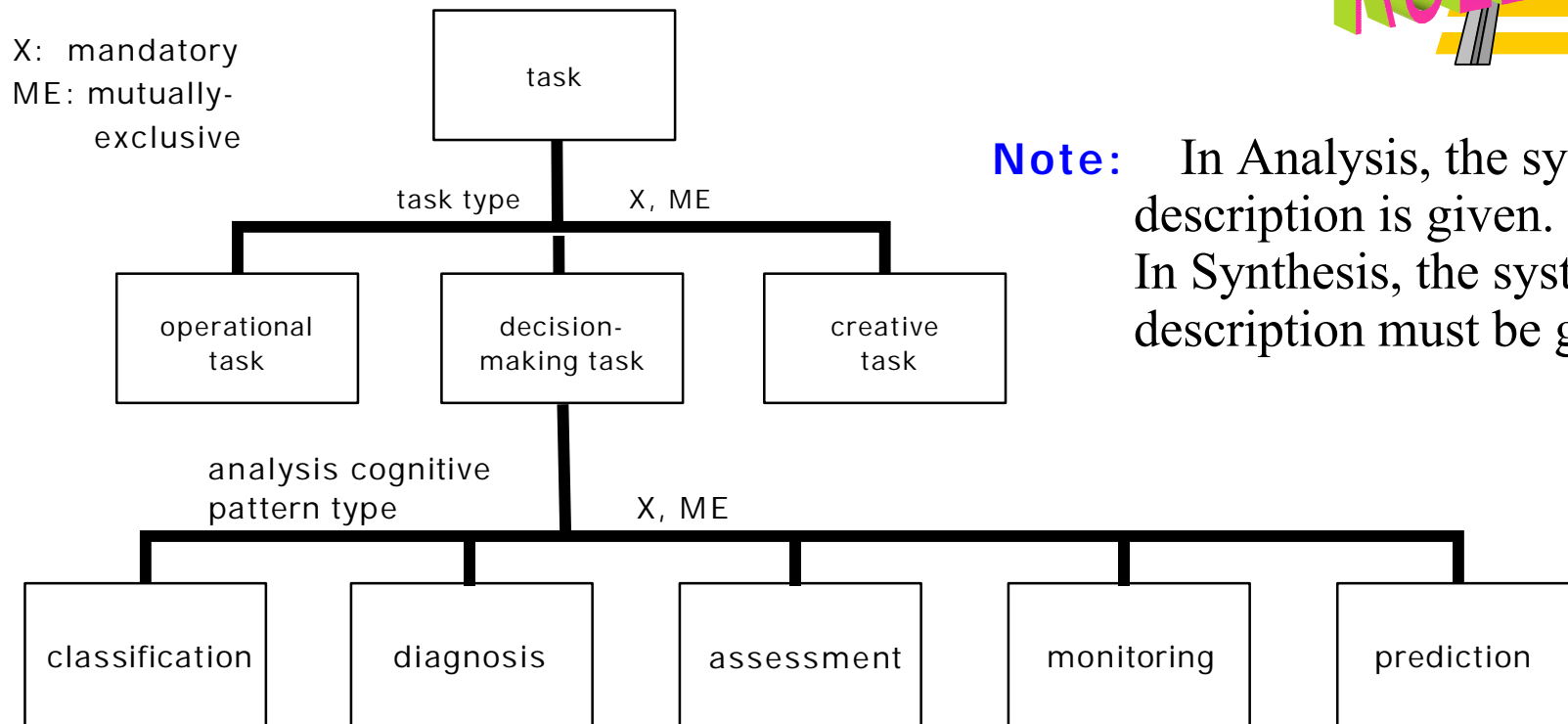
Question 1. How in terms of knowledge-intensive tasks?



Note: Codified rules provide a basis for conducting knowledge-intensive tasks.

Answering "How"

Question 1. Knowledge-Intensive Tasks *continued* ...



