So, here we are talking about Decision Modeling at an OMG Standards event...

Introducing a proposal to standardize a Decision Model and Notation

Jan Vanthienen, Univ of Leuven
Christian de Sainte Marie, IBM
Paul Vincent, TIBCO Software
1. Is the Community of Users Big Enough for a Standard?
2. Is there enough similarity to consider standardisation?

- Courtesy of Wells Fargo
Due to a lack of common standards in the marketplace for modeling, execution and interchange of business rules, Wells Fargo is faced with an abundance of disparate languages, skill sets, approaches and support models resulting in increased costs and time to market for the combined company.

The core value propositions driving the company’s interest in **Decision Model and Notation (DMN)** are lower costs and improved time to market by standardizing on common languages, skill sets, training providers and support models for business rule management initiatives across the enterprise.

**Courtesy of Wells Fargo**
4. Do Existing standards Fit or Help?

Business Models & Models of Business

- Strategy and Policy
  - eg OMG BMM

- Business Vocabulary, Business Rule Statements
  - eg OMG SBVR, W3C OWL, OMG ODM

- Business Processes
  - eg OMG/BPMI BPMN

- Business Decisions
  - eg ???
4. Do Existing standards Fit or Help?

- **Strategy and Policy**
  - eg OMG BMM

- **Business Vocabulary, Statement Models**
  - eg OMG SBVR, W3C OWL, OMG ODM

- **Business Processes**
  - eg OMG/BPMI BPMN

- **Business Decisions**
  - eg ???

- Decisions enforce Business Rules
- Decisions occur at points in a Business Process
OK, What Is a Decision?

- **Area of Interest = the Business Decision**
  - Inputs, conditions, leading to some outcome
  - Business representation uses business terms
  - Often managed, executed using some type of “Business Rule Management System”
  - Part of some process (e.g. in BPM) or dynamic process (e.g. in CEP)

- **But How to Define, Model, etc?**
  - What methodology is there for
    - Identifying decisions to be made (outcomes or outputs)
    - Identifying the inputs to a decision
    - Modelling the parts of a decision (process, logical layout, goals etc)
  - What notations support the above and what underlying metamodel can help with the modelling process?
  - Observation: most popular representation for decisions in tools today = decision tables
Introducing

the Decision Model and Notation

as an OMG Request for Proposal (for a standard)
Scope for DMN

1. Some “metamodel” to support decisions in business
   - Provide a foundation for decision notations to use
   - Support methodologies for decision models in business
   - Include a format for organisations to share decisions across tools

2. Standardise at least one decision model type
   - Decision tables
   - But others optional...

3. Support decisions used in different types of business process
   - Business Rule Task in a BPMN 2.0 where a business process is a flow of tasks
   - Other, more dynamic and ad-hoc, processes types also include decisions such as CEP-driven decisions, case management decisions, etc
What might a DMN standard cover?

DMN

- **Decision Model Notation**
  - Graphical notation, semantics

- **Decision MetaModel**
  - Metamodel: metadata, classification...

- **Ruleflow**
- **KPI DM**
- **BRS Q-Chart**

DM contains multiple layers and levels of differing notations for different use cases

- E.g. Ruleflow “layer” orchestrates a **DTable** “layer”
- E.g. Logical **DTable** “level” is expanded to a **DTable** “level” capable of execution

---

**Business Policies and Rules**

- Traceability to Business Intent
  - e.g. BMM, SBVR rules

**Terms and Facts**

- Vocabulary used in decisions
  - e.g. SBVR, UML Class, BPMN

**Process**

- How decisions are invoked
  - e.g. BPMN, UML Activity

**Dashed line** = minimum scope of DMN per RFP

Specific Notations may be used in different layers / levels

E.g. Logical dependancy charts, goal charts, etc
End Goals

- **Tactical**
  - Better attention paid to modelling decisions in processes and systems
  - Common notations for easier training and use
  - More complete, accurate decision making
  - Decision re-use across models, systems, tools

- **Strategic**
  - Better business models
  - More agile business