

DMN On-Ramp

Business Use Cases for DMN and Their Tool Requirements



**DECISION
AUTOMATION.ORG**

Why DMN?

- DMN Helps Us to Specify Decisions for Different Stakeholders
 - Especially Business Subject Matter Experts
- Helps to Integrate Rules, AI/ML and Constraint Based Logic
- Reduce Risk and Effort of Communication and Automation
- Improve Decision Model Interchange
- But There is a Big Snag At the Heart of DMN Adoption...

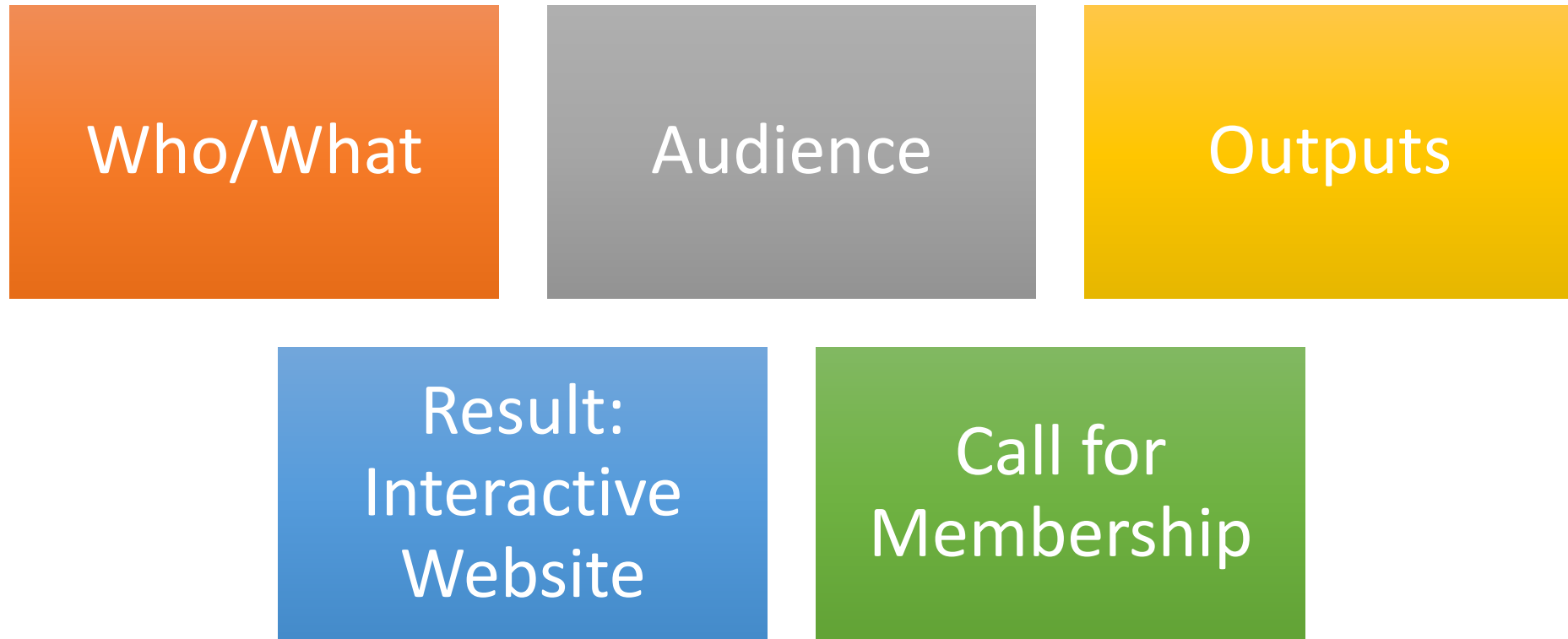
Snag with DMN

- Currently, it's Very Hard for New Users (and Vendors) to Get Aboard
 - They want a conformance led approach, but the standard is very technical
 - Currently DMN conformance is rather 'all or nothing' (few levels)
- DMN Becomes a Mountain Some Cannot Climb
- Causes Vendors to Compromise on the Harder Spec Items (e.g., FEEL)
 - Paradoxically Leads to Less Standardization, Not More!
- This is Off-putting to Potential Adopters