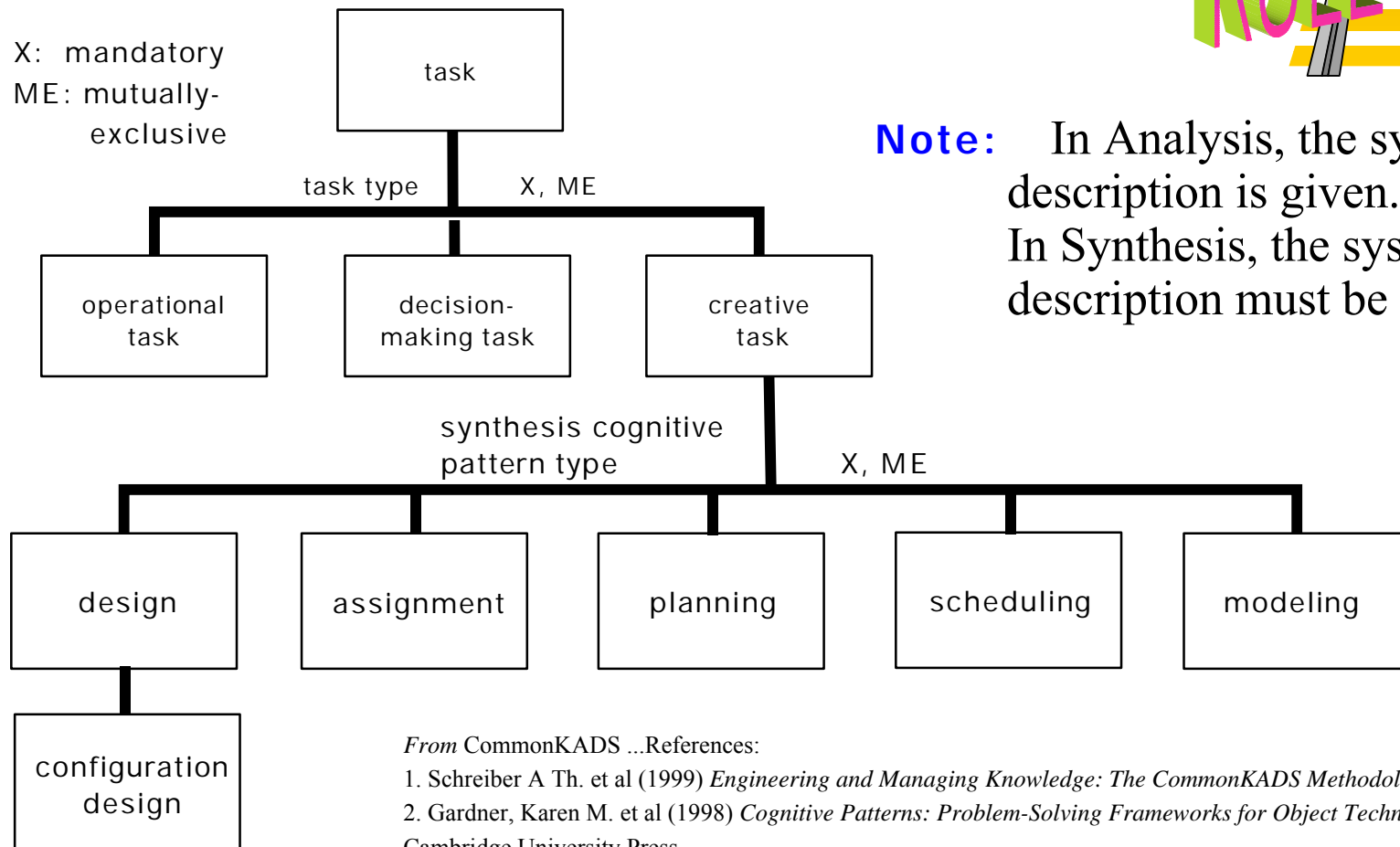
Note: In Analysis, the system description is given.
In Synthesis, the system description must be generated.

From CommonKADS ...References:

1. Schreiber A Th. et al (1999) *Engineering and Managing Knowledge: The CommonKADS Methodology*, MIT Press
2. Gardner, Karen M. et al (1998) *Cognitive Patterns: Problem-Solving Frameworks for Object Technology*, Cambridge University Press

Answering “How”

Question 1. Knowledge-Intensive Tasks *continued* ...



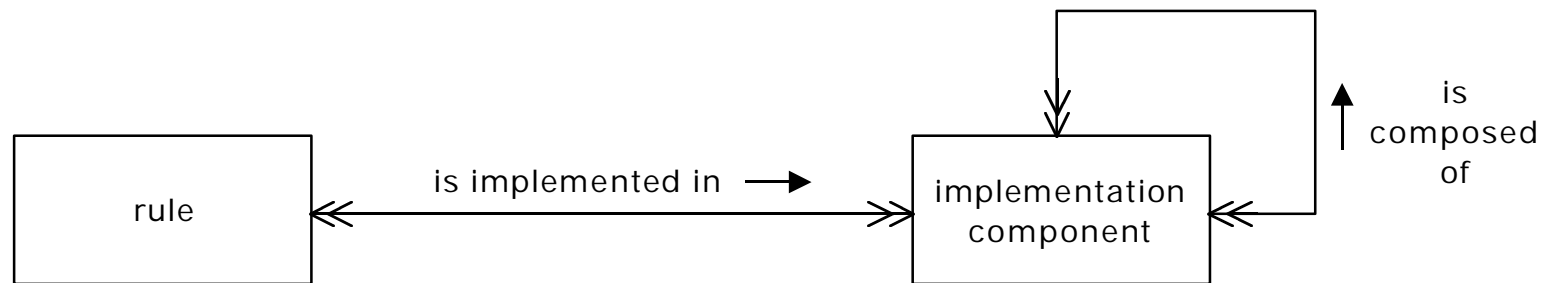
Note: In Analysis, the system description is given.
In Synthesis, the system description must be generated.

From CommonKADS ...References:

1. Schreiber A Th. et al (1999) *Engineering and Managing Knowledge: The CommonKADS Methodology*, MIT Press
2. Gardner, Karen M. et al (1998) *Cognitive Patterns: Problem-Solving Frameworks for Object Technology*, Cambridge University Press

Answering “How”

Question 2. How in the “as-is” world?



Guideline: A rule should be tied to the lowest level of implementation component where implemented.

