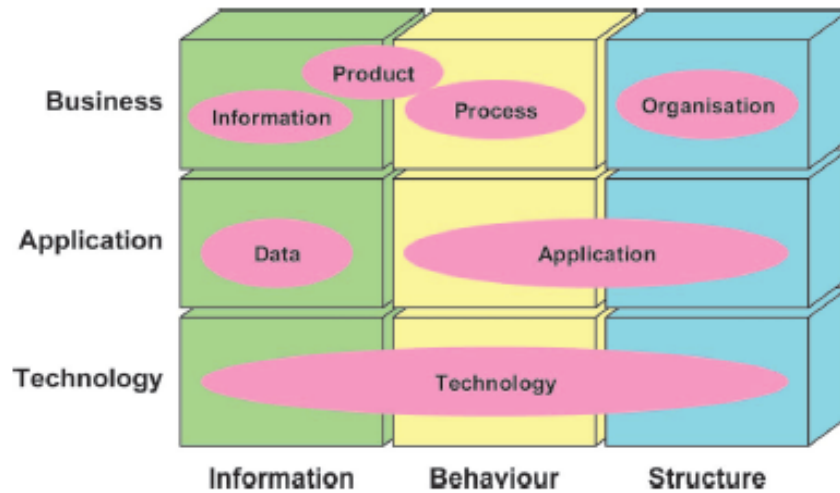


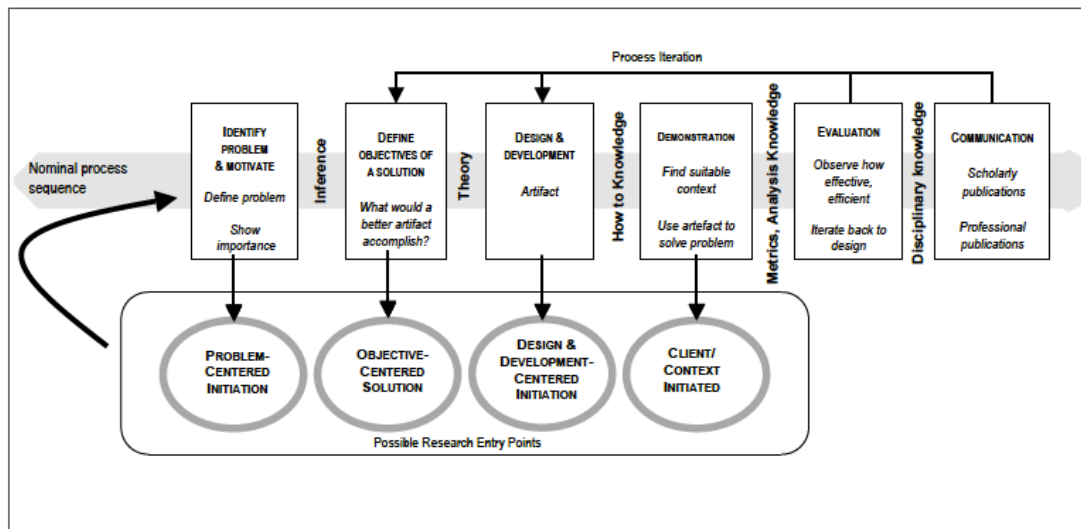
Appendix

Appendix 1: ArchiMate modelling framework



(Source: Engelsman, W., D. Quartel, H. Jonkers, and M. van Sinderen. 2011. "Extending enterprise architecture modelling with business goals and requirements." *Enterprise Information Systems*, 5(1): 9-36.)

Appendix 2: Design Science Research Methodology Process Model



(Source: Peffers, Ken, Marcus A. Rothenberger, Samir Chatterjee, Tuure Tuunanen. 2008. "A Design Science Research Methodology for Information Systems Research." *Journal of Management Information Systems*, 24 (3): 45-78.)

Appendix 3: Concept mapping

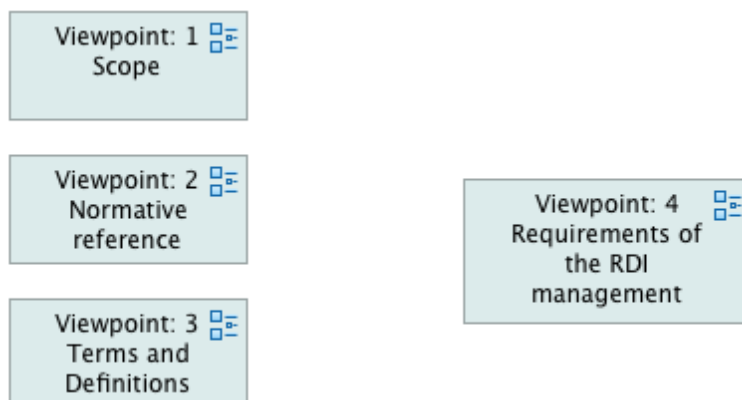
Architecture Layers	Core EA artifacts	Fundamental Concepts	Terms and Definitions
Motivation	Stakeholder	Organization	Organization; Top management; Top management representative
	Driver	Innovation	Innovation; Effectiveness
	Assessment	Audit	Project progress evaluation; Evaluation; Review; Audit
	Goal		Objective; Effectiveness; New products or processes; Product; Competency; Knowledge transfer; Create value
	Principle		Accountability; Control; Privacy; Protection; Types of innovation
	Requirement	Requirement	Requirements; RDI management system requirements; Statutory requirements
	Constraint	Requirement	RDI management system requirements; Statutory requirements; Risk; Dimension; Complexity
Business	Business Goals and Objectives		Improvement; RDI continual improvement
	Business Actor	People	Auditee; Auditor; Audit team; External entity; Top management; Top

			management representative; Organization; Customer
	Business Role		Management; Information and knowledge management; RDI management; Review management; Marketing management; Technology management
Process	Business Process	Activity; Process; Action	RDI activities; Process; Project progress evaluation; RDI management activities; RDI project activities; RDI management system audit; RDI management system; Performance from an innovation point of view; Knowledge transfer; Audit; Evaluation; Review; Control; Manage interfaces; Manage knowledge production; Manage RDI policy; Provide competencies; Technological monitoring; Technological cooperation; Technological foresight; New customer analysis; Internal and external analysis' activities; Intellectual property; Internal creativity.
	Business Collaboration	Communication	Cooperation; Communication

	Business Function	Organization	Evaluating results; Managing ideas and opportunities; Managing RDI management system; Project management
	Business Object	Information; Document	Audit plan; Audit scope; Audit program; RDI policy; Project plan; RDI project; RDI contract; Core competencies of the innovation process; Documented Information; Object; Document; Record
	Representation	Information; Document	Document; Audit evidence; Audit findings; Audit conclusions

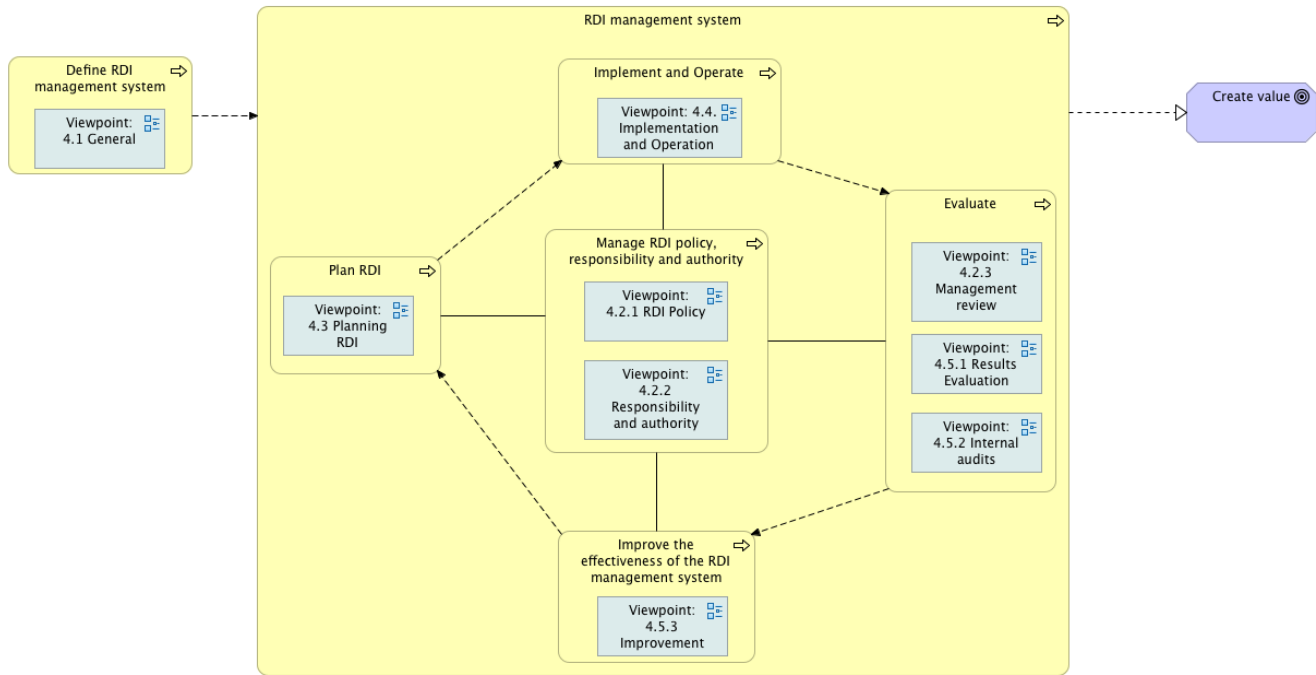
Appendix 4: NP 4457 Reference Architecture

Appendix 4.1: Requirements



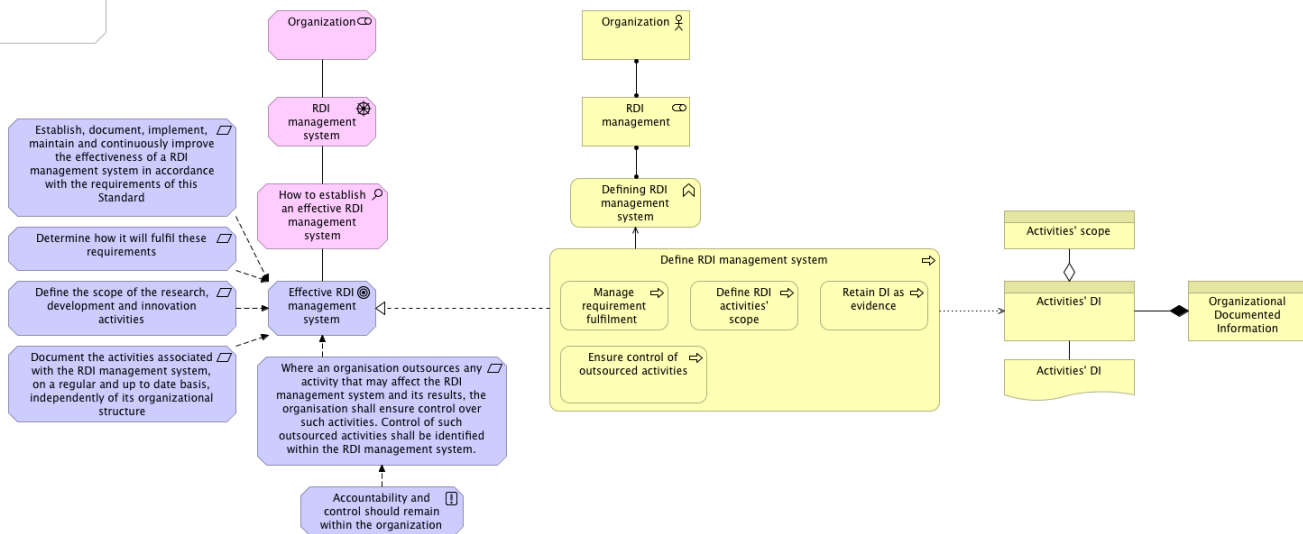
Appendix 4.2: Viewpoint: 4 Requirements of the RDI management system