Decision Automation Adoption Challenges

- Many DA projects & tool purchases **fail to achieve ROI**, due to lack of practice know-how
- Lack of clear concise understanding of what DA is, and its possibilities. Product and service vendors attempting to differentiate create **a lot of confusion and misconceptions** with often contradicting pitches
- Current groups **focus on tools and differentiators**, not on how to achieve better ROI/Adoption with DA solutions
- The industry is **highly fragmented**, clusters of approaches have formed with little information sharing or propagation of proven ideas and success stories
- Practitioners tend to be **siloes by product vendor** and not led by general industry best practices
- General **lack of industry analyst focus** on DA and understanding of DA as a discipline

The DMN “On-Ramp”



What IS The DMN “On-Ramp”?

- A Consortium of Practitioners, Stakeholders, Academics and Vendors
- Mission
 - “Great Things are done by a series of small things brought together”
 - Achieve **better automation outcomes** through **improved, incremental adoption** of Decision Automation & Management (DA)
 - Provide a ‘Staircase Up the Compliance Mountain’ for Users and Vendors
 - *Incremental, Vendor-Neutral* Route to Standardization and Compliance
 - Checklist for Customers, "what should I ask for to meet my needs"
 - Based on Pragmatic and Attainable Goals
 - Raise Awareness of DMN Business Use Cases
 - Share Open Source Suggested Practices
 - Build Community of Practitioners
 - Complement to DMN Standard and TCK (Not an Alternative to it)

Who Are We?

- Member of the Decision Automation Organization (decisionautomisation.org)
- Two Committees: Main and Review
- Main Committee has Representatives from Vendors
 - **Chris Berg**, Formerly IBM, InRule
 - **Lenny Bromberg**, IBM
 - **Marc Lerman**, Sparkling Logic
- Academics
 - **Prof. Jan Vanthienen**, Emeritus Professor of Information Systems at KU Leuven and research leader in business rules processes and decisions
- And Practitioners
 - **Jan Purchase**, Lux Magi (Chairperson)
 - **James Taylor and Ryan Trollip**, Decision Management Solutions

Review Committee

- Practitioners
 - **Marwim van Overschot** (Chairperson), LeBlanc Advies
 - **Brenda Barnes**, RapidGen
 - **Brian Durr**, SBC Global
- Vendors
 - **Denis Gagne**, Trisotech Inc
- Academics
 - **Nicklas Holmberg and Odd Stein**, Lunds Universitet
- The DMN On-Ramp Review Group Needs You!
Consider Joining

Our Audience

- Users

User	DMN Offers	We Add
Business Experts	Transparent, portable, rich decision definitions - business KPI focus; marketplace	Lower barrier of entry, raised awareness of DMN scenarios, advised practices
Enterprise Architects	Interoperability, decision service definition, data discovery	DMN scenarios value/selection, advised practices
System Integrators	Traction across multiple vendors/projects	Vendor selection pathway

- Vendors

- Eight incremental scenarios of business value with associated functionality

- Consultants

- Understand skills required for each scenario; plan training

Initial Outputs



Understand What Users
Need from DMN –
SCENARIOS



What are the Individual Axes
of Tool Functionality –
FEATURE GROUPS



How are These Related –
MAPPINGS

What are Scenarios?