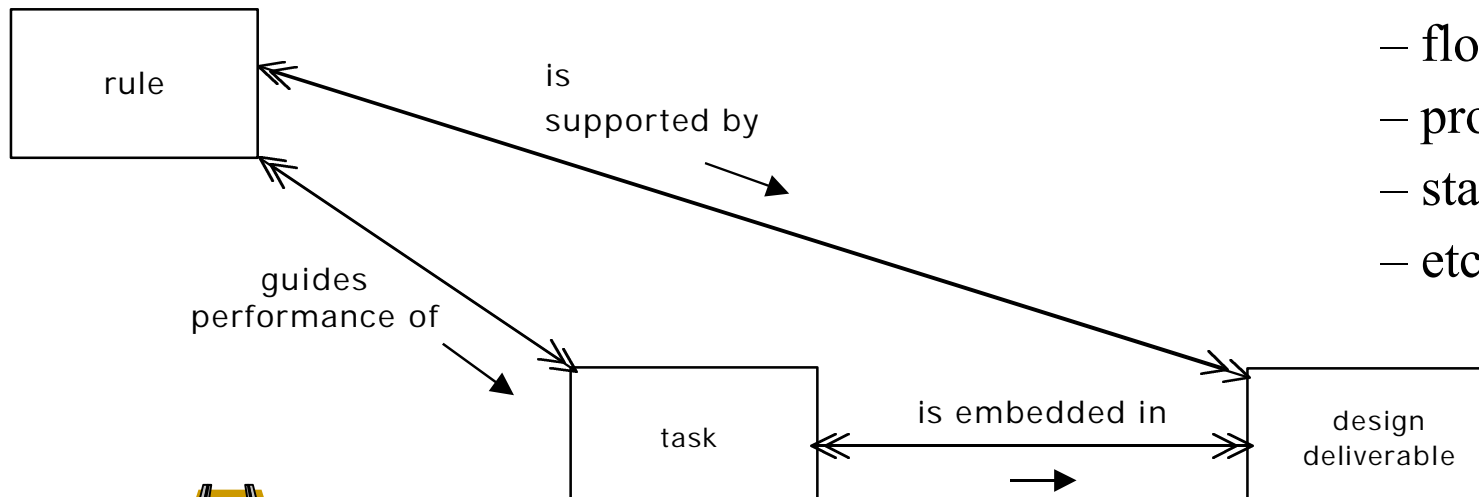
- database
- stored procedure
- system
- program
- module
- screen
- procedure
- etc.



Answering “How”

Question 3. How in the “to-be” world?

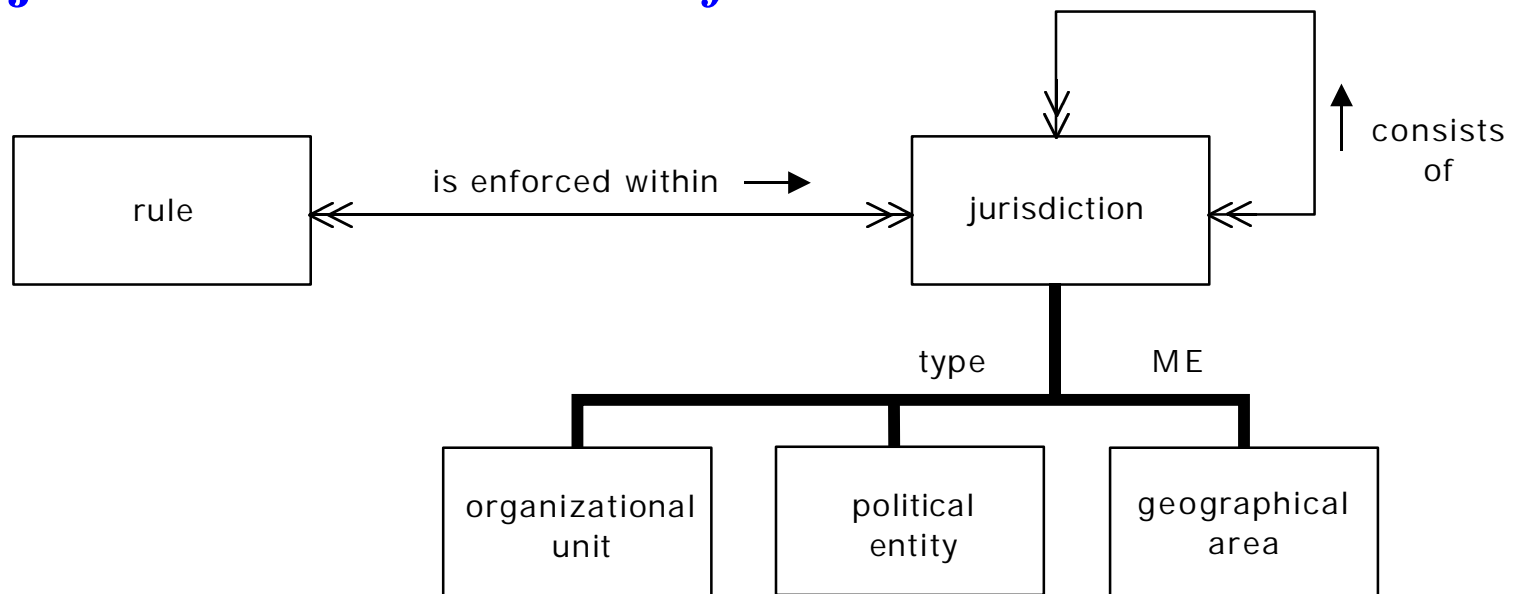
- data model
- workflow model
- use case
- flow chart
- procedure
- state transition
- etc.



Guideline: Design deliverables should be specified for a rule only if it will not be supported directly by a rule engine.

Answering "Where"

What jurisdictions is the rule enforced in?

