

MODEM

Table of Contents

1.	MODEM document summary	6
1.1	Introduction.....	6
1.1.1	MODEM benefits	6
1.1.2	Document structure.....	7
2.	MODEM.....	8
2.1	Modelling Notation.....	8
2.2	All Views	9
2.2.1	AV-1: Overview and summary information.....	9
2.2.2	AV-2: Integrated dictionary.....	13
2.2.3	All Views elements list.....	15
2.2.4	All Views additional diagrams	58
2.3	Strategic views.....	72
2.3.1	StV-1: Enterprise vision	72
2.3.2	StV-2: Capability taxonomy	73
2.3.3	StV-3: Capability phasing.....	74
2.3.4	StV-4: Capability dependencies	75
2.3.5	StV-5: Capability to organisational deployment mapping	76
2.3.6	StV-6: Operational activity to capability mapping	77
2.3.7	Strategic Views elements list.....	77
2.3.8	Strategic Views additional diagrams.	88
2.4	Operational views	93
2.4.1	OV-1: High level operational concept graphic (a, b, c).....	93
2.4.2	OV-2: Operational node relationship description.....	94

2.4.3	OV-3: Operational information exchange matrix	95
2.4.4	OV-4: Organisational relationships chart	96
2.4.5	OV-5: Operational activity model	98
2.4.6	OV-6: Operational rules, state descriptions and event-trace description.....	99
2.4.7	OV-7: Information model.....	103
2.4.8	Operational Views elements list	104
2.4.9	Operational Views additional diagrams.....	133
2.5	Service views	143
2.5.1	SOV-1: Service taxonomy.....	143
2.5.2	SOV-2: Service interface specification	144
2.5.3	SOV-3: Capability to service mapping.....	145
2.5.4	SOV-4: Service constraints, state model and interaction specification	146
2.5.5	SOV-5: Service functionality	150
2.5.6	Service Views elements list.....	151
2.5.7	Service Views additional diagrams.....	165
2.6	System views	169
2.6.1	SV-1: Resource interaction specification	169
2.6.2	SV-2: System port specification, connectivity description and clusters.....	173
2.6.3	SV-3: Resource interaction matrix	176
2.6.4	SV-4: Functionality description.....	177
2.6.5	SV-5: Function operational activity/ service function traceability matrix.....	178
2.6.6	SV-6: Systems data exchange matrix	179
2.6.7	SV-7: Resource performance parameters matrix.....	180
2.6.8	SV-8: Capability configuration management	181

2.6.9	SV-9: Technology and skills forecast.....	182
2.6.10	SV-10: Resource constraints, state transition and event-trace description	183
2.6.11	SV-11: Physical schema	187
2.6.12	SV-12: Service provision and service composition.....	188
2.6.13	System Views elements list	189
2.6.14	System Views additional diagrams.....	243
2.7	Technical standards views	254
2.7.1	TV-1: Standards profile, TV-2: Standards forecast.....	254
2.7.2	TV-3: Standard configuration.....	255
2.7.3	Protocols	256
2.7.4	Technical standards Views elements list	257
2.7.5	Technical standards Views additional diagrams.....	272
2.8	Acquisition views	274
2.8.1	AcV-1: Acquisition clusters	274
2.8.2	AcV-2: Programme timelines	275
2.8.3	Acquisition Views elements list	275
2.8.4	Acquisition Views additional diagrams.....	290
3.	Additional information.....	294
3.1	Introduction.....	294
3.2	The IDEAS foundation	294
3.2.1	IDEAS Foundation elements list	294
3.3	IDEAS Foundation additions	337
3.3.1	IDEAS foundation addition diagrams	337
3.3.2	IDEAS Foundation addition elements list	344

3.4	Patterns	354
3.4.1	Body capable of process diagrams	354
3.4.2	Body capable of process elements list	356
3.4.3	Temporal border diagrams.....	360
3.4.4	Temporal border elements list	361
3.4.5	State and interaction diagrams.....	363
3.4.6	State and interactions elements list.....	371
3.4.7	Exchange diagrams.....	384
3.4.8	Exchange elements list	388
3.4.9	Agent diagrams.....	398
3.4.10	Agent elements list	405
3.4.11	Process diagrams	413
3.4.12	Process elements list.....	417

1. MODEM document summary

1.1 Introduction

This document is an extraction from the MODEM model and should be used as a dictionary of MODEM. Descriptive reports can be found in:

- MODAF_M3_and_IDEAS_integration_version_2.00.pdf
This report deals with the mapping between MODEM and the MODAF M3 meta-model.
- MODAF_M3_and_IDEAS_integration_examplification_version_2.00.pdf
This report contains modelling examples both of the IDEAS foundation directly as well as models created by the use of MODEM directly, i.e. not filtered through a tool implementation. This is required for verification purposes in order to ensure that the MODEM meta-model can be used directly to create enterprise architecture models. It should be emphasised that this it is not intended that the MODEM model should be used in this manner by modellers. In order for tool manufacturers to implement MODEM properly, the examples shown here are a requirement.

1.1.1 MODEM benefits

- MODEM provides a truly EA tool agnostic representation of MODAF.
- This allows both general EA tools as well as UML based tools to work with a common basis, something that in time will increase the number of different tools that can interwork.
- The semantic created by MODEM underpinning improves the MODAF concepts in a number of areas.
 - Common patterns have also been identified as a result of the MODEM work, something that leads, in a number of areas, to a clearer understanding of the model as well as similarity between different aspects of the model since the patterns are reused throughout the model.
- MODEM is grounded in real-world semantics and provides proper handling of individuals, something that MODAF never did. This also implies that the meta-model has a formalism required to ensure that data can be maintained in a semantically consistent and coherent manner. MODEM can therefore be used to deal with the grave semantic issues that plague the proprietary meta-model that the generic EA tools use (1) as well as the ones identified for the UML based tools (2).
- MODAF M3 was based on UML and this was, at the time, a good decision. UML is a common standard and has had an enormous amount of work invested in it. MODEM has been created by harvesting all of the good points of MODAF and UML and winnowing out all the less good parts by means of the BORO methodology that underpins the work effort to create MODEM.
- The origins of UML are primarily technical and devoted to the design of software systems and this is one of the reasons that UML use brings with it a lot of baggage.
- The UML baggage which in many cases distorts the MODAF meta-model is therefore removed in MODEM and a more enterprise architecture approach has been achieved.
- MODEM development has had the primary objective of covering MODAF, i.e. it is by and large backward compatible to MODAF architectures developed based on the M3 meta-model.

- MODEM, it is felt, answers the need of NATO to have a NAF model without UML dependencies.
- MODEM provides a vehicle for discussions and development of a common enterprise architecture framework for defence (and even outside defence) since it will be based on the same concepts as DoDAF 2.

1.1.2 Document structure

This document is structured in the following manner:

- For each viewpoint (AV, StV, OV, SOV, SV, TV and AcV) the M3 meta-model view MODEM counterparts are contained. In some viewpoints there are some additional view representations that were not contained in MODAF M3 but this is rare.
- The above viewpoint descriptions are followed by a list of all of the elements owned by a particular viewpoint. It should be noted that there will often be more elements in this list than the ones that are shown in the above viewpoint views.
- The elements list is followed by a set of figures that show relevant features of the MODEM model in greater detail.
- At the end of the document, the same structure is repeated for the IDEAS foundation, additions made to the Foundation to accommodate MODEM and also the patterns defined in order to bridge the gap between the IDEAD foundation and MODAF.

2. MODEM

2.1 Modelling Notation

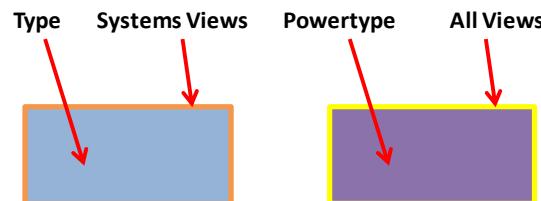
The UML model for MODEM uses a slightly enhanced colour scheme from the usual IDEAS approach. The fill colours of each element remain the same:

- Sky-blue = Type
- Orange = IndividualType
- Lilac = Powertype
- Light-green = TupleType
- Dark-grey = Individual
- Yellow = NamingScheme

For MODEM, in addition to, the border colour is used to indicate the MODAF viewpoint, using the standard MODAF colours:

- Yellow = All Views
- Green = Strategic Views
- Purple = Service-Oriented Views
- Blue = Operational Views
- Orange = Systems Views
- Pink = Acquisition Views
- Grey = Technology & Standards Views

Examples are:



In addition, placeable types (Tuples, TupleTypes, TupleTypeTypes, etc.) are displayed with thin borders whilst all other elements have thick borders.

As noted later in this document, some additions to the IDEAS Foundation were necessary. Where these additions are used, they are shown with a red border.

2.2 All Views

2.2.1 AV-1: Overview and summary information

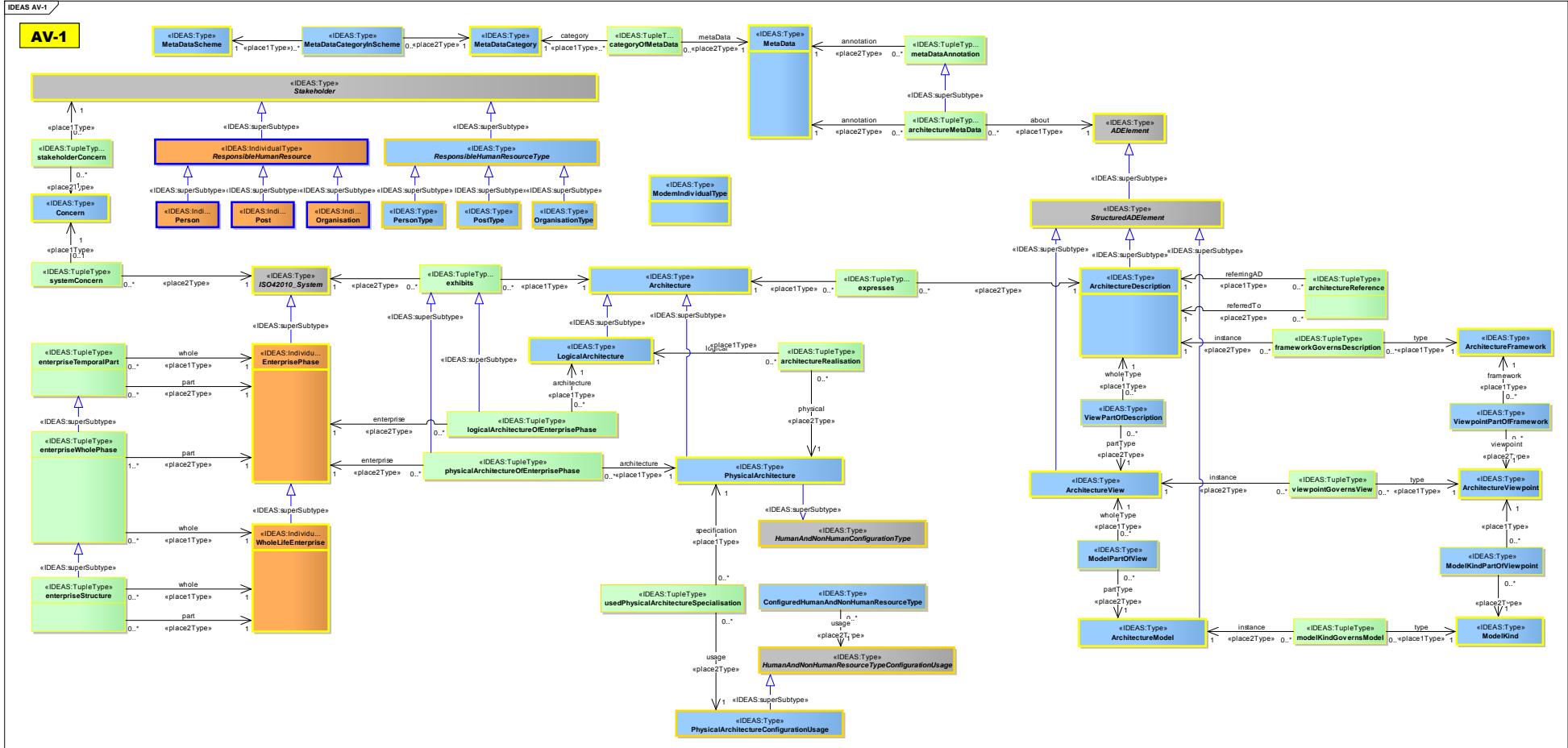


Figure 1 : AV-1

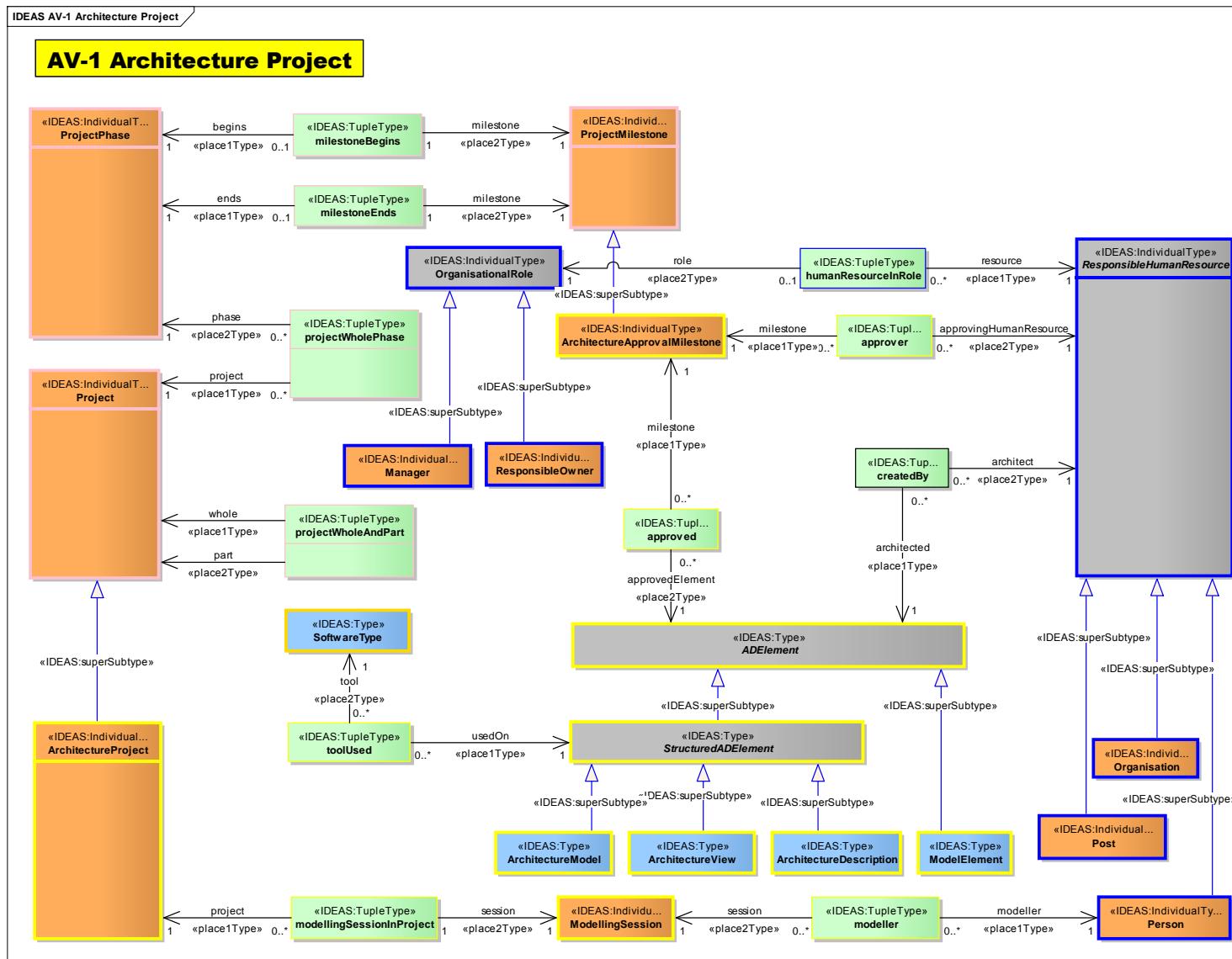


Figure 2 : AV-1 Architecture Project

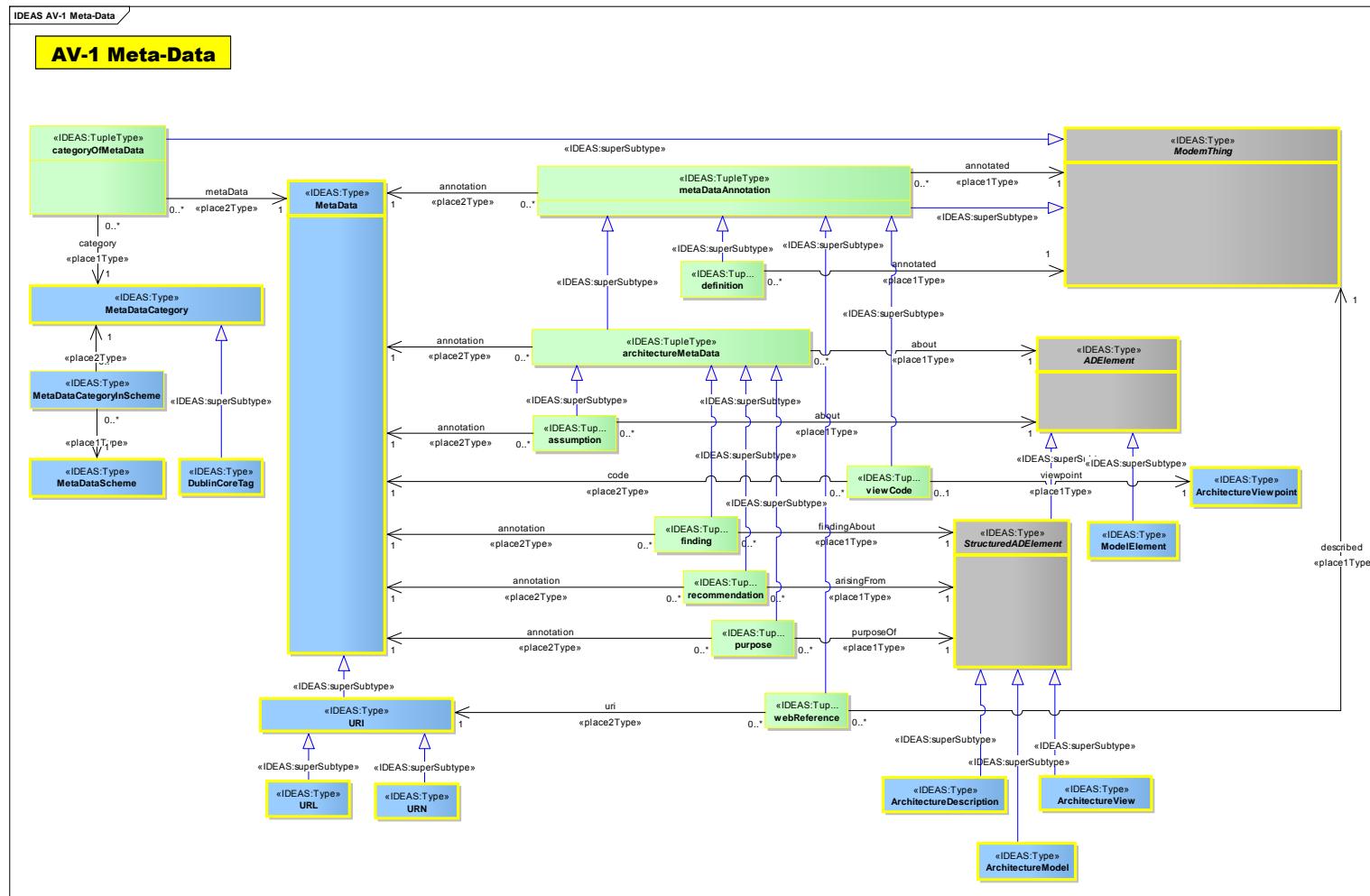


Figure 3 : AV-1 Meta-Data

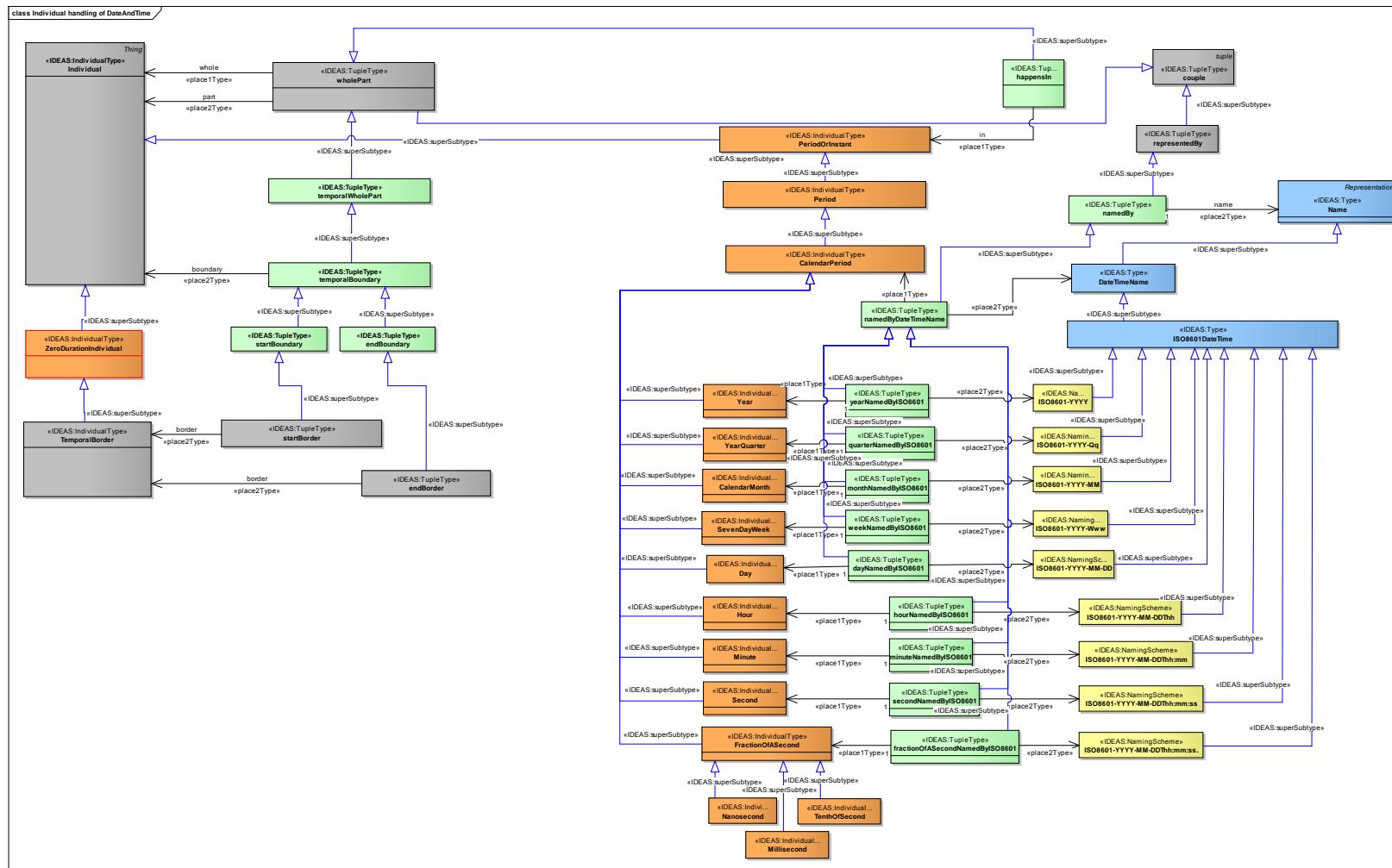


Figure 4 : Individual handling of DateAndTime

2.2.2 AV-2: Integrated dictionary

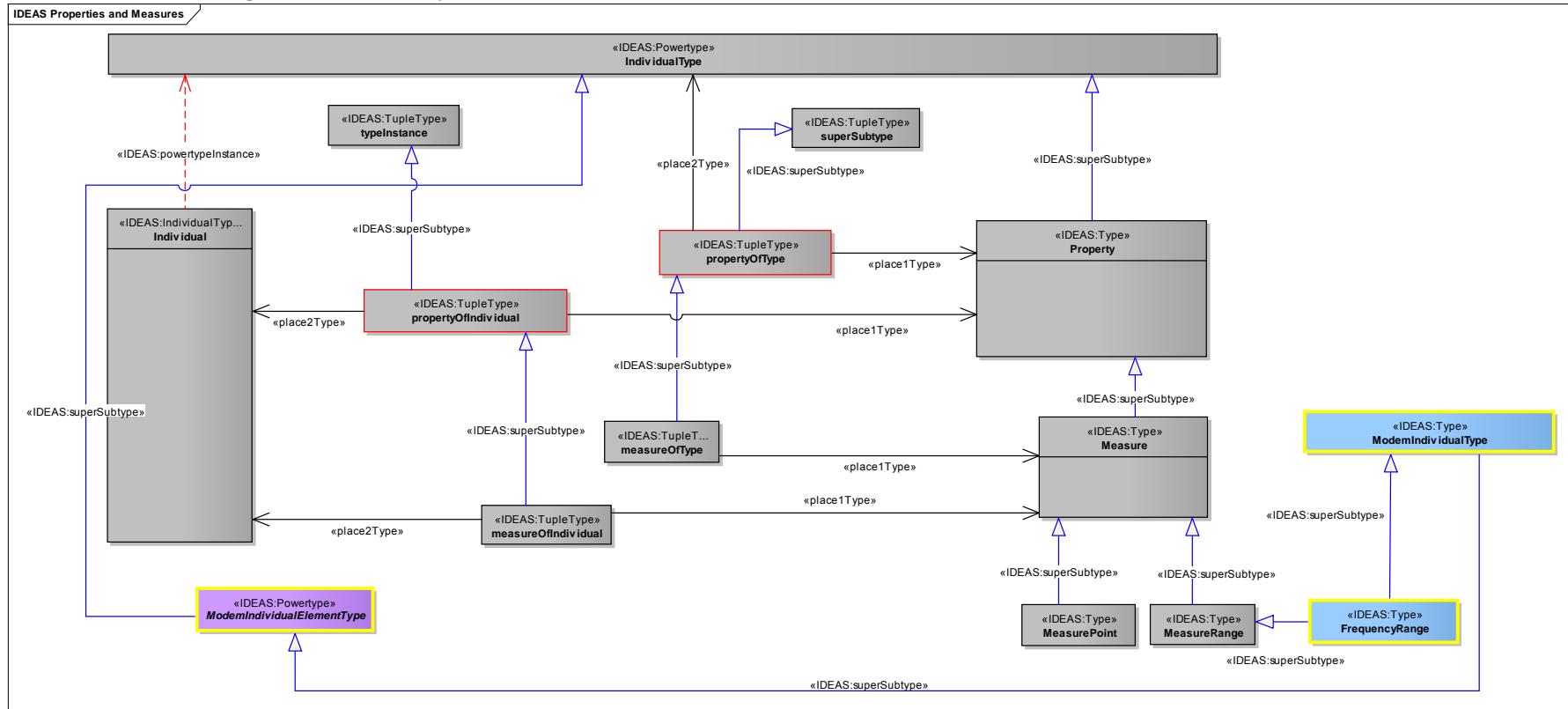


Figure 5 : Properties and Measures

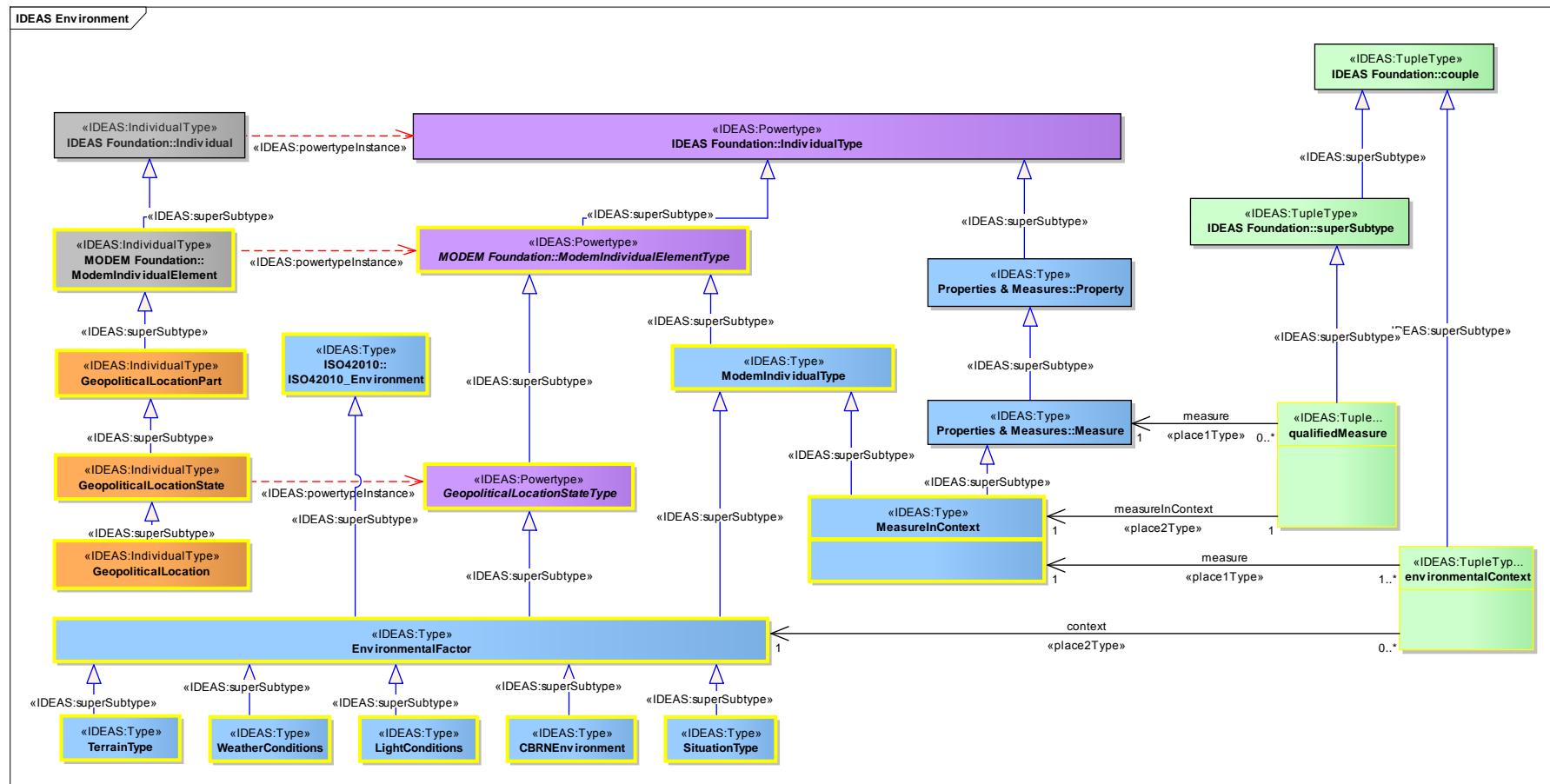


Figure 6 : Environment

2.2.3 All Views elements list

MODEM All Views

After «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

After - BeforeAfterType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

After - StartsAfter

Association (source - target):«place2Type»

After - TriggerItem

Association (source - target):«place1Type»

After - TriggerItem

Attributes:

-
A BeforeAfterType where one TriggerItem starts after another has ended.

Note: the TriggerItem that happens after may happen at any point in time after the one that comes before it (i.e. there may be an interval of time between them).

AgentCapableOfResponsibilityOrAgentCapableOfResponsibilityType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

AgentCapableOfResponsibilityOrAgentCapableOfResponsibilityType - Type

Attributes:

-
The union of AgentCapableOfResponsibility and AgentCapableOfResponsibilityType.

ArchitectureApprovalMilestone «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ArchitectureApprovalMilestone - ProjectMilestone

Attributes:

-
A ProjectMilestone where an ADElement is approved by a ResponsibleHumanResource. Note: this replaces the dateCompleted tag on ArchitecturalDescription in M3.

ArchitectureProject «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ArchitectureProject - Project

Attributes:

-
A Project that delivers an ArchitectureDescription.

ArtefactPowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArtefactPowertype - NonHumanResourcePowertype

Attributes:

-
The powertype of Artefact.

CBRNEvironment «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CBRNEvironment - EnvironmentalFactor

Attributes:

-
An EnvironmentalFactor that defines the type of chemical, biological, radiological and nuclear environment in which an Enterprise may operate.

Constraint «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Constraint - ModemIndividualType

Attributes:

-
A ModemIndividualType that is the collection of all the objects subject to a particular constraint.

Delay «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Delay – TriggerItem

Attributes:

-
A TriggerItem that is a pause between Processes, Events, etc.

DublinCoreTag «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DublinCoreTag - MetaDataCategory

Attributes:

-
A MetaDataCategory that is a DublinCore tag.

EnduringTaskPart «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnduringTaskPart - UndertakingPart

Attributes:

-
An UndertakingPart where the whole is an EnduringTask.

EnterprisePart «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterprisePart - AgentPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterprisePart - UndertakingPart

Attributes:

-
A part of a WholeLifeEnterprise

EnterprisePhase «IDEAS:IndividualType»Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»
EnterprisePhase - EnterprisePhaseType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnterprisePhase - UndertakingState
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnterprisePhase - EnterprisePart
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnterprisePhase - AgentState
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnterprisePhase - ISO42010_System

Attributes:

-
An UndertakingState that is a current or future state of a WholeLifeEnterprise or another EnterprisePhase.

EnterprisePhaseType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnterprisePhaseType - UndertakingStateType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnterprisePhaseType - AgentStateType

Attributes:

-
The powertype of EnterprisePhase

EnvironmentalFactor «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnvironmentalFactor - GeopoliticalLocationStateType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnvironmentalFactor - ISO42010_Environment
Generalization (element - is a subtype of): «IDEAS:superSubtype»
EnvironmentalFactor - ModemIndividualType

Attributes:

-
A GeopoliticalLocationStateType that defines some aspect of the environment in which an Enterprise may operate.

Event «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
Event - TemporalBorderType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
Event - TriggerItem

Attributes:

-
A TemporalBorderType whose instances are instants the mark the temporal beginning or end of an Individual.

FrequencyRange «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FrequencyRange - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FrequencyRange - MeasureRange

Attributes:

- A MeasureRange that specifies maximum and minimum frequencies, measured in Hertz as real numbers.

GeoName «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

GeoName - StringName

Attributes:

- A MeasureRange that specifies maximum and minimum frequencies, measured in Hertz as real numbers.

GeopoliticalLocation «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

GeopoliticalLocation - Location

Generalization (element - is a subtype of): «IDEAS:superSubtype»

GeopoliticalLocation - IntentionallyConstructedIndividual

Dependency (element - is instance of): «IDEAS:powertypeInstance»

GeopoliticalLocation - GeopoliticalLocationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

GeopoliticalLocation - GeopoliticalLocationState

Attributes:

- A Location and a GeoPoliticalArea.

GeopoliticalLocationPart «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

GeopoliticalLocationPart - ModemIndividualElement

Attributes:

- A ModemIndividualElement that is a part of a GeopoliticalLocation.

GeopoliticalLocationState «IDEAS:IndividualType»*Connectors:*

Dependency (element - is instance of): «IDEAS:powertypeInstance»

GeopoliticalLocationState - GeopoliticalLocationStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

GeopoliticalLocationState - GeopoliticalLocationPart

Attributes:

- A GeopoliticalLocationPart that is a temporal state of a GeopoliticalLocation - i.e. all of the location for a period of time.

GeopoliticalLocationStateType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

GeopoliticalLocationStateType - ModemIndividualElementType

Attributes:

-
The powertype of GeopoliticalLocationState.

GeopoliticalLocationType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

GeopoliticalLocationType - GeopoliticalLocationStateType

Attributes:

-
The powertype of GeopoliticalLocation.

ISO6709Representation «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ISO6709Representation - GeoName

Attributes:

-
A GeoName expressed using the ISO6709:2008 standard notation
Examples: "-90+000+2800CRSWGS_84/" "+48.8577+002.295/"

ImmediatelyAfter «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ImmediatelyAfter - ImmediateBeforeAfterType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ImmediatelyAfter - After

Association (source - target): «place2Type»

ImmediatelyAfter - TriggerItem

Association (source - target): «place1Type»

ImmediatelyAfter - TriggerItem

Attributes:

-
An After where the subsequent TriggerItem starts immediately as the preceding TriggerItem ends.

InformationInstance «IDEAS:IndividualType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

InformationInstance - Sign

Dependency (element - is instance of): «IDEAS:powertypeInstance»

InformationInstance - InformationInstanceType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationInstance - ModemIndividualElement

Attributes:

-
A Sign that is an individual item of information (e.g. an utterance, an individual instance of a paper or electronic document).

InformationInstanceType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationInstanceType - SignType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationInstanceType - ModemIndividualElementType

Attributes:

- The powertype of InformationInstance.

ItemInScenario «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ItemInScenario – TypicalWholePart

Association (source - target): «place1Type»

ItemInScenario - Scenario

Attributes:

- A TypicalWholePart where the whole is a Scenario.

LightConditions «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LightConditions - EnvironmentalFactor

Attributes:

- An EnvironmentalFactor that defines the types of light (e.g. broad daylight, dusk, moonlit, etc.) in which an Enterprise may operate.

Location «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Location - ModemIndividualElement

Attributes:

- A location anywhere on the earth. The means of describing the location is a string (locationDescription). The information contained in that string is governed by the taxonomy reference - e.g. if the Location is a "GPS reference", the string will contain the GPS coordinates.

Note: was called "ActualLocation" in M3 v1.2

LogicalArchitecture «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalArchitecture - Architecture

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalArchitecture - NodeParent

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalArchitecture - EnterprisePhaseType

Attributes:

- A NodeParent whose parts are either Nodes, KnownResources or LogicalDomains.

MeasureInContext «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

MeasureInContext - ModemIndividualType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

MeasureInContext - Measure

Attributes:

- A ModemIndividualType that brings together EnvironmentalFactors with a Measure in order to qualify the measure. Examples: 40mph in desert, 1km range in cloudy conditions.

MetaData «IDEAS:Type»*Connectors:*

Dependency (element - is instance of):«IDEAS:powertypeInstance»

MetaData - MetaDataType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

MetaData - StringRepresentation

Attributes:

- A StringRepresentation that can be applied to any element in the architecture. Note: wherever possible, standard Meta-Data types should be used - e.g. conforming to Dublin Core. Note for MOD Users: The MOD Meta Data Standard categories shall be used.

MetaDataCategory «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MetaDataCategory - MetaDataType

Attributes:

- A MetaDataType that defines the category of a MetaData element

example: <http://purl.org/dc/terms/abstract>

MetaDataCategoryInScheme «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

MetaDataCategoryInScheme - WholePartTypeType

Association (source - target):«place2Type»

MetaDataCategoryInScheme - MetaDataCategory

Association (source - target):«place1Type»

MetaDataCategoryInScheme - MetaDataScheme

Attributes:

- A WholePartTypeType that asserts a MetaDataCategory belongs to a MetaDataScheme.

MetaDataScheme «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MetaDataScheme - RepresentationScheme

Attributes:

- A RepresentationScheme that defines a set of MetaData

MetaDataType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MetaDataType - RepresentationType

Attributes:

-

The powertype of MetaData.

ModellingSession «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModellingSession - AgentPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModellingSession - ProjectPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModellingSession - ParticipationExtent

Attributes:

-

A ProjectPart where ArchitectureDescriptions are worked on.

ModemIndividualType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualType - ModemIndividualElementOrModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualType - ModafIndividualElementType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualType - ModemThing

Attributes:

-

The parent (supertype) of all MODEM elements that are types of Individuals

e.g. tank, computer, etc.

ModemTemporalWholePartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemTemporalWholePartType - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemTemporalWholePartType - TemporalWholePartType

Association (source - target): «place2Type»

ModemTemporalWholePartType - ModemIndividualElementType

Association (source - target): «place1Type»

ModemTemporalWholePartType - ModemIndividualElementType

Attributes:

-

The powertype of modemTemporalWholePart.

ModemWholePartType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemWholePartType - WholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemWholePartType - ModemThing

Association (source - target): «place2Type»

ModemWholePartType - ModafIndividualElementType

Association (source - target): «pplace1Type»

ModemWholePartType - ModafIndividualElementType

Attributes:

-
The powertype of modemWholePart.

PhysicalArchitecture «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalArchitecture - HumanAndNonHumanConfigurationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalArchitecture - PhysicalArchitecturePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalArchitecture - Architecture

Attributes:

-
A HumanAndNonHumanConfigurationType that specifies the structure and behaviour of an EnterprisePhase.

PointLocation «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PointLocation - GeopoliticalLocationPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PointLocation - Location

Attributes:

-
A Location expressed as a point on a ReferenceEllipsoidOrGeoid.

ProjectPartType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPartType - UndertakingPartType

Attributes:

-
The powertype of ProjectPart.

ProjectPhaseType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPhaseType - ProjectPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPhaseType - UndertakingStateType

Attributes:

-

<p>The powertype of ProjectPhase</p> <p>ProjectPowertype «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ProjectPowertype - ProjectPhaseType</p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ProjectPowertype - UndertakingType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of Project</p>
<p>ProjectThreadPowertype «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ProjectThreadPowertype - ProjectPartType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of ProjectThread.</p>
<p>ResourcePackageType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ResourcePackageType - IndividualResourcePowertype</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of ResourcePackage.</p>
<p>Scenario «IDEAS:Type»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>Scenario - ModemIndividualType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A ModemIndividualType whose typical parts are other ModemIndividualTypes that are organised into a typical temporal sequence.</p>
<p>ServiceDelivery «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ServiceDelivery - ServiceDeliveryState</p> <p><i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»</p> <p>ServiceDelivery - ServiceDeliveryType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>An Undertaking that is a realization of a ServiceSpecification - i.e. the delivery of Service according to that specification. Note a ServiceDelivery is an Individual whose extent is the fusion of all the processes, people, systems that go into delivering a service. Example: the ongoing building management service provided to MOD by Amey for Main Building.</p>
<p>ServiceDeliveryPart «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ServiceDeliveryPart - ModemIndividualElement</p> <p><i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»</p> <p>ServiceDeliveryPart - ServiceDeliveryPartType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> -

- A ModemIndividualType that is part of a ServiceDelivery.

ServiceDeliveryPartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceDeliveryPartType - ModemIndividualElementType

Attributes:

- The powertype of ServiceDeliveryPart.

ServiceDeliveryState «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceDeliveryState - ServiceDeliveryPart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ServiceDeliveryState - ServiceDeliveryStateType

Attributes:

- A ServiceDeliveryPart that is a temporal part of a ServiceDelivery - i.e. all of the ServiceDelivery for a period of time.

ServiceDeliveryStateType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceDeliveryStateType - ServiceDeliveryPartType

Attributes:

- The powertype of ServiceDeliveryState.

ServiceDeliveryType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceDeliveryType - ServiceDeliveryStateType

Attributes:

- The powertype of ServiceDelivery.

ServiceDeliveryWholeAndPartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceDeliveryWholeAndPartType - ServiceDeliveryWholeStateType

Association (source - target): «place2Type»

ServiceDeliveryWholeAndPartType - ServiceDeliveryType

Attributes:

- The Powertype of serviceDeliveryWholeAndPart.

ServiceDeliveryWholeFacadeType «IDEAS:Powertype»Connectors:

Generalization (*element - is a subtype of*): «IDEAS:superSubtype»

ServiceDeliveryWholeFacadeType - ServiceDeliveryWholePartType

Association (*source - target*): «place2Type»

ServiceDeliveryWholeFacadeType - ServiceFacadeType

Attributes:

-
The powertype of serviceDeliveryWholeFacade.

ServiceDeliveryWholePartType «IDEAS:Powertype»Connectors:

Generalization (*element - is a subtype of*): «IDEAS:superSubtype»

ServiceDeliveryWholePartType - ModemWholePartType

Association (*source - target*): «place2Type»

ServiceDeliveryWholePartType - ServiceDeliveryPartType

Association (*source - target*): «place1Type»

ServiceDeliveryWholePartType - ServiceDeliveryType

Attributes:

-
The powertype of serviceDeliveryWholePart.

ServiceDeliveryWholeStateType «IDEAS:Powertype»Connectors:

Generalization (*element - is a subtype of*): «IDEAS:superSubtype»

ServiceDeliveryWholeStateType - ModemTemporalWholePartType

Generalization (*element - is a subtype of*): «IDEAS:superSubtype»

ServiceDeliveryWholeStateType - ServiceDeliveryWholePartType

Association (*source - target*): «place2Type»

ServiceDeliveryWholeStateType - ServiceDeliveryStateType

Attributes:

-
The powertype of serviceDeliveryWholeState.

ServiceFacade «IDEAS:IndividualType»Connectors:

Generalization (*element - is a subtype of*): «IDEAS:superSubtype»

ServiceFacade - ServiceDeliveryPart

Dependency (*element - is instance of*): «IDEAS:powertypeInstance»

ServiceFacade - ServiceFacadeType

Attributes:

-
A ServiceDeliveryPart that is the extent of all the parts of a ServiceDelivery that are concerned with communication with consumers. A ServiceFacade may be specified by a ServiceInterface.

ServiceFacadeType «IDEAS:Powertype»Connectors:

Generalization (*element - is a subtype of*): «IDEAS:superSubtype»

ServiceFacadeType - ServiceDeliveryPartType

Attributes:

-
The powertype of ServiceFacade.

SituationType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SituationType - EnvironmentalFactor

Attributes:

- An EnvironmentalFactor used to describe the types and levels of threat under which an Enterprise may operate. Examples: Corrosive, Fire, Smoke, Peaceful, Under Fire, Under Heavy Fire, etc.

StartsAfter «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StartsAfter - WeakTemporalOrderingType

Association (source - target):«place2Type»

StartsAfter - TriggerItem

Association (source - target):«place1Type»

StartsAfter - TriggerItem

Attributes:

- A WeakTemporalOrderingType that asserts one TriggerItem starts before another. Note: there is constraint on when either TriggerItem ends - hence if A starts before B, it is possible that B ends before A and indeed that A ends before B.

StartsImmediatelyAfter «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StartsImmediatelyAfter - StartsAfter

Association (source - target):«place2Type»

StartsImmediatelyAfter - TriggerItem

Association (source - target):«place1Type»

StartsImmediatelyAfter - TriggerItem

Attributes:

- A StartsAfter where the subsequent TriggerItem starts immediately after the preceding TriggerItem.

StateMachine «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateMachine - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateMachine - StateMachineViews

Attributes:

- A StateMachineViews used to model typical states and transitions for ModemIndividualElementTypes.

StateMachineRegion «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateMachineRegion - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateMachineRegion - StateMachineRegions

Attributes:

- A StateMachineRegions which is part of a StateMachine.

StateSpecification «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateSpecification - TriggerItem

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateSpecification - OwnedStateSets

Attributes:

-
An OwnedStateSets used in a MODEM state machine.

StateTransition «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateTransition - StateSetTransitions

Association (source - target): «place2Type»

StateTransition - StateSpecification

Association (source - target): «place1Type»

StateTransition - StateSpecification

Attributes:

-
A StateSuccessionType indicating there is a possible transition between StateSpecifications.

StatusOfThreadType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StatusOfThreadType - ModemTemporalWholePartType

Attributes:

-
The powertype of statusOfThread.

TerrainType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TerrainType - EnvironmentalFactor

Attributes:

-
An EnvironmentalFactor that defines the type of ground conditions that an Enterprise may operate in.

Note: TerrainType is a subtype of GeopoliticalLocationStateType as the terrain may change over time (e.g. muddy, frozen ground, deep snow, etc.)

ThreadStatusType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ThreadStatusType - ProjectPartType

Attributes:

-
The powertype of ThreadStatus.

TriggerItem «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TriggerItem - ModemIndividualType

Attributes:

-

A ModafIndividualType that can be the cause or effect of a Trigger.

TypicalTemporalWholePart «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TypicalTemporalWholePart - ModemTemporalWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TypicalTemporalWholePart - TypicalWholePart

Association (source - target): «place2Type»

TypicalTemporalWholePart - ModemIndividualType

Association (source - target): «place1Type»

TypicalTemporalWholePart - ModemIndividualType

Attributes:

-

A TypicalWholePart where the instances of the partType are temporal parts of instances of the wholeType.

TypicalWholePart «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TypicalWholePart - ModemWholePartType

Association (source - target): «place2Type»

TypicalWholePart - ModemIndividualType

Association (source - target): «place1Type»

TypicalWholePart - ModemIndividualType

Attributes:

-

A ModafWholePartType where types of whole and part are ModafIndividualTypeElements

Note : this is used in AV-2 to model typical whole-part relationships between ModafIndividualTypeElements

URI «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

URI - MetaData

Attributes:

-

A MetaData that is a uniform resource identifier.

URL «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

URL - URI

Attributes:

-

A URI that is a uniform resource location.

URN «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

URN - URI

Attributes:

-

A URI that is a uniform resource name.

Undertaking «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Undertaking - Process

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Undertaking - UndertakingState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Undertaking - UndertakingType

Attributes:

-
A Process that is intended to deliver something.

UndertakingPart «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingPart - ModemIndividualElement

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingPart - ProcessPart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

UndertakingPart - UndertakingPartType

Attributes:

-
A ModemIndividualElement that is part of an Undertaking.

UndertakingPartType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingPartType - ProcessPartType

Attributes:

-
The powertype of UndertakingPart.

UndertakingState «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingState - UndertakingPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingState - ProcessState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

UndertakingState - UndertakingStateType

Attributes:

-
An UndertakingPart that is a temporal part of an Undertaking.

UndertakingStateType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingStateType - UndertakingPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingStateType - ProcessStateType

Attributes:

-

The powertype of UndertakingState.

UndertakingType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingType - ProcessType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingType - UndertakingStateType

Attributes:

-

The powertype of Undertaking.

UndertakingWholeAndPartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingWholeAndPartType - UndertakingWholeStateType

Association (source - target): «place2Type»

UndertakingWholeAndPartType - UndertakingType

Attributes:

-

The powertype of undertakingWholeAndPart.

UndertakingWholePartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingWholePartType - ModemWholePartType

Association (source - target): «place2Type»

UndertakingWholePartType - UndertakingPartType

Association (source - target): «place1Type»

UndertakingWholePartType - UndertakingType

Attributes:

-

The powertype of undertakingWholePart.

UndertakingWholeStateType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingWholeStateType - UndertakingWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UndertakingWholeStateType - ModemTemporalWholePartType

Association (source - target): «place2Type»

UndertakingWholeStateType - UndertakingStateType

Attributes:

-

The powertype of undertakingWholeState.

WeatherConditions «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WeatherConditions - EnvironmentalFactor

Attributes:

-

An EnvironmentalFactor that defines the type of weather in which an Enterprise may operate.

WholeLifeEnterprise «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WholeLifeEnterprise - EnterprisePhase

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WholeLifeEnterprise - Undertaking

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WholeLifeEnterprise - Agent

Attributes:

-
An EnterprisePhase that represents the whole existance of an enterprise.

appliedStateMachine «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

appliedStateMachine - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

appliedStateMachine - stateMachineViewStateTypeOwners

Association (source - target): «place1Type»

appliedStateMachine - ModemIndividualElementType

Association (source - target): «place2Type»

appliedStateMachine - StateMachine

Attributes:

-
A stateMachineViewStateTypeOwners that relates a ModemIndividualElement to its state machine.

approved «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

approved - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

approved - couple

Association (source - target): «place2Type»

approved - ADElement

Association (source - target): «place1Type»

approved - ArchitectureApprovalMilestone

Attributes:

-
A couple that relates an ArchitectureApprovalMilestone to the ADElement that is approved.

approver «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

approver - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

approver - ModemThing

Association (source - target): «place2Type»

approver - ResponsibleHumanResource

Association (source - target): «place1Type»

approver - ArchitectureApprovalMilestone

Attributes:

-

A couple that relates an ArchitectureApprovalMilestone to the ResponsibleHumanResource that approved it.

architectureMetaData «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

architectureMetaData - metaDataAnnotation

Association (source - target): «place1Type»

architectureMetaData - ADElement

Association (source - target): «place2Type»

architectureMetaData - MetaData

Attributes:

-

A metaDataAnnotation that relates a MetaData element to the ArchitectureDescription it annotates.

architectureRealisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

architectureRealisation - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

architectureRealisation - LogicalArchitecture

Association (source - target): «place2Type»

architectureRealisation - PhysicalArchitecture

Attributes:

-

A modemIndividualTypeSpecialisation that asserts that a PhysicalArchitecture is a realisation of a LogicalArchitecture

architectureReference «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

architectureReference - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

architectureReference - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

architectureReference - correspondence

Association (source - target): «place2Type»

architectureReference - ArchitectureDescription

Association (source - target): «place1Type»

architectureReference - ArchitectureDescription

Attributes:

-

A couple that relates an ArchitectureDescription to another ArchitectureDescription it refers to.

assumption «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

assumption - architectureMetaData

Association (source - target): «place1Type»

assumption - ADElement

Association (source - target): «place2Type»

assumption - MetaData

Attributes:

-

A describedBy that states an assumption about an ADElement. Note: Any given ADElement may have zero to many assumptions.

categoryOfMetaData «IDEAS:TupleType»

Connectors:

Association (source - target):«place2Type»

categoryOfMetaData - MetaData

Generalization (element - is a subtype of):«IDEAS:superSubtype»

categoryOfMetaData - typeInstance

Generalization (element - is a subtype of):«IDEAS:superSubtype»

categoryOfMetaData - ModemThing

Association (source - target):«place1Type»

categoryOfMetaData - MetaDataCategory

Attributes:

-

A typeInstance that relates a MetaData element to its category.

constraintOnIndividual «IDEAS:TupleType»

Connectors:

Association (source - target):«place2Type»

constraintOnIndividual - ModemIndividualElement

Association (source - target):«place1Type»

constraintOnIndividual - Constraint

Generalization (element - is a subtype of):«IDEAS:superSubtype»

constraintOnIndividual - modemIndividualTypeInstance

Attributes:

-

A couple that asserts a constraint placed upon a ModemThing related to a ModemThing.

constraintOnType «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

constraintOnType - modemIndividualTypeSpecialisation

Association (source - target):«place2Type»

constraintOnType - ModemIndividualType

Association (source - target):«place1Type»

constraintOnType - Constraint

Attributes:

-

A superSubtype that asserts all the instances of the subType object are subject to the constraint.

createdBy «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

createdBy - couple

Association (source - target):«place2Type»

createdBy - ResponsibleHumanResource

Association (source - target):«place1Type»

createdBy - ADElement

Attributes:

-

A couple that asserts a ResponsibleHumanResource is the creator of an ADElement. Note: this covers the creatingOrganisation and architect tags that were applied to ArchitectureDescription in M3.

definition «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

definition - metaDataAnnotation

Association (source - target): «place1Type»

definition - ModemThing

Attributes:

-
A metaDataAnnotation that provides the definition for a ModemThing.

delayRange «IDEAS:TupleType»

Connectors:

Association (source - target): «place2Type»

delayRange - Delay

Generalization (element - is a subtype of): «IDEAS:superSubtype»

delayRange - measureOfType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

delayRange - ModemThing

Association (source - target): «place1Type»

delayRange - TimeRange

Attributes:

-
A measureOfType that relates a LogicalDelay to the TimeRange in which it falls.

delayTime «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

delayTime - ModemThing

Association (source - target): «place2Type»

delayRange - Delay

Generalization (element - is a subtype of): «IDEAS:superSubtype»

delayRange - measureOfType

Association (source - target): «place1Type»

delayRange - Time

Attributes:

-
A measureOfType that relates a LogicalDelay to its Time.

designReleasedAtMilestone «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

designReleasedAtMilestone - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

designReleasedAtMilestone - ModemThing

Association (source - target): «place1Type»

designReleasedAtMilestone - ResourceType

Association (source - target): «place2Type»

designReleasedAtMilestone - ProjectMilestone

Attributes:

-
A couple that indicates a ResourceType is released as a design at a ProjectMilestone.

designWithdrawnAtMilestone «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

designWithdrawnAtMilestone - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

designWithdrawnAtMilestone - ModemThing

Association (source - target): «place1Type»

designWithdrawnAtMilestone - ResourceType

Association (source - target): «place2Type»

designWithdrawnAtMilestone - ProjectMilestone

Attributes:

-
A couple that indicates a ResourceType was withdrawn as a design at a ProjectMilestone.

enduringTaskWholePart «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enduringTaskWholePart - undertakingWholePart

Association (source - target): «place2Type»

enduringTaskWholePart - EnduringTaskPart

Association (source - target): «place1Type»

enduringTaskWholePart - EnduringTask

Attributes:

-
An undertakingWholePart where the whole is an EnduringTask.

enterpriseStructure «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseStructure - agentWholeAndPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseStructure - undertakingWholeAndPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseStructure - enterpriseWholePhase

Association (source - target): «place2Type»

enterpriseStructure - WholeLifeEnterprise

Association (source - target): «place1Type»

enterpriseStructure - WholeLifeEnterprise

Attributes:

-
A wholePart that asserts that one EnterprisePhase is a spatial part of another.

enterpriseTemporalPart «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseTemporalPart - undertakingWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseTemporalPart - agentWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseTemporalPart - enterpriseWholePart

Association (source - target): «place2Type»

enterpriseTemporalPart - EnterprisePhase

Association (source - target): «place1Type»

enterpriseTemporalPart - EnterprisePhase

Attributes:

- An enterpriseStructure and a temporalWholePart that asserts that one EnterprisePhase is a temporal part of another (i.e. it is a phase of the other).

enterpriseWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseWholePart - agentWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseWholePart - undertakingWholePart

Association (source - target): «place2Type»

enterpriseWholePart - EnterprisePart

Association (source - target): «place1Type»

enterpriseWholePart - WholeLifeEnterprise

Attributes:

- An agentWholePart where the whole is a WholeLifeEnterprise and the part is an EnterprisePart.

enterpriseWholePhase «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseWholePhase - enterpriseTemporalPart

Association (source - target): «place2Type»

enterpriseWholePhase - EnterprisePhase

Association (source - target): «place1Type»

enterpriseWholePhase - WholeLifeEnterprise

Attributes:

- An enterpriseTemporalPart where whole is a WholeLifeEnterprise.

environmentalContext «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

environmentalContext - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

environmentalContext - ModemThing

Association (source - target): «place2Type»

environmentalContext - EnvironmentalFactor

Association (source - target): «place1Type»

environmentalContext - MeasureInContext

Attributes:

- A couple that relates a MeasureInContext to an EnvironmentalFactor in order to qualify the measure.

finding «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

finding - architectureMetaData

Association (source - target): «place2Type»

finding - MetaData

Association (source - target):«place1Type»

finding - StructuredADElement

Attributes:

- A describedBy that describes a finding about an ArchitectureDescription. Note: Any given ADElement may have zero to many findings.

individualFacade «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»

individualFacade - IndividualFacadeType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

individualFacade - modemWholePart

Attributes:

- A modemWholePart where the part is an outer part of another ModemIndividualElement.

locatedAt «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

locatedAt - modemWholePart

Association (source - target): «place1Type»

locatedAt - ModemIndividualElement

Association (source - target): «place2Type»

locatedAt - PointLocation

Attributes:

- A modafWholePart relating an MODAIndividualElement to a PointLocation that is within the extent of the MODAIndividualElement.

locatedIn «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

locatedIn - modemWholePart

Association (source - target): «place2Type»

locatedIn - ModemIndividualElement

Association (source - target): «place1Type»

locatedIn - GeopoliticalLocation

Attributes:

- A modafWholePart that relates a ModafIndividualElement to the GeopoliticalLocation it is in.

locationNamedBy «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

locationNamedBy - namedBy

Association (source - target):«place1Type»

locationNamedBy - Location

Association (source - target):«place2Type»

locationNamedBy - GeoName

Attributes:

- A namedBy that identifies a Location.

logicalArchitectureOfEnterprisePhase «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

logicalArchitectureOfEnterprisePhase - exhibits

Generalization (element - is a subtype of): «IDEAS:superSubtype»

logicalArchitectureOfEnterprisePhase - modemIndividualTypeInstance

Association (source - target): «place1Type»

logicalArchitectureOfEnterprisePhase - LogicalArchitecture

Association (source - target): «place2Type»

logicalArchitectureOfEnterprisePhase - EnterprisePhase

Attributes:

- Relates an EnterprisePhase to a LogicalArchitecture that specifies its (logical) structure and behaviour.

metaDataAnnotation «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

metaDataAnnotation - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

metaDataAnnotation - representedBy

Association (source - target): «place1Type»

metaDataAnnotation - ModemThing

Association (source - target): «place2Type»

metaDataAnnotation - MetaData

Attributes:

- A representedBy that relates a MetaData element to the ModafThing it describes.

modeller «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modeller - modemWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modeller - agentParticipation

Association (source - target): «place1Type»

modeller - Person

Association (source - target): «place2Type»

modeller - ModellingSession

Attributes:

- An agentParticipation where a Person conducts a ModellingSession.

modellingSessionInProject «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modellingSessionInProject - processWholeRoleExtentPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modellingSessionInProject - projectWholePart

Association (source - target): «place1Type»

modellingSessionInProject - ArchitectureProject

Association (source - target): «place2Type»

modellingSessionInProject - ModellingSession

Attributes:

- A projectWholePart relating a ModellingSession to the ArchitectureProject it is part of.

modemIndividualTypeInstance «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modemIndividualTypeInstance - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modemIndividualTypeInstance - typeInstance

Association (source - target): «place2Type»

modemIndividualTypeInstance - ModemIndividualElement

Association (source - target): «place1Type»

modemIndividualTypeInstance - ModemIndividualType

Attributes:

- A typeInstance used to assert that a ModemIndividualElement is an instance of a ModemIndividualType.

modemIndividualTypeSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modemIndividualTypeSpecialisation - superSubtype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modemIndividualTypeSpecialisation - ModemThing

Association (source - target): «place2Type»

modemIndividualTypeSpecialisation - ModemIndividualType

Association (source - target): «place1Type»

modemIndividualTypeSpecialisation - ModemIndividualType

Attributes:

- A superSubtype that expresses a specialisation relationship between ModemIndividualTypeElements.