Viewpoint: 4 Requirements of the RDI management system

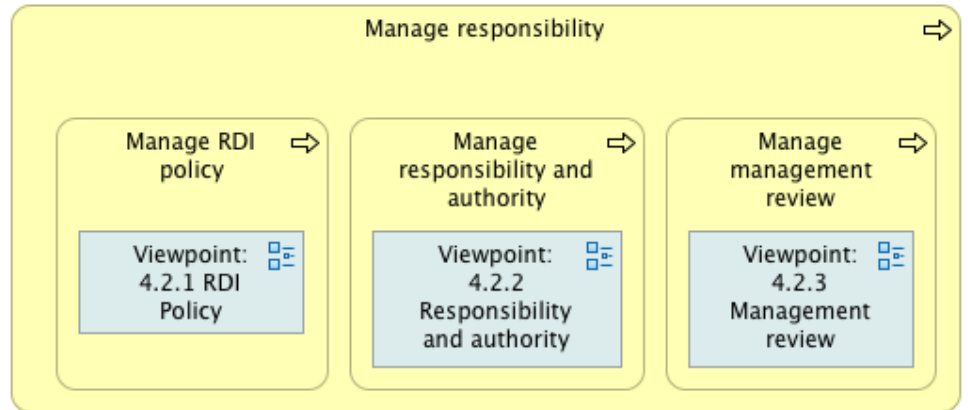


Appendix 4.3: Viewpoint: 4.1 General

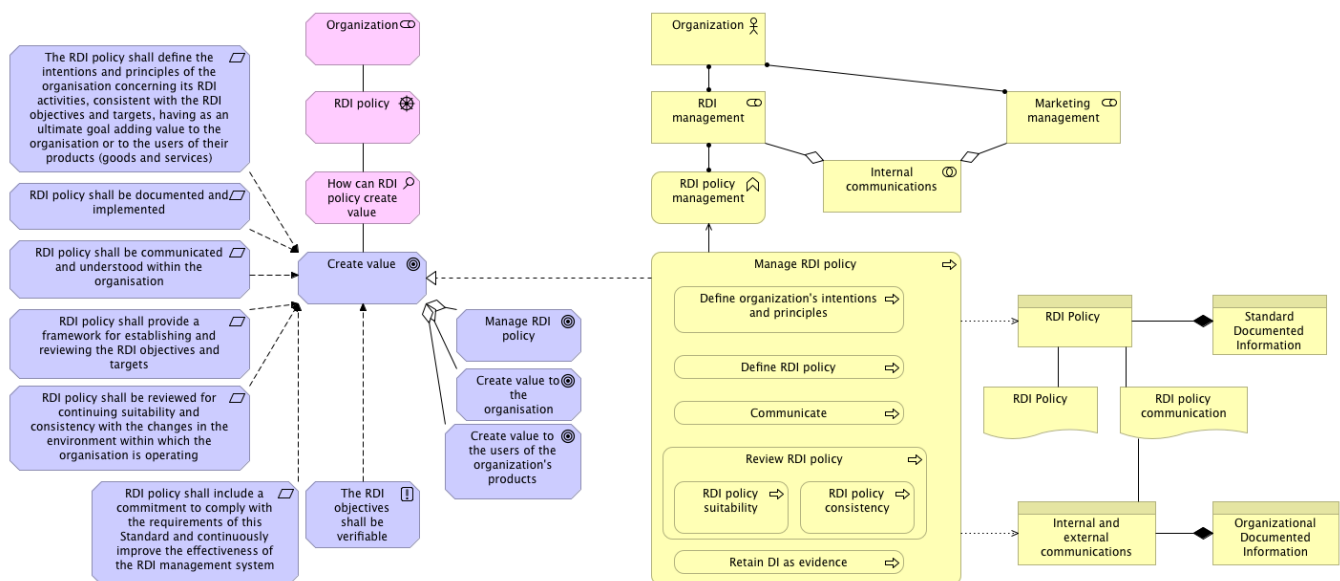
Viewpoint: 4.1 General



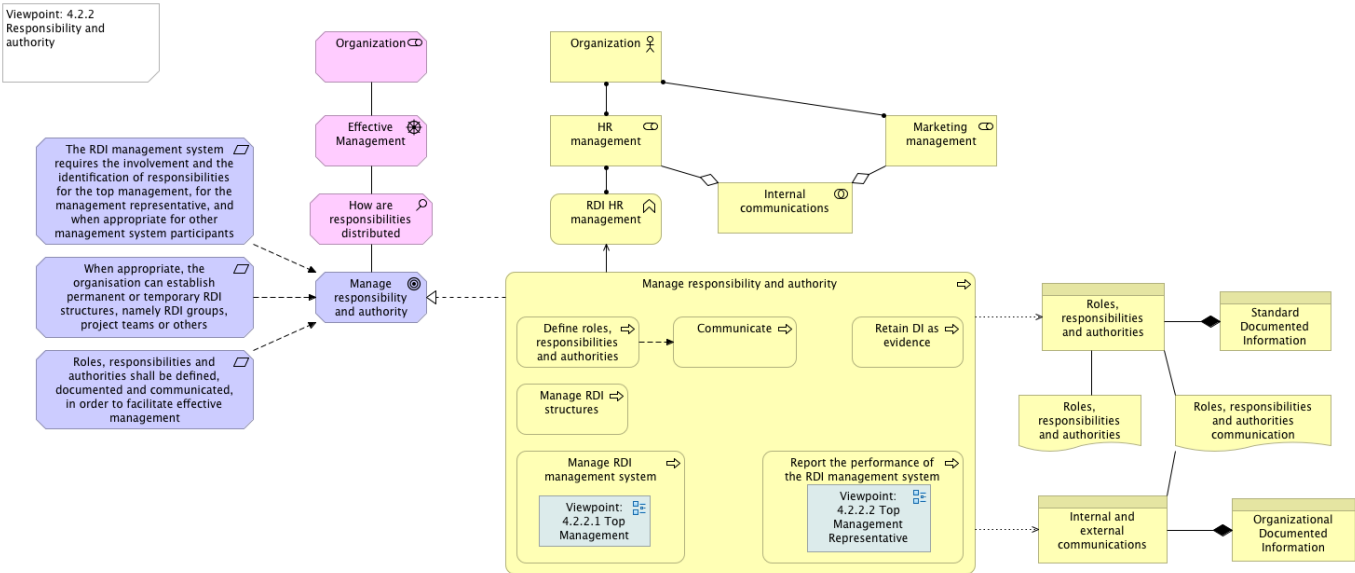
Viewpoint: 4.2
Management Responsibility



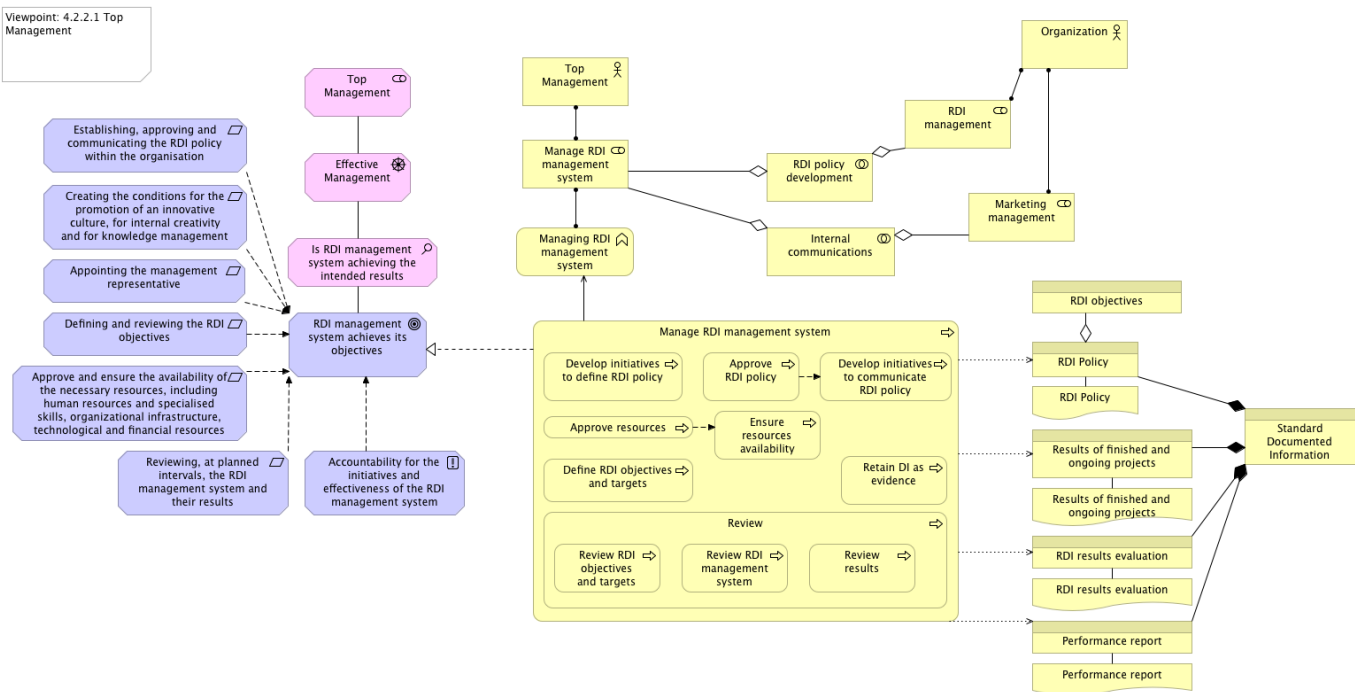
Viewpoint: 4.2.1 RDI Policy



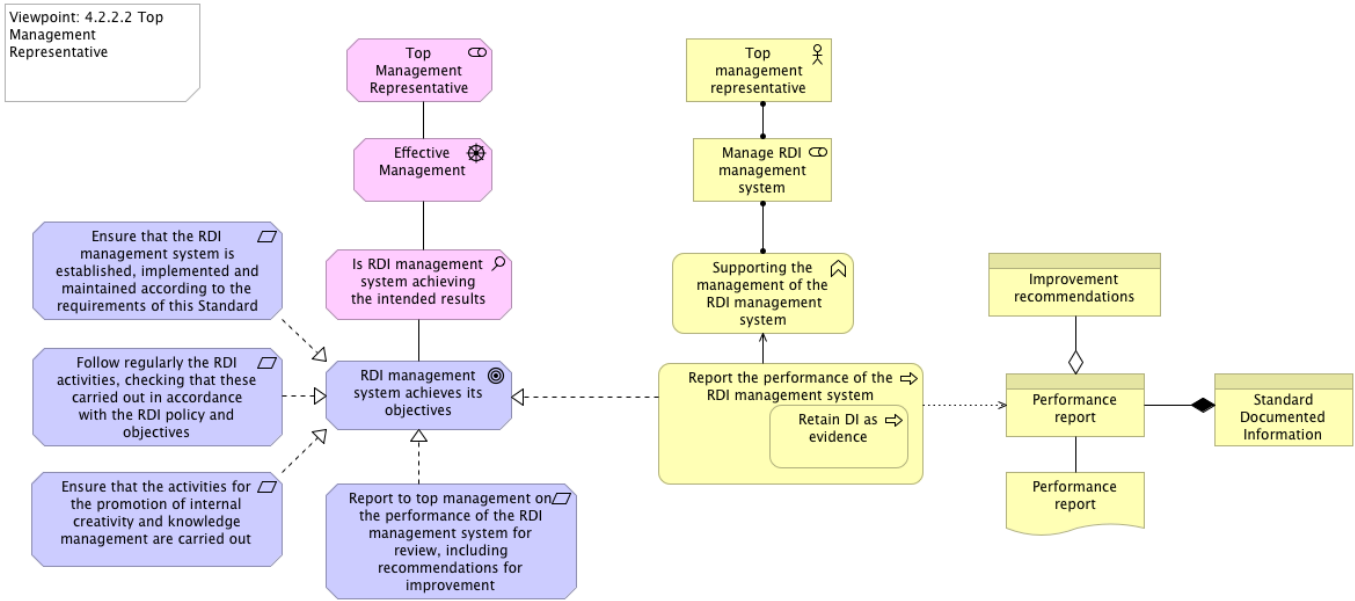
Appendix 4.6: Viewpoint: 4.2.2 Responsibility and authority



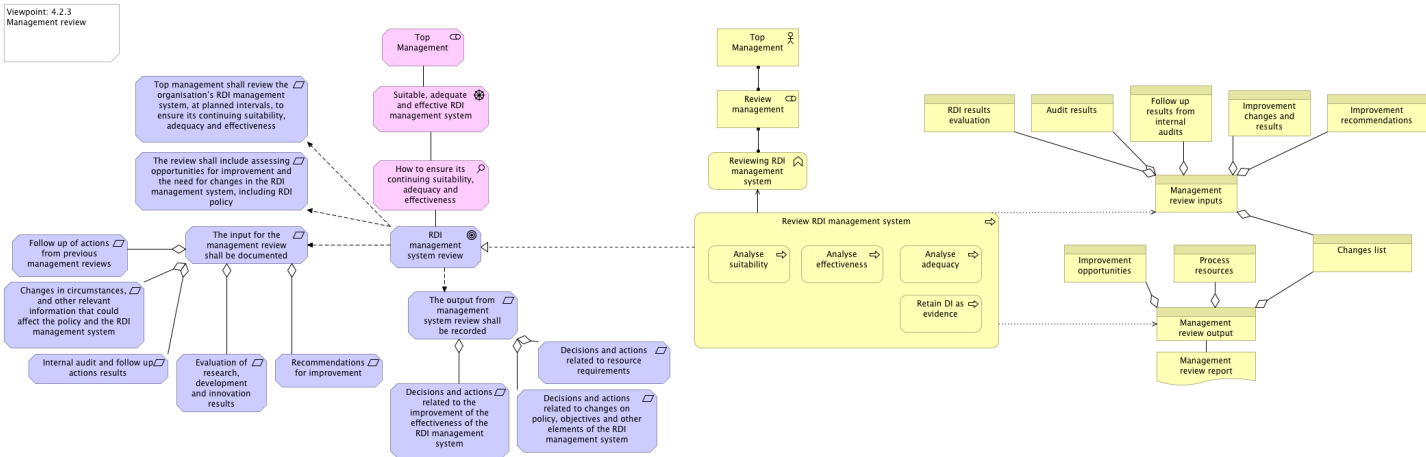
Appendix 4.7: Viewpoint: 4.2.2.1 Top Management