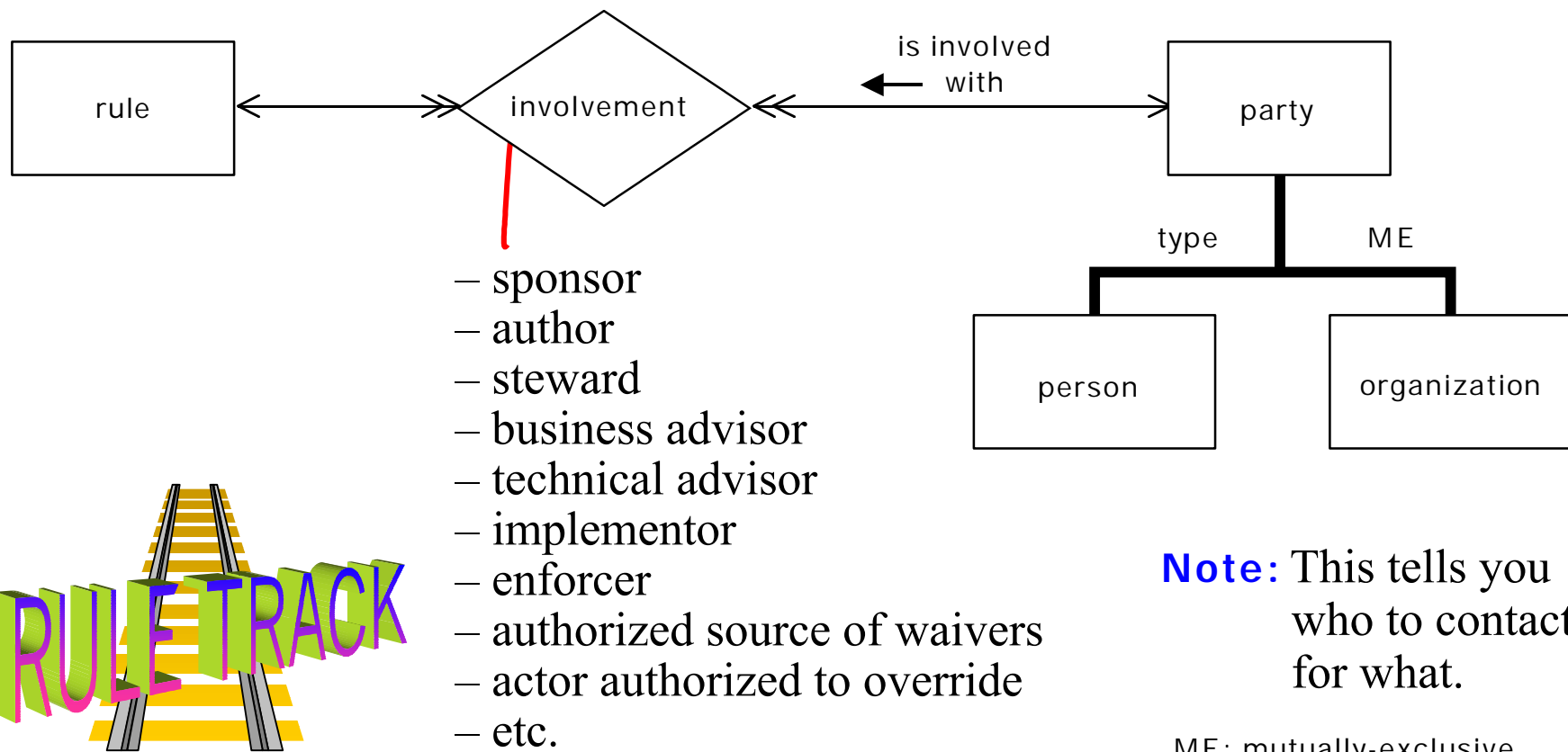


Guideline: A rule should be related to the highest-level jurisdiction across which it is comprehensively enforced.

ME: mutually-exclusive

Answering "Who"

What parties are involved with the rule?

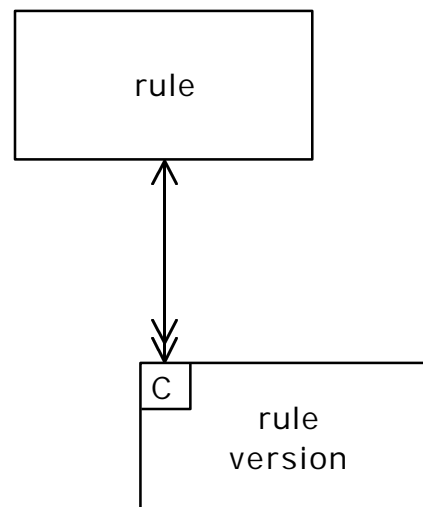


Answering "When"

What change affects the rule?

Question 1.

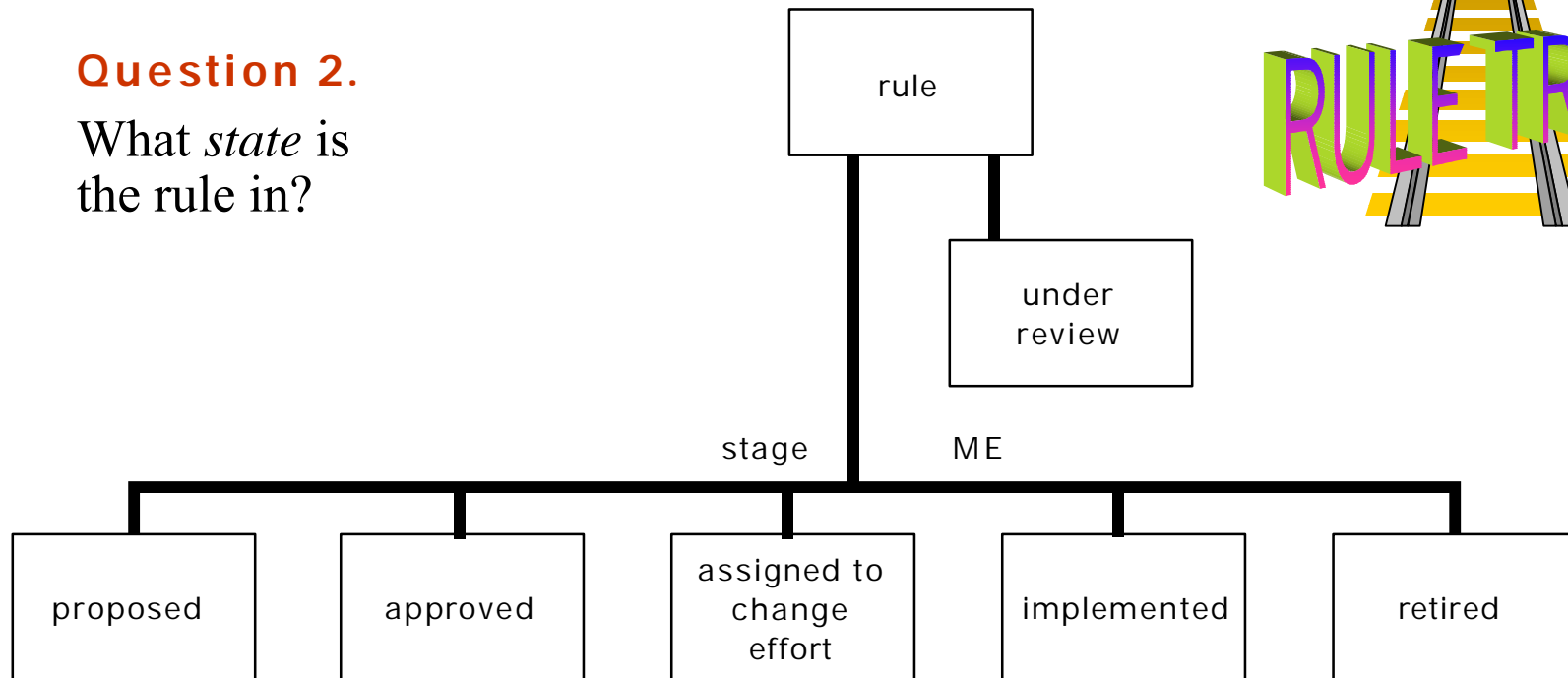
What are the *versions* for the rule, if any?