- Seven Business Cases for Using (a Subset of) DMN
 - Each is Self Contained
 - Each Has Defined Prerequisites, Business Value and Advised Practices
- Each Contributing to One or More Five Business Goals
 - Assessing Business Priorities
 - Targeting Business Capabilities
 - Technology Transformation
 - Building Shared Awareness
 - Provisioning Data

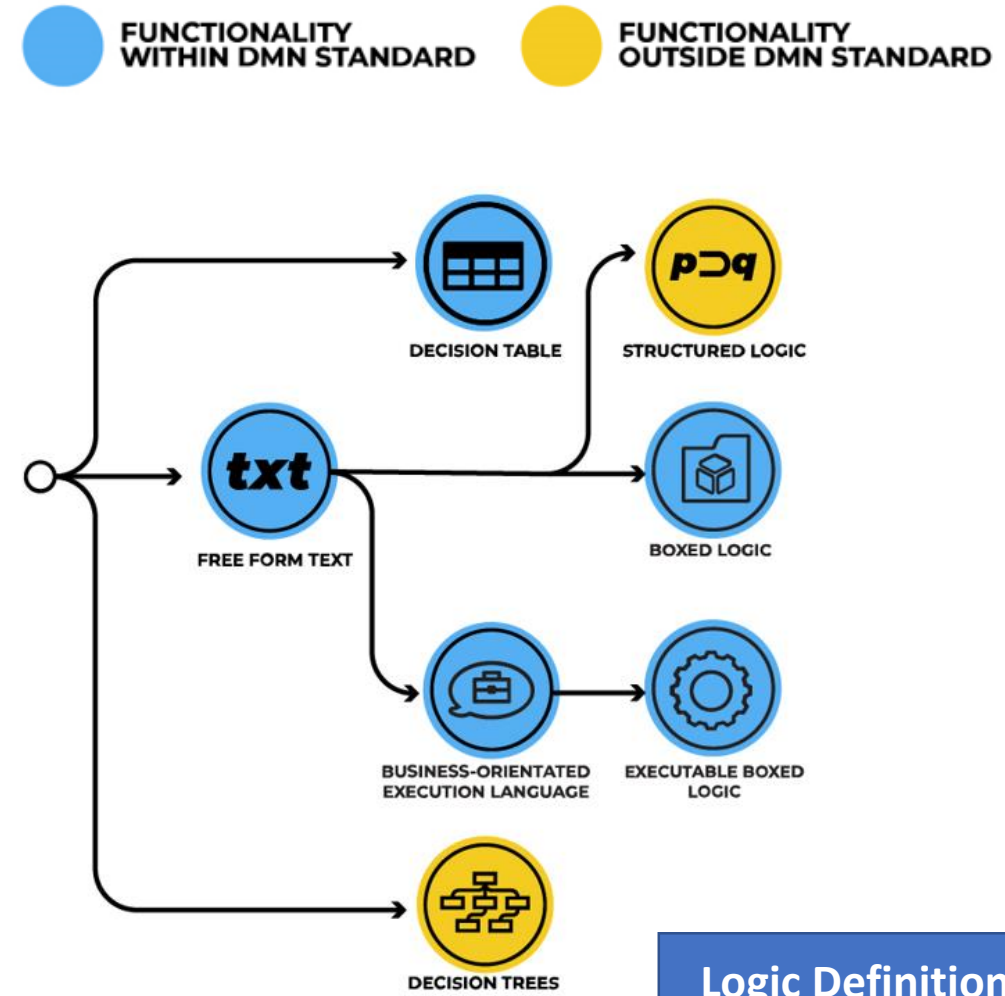
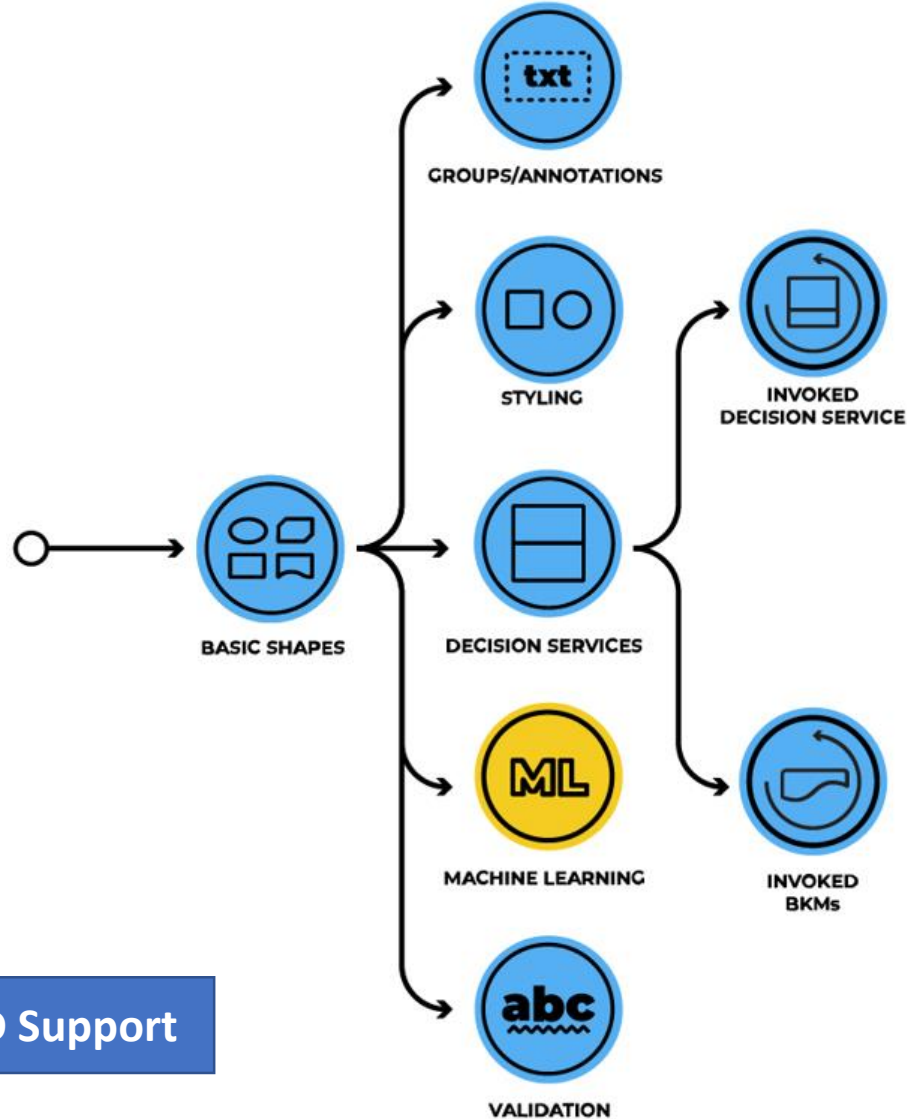
Scenarios