Note: This relationship is used to build specialisation hierarchies of ModemIndividualTypeElements in an AV-2.

modemTemporalWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modemTemporalWholePart - modemWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modemTemporalWholePart - temporalWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

modemTemporalWholePart - ModemTemporalWholePartType

Association (source - target): «place2Type»

modemTemporalWholePart - ModemIndividualElement

Association (source - target): «place1Type»

modemTemporalWholePart - ModemIndividualElement

Attributes:

- A temporalWholePart relationship between two ModemIndividualElements.

modemWholePart «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
modemWholePart - wholePart
Dependency (element - is instance of): «IDEAS:powertypeInstance»
modemWholePart - ModemWholePartType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
modemWholePart - ModemThing
Association (source - target): «place2Type»
modemWholePart - ModemIndividualElement
Association (source - target): «place1Type»
modemWholePart - ModemIndividualElement

Attributes:

-
A wholePart relationship between ModemIndividualElements.

organisationWholePart «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
organisationWholePart - undertakingWholePart
Generalization (element - is a subtype of): «IDEAS:superSubtype»
organisationWholePart - responsibleHumanResourceWholePart
Association (source - target): «place2Type»
organisationWholePart - OrganisationPart
Association (source - target): «place1Type»
organisationWholePart - Organisation

Attributes:

-
A modafWholePart where the whole is an Organisation and the part is an OrganisationPart (i.e. a Post or Organisation).

physicalArchitectureOfEnterprisePhase «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
physicalArchitectureOfEnterprisePhase - modemIndividualTypeInstance
Generalization (element - is a subtype of): «IDEAS:superSubtype»
physicalArchitectureOfEnterprisePhase - exhibits
Association (source - target): «place1Type»
physicalArchitectureOfEnterprisePhase - PhysicalArchitecture
Association (source - target): «place2Type»
physicalArchitectureOfEnterprisePhase - EnterprisePhase

Attributes:

-
Relates an EnterprisePhase to a ResourceType that specifies its structure and behaviour.

projectTypeSpecialisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
projectTypeSpecialisation - modemIndividualTypeSpecialisation
Association (source - target): «place2Type»
projectTypeSpecialisation - ProjectType
Association (source - target): «place1Type»
projectTypeSpecialisation - ProjectType

Attributes:

- A modafIndividualTypeSpecialisation that asserts one ProjectType (subtype) is a special type of another (supertype).

purpose «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

purpose - architectureMetaData

Association (source - target):«place2Type»

purpose - MetaData

Association (source - target):«place1Type»

purpose - StructuredADElement

Attributes:

-

An architectureMetaData that describes the purpose of a StructuredADElement.

qualifiedMeasure «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

qualifiedMeasure - superSubtype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

qualifiedMeasure - ModemThing

Association (source - target):«place1Type»

qualifiedMeasure - Measure

Association (source - target):«place2Type»

qualifiedMeasure - MeasureInContext

Attributes:

-

A superSubtype that relates a MeasureInContext to the measure it qualifies.

recommendation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

recommendation - architectureMetaData

Association (source - target):«place2Type»

recommendation - MetaData

Association (source - target):«place1Type»

recommendation - StructuredADElement

Attributes:

-

An architectureMetaData that expresses a recommendation arising from a StructuredADElement.

regionOfStateMachine «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

regionOfStateMachine - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

regionOfStateMachine - stateMachineViewTypesRegionInstances

Association (source - target):«place2Type»

regionOfStateMachine - StateMachineRegion

Association (source - target):«place1Type»

regionOfStateMachine - StateMachine

Attributes:

- A stateMachineViewTypesRegionInstances which relates a StateMachineRegion to a StateMachine.

serviceDeliveryWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceDeliveryWholeAndPart - serviceDeliveryWholeState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

serviceDeliveryWholeAndPart - ServiceDeliveryWholeAndPart

Association (source - target): «place2Type»

serviceDeliveryWholeAndPart - ServiceDelivery

Attributes:

- A ServiceDeliveryWholeState where both the whole and part are ServiceDeliveries.

serviceDeliveryWholeFacade «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceDeliveryWholeFacade - serviceDeliveryWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

serviceDeliveryWholeFacade - ServiceDeliveryWholeFacadeType

Association (source - target): «place2Type»

serviceDeliveryWholeFacade - ServiceFacade

Attributes:

- A serviceDeliveryWholePart where the part is a ServiceFacade.

serviceDeliveryWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceDeliveryWholePart - modemWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

serviceDeliveryWholePart - ServiceDeliveryWholePartType

Association (source - target): «place2Type»

serviceDeliveryWholePart - ServiceDeliveryPart

Association (source - target): «place1Type»

serviceDeliveryWholePart - ServiceDelivery

Attributes:

- A modemWholePart where the whole is a ServiceDelivery and the part is a ServiceDeliveryPart.

serviceDeliveryWholeState «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceDeliveryWholeState - modemTemporalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceDeliveryWholeState - serviceDeliveryWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

serviceDeliveryWholeState - ServiceDeliveryWholeStateType

Association (source - target): «place2Type»

serviceDeliveryWholeState - ServiceDeliveryState

Attributes:

- A serviceDeliveryWholePart where the part is a temporal part and is a ServiceDeliveryState.

stateInRegion «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateInRegion - regionTypeInstances

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateInRegion - ModemThing

Association (source - target):«place1Type»

stateInRegion - StateMachineRegion

Association (source - target):«place2Type»

stateInRegion - StateSpecification

Attributes:

- A regionTypeInstance that asserts a StateSpecification features in a StateMachineRegion.

stateTransitionInRegion «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateTransitionInRegion - regionTypeInstances

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateTransitionInRegion - ModemThing

Association (source - target):«place1Type»

stateTransitionInRegion - StateMachineRegion

Association (source - target):«place2Type»

stateTransitionInRegion - StateTransition

Attributes:

- A regionTypeInstance that asserts a StateTransition features in a StateMachineRegion.

toolUsed «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

toolUsed - couple

Association (source - target):«place2Type»

toolUsed - SoftwareType

Association (source - target):«place1Type»

toolUsed - StructuredADElement

Attributes:

- A couple that asserts a SoftwareType was used in the production of a StructuredADElement.

undertakingWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

undertakingWholeAndPart - undertakingWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

undertakingWholeAndPart - processWholeAndPart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

undertakingWholeAndPart - UndertakingWholeAndPartType

Association (source - target): «place2Type»
undertakingWholeAndPart - Undertaking

Attributes:

-
An UndertakingWholeState where both the whole and part are Undertakings.

undertakingWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
undertakingWholePart - modemWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»
undertakingWholePart - processWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»
undertakingWholePart - UndertakingWholePartType

Association (source - target): «place2Type»
undertakingWholePart - UndertakingPart

Association (source - target): «place1Type»
undertakingWholePart - Undertaking

Attributes:

-
A modemWholePart where an UndertakingPart is part of an Undertaking.

undertakingWholeState «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
undertakingWholeState - undertakingWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»
undertakingWholeState - modemTemporalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»
undertakingWholeState - processWholeState

Dependency (element - is instance of): «IDEAS:powertypeInstance»
undertakingWholeState - UndertakingWholeStateType

Association (source - target): «place2Type»
undertakingWholeState - UndertakingState

Attributes:

-
An undertakingWholePart where the part is a temporal part of an Undertaking.

viewCode «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
viewCode - metaDataAnnotation

Association (source - target): «place2Type»
viewCode - MetaData

Association (source - target): «place1Type»
viewCode - ArchitectureViewpoint

Attributes:

-
A metaDataAnnotation that uses MetaData to represent the short code that identifies an ArchitectureViewpoint. Note that viewCode and viewDescription from M3 are handled using the core IDEAS description and naming patterns.

webReference «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

webReference - metaDataAnnotation

Association (source - target): «place1Type»

webReference - ModemThing

Association (source - target): «place2Type»

webReference - URI

Attributes:

-
A metaDataAnnotation that asserts URI contains information about a ModemThing.

All Views Foundation**ModemIndividualElement** «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualElement - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualElement - ModemIndividualElementOrModemIndividualType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ModemIndividualElement - ModafIndividualElementType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualElement - Individual

Attributes:

-
An Individual that can feature in a MODEM architecture.

ModafIndividualElementType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModafIndividualElementType - IndividualType

Attributes:

-
The powertype of ModafIndividualElement. Note - this is simply used to specify the set-theretic logic at the top of MODA. It should never be used in an architecture.

ModemThing «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemThing - Thing

Attributes:

-
Any Thing that can feature in a MODEM Architecture. Note: things that appear in the MODEM metamodel will not necessarily be instances, unless they appear in an architecture.

All Views ISO42010
ADElement «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ADElement - Representation <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ADElement - ISO42010_Thing <u>Attributes:</u> - From ISO42010: An AD element is any construct in an architecture description. AD elements are the most primitive constructs discussed in this International Standard. Every stakeholder, concern, architecture viewpoint, architecture view, model kind, architecture model, architecture decision and rationale (see 4.2.7) is considered an AD element. When viewpoints and model kinds are defined and their models are populated, additional AD elements are introduced.
Architecture «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> Architecture - ISO42010_Thing <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> Architecture - IndividualType <u>Attributes:</u> - Fundamental concepts or properties of a system in its environment embodied in its elements, relationships, and in the principles of its design and evolution.
ArchitectureDescription «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ArchitectureDescription - StructuredADElement <i>Dependency (element - is instance of): «IDEAS:powertypeInstance»</i> ArchitectureDescription - ArchitectureDescriptionType <u>Attributes:</u> - A work product used to express an architecture.
ArchitectureDescriptionType «IDEAS:Powertype» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ArchitectureDescriptionType - ISO42010_Thing <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ArchitectureDescriptionType - RepresentationType <u>Attributes:</u> - The powertype of ArchitectureDescription.
ArchitectureFramework «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ArchitectureFramework - ArchitectureDescriptionType <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> ArchitectureFramework - RepresentationScheme <u>Attributes:</u> -

From ISO42010:

Uses of architecture frameworks include, but are not limited to: creating architecture descriptions; developing architecture modelling tools and architecting methods; and establishing processes to facilitate communication, commitments and interoperation across multiple projects and/or organizations.

NOTE 1 Architecture frameworks frequently encompass both provisions for architecture description and additional architecting practices.

EXAMPLES The following are architecture frameworks in the terms of this International Standard: Zachman's information systems architecture framework [44], UK Ministry of Defence Architecture framework [27], The Open Group's Architecture Framework (TOGAF) [41], Kruchten's "4+1" view model [23], Siemens' 4 views method [10], Reference Model for Open Distributed Processing (RM-ODP), [ISO/IEC 10746] and Generalized Enterprise Reference Architecture (GERA) [ISO 15704].

ArchitectureModel «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ArchitectureModel - ArchitectureModelType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureModel - StructuredRepresentation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureModel - StructuredADElement

Attributes:

-

There is no specific definition provided in ISO42010.

ArchitectureModelType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureModelType - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureModelType - RepresentationType

Attributes:

-

The powertype of ArchitectureModel.

ArchitectureView «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ArchitectureView - ArchitectureViewType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureView - StructuredADElement

Attributes:

-

work product expressing the architecture of a system from the perspective of specific system concerns

ArchitectureViewType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureModelType - RepresentationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureViewType - ISO42010_Thing

Attributes:

-

The powertype of ArchitectureView.

ArchitectureViewpoint «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureViewpoint - ArchitectureViewType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureViewpoint - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArchitectureViewpoint - RepresentationScheme

Attributes:

-

Work product establishing the conventions for the construction, interpretation and use of architecture views to frame specific system concerns

Concern «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Concern - ISO42010_Thing

Attributes:

-

From ISO42010:

A concern could be held by one or more stakeholders. Concerns arise throughout the life cycle from system needs and requirements, from design choices and from implementation and operating considerations. A concern could be manifest in many forms, such as in relation to one or more stakeholder needs, goals, expectations, responsibilities, requirements, design constraints, assumptions, dependencies, quality attributes, architecture decisions, risks or other issues pertaining to the system.

EXAMPLES The following are concerns in the terms of this International Standard: functionality, feasibility, usage, system purposes, system features, system properties, known limitations, structure, behavior, performance, resource utilization, reliability, security, information assurance, complexity, evolvability, openness, concurrency, autonomy, cost, schedule, quality of service, flexibility, agility, modifiability, modularity, control, inter-process communication, deadlock, state change, subsystem integration, data accessibility, privacy, compliance to regulation, assurance, business goals and strategies, customer experience, maintainability, affordability and disposability. The distribution transparencies described in the Reference Model of Open Distributed Processing [ISO/IEC 10746-1] are concerns in the terms of this International Standard. Software properties as described in SQUARE [ISO/IEC 25010:2011, 4.2] name concerns in the terms of this International Standard.

CorrespondenceRule «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CorrespondenceRule - ISO42010_Thing

Dependency (element - is instance of): «IDEAS:typeInstance»

CorrespondenceRule - PlaceableType

Attributes:

-

From ISO42010:

Correspondence rules are used to enforce relations within an architecture description (or between architecture descriptions).

ISO42010_Environment «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ISO42010_Environment - ISO42010_Thing

Attributes:

--

Context determining the setting and circumstances of all influences upon a system

ISO42010_System «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ISO42010_System - ISO42010_Thing

Attributes:

-

The term system is used in this International Standard to refer to entities whose architectures are of interest. The term is intended to encompass, but is not limited to, entities within the following domains:

- systems as described in [ISO/IEC 15288]: “systems that are man-made and may be configured with one or more of the following: hardware, software, data, humans, processes (e.g., processes for providing service to users), procedures (e.g. operator instructions), facilities, materials and naturally occurring entities”;
- software products and services as described in [ISO/IEC 12207];
- software-intensive systems as described in [IEEE Std 1471TM:2000]: “any system where software contributes essential influences to the design, construction, deployment, and evolution of the system as a whole” to encompass “individual applications, systems in the traditional sense, subsystems, systems of systems, product lines, product families, whole enterprises, and other aggregations of interest”.

This International Standard takes no position on what constitutes a system within those domains—or elsewhere. The nature of systems is not defined by this International Standard.

ISO42010_Thing «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ISO42010_Thing - Thing

Attributes:

-
A Thing that is described by the standard ISO 421010.

ModelKind «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelKind - ArchitectureModelType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelKind - RepresentationScheme

Attributes:

-
Conventions for a type of modelling.

NOTE Examples of model kinds include: data flow diagrams, class diagrams, Petri nets, balance sheets, organization charts and state transition models.

ModelKindPartOfViewpoint «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelKindPartOfViewpoint - ModelPartOfType

Association (source - target): «place1Type»

ModelKindPartOfViewpoint - ArchitectureViewpoint

Association (source - target): «place2Type»

ModelKindPartOfViewpoint - ModelKind

Attributes:

-
A ModelPartOfType where a ModelKind is a typical part of an Architecture Viewpoint.

ModelPartOfView «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelPartOfView - ISO42010_Thing

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ModelPartOfView - ModelPartOfType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelPartOfView - WholePartType

Association (source - target): «place2Type»

ModelPartOfView - ArchitectureModel

Association (source - target): «place1Type»

ModelPartOfView - ArchitectureView

Attributes:

- A WholePartType where an ArchitectureModel is part of an ArchitectureView.

ModelPropertyOfType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelPropertyOfType - WholePartTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelPropertyOfType - ISO42010_Thing

Attributes:

- The powertype of ModelPartOfView

Stakeholder «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Stakeholder - AgentCapableOfResponsibilityOrAgentCapableOfResponsibilityType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Stakeholder - ISO42010_Thing

Attributes:

- An individual, team, organization, or classes thereof, having an interest in a system.

StructuredADElement «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StructuredADElement - ADElement

Attributes:

- An ADElement that has other ADElements as part of it. Note: this is not in ISO42010, but is required if the model is to be useful.

ViewPartOfDescription «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ViewPartOfDescription - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ViewPartOfDescription - WholePartType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ViewPartOfDescription - ViewPartOfDescriptionType

Association (source - target): «place2Type»

ViewPartOfDescription - ArchitectureView

Association (source - target): «place1Type»

ViewPartOfDescription - ArchitectureDescription

Attributes:

- A WholePartType where an ArchitectureView is part of an ArchitectureDescription.

ViewPartOfDescriptionType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ViewPartOfDescriptionType - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ViewPartOfDescriptionType - WholePartTypeType

Attributes:

-
The powertype of ViewPartOfDescription.

ViewpointPartOfFramework «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ViewpointPartOfFramework - ViewPartOfDescriptionType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ViewpointPartOfFramework - WholePartTypeType

Association (source - target): «place1Type»

ViewpointPartOfFramework - ArchitectureFramework

Association (source - target): «place2Type»

ViewpointPartOfFramework - ArchitectureViewpoint

Attributes:

-
A WholePartTypeType that asserts an ArchitectureViewpoint is part of an ArchitectureFramework.

correspondence «IDEAS:Type»

Connectors:

Association (source - target): «place1Type»

correspondence - ADElement

Dependency (element - is instance of): «IDEAS:typeInstance»

correspondence - PlaceableType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

correspondence - ISO42010_Thing

Association (source - target): «place2Type»

correspondence - ADElement

Attributes:

-
From ISO42010:

A correspondence defines a relation between AD elements. Correspondences are used to express architecture relations of interest within an architecture description (or between architecture descriptions).

Correspondences can be governed by correspondence rules. Correspondence rules are used to enforce relations within an architecture description (or between architecture descriptions).

exhibits «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exhibits - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exhibits - couple

Association (source - target): «place2Type»

exhibits - ISO42010_System

Association (source - target): «place1Type»

exhibits - Architecture

Attributes:

-
A couple that asserts an ISO42010_System has an Architecture.

expresses «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»

expresses - Architecture

Association (source - target): «place2Type»

expresses - ArchitectureDescription

Generalization (element - is a subtype of): «IDEAS:superSubtype»

expresses - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

expresses - representedBy

Attributes:

- A representedBy that asserts and an ArchitectureDescription represents an Architecture.

frameworkGovernsDescription «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

frameworkGovernsDescription - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

frameworkGovernsDescription - typeInstance

Association (source - target): «place2Type»

frameworkGovernsDescription - ArchitectureDescription

Association (source - target): «place1Type»

frameworkGovernsDescription - ArchitectureFramework

Attributes:

- A typeInstance relating an ArchitectureDescription to the ArchitectureFramework it conforms to.

modelKindGovernsModel «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modelKindGovernsModel - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

modelKindGovernsModel - typeInstance

Association (source - target): «place2Type»

modelKindGovernsModel - ArchitectureModel

Association (source - target): «place1Type»

modelKindGovernsModel - ModelKind

Attributes:

- A typeInstance where an ArchitecturalModel conforms to a ModelKind.

ruleGovernsCorrespondence «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ruleGovernsCorrespondence - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ruleGovernsCorrespondence - typeInstance

Association (source - target): «place2Type»

ruleGovernsCorrespondence - correspondence

Association (source - target): «place1Type»

ruleGovernsCorrespondence - CorrespondenceRule

Attributes:

- A typeInstance relating a correspondence to the CorrespondenceRule that governs it.

situatedIn «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

situatedIn - ISO42010_Thing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

situatedIn - couple

Association (source - target):«place1Type»

situatedIn - ISO42010_Environment

Association (source - target):«place2Type»

situatedIn - ISO42010_System

Attributes:

- A couple that relates an ISO42010_Environment to an ISO42010_system. Note: This is probably a subtype of the union of wholePart and WholePartType.

stakeholderConcern «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stakeholderConcern - couple

Association (source - target): «place2Type»

stakeholderConcern - Concern

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stakeholderConcern - ISO42010_Thing

Association (source - target): «place1Type»

stakeholderConcern - Stakeholder

Attributes:

- A couple that relates a Concern to a stakeholder that have the Concern. Note: a concern may be held by more than one Stakeholder, hence there maybe multiple stakeholderConcerns.

systemConcern «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»

systemConcern - Concern

Association (source - target): «place2Type»

systemConcern - ISO42010_System

Generalization (element - is a subtype of):«IDEAS:superSubtype»

systemConcern - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

systemConcern - couple

Attributes:

- A couple that relates an ISO42010_System to a Concern that is held against the system. NOTE A concern pertains to any influence on a system in its environment including: developmental, technological, business, operational, organizational, political, economic, legal, regulatory, ecological and social influences.

viewpointGovernsView «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

viewpointGovernsView - ISO42010_Thing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

viewpointGovernsView - typeInstance

Association (source - target): «place2Type»

viewpointGovernsView - ArchitectureView

Association (source - target): «place1Type»

viewpointGovernsView - ArchitectureViewpoint

Attributes:

-

A typeInstance where an ArchitectureView conforms to an ArchitectureViewpoint.

All Views Representation**ElementInModel** «IDEAS:Type»*Connectors:*

Association (source - target): «place1Type»

ElementInModel - ArchitectureModel

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ElementInModel - RepresentationInStructure

Association (source - target): «place2Type»

ElementInModel - ModelElement

Attributes:

-

A WholePartType relating a RepresentationElement to the ArchitecuralModel it is shown in.

ModelElement «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModelElement - ADElement

Attributes:

-

A graphical element in an ArchitectureModel.

ModemIndividualElementOrModemIndividualType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ModemIndividualElementOrModemIndividualType - ModemThing

Attributes:

-

A ModemThing that collects all ModemIndividualElements and all ModemIndividualType elements.

SvgCanvas «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgCanvas - ArchitectureModel

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgCanvas - SvgRepresentation

Attributes:

-

An ArchitectureModel which uses the Scalable Vector Graphics (1.1) standard to encode the model canvas. The exemplar attribute is used to store the XML SVG code that defines the canvas - e.g.
<svg:svg width="4cm" height="8cm" version="1.1">
</svg:svg>

SvgElement «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgElement - SvgRepresentation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgElement - ModelElement

Attributes:

- A ModelElement that is encoded using the Scaleable Vector Graphics (1.1) standard. An SvgElement can be any graphical element that is allowed by SVG v1.1 - e.g.

The 'rect' element

The 'circle' element

The 'ellipse' element

The 'line' element

The 'polyline' element

The 'polygon' element

If the element is a group of other elements, then the SvgElementGroup should be used.

SvgElementGroup «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgElementGroup - SvgElement

Attributes:

- An SvgElement that groups together other SvgElements. This corresponds to the <g> element in the Scaleable Vector Graphics Standard (v1.1).

SvgElementInGroup «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgElementInGroup - RepresentationInStructure

Association (source - target): «place2Type»

SvgElementInGroup - SvgElement

Association (source - target): «place1Type»

SvgElementInGroup - SvgElementGroup

Attributes:

- A RepresentationStructure.

SvgElementOnCanvas «IDEAS:Type»

Connectors:

Association (source - target): «place1Type»

SvgElementOnCanvas - SvgCanvas

Association (source - target): «place2Type»

SvgElementOnCanvas - SvgElement

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgElementOnCanvas - ElementInModel

Attributes:

- An ElementInModel relating an SvgElement to the SvgCanvas on which it is displayed.

SvgRepresentation «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SvgRepresentation - Representation

Attributes:

exemplar

A Representation where the exemplar text for the representation is and encoding in SVG XML that represents a graphical symbol.

representedModemThing «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»

representedModemThing - ModemIndividualElementOrModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

representedModemThing - representedBy

Association (source - target): «place2Type»

representedModemThing - ModelElement

Attributes:

-

A representedBy relating a ModemIndividualElementOrModemIndividualType to the ModelRepresentation that depicts it.