Guideline: Versions are revisions to the text of a rule, usually specifying refinements in thresholds (often numeric). A rule that *replaces* one or more other rules should not be treated as a version of the original rule(s).

Question 2.

What *state* is the rule in?

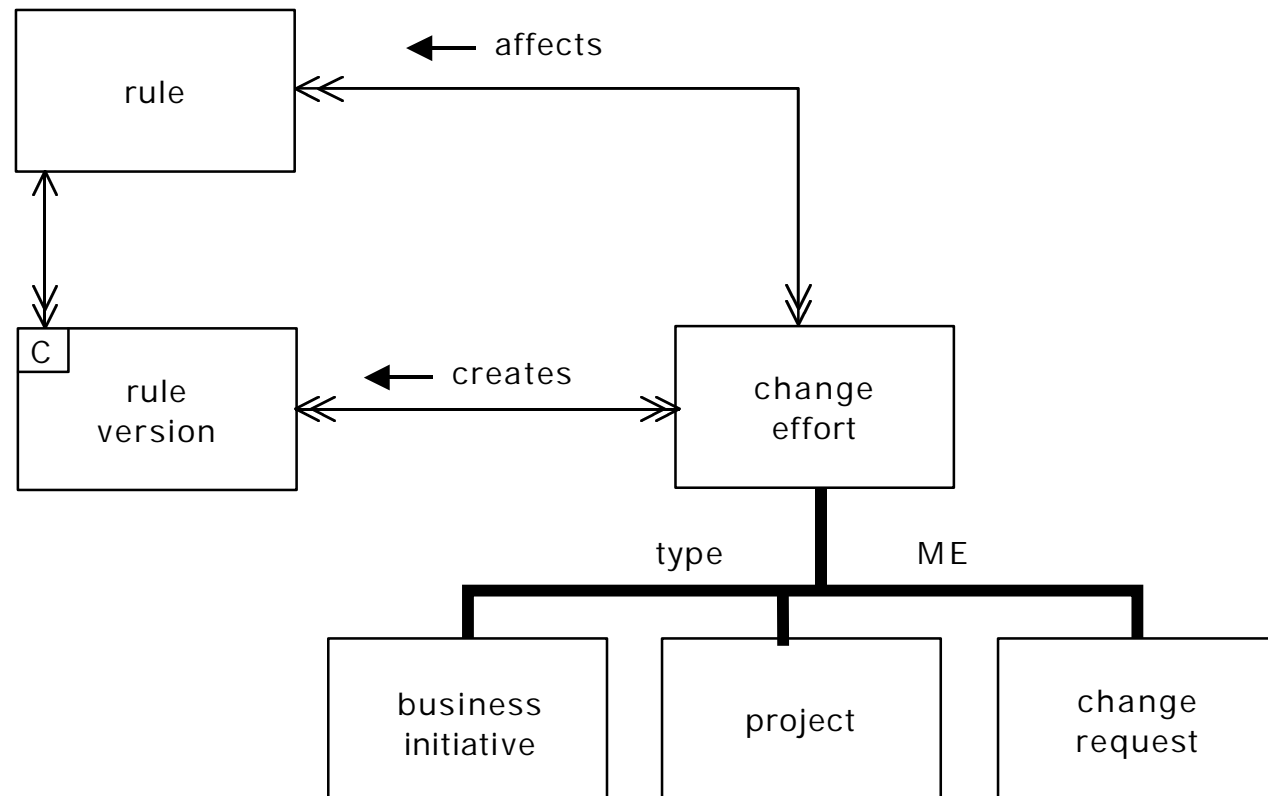


Note: This gives the life cycle for a rule or rule version.
(A rule need not start at the beginning.)

ME: mutually-exclusive

Question 3.

What *change efforts* affect the rule?