Appendix 4.8: Viewpoint: 4.2.2.2 Top Management Representative

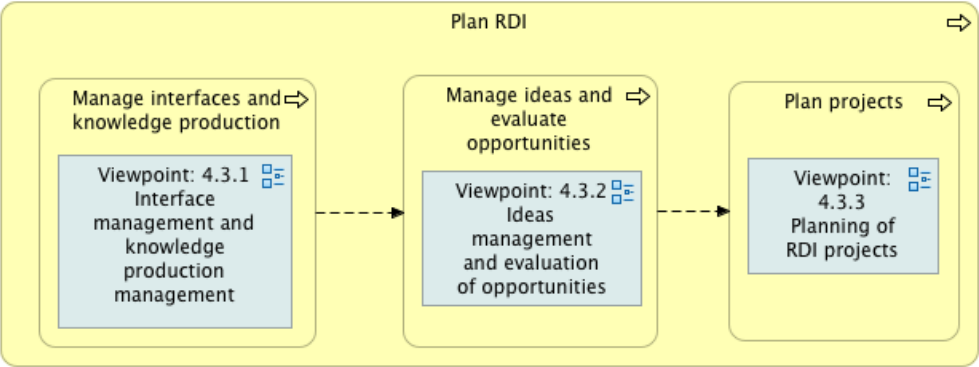


Appendix 4.9: Viewpoint: 4.2.3 Management review

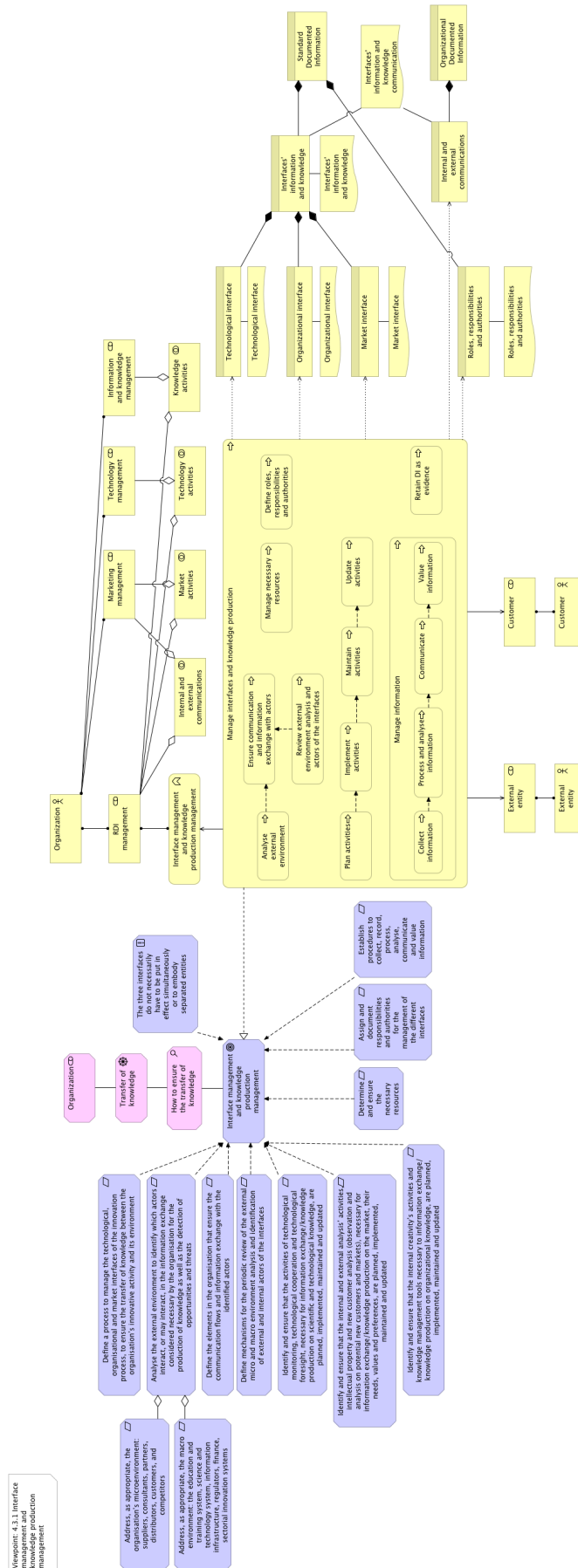


Appendix 4.10: Viewpoint: 4.3 Planning RDI

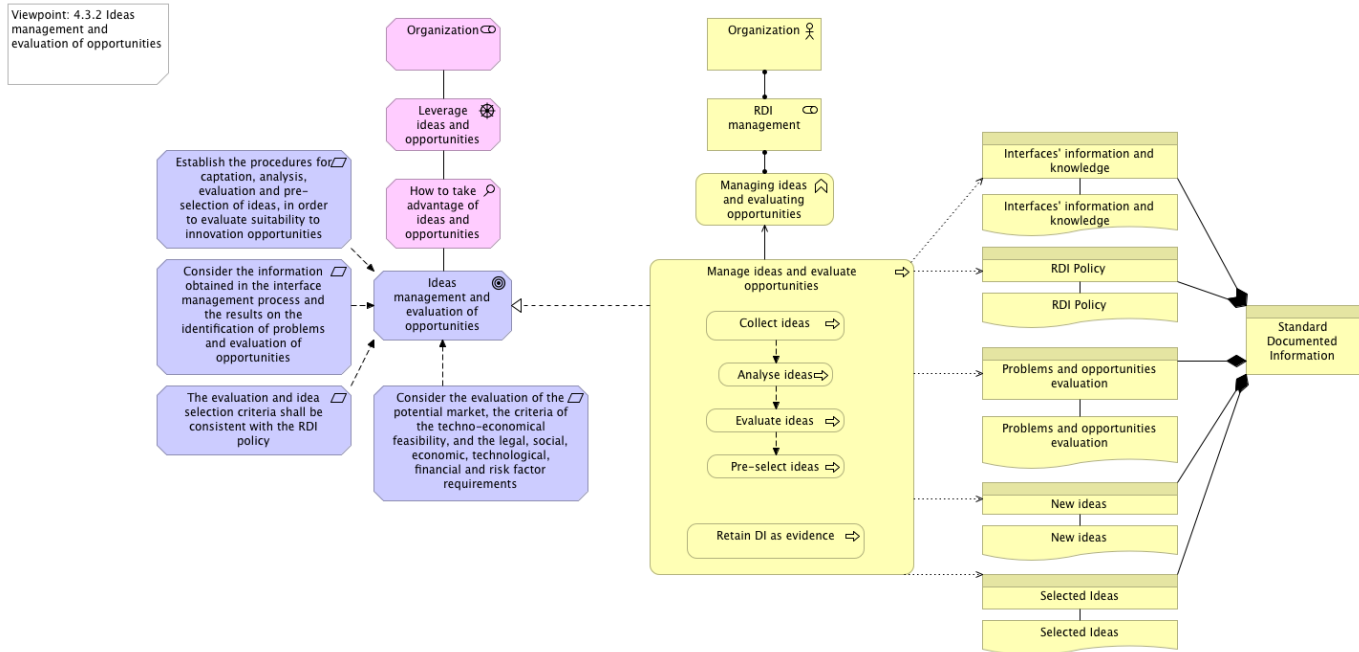
Viewpoint: 4.3 Planning RDI



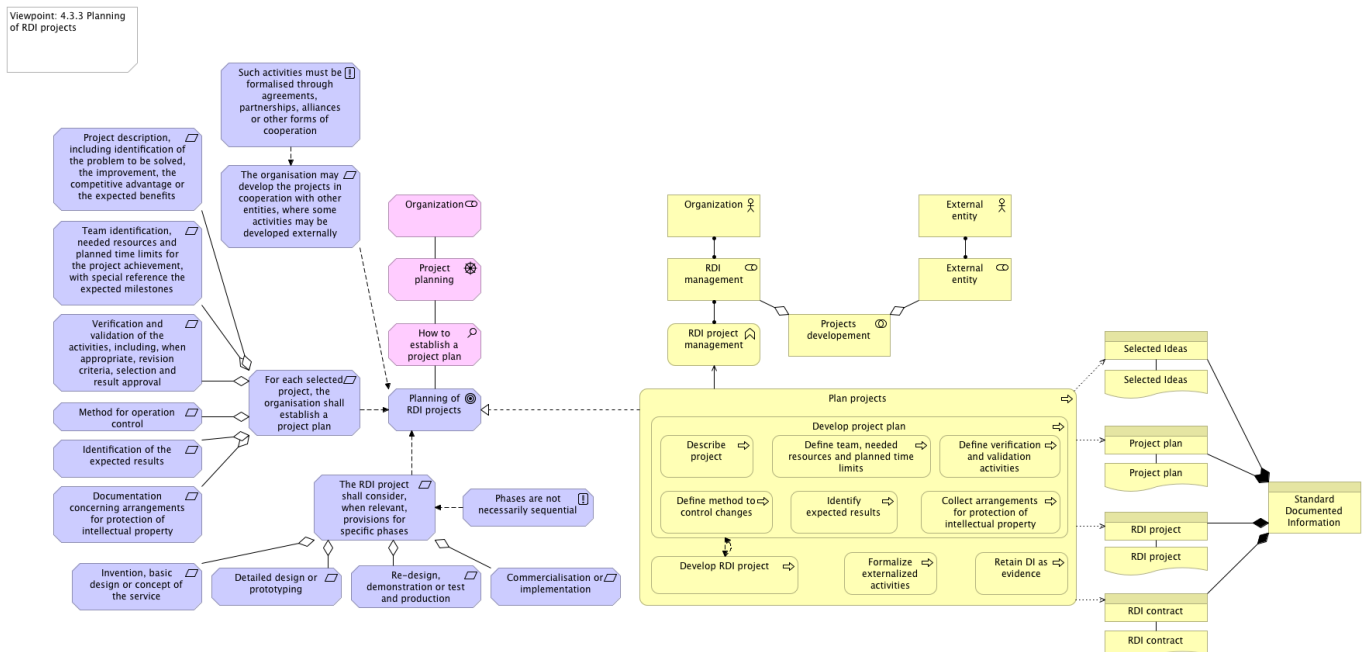
Appendix 4.11: Viewpoint: 4.3.1 Interface management and knowledge production management



Appendix 4.12: Viewpoint: 4.3.2 Ideas management and evaluation of opportunities

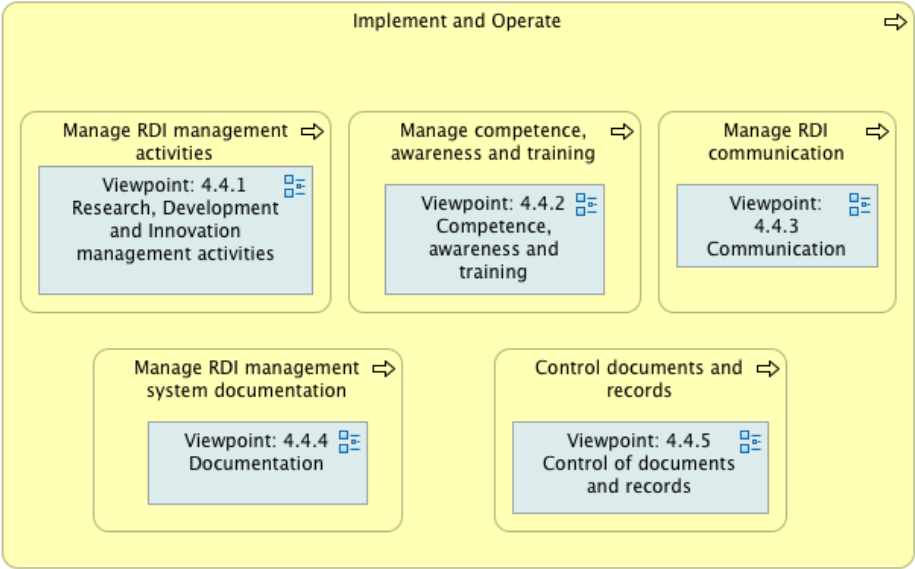


Appendix 4.13: Viewpoint: 4.3.3 Planning of RDI projects



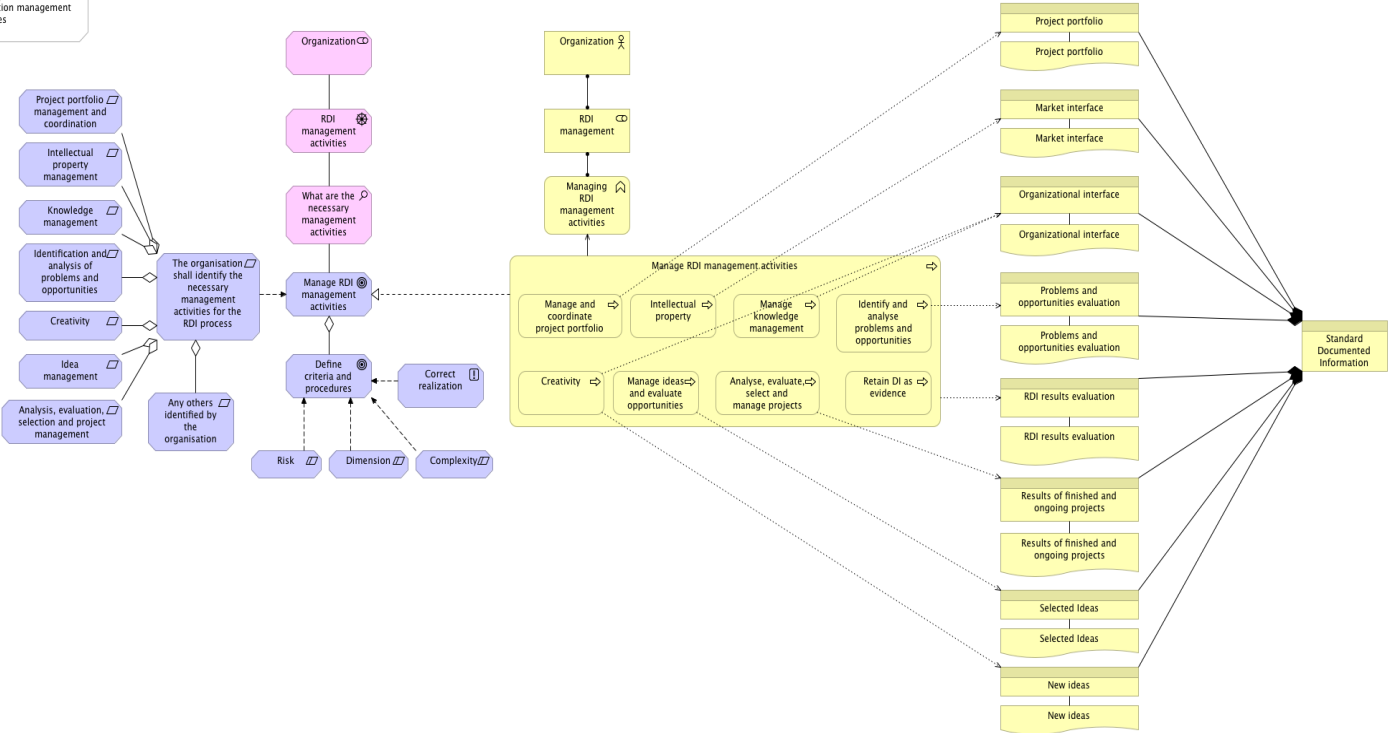
Appendix 4.14: Viewpoint: 4.4. Implementation and Operation