2.2.4 All Views additional diagrams

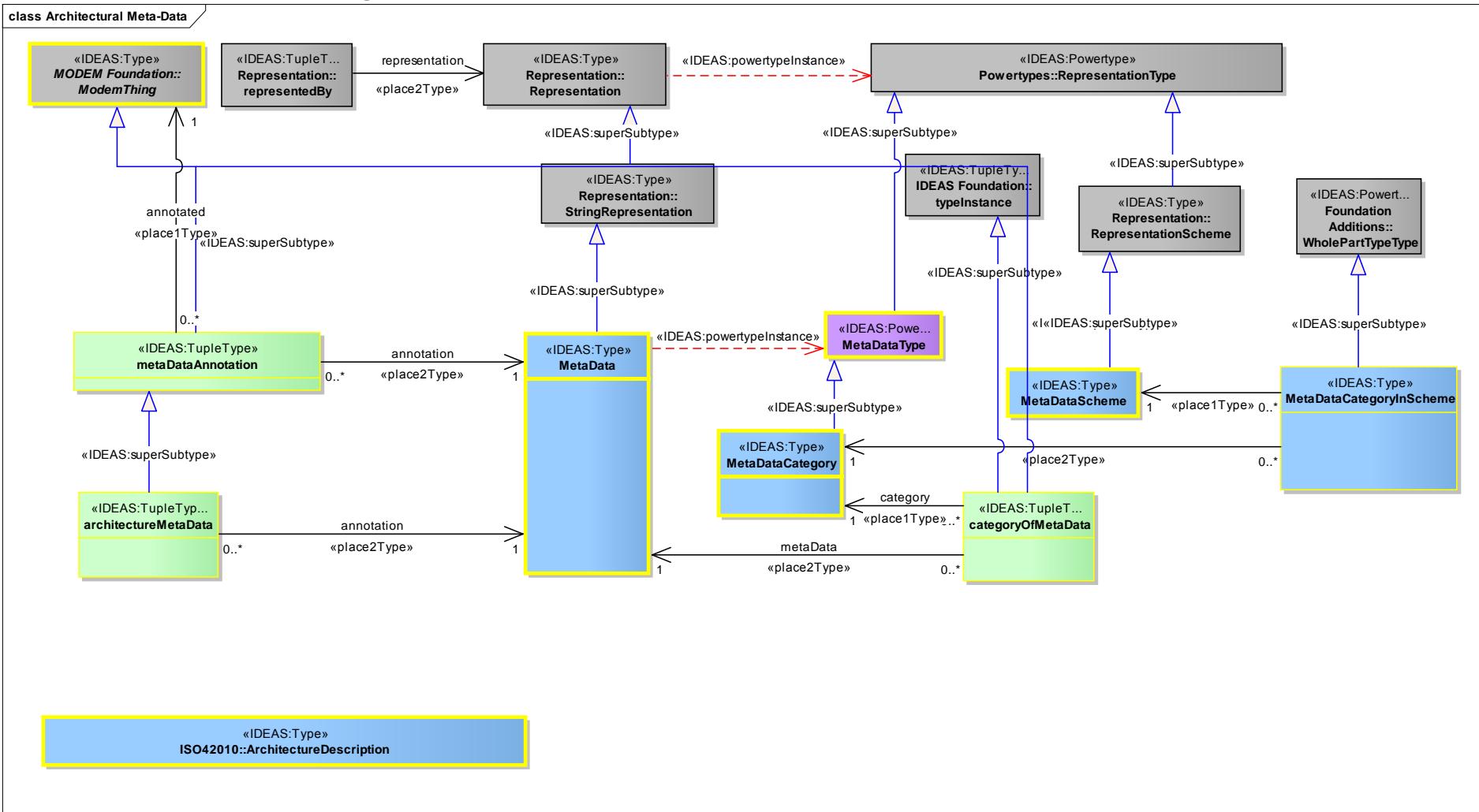


Figure 7 : Architectural Meta-Data

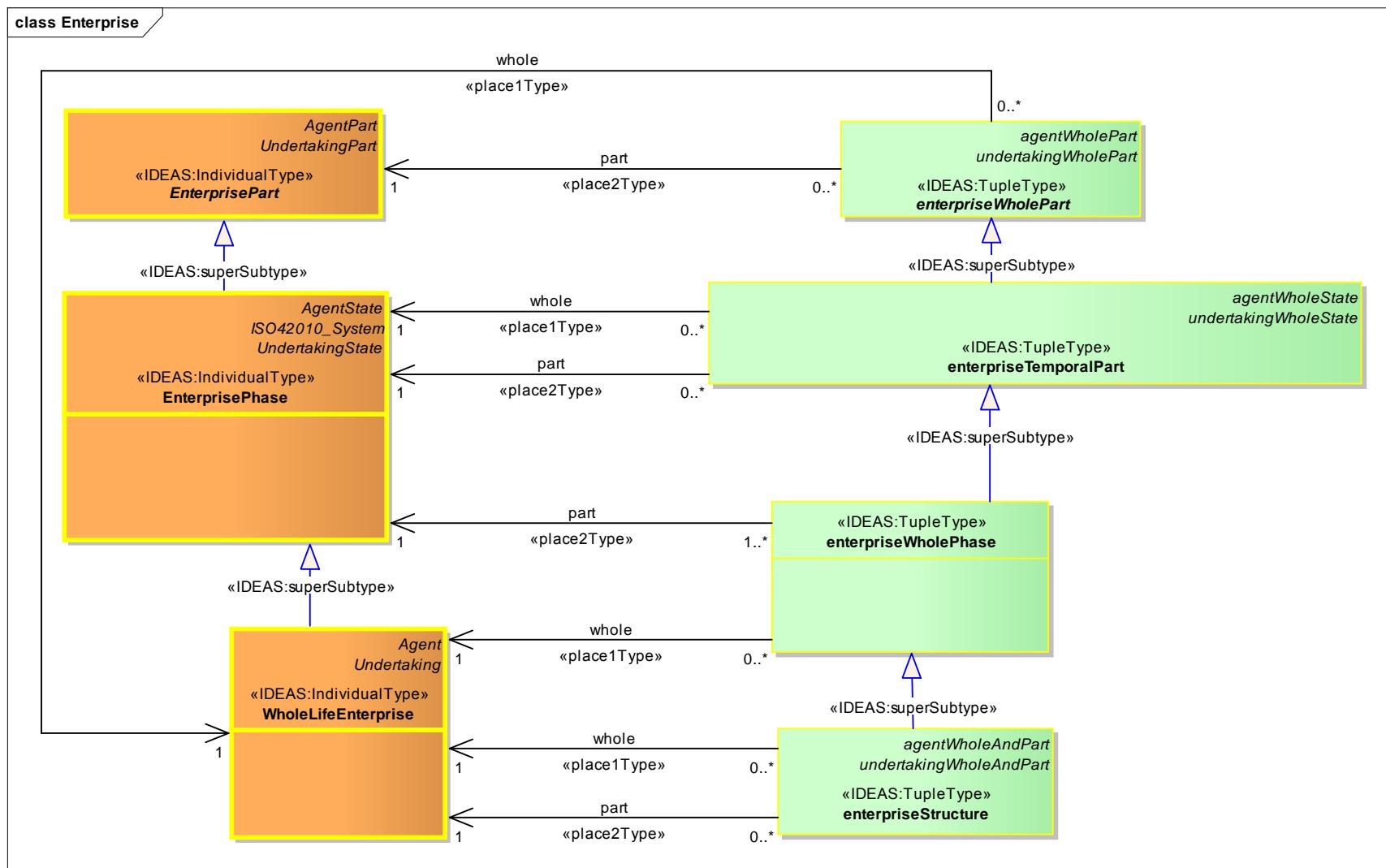


Figure 8 : Enterprise

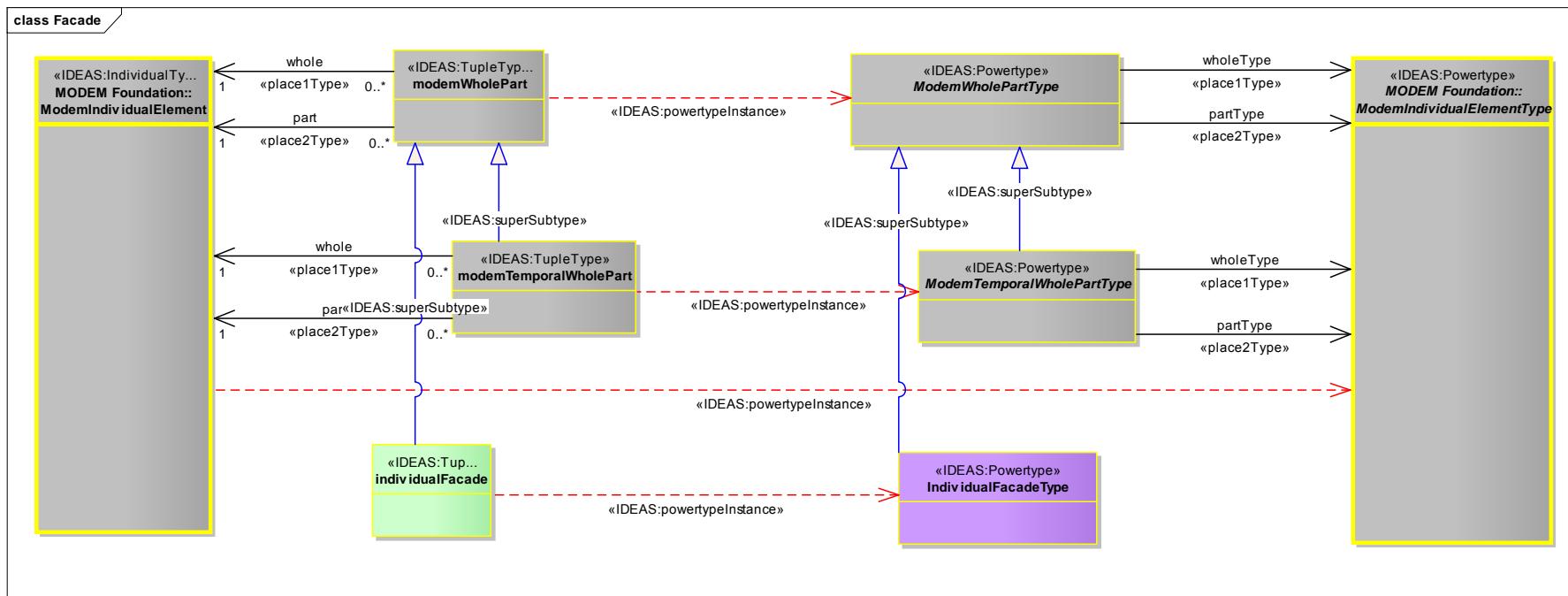


Figure 9 : Facade

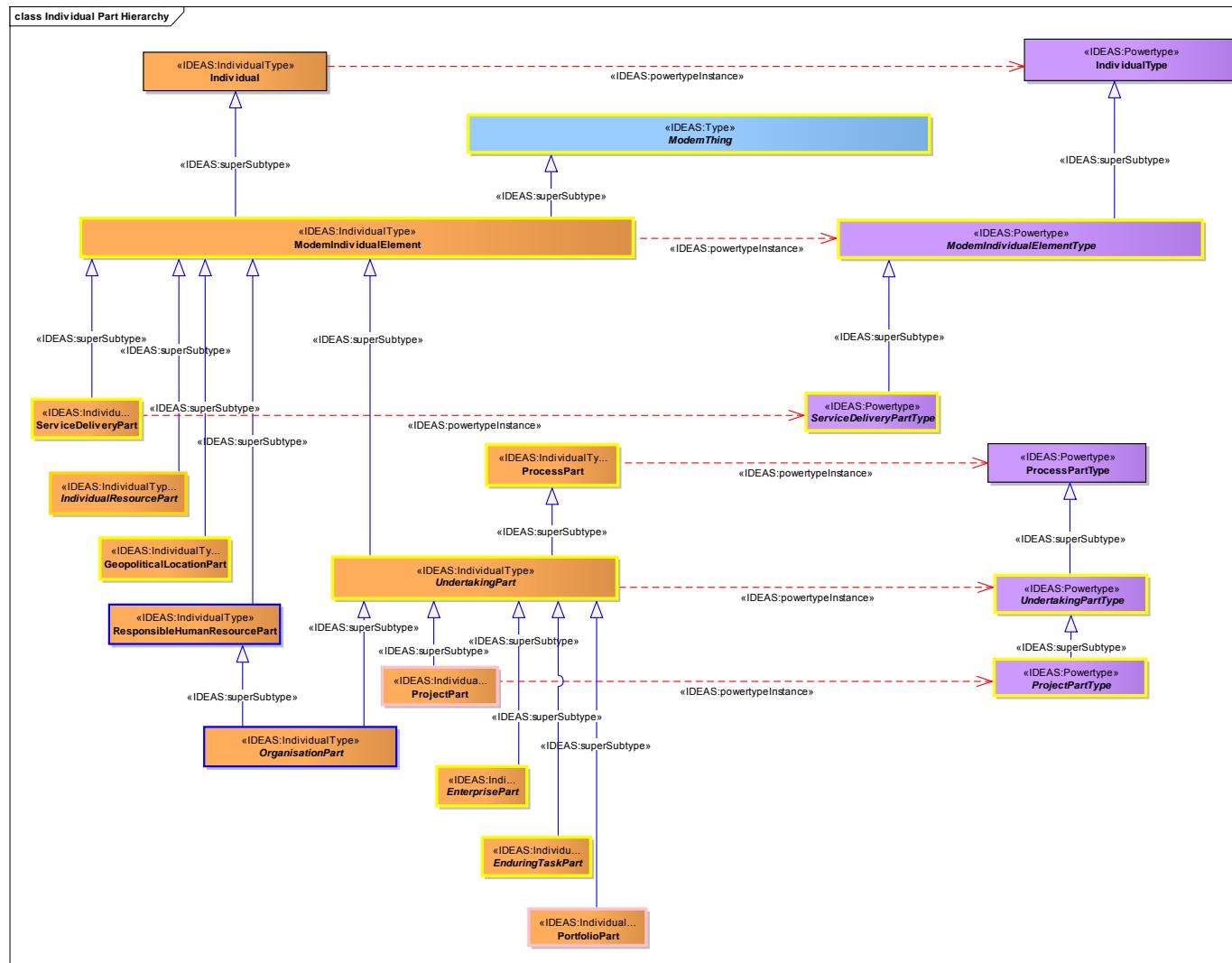


Figure 10 : Individual Part Hierarchy

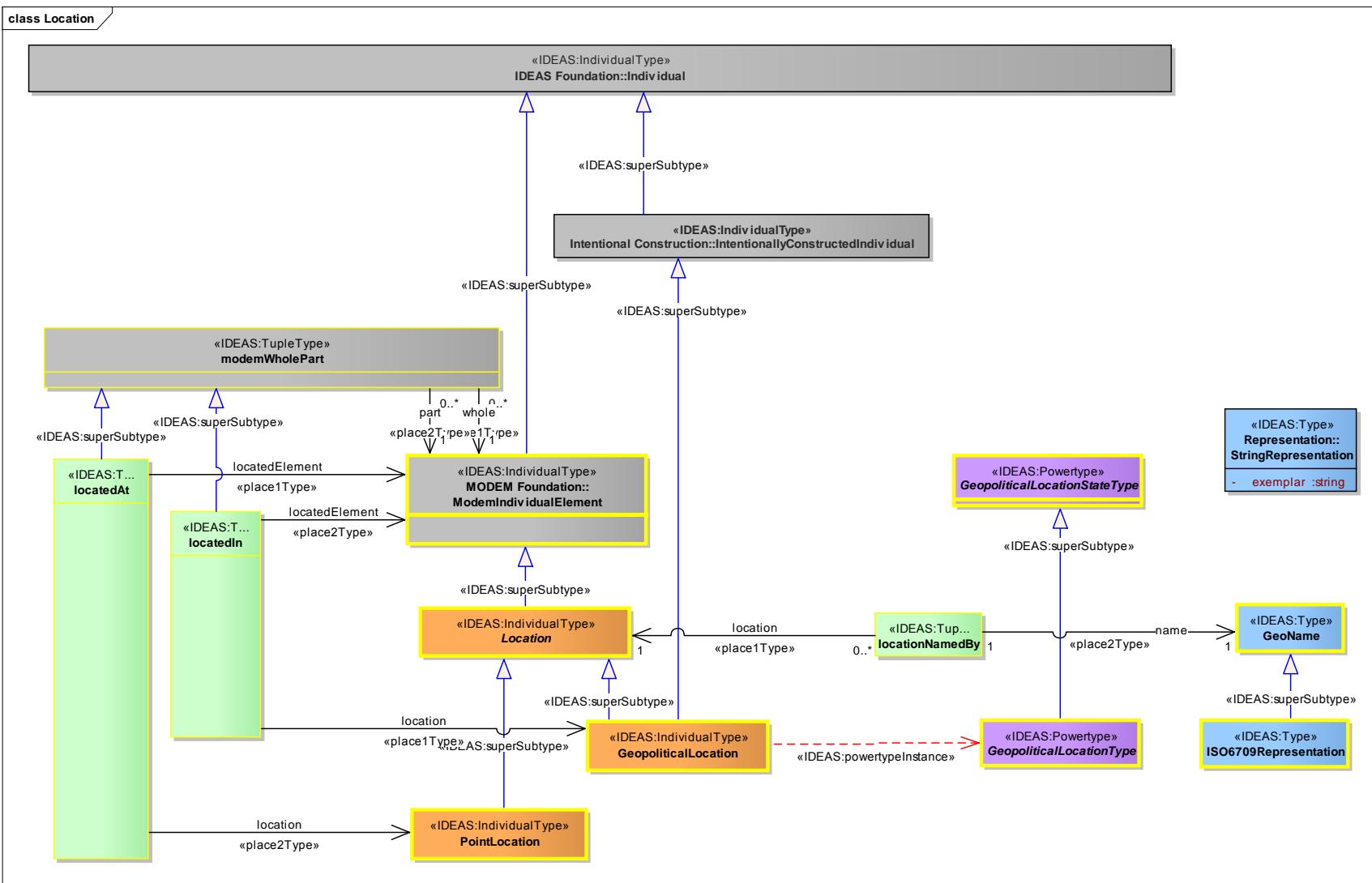


Figure 11 : Location

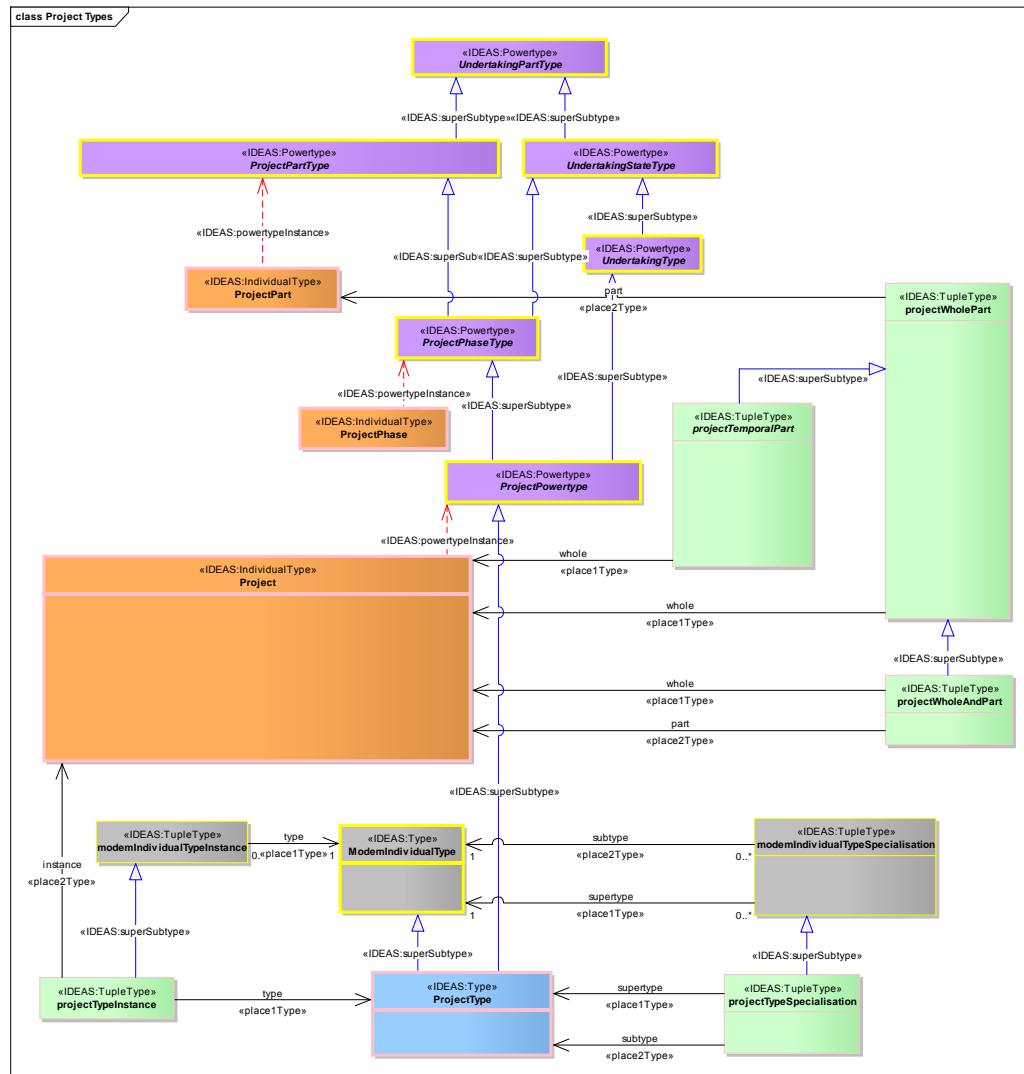


Figure 12 : Project Types

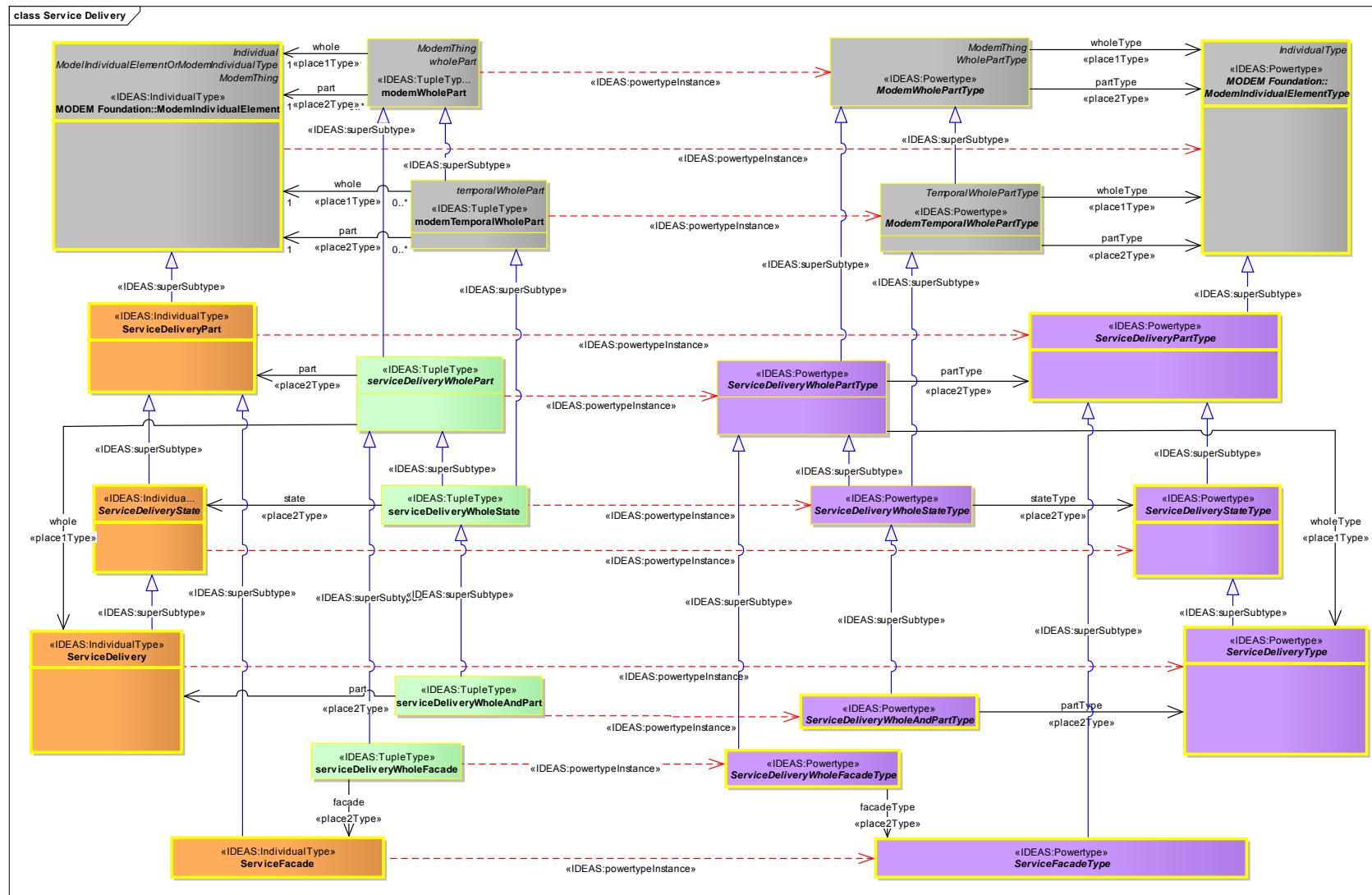


Figure 13 : Service Delivery

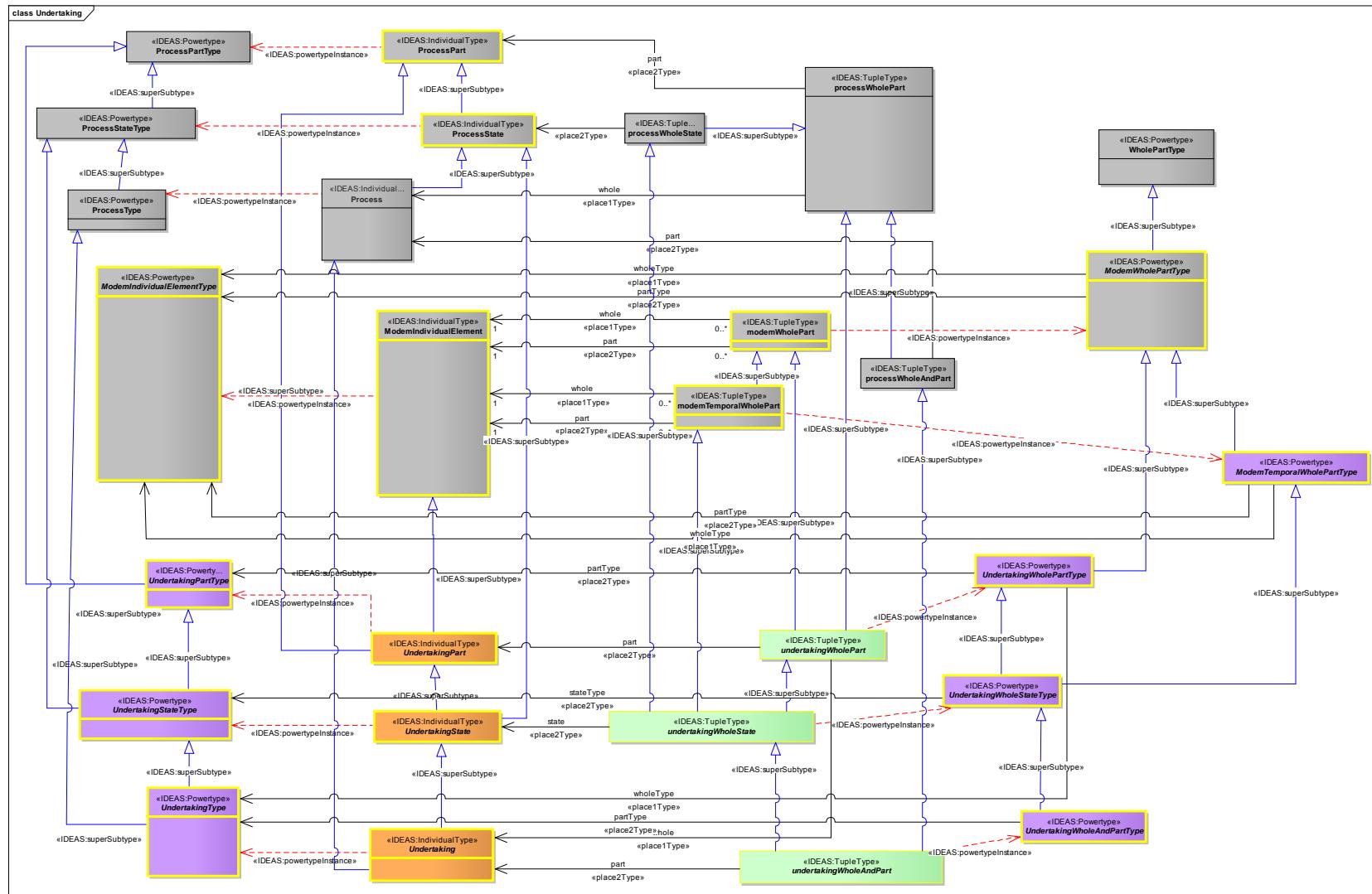


Figure 14 : Undertaking

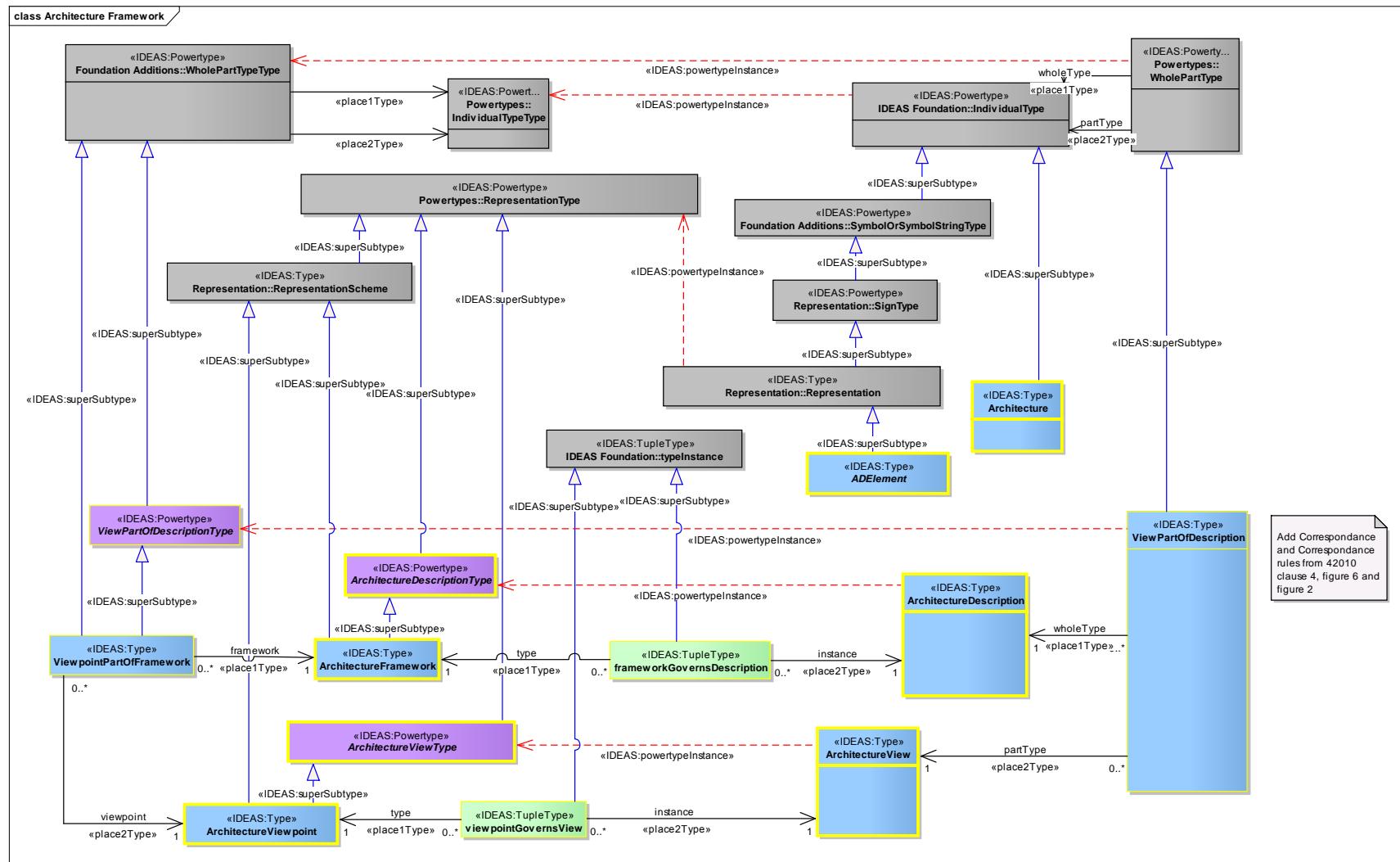


Figure 15 : Architecture Framework

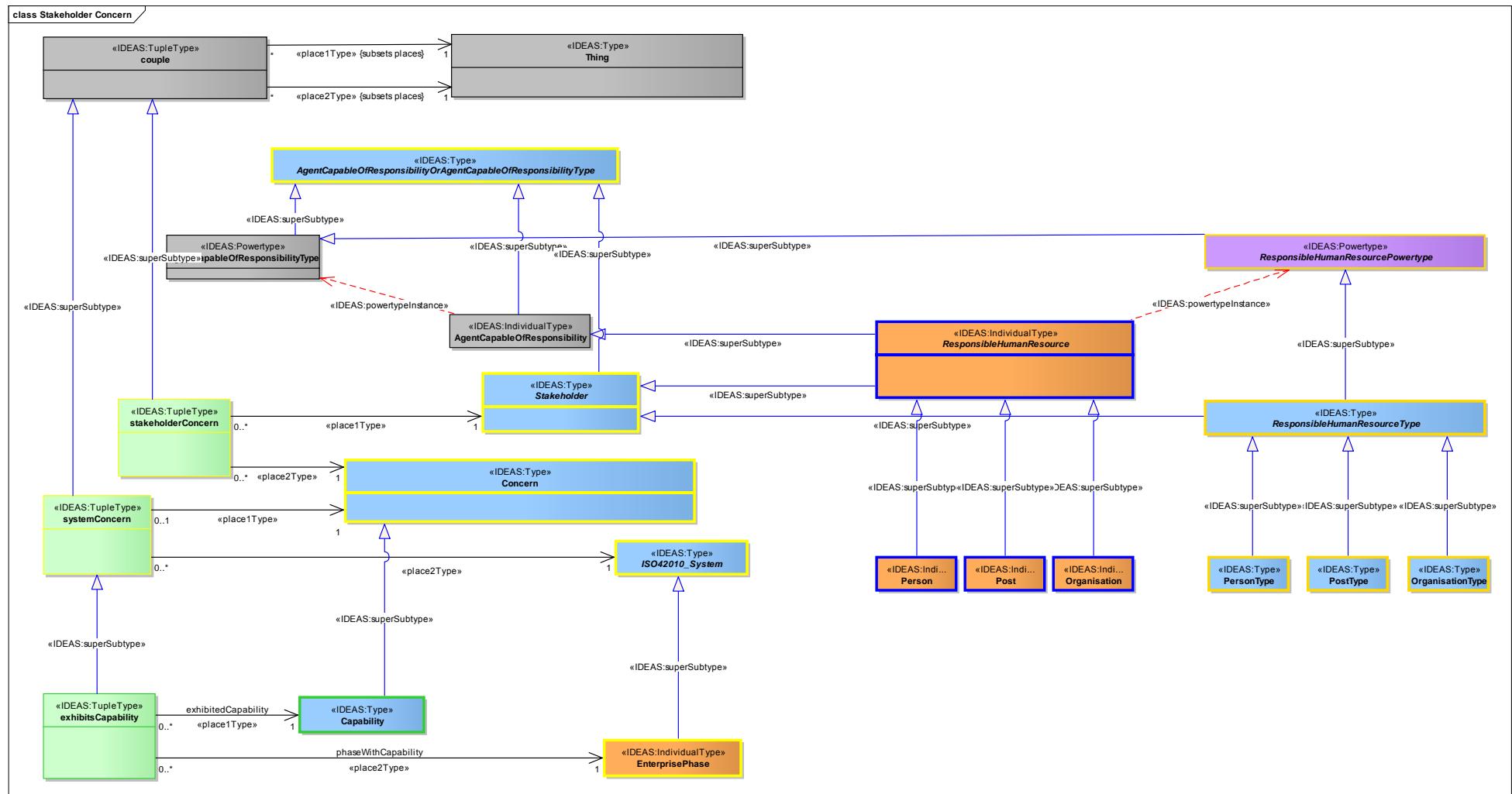


Figure 16 : Stakeholder Concern

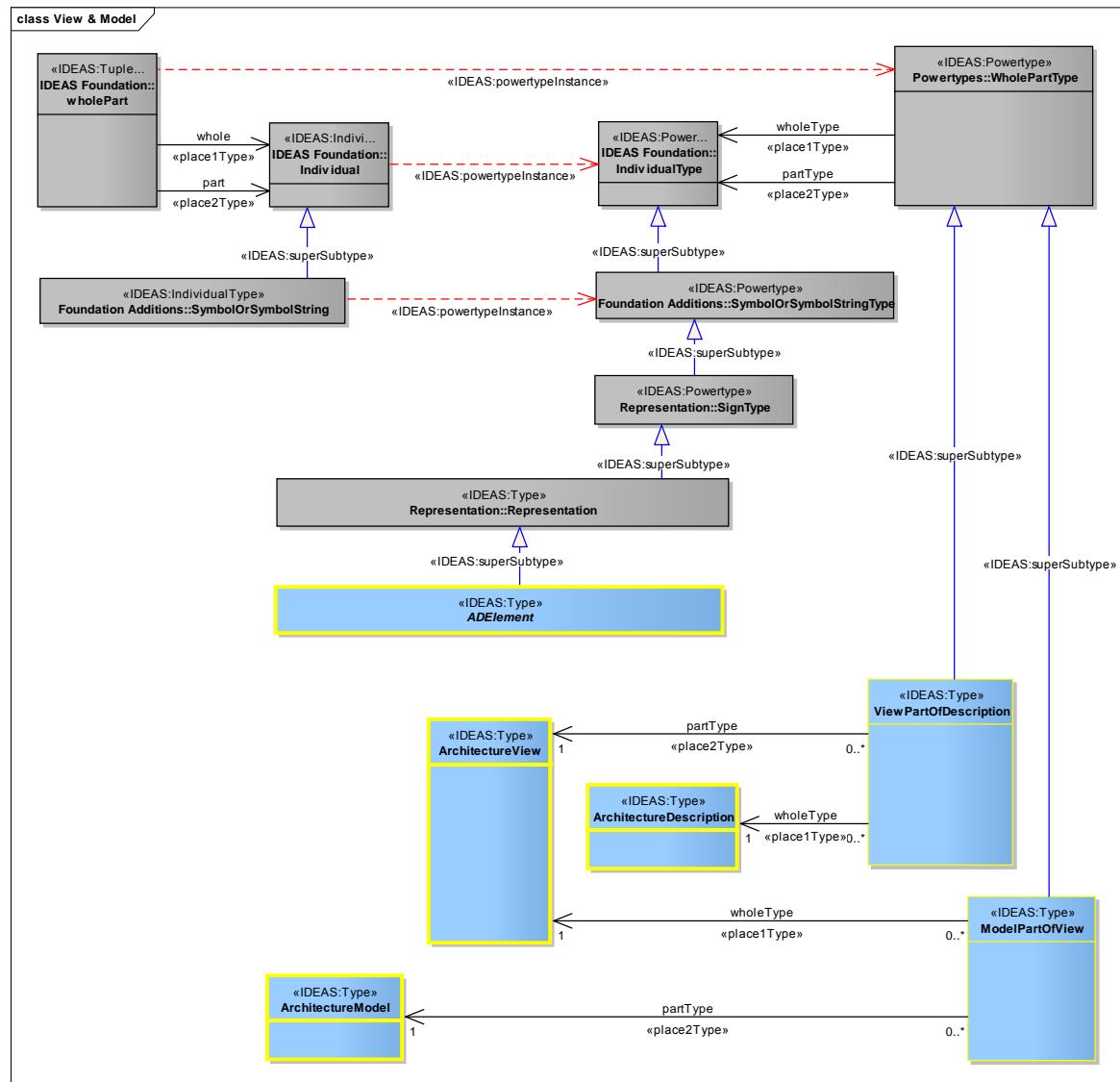


Figure 17 : View and model

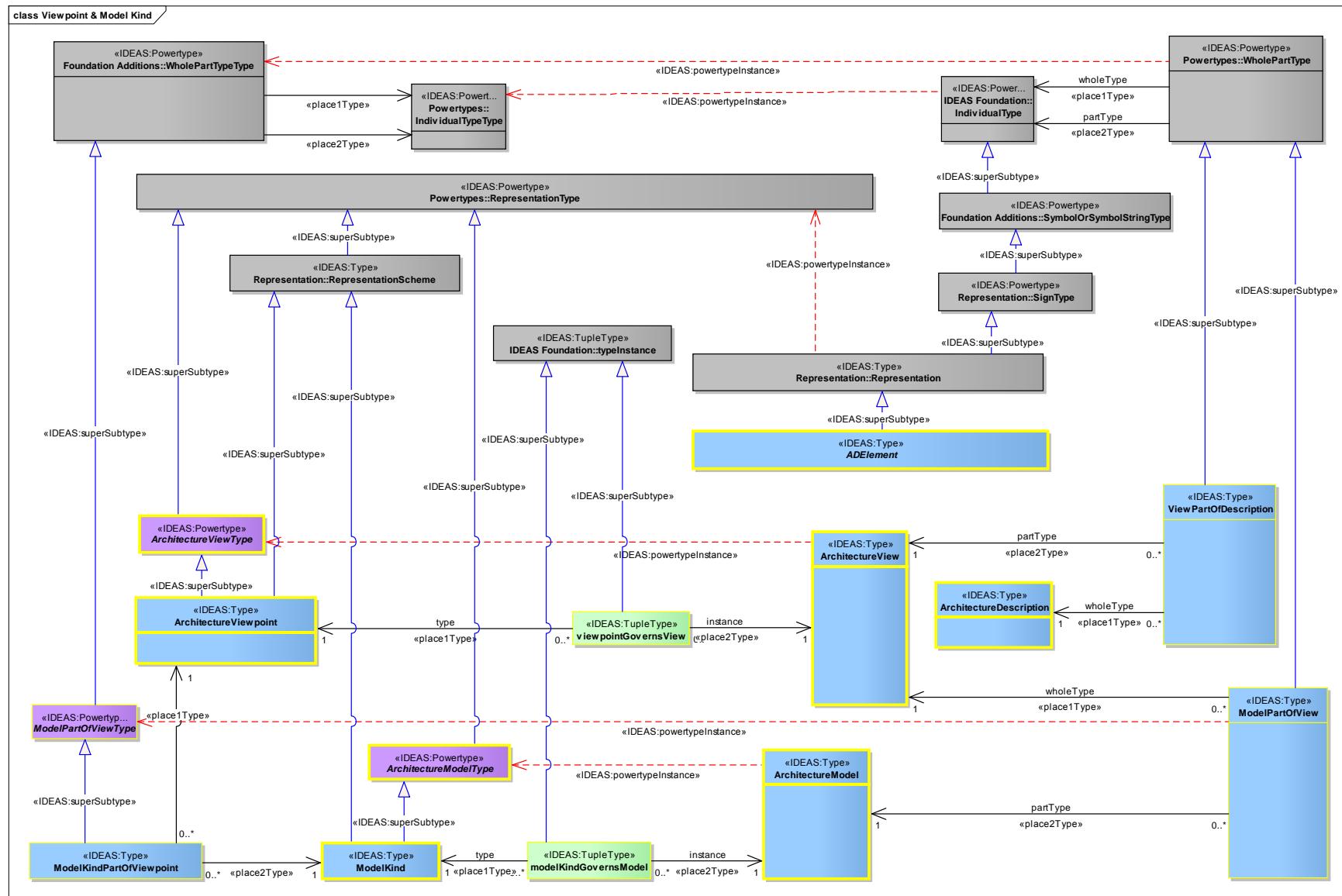


Figure 18 : Viewpoint & Model kind

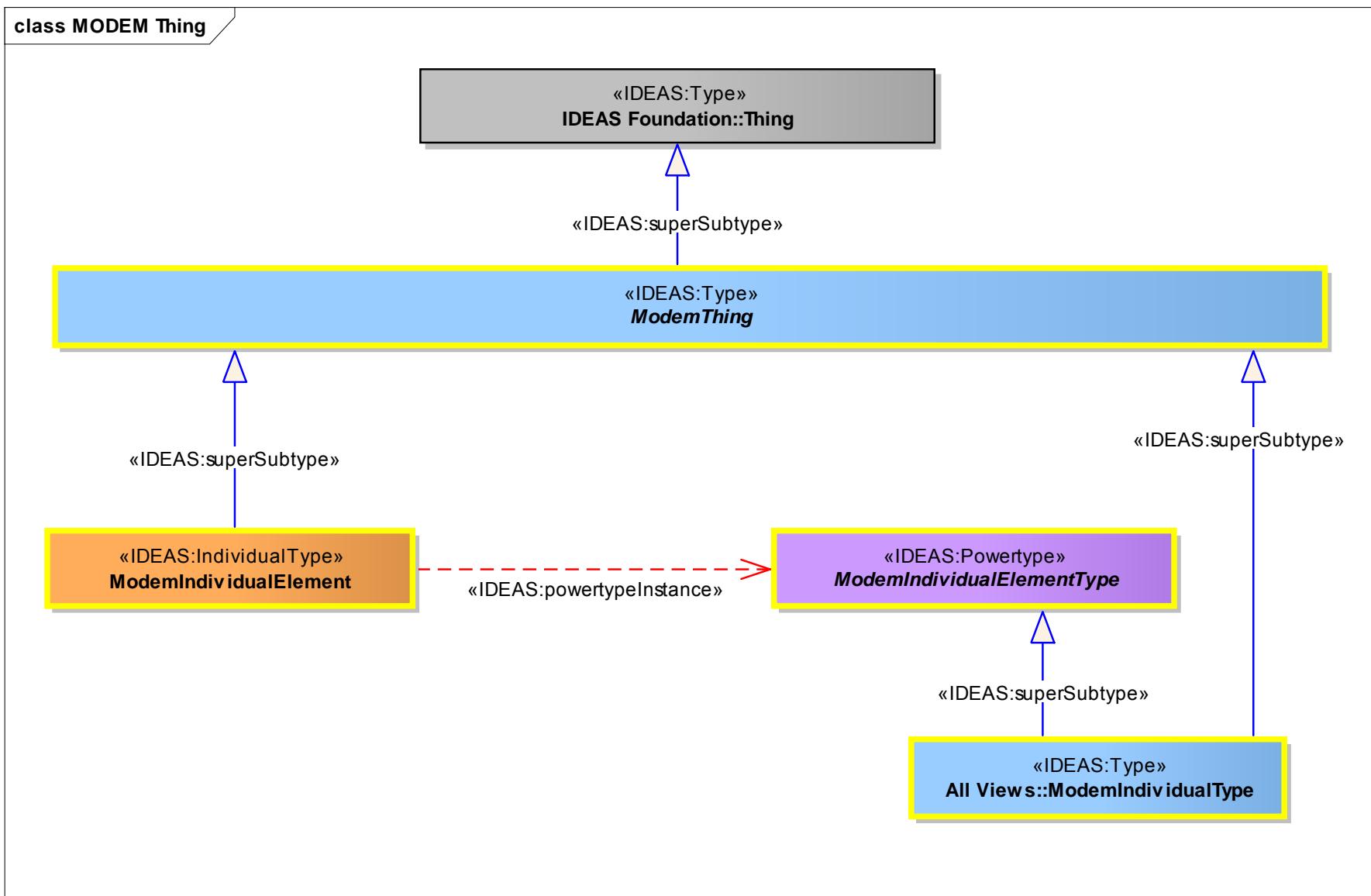


Figure 19 : Modem Thing

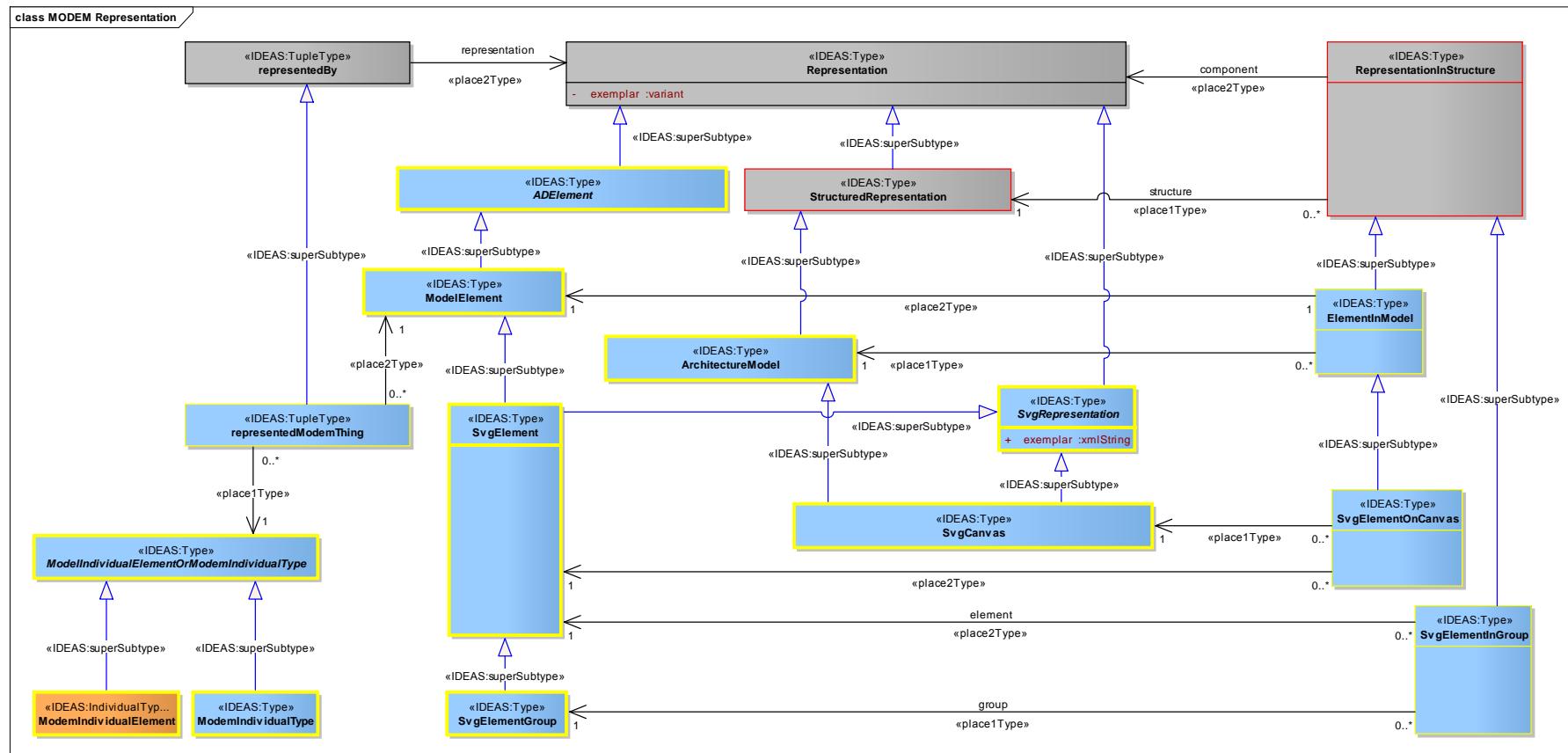


Figure 20 : Modem representation

2.3 Strategic views

2.3.1 StV-1: Enterprise vision

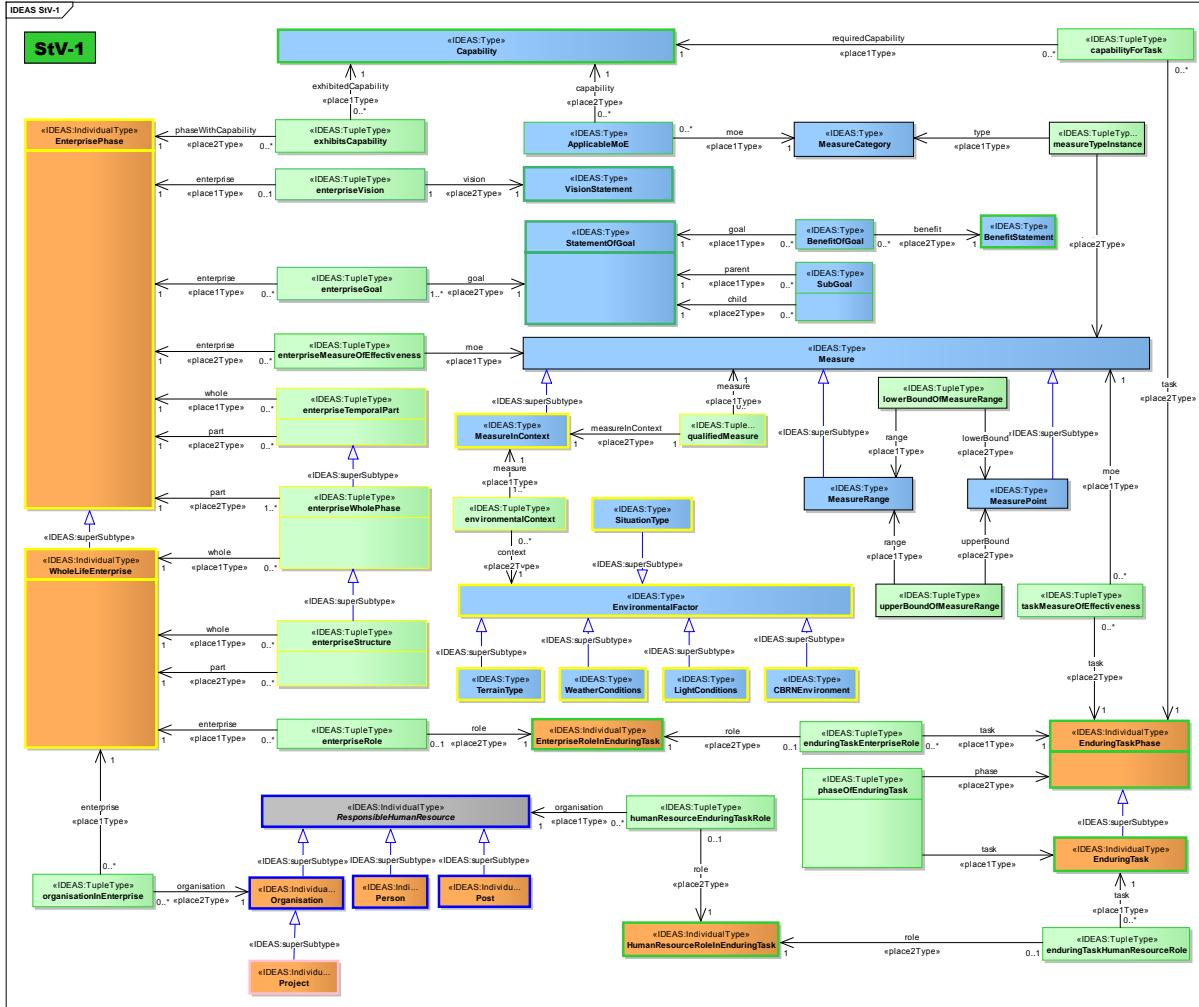


Figure 21 : StV-1

2.3.2 StV-2: Capability taxonomy

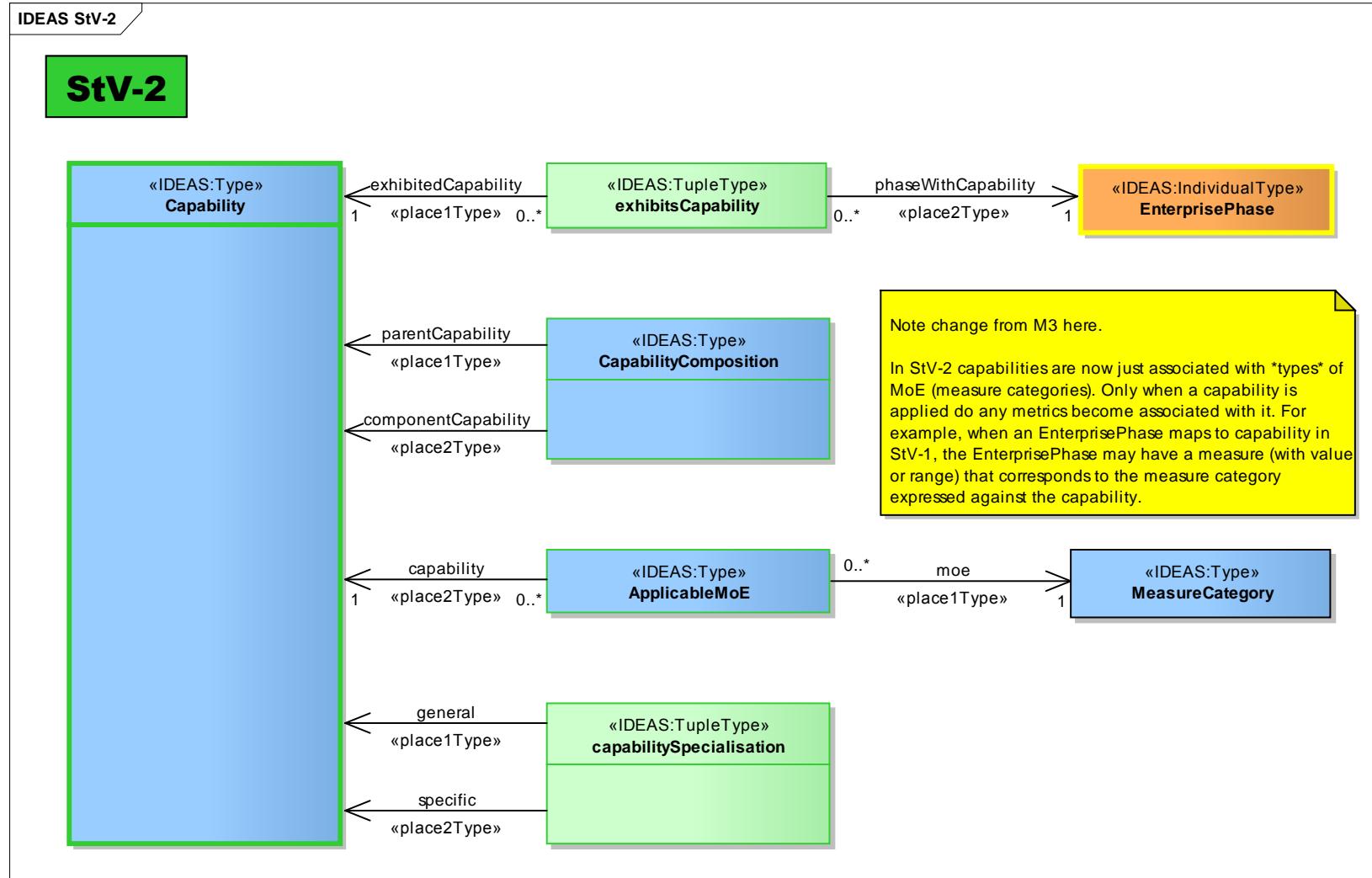


Figure 22 : StV-2

2.3.3 StV-3: Capability phasing

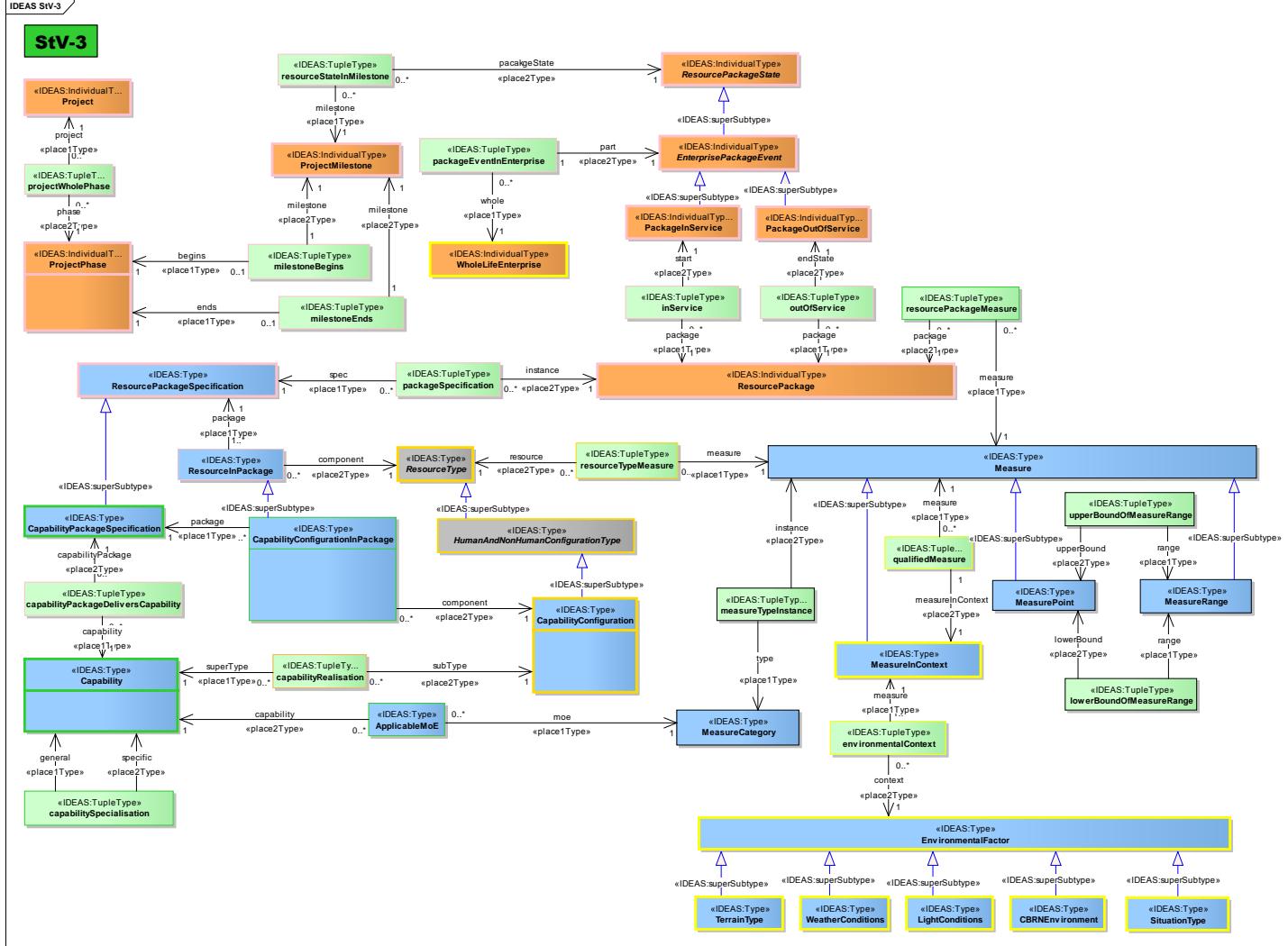


Figure 23 : StV-3

2.3.4 StV-4: Capability dependencies

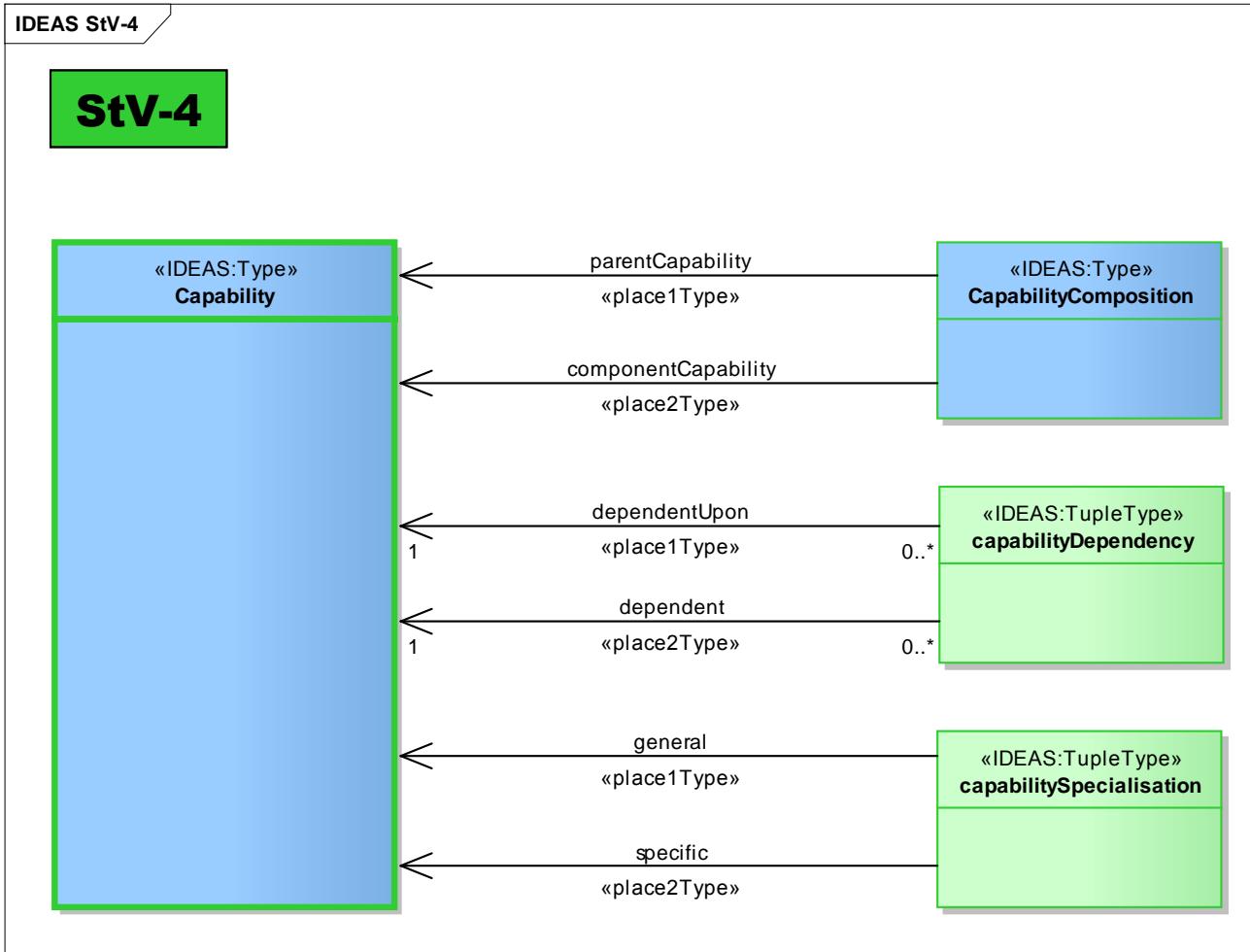


Figure 24 : StV-4

2.3.5 StV-5: Capability to organisational deployment mapping

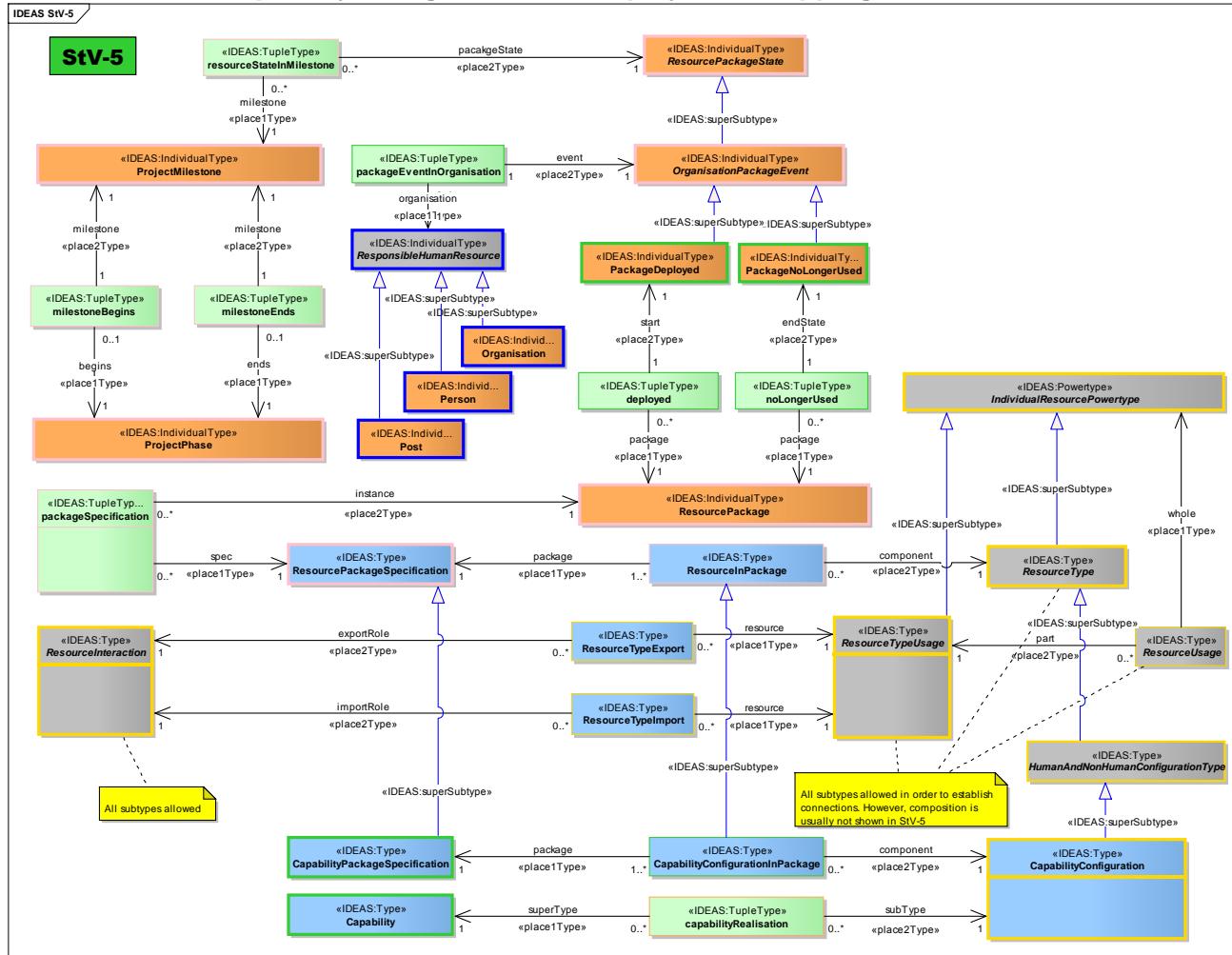


Figure 25 : StV-5

2.3.6 StV-6: Operational activity to capability mapping

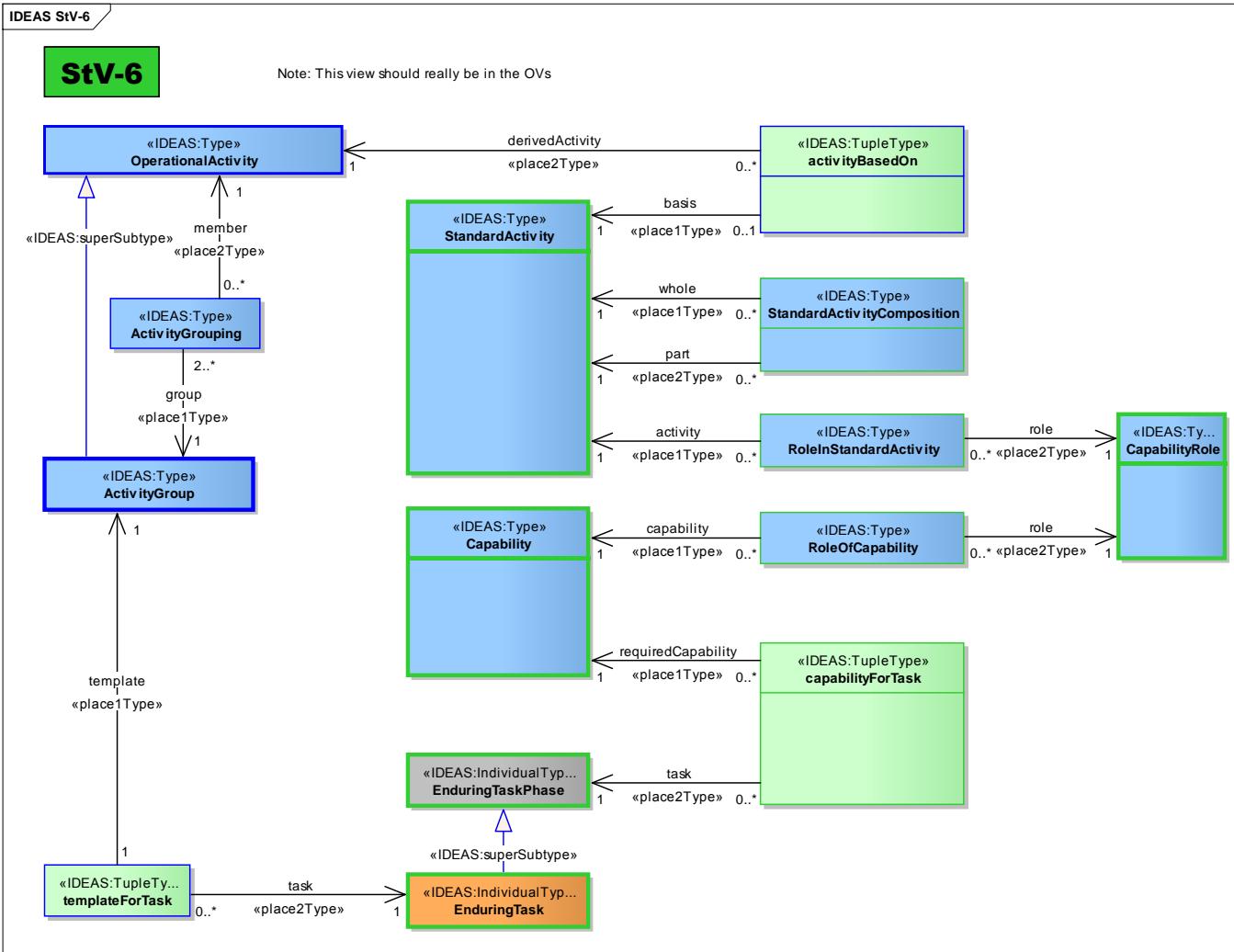


Figure 26 : StV-6

2.3.7 Strategic Views elements list

ApplicableMoE «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ApplicableMoE - ApplicableMeasureCategory

Association (source - target):«place2Type»

ApplicableMoE - Capability

Association (source - target):«place1Type»

ApplicableMoE - MeasureCategory

Attributes:

-
An ApplicableMeasureCategory where the categories are MeasureOfEffectivenessCategories and the things being measured are Capabilities.

BenefitOfGoal «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

BenefitOfGoal - RepresentationInStructure

Association (source - target):«place2Type»

BenefitOfGoal - BenefitStatement

Association (source - target):«place1Type»

BenefitOfGoal - StatementOfGoal

Attributes:

-
A RepresentationInStructure where a BenefitStatement is part of a StatementOfGoal.

BenefitStatement «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

BenefitStatement - ModemIndividualType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

BenefitStatement - StringDescription

Generalization (element - is a subtype of):«IDEAS:superSubtype»

BenefitStatement - StructuredRepresentation

Attributes:

-
A StringDescription that is part of a StatementOfGoal which describes a benefit realised by achieving the goal.

Capability «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Capability - Concern

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Capability - DispositionalProperty

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Capability - StrategicIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Capability - AgentType

Attributes:

-
A DispositionalProperty that is the set of all things that are capable of achieving a particular outcome.

CapabilityComposition «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityComposition - TypicalWholePart

Association (source - target): «place2Type»

CapabilityComposition - Capability

Association (source - target): «place1Type»

CapabilityComposition - Capability

Attributes:

- A WholePartType that asserts one Capability is part of another.

CapabilityConfigurationInPackage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityConfigurationInPackage - ResourceInPackage

Association (source - target): «place2Type»

CapabilityConfigurationInPackage - CapabilityConfiguration

Association (source - target): «place1Type»

CapabilityConfigurationInPackage - CapabilityPackageSpecification

Attributes:

- A ResourceInPackage where the ResourceType is a CapabilityConfiguration and the package is a ResourcePackageSpecification.

CapabilityPackageSpecification «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityPackageSpecification - ResourcePackageSpecification

Attributes:

- A ResourcePackageSpecification that contains at least one CapabilityConfiguration.

CapabilityRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityRole - ParticipationExtentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityRole - StrategicIndividualType

Attributes:

- A ParticipationExtentType which is the extent of a Capability's participation in a StandardActivity.

EnduringTask «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnduringTask - Undertaking

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnduringTask - EnduringTaskPhase

Attributes:

- An Undertaking recognised by an enterprise as being essential to achieving its goals - i.e. a strategic specification of what the enterprise does.

EnduringTaskPhase «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnduringTaskPhase - UndertakingState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnduringTaskPhase - EnduringTaskPart

Attributes:

- A UndertakingState that is a temporal part of an EnduringTask.

EnterpriseRoleInEnduringTask «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterpriseRoleInEnduringTask - ParticipationExtent

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterpriseRoleInEnduringTask - EnterprisePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterpriseRoleInEnduringTask - EnduringTaskPart

Attributes:

- A ParticipationExtent whose extent is the participation of an EnterprisePhase (or WholeLifeEnterprise) in an EnduringTask.

HumanResourceRoleInEnduringTask «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanResourceRoleInEnduringTask - ParticipationExtent

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanResourceRoleInEnduringTask - OrganisationPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanResourceRoleInEnduringTask - EnduringTaskPart

Attributes:

- A ParticipationExtent where the participant is a ResponsibleHumanResource and the Process is an EnduringTask.

PackageDeployed «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PackageDeployed - OrganisationPackageEvent

Attributes:

- An OrganisationPackageEvent which marks the delivery of a particular ResourcePackage to an Organisation.

PackageNoLongerUsed «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PackageNoLongerUsed - OrganisationPackageEvent

Attributes:

- A OrganisationPackageEvent marking the point when a ResourcePacakge is no longer used by an Organisation.

RoleInStandardActivity «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInStandardActivity - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInStandardActivity - ProcessWholeRoleExtentPartType

Association (source - target): «place1Type»

RoleInStandardActivity - StandardActivity

Association (source - target): «place2Type»

RoleInStandardActivity - CapabilityRole

Attributes:

- A ProcessWholeRoleExtentPartType that relates a StandardActivity to a CapabilityRole.

RoleOfCapability «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleOfCapability - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleOfCapability - AgentParticipationType

Association (source - target): «place1Type»

RoleOfCapability - Capability

Association (source - target): «place2Type»

RoleOfCapability - CapabilityRole

Attributes:

- An AgentParticipationType that relates a Capability to its role in a StandardOperationalActivity.

StandardActivity «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StandardActivity - ProcessType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StandardActivity - StrategicIndividualType

Attributes:

- An ProcessType that is a standard procedure (e.g. doctrinal tasks). Note: This is equivalent to what some defence organisations call JETLs. Note: was called "StandardOperationalActivity" in M3.

StandardActivityComposition «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StandardActivityComposition - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StandardActivityComposition - ProcessWholeAndPartType

Association (source - target): «place2Type»

StandardActivityComposition - StandardActivity

Association (source - target): «place1Type»

StandardActivityComposition - StandardActivity

Attributes:

- A TypicalWholePart that asserts one StandardActivity is part of another.

StatementOfGoal «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StatementOfGoal - StructuredRepresentation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StatementOfGoal - StringDescription

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StatementOfGoal - ModemIndividualType

Attributes:

-
A StringDescription that is a specific, required objective for an EnterprisePhase.

StrategicIndividualType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StrategicIndividualType - ModemIndividualType

Attributes:

-
A ModemIndividualType which is used in Strategic modelling - i.e. a type of individual that may have relevance across more than one architecture.

SubGoal «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SubGoal - RepresentationInStructure

Association (source - target): «place2Type»

SubGoal - StatementOfGoal

Association (source - target): «place1Type»

SubGoal - StatementOfGoal

Attributes:

-
A RepresentationInStructure where one StatementOfGoal is part of another.

VisionStatement «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

VisionStatement - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

VisionStatement - StringDescription

Attributes:

-
A StringDescription that is a short paragraph outlining the vision for a given phase of an enterprise.

capabilityDependency «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

capabilityDependency - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

capabilityDependency - couple

Association (source - target): «place2Type»

capabilityDependency - Capability

Association (source - target): «place1Type»

capabilityDependency - Capability

Attributes:

- A couple that relates a (dependent) Capability to a Capability it is dependent upon.

capabilityForTask «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

capabilityForTask - propertyOfIndividual

Generalization (element - is a subtype of):«IDEAS:superSubtype»

capabilityForTask - modemIndividualTypeInstance

Association (source - target):«place1Type»

capabilityForTask - Capability

Association (source - target):«place2Type»

capabilityForTask - EnduringTaskPhase

Attributes:

- A propertyOfIndividual that asserts a Capability is required in order for an Enterprise to conduct a phase of an EnduringTask.

capabilitySpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

capabilitySpecialisation - modemIndividualTypeSpecialisation

Association (source - target):«place1Type»

capabilitySpecialisation - Capability

Association (source - target):«place2Type»

capabilitySpecialisation - Capability

Attributes:

- A superSubtype that relates one Capability (supertype) to a more specialised Capability (subtype).

deployed «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

deployed - modemTemporalWholePart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

deployed - individualResourceState

Generalization (element - is a subtype of):«IDEAS:superSubtype»

deployed - startBorder

Association (source - target):«place1Type»

deployed - ResourcePackage

Association (source - target):«place1Type»

deployed - PackageDeployed

Attributes:

- A startBorder that indicates that an PackageDeployed marks the introduction into an Organisation of a ResourcePackage.

enduringTaskEnterpriseRole «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
enduringTaskEnterpriseRole - processWholeRoleExtentPart
Generalization (element - is a subtype of): «IDEAS:superSubtype»
enduringTaskEnterpriseRole - enduringTaskWholePart
Association (source - target): «place2Type»
enduringTaskEnterpriseRole - EnterpriseRoleInEnduringTask
Association (source - target): «place1Type»
enduringTaskEnterpriseRole - EnduringTaskPhase

Attributes:

-

A processWholeRoleExtentPart which relates an EnduringTaskPhase to an EnterpriseRoleInEnduringTask.

enduringTaskHumanResourceRole «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
enduringTaskHumanResourceRole - enduringTaskWholePart
Generalization (element - is a subtype of): «IDEAS:superSubtype»
enduringTaskHumanResourceRole - processWholeRoleExtentPart
Association (source - target): «place2Type»
enduringTaskHumanResourceRole - HumanResourceRoleInEnduringTask
Association (source - target): «place1Type»
enduringTaskHumanResourceRole - EnduringTask

Attributes:

-

A processWholeRoleExtentPart where the Process is an EnduringTask and the involved Individual is a ResponsibleHumanResource.

enterpriseGoal «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
enterpriseGoal - ModemThing
Generalization (element - is a subtype of): «IDEAS:superSubtype»
enterpriseGoal - describedBy
Association (source - target): «place1Type»
enterpriseGoal - EnterprisePhase
Association (source - target): «place2Type»
enterpriseGoal - StatementOfGoal

Attributes:

-

A describedBy that relates a StatementOfGoal to the EnterprisePhase it describes.

enterpriseMeasureOfEffectiveness «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
enterpriseMeasureOfEffectiveness - measureOfIndividual
Generalization (element - is a subtype of): «IDEAS:superSubtype»
enterpriseMeasureOfEffectiveness - modemIndividualTypeInstance
Association (source - target): «place2Type»
enterpriseMeasureOfEffectiveness - EnterprisePhase
Association (source - target): «place1Type»
enterpriseMeasureOfEffectiveness - Measure

Attributes:

- A measureOfIndividual where the Individual is an EnterprisePhase and the measure is a MeasureOfEffectiveness.

enterpriseRole «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseRole - agentParticipation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseRole - enterpriseWholePart

Association (source - target): «place1Type»

enterpriseRole - WholeLifeEnterprise

Association (source - target): «place2Type»

enterpriseRole - EnterpriseRoleInEnduringTask

Attributes:

- An agentParticipation where the agent is a WholeLifeEnterprise and the participation is an EnterpriseRoleInEnduringTask. An enterpriseRole relates a WholeLifeEnterprise to a role it performs in an EnduringTask.

enterpriseVision «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseVision - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enterpriseVision - describedBy

Association (source - target): «place1Type»

enterpriseVision - EnterprisePhase

Association (source - target): «place2Type»

enterpriseVision - VisionStatement

Attributes:

- A describedBy that relates a VisionStatement to the EnterprisePhase it describes.

exhibitsCapability «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exhibitsCapability - propertyOfIndividual

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exhibitsCapability - modemIndividualTypeInstance

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exhibitsCapability - systemConcern

Association (source - target): «place1Type»

exhibitsCapability - Capability

Association (source - target): «place2Type»

exhibitsCapability - EnterprisePhase

Attributes:

- A propertyOfIndividual that relates an EnterprisePhase to a Capability that it exhibits.

Note: replaces "exhibits" tagged value in M3.

humanResourceEnduringTaskRole «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

humanResourceEnduringTaskRole - agentParticipation

Generalization (element - is a subtype of):«IDEAS:superSubtype»

humanResourceEnduringTaskRole - organisationWholePart

Association (source - target):«place1Type»

humanResourceEnduringTaskRole - ResponsibleHumanResource

Association (source - target):«place2Type»

humanResourceEnduringTaskRole - HumanResourceRoleInEnduringTask

Attributes:

-

An agentParticipation where the Agent is a ResponsibleHumanResource and the Process is an EnduringTask.

noLongerUsed «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

noLongerUsed - endBorder

Generalization (element - is a subtype of):«IDEAS:superSubtype»

noLongerUsed - individualResourceState

Generalization (element - is a subtype of):«IDEAS:superSubtype»

noLongerUsed - modemTemporalWholePart

Association (source - target):«place2Type»

noLongerUsed - PackageNoLongerUsed

Association (source - target):«place1Type»

noLongerUsed - ResourcePackage

Attributes:

-

An endBorder that indicates that an PackageNoLongerUsed marks the retirement from an Organisation of a ResourcePackage.

organisationInEnterprise «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

organisationInEnterprise - enterpriseWholePart

Association (source - target):«place1Type»

organisationInEnterprise - WholeLifeEnterprise

Association (source - target):«place2Type»

organisationInEnterprise - Organisation

Attributes:

-

An enterpriseWholePart that asserts an Organisation is part of a WholeLifeEnterprise. Note: this includes the limit case where the Organisation *is* the Enterprise, and cases where the Organisation is a Project.

packageEventInOrganisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

packageEventInOrganisation - organisationWholePart

Association (source - target):«place2Type»

packageEventInOrganisation - OrganisationPackageEvent

Association (source - target):«place1Type»

packageEventInOrganisation - ResponsibleHumanResource

Attributes:

- An organisationWholePart where an OrganisationPackageEvent is part of an Organisation - e.g. the package is rolled-out into the organisation.

phaseOfEnduringTask «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

phaseOfEnduringTask - undertakingWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

phaseOfEnduringTask - enduringTaskWholePart

Association (source - target): «place2Type»

phaseOfEnduringTask - EnduringTaskPhase

Association (source - target): «place1Type»

phaseOfEnduringTask - EnduringTask

Attributes:

- An undertakingWholeState where the state (part) is an EnduringTaskPhase and the whole is an EnduringTask.

resourcePackageMeasure «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

resourcePackageMeasure - modernIndividualTypeInstance

Generalization (element - is a subtype of): «IDEAS:superSubtype»

resourcePackageMeasure - measureOfIndividual

Association (source - target): «place1Type»

resourcePackageMeasure - Measure

Association (source - target): «place2Type»

resourcePackageMeasure - ResourcePackage

Attributes:

- A measureOfIndividual where the measure Individual is a ResourcePackage.

taskMeasureOfEffectiveness «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

taskMeasureOfEffectiveness - measureOfIndividual

Generalization (element - is a subtype of): «IDEAS:superSubtype»

taskMeasureOfEffectiveness - modernIndividualTypeInstance

Association (source - target): «place1Type»

taskMeasureOfEffectiveness - Measure

Association (source - target): «place2Type»

taskMeasureOfEffectiveness - EnduringTaskPhase

Attributes:

- A measureOfIndividual that asserts a Measure is an MoE for an EnduringTaskPhase.