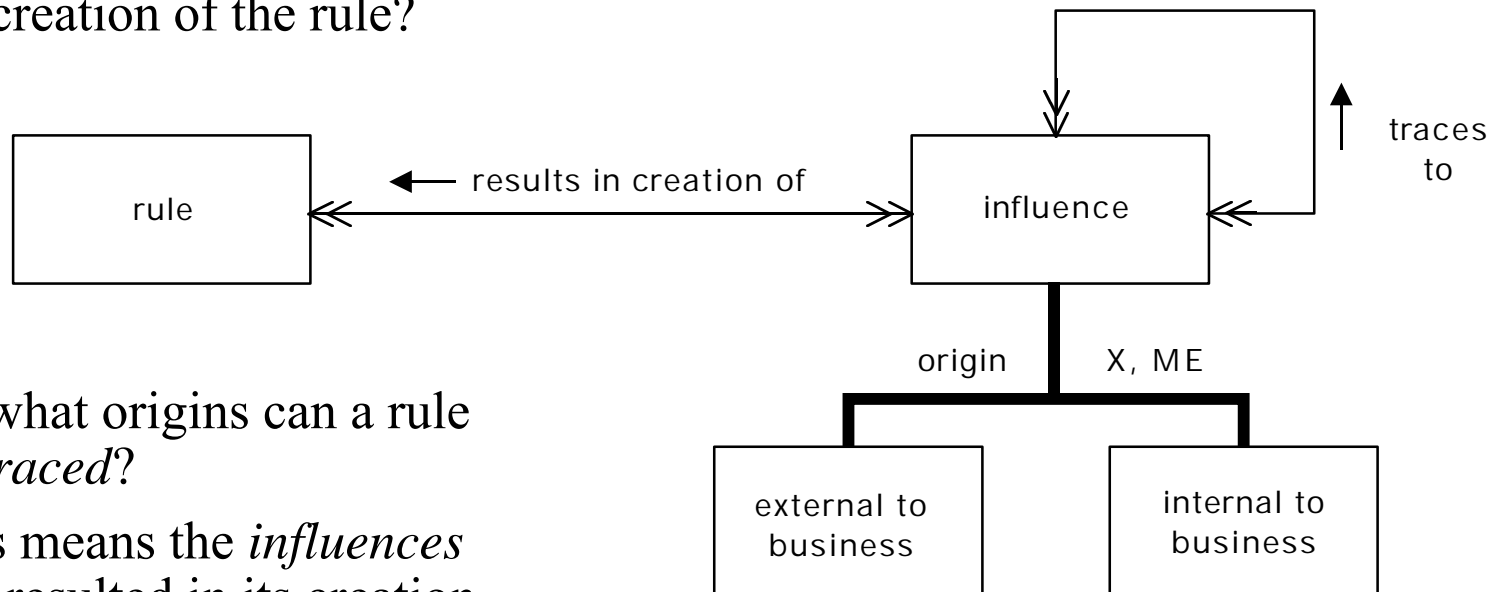
Note: A change effort “affects” a rule by creating or retiring it.

ME: mutually-exclusive

Answering “Why”

What are the reasons for the rule?

Question 1. What influences resulted in creation of the rule?



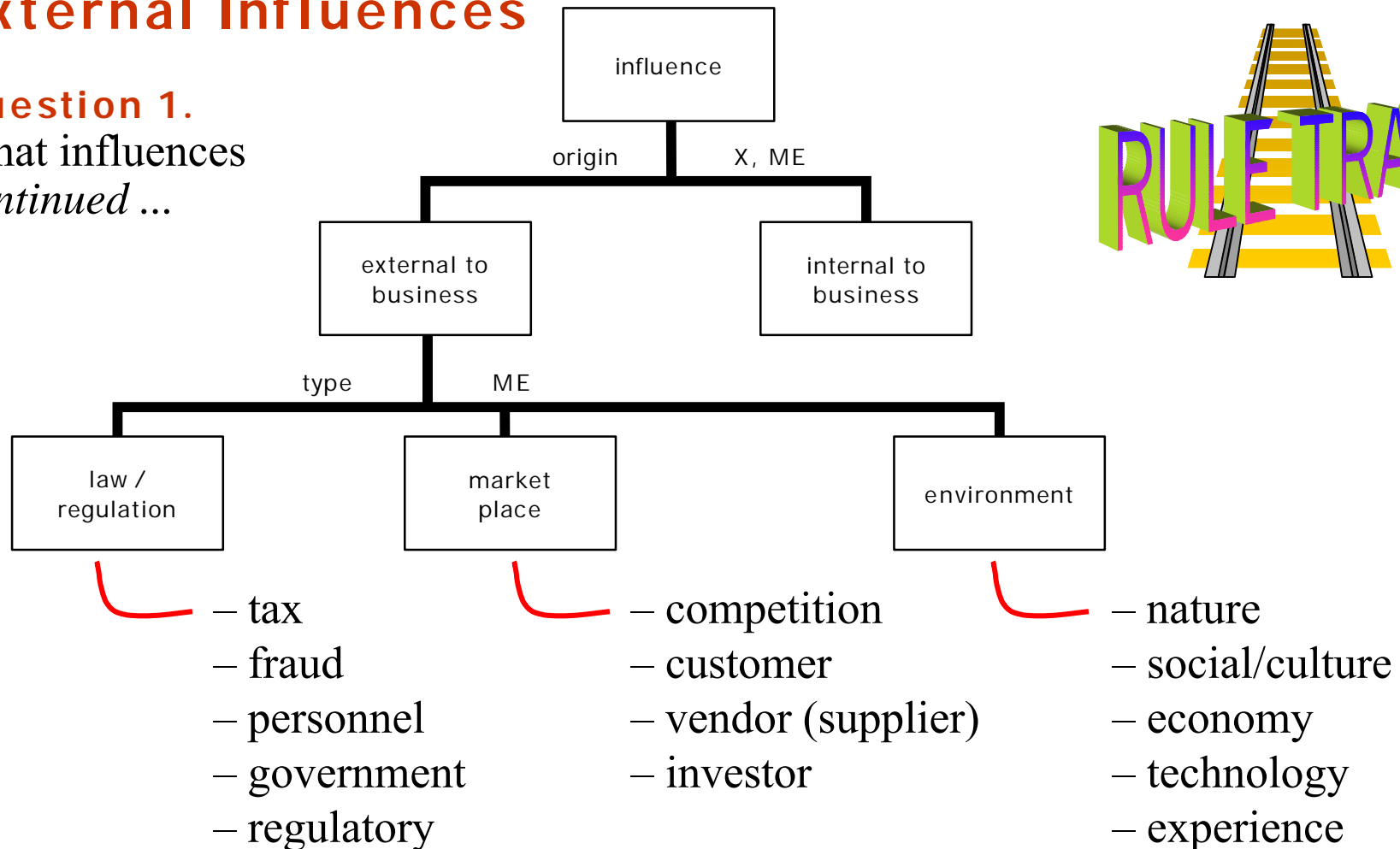
- Note:** – To what origins can a rule be *traced*?
- This means the *influences* that resulted in its creation.
 - This is the only way to understand it fully ... *and to ever challenge it.*