Viewpoint: 4.4.
Implementation and
Operation

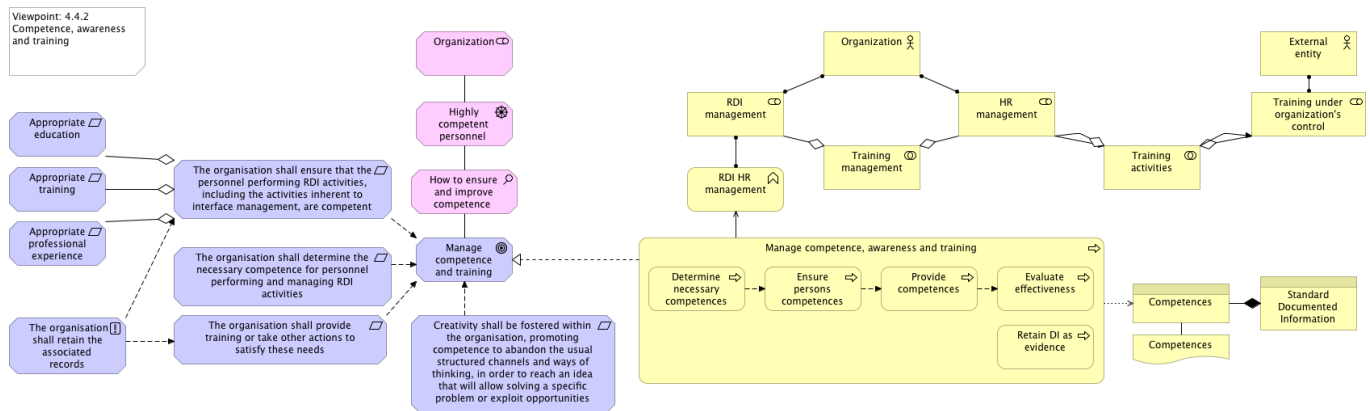


Appendix 4.15: Viewpoint: 4.4.1 Research, Development and Innovation management activities

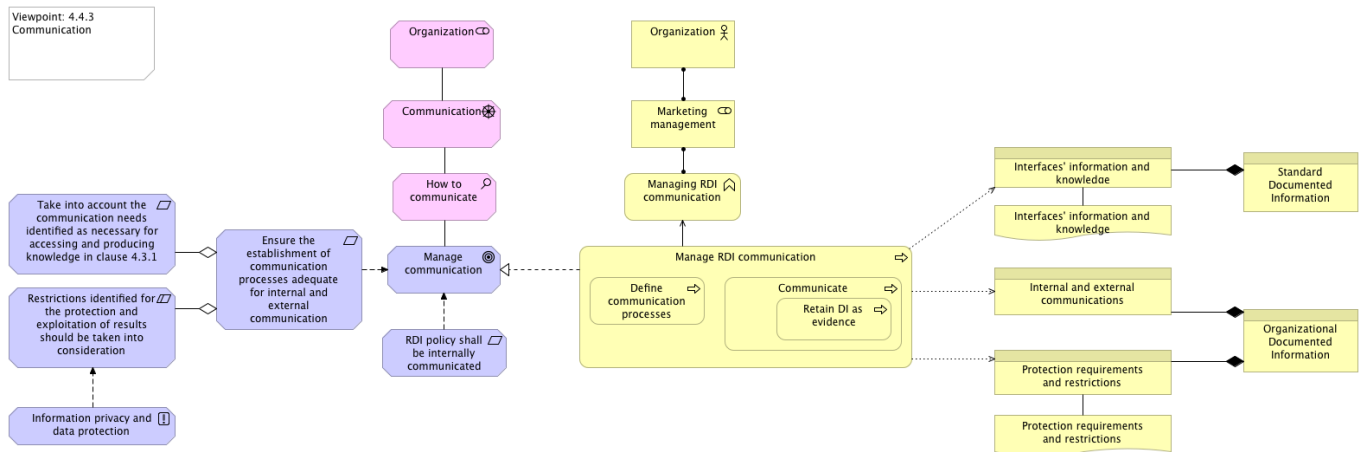
Viewpoint: 4.4.1 Research,
Development and
Innovation management
activities



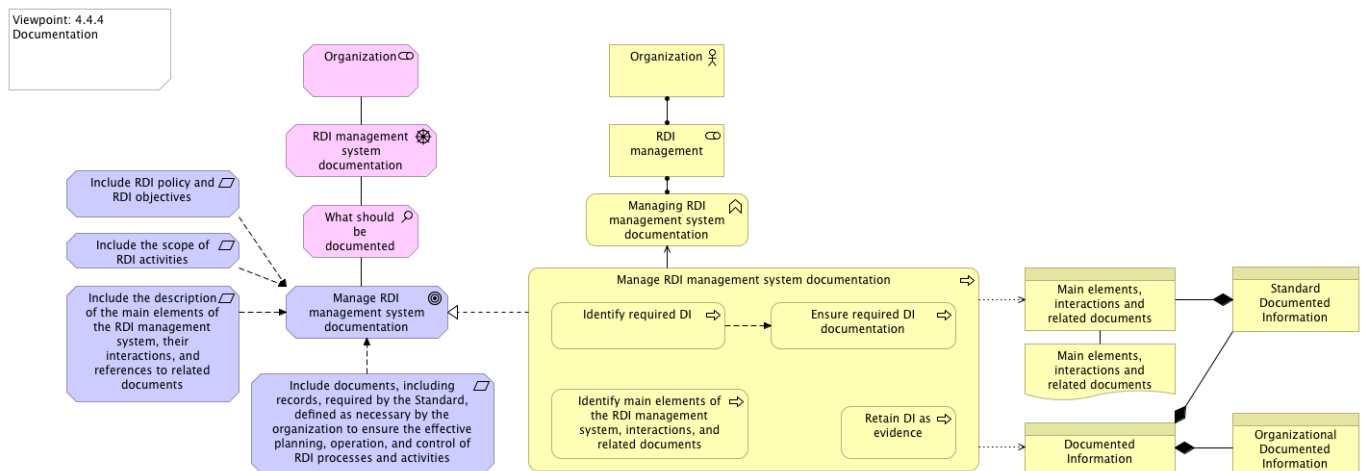
Appendix 4.16: Viewpoint: 4.4.2 Competence, awareness and training



Appendix 4.17: Viewpoint: 4.4.3 Communication

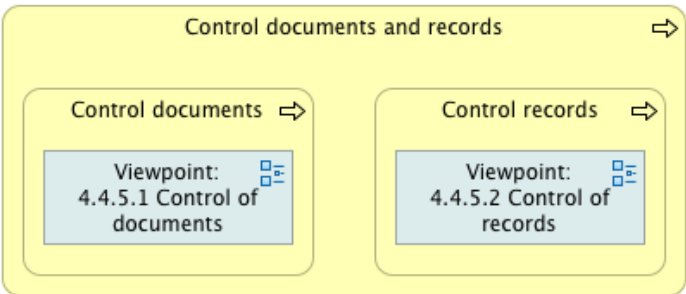


Appendix 4.18: Viewpoint: 4.4.4 Documentation



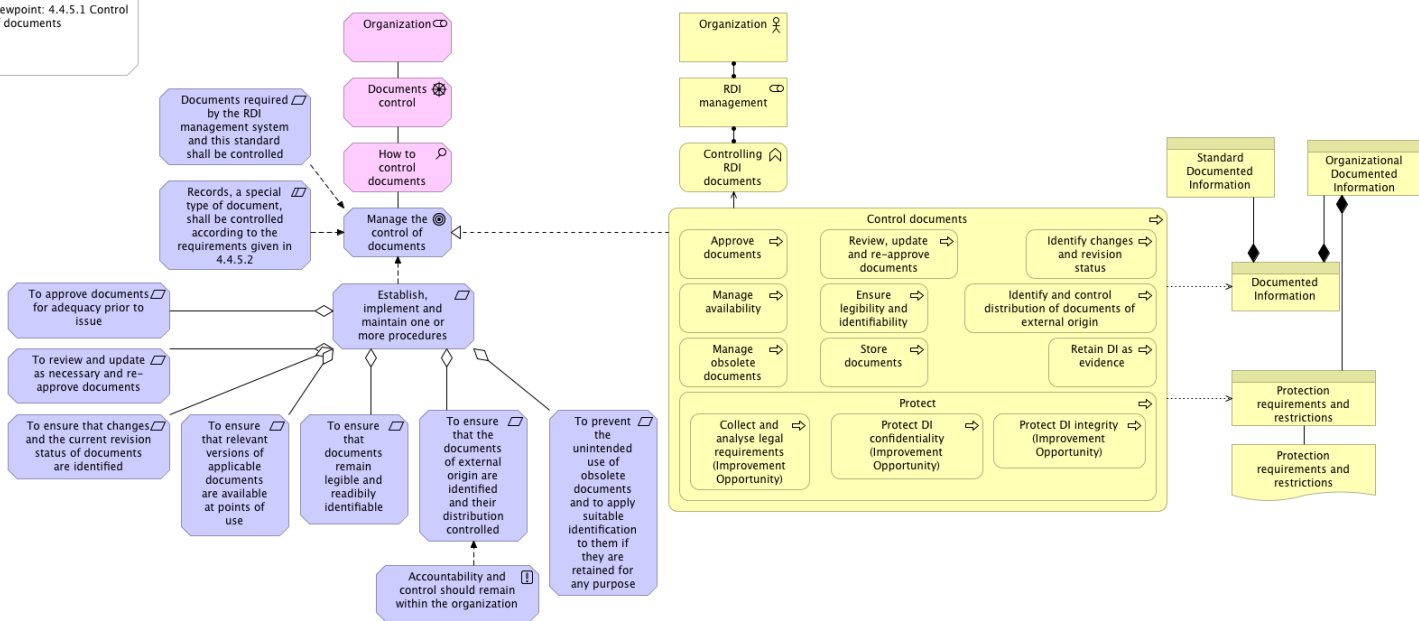
Appendix 4.19: Viewpoint: 4.4.5 Control of documents and records