2.3.8 Strategic Views additional diagrams.

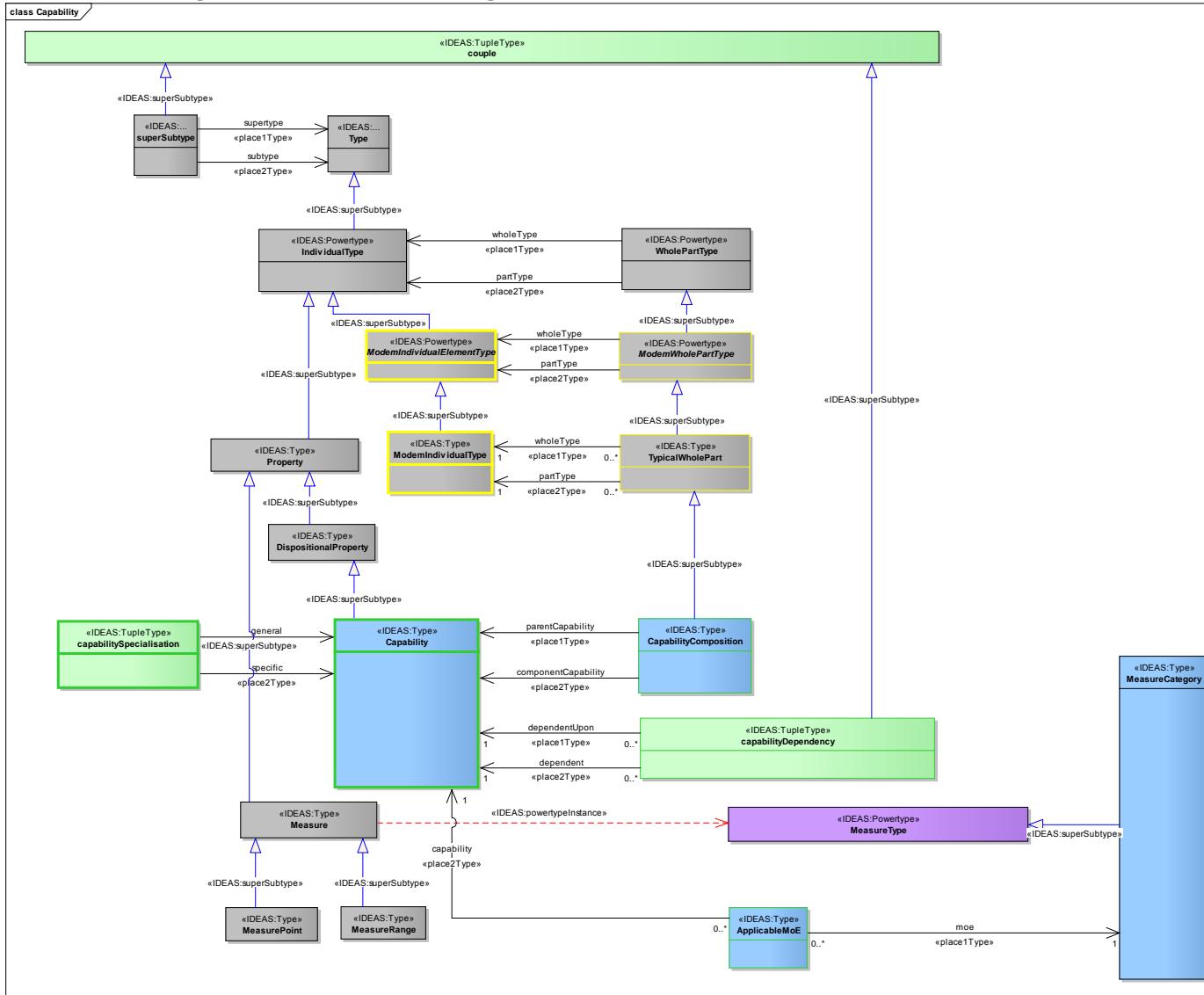


Figure 27 : Capability

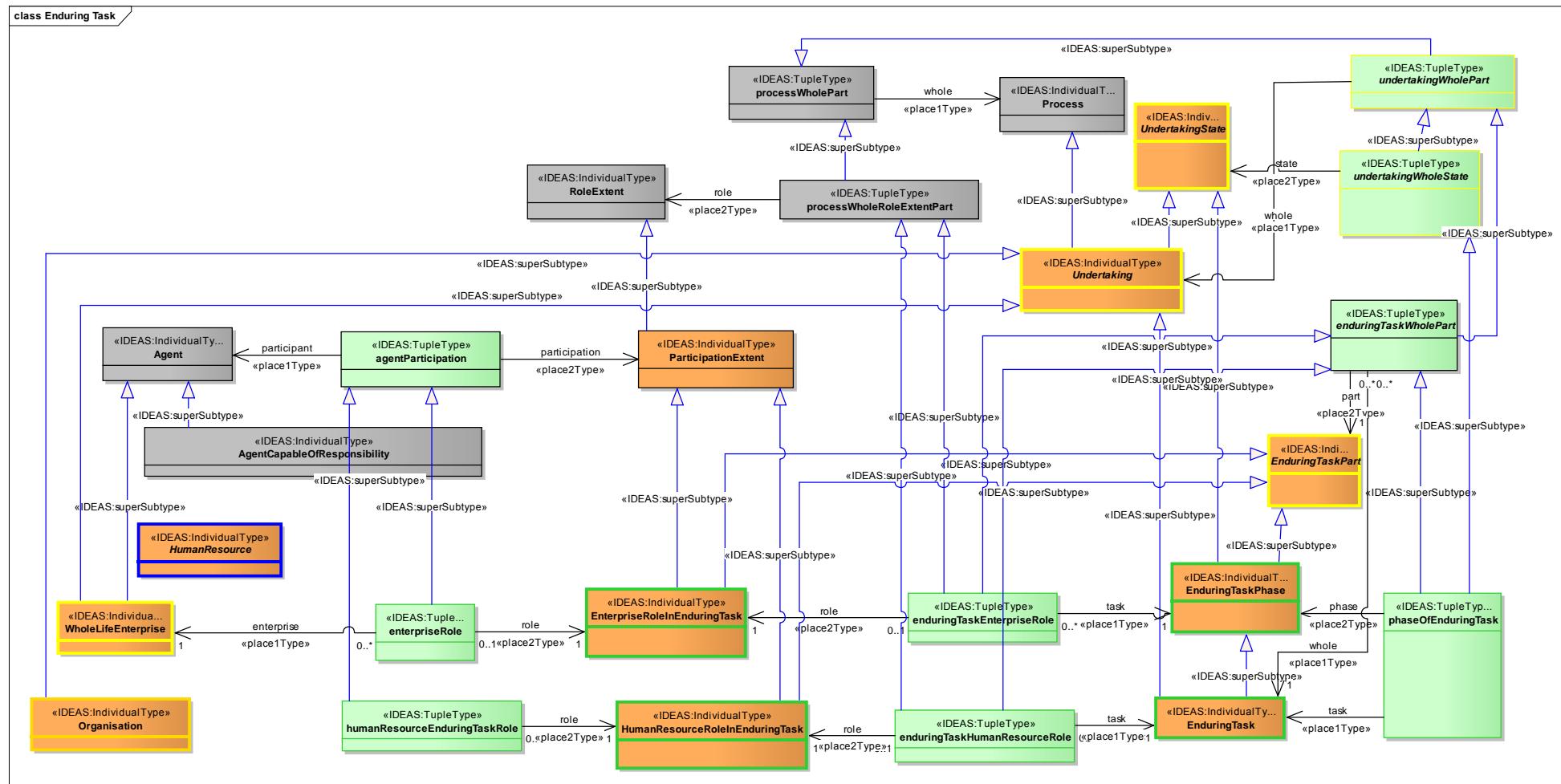


Figure 28 : Enduring Task

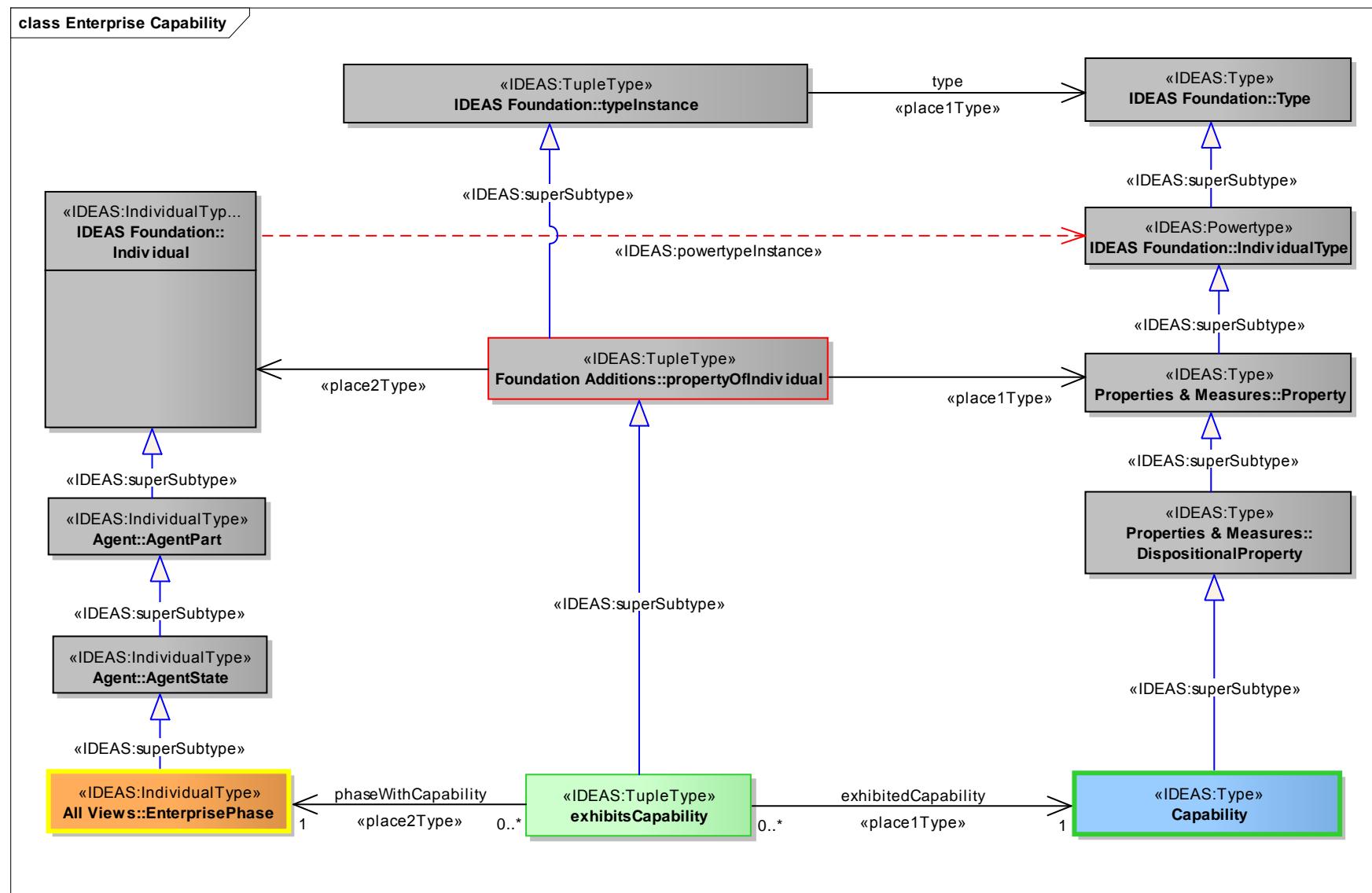


Figure 29 : Enterprise Capability

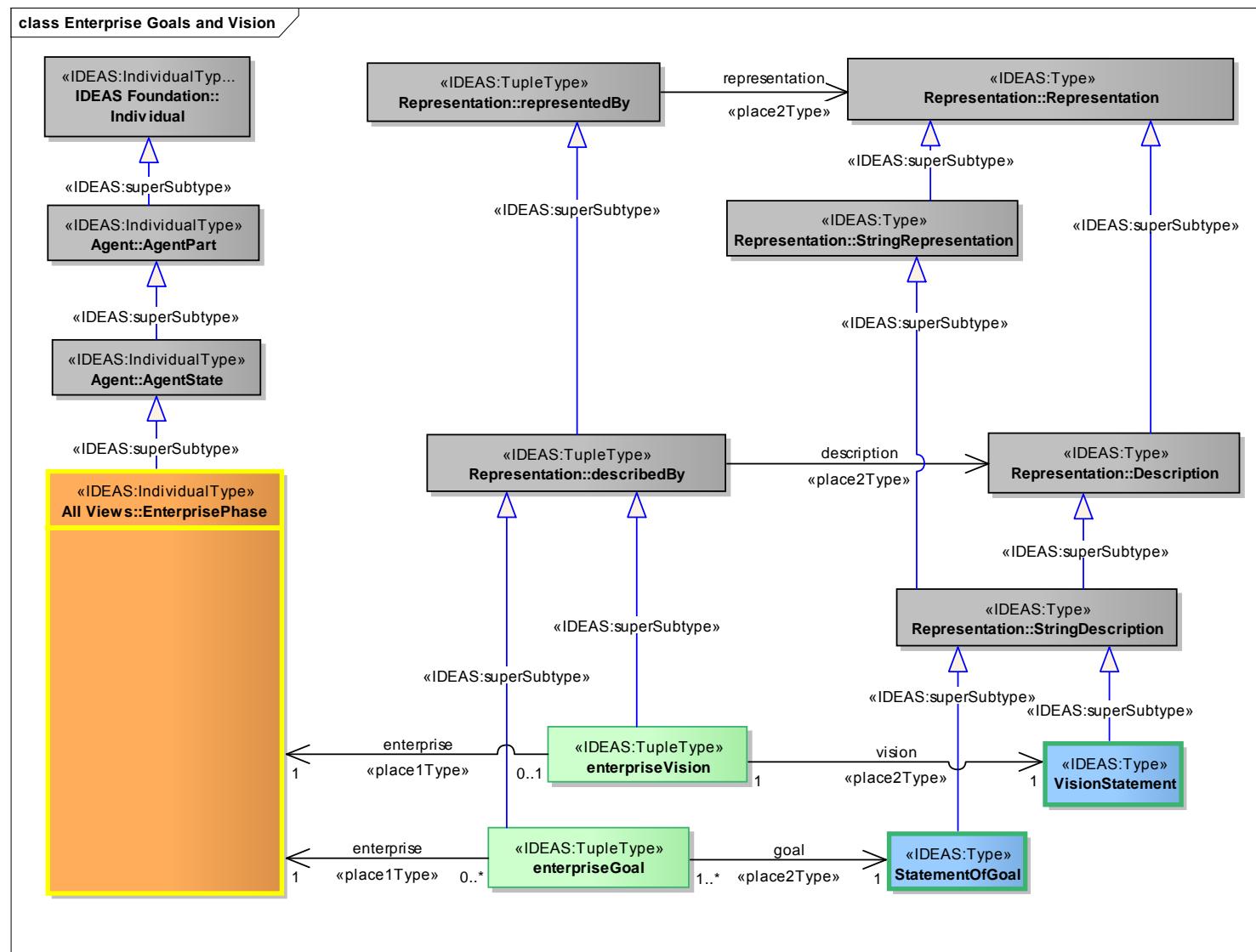


Figure 30 : Enterprise Goals and Vision

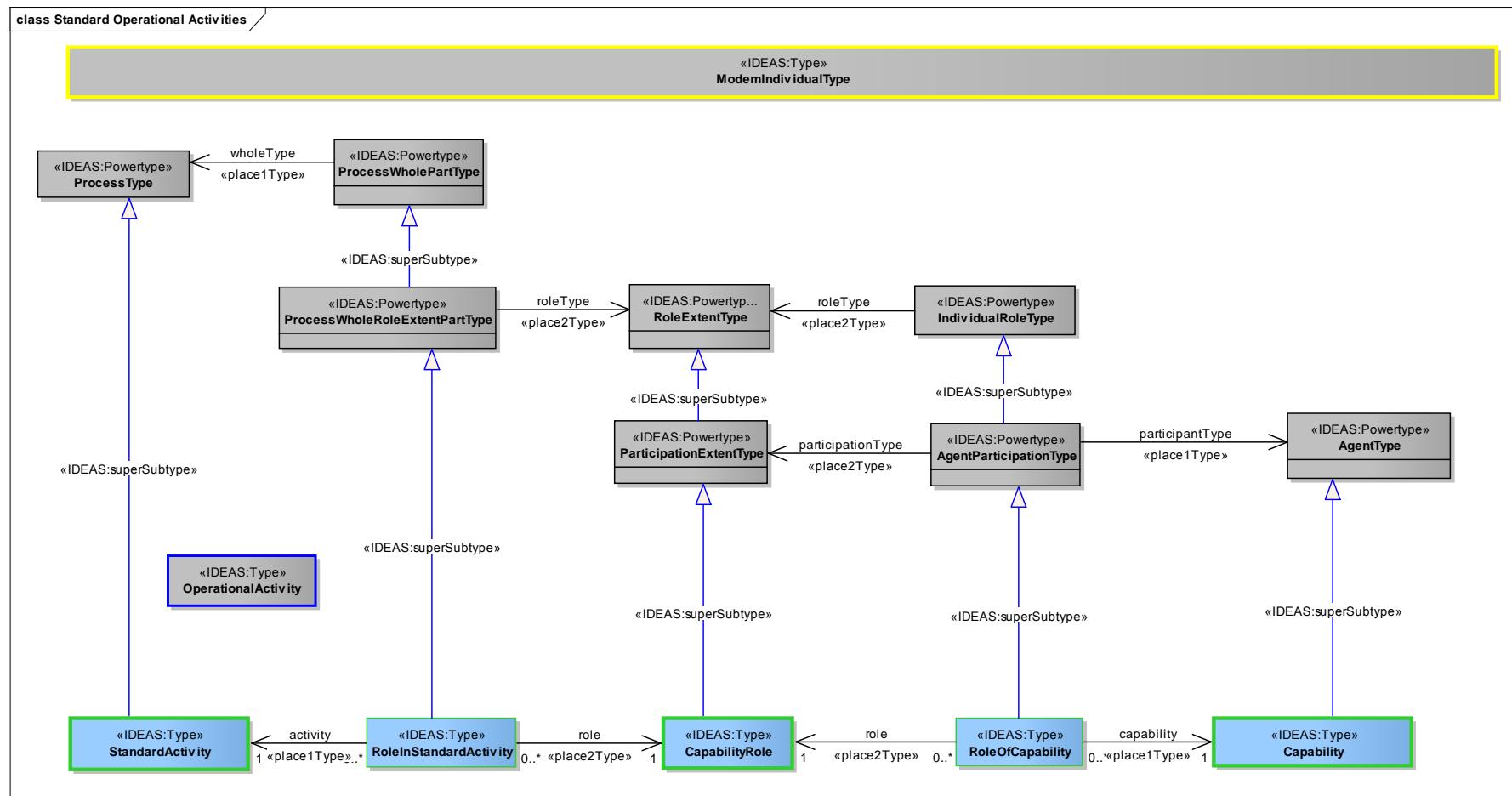


Figure 31 : Standard Operational Activities

2.4 Operational views

2.4.1 OV-1: High level operational concept graphic (a, b, c)

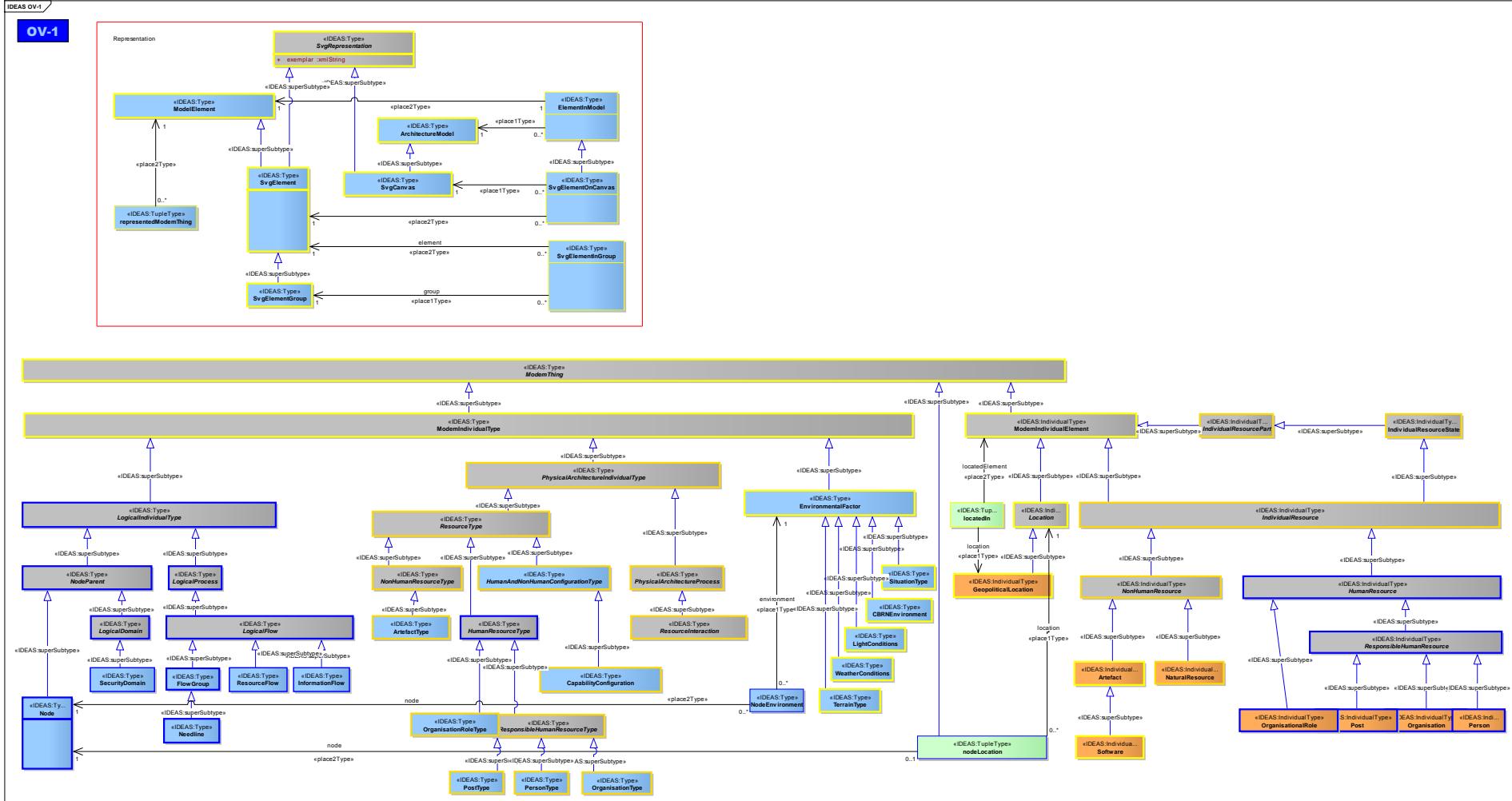


Figure 32 : OV-1

2.4.2 OV-2: Operational node relationship description

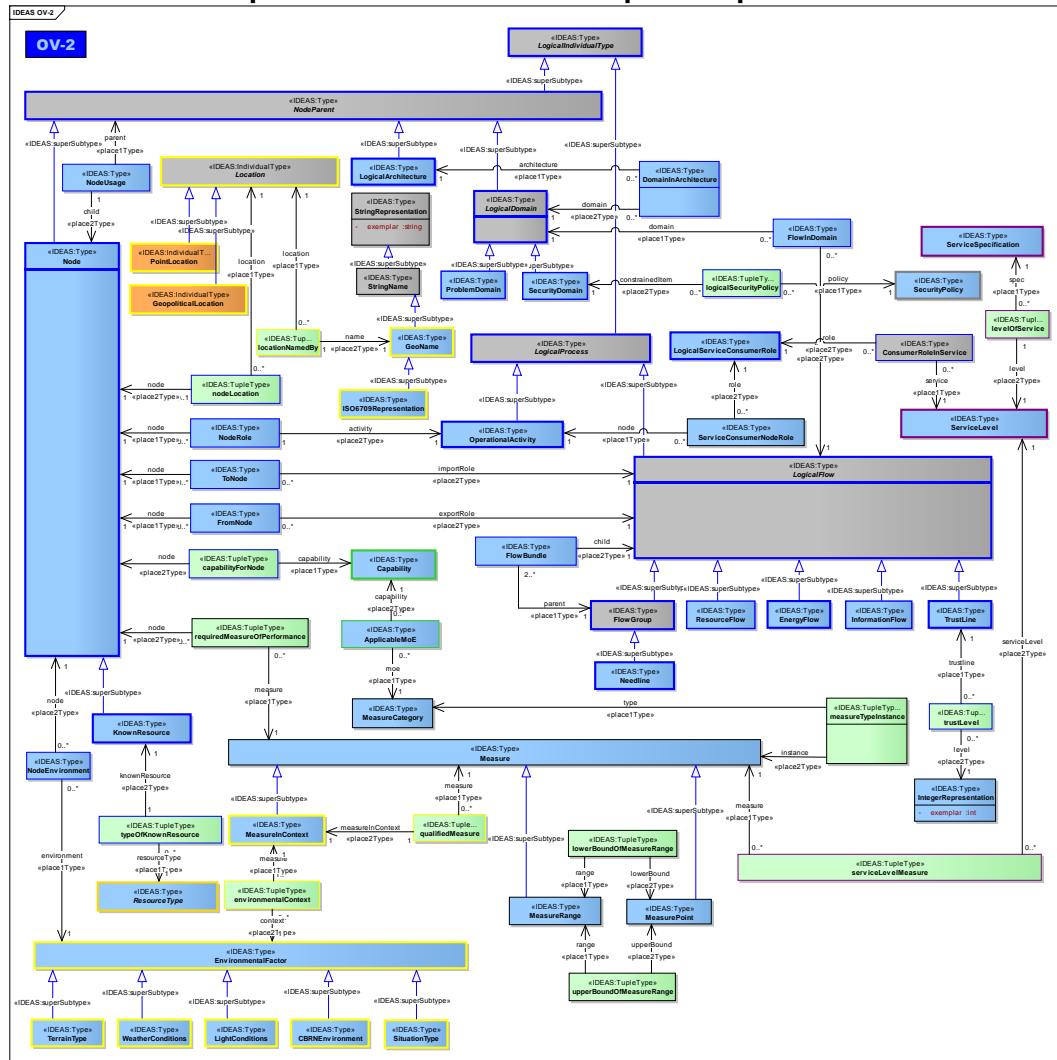


Figure 33 : OV-2

2.4.3 OV-3: Operational information exchange matrix

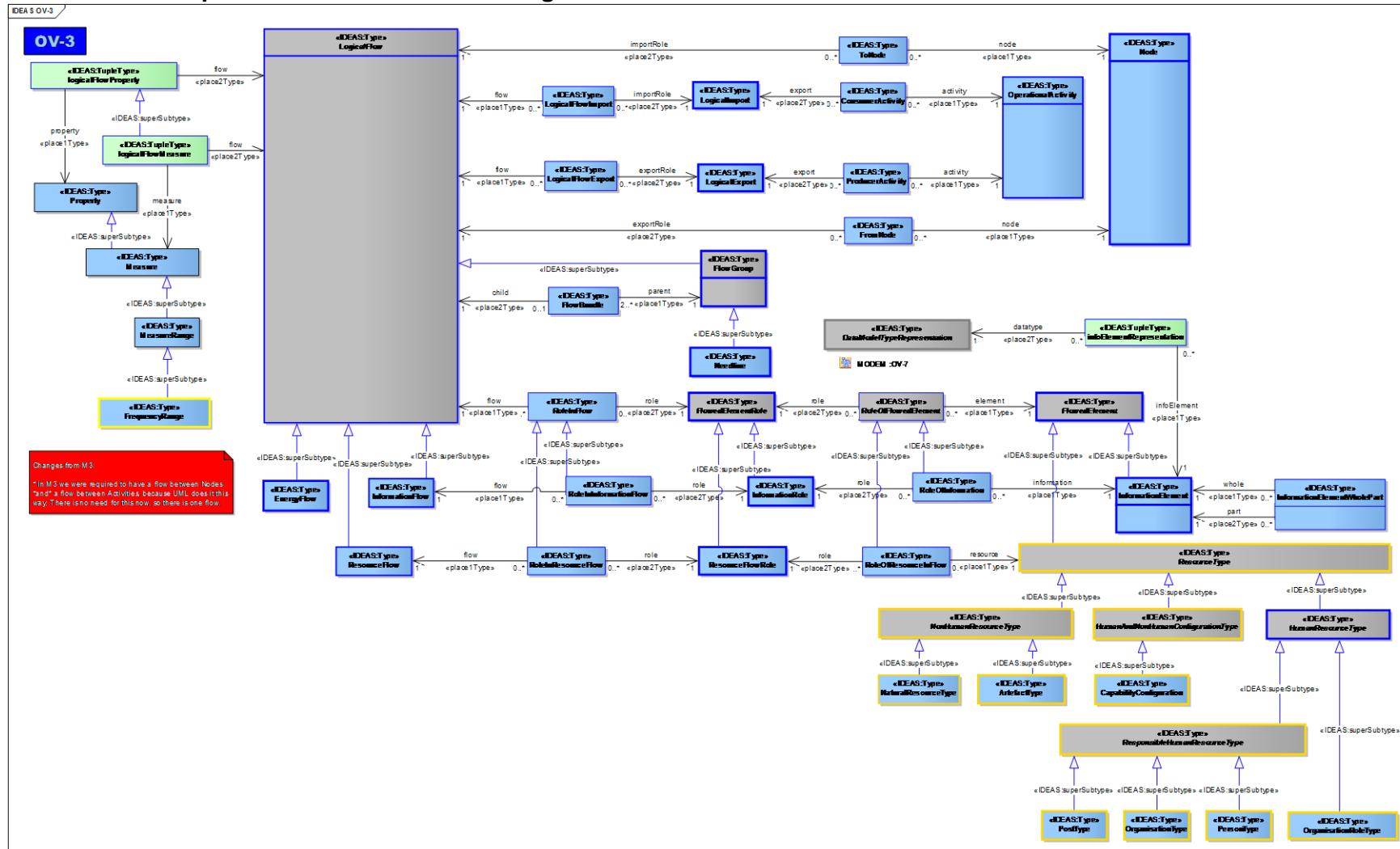


Figure 34 : OV-3

2.4.4 OV-4: Organisational relationships chart

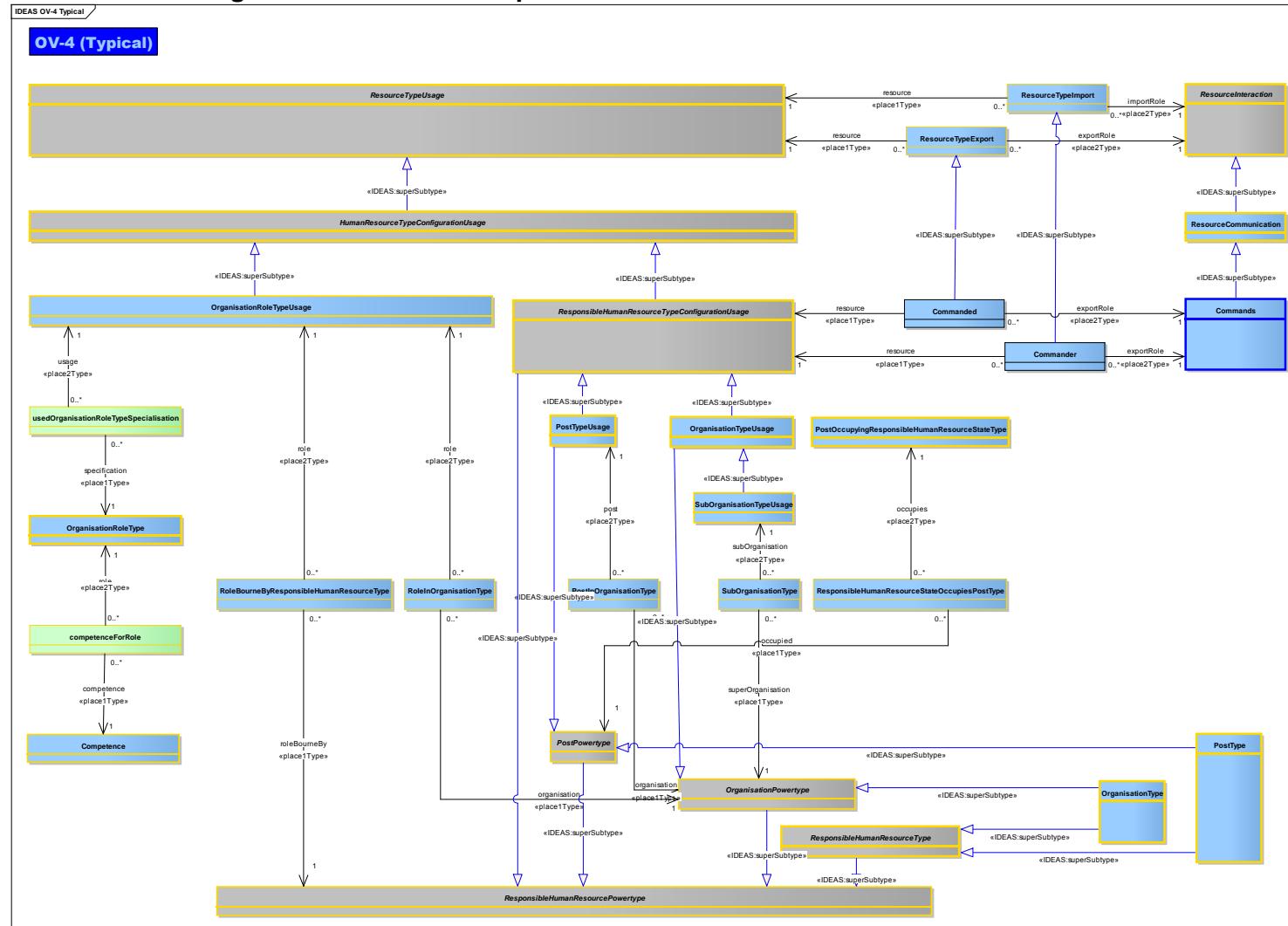


Figure 35 : OV-4 Typical

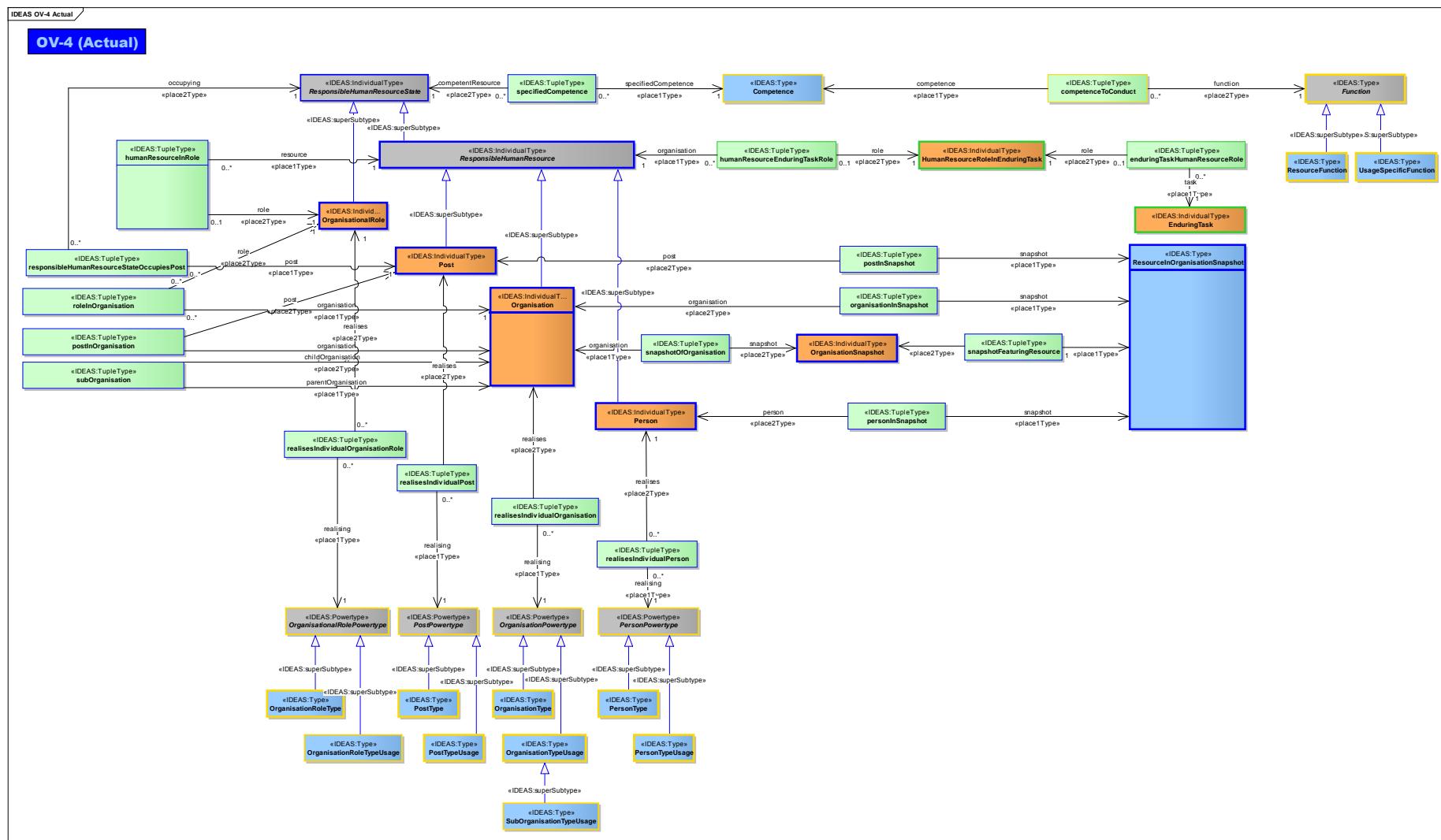


Figure 36 : OV-4 Actual

2.4.5 OV-5: Operational activity model

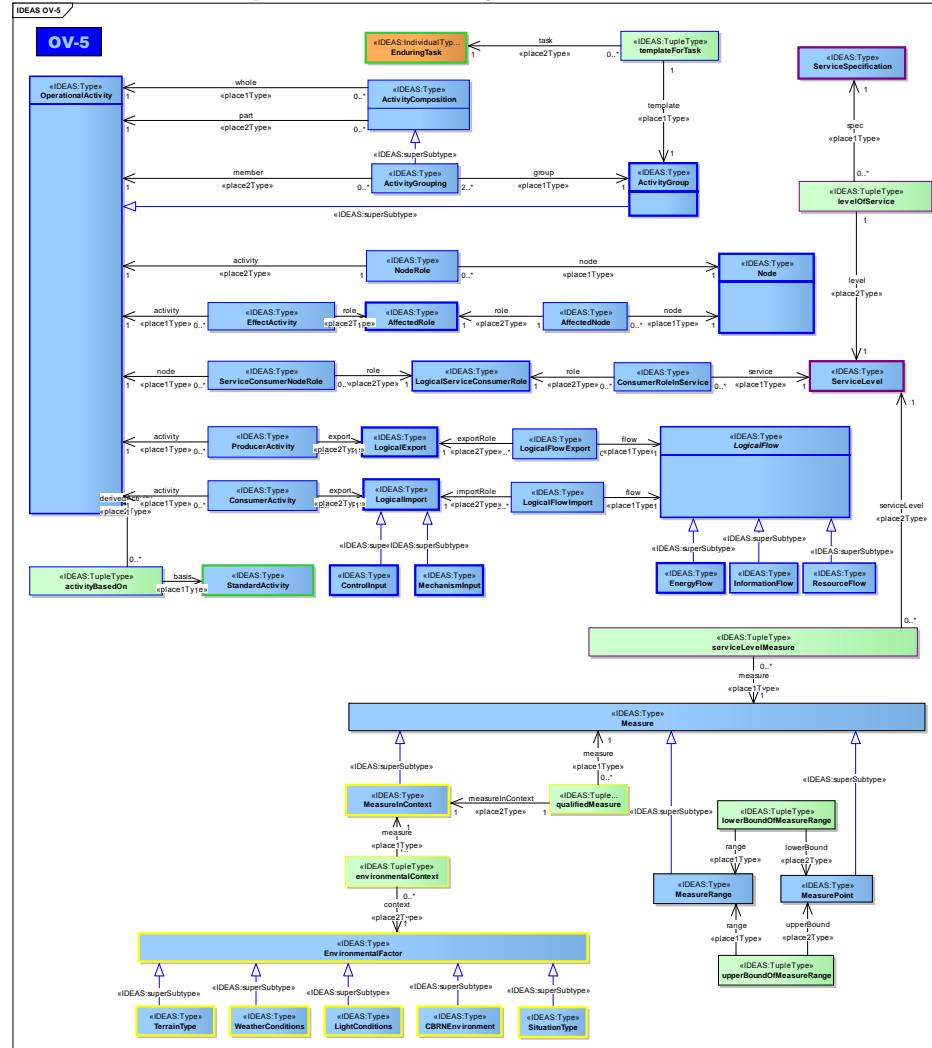


Figure 37 : OV-5

2.4.6 OV-6: Operational rules, state descriptions and event-trace description

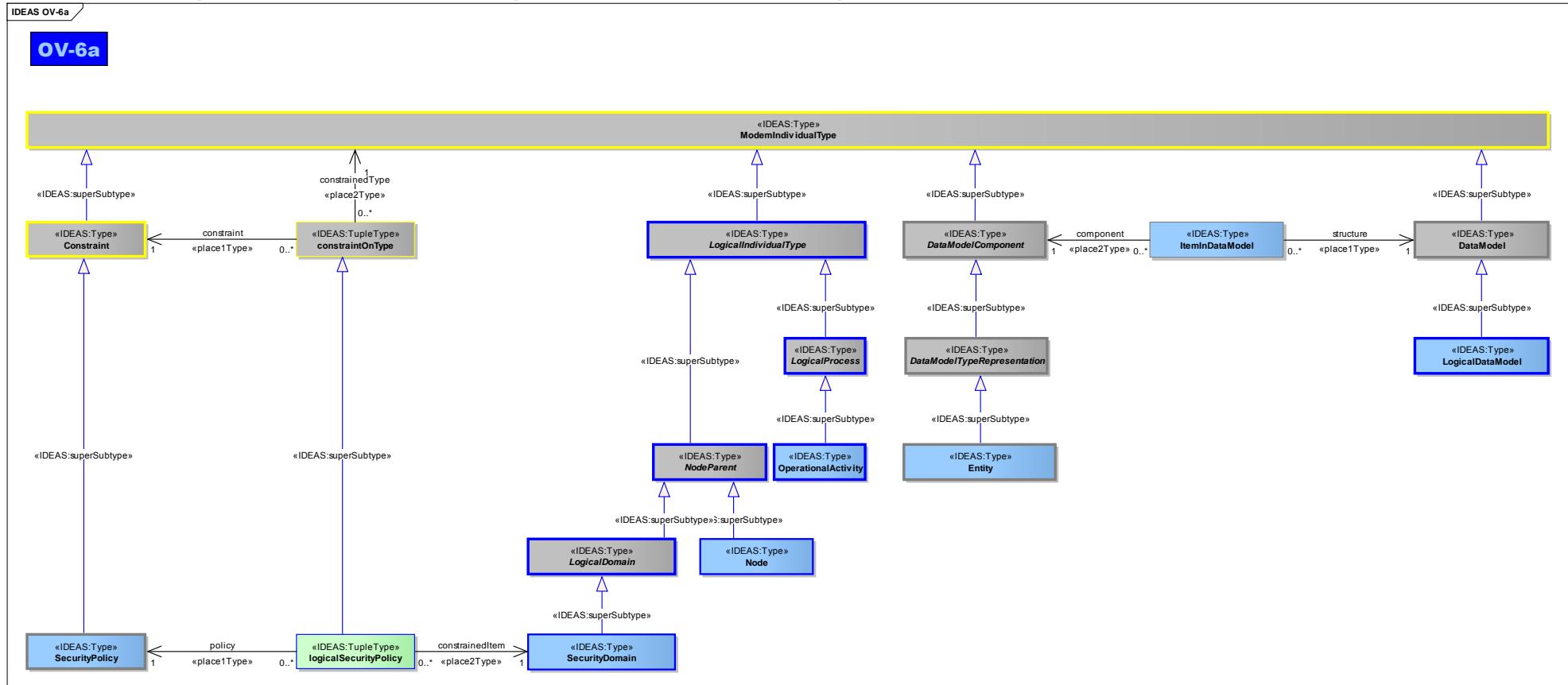


Figure 38 : OV-6a

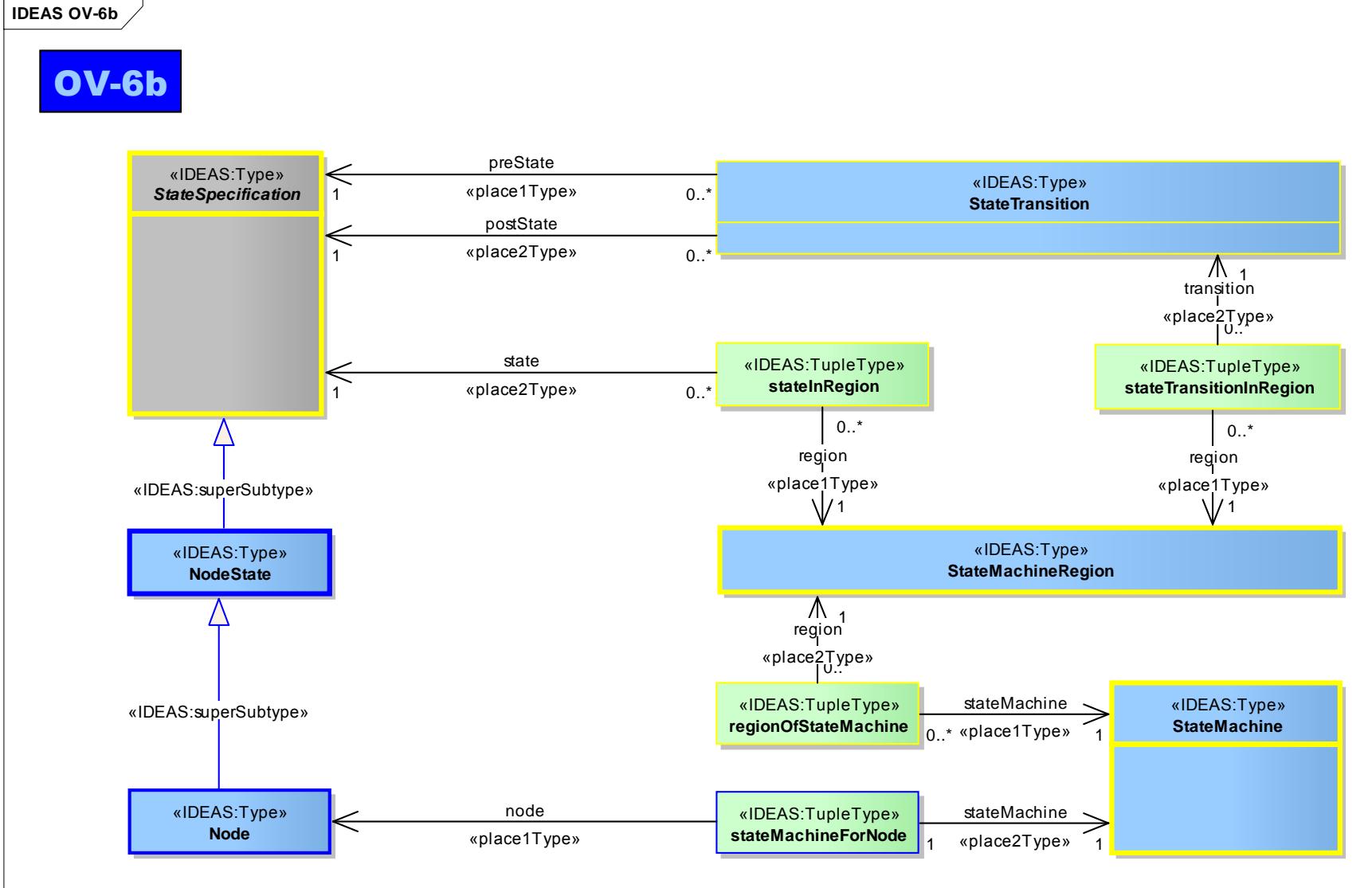


Figure 39 : OV-6b

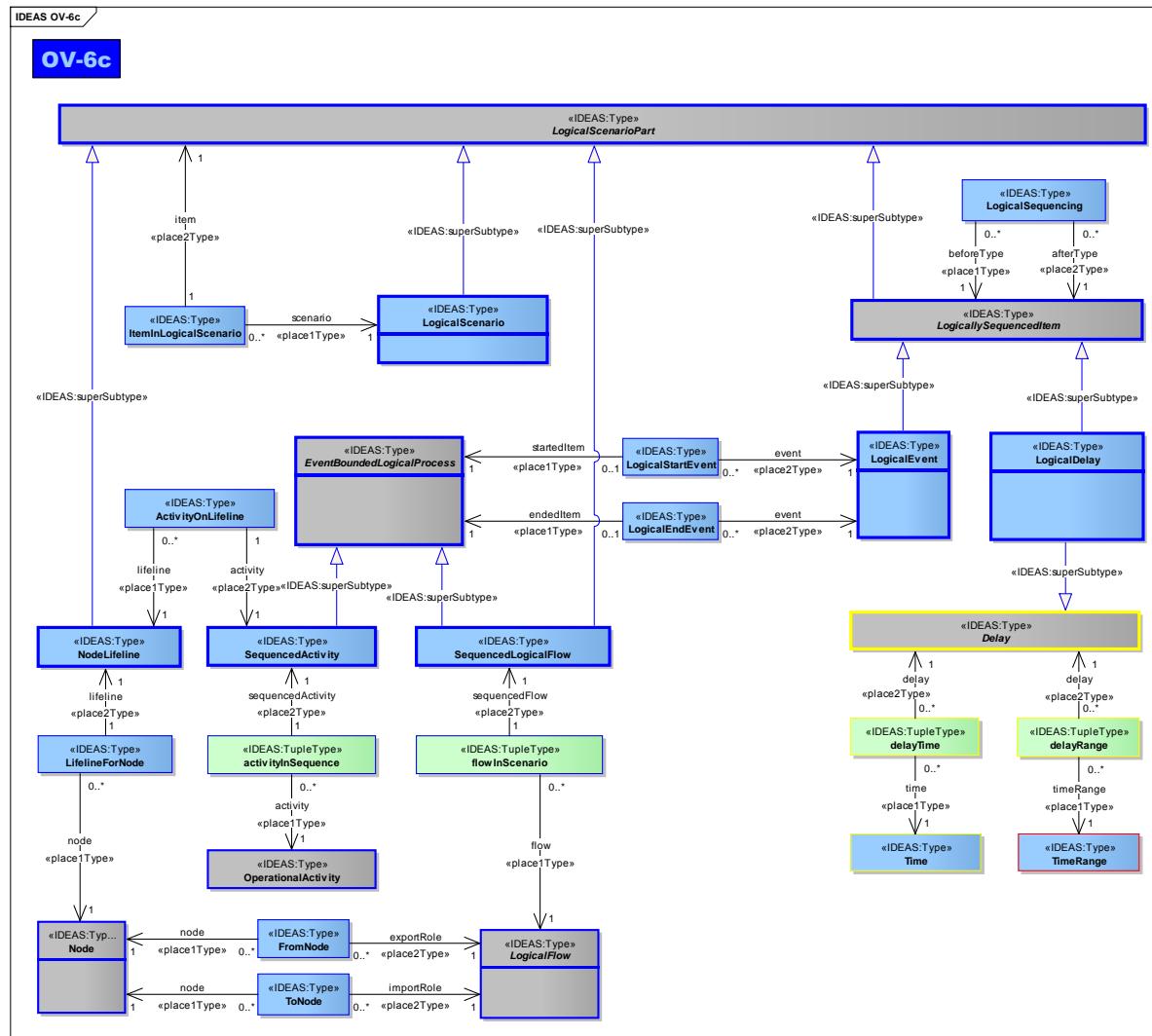


Figure 40 : OV-6c

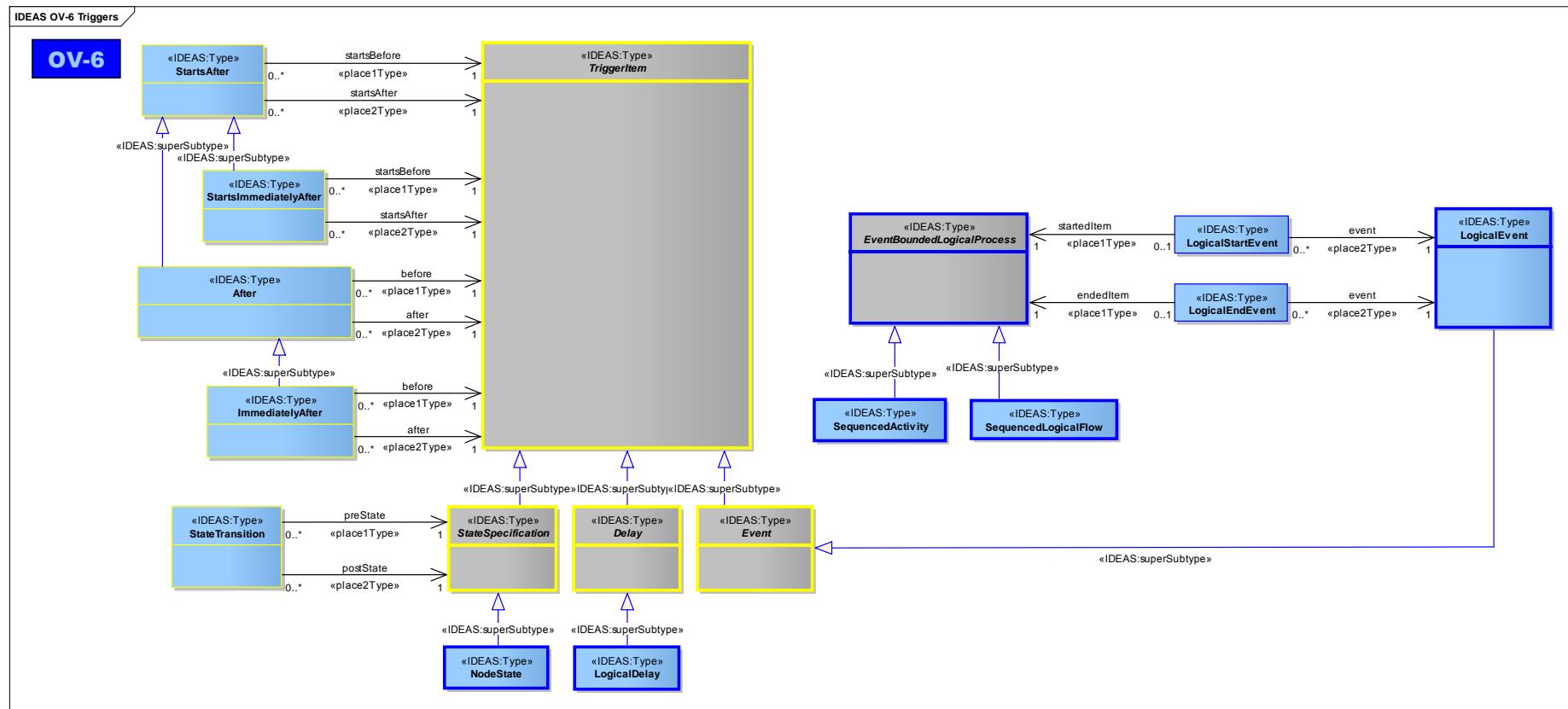


Figure 41 : OV-6 Triggers

2.4.7 OV-7: Information model

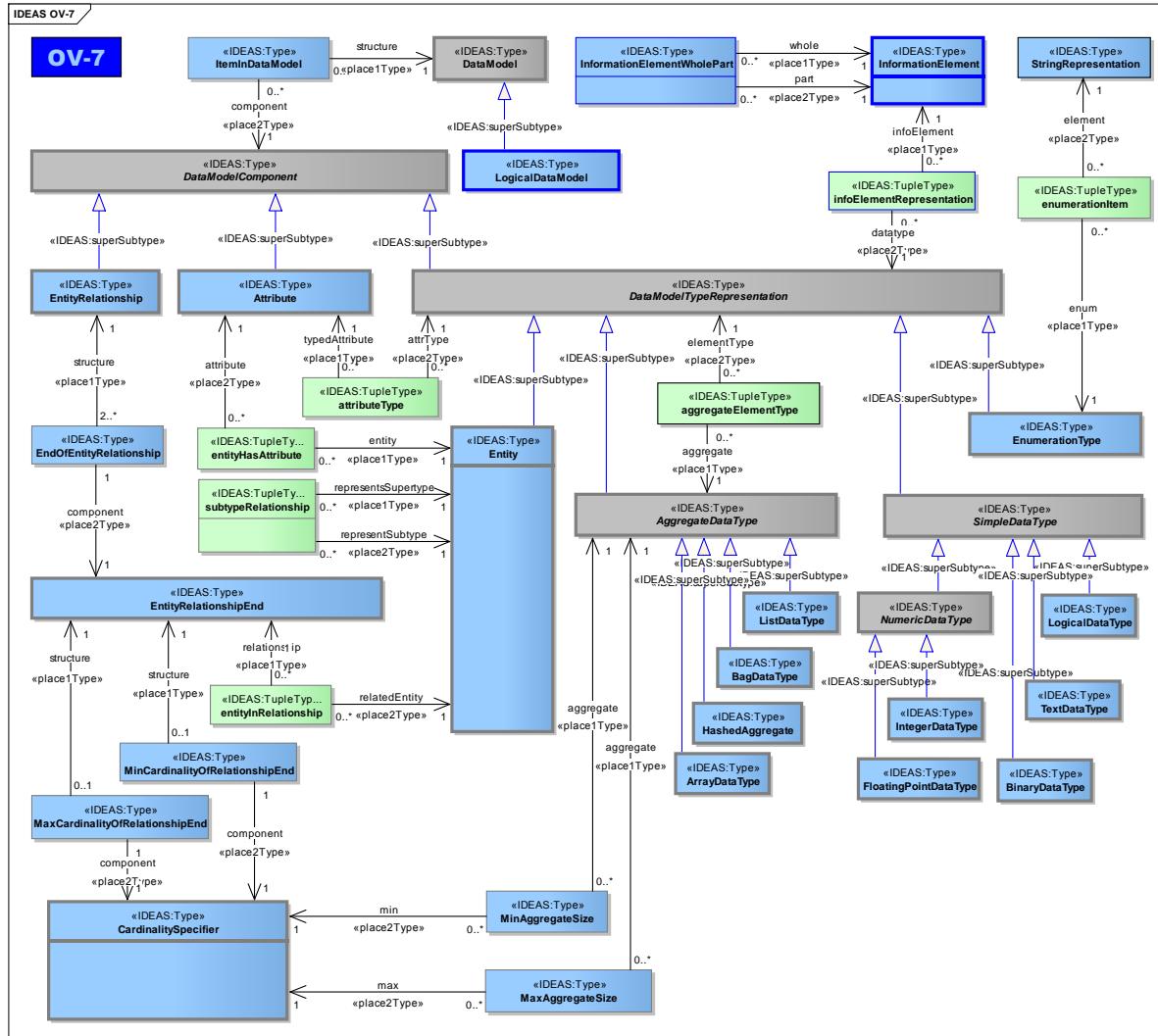


Figure 42 : OV-7

2.4.8 Operational Views elements list

Operational Views
Commands «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» Commands - ResourceCommunication <u>Attributes:</u> - A ResourceCommunication where one ResponsibleHumanResourceTypeConfigurationUsage commands another.
HumanResource «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» HumanResource - HumanResourceState <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» HumanResource - IndividualResource <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» HumanResource - HumanResourcePowertype <u>Attributes:</u> - An IndividualResource that is composed entirely of human resources. Note: was called "OrganisationalResource" in M3.
Manager «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» Manager - OrganisationalRole <u>Attributes:</u> - An OrganisationalRole where the Person's role in the Organisation is as a Manager. Example: when the Organisation is a Project, the role would be as project manager.
NodeRole «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» NodeRole - RoleInLogicalProcess <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» NodeRole - ParticipationExtentType <i>Dependency (element - is instance of):</i> <i>Association (source - target):</i> «place2Type» NodeRole - OperationalActivity <i>Association (source - target):</i> «place1Type» NodeRole - Node <u>Attributes:</u> - A RoleInLogicalProcess which is the extent of a Node's participation in an OperationalActivity. Note: An OperationalActivity can only be conducted by one Node.
OperationalActivity «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» OperationalActivity - LogicalProcess <u>Attributes:</u> - A ProcessType that is a type of logical process, specified independently of how the process is carried out. Note: an OperationalActivity may only be carried out by a logical Node.

OrganisationalRole «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
OrganisationalRole - HumanResource
Generalization (element - is a subtype of):«IDEAS:superSubtype»
OrganisationalRole - OrganisationPart
Dependency (element - is instance of):«IDEAS:powertypeInstance»
OrganisationalRole - OrganisationalRolePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
OrganisationalRole - ConstructedHumanResource
Generalization (element - is a subtype of):«IDEAS:superSubtype»
OrganisationalRole - ResponsibleHumanResourceState

Attributes:

-
A ConstructedHumanResource that is the state of the ResponsibleHumanResource (that part of its life) where it has the role in an Organisation. Where a role carries the authority to undertake a function - though the human resource given the role has the responsibility.

Person «IDEAS:IndividualType»Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»
Person - PersonPowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
Person - ResponsibleHumanResource

Attributes:

-
An individual human being.

ResourceInOrganisationSnapshot «IDEAS>Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceInOrganisationSnapshot - Doubleton
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceInOrganisationSnapshot - SetOfOverlappingIndividuals
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceInOrganisationSnapshot - ModemIndividualType

Attributes:

-
A SetOfOverlappingIndividuals whose members are an OrganisationSnapshot and

ResponsibleHumanResource «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResource - ResponsibleHumanResourceState
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResource - AgentCapableOfResponsibility
Dependency (element - is instance of):«IDEAS:powertypeInstance»
ResponsibleHumanResource - ResponsibleHumanResourcePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResource - Stakeholder
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResource - HumanResource

Attributes:

- A Person, Post or Organisation. These can be held responsible for their actions, hence are responsible human resources.

ResponsibleHumanResourceState «IDEAS:IndividualType»

Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»
ResponsibleHumanResourceState - ResponsibleHumanResourceStatePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResourceState - AgentCapableOfResponsibilityState
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResourceState - ResponsibleHumanResourcePart
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleHumanResourceState - IndividualResourceState

Attributes:

- A temporal stage of a ResponsibleHumanResource.

ResponsibleOwner «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResponsibleOwner - OrganisationalRole

Attributes:

- An OrganisationProjectRole where the ResponsibleHumanResource is the responsible for the Organisation - e.g. a project owner.

ServiceConsumerNodeRole «IDEAS>Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceConsumerNodeRole - ProcessWholeRoleExtentPartType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceConsumerNodeRole - ModemWholePartType
Association (source - target):«place1Type»
ServiceConsumerNodeRole - OperationalActivity
Association (source - target):«place2Type»
ServiceConsumerNodeRole - LogicalServiceConsumerRole

Attributes:

- A ProcessWholeRoleExtentType that relates an OperationalActivity to the role of a ServiceSpecification that supports it.

humanResourceInRole «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»
humanResourceInRole - RoleBourneByResponsibleHumanResourcePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
humanResourceInRole - individualResourceUsage
Generalization (element - is a subtype of):«IDEAS:superSubtype»
humanResourceInRole - stateOfResponsibleHumanResourceState
Association (source - target):«place1Type»
humanResourceInRole - ResponsibleHumanResource
Association (source - target):«place2Type»
humanResourceInRole - OrganisationalRole

Attributes:

- A responsibleHumanResourceState relationship between the OrganisationRole and the ResponsibleHumanResource that bears the responsibility. Note: the OrganisationRole cannot be passed on. Instead, a new instance of the role is created.

personInSnapshot «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

personInSnapshot - resourceInSnapshot

Association (source - target):«place2Type»

personInSnapshot - Person

Association (source - target):«place1Type»

personInSnapshot - ResourceInOrganisationSnapshot

Attributes:

- A resourceInSnapshot where the resource is a Person.

postInOrganisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

postInOrganisation - organisationWholePart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

postInOrganisation - agentCapableOfResponsibilityWholeAndPart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

postInOrganisation - individualResourceUsage

Dependency (element - is instance of):«IDEAS:powertypeInstance»

postInOrganisation - PostInOrganisationPowertype

Association (source - target):«place1Type»

postInOrganisation - Organisation

Association (source - target):«place2Type»

postInOrganisation - Post

Attributes:

- An organisationWholePart that asserts a Post is part of an Organisation.

responsibleHumanResourceStateOccupiesPost «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

responsibleHumanResourceStateOccupiesPost - stateOfResponsibleHumanResourceState

Dependency (element - is instance of):«IDEAS:powertypeInstance»

responsibleHumanResourceStateOccupiesPost - ResponsibleHumanResourceStateOccupiesPostPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

responsibleHumanResourceStateOccupiesPost - individualResourceStateUsage

Association (source - target):«place2Type»

responsibleHumanResourceStateOccupiesPost - ResponsibleHumanResourceState

Association (source - target):«place1Type»

responsibleHumanResourceStateOccupiesPost - Post

Attributes:

- A ResponsibleHumanResourceWholeState relationship between a Post and state of the ResponsibleHumanResource that is occupying the Post. Note: Any type of ResponsibleHumanResource's state can occupy a post.

roleInOrganisation «IDEAS:TupleType»Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»
roleInOrganisation - RoleInOrganisationPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»
roleInOrganisation - individualResourceUsage

Generalization (element - is a subtype of): «IDEAS:superSubtype»
roleInOrganisation - responsibleHumanResourceWholePart

Association (source - target): «place1Type»
roleInOrganisation - Organisation

Association (source - target): «place2Type»
roleInOrganisation - OrganisationalRole

Attributes:

-
A ResponsibleHumanResourceWholePart relationship between an Organisation and one of its OrganisationalRoles.

subOrganisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
subOrganisation - individualResourceUsage

Generalization (element - is a subtype of): «IDEAS:superSubtype»
subOrganisation - organisationWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»
subOrganisation - SubOrganisationPowertype

Association (source - target): «place2Type»
subOrganisation - Organisation

Association (source - target): «place1Type»
subOrganisation - Organisation

Attributes:

-
An organisationWholePart that asserts one Organisation is a component of another Organisation. Note: The childOrganisation is a component of the parentOrganisation, so this relation is not intended to model situations where a subsidiary Organisation moves from one parent to another.

ActivityComposition «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ActivityComposition - ProcessWholeAndPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ActivityComposition - TypicalWholePart

Association (source - target): «place2Type»
ActivityComposition - OperationalActivity

Association (source - target): «place1Type»
ActivityComposition - OperationalActivity

Attributes:

-
A TypicalWholePart that relates a parent (whole) OperationalActivity to its child (part).

ActivityGroup «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ActivityGroup - OperationalActivity

Attributes:

- An OperationalActivity that is entirely composed of other OperationalActivities.

ActivityGrouping «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ActivityGrouping - ActivityComposition

Association (source - target):«place1Type»

ActivityGrouping - ActivityGroup

Association (source - target):«place2Type»

ActivityGrouping - OperationalActivity

Attributes:

- An ActivityComposition where the parent Activity is an ActivityGroup.

ActivityOnLifeline «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ActivityOnLifeline - TypicalWholePart

Association (source - target): «place2Type»

ActivityOnLifeline - SequencedActivity

Association (source - target): «place1Type»

ActivityOnLifeline - NodeLifeline

Attributes:

- A TypicalWholePart where a SequencedActivity is part of a NodeLifeline. Note: a given SequencedActivity may appear on one and only one NodeLifeline.

AffectedNode «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

AffectedNode - ModemWholePartType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

AffectedNode - TypicalWholePart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

AffectedNode - IndividualRoleType

Association (source - target):«place1Type»

AffectedNode - Node

Association (source - target):«place2Type»

AffectedNode - AffectedRole

Attributes:

- An IndividualRoleType where the role extent is an AffectedRole and the whole is a Node.

AffectedRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

AffectedRole - ModemIndividualType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

AffectedRole - RoleExtentType

Attributes:

- A RoleExtentType that corresponds to the part of a Node affected by an Activity that acts upon it. Note: by "part", this includes temporal parts, so all of the Node may be affected for a period of time. This was

previously <<ActsUpon>> in M3.

Commanded «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Commanded - ResourceTypeExport

Association (source - target):«place2Type»

Commanded - Commands

Association (source - target):«place1Type»

Commanded - ResponsibleHumanResourceTypeConfigurationUsage

Attributes:

-

A ResourceTypeExport that asserts the ResponsibleHumanResourceTypeConfigurationUsage commanded participation in command.

Commander «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Commander - ResourceTypeImport

Association (source - target):«place2Type»

Commander - Commands

Association (source - target):«place1Type»

Commander - ResponsibleHumanResourceTypeConfigurationUsage

Attributes:

-

A ResourceTypeExport that asserts the ResponsibleHumanResourceTypeConfigurationUsage participation as the commander in the command.

ConstructedHumanResource «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConstructedHumanResource - HumanResource

Attributes:

-

A HumanResource that is intentionally constructed. An OrganisationRole, Post, or Organisation.

ConsumerActivity «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConsumerActivity - IndividualExchangeRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConsumerActivity - ModemWholePartType

Association (source - target): «place1Type»

ConsumerActivity - OperationalActivity

Association (source - target): «place2Type»

ConsumerActivity - LogicalImport

Attributes:

-

An IndividualExchangeRoleType where an OperationalActivity is the consumer of a LogicalFlow.

ConsumerRoleInService «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConsumerRoleInService - AgentParticipationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConsumerRoleInService - ModemWholePartType

Association (source - target): «place2Type»

ConsumerRoleInService - LogicalServiceConsumerRole

Association (source - target): «place1Type»

ConsumerRoleInService - ServiceLevel

Attributes:

-

A AgentParticipationType that relates a ServiceSpecification to its role in supporting an OperationalActivity.

ControlInput «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ControlInput - LogicalImport

Attributes:

-

A LogicalImport where the imported LogicalFlow controls the OperationalActivity. Note: this exists to provide compatibility with IDEF0.

DomainInArchitecture «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DomainInArchitecture - ModemWholePartType

Association (source - target): «place1Type»

DomainInArchitecture - LogicalArchitecture

Association (source - target): «place2Type»

DomainInArchitecture - LogicalDomain

Attributes:

-

A ModemWholePartType that asserts a LogicalDomain is part of a LogicalArchitecture.

EffectActivity «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EffectActivity - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EffectActivity - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EffectActivity - ProcessWholeRoleExtentPartType

Association (source - target): «place1Type»

EffectActivity - OperationalActivity

Association (source - target): «place2Type»

EffectActivity - AffectedRole

Attributes:

-

A ProcessWholeRoleExtentPartType where the ProcessType is an OperationalActivity.

EnergyFlow «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnergyFlow - LogicalFlow

Attributes:

- A LogicalFlow where energy is transferred from one Node to another.

EventBoundedLogicalProcess «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EventBoundedLogicalProcess - LogicalProcess

Attributes:

- A LogicalProcess that can have LogicalEvents marking its start and end points.

FlowBundle «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowBundle - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowBundle - ExchangeWholeAndPartType

Association (source - target): «place2Type»

FlowBundle - LogicalFlow

Association (source - target): «place1Type»

FlowBundle - FlowGroup

Attributes:

- A TypicalWholePart where the whole is a FlowGroup and the part is a LogicalFlow.

FlowGroup «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowGroup - LogicalFlow

Attributes:

- A LogicalFlow that is composed of other LogicalFlows.

FlowInDomain «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowInDomain - ModemWholePartType

Association (source - target): «place1Type»

FlowInDomain - LogicalDomain

Association (source - target): «place2Type»

FlowInDomain - LogicalFlow

Attributes:

- A ModemWholePartType that asserts a LogicalFlow lies within an LogicalDomain.

FlowedElement «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowedElement - ModemIndividualType

Attributes:

-
A ModafIndividualType that can be flowed along a LogicalFlow.

FlowedElementRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowedElementRole - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FlowedElementRole - ExchangedItemRoleType

Attributes:

-
An ExchangedItemRoleType where a FlowedElement is exchanged along a LogicalFlow.

FromNode «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FromNode - RoleInLogicalProcess

Association (source - target): «place2Type»

FromNode - LogicalFlow

Association (source - target): «place1Type»

FromNode - Node

Attributes:

-
An RoleInLogicalProcess where a LogicalFlow flows from a Node.

InformationElement «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationElement - InformationInstanceType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationElement - Information

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationElement - FlowedElement

Attributes:

-
An InformationInstanceType that flows between OperationalActivities and Nodes. The structure of an InformationElement may be defined using a LogicalDataModel.

InformationElementWholePart «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationElementWholePart - TypicalWholePart

Association (source - target): «place2Type»

InformationElementWholePart - InformationElement

Association (source - target): «place1Type»

InformationElementWholePart - InformationElement

Attributes:

-

A TypicalWholePart where one InformationElement is a part of another.

InformationFlow «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationFlow - LogicalFlow

Attributes:

-

A LogicalFlow where the FlowedElement is information.

InformationRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InformationRole - FlowedElementRole

Attributes:

-

A FlowedElementRole where information is flowed.

ItemInLogicalScenario «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ItemInLogicalScenario - ItemInScenario

Association (source - target): «place2Type»

ItemInLogicalScenario - LogicalScenarioPart

Association (source - target): «place1Type»

ItemInLogicalScenario - LogicalScenario

Attributes:

-

An ItemInScenario where the item (part) is a LogicalScenarioItem and the scenario (whole) is a LogicalScenario.