X: mandatory
ME: mutually-exclusive

External Influences

Question 1.

What influences
continued ...



X: mandatory

ME: mutually-exclusive

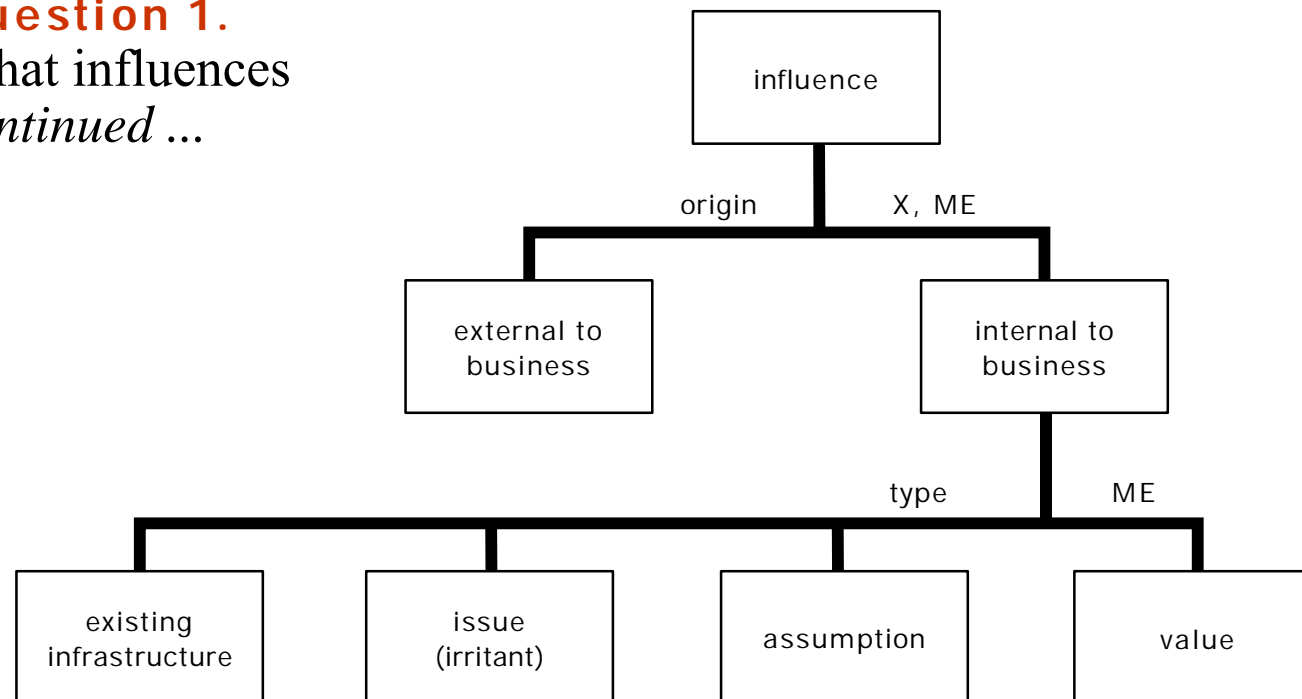
From *Business Rule Group*, 1998 (formerly *GUIDE Business Rule Project*)



Internal Influences

Question 1.

What influences
continued ...



X: mandatory

ME: mutually-exclusive



Internal Influences

Examples

Existing Infrastructure:

“Screen XYZ in payroll will blow up unless we do it this way.”

Issues (Irritants):

“We don’t always know who our customers are.”

Assumptions:

“Customers don’t always know their needs or understand our products.”