Viewpoint: 4.4.5 Control of documents and records

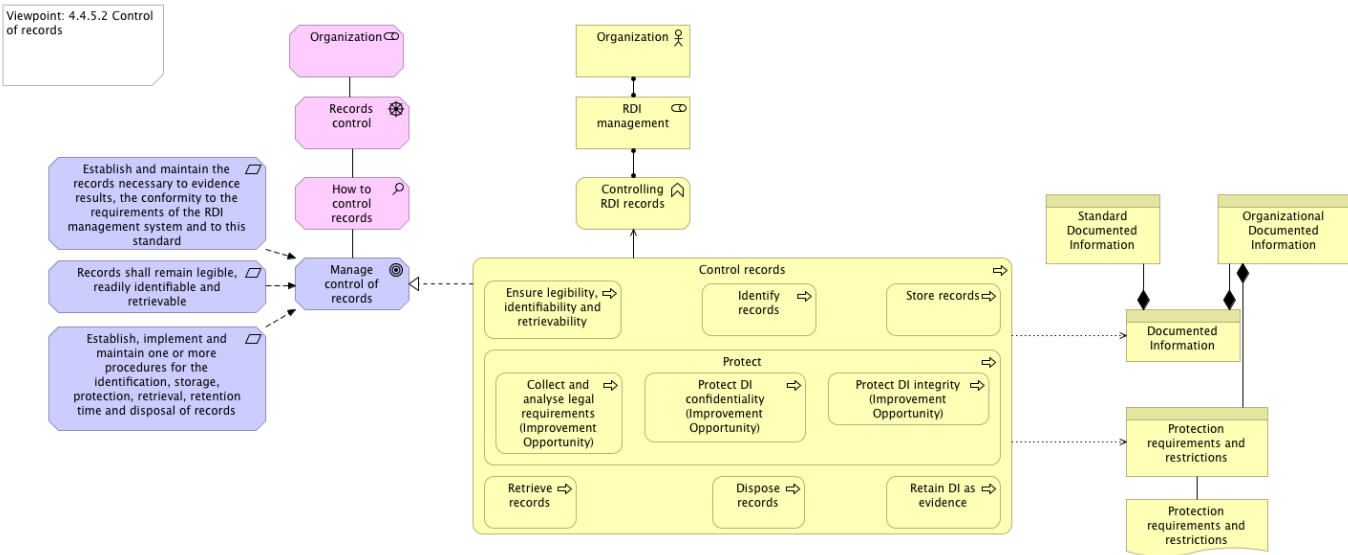


Appendix 4.20: Viewpoint: 4.4.5.1 Control of documents

Viewpoint: 4.4.5.1 Control of documents

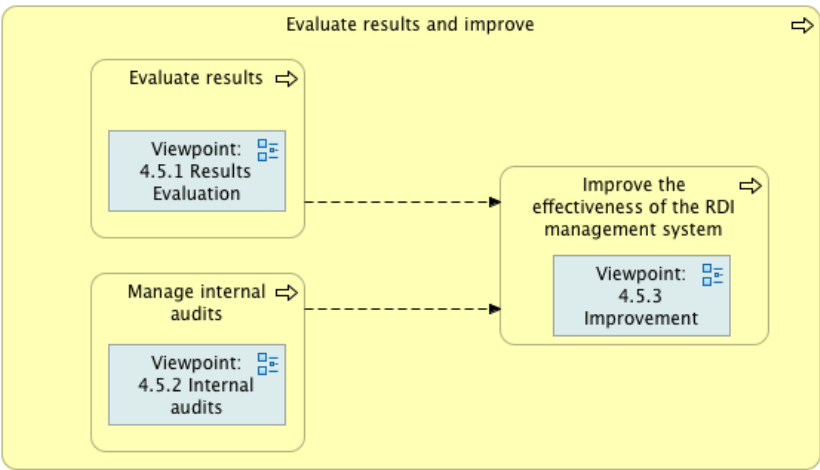


Appendix 4.21: Viewpoint: 4.4.5.2 Control of records

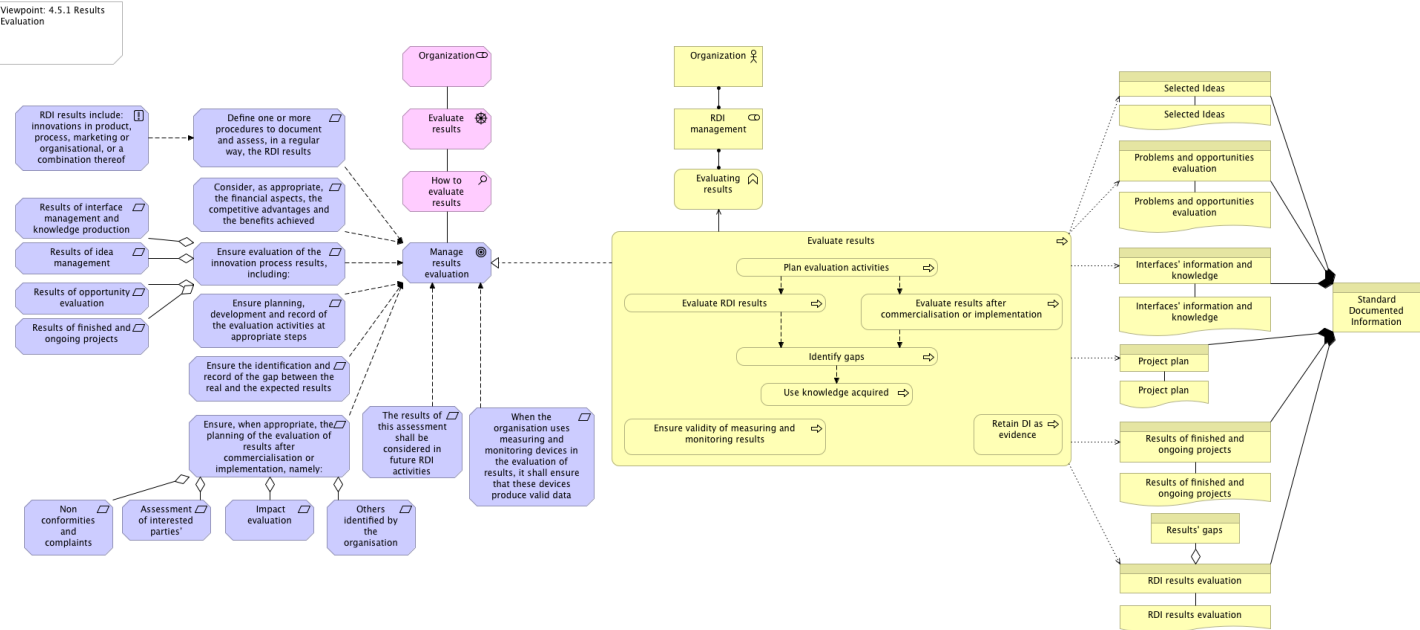


Appendix 4.22: Viewpoint: 4.5. Evaluation of results and improvement

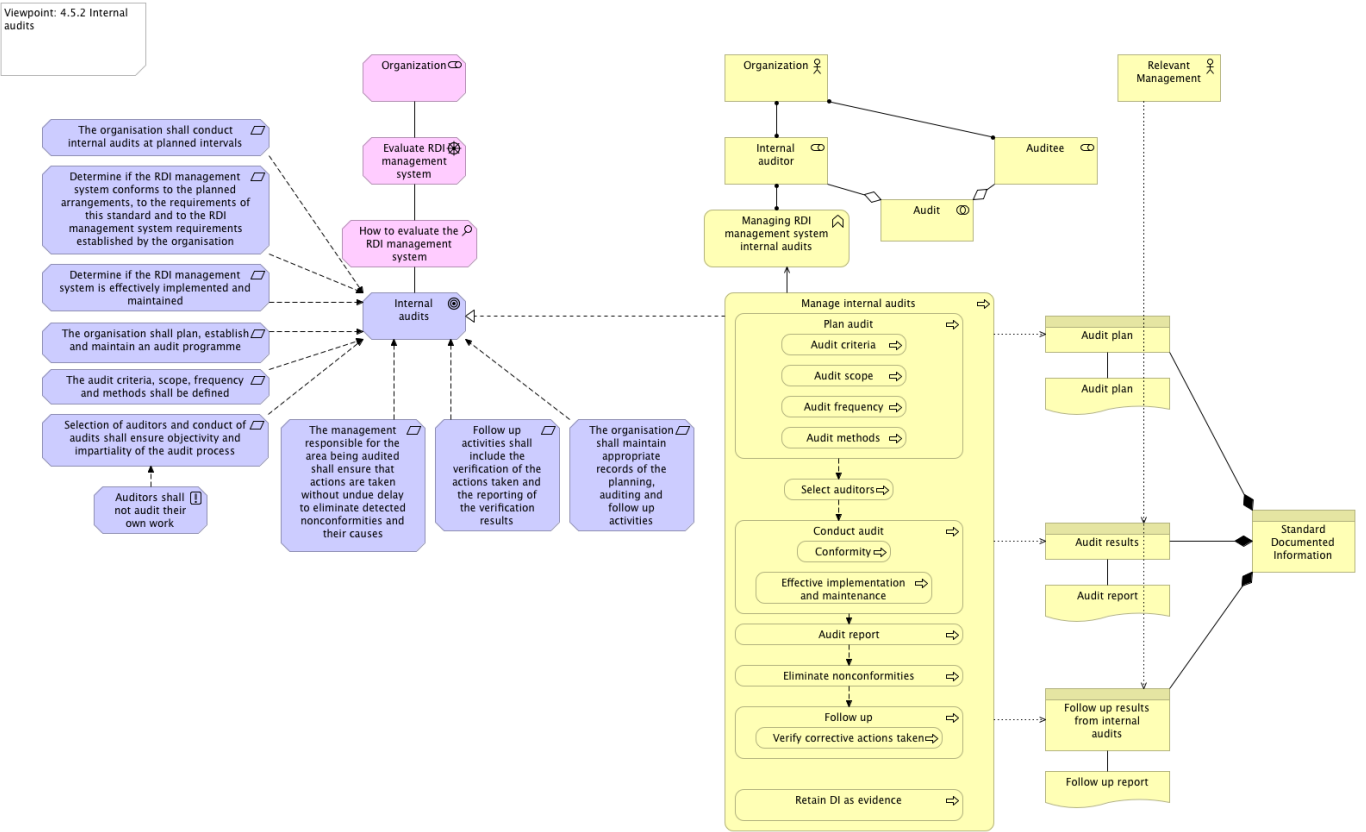
Viewpoint: 4.5. Evaluation of results and improvement



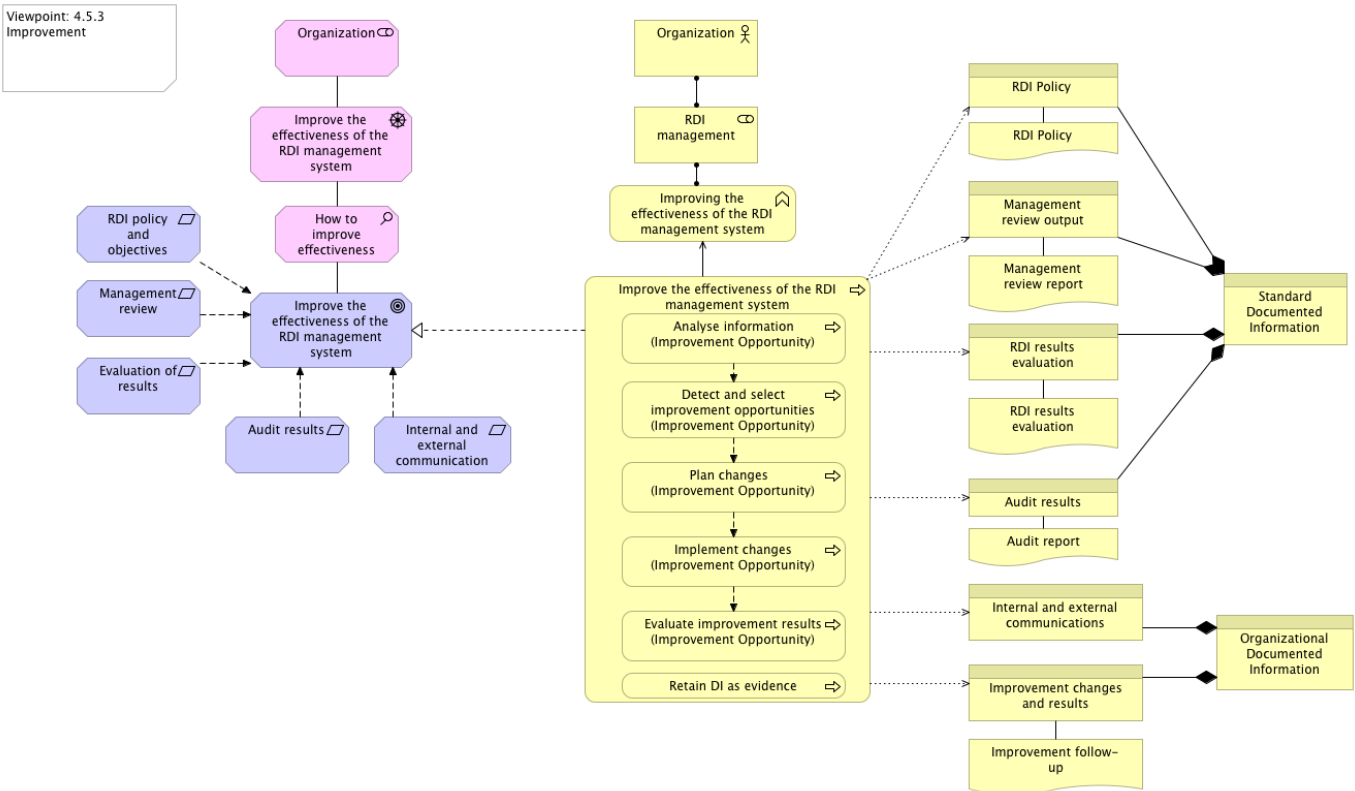
Appendix 4.23: Viewpoint: 4.5.1 Results Evaluation



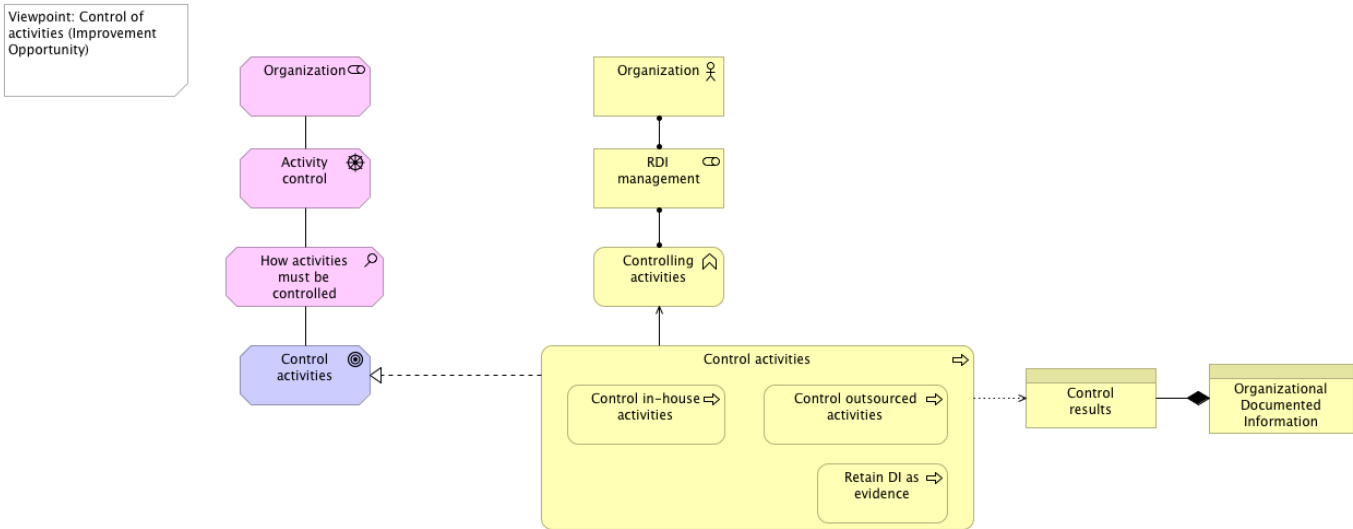
Appendix 4.24: Viewpoint: 4.5.2 Internal audits