KnownResource «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

KnownResource - Node

Attributes:

-

A ResourceType that plays a part in a LogicalArchitecture. Note: An OV-2 is meant to show logical interactions between nodes. However, sometimes it is known that a connection runs to/from a particular type of resource.

LifelineForNode «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LifelineForNode - StateOfNode

Association (source - target): «place2Type»

LifelineForNode - NodeLifeline

Association (source - target): «place1Type»

LifelineForNode - Node

Attributes:

-

A StateOfNode that asserts that a NodeLifeLine is a typical temporal part of a Node.

LogicalDataModel «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalDataModel - DataModel

Attributes:

-

A DataModel that is a specification of business information requirements as a formal data structure, where relationships and classes (entities) are used to specify the logic which underpins the information.

LogicalDelay «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalDelay - LogicallySequencedItem

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalDelay - Delay

Attributes:

-

A LogicallySequencedItem that is part of a LogicalScenario that has a specified temporal extent, but an unspecified spatial extent.

LogicalDomain «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalDomain - NodeParent

Attributes:

-

A NodeParent that is a collection of Nodes that share some common feature.

LogicalEndEvent «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalEndEvent - ModemTemporalWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalEndEvent - EndBorderType

Association (source - target): «place1Type»

LogicalEndEvent - EventBoundedLogicalProcess

Association (source - target): «place2Type»

LogicalEndEvent - LogicalEvent

Attributes:

-

An EndBorderType that relates a LogicallySequencedItem to the LogicalEvent that marks its end

Note: there may be no more than one LogicalEndEvent for a given LogicallySequencedItem.

LogicalEvent «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalEvent - Event

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalEvent - LogicallySequencedItem

Attributes:

-

An Event that marks the beginning or end of a LogicalActivity.

LogicalExport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalExport - SendType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalExport - LogicalProcess

Attributes:

- A SendType where a LogicalFlow exports from a Node or OperationalActivity. Note: this is the equivalent of OpActivityOutputPin in M3.

LogicalFlow «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalFlow - LogicalProcess

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalFlow - ExchangeType

Attributes:

- An ExchangeType that flows between OperationalActivities and/or Nodes.

LogicalFlowExport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalFlowExport - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalFlowExport - SendInExchangeType

Association (source - target): «place2Type»

LogicalFlowExport - LogicalExport

Association (source - target): «place1Type»

LogicalFlowExport - LogicalFlow

Attributes:

- A SendInExchangeType where a LogicalFlow exports from a Node or OperationalActivity.

LogicalFlowImport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalFlowImport - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalFlowImport - ReceiveInExchangeType

Association (source - target): «place1Type»

LogicalFlowImport - LogicalFlow

Association (source - target): «place2Type»

LogicalFlowImport - LogicalImport

Attributes:

- A ReceiveInExchangeType where a LogicalFlow imports to a Node or OperationalActivity.

LogicalImport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalImport - ReceiveType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalImport - LogicalProcess

Attributes:

-
A ReceiveType where a LogicalFlow imports to a Node or OperationalActivity. Note: this is the equivalent of OpActivityInputPin in M3.

LogicalIndividualType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalIndividualType - ModemIndividualType

Attributes:

-
A ModemIndividualType that is specified independently of any implemenation mechanism (i.e. without specifying the ResourceType).

LogicalProcess «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalProcess - ProcessType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalProcess - LogicalIndividualType

Attributes:

-
A ProcessType used to specify functionality without being specific about the type of Resource that provides the functionality.

LogicalScenario «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalScenario - LogicalScenarioPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalScenario - Scenario

Attributes:

-
A Scenario that does not specify particular ResourceTypes - i.e. one that consists of Nodes and LogicalProcesses.

LogicalScenarioPart «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalScenarioPart - LogicalIndividualType

Attributes:

-
A LogicalIndividualType that is part of a LogicalScenario - note this can include other LogicalScenarios.

LogicalSequencing «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalSequencing - ImmediateBeforeAfterType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalSequencing - ModemThing

Association (source - target): «place2Type»

LogicalSequencing - LogicallySequencedItem

Association (source - target): «place1Type»

LogicalSequencing - LogicallySequencedItem

Attributes:

-

An ImmediateBeforeAfterType that asserts one LogicallySequencedItem occurs immediately after the other.

LogicalServiceConsumerRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalServiceConsumerRole - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalServiceConsumerRole - ParticipationExtentType

Attributes:

-

A ParticipationExtentType which is the extent of an OperationalActivity's participation in as the consumer of a ServiceSpecification.

LogicalStartEvent «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalStartEvent - ModemTemporalWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalStartEvent - StartBorderType

Association (source - target): «place2Type»

LogicalStartEvent - LogicalEvent

Association (source - target): «place1Type»

LogicalStartEvent - EventBoundedLogicalProcess

Attributes:

-

A StartBorderType that relates an EventBoundedLogicalProcess to the LogicalEvent that marks its start. Note: there may be no more than one LogicalStartEvent for a given EventBoundedLogicalProcess.

LogicallySequencedItem «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicallySequencedItem - LogicalScenarioPart

Attributes:

-

A LogicalScenarioPart which may be temporally ordered using LogicalSequencing.

MechanismInput «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MechanismInput - LogicalImport

Attributes:

-

A LogicalImport where the imported LogicalFlow provides a mechanism for conducting the OperationalActivity. Note: this exists to provide compatibility with IDEF0.

Needline «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Needline - FlowGroup

Attributes:

-

A FlowGroup that is a bundle of LogicalFlows between Nodes.

Node «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Node - NodeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Node - BodyType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Node - NodeParent

Attributes:

-

A NodeState that is used in context of a NodeParent.

NodeEnvironment «IDEAS:Type»

Connectors:

Association (source - target):«place1Type»

NodeEnvironment - EnvironmentalFactor

Association (source - target):«place2Type»

NodeEnvironment - Node

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeEnvironment - TypicalWholePart

Attributes:

-

A TypicalWholePart that indicates an of EnvironmentalFactor of the environment in which the Node will operate.

NodeLifeline «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeLifeline - NodeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeLifeline - LogicalScenarioPart

Attributes:

-

A NodeState whose extent is defined by a LogicalScenario.

NodeParent «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeParent - AgentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeParent - LogicalIndividualType

Attributes:

-

A LogicalIndividualType that is any type of thing that has parts that are Nodes.

NodeState «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeState - LogicalIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeState - StateSpecification

Attributes:

- A LogicalIndividualType that is a type of state that a Node can be in. This includes the limit case of the whole-life state type - i.e. the Node itself.

NodeUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeUsage - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NodeUsage - AgentWholeAndPartType

Association (source - target): «place2Type»

NodeUsage - Node

Association (source - target): «place1Type»

NodeUsage - NodeParent

Attributes:

- An AgentWholeAndPartType where a NodeParent has a Node as a part.

Organisation «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Organisation - OrganisationState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Organisation - OrganisationPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Organisation - ConstructedHumanResource

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Organisation - Undertaking

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Organisation - ResponsibleHumanResource

Attributes:

- A ConstructedHumanResource which is an Organisation.

OrganisationPart «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationPart - ResponsibleHumanResourcePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationPart - UndertakingPart

Attributes:

- A ResponsibleHumanResourcePart that is part of an Organisation.

OrganisationSnapshot «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationSnapshot - OrganisationPart

Attributes:

- An OrganisationPart that is a timeslice of an Organisation or part of an Organisation (i.e. an incomplete snapshot) at a particular point in time. Note: most org charts represent a OrganisationSnapshot.

OrganisationState «IDEAS:IndividualType»Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

OrganisationState - OrganisationStatePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationState - OrganisationPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationState - ResponsibleHumanResourceState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationState - UndertakingState

Attributes:

-
A ResponsibleHumanResourceState which is a temporal part of an Organisation.

Post «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Post - ResponsibleHumanResource

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Post - OrganisationPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Post - ConstructedHumanResource

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Post - PostPowertype

Attributes:

-
A ConstructedHumanResource that is a position in an Organisation that may be filled wholly or partly by a ResponsibleHumanResource; in other words, by an Organisation, Person or Post. As the position is in the Organisation, it is a part of the Organisation.

ProblemDomain «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProblemDomain - LogicalDomain

Attributes:

-
A LogicalDomain that contains (has parts that are) those Nodes which may be realised by physical resources specified in SV-1. There may be more than one alternative solution for a given ProblemDomain specified as a set of SV suites. There may be only one ProblemDomain in a LogicalArchitecture.

ProducerActivity «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProducerActivity - IndividualExchangeRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProducerActivity - ModemWholePartType

Association (source - target): «place1Type»

ProducerActivity - OperationalActivity

Association (source - target): «place2Type»

ProducerActivity - LogicalExport

Attributes:

-
An IndividualExchangeRoleType where the involved ProcessType is an OperationalActivity that is the producer of a LogicalFlow.

ResourceFlow «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceFlow - LogicalFlow

Attributes:

-
A LogicalFlow where the flowed element is a ResourceType.

ResourceFlowRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceFlowRole - FlowedElementRole

Attributes:

-
A FlowedElementRole where a ResourceType is flowed.

ResponsibleHumanResourcePart «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourcePart - ModemIndividualElement

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourcePart - AgentCapableOfResponsibilityPart

Attributes:

-
An AgentCapableOfResponsibilityPart that is a part of a ResponsibleHumanResource.

RoleInFlow «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInFlow - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInFlow - ExchangedItemRoleInExchangeType

Association (source - target): «place1Type»

RoleInFlow - LogicalFlow

Association (source - target): «place2Type»

RoleInFlow - FlowedElementRole

Attributes:

-
An ExchangedItemRoleInExchangeType where the role in exchange is a LogicalFlow.

RoleInInformationFlow «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInInformationFlow - RoleInFlow

Association (source - target): «place1Type»

RoleInInformationFlow - InformationFlow

Association (source - target): «place2Type»

RoleInInformationFlow - InformationRole

Attributes:

-
A RoleInFlow where Information is being flowed.

RoleInLogicalProcess «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
RoleInLogicalProcess - ModemThing
Generalization (element - is a subtype of): «IDEAS:superSubtype»
RoleInLogicalProcess - CapableOfType
Association (source - target): «place1Type»
RoleInLogicalProcess - Node
Association (source - target): «place2Type»
RoleInLogicalProcess - LogicalProcess

Attributes:

-
A CapableOfType that asserts that a Node conducts a LogicalProcess.

RoleInResourceFlow «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
RoleInResourceFlow - RoleInFlow
Association (source - target): «place1Type»
RoleInResourceFlow - ResourceFlow
Association (source - target): «place2Type»
RoleInResourceFlow - ResourceFlowRole

Attributes:

-
A RoleInFlow where a ResourceType is being flowed.

RoleOfFlowedElement «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
RoleOfFlowedElement - IndividualRoleAsExchangedItemType
Association (source - target): «place1Type»
RoleOfFlowedElement - FlowedElement
Association (source - target): «place2Type»
RoleOfFlowedElement - FlowedElementRole

Attributes:

-
An IndividualRoleAsExchangedItemType where a FlowedElement is exchanged.

RoleOfInformation «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
RoleOfInformation - RoleOfFlowedElement
Association (source - target): «place1Type»
RoleOfInformation - InformationElement
Association (source - target): «place2Type»
RoleOfInformation - InformationRole

Attributes:

-
A RoleOfFlowedElement where the flowed element is Information.

RoleOfResourceInFlow «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleOfResourceInFlow - RoleOfFlowedElement

Association (source - target): «place1Type»

RoleOfResourceInFlow - ResourceType

Association (source - target): «place2Type»

RoleOfResourceInFlow - ResourceFlowRole

Attributes:

- A RoleOfFlowedElement where the flowed element is ResourceType.

SecurityDomain «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SecurityDomain - LogicalDomain

Attributes:

- A LogicalDomain whose parts all share a common SecurityPolicy.

SequencedActivity «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedActivity - EventBoundedLogicalProcess

Attributes:

- A LogicalProcess that is the typical usage of an OperationalActivity in a NodeLifeLine.

SequencedLogicalFlow «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedLogicalFlow - EventBoundedLogicalProcess

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedLogicalFlow - LogicalScenarioPart

Attributes:

- A LogicalProcess that is the typical usage of a LogicalFlow between two NodeLifeLines.

StateOfNode «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateOfNode - TypicalTemporalWholePart

Association (source - target): «place2Type»

StateOfNode - NodeState

Association (source - target): «place1Type»

StateOfNode - Node

Attributes:

- A TypicalTemporalWholePart that relates a Node to a NodeState.

ToNode «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ToNode - RoleInLogicalProcess

Association (source - target): «place2Type»

ToNode - LogicalFlow

Association (source - target): «place1Type»

ToNode - Node

Attributes:

- An RoleInLogicalProcess where a LogicalFlow flows to a Node.

TrustLine «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TrustLine - LogicalFlow

Attributes:

- A LogicalFlow that asserts that the trusting Party (either a Node or a KnownResource) trusts the trustedParty to a given level (indicated by the level attribute). Note: No unit of measure is associated with the level - security architects must define their own scale of trust levels for a given architecture or set of architectures.

activityBasedOn «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

activityBasedOn - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

activityBasedOn - StandardActivity

Association (source - target): «place2Type»

activityBasedOn - OperationalActivity

Attributes:

- A modemIndividualTypeSpecialisation that asserts an OperationalActivity is based on a StandardActivity - e.g. a specialist usage of doctrine.

activityInSequence «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

activityInSequence - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

activityInSequence - OperationalActivity

Association (source - target): «place2Type»

activityInSequence - SequencedActivity

Attributes:

- A modemIndividualTypeSpecialisation that relates an OperationalActivity to its usage (as a SequencedActivity) on a NodeLifeLine. Note: A SequencedActivity is based on only one OperationalActivity.

capabilityForNode «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

capabilityForNode - BodyTypeSuperSubType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

capabilityForNode - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

capabilityForNode - Capability
Association (source - target): «place2Type»
capabilityForNode - Node

Attributes:

-
A BodyTypeSuperSubType that asserts that a Node exhibits or is required to exhibit a Capability.

flowInScenario «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
flowInScenario - modemIndividualTypeSpecialisation
Association (source - target): «place1Type»
flowInScenario - LogicalFlow
Association (source - target): «place2Type»
flowInScenario - SequencedLogicalFlow

Attributes:

-
A modemIndividualTypeSpecialisation that relates a LogicalFlow to its usage (as a SequencedLogicalFlow) in a LogicalScenario. Note: A SequencedLogicalFlow is based on only one LogicalFlow.

infoElementRepresentation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
infoElementRepresentation - representedByDataType
Association (source - target): «place2Type»
infoElementRepresentation - DataModelTypeRepresentation
Association (source - target): «place1Type»
infoElementRepresentation - InformationElement

Attributes:

-
A representedByDataType that asserts an InformationElement is represented by a DataModelTypeRepresentation.

logicalFlowMeasure «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
logicalFlowMeasure - measureOfType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
logicalFlowMeasure - logicalFlowProperty
Association (source - target): «place2Type»
logicalFlowMeasure - LogicalFlow
Association (source - target): «place1Type»
logicalFlowMeasure - MeasureableProperty

Attributes:

-
A logicalFlowProperty and a measureOfType - i.e. an assignment of a MeasureableProperty to a LogicalFlow.

logicalFlowProperty «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
logicalFlowProperty - ModemThing
Generalization (element - is a subtype of): «IDEAS:superSubtype»
logicalFlowProperty - propertyOfType
Association (source - target): «place2Type»

logicalFlowProperty - LogicalFlow
Association (source - target): «place1Type»
logicalFlowProperty - Property

Attributes:

-
A propertyOfType where the Property applies to a LogicalFlow.

logicalSecurityPolicy «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

logicalSecurityPolicy - constraintOnType

Association (source - target): «place2Type»

logicalSecurityPolicy - SecurityDomain

Association (source - target): «place1Type»

logicalSecurityPolicy - SecurityPolicy

Attributes:

-
A constraintOnType that sets the security policy for LogicalIndividualType.

nodeLocation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

nodeLocation - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

nodeLocation - couple

Association (source - target): «place1Type»

nodeLocation - Location

Association (source - target): «place2Type»

nodeLocation - Node

Attributes:

-
A couple used to assert the Location at/ in which a Node resides. Note: given that OV-2 is a logical model, more often than not, the environment rather than the actual location should be specified - i.e. use NodeEnvironment.

organisationInSnapshot «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

organisationInSnapshot - resourceInSnapshot

Association (source - target): «place1Type»

organisationInSnapshot - ResourceInOrganisationSnapshot

Association (source - target): «place2Type»

organisationInSnapshot - Organisation

Attributes:

-
A resourceInSnapshot where the resource is an Organisation.

postInOrganisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

postInOrganisation - organisationWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

postInOrganisation - agentCapableOfResponsibilityWholeAndPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»
postInOrganisation - individualResourceUsage
Dependency (element - is instance of): «IDEAS:powertypeInstance»
postInOrganisation - PostInOrganisationPowertype
Association (source - target): «place1Type»
postInOrganisation - Organisation
Association (source - target): «place2Type»
postInOrganisation - Post

Attributes:

-
An organisationWholePart that asserts a Post is part of an Organisation.

postInSnapshot «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
postInSnapshot - resourceInSnapshot
Association (source - target): «place1Type»
postInSnapshot - ResourceInOrganisationSnapshot
Association (source - target): «place2Type»
postInSnapshot - Post

Attributes:

-
A resourceInSnapshot where the resource is a Post.

realisesIndividualOrganisation «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»
realisesIndividualOrganisation - OrganisationPowertype
Generalization (element - is a subtype of): «IDEAS:superSubtype»
realisesIndividualOrganisation - realisesIndividualResource
Association (source - target): «place2Type»
realisesIndividualOrganisation - Organisation

Attributes:

-
A realisesIndividualResource that asserts a type of organisation is realised by an organisation.

realisesIndividualOrganisationRole «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»
realisesIndividualOrganisationRole - OrganisationalRolePowertype
Generalization (element - is a subtype of): «IDEAS:superSubtype»
realisesIndividualOrganisationRole - realisesIndividualResource
Association (source - target): «place2Type»
realisesIndividualOrganisationRole - OrganisationalRole

Attributes:

-
A realisesIndividualResource that asserts a type of organisation role is realised by an organisation role.

realisesIndividualPerson «IDEAS:TupleType»Connectors:

Association (source - target):«place1Type»
realisesIndividualPerson - PersonPowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
realisesIndividualPerson - realisesIndividualResource

Association (source - target):«place2Type»
realisesIndividualPerson - Person

Attributes:

-
A realisesIndividualResource that asserts a type of person is realised by a person.

realisesIndividualPost «IDEAS:TupleType»Connectors:

Association (source - target):«place1Type»
realisesIndividualPost - PostPowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
realisesIndividualPost - realisesIndividualResource

Association (source - target):«place2Type»
realisesIndividualPost - Post

Attributes:

-
A realisesIndividualResource that asserts a type of post is realised by a post.

realisesIndividualResource «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
realisesIndividualResource - modemIndividualTypeInstance
Association (source - target):«place1Type»
realisesIndividualResource - IndividualResourcePowertype
Association (source - target):«place2Type»
realisesIndividualResource - IndividualResource

Attributes:

-
A modemIndividualTypeInstance that asserts a type of Resource is realised by a resource.

requiredMeasureOfPerformance «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
requiredMeasureOfPerformance - measureOfType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
requiredMeasureOfPerformance - ModemThing
Association (source - target):«place1Type»
requiredMeasureOfPerformance - Measure
Association (source - target):«place2Type»
requiredMeasureOfPerformance - Node

Attributes:

-
A measureOfType that asserts a Node is required to achieve a level of performance specified by a Measure.

resourceInSnapshot «IDEAS:TupleType»Connectors:

Association (source - target): «place1Type»
resourceInSnapshot - ResourceInOrganisationSnapshot
Association (source - target): «place2Type»
resourceInSnapshot - HumanResource
Generalization (element - is a subtype of): «IDEAS:superSubtype»
resourceInSnapshot - doubletonTypeInstance
Generalization (element - is a subtype of): «IDEAS:superSubtype»
resourceInSnapshot - overlapTypeIndividualInstance
Generalization (element - is a subtype of): «IDEAS:superSubtype»
resourceInSnapshot - modemIndividualTypeInstance

Attributes:

-
An overlapTypeIndividualInstance where the instance is an OrganisationalResource.

responsibleHumanResourceWholePart «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
responsibleHumanResourceWholePart - individualResourceWholePart
Generalization (element - is a subtype of): «IDEAS:superSubtype»
responsibleHumanResourceWholePart - agentCapableOfResponsibilityWholePart
Association (source - target): «place2Type»
responsibleHumanResourceWholePart - ResponsibleHumanResourcePart
Association (source - target): «place1Type»
responsibleHumanResourceWholePart - ResponsibleHumanResource

Attributes:

-
An agentCapableOfResponsibilityWholePart relationship between an OrganisationRole and the Organisation within which it has the role.

snapshotFeaturingResource «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
snapshotFeaturingResource - overlapTypeIndividualInstance
Generalization (element - is a subtype of): «IDEAS:superSubtype»
snapshotFeaturingResource - doubletonTypeInstance
Association (source - target): «place1Type»
snapshotFeaturingResource - ResourceInOrganisationSnapshot
Association (source - target): «place2Type»
snapshotFeaturingResource - OrganisationSnapshot
Generalization (element - is a subtype of): «IDEAS:superSubtype»
snapshotFeaturingResource - modemIndividualTypeInstance

Attributes:

-
An overlapTypeIndividualInstance where the instance is an OrganisationSnapshot.

snapshotOfOrganisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

snapshotOfOrganisation - organisationWholePart

Association (source - target): «place1Type»

snapshotOfOrganisation - Organisation

Association (source - target): «place2Type»

snapshotOfOrganisation - OrganisationSnapshot

Attributes:

- An organisationWholePart where the whole is an Organisation and the part is an OrganisationSnapshot.

specifiedCompetence «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

specifiedCompetence - ResponsibleHumanResourceState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

specifiedCompetence - ModemThing

Association (source - target): «place1Type»

specifiedCompetence - Competence

Generalization (element - is a subtype of): «IDEAS:superSubtype»

specifiedCompetence - couple

Attributes:

- A modemIndividualTypeSpecialisation that asserts an ResponsibleHumanResourceState is specified to have a Competence. Note: Was called "actualCompetence" in M3.

stateMachineForNode «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateMachineForNode - appliedStateMachine

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateMachineForNode - ModemThing

Association (source - target): «place1Type»

stateMachineForNode - Node

Association (source - target): «place2Type»

stateMachineForNode - StateMachine

Attributes:

- An appliedStateMachine that relates a Node to its state machine.

stateOfResponsibleHumanResourceState «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateOfResponsibleHumanResourceState - agentCapableOfResponsibilityWholeState

Association (source - target): «place2Type»

stateOfResponsibleHumanResourceState - ResponsibleHumanResourceState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateOfResponsibleHumanResourceState - individualResourceState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateOfResponsibleHumanResourceState - responsibleHumanResourceWholePart

Association (source - target): «place1Type»

stateOfResponsibleHumanResourceState - ResponsibleHumanResource

Attributes:

- An agentCapableOfResponsibilityWholeState relationship between a ResponsibleHumanResource and its ResponsibleHumanResourceState.

templateForTask «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

templateForTask - modemIndividualTypeInstance

Association (source - target):«place2Type»

templateForTask - EnduringTask

Association (source - target):«place1Type»

templateForTask - ActivityGroup

Attributes:

- A modemIndividualTypeInstance that relates an EnduringTask to an EnduringTaskTemplate that specifies it.

trustLevel «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

trustLevel - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

trustLevel - representedBy

Association (source - target):«place2Type»

trustLevel - IntegerRepresentation

Association (source - target):«place1Type»

trustLevel - TrustLine

Attributes:

- A representedBy that uses an IntegerRepresentation to specify an arbitrary level of trust between the Nodes connected by a Trustline.

typeOfKnownResource «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

typeOfKnownResource - modemIndividualTypeSpecialisation

Association (source - target):«place2Type»

typeOfKnownResource - KnownResource

Association (source - target):«place1Type»

typeOfKnownResource - ResourceType

Attributes:

- A modemIndividualTypeSpecialisation where a KnownResource is a subtype of a ResourceType.