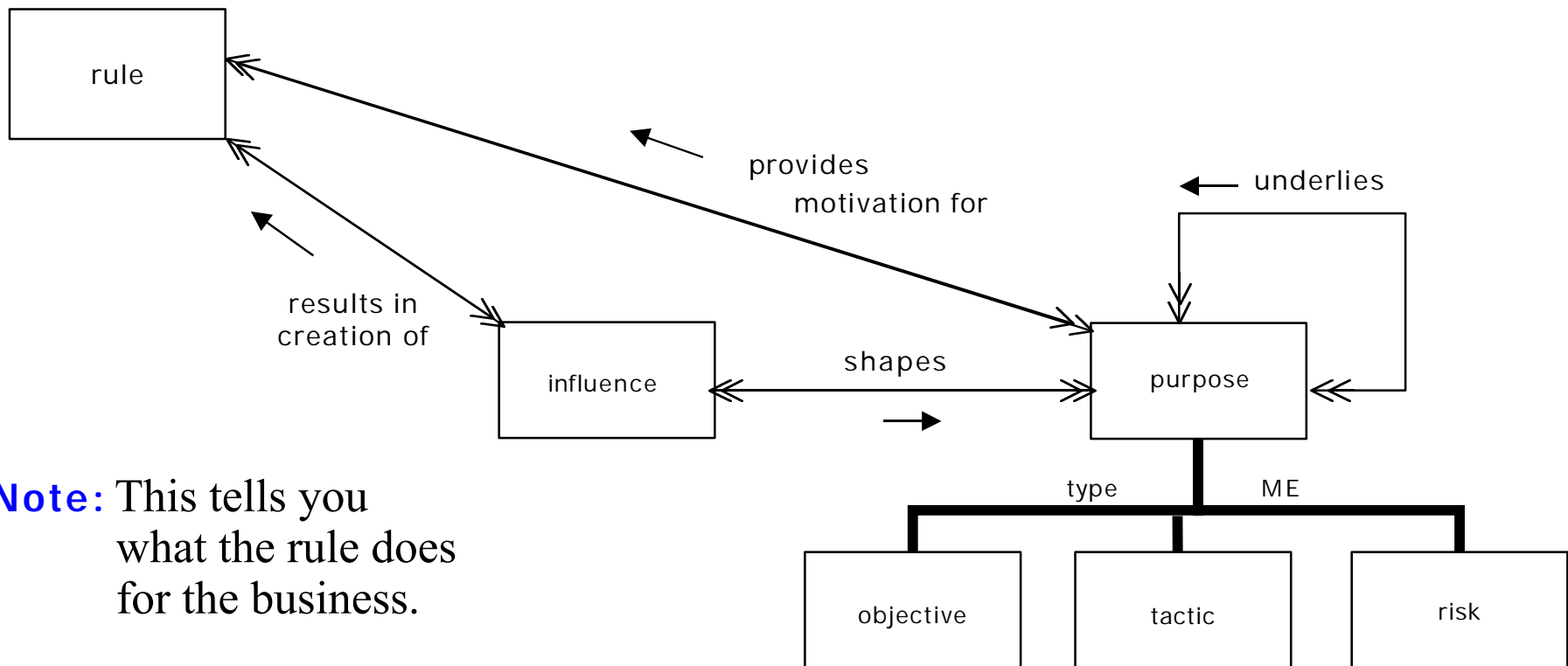
Values:

“We prefer to hire veterans.”



Answering "Why"

Question 2. What purposes does the rule serve?



Note: This tells you what the rule does for the business.

ME: mutually-exclusive

Purposes

Objective: An effect (i.e. business result) the business wants to accomplish in performing the mission.

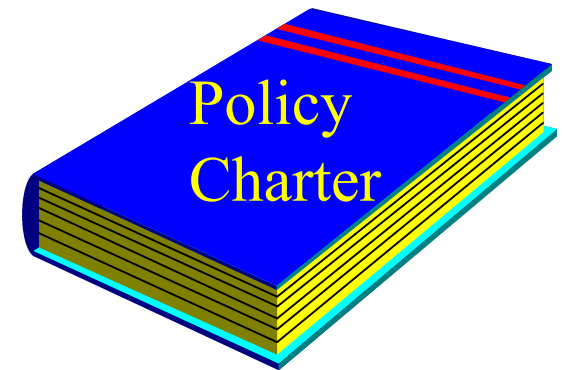
Example: To keep customers satisfied.

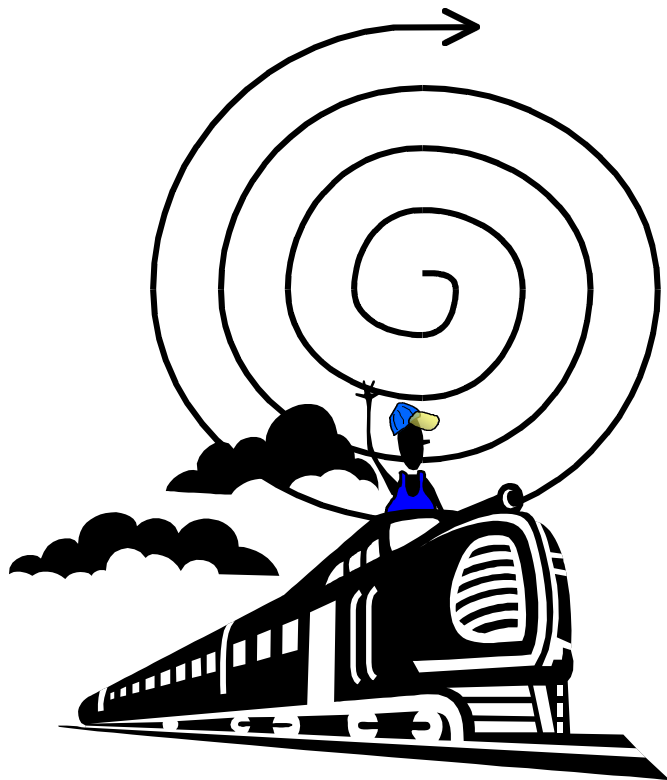
Tactic: Any course of action that provides a means to support the mission, to achieve objectives, or to address risks.

Example: Pizzas should be delivered in an expedient amount of time.

Risk: An exposure that may prevent achievement of any effect(s) the business seeks.

Example: Traffic congestion.





“Get your company on the right track for business rules!”