Appendix 4.25: Viewpoint: 4.5.3 Improvement

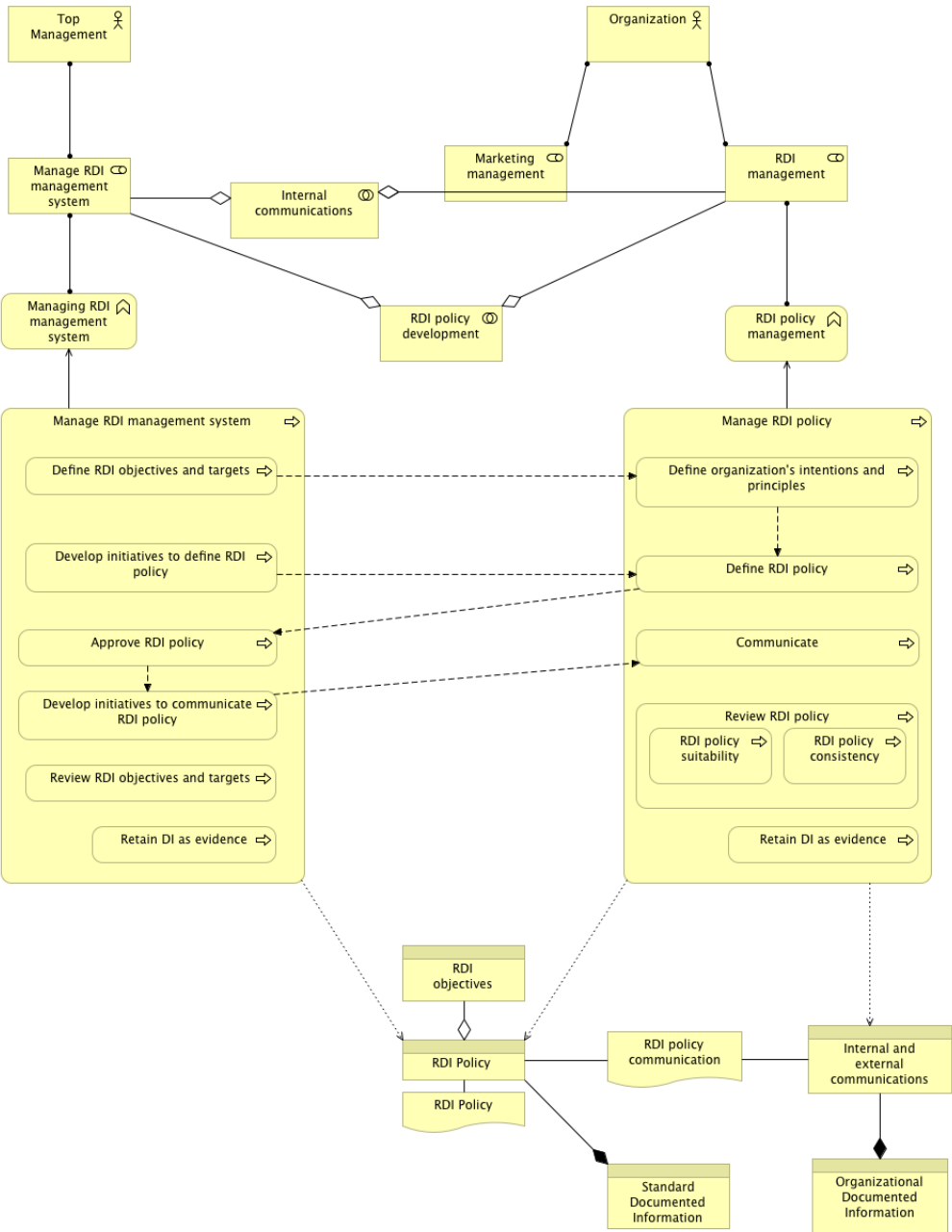


Appendix 4.26: Viewpoint: Control of activities (Improvement Opportunity)

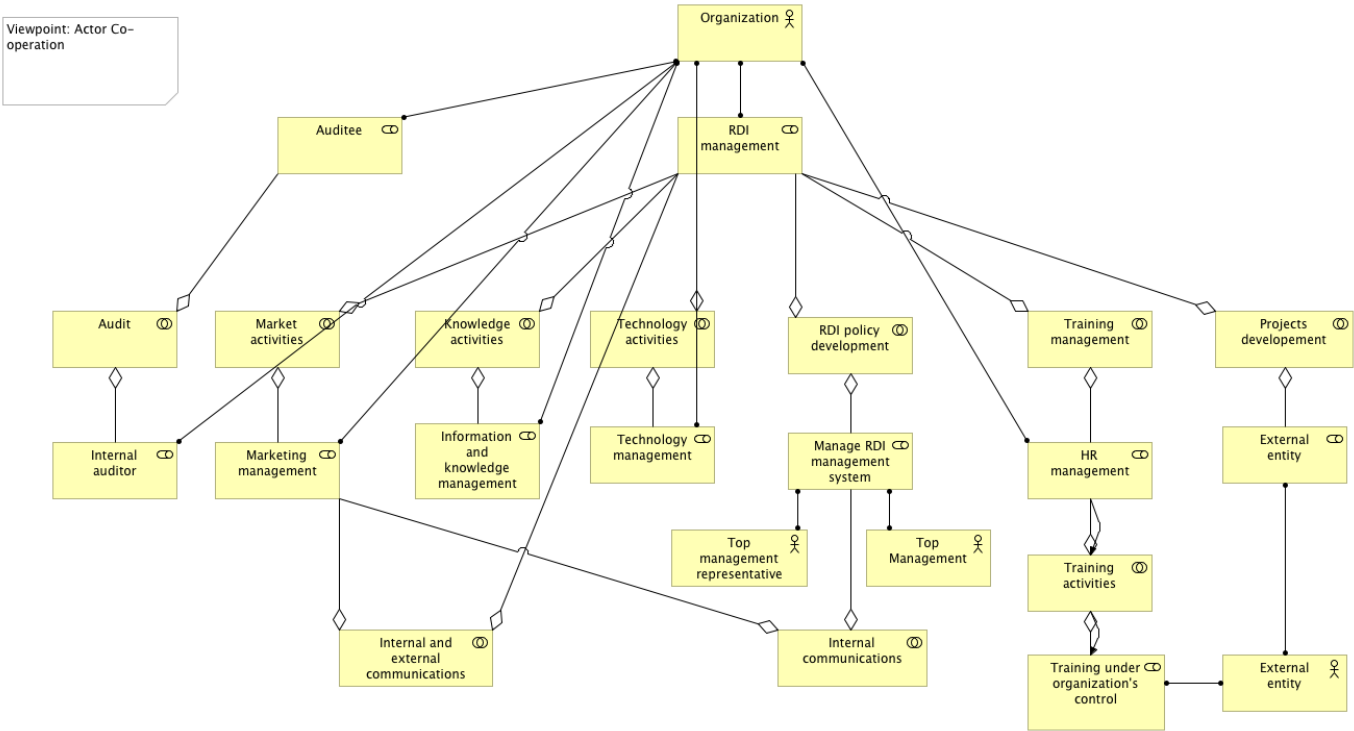


Appendix 4.27: Viewpoint: RDI Policy Business Process Co-operation

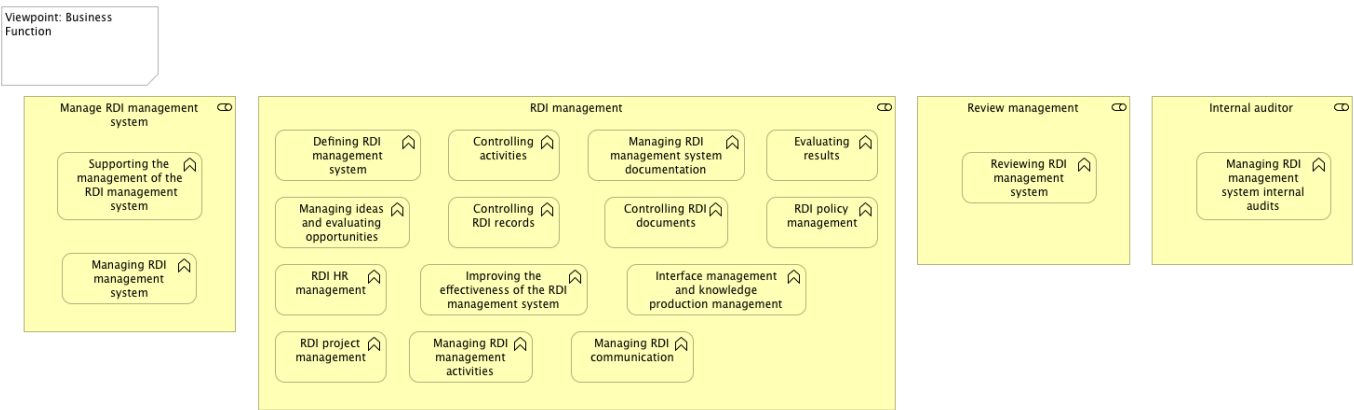
Viewpoint: RDI Policy Business Process Co-operation



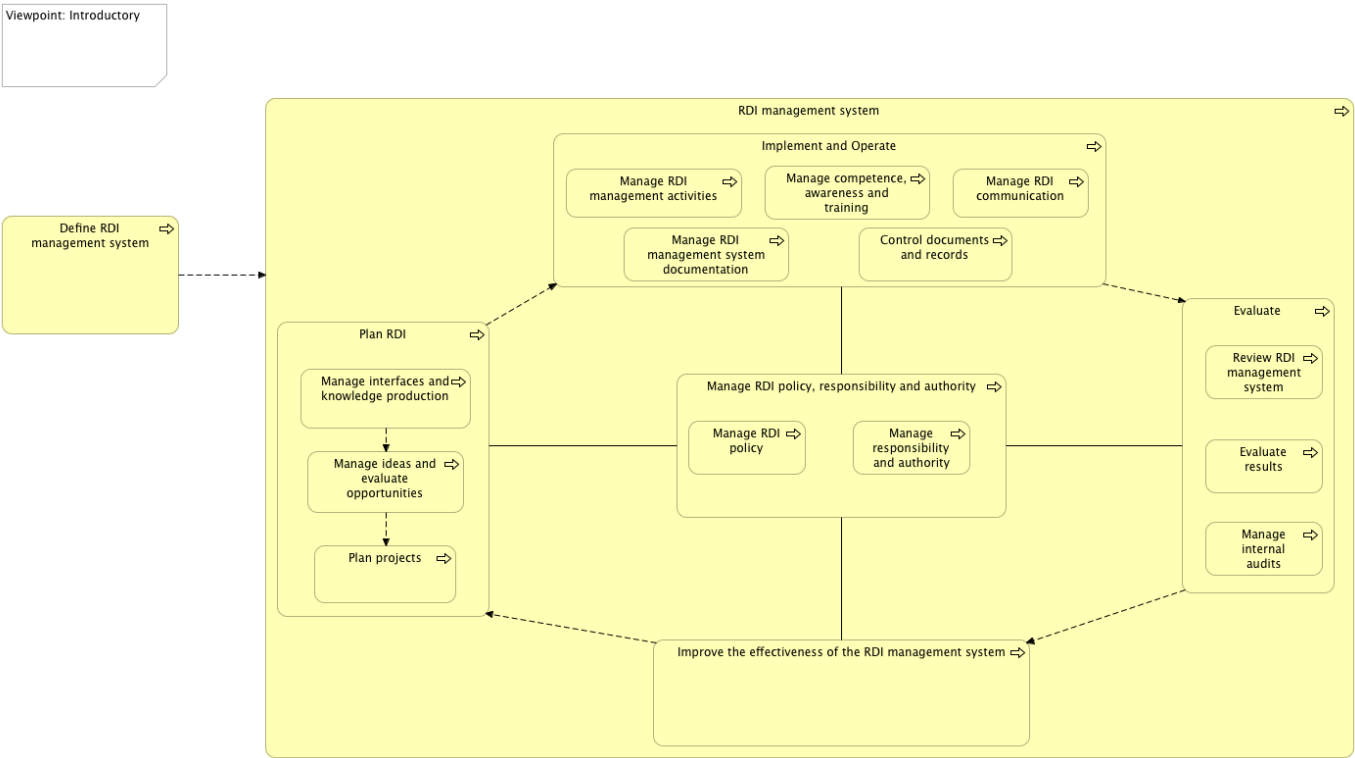
Appendix 4.28: Viewpoint: Actor Co-operation



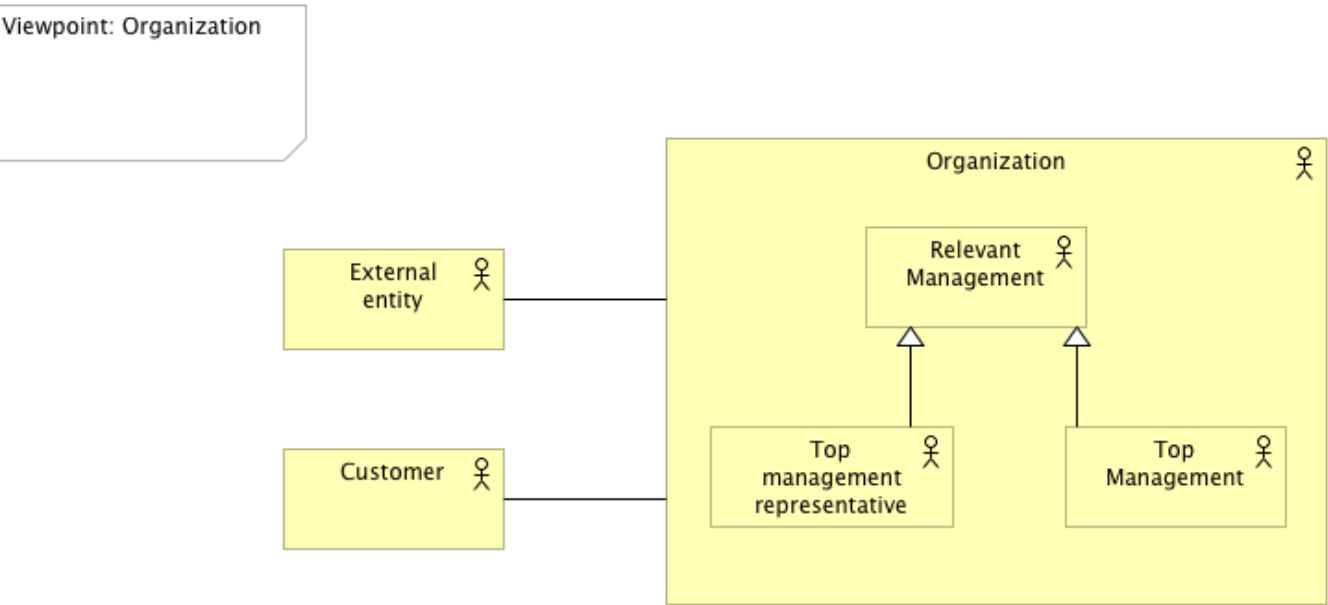
Appendix 4.29: Viewpoint: Business Function