2.4.9 Operational Views additional diagrams.

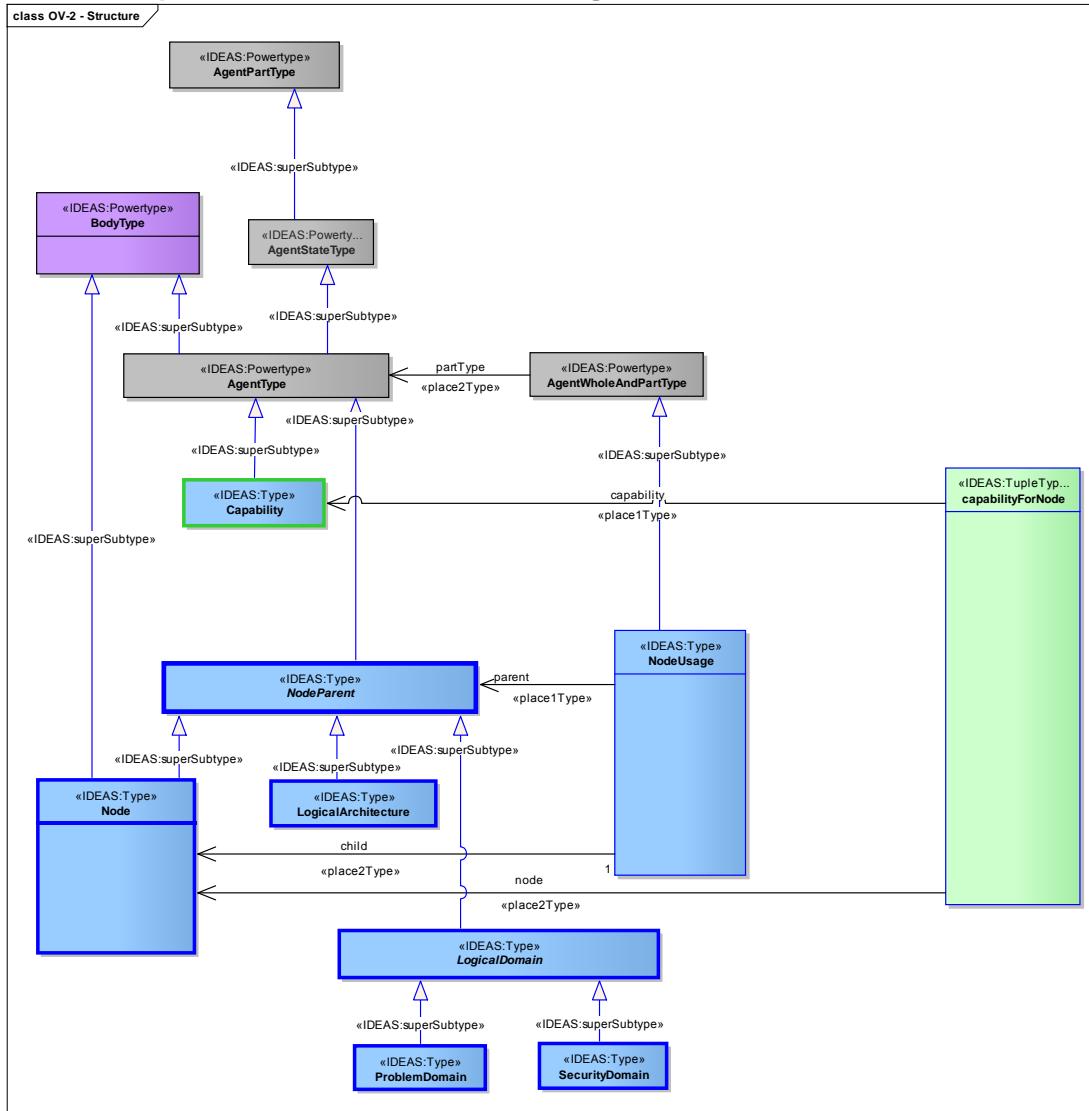


Figure 43 : OV-2 Structure

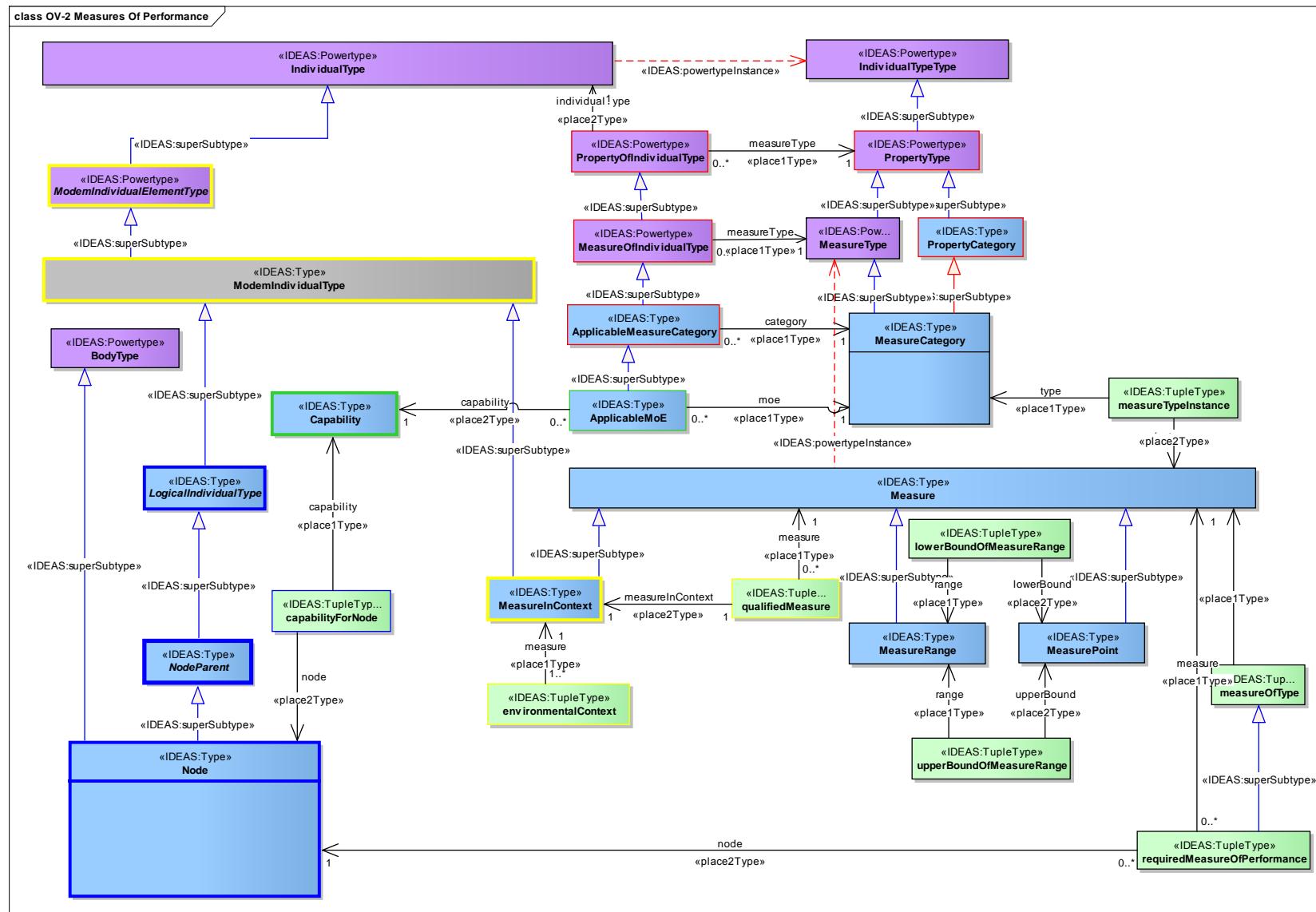


Figure 44 : Measures of performance

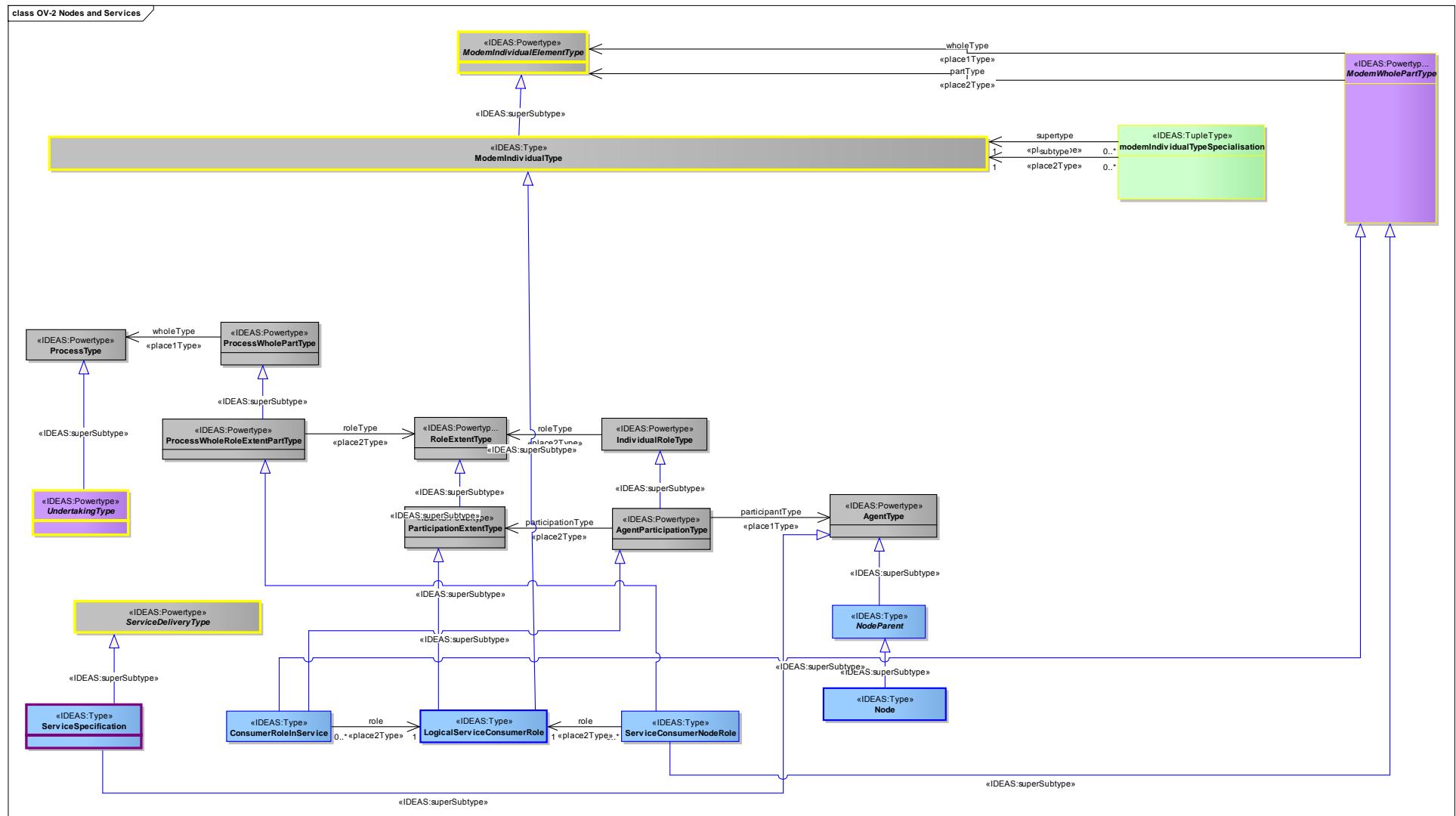


Figure 45 : Nodes and Services

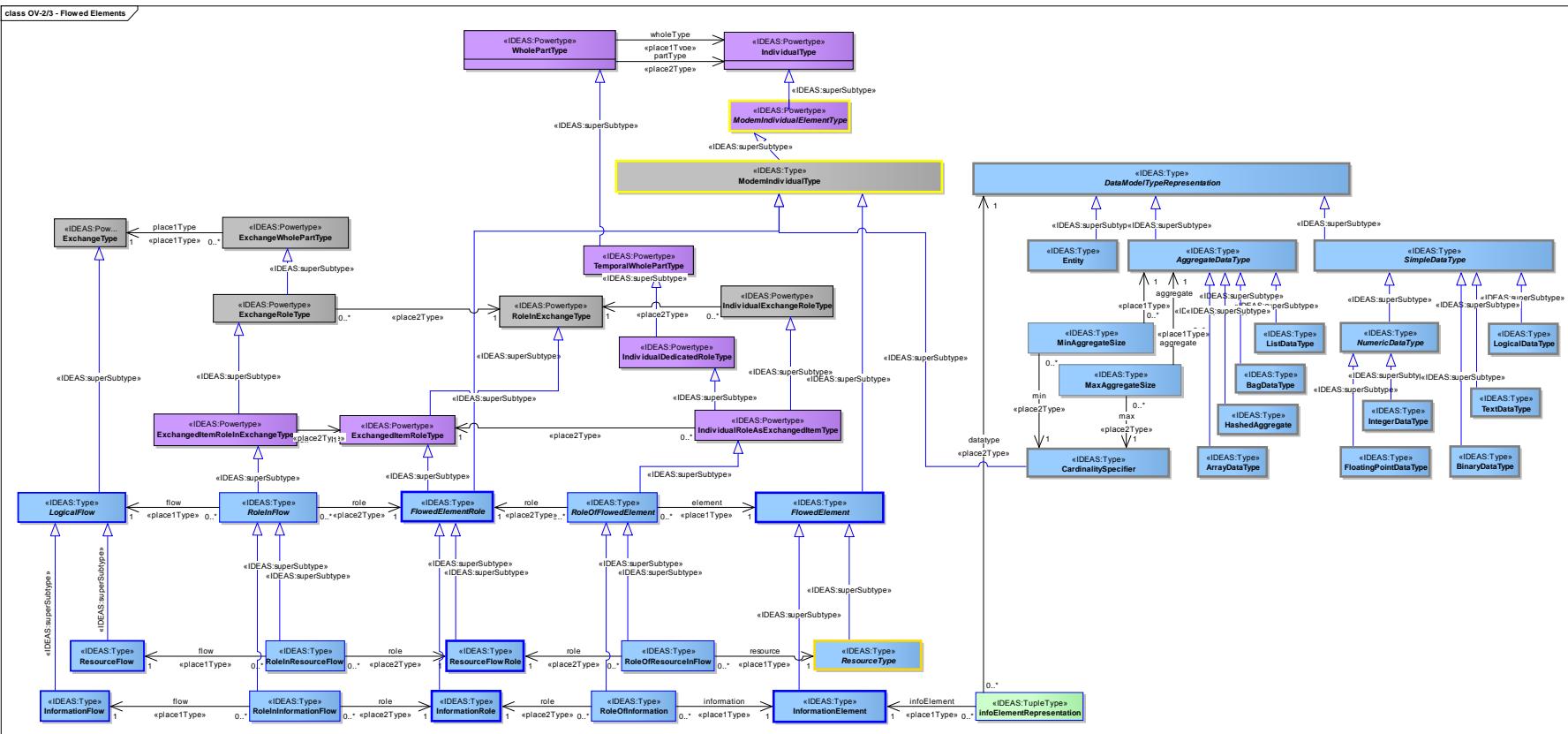


Figure 46 : OV-2/3 – Flowed Elements

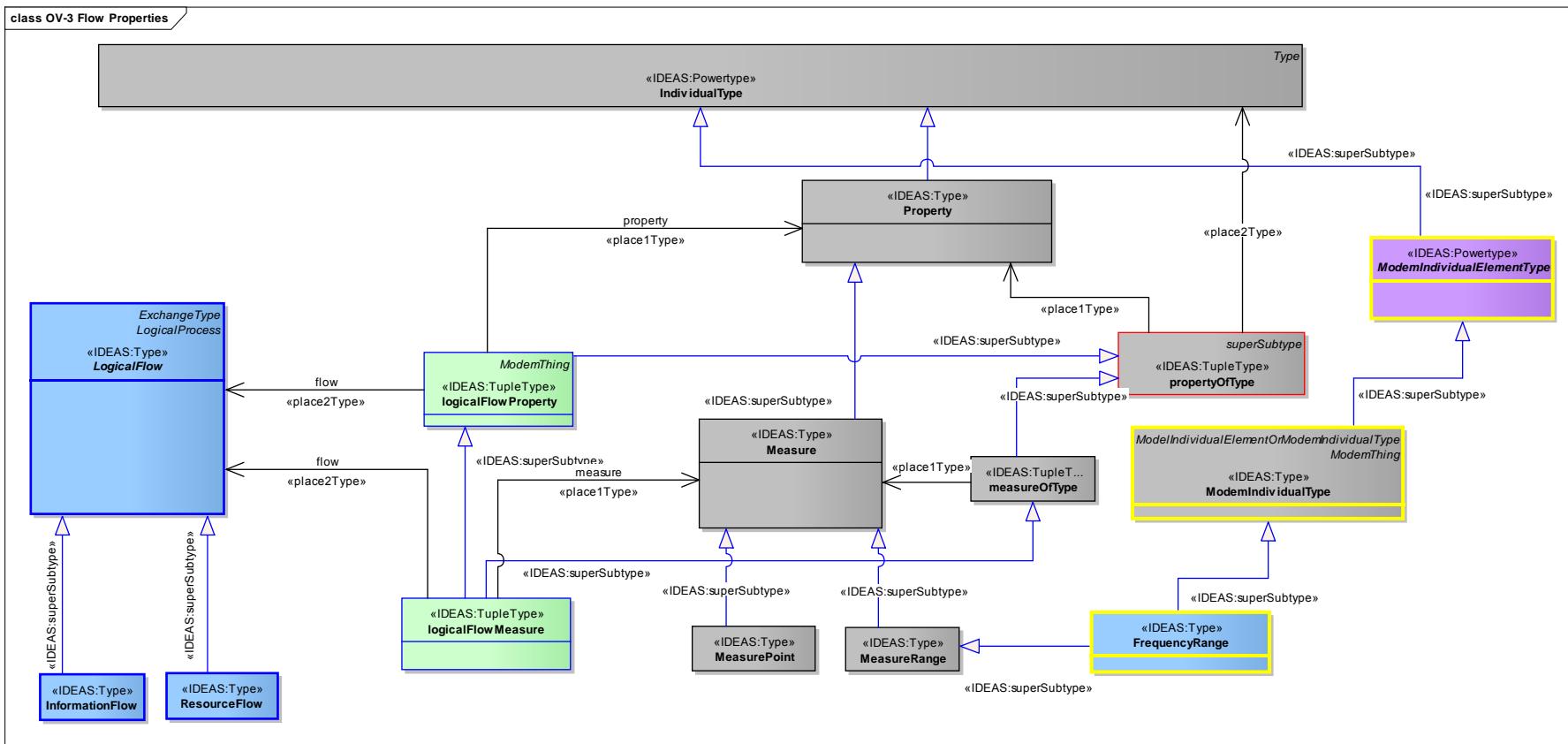


Figure 47 : Flow Properties

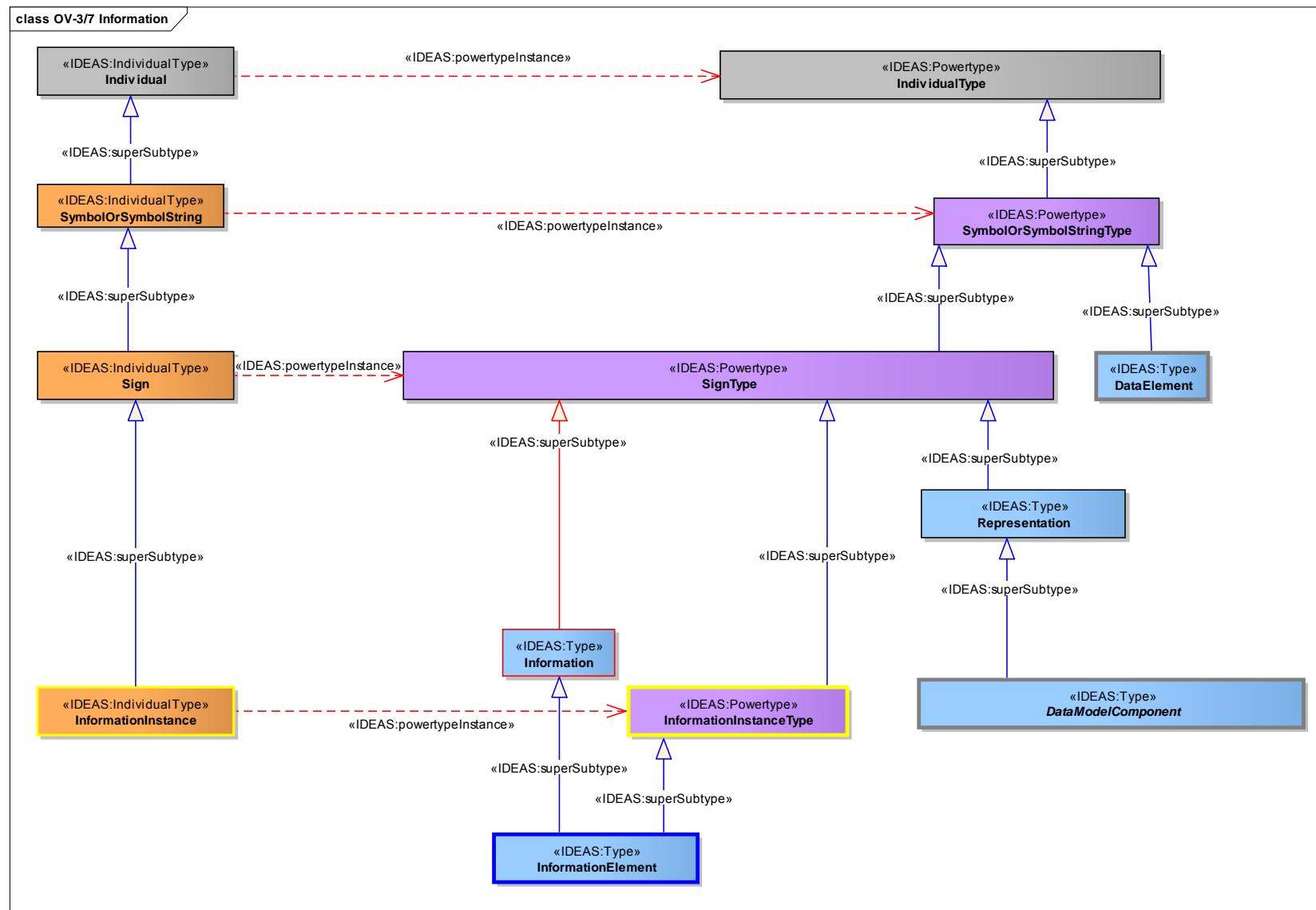


Figure 48 : OV-3/7 Information

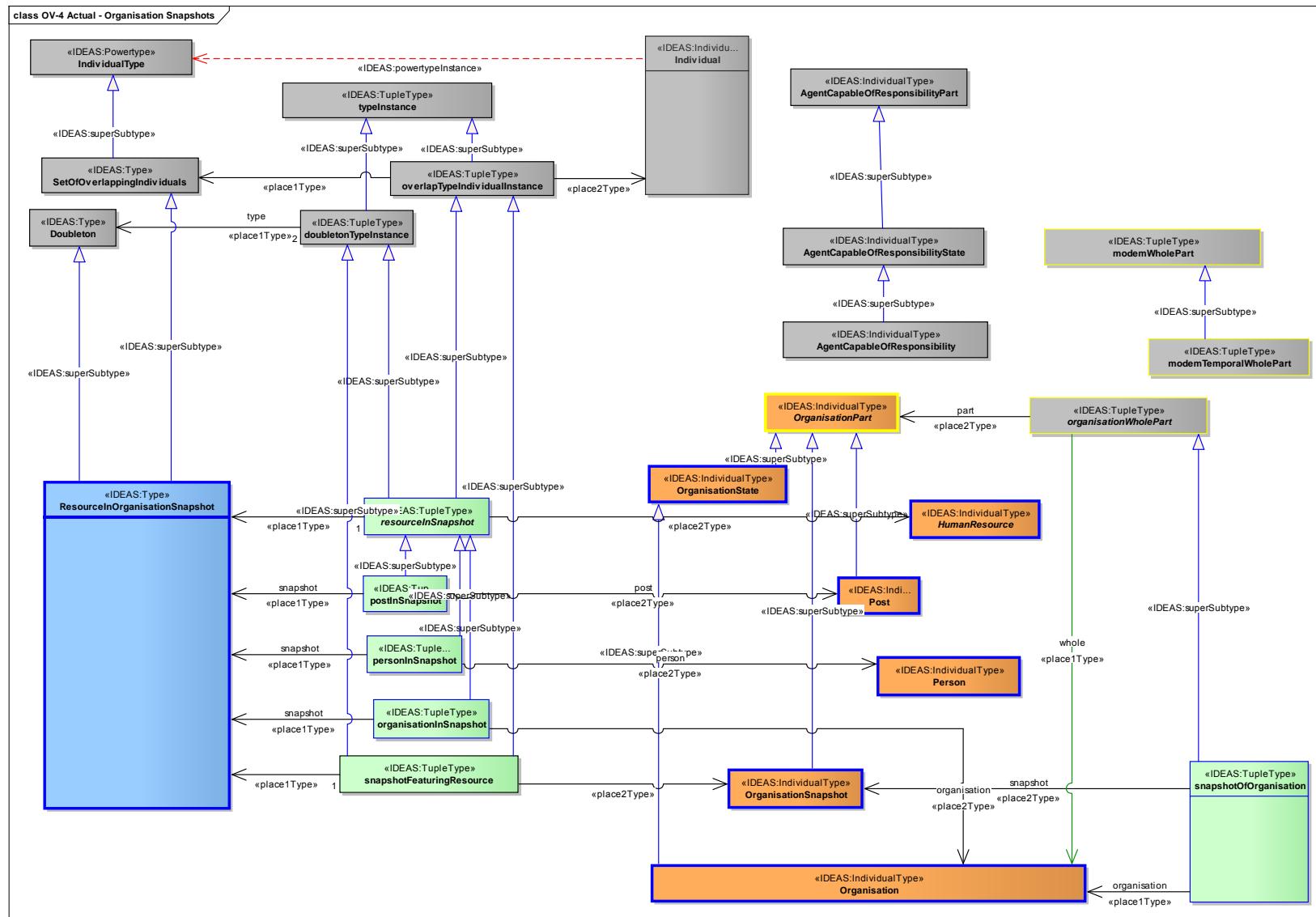


Figure 49 : OV-4 Actual Organisation Snapshots

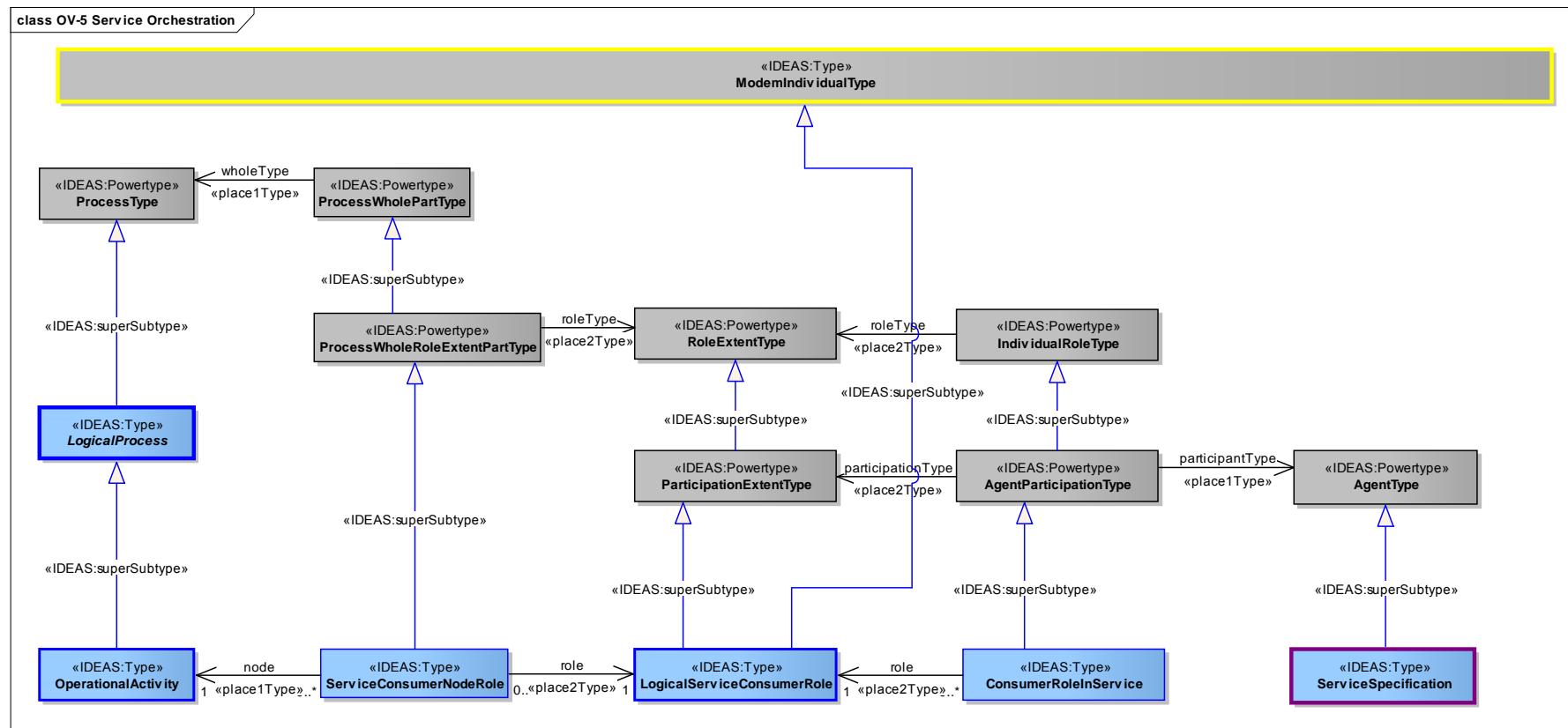


Figure 50 : OV-5 Service Orchestration

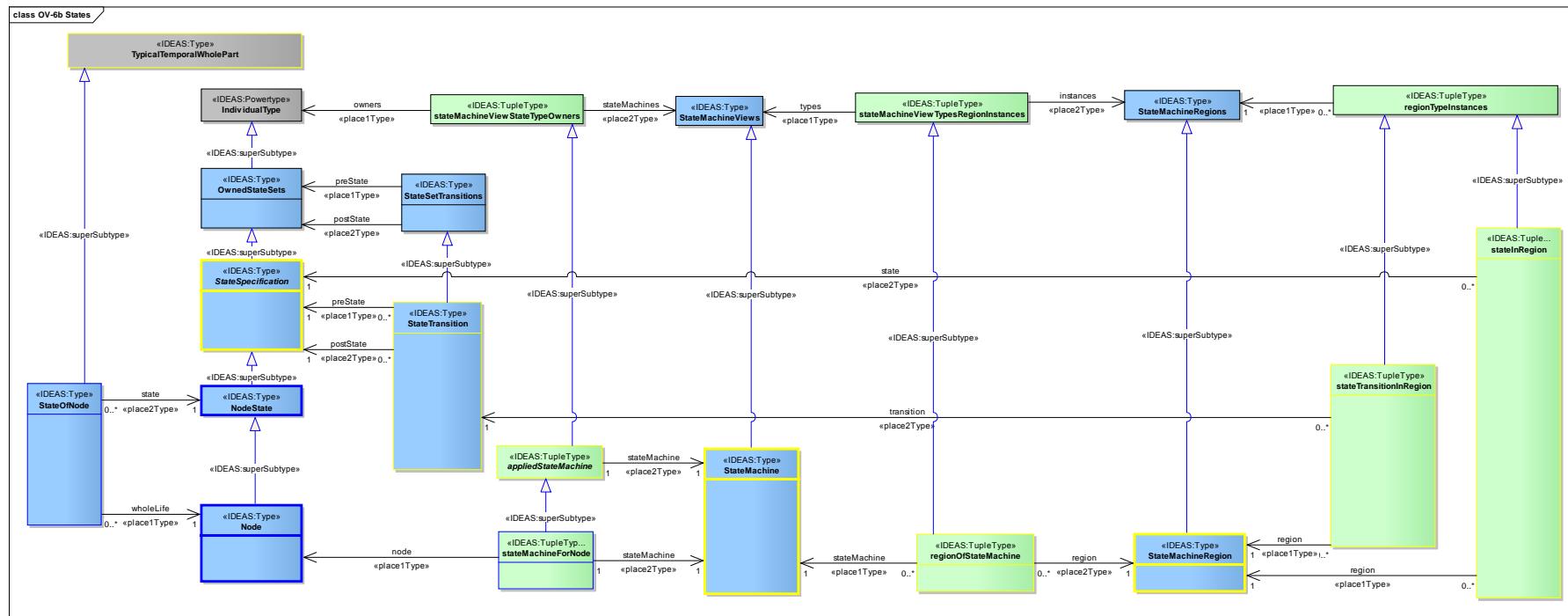


Figure 51 : OV-6b States

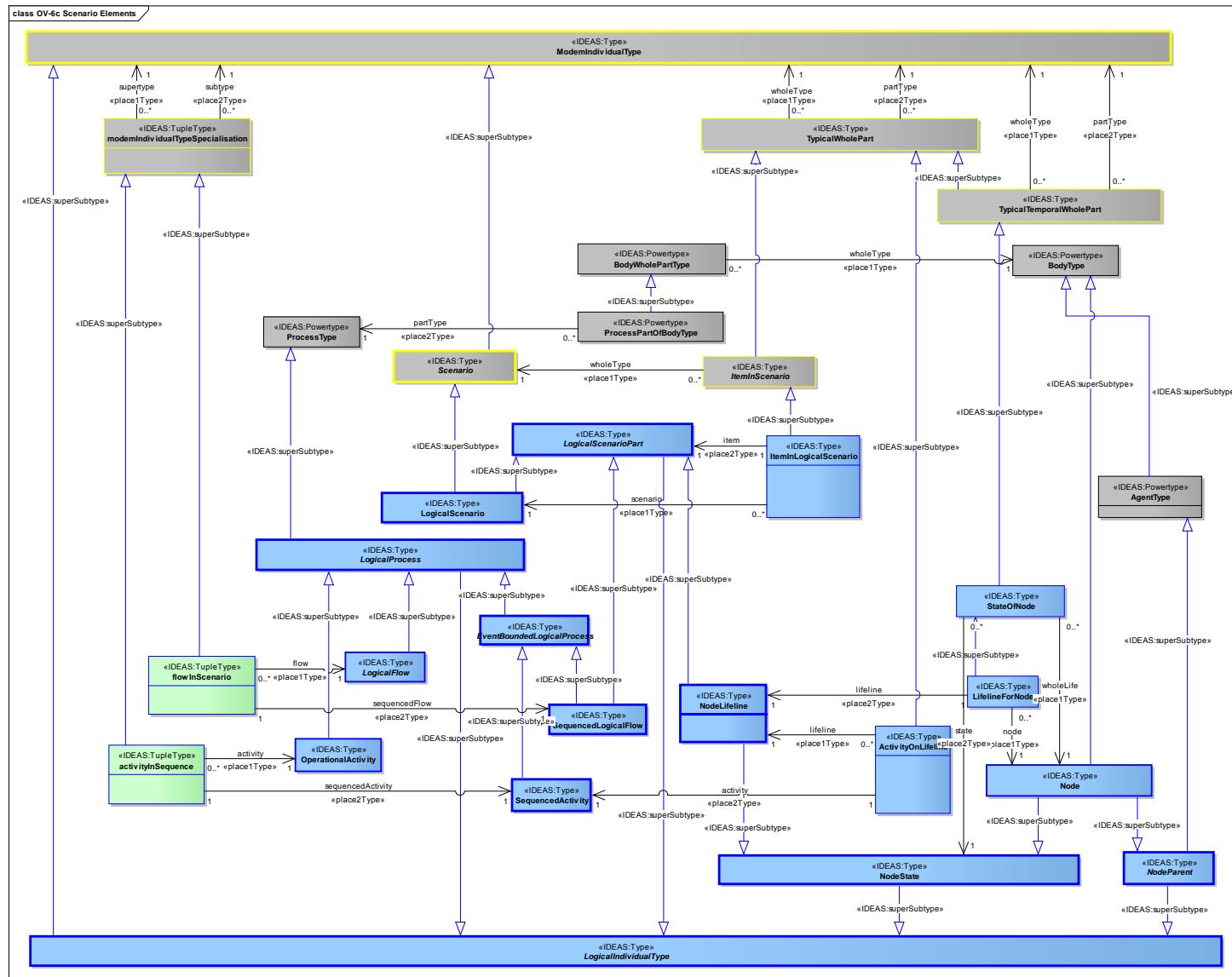


Figure 52 : OV-6c Scenario Elements

2.5 Service views

2.5.1 SOV-1: Service taxonomy

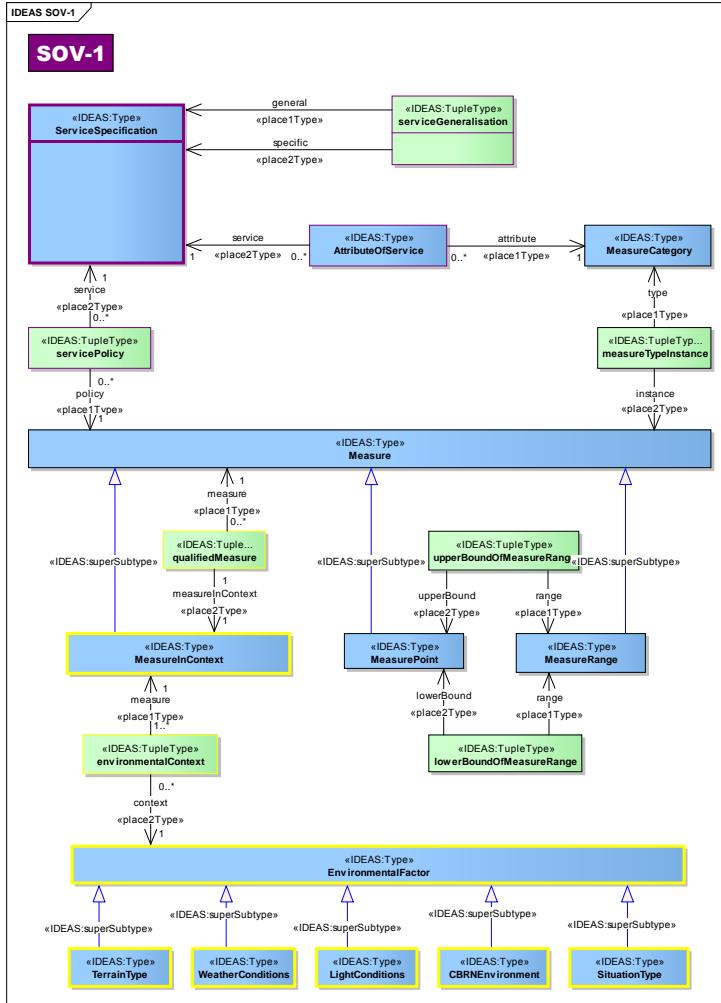


Figure 53 : SOV-1

2.5.2 SOV-2: Service interface specification

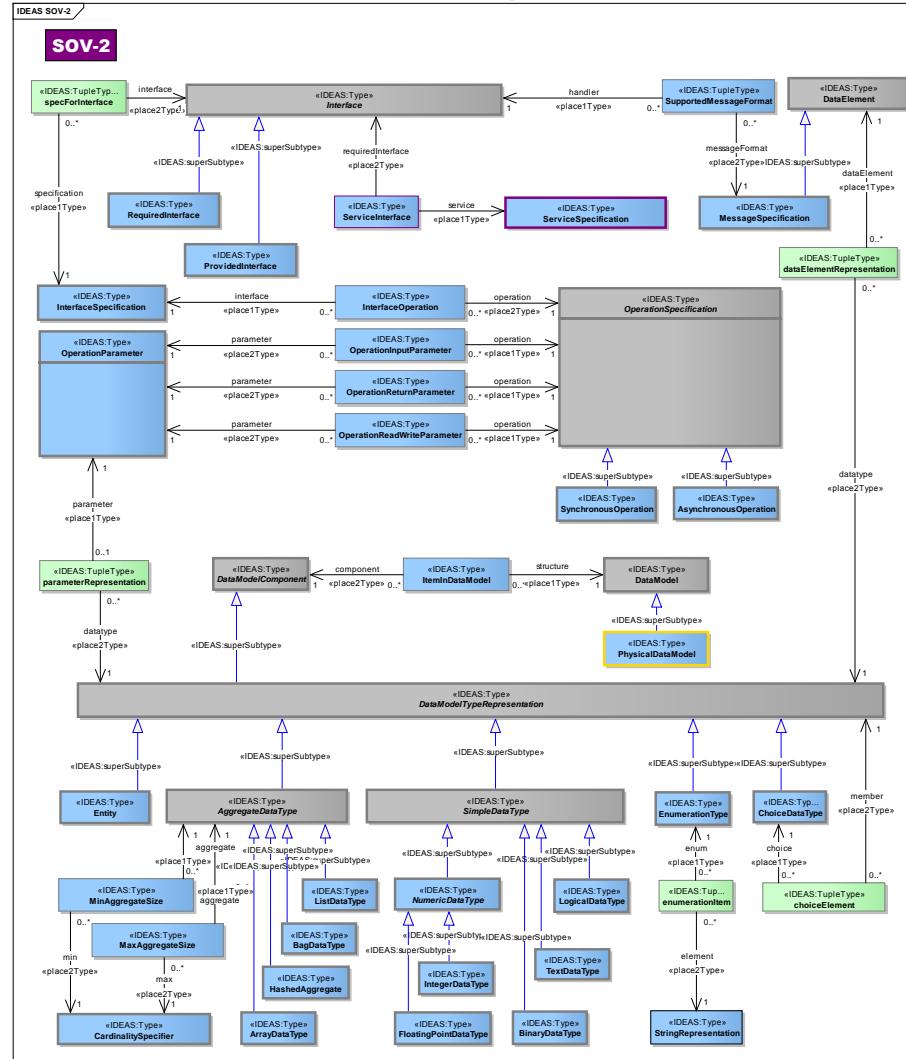


Figure 54 : SOV-2

2.5.3 SOV-3: Capability to service mapping

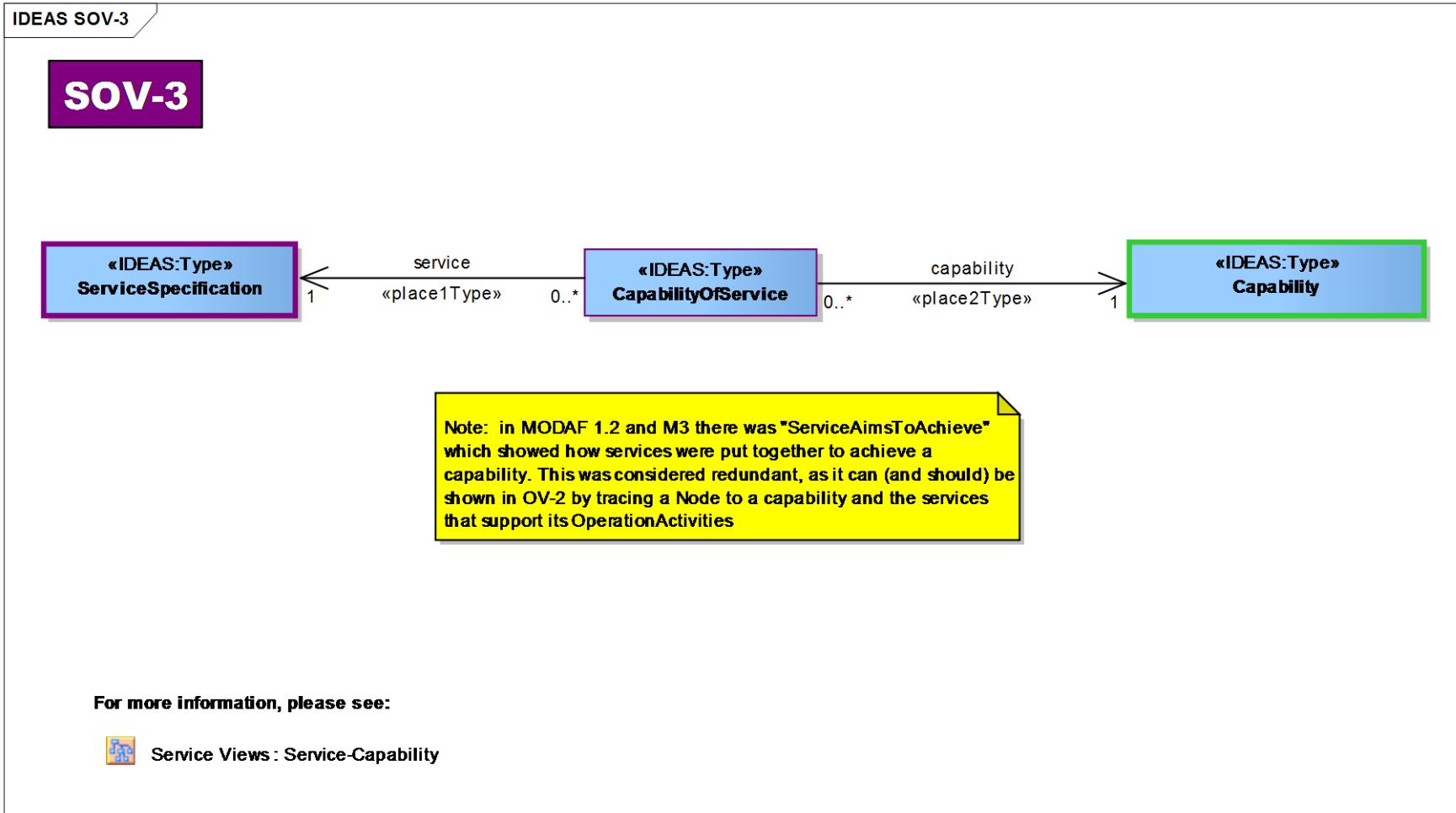


Figure 55 : SOV-3

2.5.4 SOV-4: Service constraints, state model and interaction specification

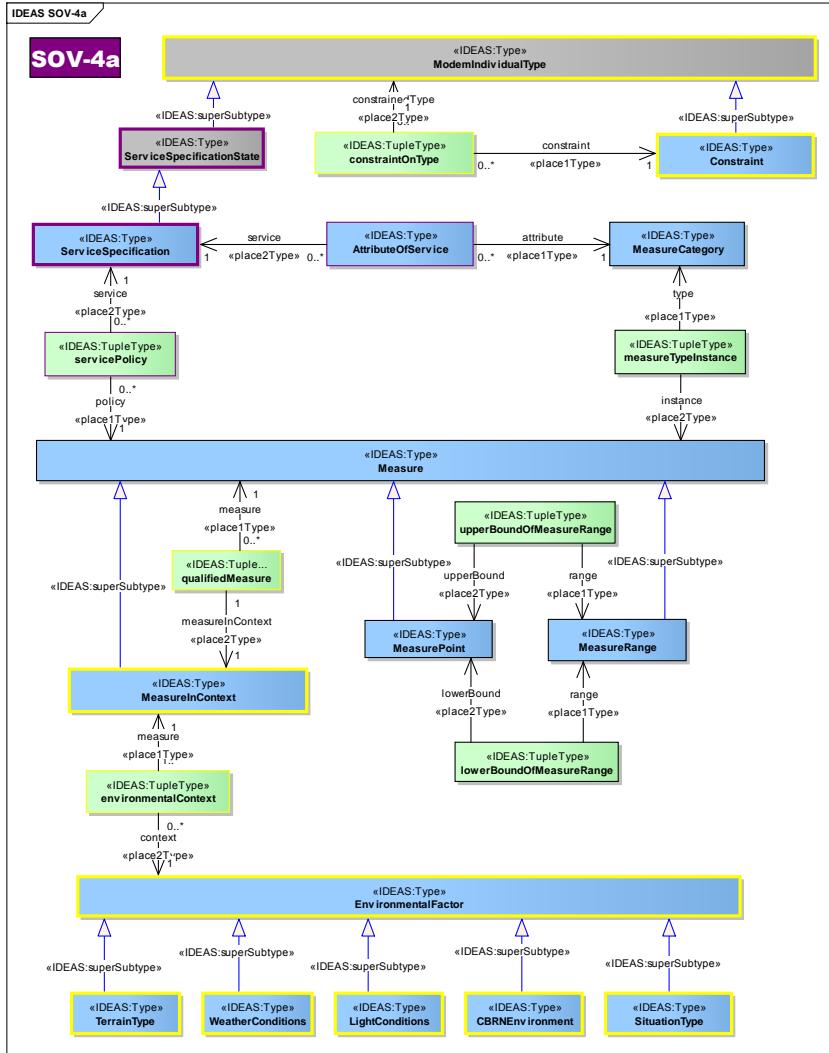


Figure 56 : SOV-4a

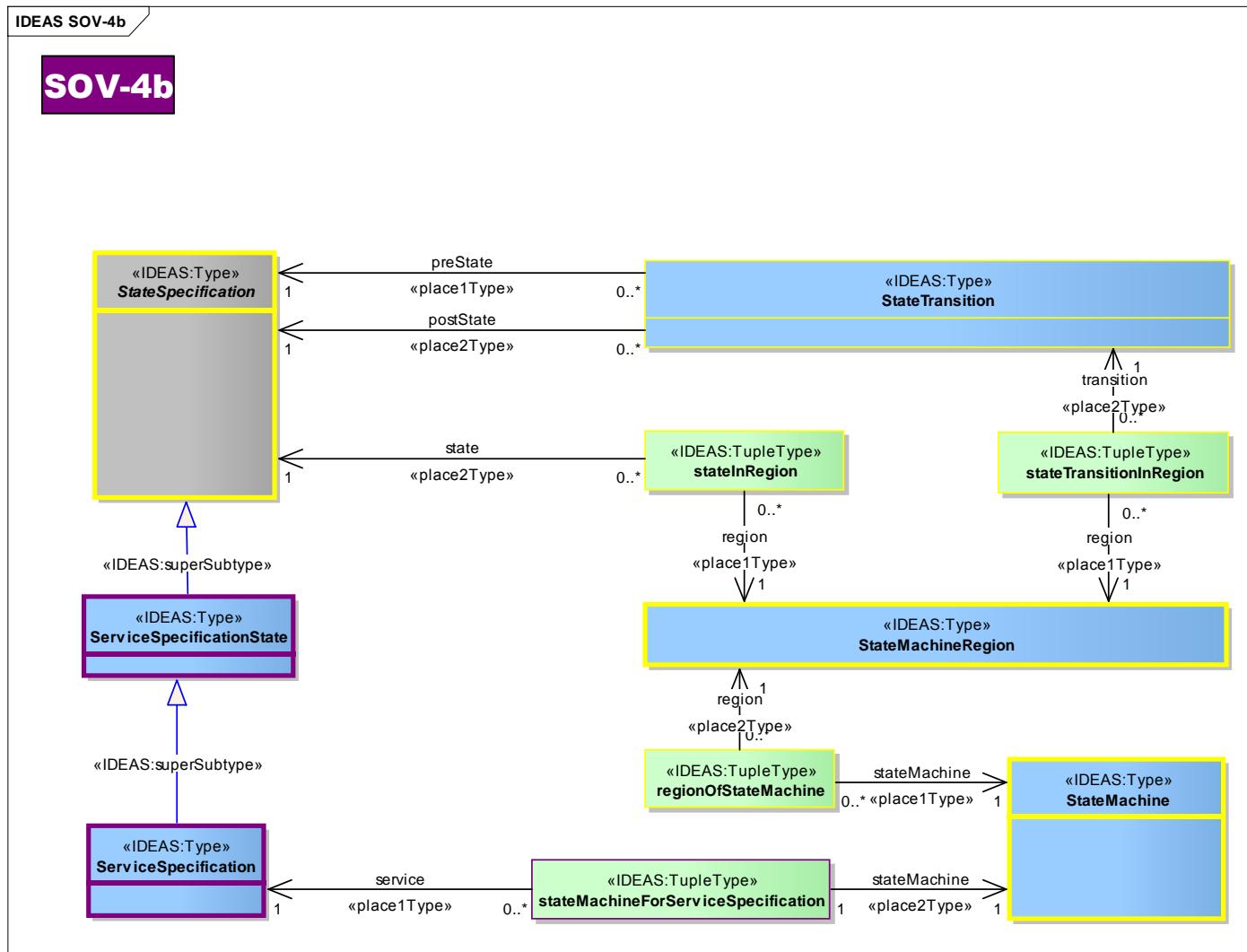


Figure 57 : SOV-4b

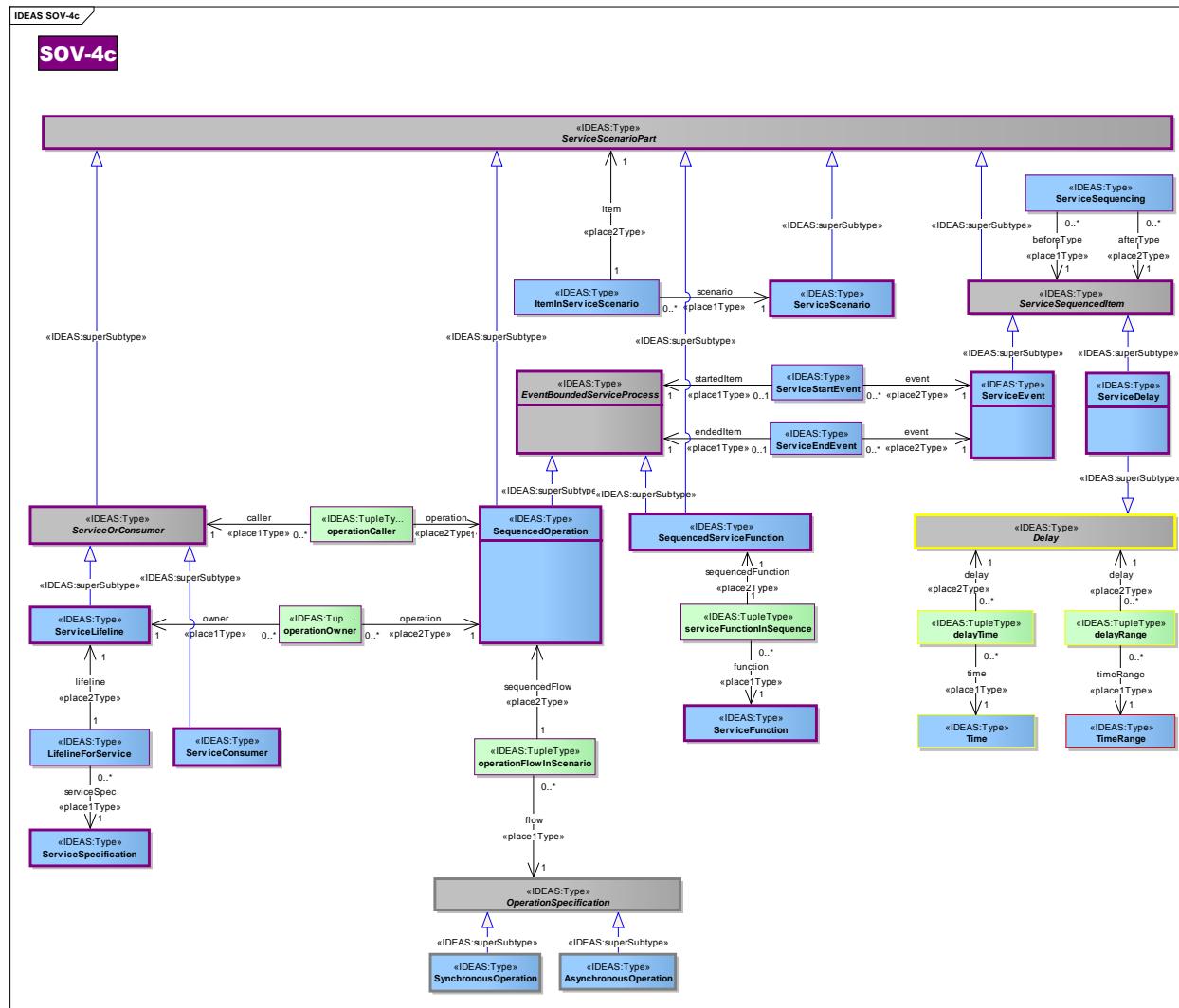


Figure 58 : SOV-4c

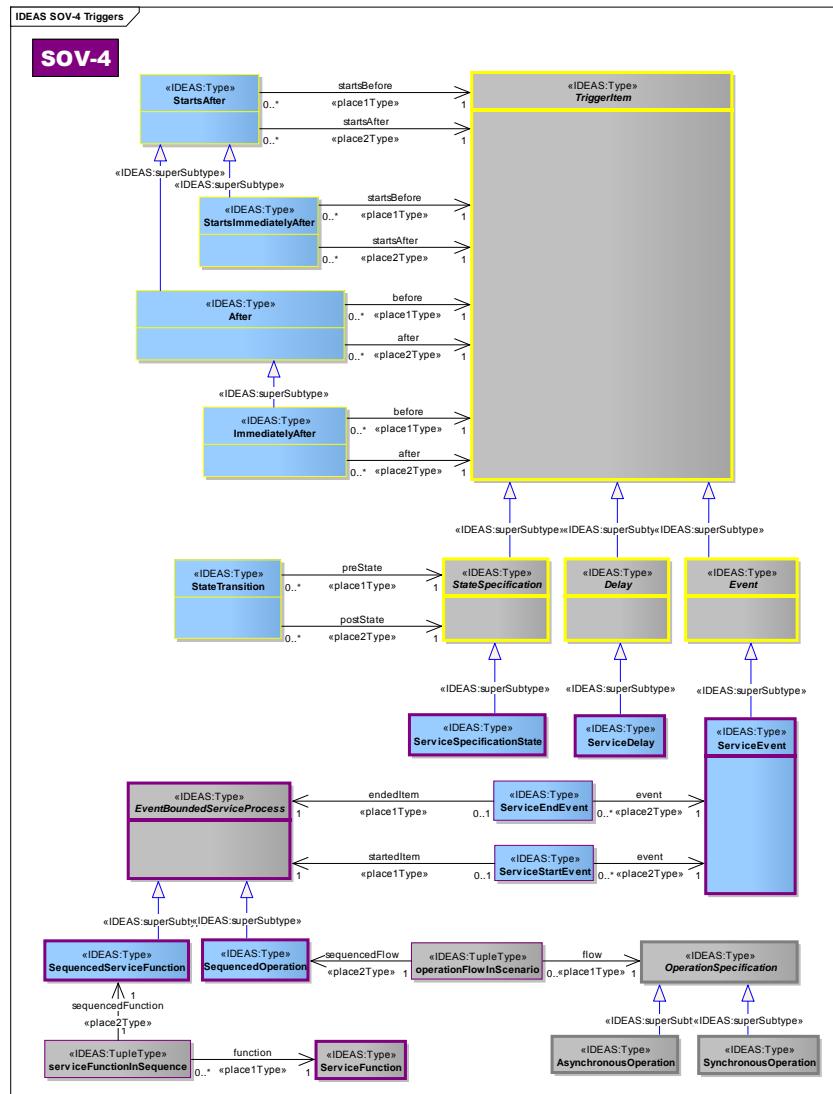


Figure 59 : SOV-4 Triggers

2.5.5 SOV-5: Service functionality

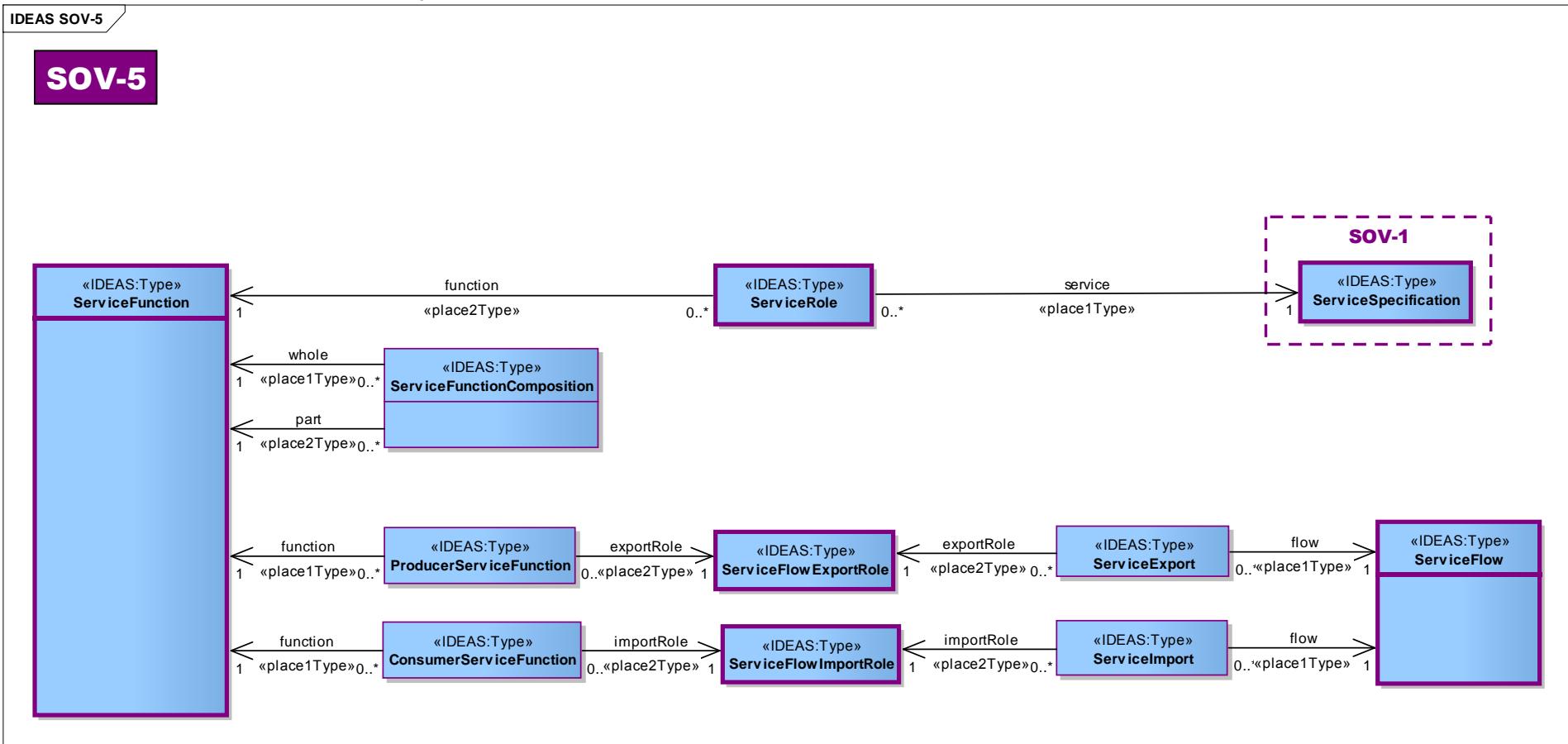


Figure 60 : SOV-5

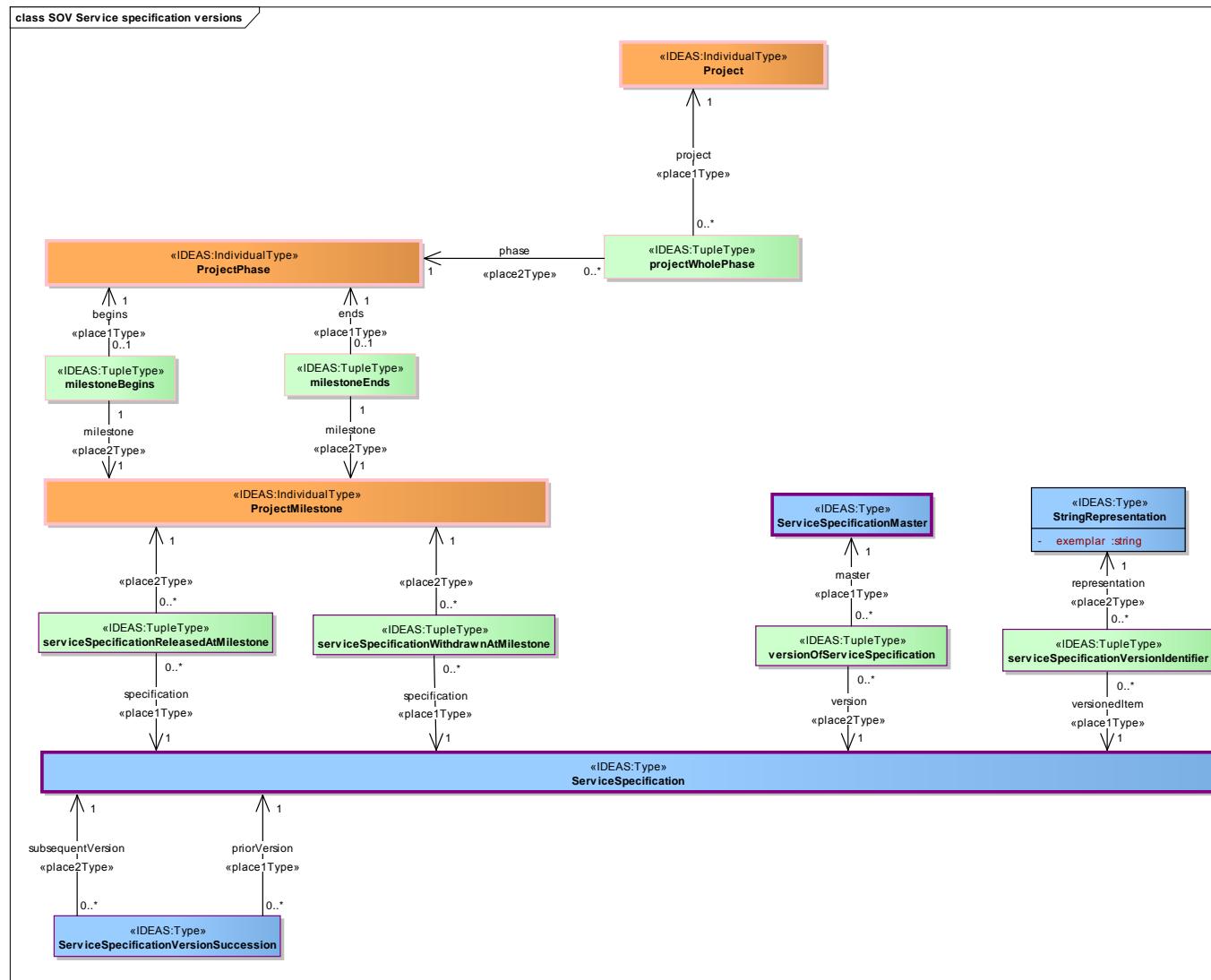


Figure 61 : SOV Service specification versions

2.5.6 Service Views elements list

Service Views

AttributeOfService «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
AttributeOfService - ApplicableMeasureCategory
Generalization (element - is a subtype of): «IDEAS:superSubtype»
AttributeOfService - ModemThing
Association (source - target): «place1Type»
AttributeOfService - MeasureCategory
Association (source - target): «place2Type»
AttributeOfService - ServiceSpecification

Attributes:

- An ApplicableMeasureCategory that relates a ServiceSpecification to a MeasureCategory as a means of indicating a way that service performance can be measured.

CapabilityOfService «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
CapabilityPartOfService - TypicalWholePart
Generalization (element - is a subtype of): «IDEAS:superSubtype»
CapabilityPartOfService - ServiceDeliveryWholePartType
Association (source - target): «place2Type»
CapabilityPartOfService - Capability
Association (source - target): «place1Type»
CapabilityPartOfService - ServiceSpecification

Attributes:

- A TypicalWholePart that relates a Service to the specification of its underlying capability

Note: in MODAF 1.2 and M3 there was "ServiceAimsToAchieve" which showed how services were put together to achieve a capability. This was considered redundant, as it can (and should) be shown in OV-2 by tracing a Node to a capability and the services that support its OperationActivities.

ConsumerServiceFunction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ConsumerServiceFunction - IndividualExchangeRoleType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
ConsumerServiceFunction - ModemWholePartType
Association (source - target): «place1Type»
ConsumerServiceFunction - ServiceFunction
Association (source - target): «place2Type»
ConsumerServiceFunction - ServiceFlowImportRole

Attributes:

- An IndividualExchangeRoleType where the role is a ServiceFlowImportRole and the consumer is a Serviceunction

EventBoundedServiceProcess «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EventBoundedServiceProcess - ServiceProcess

Attributes:

-
A ServiceProcess that has ServiceEvents marking its beginning and end.

ItemInServiceScenario «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ItemInServiceScenario - ItemInScenario

Association (source - target): «place2Type»

ItemInServiceScenario - ServiceScenarioPart

Association (source - target): «place1Type»

ItemInServiceScenario - ServiceScenario

Attributes:

-
An ItemInScenario where the Scenario is a ServiceScenario.

LifelineForService «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LifelineForService - TypicalTemporalWholePart

Association (source - target): «place2Type»

LifelineForService - ServiceLifeline

Association (source - target): «place1Type»

LifelineForService - ServiceSpecification

Attributes:

-
A TypicalTemporalWholePart that asserts a ServiceLifeLine is a typical temporal part of a ServiceSpecification.

ProducerServiceFunction «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProducerServiceFunction - IndividualExchangeRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProducerServiceFunction - ModemWholePartType

Association (source - target): «place2Type»

ProducerServiceFunction - ServiceFlowExportRole

Association (source - target): «place1Type»

ProducerServiceFunction - ServiceFunction

Attributes:

-
An IndividualExchangeRoleType where the role is a ServiceFlowExportRole and the producer is a ServiceFunction.

SequencedOperation «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedOperation - ServiceScenarioPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedOperation - EventBoundedServiceProcess

Attributes:

- A ServiceScenarioPart that is the typical occurrence of an OperationSpecification.

SequencedServiceFunction «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SequencedServiceFunction - ServiceScenarioPart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SequencedServiceFunction - ServiceProcess

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SequencedServiceFunction - EventBoundedServiceProcess

Attributes:

-

An EventBoundedServiceProcess whose instances are special cases of ServiceFunctions that take part in ServiceScenarios.

ServiceConsumer «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceConsumer - ServiceOrConsumer

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceConsumer - Node

Attributes:

-

A Node that interacts with one or more services.

ServiceDelay «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceDelay - ServiceSequencedItem

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceDelay - Delay

Attributes:

-

A ServiceSequencedItem that has a specified temporal extent, but an unspecified spatial extent.

ServiceEndEvent «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceEndEvent - EndBorderType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceEndEvent - ModemTemporalWholePartType

Association (source - target):«place1Type»

ServiceEndEvent - EventBoundedServiceProcess

Association (source - target):«place2Type»

ServiceEndEvent - ServiceEvent

Attributes:

-

An EndBorderType that relates a EventBoundedServiceProcess to the ServiceEvent that marks its end. Note: there may be no more than one ServiceEndEvent for a given EventBoundedServiceProcess.

ServiceEvent «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceEvent - ServiceSequencedItem

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceEvent - Event

Attributes:

- An Event that marks the beginning or end of a EventBoundedServiceProcess.

ServiceExport «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceImport - SendInExchangeType

Association (source - target): «place1Type»

ServiceImport - ServiceFlow

Association (source - target): «place2Type»

ServiceImport - ServiceFlowExportRole

Attributes:

- A ReceiveInExchangeType where the receiver is a ServiceSpecification or ServiceFunction.

ServiceFlow «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFlow - ServiceProcess

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFlow - ExchangeType

Attributes:

- An ExchangeType where two ServiceSpecifications interact.

ServiceFlowExportRole «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFlowExportRole - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFlowExportRole - SendType

Attributes:

- A SendType where the sender is a ServiceSpecification or ServiceFunction.

ServiceFlowImportRole «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFlowImportRole - ReceiveType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFlowImportRole - ModemIndividualType

Attributes:

- A RecieveType where the receiver is a ServiceSpecification or ServiceFunction.

ServiceFunction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFunction - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFunction - ServiceProcess

Attributes:

- A ServiceProcess carried out by a ServiceSpecification

ServiceFunctionComposition «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFunctionComposition - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceFunctionComposition - ProcessWholeAndPartType

Association (source - target): «place2Type»

ServiceFunctionComposition - ServiceFunction

Association (source - target): «place1Type»

ServiceFunctionComposition - ServiceFunction

Attributes:

- A TypicalWholePart that relates a parent (whole) ServiceFunction to its child (part) ServiceFunction. Note: was called "ActivityComposition" in M3.

ServiceImport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceImport - ReceiveInExchangeType

Association (source - target): «place1Type»

ServiceImport - ServiceFlow

Association (source - target): «place2Type»

ServiceImport - ServiceFlowImportRole

Attributes:

- A ReceiveInExchangeType where the receiver is a ServiceSpecification or ServiceFunction.

ServiceInterface «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceInterface - TypicalWholePart

Association (source - target): «place2Type»

ServiceInterface - Interface

Association (source - target): «place1Type»

ServiceInterface - ServiceSpecification

Attributes:

- A TypicalWholePart that relates a ServiceSpecification to an Interface that it requires or provides.

ServiceLevel «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLevel - ModemIndividualType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLevel - BodyType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLevel - AgentType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLevel - DispositionalProperty
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLevel - ServiceDeliveryType

Attributes:

-
A ServiceDeliveryType based on a ServiceSpecification that sets a level of service using of Measures that correspond to ServiceAttributes.

ServiceLifeline «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLifeline - ServiceOrConsumer
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceLifeline - ServiceSpecificationState

Attributes:

-
A ServiceSpecificationState whose extent is defined by a ServiceScenario.

ServiceOrConsumer «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceOrConsumer - ServiceScenarioPart

Attributes:

-
A ServiceScenarioPart that is either a ServiceLifeline or a ServiceConsumer.
[ABSTRACT]

ServiceProcess «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceProcess - ProcessType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceProcess - ModemWholePartType

Attributes:

-
A ProcessType conducted by a ServiceSpecification.

ServiceRole «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceRole - ProcessPartOfBodyType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ServiceRole - TypicalWholePart
Association (source - target):«place2Type»

ServiceRole - ServiceFunction
Association (source - target):«place1Type»

ServiceRole - ServiceSpecification

Attributes:

-
A ProcessPartOfBodyType that asserts that a ServiceFunction is part of a ServiceSpecification.

ServiceScenario «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceScenario - ServiceScenarioPart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceScenario - Scenario

Attributes:

-
A Scenario that describes the order of interactions with a ServiceSpecification.

ServiceScenarioPart «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceScenarioPart - ModemIndividualType

Attributes:

-
A ModemIndividualType that features in (i.e. is part of) a ServiceScenario.

ServiceSequencedItem «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceSequencedItem - ServiceScenarioPart

Attributes:

-
A ServiceScenarioPart that can be sequenced by ServiceSequencing.

ServiceSequencing «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceSequencing - ImmediateBeforeAfterType

Association (source - target):«place2Type»

ServiceSequencing - ServiceSequencedItem

Association (source - target):«place1Type»

ServiceSequencing - ServiceSequencedItem

Attributes:

-
An ImmediateBeforeAfterType that asserts one ServiceSequencedItem happens immediately before another.

ServiceSpecification «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceSpecification - ServiceDeliveryType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceSpecification - BodyType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceSpecification - AgentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecification - DispositionalProperty

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecification - ServiceSpecificationState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecification - SubjectOfForecast

Attributes:

- A ServiceDeliveryType that is the specification of a ServiceDelivery. Note: was called "Service" in M3.

ServiceSpecificationComposition «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationComposition - TypicalWholePart

Association (source - target): «place1Type»

ServiceSpecificationComposition - ServiceSpecification

Association (source - target): «place2Type»

ServiceSpecificationComposition - ServiceSpecification

Attributes:

- A TypicalWholePart that states that a ServiceSpecification reuses other ServiceSpecifications, i.e. is specified on top of the ones reused.

ServiceSpecificationMaster «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationMaster - ModemIndividualType

Attributes:

- A ModemIndividualType that is the master specification from which ServiceSpecifications are versioned.

ServiceSpecificationState «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationState - ServiceDeliveryStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationState - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationState - StateSpecification

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationState - AgentStateType

Attributes:

- A ServiceDeliveryStateType that is a type of temporal state typical of a ServiceSpecification.

ServiceSpecificationVersionSuccession «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationVersionSuccession - BeforeAfterType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ServiceSpecificationVersionSuccession - ModemThing

Association (source - target): «place1Type»

ServiceSpecificationVersionSuccession - ServiceSpecification

Association (source - target):«place2Type»

ServiceSpecificationVersionSuccession - ServiceSpecification

Attributes:

-
A BeforeAfterType that asserts that one ServiceSpecification succeeds another. Note: both ServiceSpecifications must be versions of the same ServiceSpecificationMaster.

ServiceStartEvent «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceStartEvent - ModemTemporalWholePartType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ServiceStartEvent - StartBorderType

Association (source - target):«place2Type»

ServiceStartEvent - ServiceEvent

Association (source - target):«place1Type»

ServiceStartEvent - EventBoundedServiceProcess

Attributes:

-
A StartBorderType that relates an EventBoundedServiceProcess to the ServiceEvent that marks its start. Note: there may be no more than one ServiceStartEvent for a given ServiceSequencedProcess.

StateOfServiceSpecification «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateOfServiceSpecification - AgentWholeStateType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateOfServiceSpecification - ServiceDeliveryWholeStateType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateOfServiceSpecification - TypicalTemporalWholePart

Association (source - target):«place1Type»

StateOfServiceSpecification - ServiceSpecification

Association (source - target):«place2Type»

StateOfServiceSpecification - ServiceSpecificationState

Attributes:

-
A ServiceDeliveryWholeStateType that relates a ServiceSpecification to one of its temporal states.

levelOfService «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

levelOfService - modemIndividualTypeSpecialisation

Association (source - target):«place2Type»

levelOfService - ServiceLevel

Association (source - target):«place1Type»

levelOfService - ServiceSpecification

Attributes:

-
A modemIndividualTypeSpecialisation where a ServiceLevel is sets levels of service based on a ServiceSpecification.

operationCaller «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

operationCaller - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

operationCaller - couple

Association (source - target): «place1Type»

operationCaller - ServiceOrConsumer

Association (source - target): «place2Type»

operationCaller - SequencedOperation

Attributes:

- A couple that asserts a ServiceOrConsumer invokes a SequencedOperation on a ServiceLifeline.

operationFlowInScenario «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

operationFlowInScenario - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

operationFlowInScenario - OperationSpecification

Association (source - target): «place2Type»

operationFlowInScenario - SequencedOperation

Attributes:

- A modemIndividualTypeSpecialisation that relates an OperationSpecification to its usage (as a SequencedOperation) in a ServiceScenario. Note: A SequencedOperation is based on only one OperationSpecification.

operationOwner «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

operationOwner - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

operationOwner - couple

Association (source - target): «place2Type»

operationOwner - SequencedOperation

Association (source - target): «place1Type»

operationOwner - ServiceLifeline

Attributes:

- A couple where a SequencedOperation is run by a ServiceLifeline.

serviceFunctionInSequence «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceFunctionInSequence - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

serviceFunctionInSequence - ServiceFunction

Association (source - target): «place2Type»

serviceFunctionInSequence - SequencedServiceFunction

Attributes:

- A modemIndividualTypeSpecialisation that relates a ServiceFunction to a SequencedServiceFunction that is a case of it being used in a ServiceScenario.

serviceGeneralisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceGeneralisation - modemIndividualTypeSpecialisation

Association (source - target):«place1Type»

serviceGeneralisation - ServiceSpecification

Association (source - target):«place2Type»

serviceGeneralisation - ServiceSpecification

Attributes:

- A modemIndividualTypeSpecialisation where one ServiceSpecification is a specialisation of another.

serviceLevelMeasure «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceLevelMeasure - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceLevelMeasure - measureOfType

Association (source - target):«place1Type»

serviceLevelMeasure - Measure

Association (source - target):«place2Type»

serviceLevelMeasure - ServiceLevel

Attributes:

- A measureOfType that specifies a ServiceLevel.

servicePolicy «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

servicePolicy - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

servicePolicy - measureOfType

Association (source - target):«place1Type»

servicePolicy - Measure

Association (source - target):«place2Type»

servicePolicy - ServiceSpecification

Attributes:

- A measureOfType where the Measure specifies a policy for a ServiceSpecification. Note: The Measure must correspond to a given MeasureCategory that is an attributeOfService for the ServiceSpecification.

serviceSpecificationReleasedAtMilestone «IDEAS:TupleType»Connectors:

Association (source - target):«place2Type»

serviceSpecificationReleasedAtMilestone - ProjectMilestone

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceSpecificationReleasedAtMilestone - couple

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceSpecificationReleasedAtMilestone - ModemThing

Association (source - target):«place1Type»

serviceSpecificationReleasedAtMilestone - ServiceSpecification

Attributes:

-

A couple that indicates that a ServiceSpecification is released at a ProjectMilestone.

serviceSpecificationVersionIdentifier «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceSpecificationVersionIdentifier - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceSpecificationVersionIdentifier - representedBy

Association (source - target):«place2Type»

serviceSpecificationVersionIdentifier - StringRepresentation

Association (source - target):«place1Type»

serviceSpecificationVersionIdentifier - ServiceSpecification

Attributes:

-

A representedBy that asserts that a StringRepresentation represents the version identifier of a ServiceSpecification.

serviceSpecificationWithdrawnAtMilestone «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceSpecificationWithdrawnAtMilestone - ModemThing

Association (source - target):«place2Type»

serviceSpecificationWithdrawnAtMilestone - ProjectMilestone

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceSpecificationWithdrawnAtMilestone - couple

Association (source - target):«place1Type»

serviceSpecificationWithdrawnAtMilestone - ServiceSpecification

Attributes:

-

A couple that indicates that a ServiceSpecification is withdrawn at a ProjectMilestone.

stateMachineForServiceSpecification «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateMachineForServiceSpecification - appliedStateMachine

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateMachineForServiceSpecification - ModemThing

Association (source - target):«place1Type»

stateMachineForServiceSpecification - ServiceSpecification

Association (source - target):«place2Type»

stateMachineForServiceSpecification - StateMachine

Attributes:

-

An appliedStateMachine that relates a ServiceSpecification to its state machine.

versionOfServiceSpecification «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

versionOfServiceSpecification - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

versionOfServiceSpecification - ServiceSpecificationMaster

Association (source - target): «place2Type»

versionOfServiceSpecification - ServiceSpecification

Attributes:

-

A modemIndividualTypeSpecialisation that asserts that a ServiceSpecification is a version of a ServiceSpecificationMaster.