- Decision Inventory
- Decision Relationship Definition
- Detailed Decision Definition
- Data Requirements Definition
- Data Driven Decision Definition
- Decision Logic Definition
- Decision Service Definition

Feature Group

- 13 Mutually Independent ‘Axes’ of Functionality
 - Examples: DRD Support, Decision Logic Support, KPI, Reporting, Interchange
- Each a Progressive ‘Partial Order’ of Tool Facilities
 - Between a Serial Progression and a Set of Independent Sub-Features
- Can Be Used as a Scorecard
 - to Compare Tools, to Establish Need, to Define Roadmaps
- Represented as a Graph
- Examples...

Example Feature Groups:



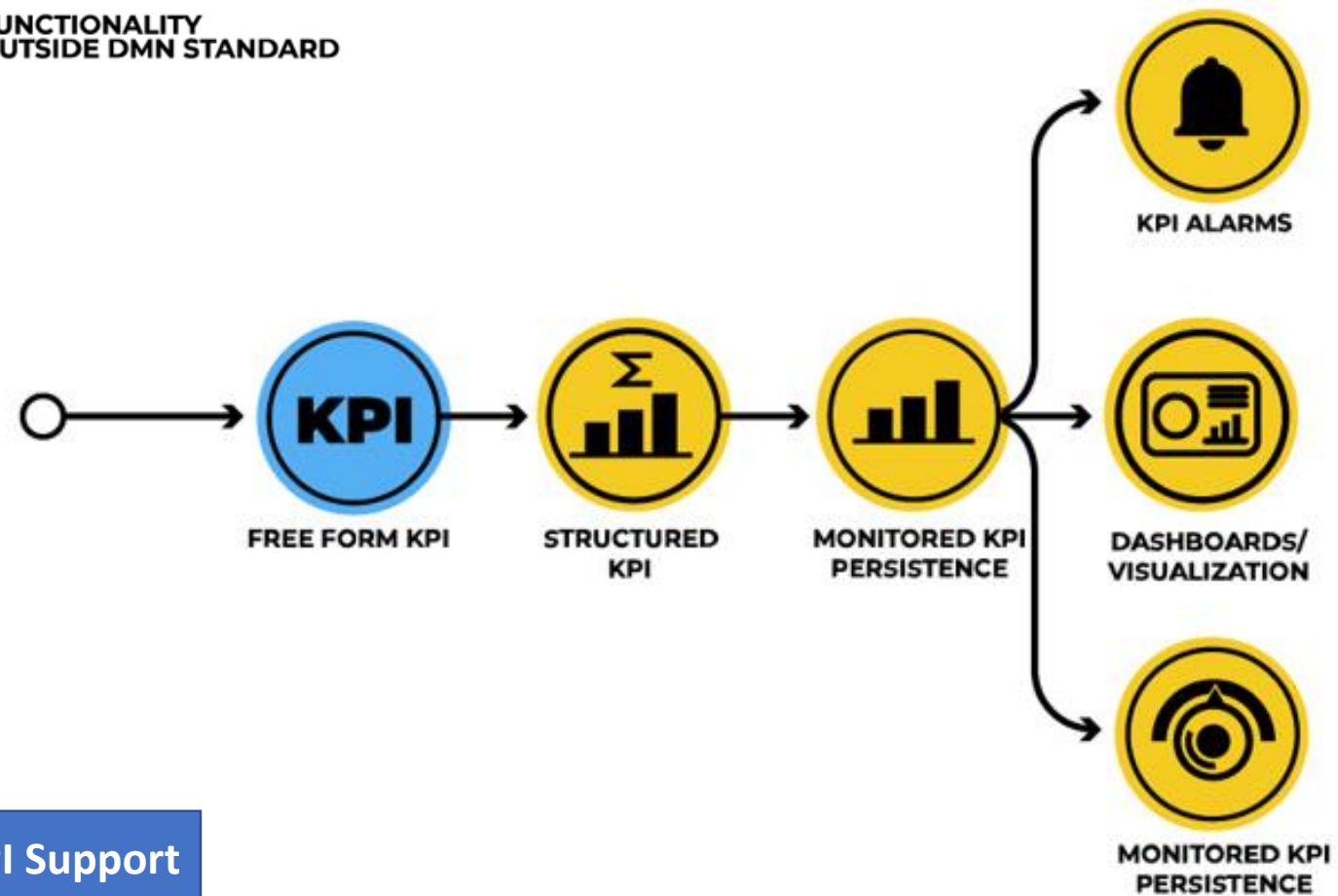
● FUNCTIONALITY WITHIN DMN STANDARD

● FUNCTIONALITY OUTSIDE DMN STANDARD

Example Feature Groups:

 **FUNCTIONALITY
WITHIN DMN STANDARD**

 **FUNCTIONALITY
OUTSIDE DMN STANDARD**



KPI Support

Other Feature Groups

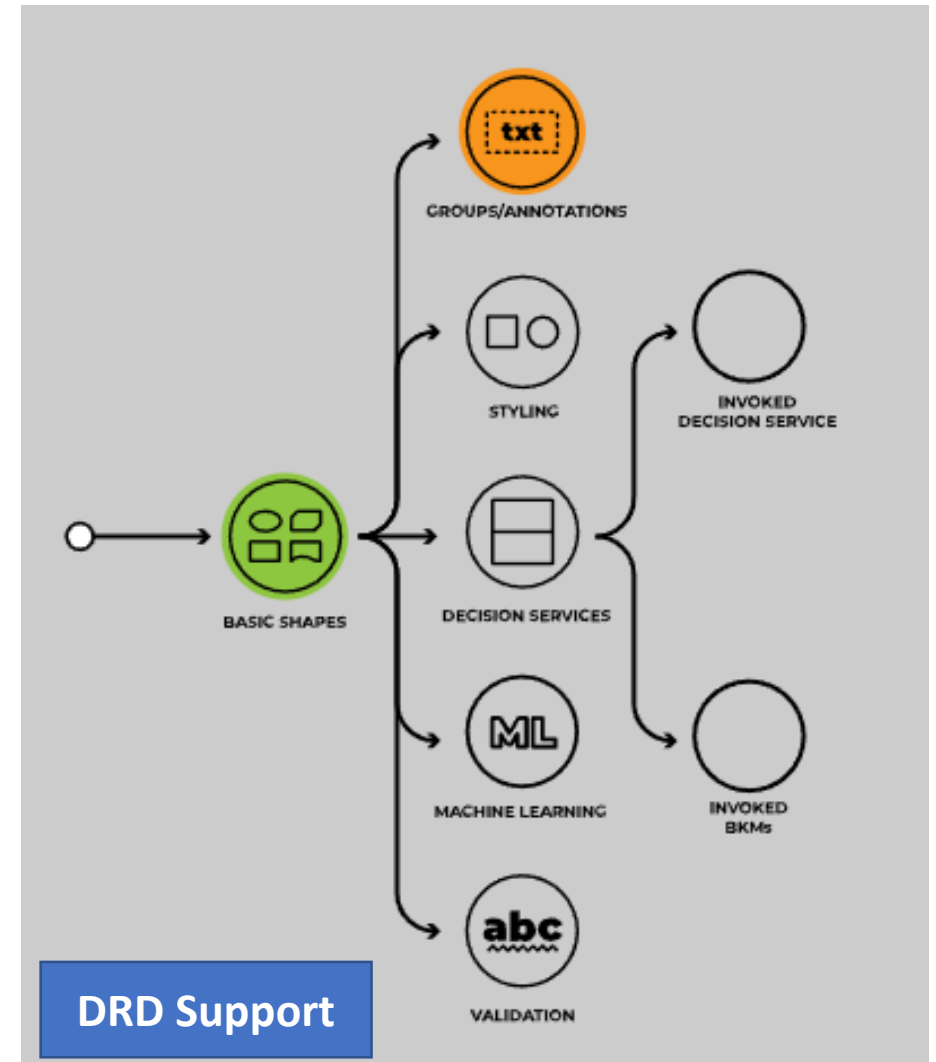
- DRG (Repository) Support
- Decision Implementation
- Version Control
- User Collaboration
- Term and Source Management
- Validation
- Security
- Interchange
- Search/Reporting

Mappings

- A Complete Mapping Between Scenarios and Feature Groups
- Shows, for a Given User Scenario What Features are
 - Essential
 - Nice to Have
 - Extraneous in all but the most sophisticated cases
- Example...

Scenario: Decision Definition

Feature Group: DRD Support



Interactive Web Demonstration

- <https://subtract.digital/testsites/dao/index.php/interactive-usage-scenarios/>

The Tool Demands of Some Scenarios

- Data Driven Decision Modeling (DMN and AI)
 - Monitored and Structured KPIs
 - Interpretability and Perturbment analysis
 - Explanation Generation
 - Representation of ML Models, Features, Training Sets in DRDs
- Data Requirements Decision Modeling
 - Search by Data Dependency
 - Knowledge Source Management
 - Version Control
 - Information Item Interoperability
- Decision Implementation
 - Test Case Generation: Coverage, Robustness and Performance

Call for Membership

- Join the On-Ramp Review Committee!
- Calling all Passionate, Experienced
 - Industry Practitioners
 - Academics and
 - Vendors
- Apply to: contact@decisionautomation.org

- Ryan Trollip ryan@decisionmanagementsolutions.com
- Jan Purchase purchase@luxmagi.com