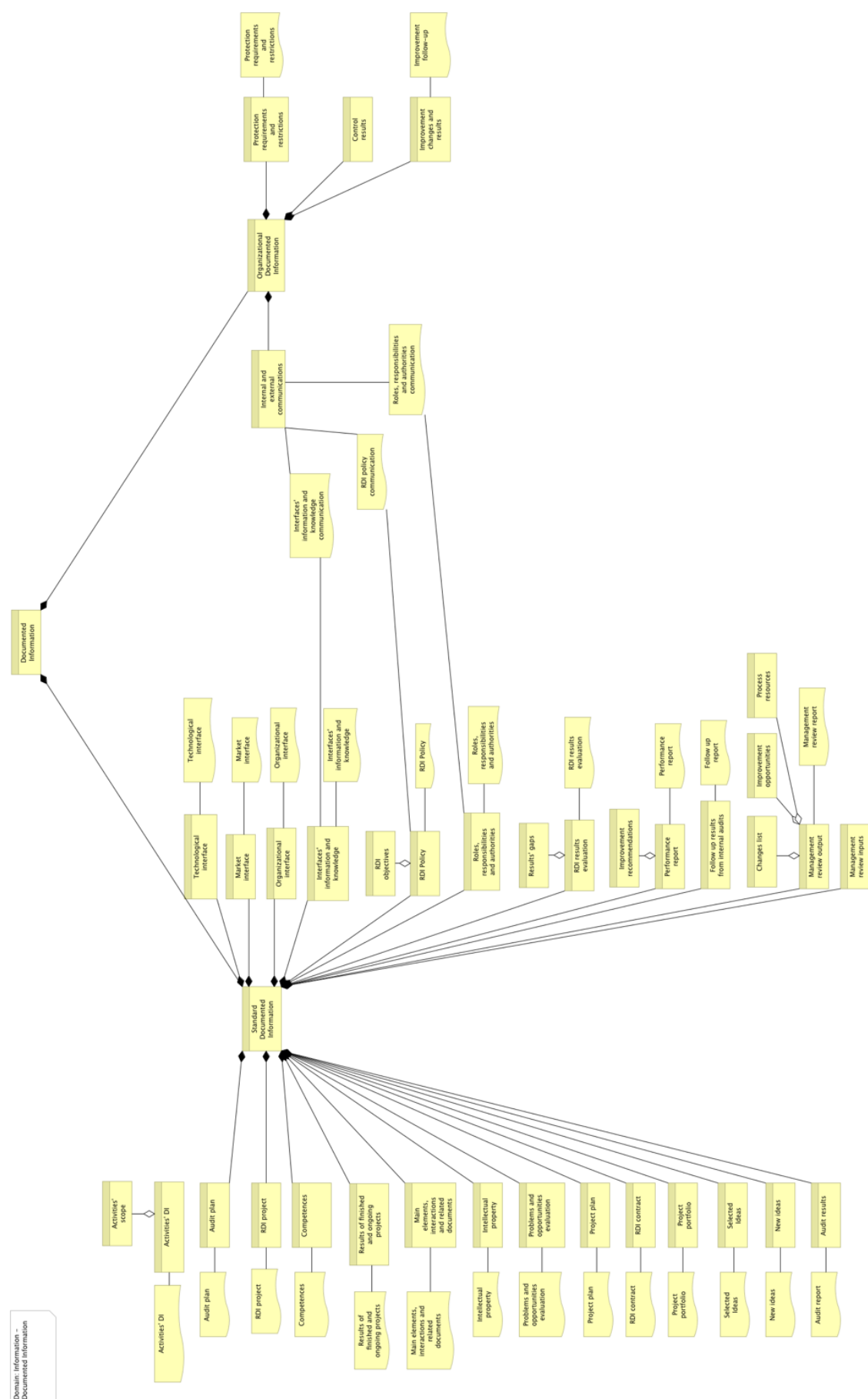
Appendix 4.30: Viewpoint: Introductory



Appendix 4.31: Viewpoint: Organization

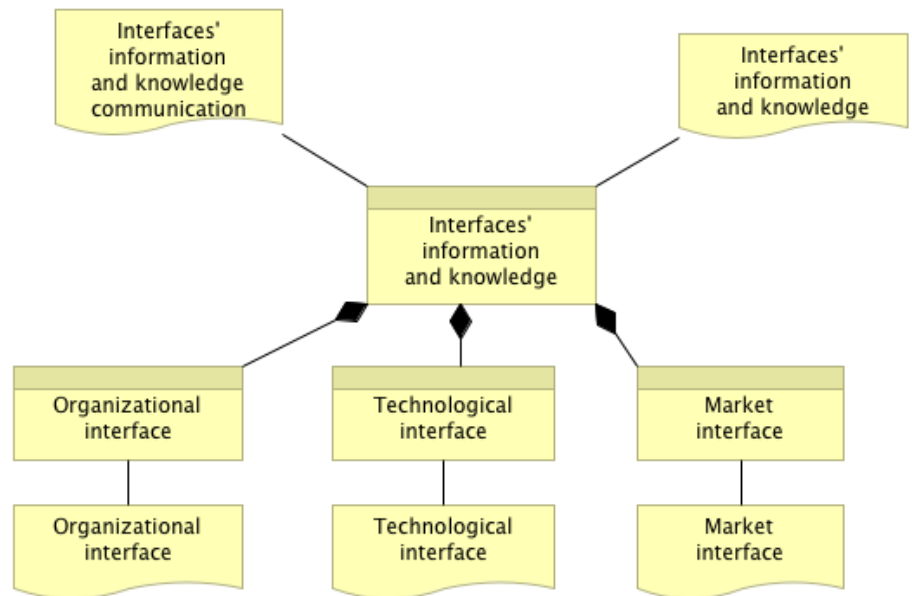


Appendix 4.32: Domain: Information - Documented Information



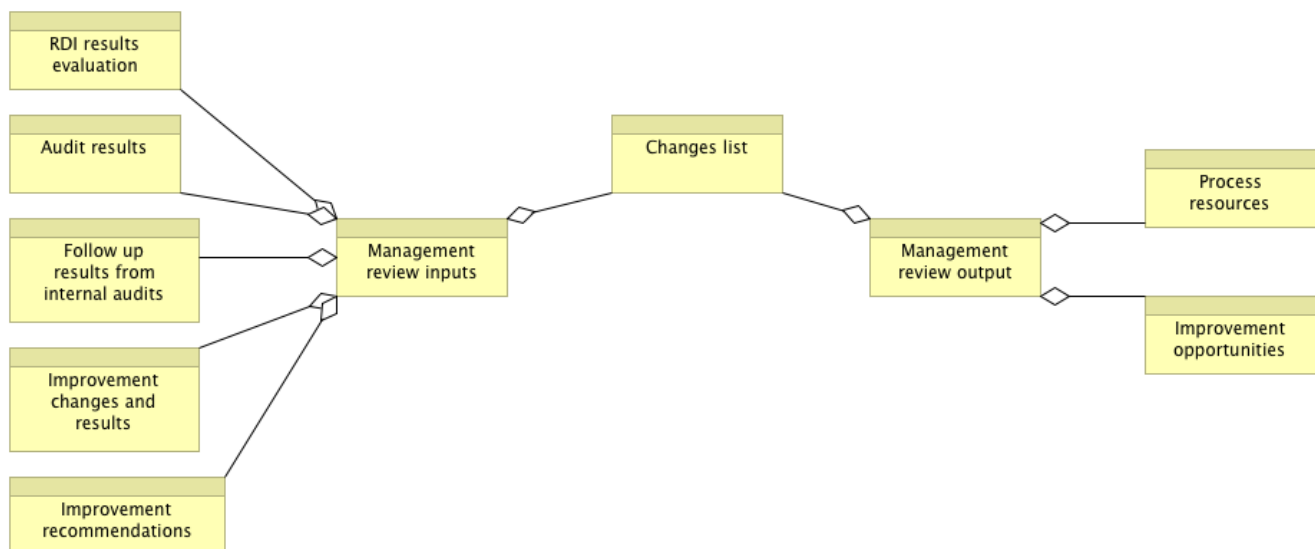
Appendix 4.33: Domain: Information - Interface management and knowledge production management Information Architecture

Domain: Information –
Interface management and
knowledge production
management Information
Architecture



Appendix 4.34: Domain: Information - Management Review Information Architecture

Domain: Information –
Management Review
Information Architecture



Appendix 5: Planning of RDI projects Business Process viewpoint questionnaire

Component	Type	Existence	Organization/Execution
Planning of RDI projects	Process (process view)		
Organization	Business Actor		
External entity	Business Actor		
RDI management	Business Role		
External entity	Business Role		
Projects development	Business Collaboration		
RDI project management	Business Function		
Plan projects	Business Process		
Develop project plan	Business Process		
Describe project	Business Process		
Define team, needed resources and planned time limits	Business Process		
Define verification and validation activities	Business Process		
Define method to control changes	Business Process		
Identify expected results	Business Process		
Collect arrangements for protection of intellectual property	Business Process		
Develop RDI project	Business Process		
Formalize externalized activities	Business Process		

Retain DI as evidence	Business Process		
Selected Ideas	Business Object		
Project plan	Business Object		
RDI project	Business Object		
RDI contract	Business Object		
Organizational Documented Information	Business Object		
Standard Documented Information	Business Object		
Selected Ideas	Representation		
Project plan	Representation		
RDI project	Representation		
RDI contract	Representation		

Appendix 6: Identified differences

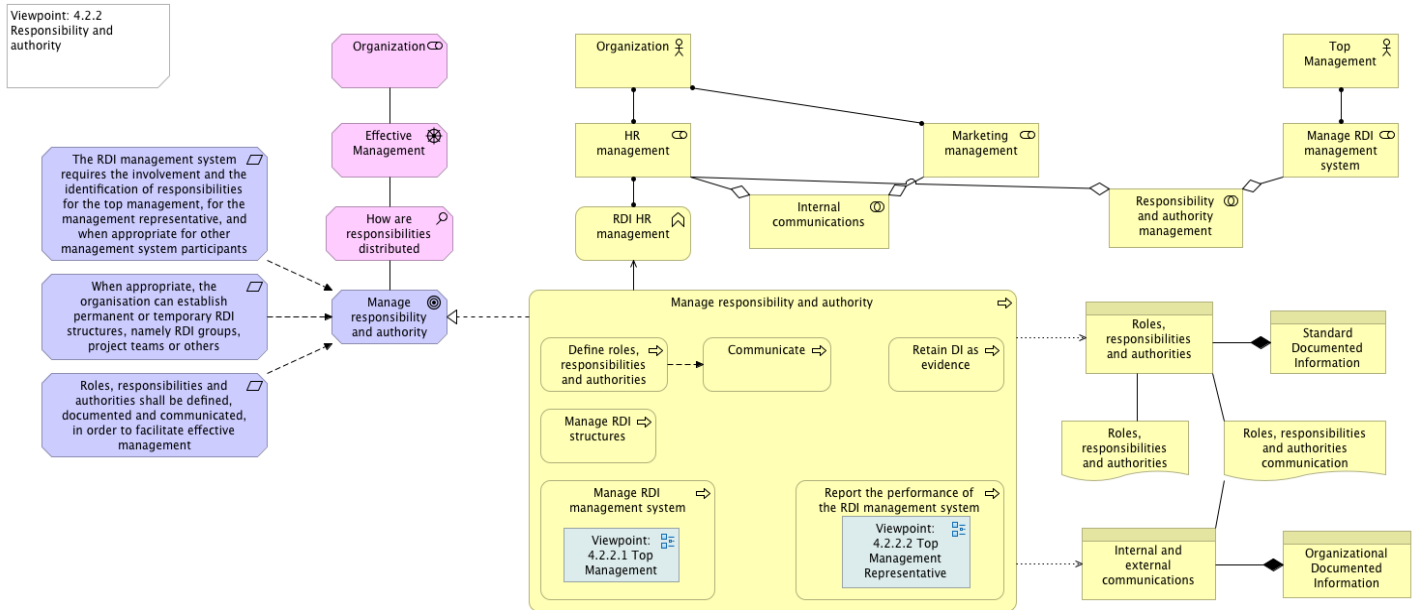
NP 4457 Reference Architecture	Number of differences	Notes
Clause 4	-	
Clause 4.1	-	
Clause 4.2	-	
Clause 4.2.1	-	
Clause 4.2.2	1	(Improvement Opportunity) Collaboration between HR management and Top Management
Clause 4.2.2.1	-	

Clause 4.2.2.2	1	(Improvement Opportunity) Collaboration between Top Management Representative and Quality and Innovation Manager
Clause 4.2.3	-	
Clause 4.3	-	
Clause 4.3.1	1	All artifacts were identified but the correspondent viewpoint needed to be restructured due to a misunderstanding about the clause
Clause 4.3.2	-	
Clause 4.3.3	6	Since the organization usually don't develop projects in cooperation with other entities, they don't have the business actor and role "External entity", the business collaboration "Projects development", the process "Formalize externalized activities" and

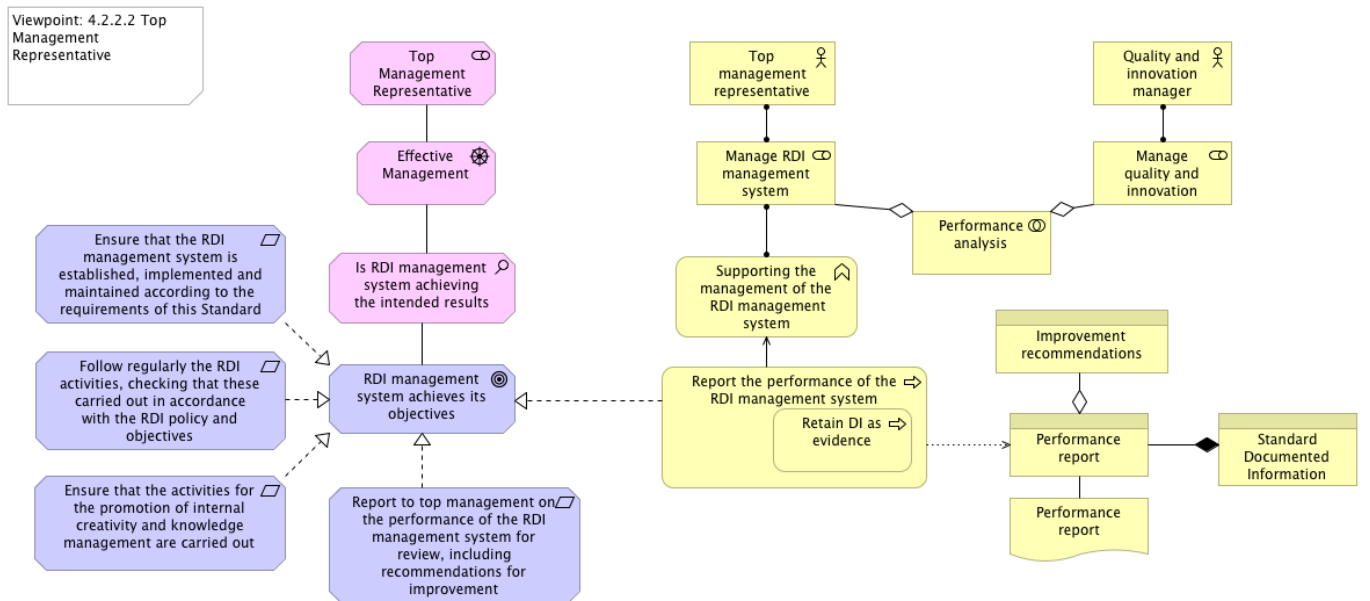
		the business object and representation “RDI contract”
Clause 4.4	-	
Clause 4.4.1	-	
Clause 4.4.2	-	
Clause 4.4.3	-	
Clause 4.4.4	-	
Clause 4.4.5	-	
Clause 4.4.5.1	-	
Clause 4.4.5.2	-	
Clause 4.5	-	
Clause 4.5.1	-	
Clause 4.5.2	-	
Clause 4.5.3	-	

Appendix 7: New and/or improved viewpoints and domains

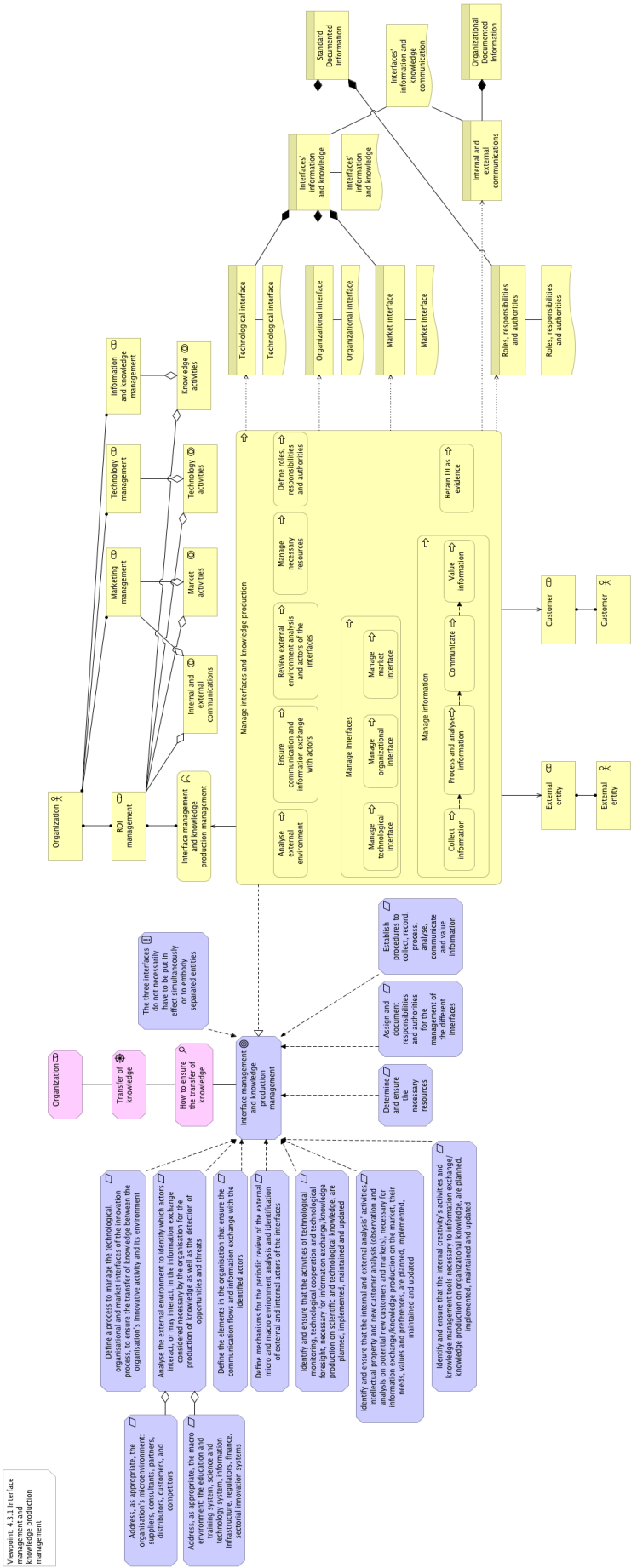
Appendix 7.1: Viewpoint: 4.2.2 Responsibility and authority



Appendix 7.2: Viewpoint: 4.2.2.2 Top Management Representative

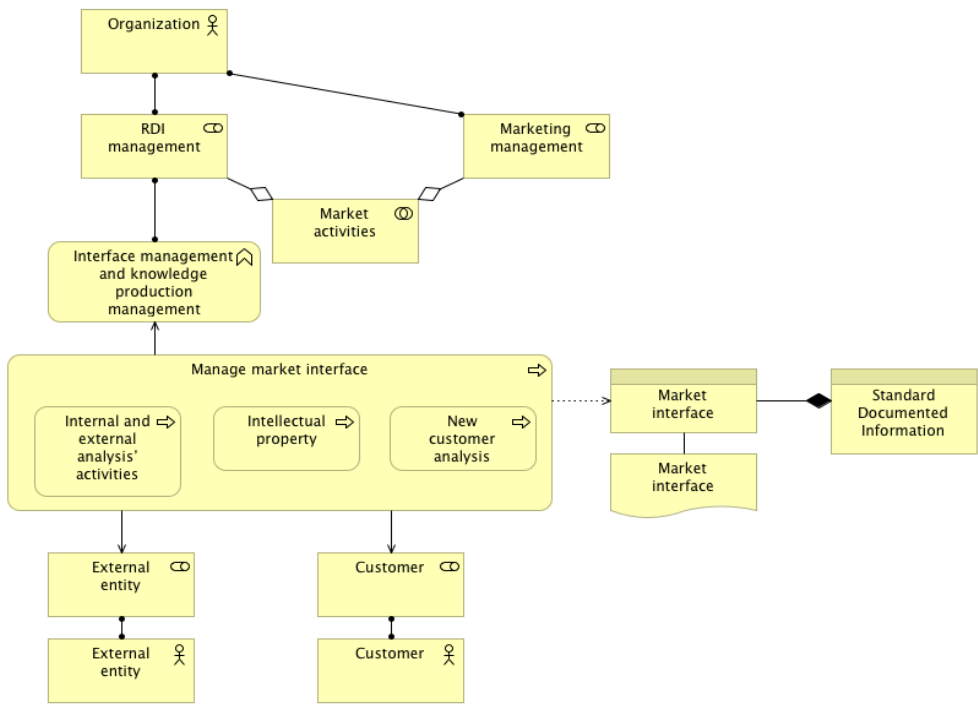


Appendix 7.3: Viewpoint: 4.3.1 Interface management and knowledge



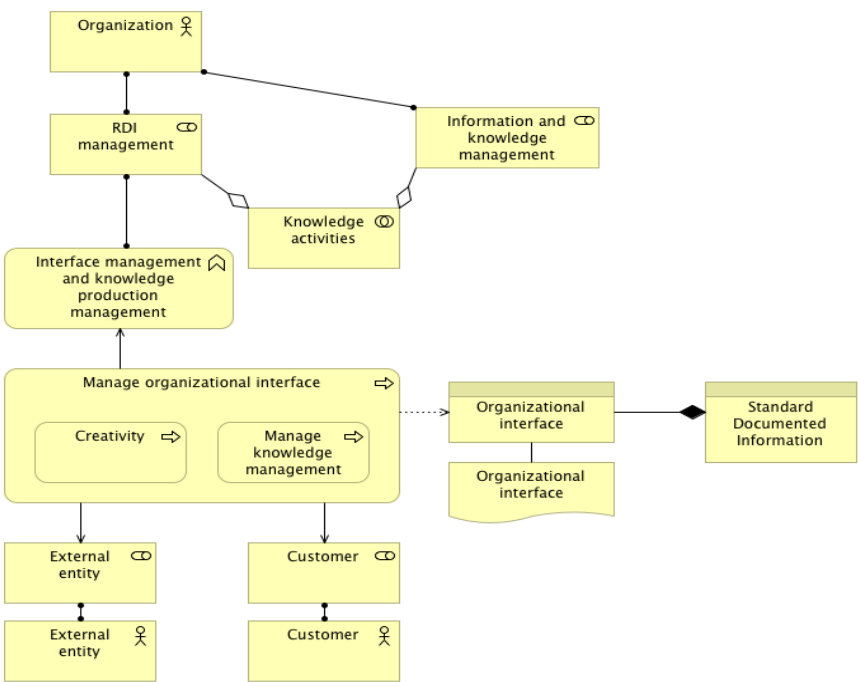
Appendix 7.4: Viewpoint: Market Interface Management

Viewpoint: Market Interface Management



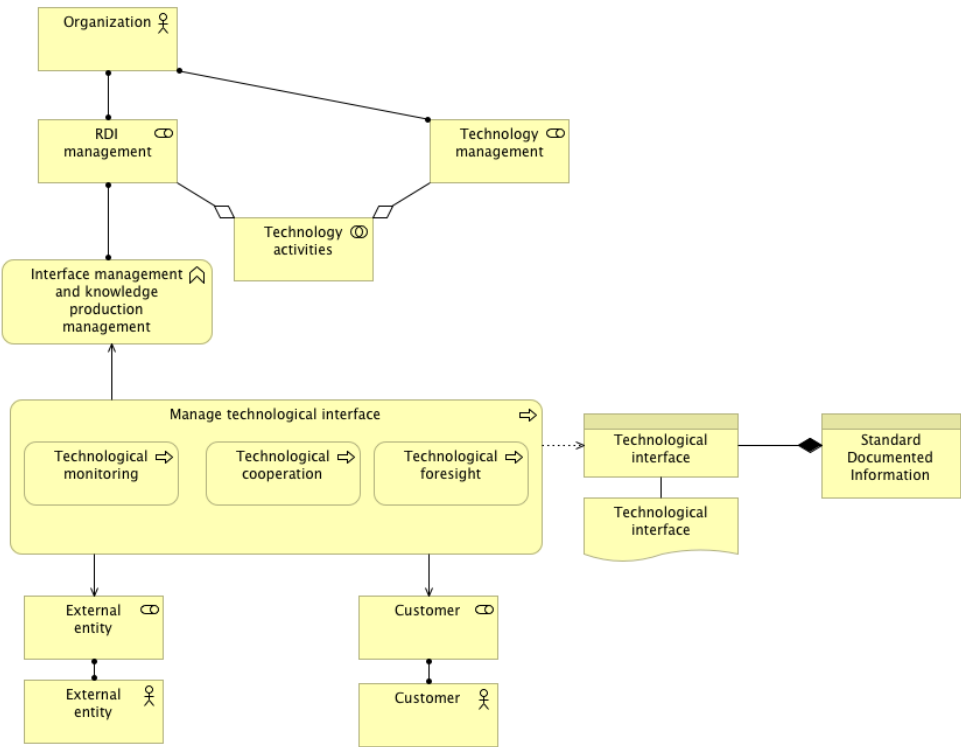
Appendix 7.5: Viewpoint: Organizational Interface Management

Viewpoint: Organizational Interface Management



Appendix 7.6: Viewpoint: Technological Interface Management

Viewpoint: Technological Interface Management



Appendix 7.7: Domain: Information - Documented Information