2.5.7 Service Views additional diagrams.

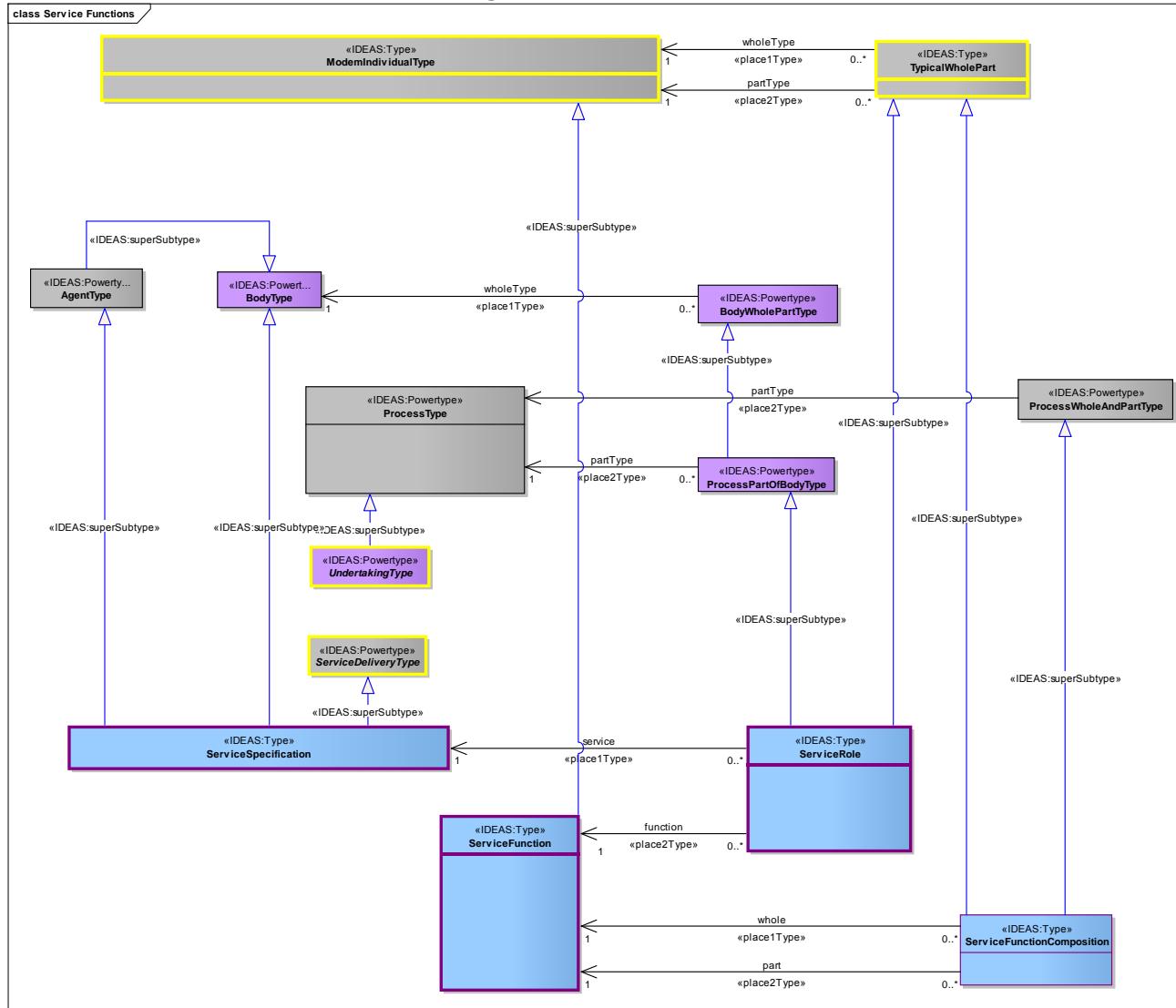


Figure 62 : Service Functions

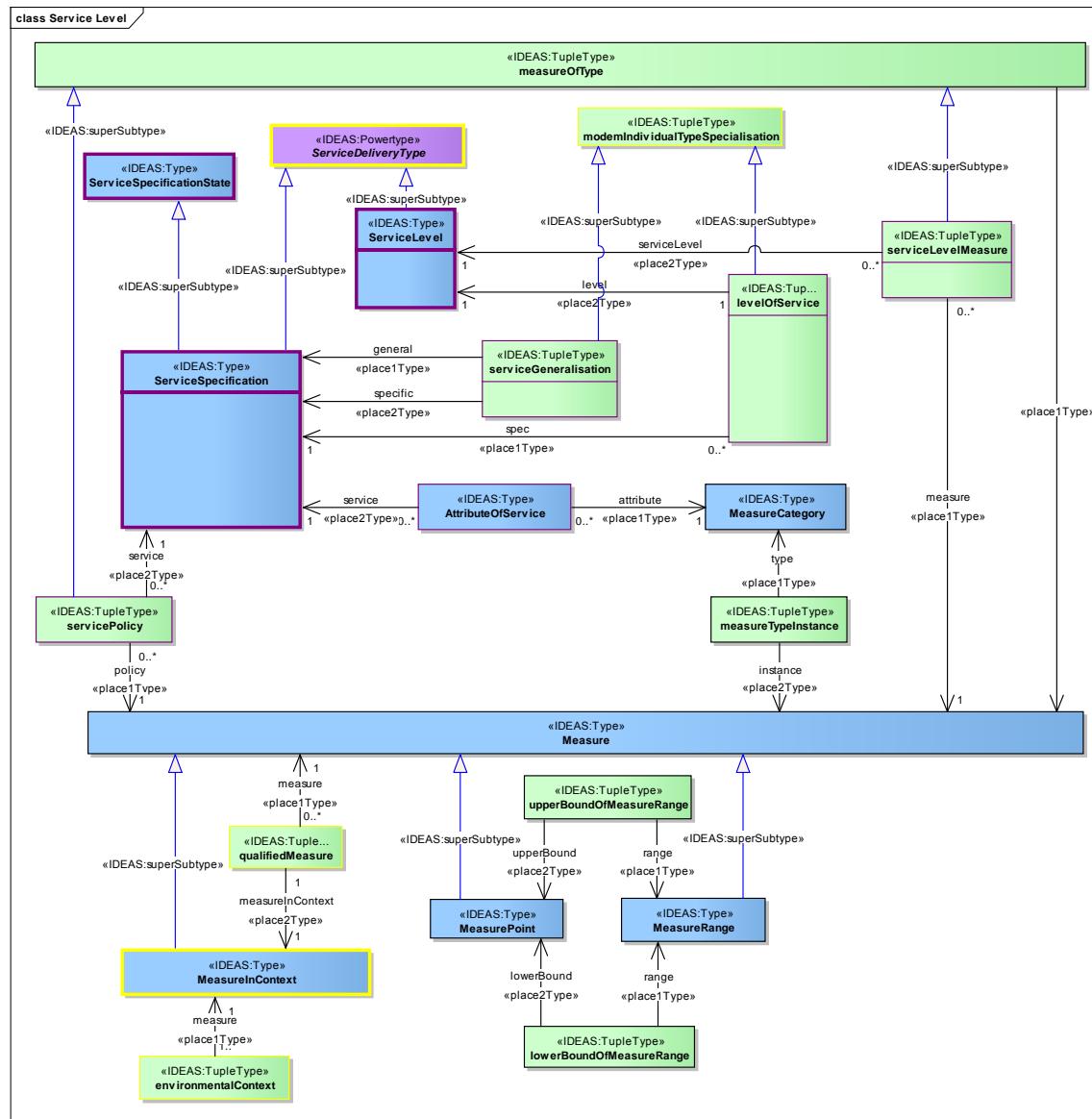


Figure 63 : Service Level

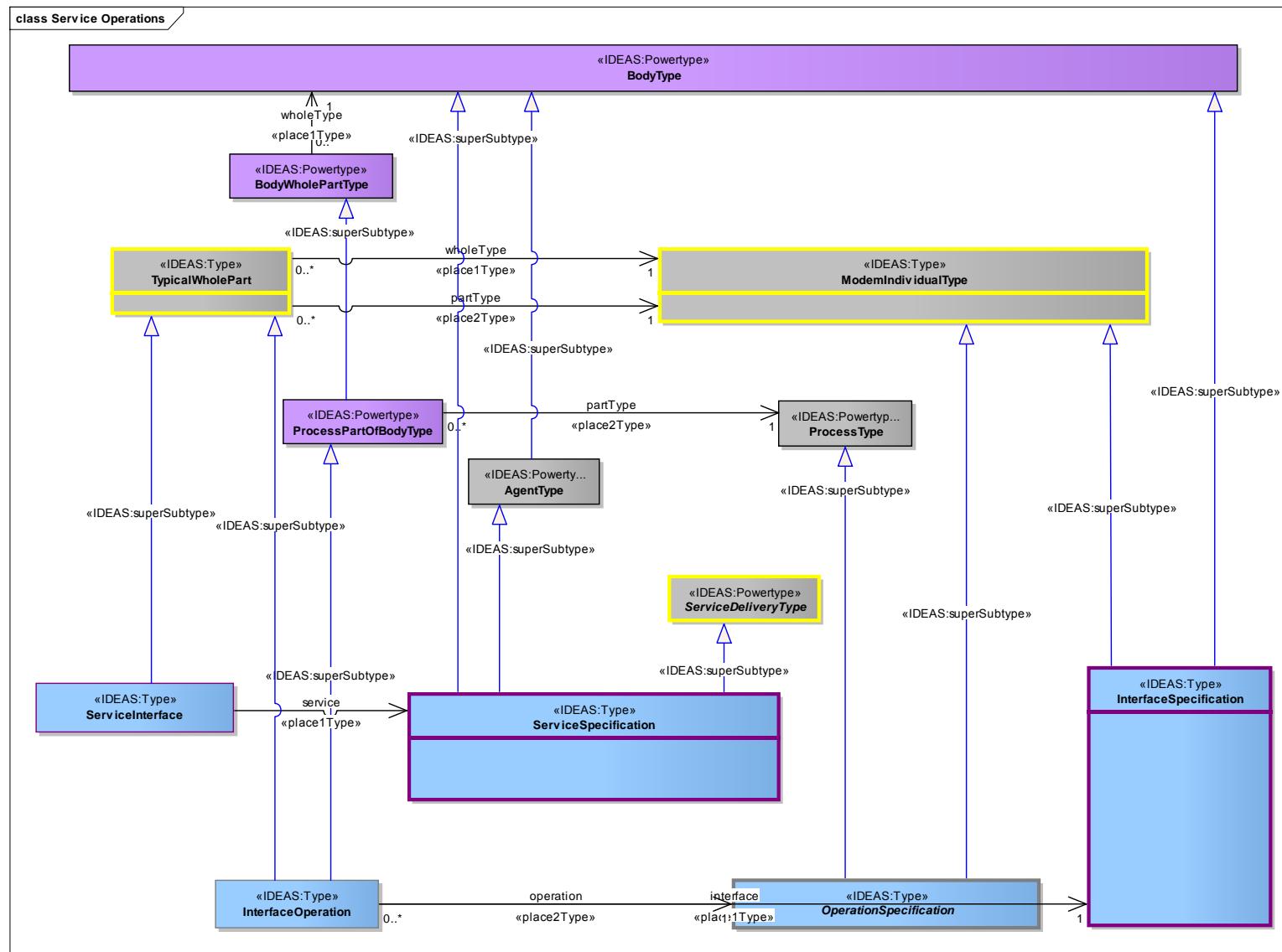


Figure 64 : Service Operations

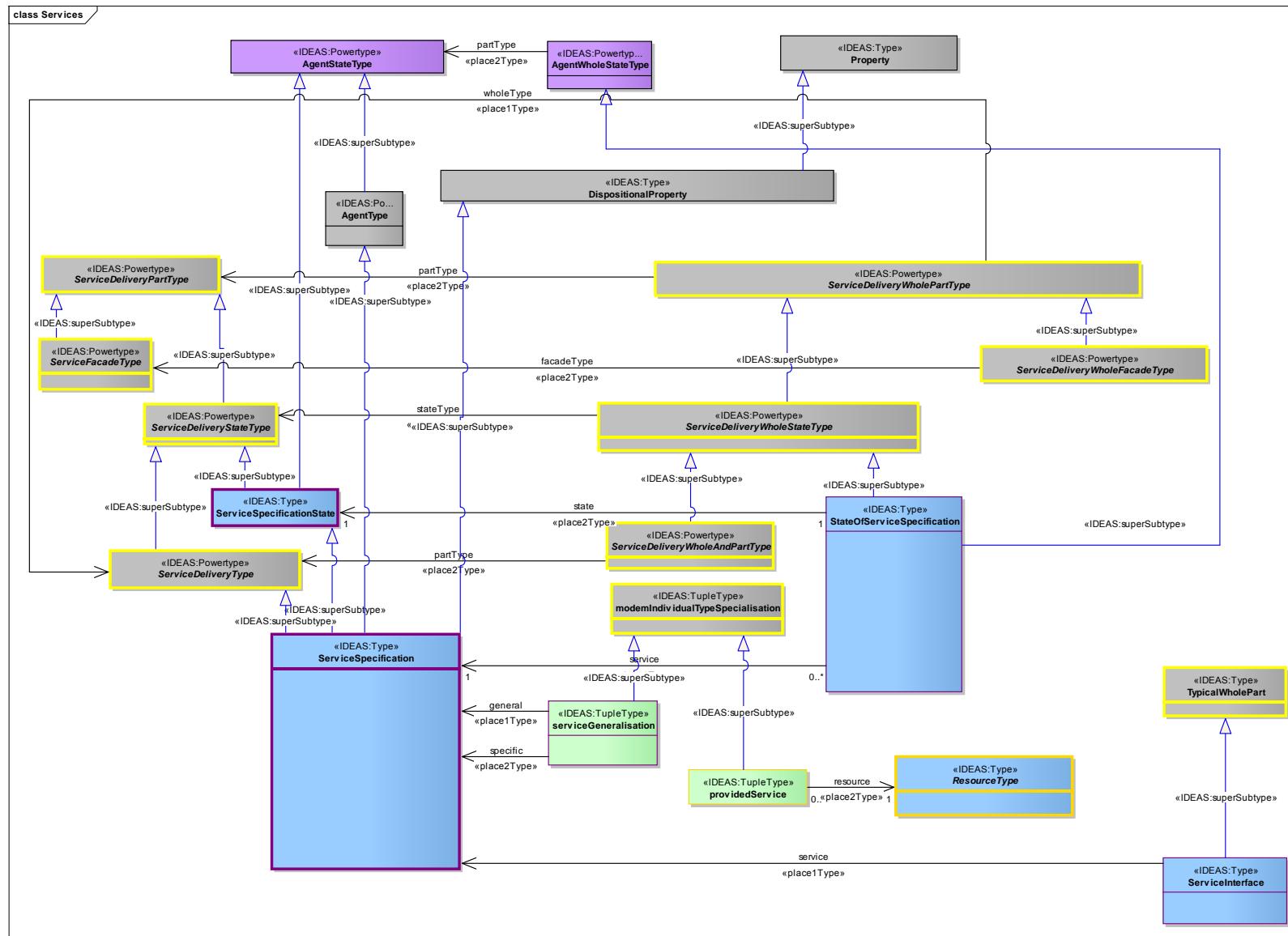


Figure 65 : Services

2.6 System views

2.6.1 SV-1: Resource interaction specification

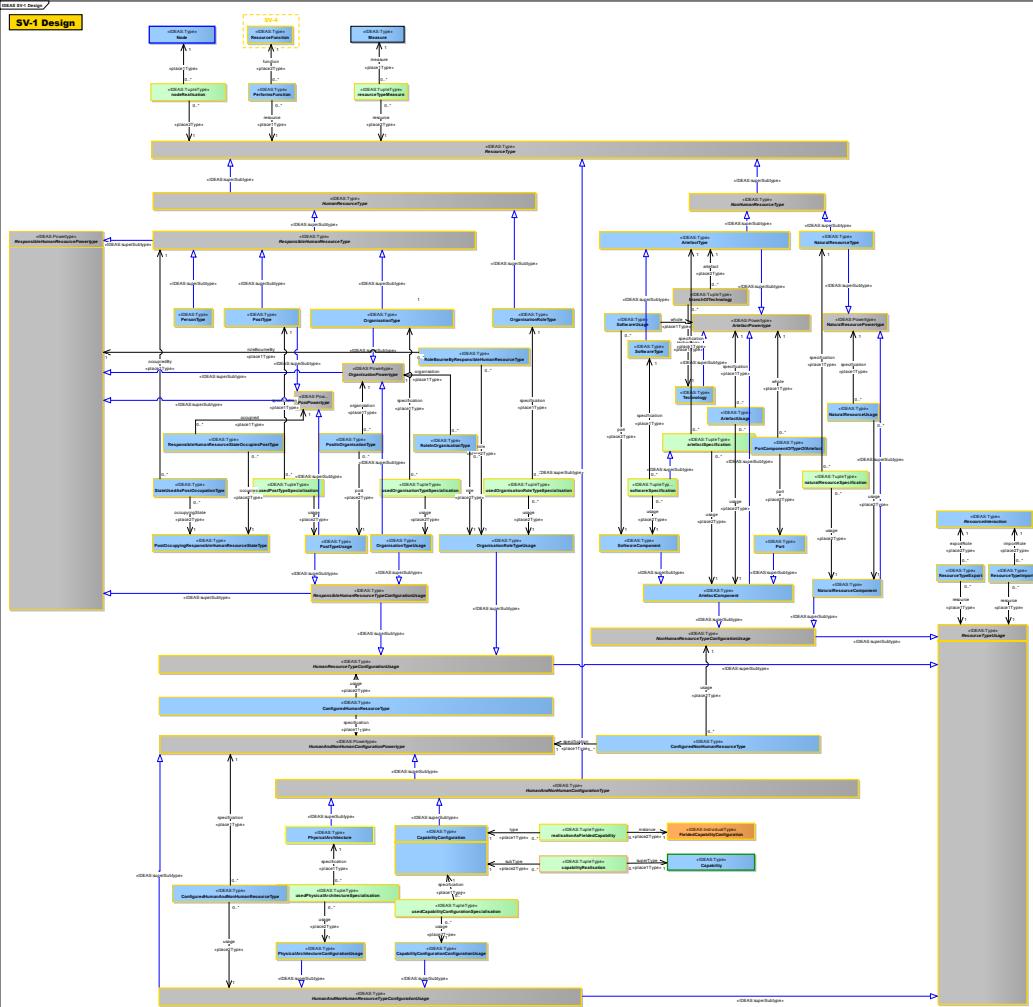


Figure 66 : SV-1 Design

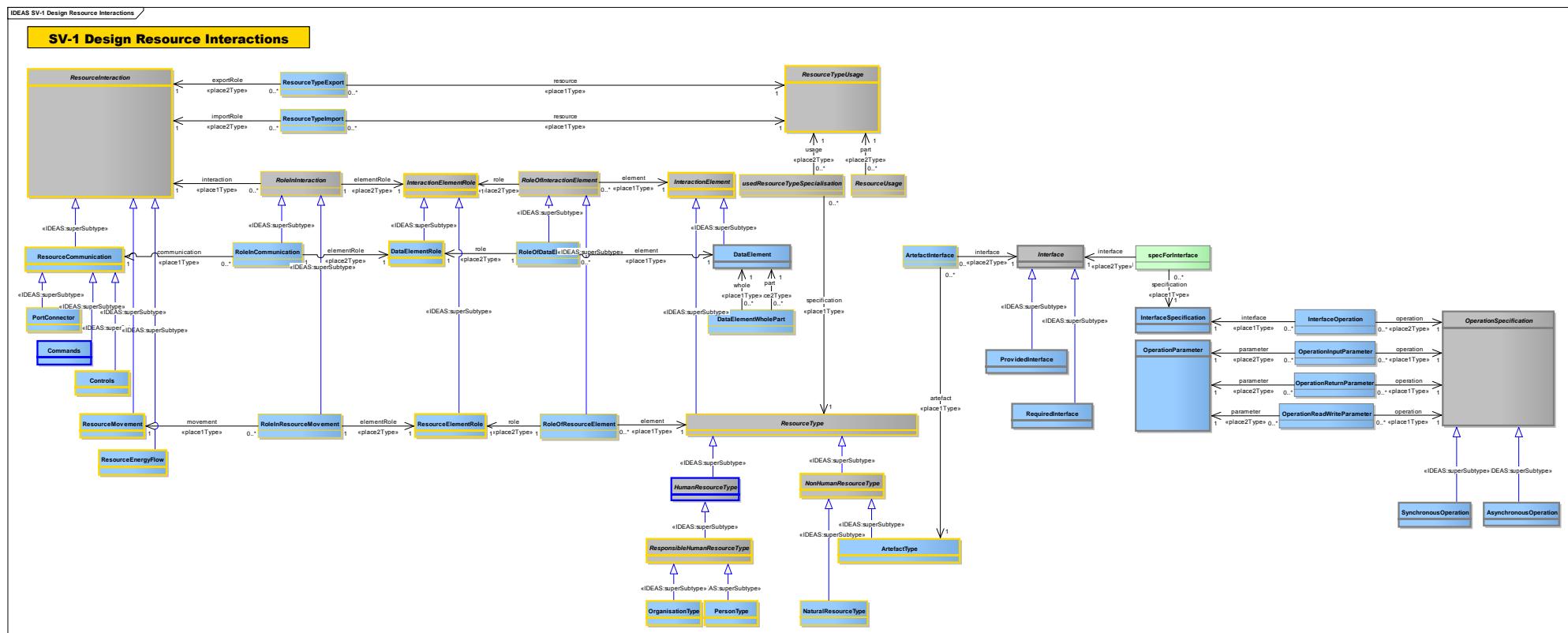


Figure 67 : SV-1 Design Resource Interactions

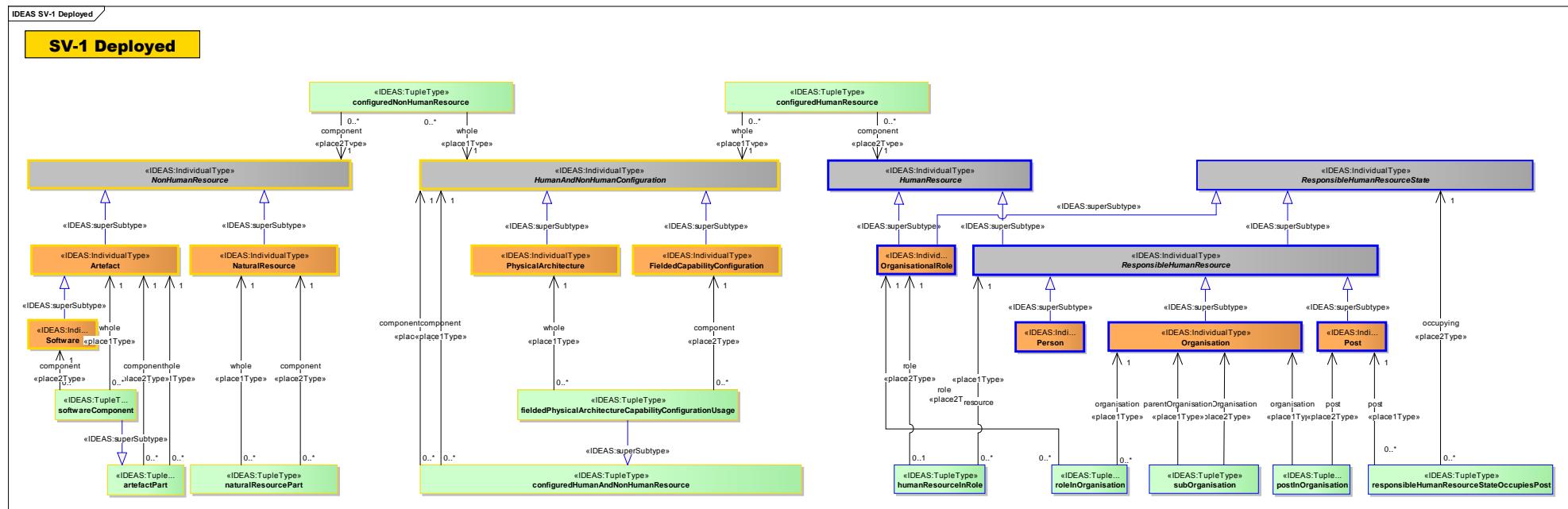


Figure 68 : SV-1 Deployed

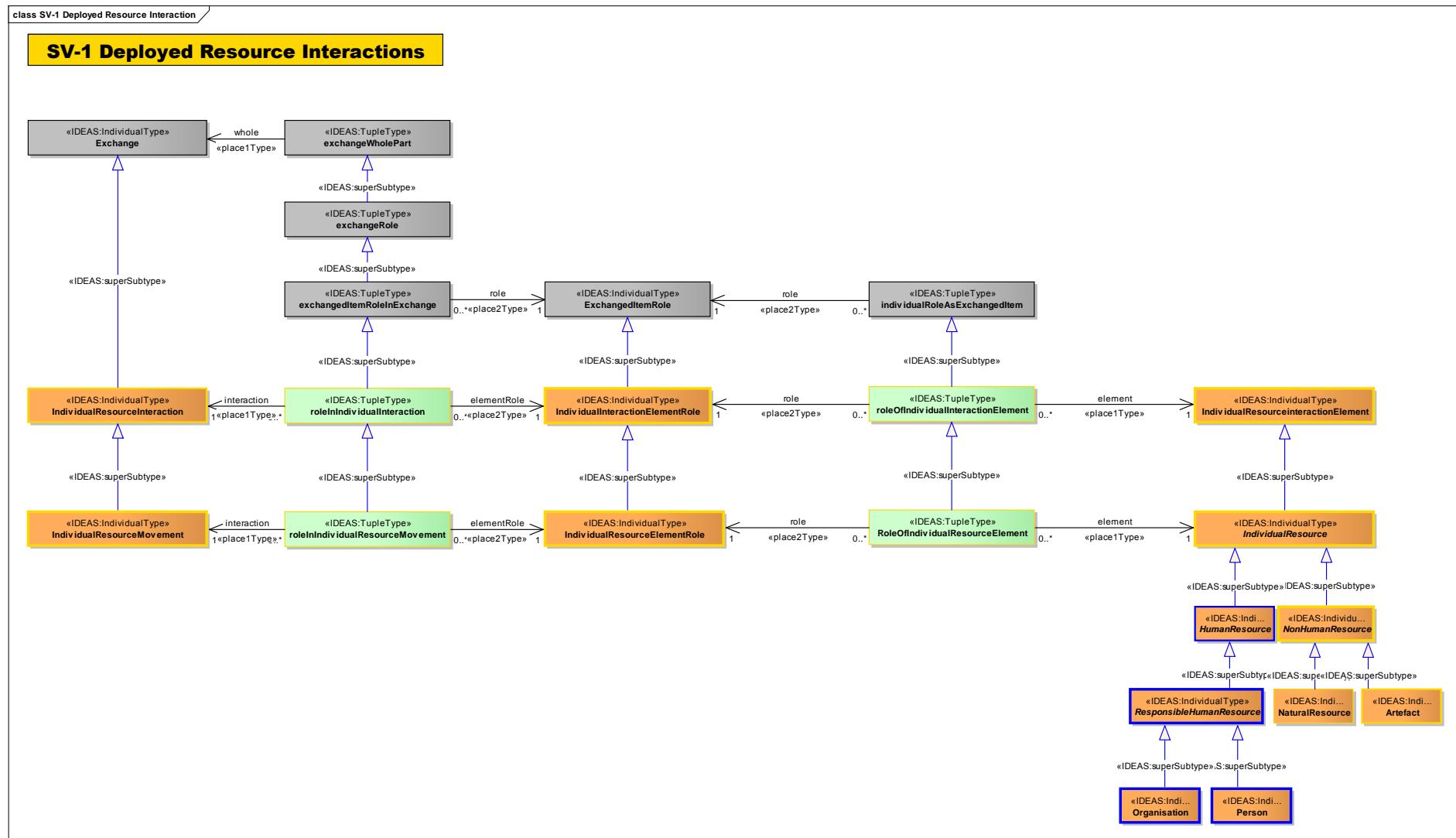


Figure 69 : SV-1 Deployed Resource Interaction

2.6.2 SV-2: System port specification, connectivity description and clusters

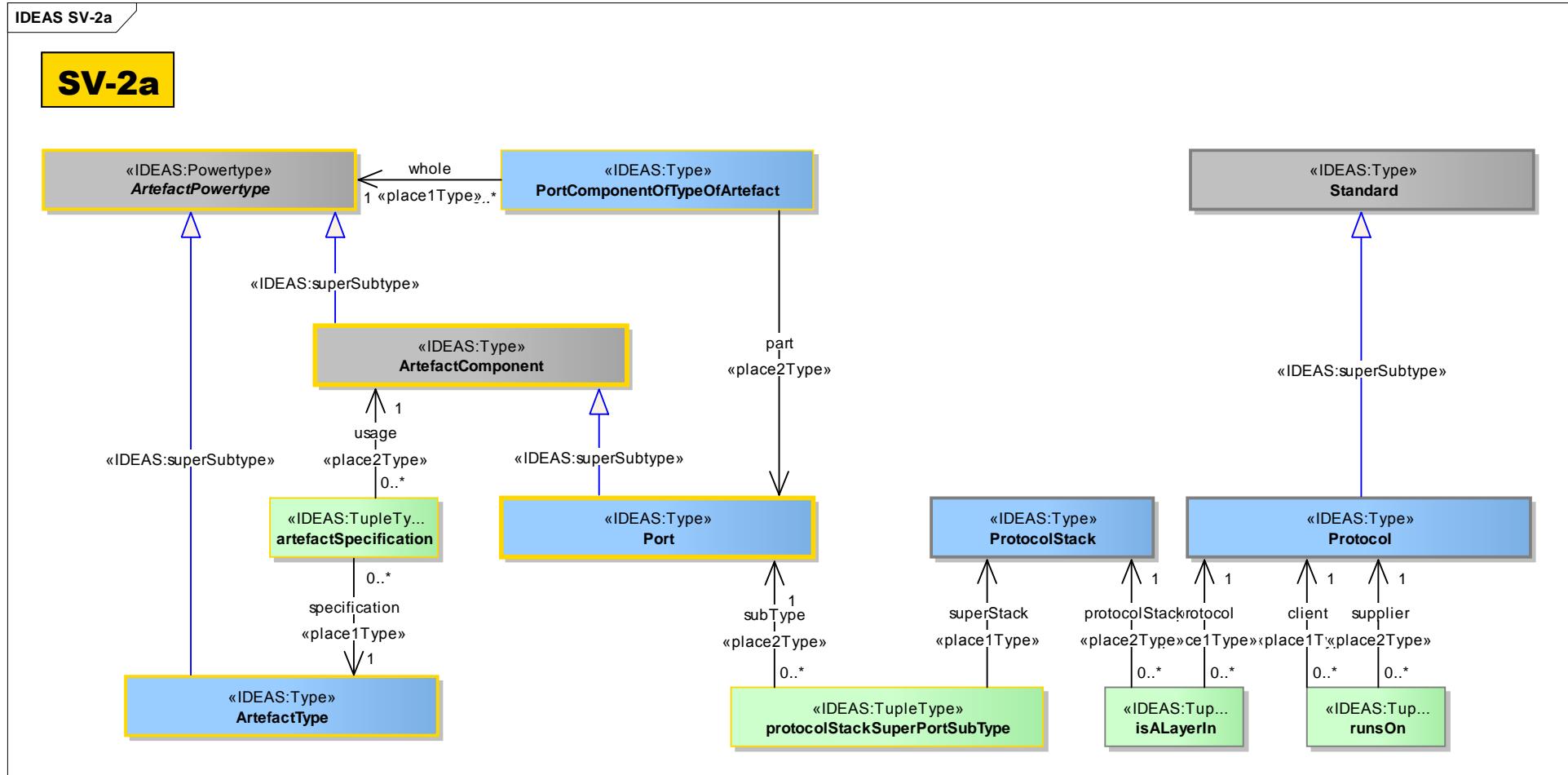


Figure 70 : SV-2a

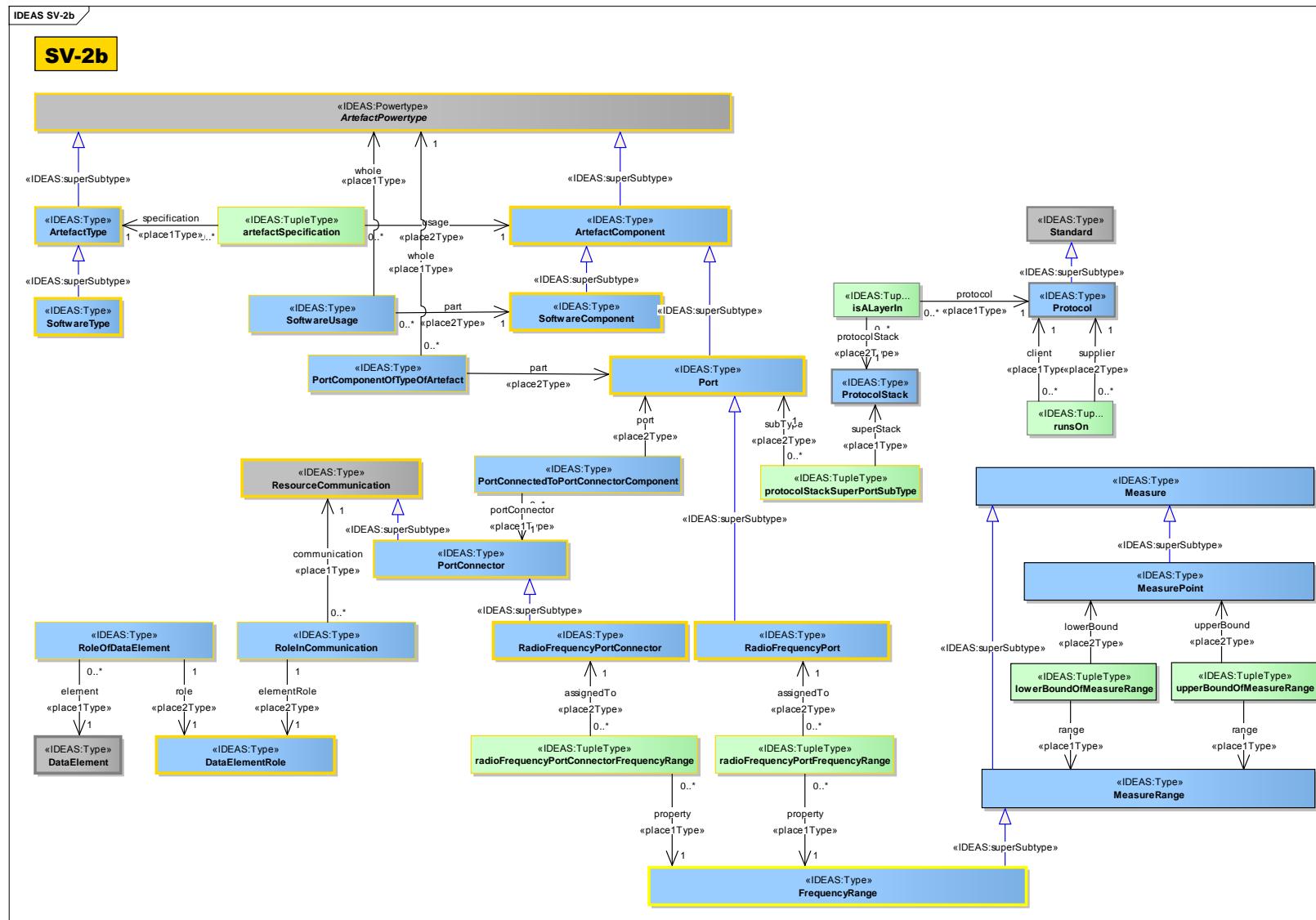


Figure 71 : SV-2b

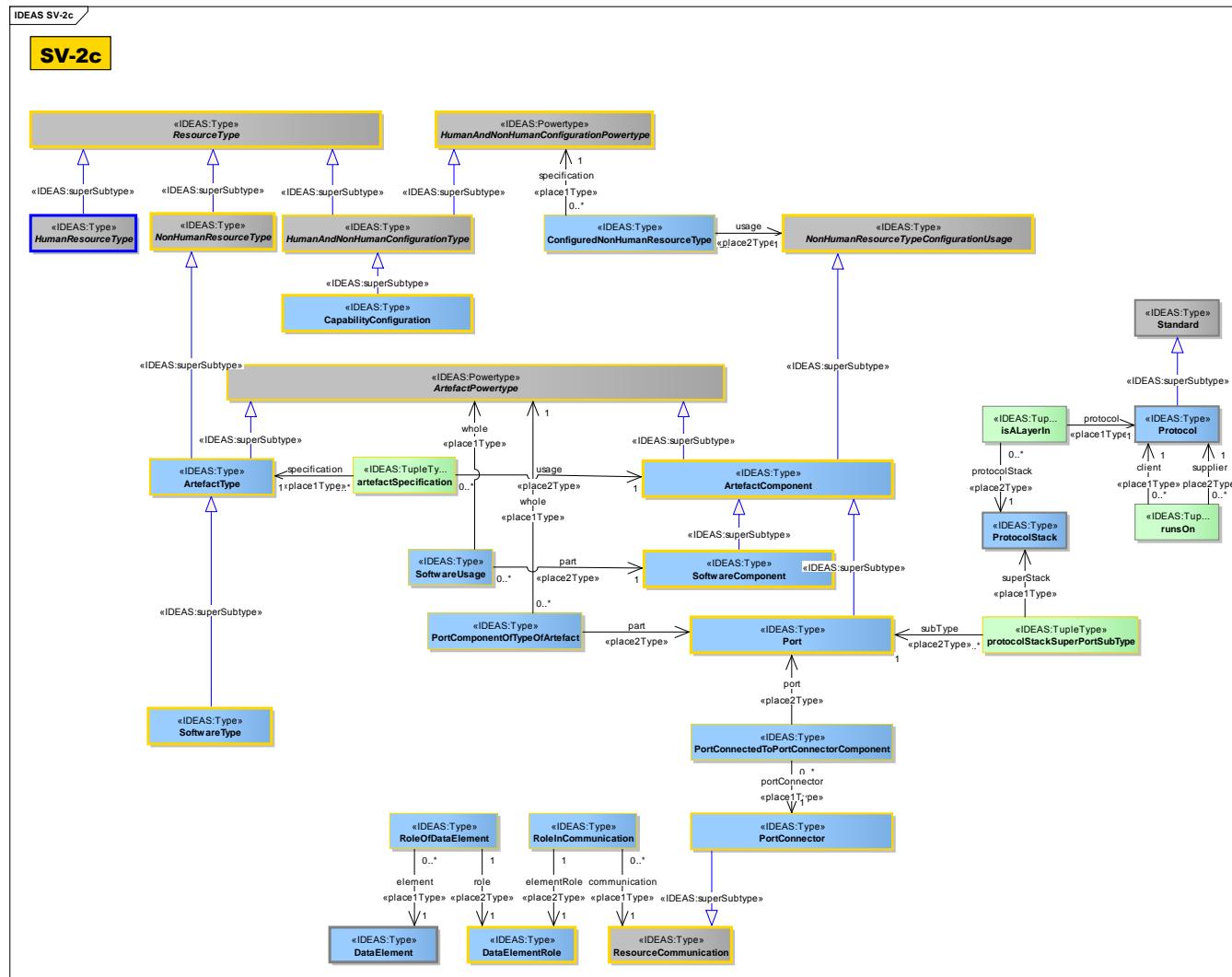


Figure 72 : SV-2c

2.6.3 SV-3: Resource interaction matrix

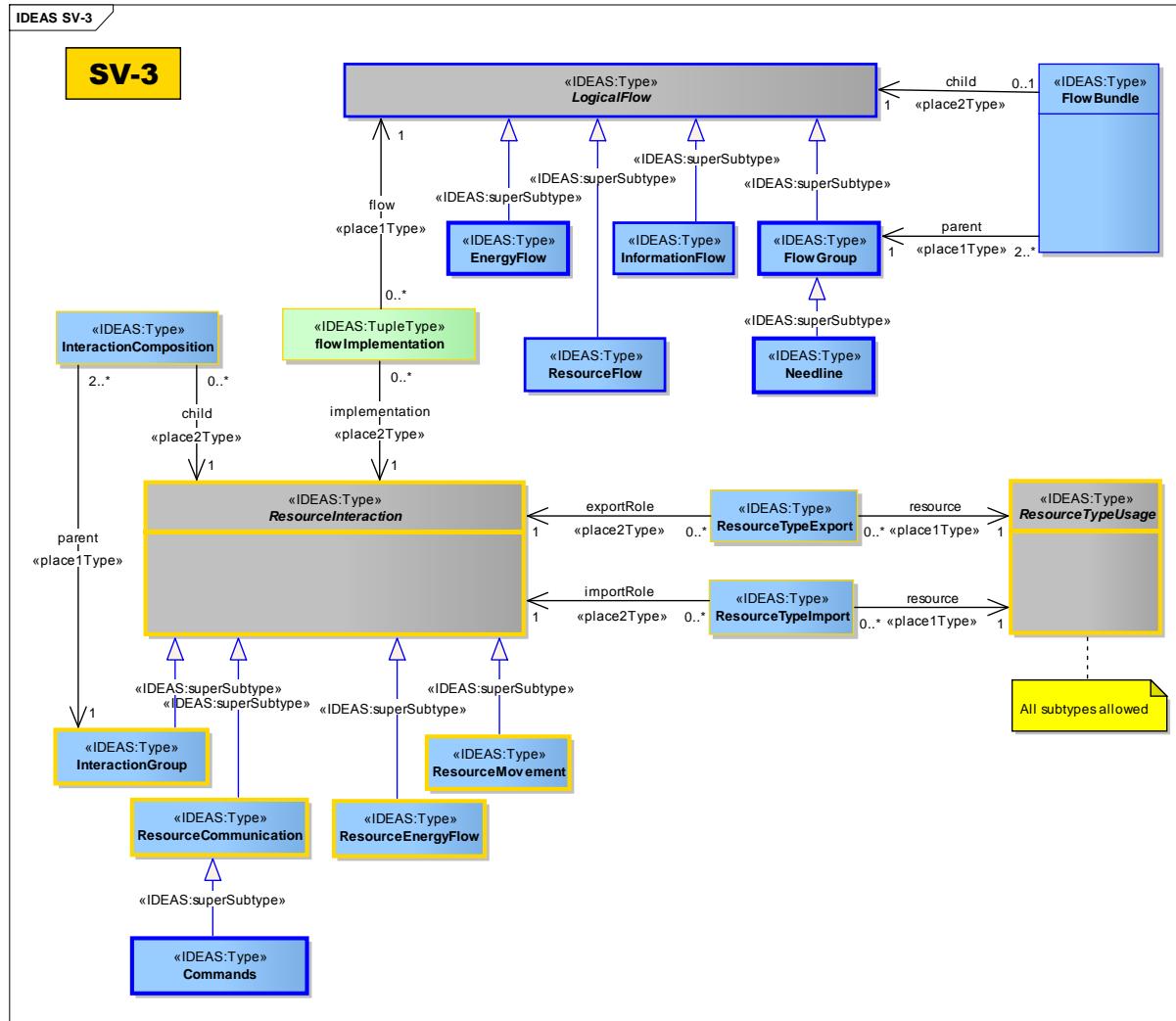


Figure 73 : SV-3

2.6.4 SV-4: Functionality description

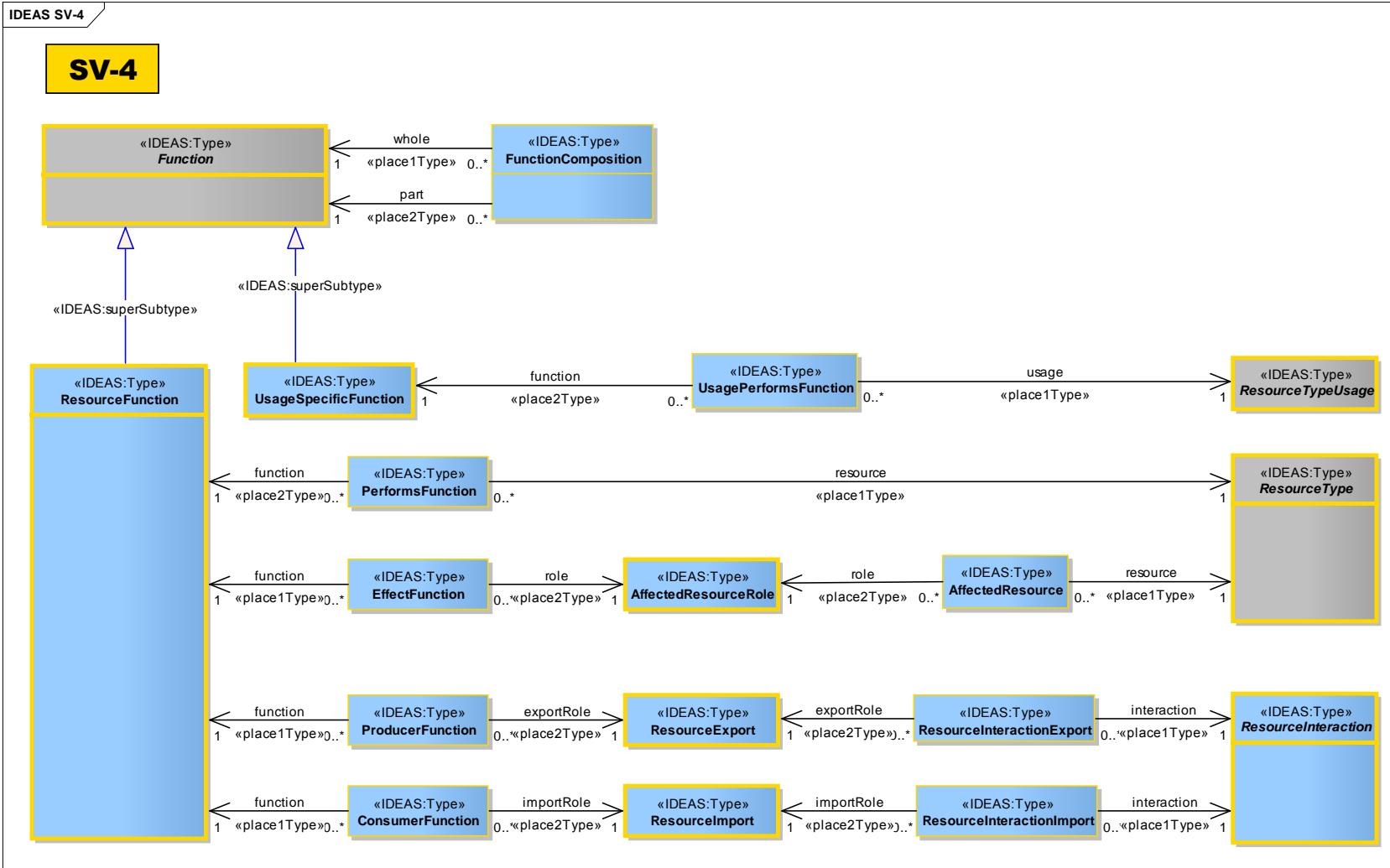


Figure 74 : SV-4

2.6.5 SV-5: Function operational activity/ service function traceability matrix

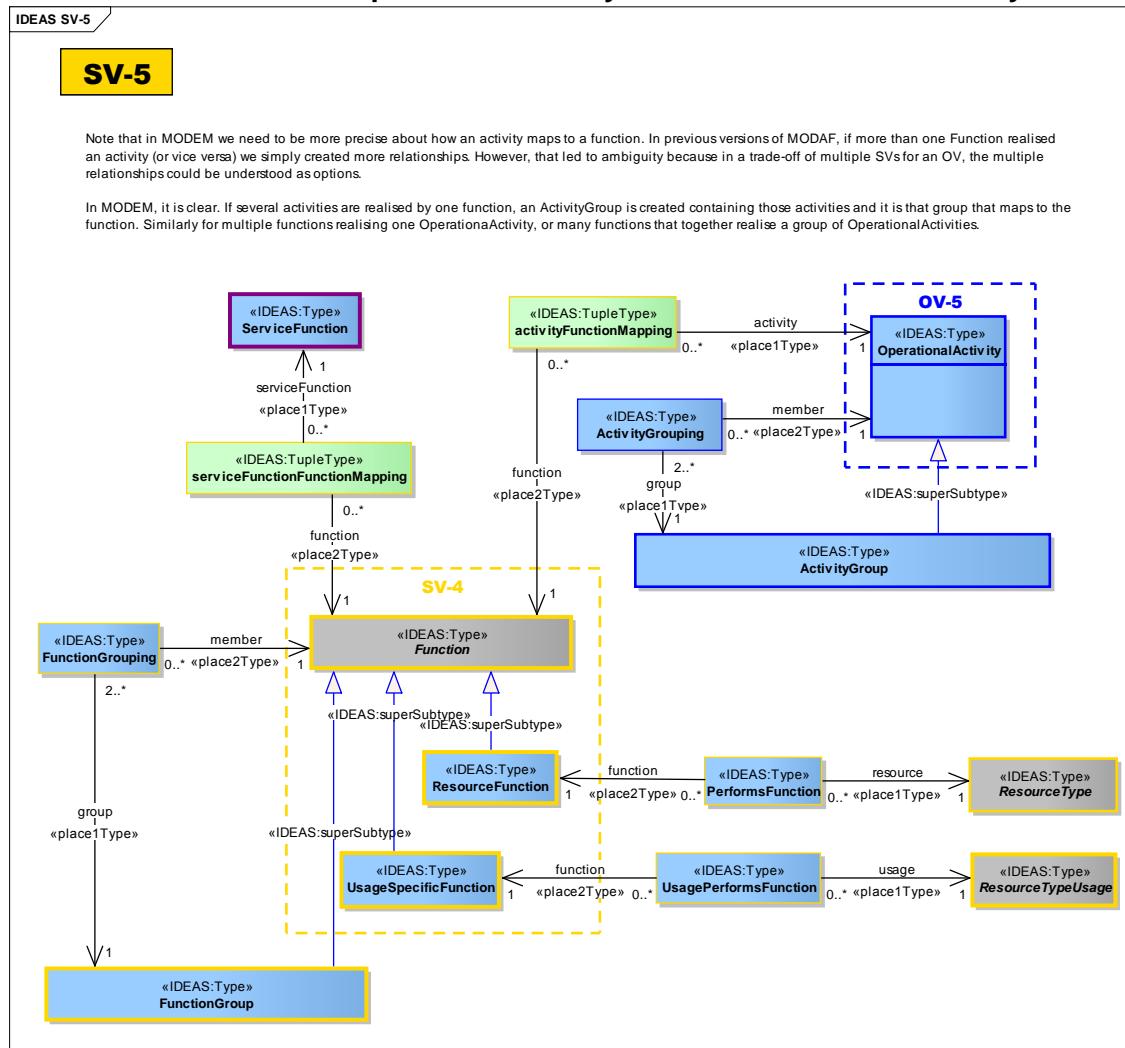


Figure 75 : SV-5

2.6.6 SV-6: Systems data exchange matrix

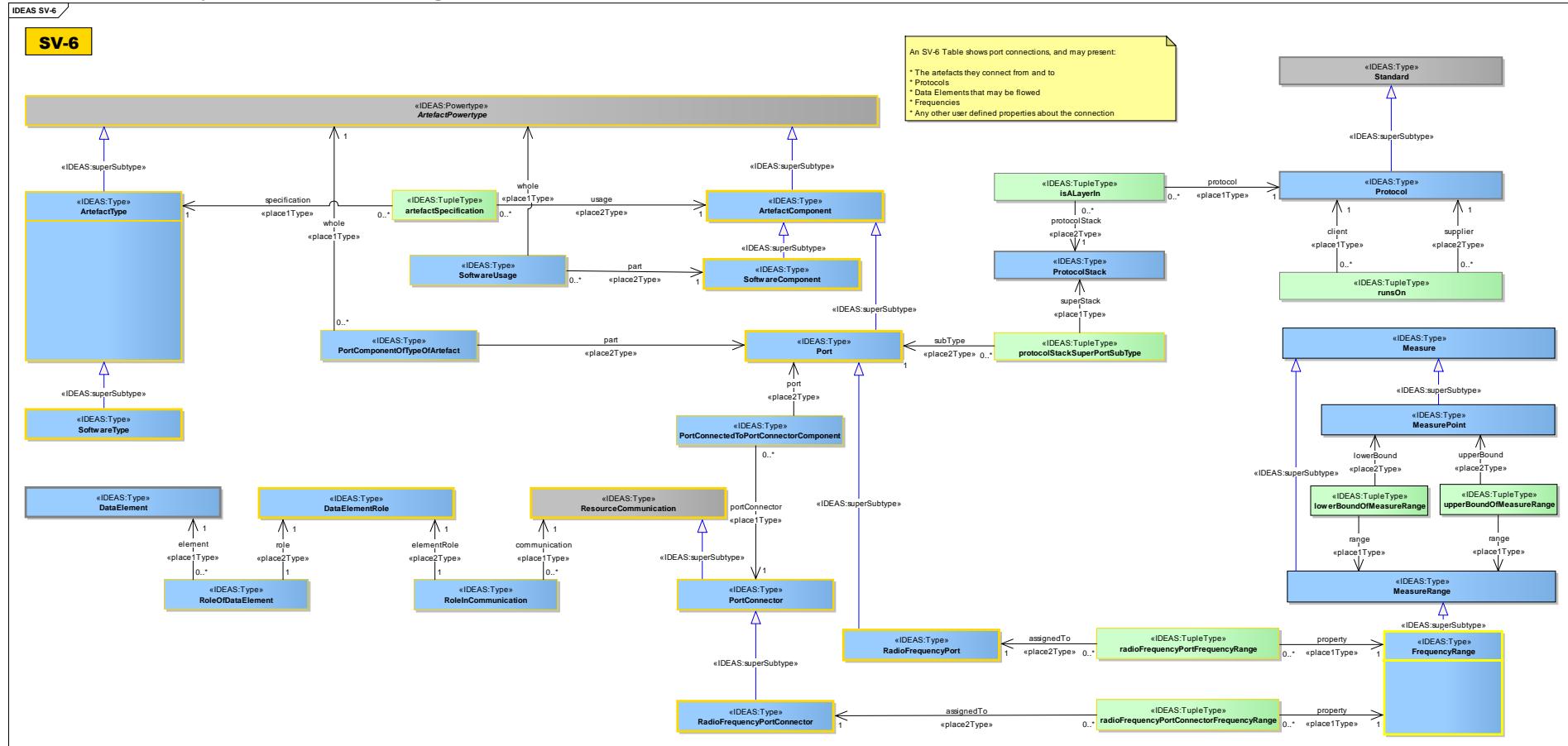


Figure 76 : SV-6

2.6.7 SV-7: Resource performance parameters matrix

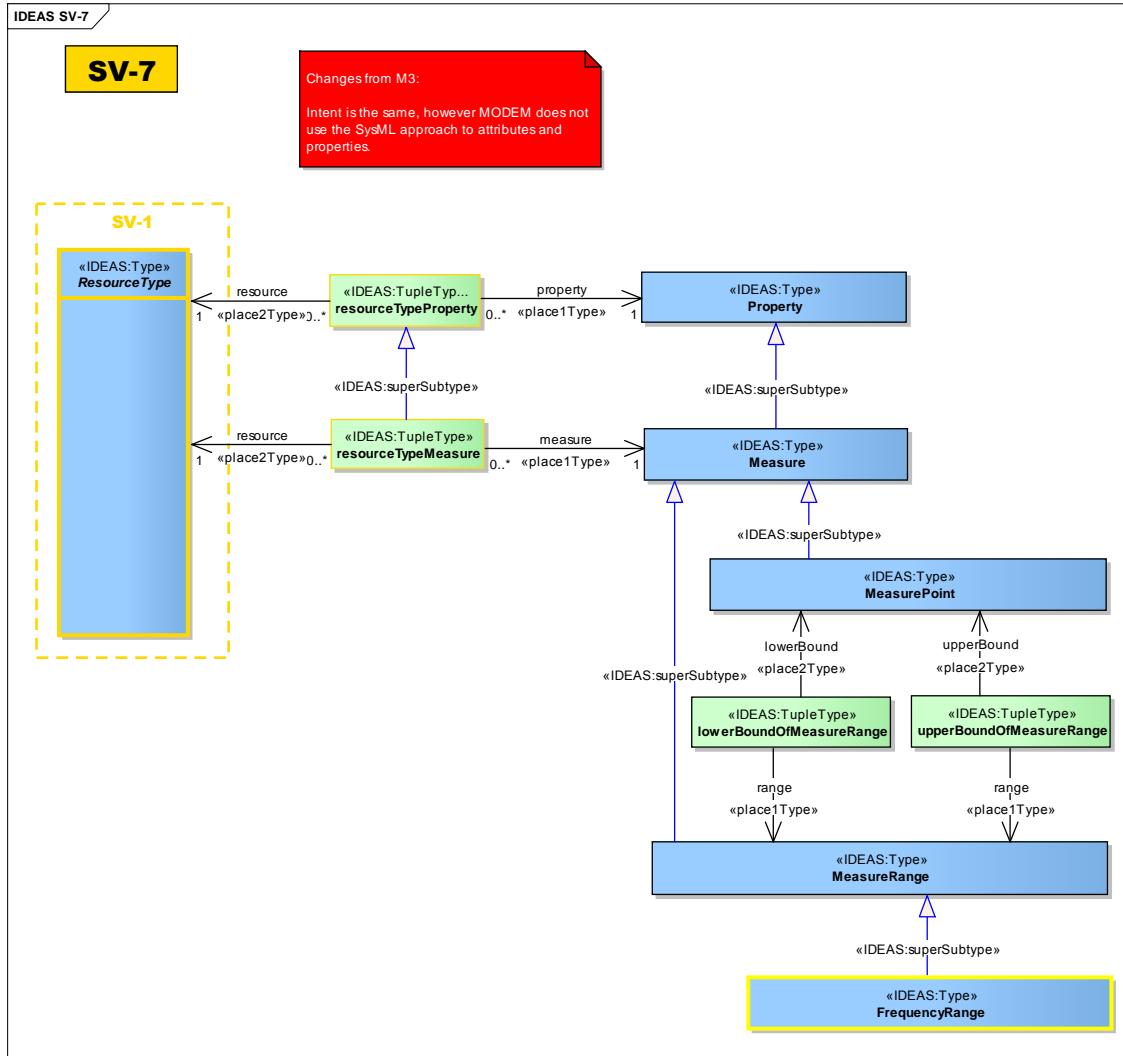


Figure 77 : SV-7

2.6.8 SV-8: Capability configuration management

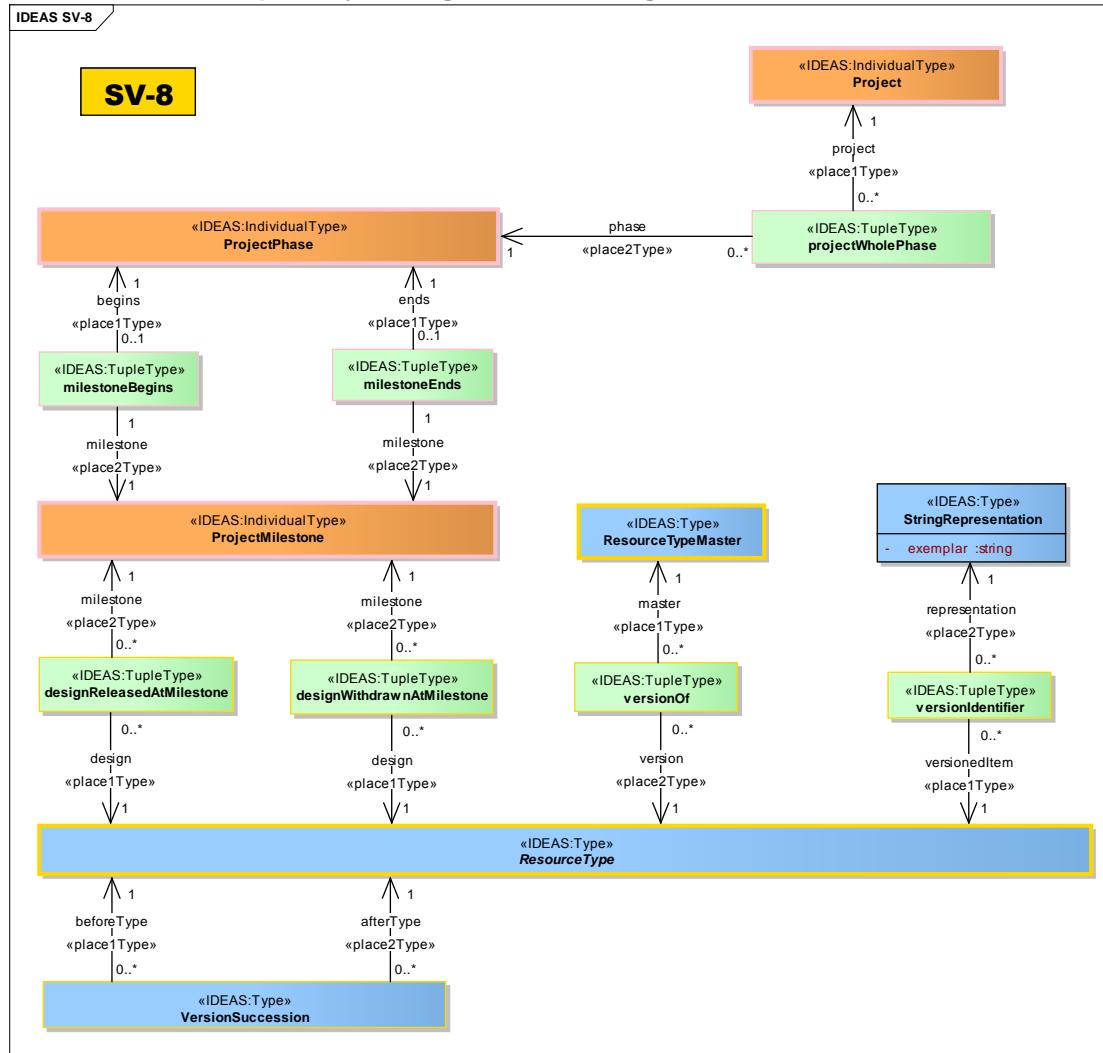


Figure 78 : SV-8

2.6.9 SV-9: Technology and skills forecast

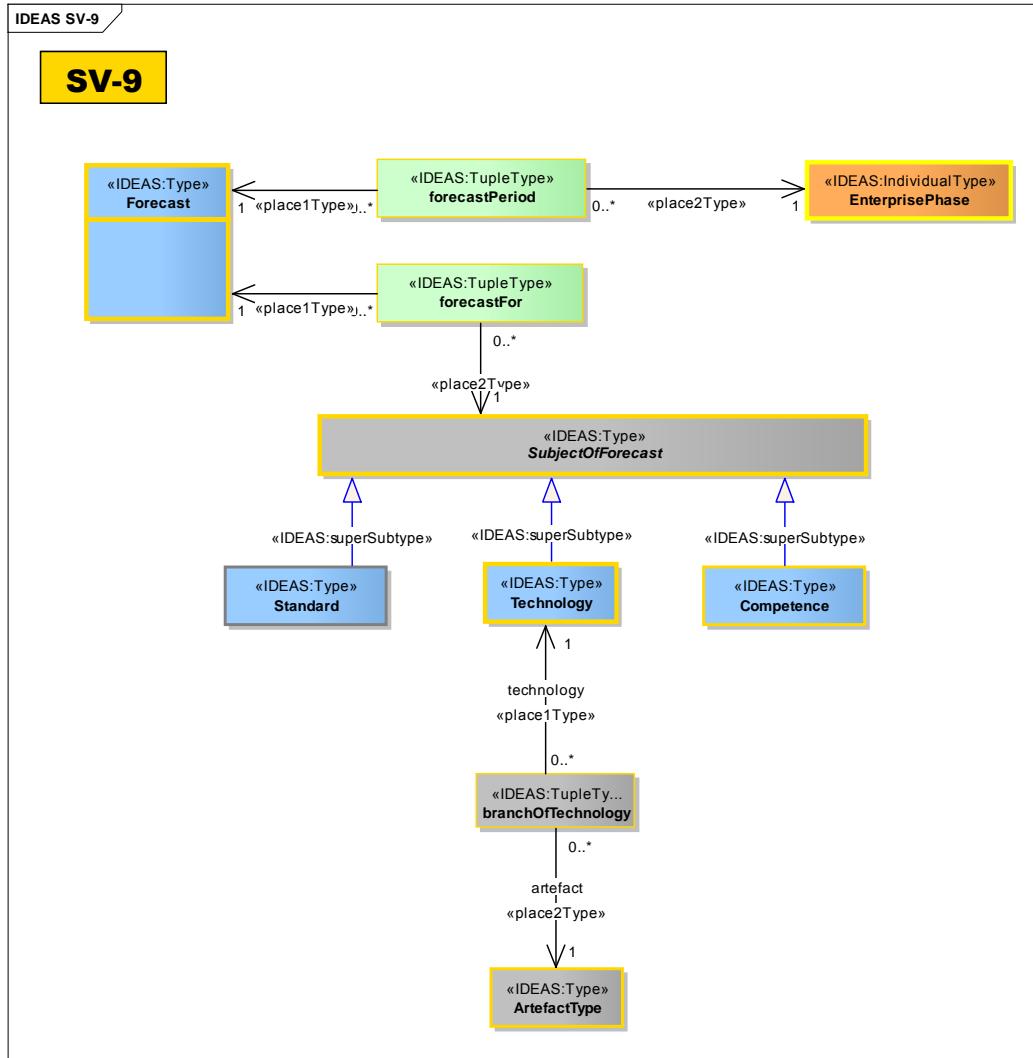


Figure 79 : SV-9

2.6.10 SV-10: Resource constraints, state transition and event-trace description

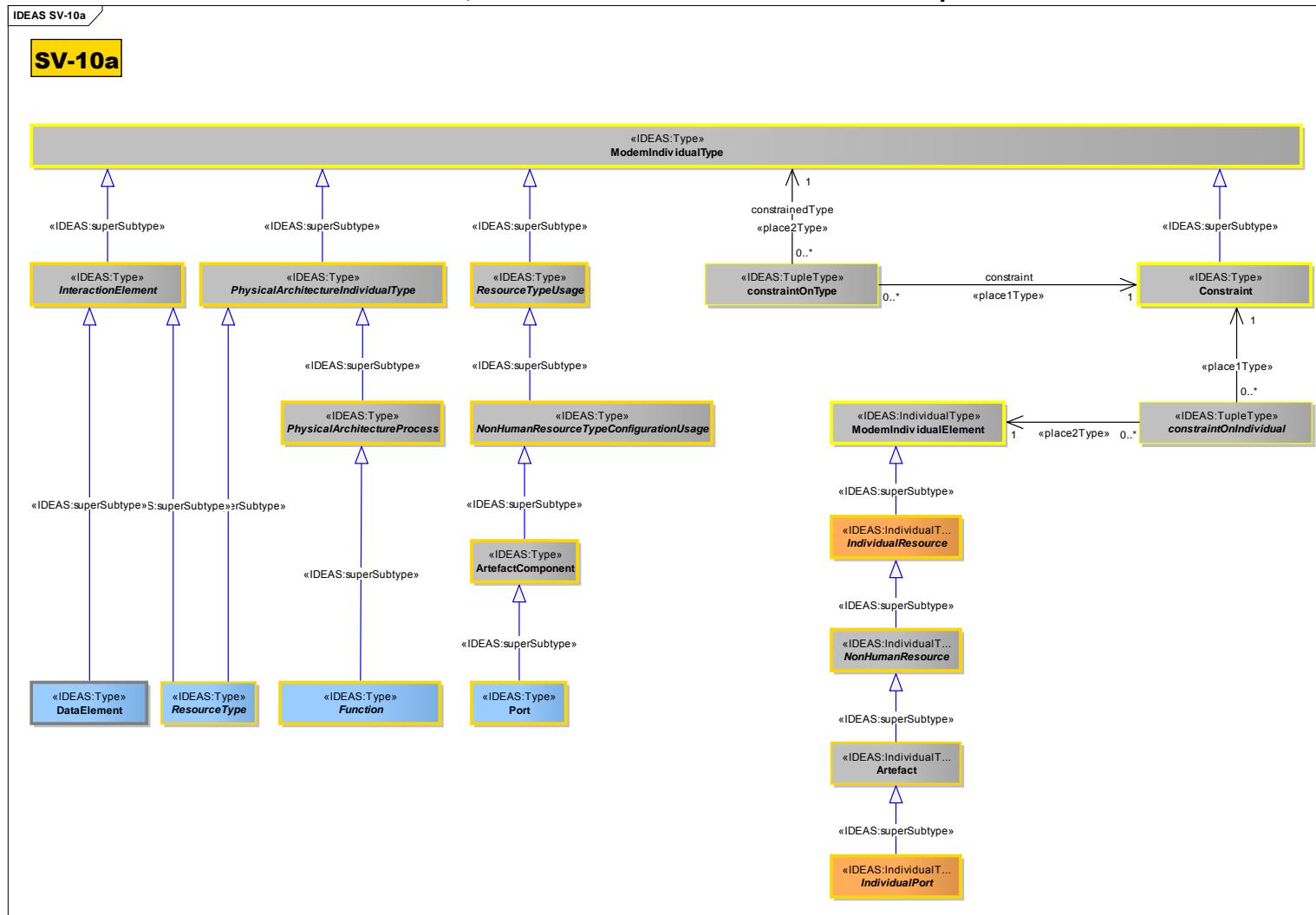


Figure 80 : SV-10a

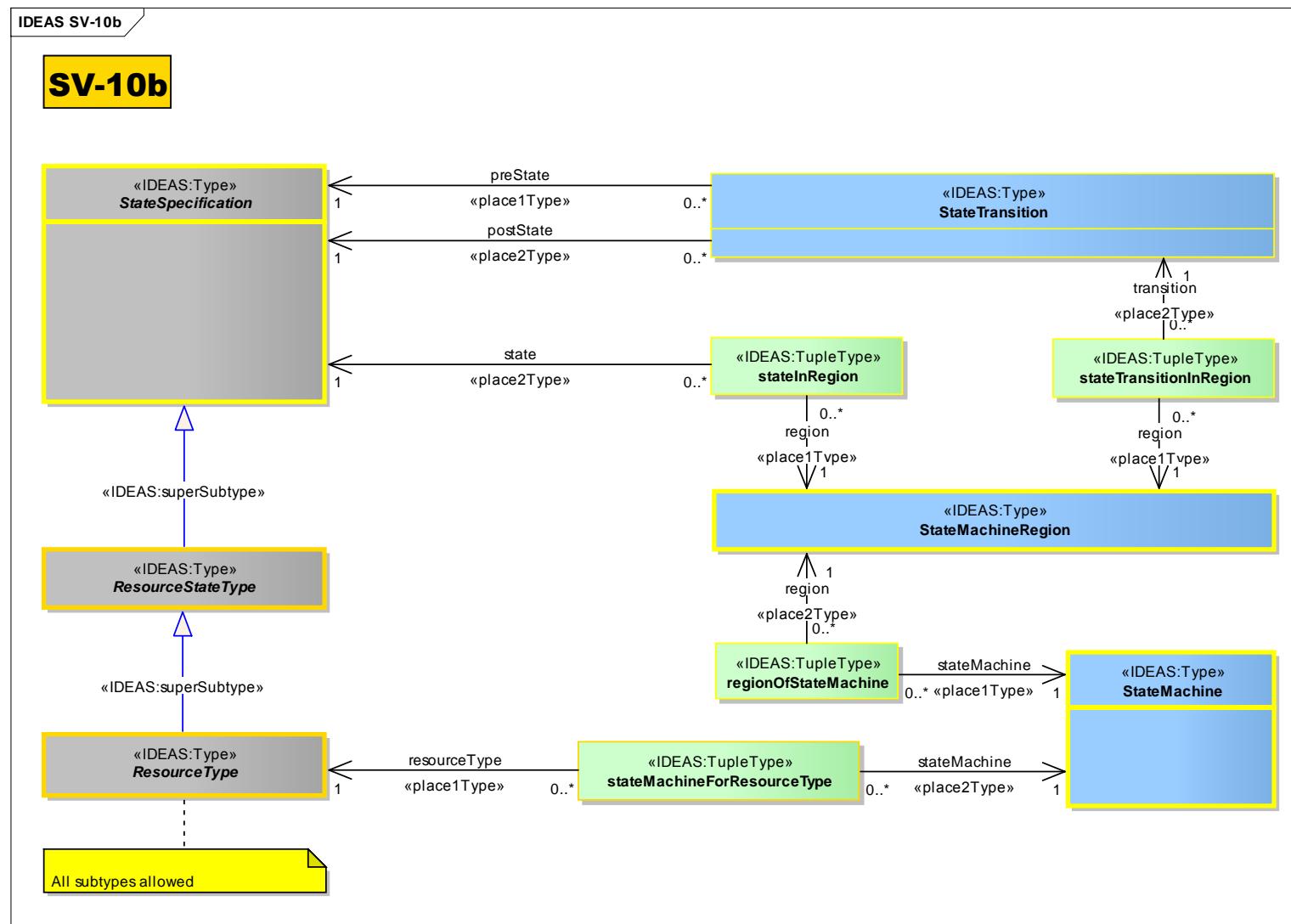


Figure 81 : SV-10b

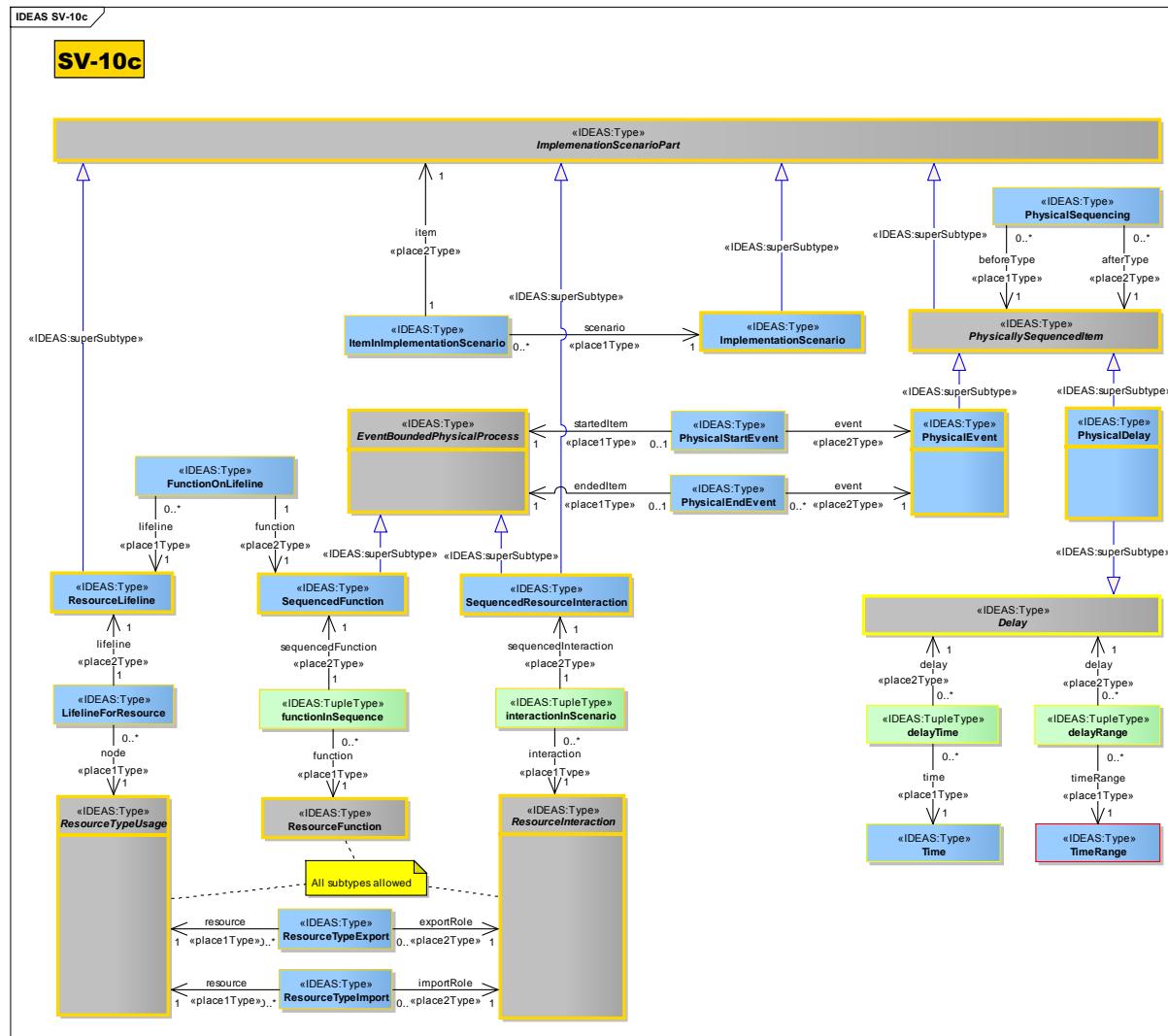


Figure 82 : SV-10c

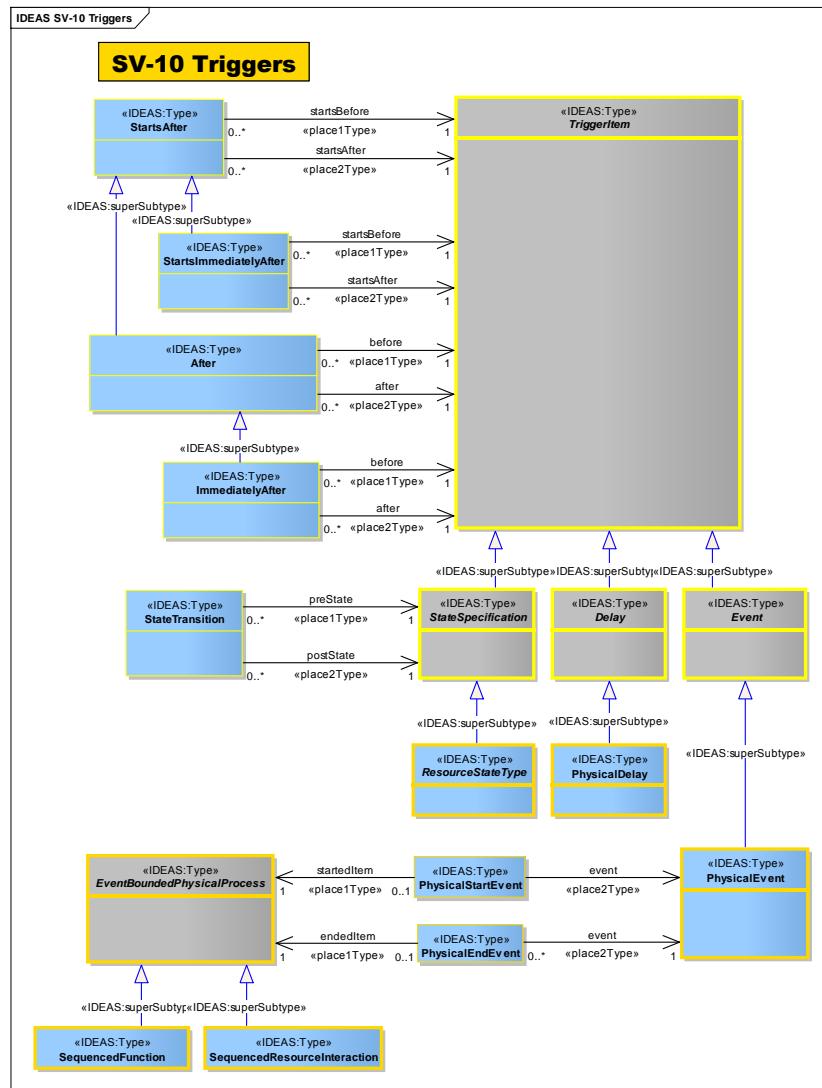


Figure 83 : SV-10 Triggers

2.6.11 SV-11: Physical schema

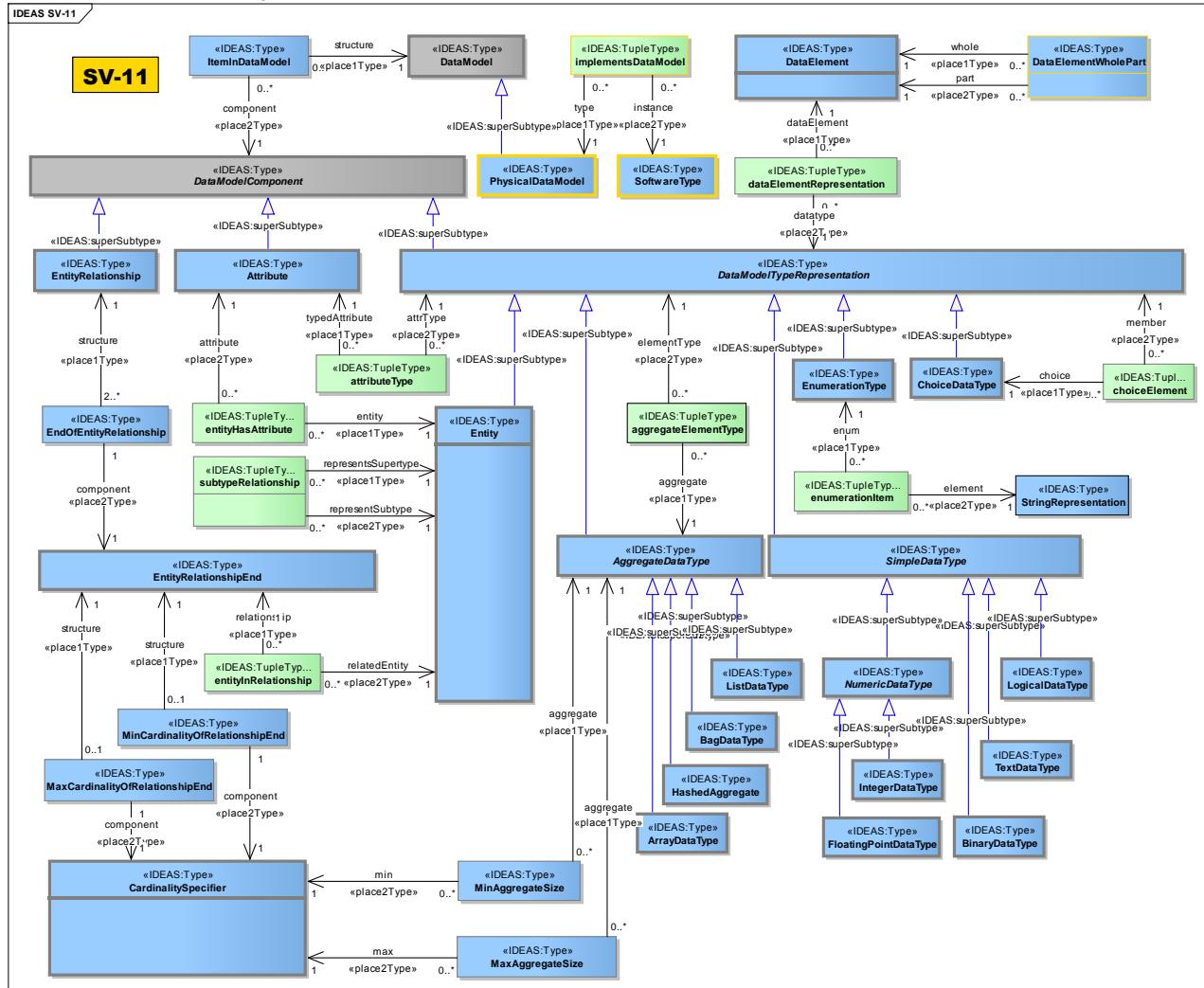


Figure 84 : SV-11

2.6.12 SV-12: Service provision and service composition

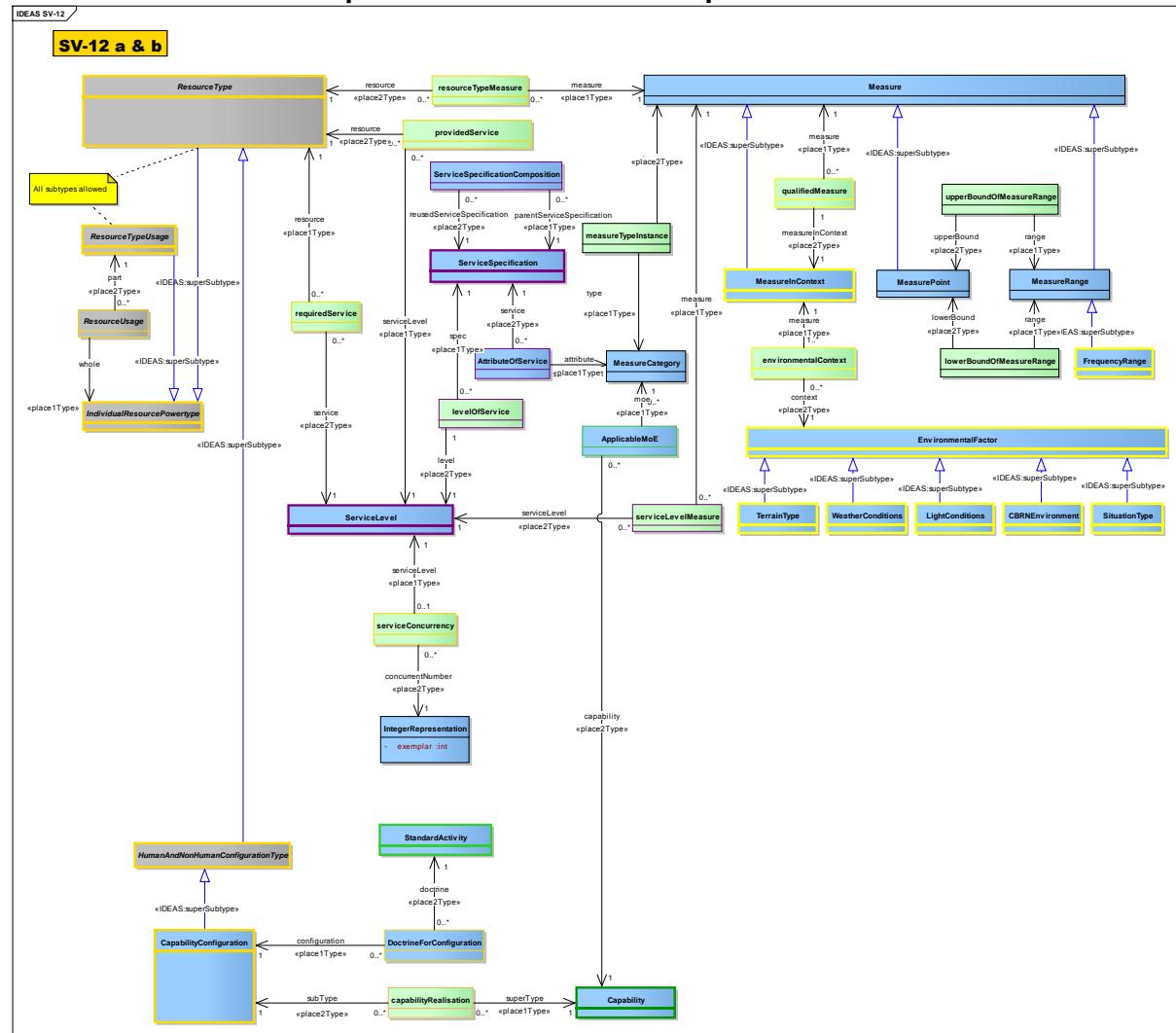


Figure 85 : SV-12

2.6.13 System Views elements list

System Views
AffectedResource «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> AffectedResource - IndividualRoleType <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> AffectedResource - TypicalWholePart <i>Association (source - target):«place1Type»</i> AffectedResource - ResourceType <i>Association (source - target):«place2Type»</i> AffectedResource - AffectedResourceRole <u>Attributes:</u> - An IndividualRoleType where the role extent is an AffectedResourceRole and the whole is a ResourceType.
AffectedResourceRole «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> AffectedResourceRole - RoleExtentType <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> AffectedResourceRole - ModemIndividualType <u>Attributes:</u> - A ModemIndividualType that is the role played by a ResourceType when it is acted upon by a Function.
Artefact «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> Artefact - NonHumanResource <i>Dependency (element - is instance of): «IDEAS:powertypeInstance»</i> Artefact - ArtefactPowertype <u>Attributes:</u> - An IndividualResource that is non-human and man-made. Examples are "car", "radio", "diesel", etc.
ArtefactComponent «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> ArtefactComponent - ArtefactPowertype <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> ArtefactComponent - NonHumanResourceTypeConfigurationUsage <u>Attributes:</u> - A NonHumanResourceTypeConfigurationUsage that is a type of Artefact that is used as a component of an ArtefactType.
ArtefactInterface «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of):«IDEAS:superSubtype»</i> ArtefactInterface - TypicalWholePart <i>Association (source - target):«place1Type»</i> ArtefactInterface - ArtefactType

Association (source - target):«place2Type»

ArtefactInterface - Interface

Attributes:

-
A TypicalWholePart that relates an ArtefactType to the Interface it provides or requires.

ArtefactType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArtefactType - ArtefactPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArtefactType - NonHumanResourceType

Attributes:

-
A type of man-made object. Examples are "car", "radio", "diesel", etc.

Note: It has no human components.

ArtefactUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ArtefactUsage - NonHumanResourceUsage

Association (source - target):«place1Type»

ArtefactUsage - ArtefactPowertype

Association (source - target):«place2Type»

ArtefactUsage - ArtefactComponent

Attributes:

-
A NonHumanResourceUsage that asserts a ArtefactComponent is used by an ArtefactType.

CapabilityConfiguration «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityConfiguration - HumanAndNon-HumanConfigurationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityConfiguration - FieldedCapabilityConfigurationPowertype

Attributes:

-
A composite structure representing the physical and human resources (and their interactions) that when brought together provide one or more Capabilities. A CapabilityConfiguration is a set of Resources configured to provide a capability, and should be guided by [doctrine] which may take the form of Standard or OperationalConstraint stereotypes.

CapabilityConfigurationConfigurationUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityConfigurationConfigurationUsage - HumanAndNonHumanResourceTypeConfigurationUsage

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapabilityConfigurationConfigurationUsage - FieldedCapabilityConfigurationPowertype

Attributes:

-
A HumanAndNonHumanResourceTypeConfigurationUsage that is a type of CapabilityConfiguration.

Competence «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Competence - ResponsibleHumanResourceStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Competence - SubjectOfForecast

Attributes:

- A ResponsibleHumanResourceStateType where each instance is a state of a ResponsibleHumanResource that possesses a specific set of abilities defined by knowledge, skills and attitude.

ConfiguredHumanAndNonHumanResourceType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConfiguredHumanAndNonHumanResourceType - HumanAndNonHumanConfigurationTypeResourceUsage

Association (source - target): «place1Type»

ConfiguredHumanAndNonHumanResourceType - HumanAndNonHumanConfigurationPowertype

Association (source - target): «place2Type»

ConfiguredHumanAndNonHumanResourceType - HumanAndNonHumanResourceTypeConfigurationUsage

Attributes:

- A resourceUsage that asserts that a state of a type of HumanAndNonHumanResouce is typically a component of a HumanAndNonHumanConfigurationType.

ConfiguredHumanResourceType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConfiguredHumanResourceType - HumanAndNonHumanConfigurationTypeResourceUsage

Association (source - target): «place1Type»

ConfiguredHumanResourceType - HumanAndNonHumanConfigurationPowertype

Association (source - target): «place2Type»

ConfiguredHumanResourceType - HumanResourceTypeConfigurationUsage

Attributes:

- A resourceUsage that asserts that a state of a type of HumanResouce is typically a component of a HumanAndNonHumanConfigurationType.

ConfiguredNonHumanResourceType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConfiguredNonHumanResourceType - HumanAndNonHumanConfigurationTypeResourceUsage

Association (source - target): «place1Type»

ConfiguredNonHumanResourceType - HumanAndNonHumanConfigurationPowertype

Association (source - target): «place2Type»

ConfiguredNonHumanResourceType - NonHumanResourceTypeConfigurationUsage

Attributes:

- A resourceUsage that asserts that a state of a type of NonHumanResouce is typically a component of a HumanAndNonHumanConfigurationType.

ConsumerFunction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConsumerFunction - ModemWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ConsumerFunction - IndividualExchangeRoleType

Association (source - target): «place1Type»

ConsumerFunction - Function

Association (source - target): «place2Type»

ConsumerFunction - ResourceImport

Attributes:

-

An IndividualExchangeRoleType where the role is a ResourceImport and the consumer is a Function.

Controls «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Controls - ResourceCommunication

Attributes:

-

A ResourceCommunication where one InteractionElement controls another.

DataElementRole «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

DataElementRole - InteractionElementRole

Attributes:

-

An InteractionElementRole where the element is a DataElement.

DataElementWholePart «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

DataElementWholePart - TypicalWholePart

Association (source - target):«place2Type»

DataElementWholePart -DataElement

Association (source - target):«place1Type»

DataElementWholePart - DataElement

Attributes:

-

A TypicalWholePart where one DataElement is a part of another.

DoctrineForConfiguration «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

DoctrineForConfiguration - ModemWholePartType

Association (source - target):«place1Type»

DoctrineForConfiguration - CapabilityConfiguration

Association (source - target):«place2Type»

DoctrineForConfiguration - StandardActivity

Attributes:

-

A ModemWholePartType that asserts a StandardActivity is part of a CapabilityConfiguration - i.e. in order to deliver the Capability, the configuration must follow doctrinal processes.

EffectFunction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

EffectFunction - ProcessWholeRoleExtentPartType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

EffectFunction - TypicalWholePart

Association (source - target):«place1Type»

EffectFunction - ResourceFunction

Association (source - target):«place2Type»

EffectFunction - AffectedResourceRole

Attributes:

-

A TypicalWholePart that relates a ResourceFunction to the AffectedResourceRole played by a ResourceType when acted upon by the ResourceFunction.

EventBoundedPhysicalProcess «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EventBoundedPhysicalProcess - PhysicalArchitectureProcess

Attributes:

-

A PhysicalArchitectureProcess that can have PhysicalEvents marking its start and end points.

FieldedCapabilityConfiguration «IDEAS:IndividualType»*Connectors:*

Dependency (element - is instance of):«IDEAS:powertypeInstance»

FieldedCapabilityConfiguration - FieldedCapabilityConfigurationPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FieldedCapabilityConfiguration - HumanAndNon-HumanConfiguration

Attributes:

-

An actual, fully-realised capability. A FieldedCapability must indicate its configuration (HumanAndNon-HumanConfiguration). Example: "HMS Iron Duke, configured and crewed, operating under the appropriate doctrine". Note - the CapabilityConfiguration that this realises would specify a UK Type 23 Frigate, the crew, the weapons systems, etc. Note: was called FieldedCapability in M3

FieldedCapabilityConfigurationPowertype «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

FieldedCapabilityConfigurationPowertype - HumanAndNonHumanConfigurationPowertype

Attributes:

-

The powertype of FieldedCapabilityConfiguration.

Forecast «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Forecast - ModemIndividualType

Attributes:

-

A ModemIndividualType that is the forecasted future states of one or more SubjectOfForecasts for the forecast period.

Function «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Function - PhysicalArchitectureProcess

Attributes:

-
A PhysicalArchitectureProcess that is either carried out by a ResourceType or a ResourceTypeUsage.

FunctionComposition «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FunctionComposition - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FunctionComposition - ProcessWholeAndPartType

Association (source - target): «place2Type»

FunctionComposition - Function

Association (source - target): «place1Type»

FunctionComposition - Function

Attributes:

-
A TypicalWholePart that relates a parent (whole) Function to its child (part) Function.

FunctionGroup «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FunctionGroup - Function

Attributes:

-
A Function that is entirely composed of other Functions

FunctionGrouping «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FunctionGrouping - FunctionComposition

Association (source - target): «place1Type»

FunctionGrouping - FunctionGroup

Association (source - target): «place2Type»

FunctionGrouping - Function

Attributes:

-
A FunctionComposition where the parent is a FunctionGroup.

FunctionOnLifeline «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FunctionOnLifeline - TypicalWholePart

Association (source - target): «place2Type»

FunctionOnLifeline - SequencedFunction

Association (source - target): «place1Type»

FunctionOnLifeline - ResourceLifeline

Attributes:

-

A TypicalWholePart where a SequencedFunction is part of a ResourceLifeline. Note: a given SequencedFunction may appear on one and only one ResourceLifeline.

HumanAndNonHumanConfiguration «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanConfiguration - IndividualResource

Dependency (element - is instance of): «IDEAS:powertypeInstance»

HumanAndNonHumanConfiguration - HumanAndNonHumanConfigurationPowertype

Attributes:

-

An IndividualResource that is composed of both human and non-human resources.

HumanAndNonHumanConfigurationPowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanConfigurationPowertype - IndividualResourcePowertype

Attributes:

-

The powertype of HumanAndNonHumanConfiguration.

HumanAndNonHumanConfigurationType «IDEAS>Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanConfigurationType - ResourceType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanConfigurationType - HumanAndNonHumanConfigurationPowertype

Attributes:

-

A ResourceType that has both Human and Non-Human components.

HumanAndNonHumanConfigurationTypeResourceUsage «IDEAS>Type»

Connectors:

Association (source - target): «place1Type»

HumanAndNonHumanConfigurationTypeResourceUsage - HumanAndNonHumanConfigurationPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanConfigurationTypeResourceUsage - ResourceUsage

Attributes:

-

A resourceUsage that asserts that a state of a type of HumanResouce is typically a component of a HumanAndNonHumanConfigurationType.

HumanAndNonHumanResourceTypeConfigurationUsage «IDEAS>Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanResourceTypeConfigurationUsage - ResourceTypeUsage

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanAndNonHumanResourceTypeConfigurationUsage - HumanAndNonHumanConfigurationPowertype

Attributes:

-

ResourceTypeUsage that is a type of state or part of a HumanAndNonHumanResource that is used by (a part of, a component of) another HumanAndNonHumanResourceType .

HumanResourcePowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HumanResourcePowertype - IndividualResourcePowertype

<p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of HumanResource.</p>
<p>HumanResourceState «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>HumanResourceState - IndividualResourceState</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>An IndividualResourceState that is a temporal state of a HumanResource.</p>
<p>HumanResourceType «IDEAS>Type»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>HumanResourceType - ResourceType</p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>HumanResourceType - HumanResourcePowertype</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A ResourceType that is a type of HumanResource. A PersonType, PostType, OrganisationType or OrganisationRoleType. [ABSTRACT]</p> <p>Note: was called "OrganisationalResource" in M3 v1.2. Note: was called "OrganisationalResourceType" in M3.</p>
<p>HumanResourceTypeConfigurationUsage «IDEAS>Type»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>HumanResourceTypeConfigurationUsage - HumanResourcePowertype</p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>HumanResourceTypeConfigurationUsage - ResourceTypeUsage</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A state or part of a HumanResourceType that is used by (a part of, a component of) another HumanResourceType.</p>
<p>HumanResourceTypeUsage «IDEAS>Type»</p> <p><u>Connectors:</u></p> <p><i>Association (source - target):</i> «place1Type»</p> <p>HumanResourceTypeUsage - HumanResourceType</p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>HumanResourceTypeUsage - ResourceUsage</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A resourceUsage that ia a type of humanResource which asserts a given HumanResourceType belongs to an ResourceTypeUsage.</p>
<p>ImplemenationScenarioPart «IDEAS>Type»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ImplemenationScenarioPart - PhysicalArchitectureIndividualType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A ModemIndividualType that features in (i.e. is part of) an ImplemenationScenario.</p>

ImplementationScenario «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ImplementationScenario - Scenario

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ImplementationScenario – ImplementationScenarioPart

Attributes:

-
A Scenario that features ResourceTypes, their Functions and Interactions.

IndividualInteractionElementRole «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualInteractionElementRole - ExchangedItemRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

IndividualInteractionElementRole - IndividualInteractionElementRolePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualInteractionElementRole - ModemIndividualElement

Attributes:

-
An ExchangedItemRole that is a role in an IndividualResourceInteraction.

IndividualInteractionElementRolePowertype «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualInteractionElementRolePowertype - ExchangedItemRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualInteractionElementRolePowertype - ModemIndividualElementType

Attributes:

-
The powertype of IndividualInteractionElementRole.

IndividualPort «IDEAS:IndividualType»*Connectors:*

Dependency (element - is instance of): «IDEAS:powertypeInstance»

IndividualPort - IndividualPortPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualPort - Artefact

Attributes:

-
An Artefact that is a port or interface provided by (and part of) an Artefact. Note: subsumes "SystemPort" and "SoftwarePort" in M3.

IndividualPortConnectedToPortConnectorPowertype «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualPortConnectedToPortConnectorPowertype - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualPortConnectedToPortConnectorPowertype - CoupleType

Attributes:

-
The powertype of IndividualPortConnectedToPortConnector.

IndividualPortConnector «IDEAS:IndividualType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualPortConnector - IndividualResourceInteraction

Dependency (element - is instance of): «IDEAS:powertypeInstance»

IndividualPortConnector - IndividualPortConnectorPowertype

Attributes:

- An IndividualResourceInteraction that has a protocolStackTypeIndividualPortConnector to a ProtocolStack.

IndividualPortConnectorPowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualPortConnectorPowertype - ExchangeType

Attributes:

- The powertype of IndividualPortConnector.

IndividualPortPowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualPortPowertype - IndividualResourcePartPowertype

Attributes:

- The powertype of IndividualPort.

IndividualRadioFrequencyPort «IDEAS:IndividualType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualRadioFrequencyPort - IndividualPort

Attributes:

- An IndividualPort that use radio frequency.

IndividualRadioFrequencyPortConnector «IDEAS:IndividualType»*Connectors:**Dependency (element - is instance of):* «IDEAS:powertypeInstance»

IndividualRadioFrequencyPortConnector - IndividualRadioFrequencyPortConnectorPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualRadioFrequencyPortConnector - IndividualPortConnector

Attributes:

- An IndividualPortConnector that connects two ports using a radio frequency.

IndividualRadioFrequencyPortConnectorPowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualRadioFrequencyPortConnectorPowertype - IndividualPortConnectorPowertype

Attributes:

- The powertype of IndividualRadioFrequencyPortConnector.

IndividualResource «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResource - IndividualResourceInteractionElement
Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResource - Body
Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResource - ModemIndividualElement
Dependency (element - is instance of):«IDEAS:powertypeInstance»
IndividualResource - IndividualResourcePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResource - IndividualResourceState

Attributes:

-
A ModemIndividualElement that is an IndividualOrganisationalResource, an ItemOfMateriel or a ResourceConfiguration.

IndividualResourceElementRole «IDEAS:IndividualType»Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»
IndividualResourceElementRole - IndividualResourceElementRolePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResourceElementRole - IndividualInteractionElementRole

Attributes:

-
An IndividualInteractionElementRole that is a role in an IndividualResourceMovement.

IndividualResourceElementRolePowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResourceElementRolePowertype - IndividualInteractionElementRolePowertype

Attributes:

-
The powertype of IndividualResourceElementRole.

IndividualResourceInteraction «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResourceInteraction - Exchange
Dependency (element - is instance of):«IDEAS:powertypeInstance»
IndividualResourceInteraction - IndividualResourceInteractionPowertype

Attributes:

-
An Exchange between IndividualResourceInteractionElements.

IndividualResourceInteractionElementPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
IndividualResourceInteractionElementPowertype - ModemIndividualElementType

Attributes:

-
The powertype of IndividualResourceInteractionElement.

IndividualResourceInteractionPowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualResourceInteractionPowertype - ModemIndividualElementType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualResourceInteractionPowertype - ExchangeType

Attributes:

- The powertype of IndividualResourceInteraction.

IndividualResourceMovement «IDEAS:IndividualType»*Connectors:**Dependency (element - is instance of):* «IDEAS:powertypeInstance»

IndividualResourceMovement - IndividualResourceMovementPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualResourceMovement - IndividualResourceInteraction

Attributes:

- An IndividualResourceInteraction between IndividualResources.

IndividualResourceMovementPowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualResourceMovementPowertype - IndividualResourceInteractionPowertype

Attributes:

- The powertype of IndividualResourceMovement.

IndividualResourcePart «IDEAS:IndividualType»*Connectors:**Dependency (element - is instance of):* «IDEAS:powertypeInstance»

IndividualResourcePart - IndividualResourcePartPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualResourcePart - ModemIndividualElement

Attributes:

- A ModemIndividualElement that is a part of an IndividualResource. Note: an IndividualResource is an improper part of itself.

IndividualResourcePartPowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualResourcePartPowertype - ModemIndividualElementType

Attributes:

- The powertype of IndividualResourcePart.

IndividualResourcePowertype «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualResourcePowertype - IndividualResourceStatePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualResourcePowertype - BodyType

<p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of IndividualResourceState</p>
<p>IndividualResourceState «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p>Generalization (element - is a subtype of): «IDEAS:superSubtype»</p> <p>IndividualResourceState – IndividualResourcePart</p> <p>Dependency (element - is instance of): «IDEAS:powertypeInstance»</p> <p>IndividualResourceState - IndividualResourceStatePowertype</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A ModemIndividualElement that is either a IndividualResource or a proper state of one.</p>
<p>IndividualResourceStatePowertype «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p>Generalization (element - is a subtype of): «IDEAS:superSubtype»</p> <p>IndividualResourceStatePowertype - IndividualResourcePartPowertype</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of IndividualResourceState.</p>
<p>IndividualResourceStateUsagePowertype «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p>Generalization (element - is a subtype of): «IDEAS:superSubtype»</p> <p>IndividualResourceStateUsagePowertype - ModemTemporalWholePartType</p> <p>Association (source - target): «place2Type»</p> <p>IndividualResourceStateUsagePowertype - IndividualResourceStatePowertype</p> <p>Association (source - target): «place1Type»</p> <p>IndividualResourceStateUsagePowertype - IndividualResourcePowertype</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of IndividualResourceStateUsage.</p>
<p>IndividualResourceStateWholeAndPartType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p>Generalization (element - is a subtype of): «IDEAS:superSubtype»</p> <p>IndividualResourceStateWholeAndPartType - ModemWholePartType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of IndividualResourceStateWholeAndPart.</p>
<p>IndividualResourceUsagePowertype «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p>Generalization (element - is a subtype of): «IDEAS:superSubtype»</p> <p>IndividualResourceUsagePowertype - ModemWholePartType</p> <p>Association (source - target): «place1Type»</p> <p>IndividualResourceUsagePowertype - IndividualResourcePowertype</p> <p>Association (source - target): «place2Type»</p> <p>IndividualResourceUsagePowertype - IndividualResourcePartPowertype</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of individualResourceUsage.</p>

IndividualResourceInteractionElement «IDEAS:IndividualType»Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

IndividualResourceInteractionElement - IndividualResourceInteractionElementPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualResourceInteractionElement - ModemIndividualElement

Attributes:

- A ModemIndividualElement that is exchanged in an IndividualResourceInteraction.

InteractionComposition «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionComposition - TypicalWholePart

Association (source - target): «place2Type»

InteractionComposition - ResourceInteraction

Association (source - target): «place1Type»

InteractionComposition - InteractionGroup

Attributes:

- A TypicalWholePart where one ResourceInteraction is part of an InteractionGroup.

InteractionElement «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionElement - IndividualResourceInteractionElementPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionElement - ModemIndividualType

Attributes:

- A ModemIndividualType that can be flowed between Resources in a ResourceInteraction.

[ABSTRACT]

InteractionElementRole «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionElementRole - IndividualInteractionElementRolePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionElementRole - ModemIndividualType

Attributes:

- A ModemIndividualType that is the Role played by an InteractionElement in a ResourceInteraction.

[ABSTRACT]

InteractionGroup «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionGroup - ResourceInteraction

Attributes:

-
A ResourceInteraction that is composed of other ResourceInteractions.

ItemInImplementationScenario «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ItemInImplementationScenario - ItemInScenario

Association (source - target): «place2Type»

ItemInImplementationScenario - ImplementationScenarioPart

Association (source - target): «place1Type»

ItemInImplementationScenario - ImplementationScenario

Attributes:

-
An ItemInScenario where the Scenario is an ImplementationScenario.

LifelineForResource «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LifelineForResource - TypicalTemporalWholePart

Association (source - target): «place2Type»

LifelineForResource - ResourceLifeline

Association (source - target): «place1Type»

LifelineForResource - ResourceType

Attributes:

-
A TypicalTemporalWholePart that asserts a ResourceLifeLine is a typical temporal part of a Resource.

NaturalResource «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NaturalResource - NonHumanResource

Dependency (element - is instance of): «IDEAS:powertypeInstance»

NaturalResource - NaturalResourcePowertype

Attributes:

-
An IndividualResource that is non-human and natural. Examples are "rock", "tree", "animal", etc.

NaturalResourceComponent «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NaturalResourceComponent - NaturalResourcePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NaturalResourceComponent - NonHumanResourceTypeConfigurationUsage

Attributes:

-
A NonHumanResourceTypeConfigurationUsage that is a type of NaturalResource, a specialisation of NaturalResourceType, that is used as a component of a NaturalResourceType.

NaturalResourcePowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NaturalResourcePowertype - NonHumanResourcePowertype

Attributes:

-

The powertype of NaturalResource.

Natural ResourceType «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Natural ResourceType - NaturalResourcePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Natural ResourceType - NonHumanResourceType

Attributes:

-

A NonHumanResourceType that is a type of NaturalResource.

Natural ResourceUsage «IDEAS>Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Natural ResourceUsage - NonHumanResourceUsage

Association (source - target): «place1Type»

Natural ResourceUsage - NaturalResourcePowertype

Association (source - target): «place2Type»

Natural ResourceUsage - NaturalResourceComponent

Attributes:

-

A NonHumanResourceUsage that asserts that a NaturalResourceComponent is used by a Natural ResourceType.

NonHumanResource «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResource - NonHumanResourceState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResource - IndividualResource

Dependency (element - is instance of): «IDEAS:powertypeInstance»

NonHumanResource - NonHumanResourcePowertype

Attributes:

-

An IndividualResource that is non-human.

NonHumanResourcePowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourcePowertype - IndividualResourcePowertype

Attributes:

-

The powertype of NonHumanResource.

NonHumanResourceState «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourceState - IndividualResourceState

Attributes:

-

A state of a NonHumanResource.

NonHumanResourceType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourceType - ResourceType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourceType - NonHumanResourcePowertype

Attributes:

-

A ResourceType that is a type of NonHumanResource (i.e. an Artefact or NaturalResource). [ABSTRACT]

NonHumanResourceTypeConfigurationUsage «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourceTypeConfigurationUsage - NonHumanResourcePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourceTypeConfigurationUsage - ResourceTypeUsage

Attributes:

-

A NonHumanResourceTypeConfigurationUsage that is a type of state or part of a NonHumanResource that is used by (a part of, a component of) another NonHumanResourceType.

NonHumanResourceUsage «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonHumanResourceUsage - ResourceUsage

Association (source - target): «place1Type»

NonHumanResourceUsage - NonHumanResourcePowertype

Attributes:

-

A ResourceUsage that asserts a type of NonHumanResource is used by a ResourceType.

OrganisationPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationPowertype - ResponsibleHumanResourcePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationPowertype - OrganisationStatePowertype

Attributes:

-

The powertype of Organisation.

OrganisationRoleType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationRoleType - OrganisationalRolePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationRoleType - HumanResourceType

Attributes:

- A type of role a human resource may carry out in an organisation. This is not used as a component of a ResourceType. Note: was called "RoleType" in M3.

OrganisationRoleTypeUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationRoleTypeUsage - HumanResourceTypeConfigurationUsage

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationRoleTypeUsage - OrganisationalRolePowertype

Attributes:

- A HumanResourceTypeConfigurationUsage that is a type of OrganisationRole , a specialisation of OrganisationRoleType, that is used as a component of a ResourceType.

OrganisationType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationType - OrganisationPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationType - ResponsibleHumanResourceType

Attributes:

- A ResponsibleHumanResourceType and a ConstructedHumanResourceType that is a type of Organisation. This is not used as a component of a ResourceType. Examples: Government Department, Commercial Company, Accounting Department.

OrganisationTypeUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationTypeUsage - ResponsibleHumanResourceTypeConfigurationUsage

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationTypeUsage - OrganisationPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationTypeUsage - OrganisationStatePowertype

Attributes:

- A ResponsibleHumanResourceTypeConfigurationUsage that is a type of Organisation, a specialisation of OrganisationType, that is used as a component of a ResourceType.

OrganisationalRolePowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

OrganisationalRolePowertype - HumanResourcePowertype

Attributes:

- The powertype of OrganisationalRole.

PerformsFunction «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PerformsFunction - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PerformsFunction - CapableOfType

Association (source - target):«place2Type»

PerformsFunction - ResourceFunction
Association (source - target):«place1Type»
PerformsFunction - ResourceType

Attributes:

-
A CapableOf that asserts a Function is conducted by a ResourceType.

PersonPowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
PersonPowertype - ResponsibleHumanResourcePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
PersonPowertype - AgentCapableOfResponsibilityStateType

Attributes:

-
The powertype of Person.

PersonType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
PersonType - PersonPowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
PersonType - ResponsibleHumanResourceType

Attributes:

-
A ResponsibleHumanResourceType that is a type of person.

PhysicalArchitecture «IDEAS:IndividualType»

Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»
PhysicalArchitecture - PhysicalArchitecturePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
PhysicalArchitecture - HumanAndNonHumanConfiguration

Attributes:

-
An actual, fully-realised physical architecture.

PhysicalArchitectureConfigurationUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
PhysicalArchitectureConfigurationUsage - PhysicalArchitecturePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
PhysicalArchitectureConfigurationUsage - HumanAndNonHumanResourceTypeConfigurationUsage

Attributes:

-
A HumanAndNonHumanResourceTypeConfigurationUsage that is a type of PhysicalArchitecture.

PhysicalArchitectureIndividualType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»
PhysicalArchitectureIndividualType - ModemIndividualType

Attributes:

-

A ModemIndividualType that is involved in a PhysicalArchitecture.

PhysicalArchitecturePowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalArchitecturePowertype - HumanAndNonHumanConfigurationPowertype

Attributes:

-

The powertype of PhysicalArchitecture.

PhysicalArchitectureProcess «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalArchitectureProcess - PhysicalArchitectureIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalArchitectureProcess - ProcessType

Attributes:

-

A ProcessType typically conducted by ResourcesTypes.

PhysicalDataModel «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalDataModel - DataModel

Attributes:

-

A DataModel that is an implementable specification of a data structure. A PhysicalDataModel realises a LogicalDataModel, taking into account implementation restrictions and performance issues whilst still enforcing the constraints, relationships and typing of the logical model.

PhysicalDelay «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalDelay - PhysicallySequencedItem

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalDelay - Delay

Attributes:

-

A PhysicallySequencedItem that has a specified temporal extent, but an unspecified spatial extent.

PhysicalEndEvent «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalEndEvent - EndBorderType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalEndEvent - ModemWholePartType

Association (source - target): «place1Type»

PhysicalEndEvent - EventBoundedPhysicalProcess

Association (source - target): «place2Type»

PhysicalEndEvent - PhysicalEvent

Attributes:

-

An EndBorderType that relates a EventBoundedPhysicalProcess to the PhysicalEvent that marks its end. Note: there may be no more than one LogicalEndEvent for a given EventBoundedPhysicalProcess

PhysicalEvent «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalEvent - Event

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalEvent - PhysicallySequencedItem

Attributes:

- An Event that marks the beginning or end of a EventBoundedPhysicalProcess.

PhysicalSequencing «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalSequencing - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalSequencing - ImmediateBeforeAfterType

Association (source - target): «place1Type»

PhysicalSequencing - PhysicallySequencedItem

Association (source - target): «place2Type»

PhysicalSequencing - PhysicallySequencedItem

Attributes:

- An ImmediateBeforeAfterType that asserts one PhysicallySequencedItem occurs immediately after the other.

PhysicalStartEvent «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalStartEvent - StartBorderType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicalStartEvent - ModemWholePartType

Association (source - target): «place2Type»

PhysicalStartEvent - PhysicalEvent

Association (source - target): «place1Type»

PhysicalStartEvent - EventBoundedPhysicalProcess

Attributes:

- A StartBorderType that relates an EventBoundedPhysicalProcess to the LogicalEvent that marks its start.

Note: there may be no more than one LogicalStartEvent for a given LogicallySequencedProcess.

PhysicallySequencedItem «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PhysicallySequencedItem - ImplementationScenarioPart

Attributes:

- An ImplementationScenarioPart that is physically sequenced; i.e it has a PhysicalSequencing relation.

Port «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Port - ArtefactComponent

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Port - IndividualPortPowertype

Attributes:

-
An ArtefactComponent that is a type of IndividualPort. Note: was called "ResourcePort" in M3.

PortComponentOfArtefactPowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PortComponentOfArtefactPowertype - ModemWholePartType

Attributes:

-
The powertype of portComponentOfArtefact.

PortComponentOfTypeOfArtefact «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PortComponentOfTypeOfArtefact - PortComponentOfArtefactPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PortComponentOfTypeOfArtefact - NonHumanResourceUsage

Association (source - target):«place2Type»

PortComponentOfTypeOfArtefact - Port

Association (source - target):«place1Type»

PortComponentOfTypeOfArtefact - ArtefactPowertype

Attributes:

-
A NonHumanResourceUsage that asserts a Port is a component of a type of Artefact.

PortConnectedToPortConnectorComponent «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PortConnectedToPortConnectorComponent - IndividualPortConnectedToPortConnectorPowertype

Association (source - target):«place2Type»

PortConnectedToPortConnectorComponent - Port

Association (source - target):«place1Type»

PortConnectedToPortConnectorComponent - PortConnector

Attributes:

-
An PortConnectedToPortConnectorComponent that is a type of IndividualPortConnectedToPortConnector that asserts a Port is a part of a PortConnector.

PortConnector «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PortConnector - ResourceCommunication

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PortConnector - IndividualPortConnectorPowertype

Attributes:

-

A ResourceCommunication that has a protocolStackSuperResourcePortConnectorTypeSubType to a ProtocolStack. Note: was called "ResourcePortConnector" in M3.

PostInOrganisationPowertype «IDEAS:Powertype»

Connectors:

Association (source - target):«place2Type»

PostInOrganisationPowertype - PostPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostInOrganisationPowertype - IndividualResourceUsagePowertype

Association (source - target):«place1Type»

PostInOrganisationPowertype - OrganisationPowertype

Attributes:

-
The powertype of PostInOrganisation.

PostInOrganisationType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostInOrganisationType - PostInOrganisationPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostInOrganisationType - HumanResourceTypeUsage

Association (source - target):«place1Type»

PostInOrganisationType - OrganisationPowerype

Association (source - target):«place2Type»

PostInOrganisationType - PostTypeUsage

Attributes:

-
A resourceUsage that asserts that a post exists in an OrganisationType of the type specified by the related PostType. Note: posts in organisations may or may not be filled. Note: was called "Post" in M3.

PostOccupyingResponsibleHumanResourceStateType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostOccupyingResponsibleHumanResourceStateType - ResponsibleHumanResourceStateType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostOccupyingResponsibleHumanResourceStateType - ResourceStateTypeUsage

Attributes:

-
A ResourceStateTypeUsage that has a type of state of a Post that is occupied by a type of ResponsibleHumanResource.

PostPowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostPowertype - ResponsibleHumanResourcePowertype

Attributes:

-
The powertype of Post.

PostType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostType - ResponsibleHumanResourceType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostType - PostPowertype

Attributes:

- An ConstructedHumanResourceType and ResponsibleHumanResourceType specifying a type of Post. This is not used as a component of a ResourceType. A type of point of contact or responsible person. Note that this is the type of post - e.g. Desk Officer, Commander, etc.

PostTypeUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostTypeUsage - ResponsibleHumanResourceTypeConfigurationUsage

Generalization (element - is a subtype of):«IDEAS:superSubtype»

PostTypeUsage - PostPowertype

Attributes:

- A ResponsibleHumanResourceTypeConfigurationUsage that is a type of Post, a specialisation of PostType, which is used as a component of a ResourceType. E.g. The specialisation of the PostType, Commander, may be a component of the Land Component - the Commander Land Component.

ProducerFunction «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProducerFunction - IndividualExchangeRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProducerFunction - ModemWholePartType

Association (source - target): «place2Type»

ProducerFunction - ResourceExport

Association (source - target): «place1Type»

ProducerFunction - ResourceFunction

Attributes:

- An IndividualExchangeRoleType where the role is a ResourceExport and the producer is a ResourceFunction.

RadioFrequencyPort «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RadioFrequencyPort - Port

Attributes:

- A Port that is a type of RadioFrequencyPort.

RadioFrequencyPortConnectedToPortConnectorComponent «IDEAS:Type»

Connectors:

Association (source - target):«place1Type»

RadioFrequencyPortConnectedToPortConnectorComponent - RadioFrequencyPortConnector

Association (source - target):«place2Type»

RadioFrequencyPortConnectedToPortConnectorComponent - RadioFrequencyPort

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RadioFrequencyPortConnectedToPortConnectorComponent - PortConnectedToPortConnectorComponent

Attributes:

- An IndividualPortConnectedToPortConnectorPowertype that is a type of IndividualRadioFrequencyPortConnectedToPortConnector that asserts a RadioFrequencyPort is a part of a RadioFrequencyPortConnector.

RadioFrequencyPortConnector «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

RadioFrequencyPortConnector - IndividualRadioFrequencyPortConnectorPowerType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RadioFrequencyPortConnector - PortConnector

Attributes:

- A ResourcePortConnector that is a type of IndividualRadioFrequencyPortConnector.

ResourceCommunication «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ResourceCommunication - ResourceInteraction

Attributes:

- A ResourceInteraction where DataElements are exchanged.

ResourceElementRole «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ResourceElementRole - IndividualResourceElementRolePowerType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceElementRole - InteractionElementRole

Attributes:

- An InteractionElementRole where the flowed element is a ResourceType.

ResourceEnergyFlow «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ResourceEnergyFlow - ResourceInteraction

Attributes:

- A ResourceInteraction where energy is transferred between ResourceUsages.

ResourceExport «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ResourceExport - SendType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceExport - ModemIndividualType

Attributes:

- A SendType where the sender is a ResourceType or Function

ResourceFunction «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ResourceFunction - Function

Attributes:

- A Function carried out by a ResourceType.

ResourceImport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceImport - ReceiveType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceImport - ModemIndividualType

Attributes:

- A ReceiveType where the receiver is a ResourceType or Function.

ResourceInteraction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceInteraction - IndividualResourceInteractionPowerType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceInteraction - PhysicalArchitectureProcess

Attributes:

- An ExchangeType where two ResourceTypeTypes interact.

Examples: data exchange between systems, conversations between people, people using systems, flows of materiel from one resource to another, etc.

ResourceInteractionExport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceInteractionExport - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceInteractionExport - SendInExchangeType

Association (source - target): «place2Type»

ResourceInteractionExport - ResourceExport

Association (source - target): «place1Type»

ResourceInteractionExport - ResourceInteraction

Attributes:

- A SendInExchangeType where the sender is a ResourceType or Function.

ResourceInteractionImport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceInteractionImport - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceInteractionImport - ReceiveInExchangeType

Association (source - target): «place2Type»

ResourceInteractionImport - ResourceImport

Association (source - target): «place1Type»

ResourceInteractionImport - ResourceInteraction

Attributes:

- A ReceiveInExchangeType where the receiver is a ResourceType or Function.

ResourceLifeline «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceLifeline - ImplementationScenarioPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceLifeline - ResourceStateType

Attributes:

-
A ResourceStateType whose extent is defined by an ImplementationScenario.

ResourceMovement «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceMovement - ResourceInteraction

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceMovement - IndividualResourceMovementPowerType

Attributes:

-
A ResourceInteraction where the element that flows is a ResourceType.

ResourceStateType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceStateType - StateSpecification

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceStateType - IndividualResourceStatePowerType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceStateType - ModemIndividualType

Attributes:

-
A type of state that a ResourceType may have.

ResourceStateTypeUsage «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceStateTypeUsage - IndividualResourceStatePowerType

Attributes:

-
An IndividualResourceStatePowerType that has a type of state of a Resource that is used by another type of Resource.

ResourceStateUsage «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResourceStateUsage - IndividualResourceStateUsagePowerType

Association (source - target): «place2Type»

ResourceStateUsage - ResourceStateTypeUsage

Association (source - target): «place1Type»

ResourceStateUsage - IndividualResourceStatePowerType

Attributes:

-
A IndividualResourceStateUsagePowerType that is a type of resource state relation that asserts a type of resource state is used by a type of resource.

ResourceType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceType - IndividualResourcePowertype
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceType - FlowedElement
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceType - ResourceStateType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceType - InteractionElement
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceType - PhysicalArchitectureIndividualType

Attributes:

-
A PhysicalArchitectureIndividualType that is a type of IndividualResource. This is not used as a component of a ResourceType, but may use components. [ABSTRACT]

ResourceTypeExport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceTypeExport - CapableOfType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceTypeExport - ModemThing
Association (source - target):«place2Type»
ResourceTypeExport - ResourceInteraction
Association (source - target):«place1Type»
ResourceTypeExport - ResourceTypeUsage

Attributes:

-
A CapableOfType where a ResourceInteraction exports from a ResourceTypeUsage.

ResourceTypeImport «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceTypeImport - ModemThing
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceTypeImport - CapableOfType
Association (source - target):«place2Type»
ResourceTypeImport - ResourceInteraction
Association (source - target):«place1Type»
ResourceTypeImport - ResourceTypeUsage

Attributes:

-
A CapableOfType where a ResourceInteraction imports from a ResourceTypeUsage.

ResourceTypeMaster «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceTypeMaster - ModemIndividualType
Generalization (element - is a subtype of):«IDEAS:superSubtype»
ResourceTypeMaster - IndividualResourcePowertype

Attributes:

-

A ModemIndividualType that is the master specification from which ResourceTypes are versioned.

ResourceTypeUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourceTypeUsage - IndividualResourcePowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourceTypeUsage - ModemIndividualType

Attributes:

- A ModemIndividualType, that is a component of a ResourceType that is used by (a component of) another ResourceType.

ResourceUsage «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourceUsage - IndividualResourceUsagePowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourceUsage - ModemThing

Association (source - target):«place1Type»

ResourceUsage - IndividualResourcePowertype

Association (source - target):«place2Type»

ResourceUsage - ResourceTypeUsage

Attributes:

- A ModemWholePartType that is a relationship between types of IndividualResources which asserts the ResourceTypeUsage is part of the ResourceType. The relationship is abstract, and one of its subtypes should be used to describe *how* a ResourceTypeUsage is part of a ResourceType. Note: was called "ResourceUsage" in M3.

ResponsibleHumanResourcePowertype «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResponsibleHumanResourcePowertype - ResponsibleHumanResourceStatePowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResponsibleHumanResourcePowertype - AgentCapableOfResponsibilityType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResponsibleHumanResourcePowertype - HumanResourcePowertype

Attributes:

- The powertype of ResponsibleHumanResource.

ResponsibleHumanResourceStateOccupiesPostPowertype «IDEAS:Powertype»

Connectors:

Association (source - target):«place1Type»

ResponsibleHumanResourceStateOccupiesPostPowertype - PostPowertype

Association (source - target):«place2Type»

ResponsibleHumanResourceStateOccupiesPostPowertype - ResponsibleHumanResourceStatePowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResponsibleHumanResourceStateOccupiesPostPowertype - IndividualResourceStateUsagePowertype

Attributes:

- The powertype of responsibleHumanResourceStateOccupiesPost.

ResponsibleHumanResourceStateOccupiesPostType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceStateOccupiesPostType - ResourceStateUsage

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceStateOccupiesPostType - ResponsibleHumanResourceStateOccupiesPostPowerType

Association (source - target): «place1Type»

ResponsibleHumanResourceStateOccupiesPostType - PostPowerType

Association (source - target): «place2Type»

ResponsibleHumanResourceStateOccupiesPostType - PostOccupyingResponsibleHumanResourceStateType

Attributes:

-
A ResourceStateUsage that asserts a ResponsibleHumanResourceTypeConfigurationUsage (i.e. a OrganisationRoleType, a PostTypeUsage or a OrganisationTypeUsage) occupies a PostType. Note it is a state of the ResponsibleHumanResourceTypeConfigurationUsage that occupies the PostType, as it can only occupy it for a period of time. Furthermore, many states of ResponsibleHumanResourceTypeConfigurationUsages can occupy the post across time. Typically, only one state occupies the post at a point in time.

ResponsibleHumanResourceStatePowerType «IDEAS:PowerType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceStatePowerType - IndividualResourceStatePowerType

Attributes:

-
The powertype of ResponsibleHumanResourceState.

ResponsibleHumanResourceStateType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceStateType - ResponsibleHumanResourceStatePowerType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceStateType - ResourceStateType

Attributes:

-
A type of state that a ResponsibleHumanResourceType may have.

ResponsibleHumanResourceType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceType - HumanResourceType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceType - ResponsibleHumanResourcePowerType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceType - ResponsibleHumanResourceStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceType - Stakeholder

Attributes:

-
A HumanResourceType that is a type of ResponsibleHumanResource. A PostType, OrganisationType or a PersonType.

ResponsibleHumanResourceTypeConfigurationUsage «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceTypeConfigurationUsage - ResponsibleHumanResourcePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ResponsibleHumanResourceTypeConfigurationUsage - HumanResourceTypeConfigurationUsage

Attributes:

-
A state or part of a ResponsibleHumanResourceType that is used by (a part of, a component of) another ResponsibleHumanResourceType.

RoleBourneByResponsibleHumanResourcePowertype «IDEAS:Powertype»*Connectors:*

Association (source - target): «place1Type»

RoleBourneByResponsibleHumanResourcePowertype - ResponsibleHumanResourcePowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleBourneByResponsibleHumanResourcePowertype - IndividualResourceUsagePowertype

Association (source - target): «place2Type»

RoleBourneByResponsibleHumanResourcePowertype - OrganisationalRolePowertype

Attributes:

-
The powertype of roleBourneByResponsibleHumanResource.

RoleBourneByResponsibleHumanResourceType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleBourneByResponsibleHumanResourceType - HumanResourceTypeUsage

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleBourneByResponsibleHumanResourceType - RoleBourneByResponsibleHumanResourcePowertype

Association (source - target): «place2Type»

RoleBourneByResponsibleHumanResourceType - OrganisationRoleTypeUsage

Association (source - target): «place1Type»

RoleBourneByResponsibleHumanResourceType - ResponsibleHumanResourcePowertype

Attributes:

-
A HumanResourceTypeUsage that asserts that a ResponsibleHumanResourcePowertype has an OrganisationRoleTypeUsage.

RoleInCommunication «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInCommunication - RoleInInteraction

Association (source - target): «place1Type»

RoleInCommunication - ResourceCommunication

Association (source - target): «place2Type»

RoleInCommunication - DataElementRole

Attributes:

-
A RoleInInteraction where the exchanged element is a DataElement exchanged over a ResourceCommunication.

RoleInIndividualInteractionPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInIndividualInteractionPowertype - ExchangedItemRoleInExchangeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInIndividualInteractionPowertype - ModemIndividualElementType

Attributes:

-
The powertype of RoleInIndividualInteraction.

RoleInIndividualResourceMovementPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInIndividualResourceMovementPowertype - RoleInIndividualInteractionPowertype

Attributes:

-
The powertype of RoleInIndividualResourceMovement.

RoleInInteraction «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInInteraction - TypicalWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInInteraction - RoleInIndividualInteractionPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInInteraction - ModemWholePartType

Association (source - target): «place2Type»

RoleInInteraction - InteractionElementRole

Association (source - target): «place1Type»

RoleInInteraction - ResourceInteraction

Attributes:

-
An TypicalWholePart where the involving exchange is a ResourceInteraction. [ABSTRACT]

RoleInOrganisationPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInOrganisationPowertype - IndividualResourceUsagePowertype

Association (source - target): «place2Type»

RoleInOrganisationPowertype - OrganisationalRolePowertype

Association (source - target): «place1Type»

RoleInOrganisationPowertype - OrganisationPowertype

Attributes:

-
The powertype of roleInOrganisation.

RoleInOrganisationType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleInOrganisationType - HumanResourceTypeUsage

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleInOrganisationType - RoleInOrganisationPowertype

Association (source - target):«place1Type»

RoleInOrganisationType - OrganisationPowertype

Association (source - target):«place2Type»

RoleInOrganisationType - OrganisationRoleTypeUsage

Attributes:

-
A HumanResourceTypeUsage that is a type of roleInOrganisation which asserts that a given OrganisationRoleTypeUsage belongs to an OrganisationPowertype.

RoleInResourceMovement «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleInResourceMovement - RoleInInteraction

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleInResourceMovement - RoleInIndividualResourceMovementPowertype

Association (source - target):«place2Type»

RoleInResourceMovement - ResourceElementRole

Association (source - target):«place1Type»

RoleInResourceMovement - ResourceMovement

Attributes:

-
A RoleInInteraction where the interaction is a ResourceMovement.

RoleOfDataElement «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfDataElement - RoleOfInteractionElement

Association (source - target):«place1Type»

RoleOfDataElement - DataElement

Association (source - target):«place2Type»

RoleOfDataElement - DataElementRole

Attributes:

-
A RoleOfInteractionElement where the element is a DataElement.

RoleOfIndividualInteractionElementPowertype «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfIndividualInteractionElementPowertype - IndividualRoleAsExchangedItemType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfIndividualInteractionElementPowertype - ModemIndividualElementType

Attributes:

-
The powertype of RoleOfIndividualInteractionElement.

RoleOfIndividualResourceElementPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfIndividualResourceElementPowertype - RoleOfIndividualInteractionElementPowertype

Attributes:

-

The powertype of RoleOfIndividualResourceElement.

RoleOfInteractionElement «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfInteractionElement - TypicalWholePart

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfInteractionElement - ModemWholePartType

Association (source - target):«place1Type»

RoleOfInteractionElement - InteractionElement

Association (source - target):«place2Type»

RoleOfInteractionElement - InteractionElementRole

Attributes:

-

A TypicalWholePart relating an InteractionElement to its role in a ResourceInteraction. [ABSTRACT]

RoleOfResourceElement «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfResourceElement - RoleOfIndividualResourceElementPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

RoleOfResourceElement - RoleOfInteractionElement

Association (source - target):«place1Type»

RoleOfResourceElement - ResourceType

Association (source - target):«place2Type»

RoleOfResourceElement - ResourceElementRole

Attributes:

-

A RoleOfInteractionElement where the element is a ResourceType.

SequencedFunction «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedFunction - EventBoundedPhysicalProcess

Attributes:

-

An EventBoundedPhysicalProcess that is the typical usage of a Function in a ResourceLifeLine.

SequencedResourceInteraction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedResourceInteraction - ImplementationScenarioPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SequencedResourceInteraction - EventBoundedPhysicalProcess

Attributes:

-

An ImplementationScenarioPart that is the typical occurrence of a ResourceInteraction between two ResourceLifelines

Software «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Software - Artefact

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Software - SoftwarePowertype

Attributes:

-

An executable computer programme, or fragment of an executable programme (e.g. a subroutine, class, etc.)

SoftwareComponent «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SoftwareComponent - ArtefactComponent

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SoftwareComponent - SoftwarePowertype

Attributes:

-

A type of Software that is a hosting ArtefactWholeSoftwareTypePart of an ArtefactType. In other words, a type of Software that is hosted by an ArtefactType.

SoftwarePowertype «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SoftwarePowertype - ArtefactPowertype

Attributes:

-

The powertype of Software.

SoftwareType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SoftwareType - ArtefactType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SoftwareType - SoftwarePowertype

Attributes:

-

An Artefact that is a type of Software.

SoftwareUsage «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SoftwareUsage - NonHumanResourceUsage

Association (source - target):«place2Type»

SoftwareUsage - SoftwareComponent

Association (source - target):«place1Type»

SoftwareUsage - ArtefactPowertype

Attributes:

-
A NonHumanResourceUsage that asserts a SoftwareComponent is used by an ArtefactType.

StateUsedAsPostOccupationType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StateUsedAsPostOccupationType - UsedResourceState

Association (source - target):«place1Type»

StateUsedAsPostOccupationType - ResponsibleHumanResourceType

Association (source - target):«place2Type»

StateUsedAsPostOccupationType - PostOccupyingResponsibleHumanResourceStateType

Attributes:

-
A UsedResourceState that asserts a ResponsibleHumanResourceType occupies a PostOccupyingResponsibleHumanResourceStateType.

SubOrganisationPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SubOrganisationPowertype - IndividualResourceUsagePowertype

Association (source - target):«place2Type»

SubOrganisationPowertype - OrganisationStatePowertype

Association (source - target):«place1Type»

SubOrganisationPowertype - OrganisationPowertype

Attributes:

-
The powertype of subOrganisation.

SubOrganisationType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SubOrganisationType - HumanResourceTypeUsage

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SubOrganisationType - SubOrganisationPowertype

Association (source - target):«place2Type»

SubOrganisationType - SubOrganisationTypeUsage

Association (source - target):«place1Type»

SubOrganisationType - OrganisationPowertype

Attributes:

-
A HumanResourceTypeUsage that is a type of subOrganisation which asserts that a state of one type of Organisation, the OrganisationType, is typically the parent of another, the OrganisationTypeUsage. In other words, one type of Organisation is typically the parent of another for a period of time. E.g. a squadron may be part of a battalion. Note: was called "SubOrganisation" in M3.

SubOrganisationTypeUsage «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SubOrganisationTypeUsage - OrganisationTypeUsage

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SubOrganisationTypeUsage - OrganisationStatePowerType

Attributes:

- An OrganisationTypeUsage that is type of Organisation that is a sub-organisation of another type of organisation.

SubjectOfForecast «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SubjectOfForecast - ModemIndividualType

Attributes:

- A ModemIndividualType that is the subject of a Forecast.

Technology «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Technology - ArtefactPowerType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

Technology - SubjectOfForecast

Attributes:

- An ArtefactPowerType that is a class of Artefact that defines a branch of engineering or computer science.

UsagePerformsFunction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

UsagePerformsFunction - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

UsagePerformsFunction - CapableOfType

Association (source - target):«place2Type»

UsagePerformsFunction - UsageSpecificFunction

Association (source - target):«place1Type»

UsagePerformsFunction - ResourceTypeUsage

Attributes:

- A CapableOfType where a ResourceTypeUsage is capable of conducting a UsageSpecificFunction.

UsageSpecificFunction «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

UsageSpecificFunction - Function

Association (source - target):«place2Type»

UsagePerformsFunction - UsageSpecificFunction

Attributes:

- A PhysicalArchitectureProcess that is a particular usage of a Function. Note: this is used where there is a requirement to distinguish between two uses of a ResourceType which both have the same functionality, but put to different purposes. This is particularly important for tracing back to OV-5 Activities.

UsedResourceState «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

UsedResourceState - ResourceStateUsage

Association (source - target): «place2Type»

UsedResourceState - ResourceStateTypeUsage

Association (source - target): «place1Type»

UsedResourceState - ResourceType

Attributes:

- A IndividualResourceStateUsagePowerType that is a type of IndividualResourceState Usage that asserts a type of resource state is used by a type of resource.

VersionSuccession «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

VersionSuccession - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

VersionSuccession - BeforeAfterType

Association (source - target): «place2Type»

VersionSuccession - ResourceType

Association (source - target): «place1Type»

VersionSuccession - ResourceType

Attributes:

- A BeforeAfterType that asserts one ResourceType succeeds another. Note: both ResourceTypes must be versions of the same ResourceTypeMaster.

activityFunctionMapping «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

activityFunctionMapping - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

activityFunctionMapping - OperationalActivity

Association (source - target): «place2Type»

activityFunctionMapping - Function

Attributes:

- A modemIndividualTypeSpecialisation that relates an OperationalActivity or ActivityGroup to the Function or FunctionGroup that realises it.

artefactPart «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

artefactPart - individualResourceUsage

Association (source - target): «place2Type»

artefactPart - Artefact

Association (source - target): «place1Type»

artefactPart - Artefact

Attributes:

- An individualResourceUsage that asserts one artefact is part of another.

artefactSpecification «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
artefactSpecification - usedNonHumanResourceTypeSpecialisation

Association (source - target): «place1Type»
artefactSpecification - ArtefactType

Association (source - target): «place2Type»
artefactSpecification - ArtefactComponent

Attributes:

- An usedNonHumanResourceTypeSpecialisation that asserts that an ArtefactTypeUsage. is a specialisation of an ArtefactType.

branchOfTechnology «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
branchOfTechnology - modemIndividualTypeSpecialisation

Association (source - target): «place2Type»
branchOfTechnology - ArtefactType

Association (source - target): «place1Type»
branchOfTechnology - Technology

Attributes:

- A modemIndividualTypeSpecialisation that asserts an ArtefactType belongs to a branch of Technology.

capabilityInstance «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»
capabilityInstance - HumanAndNonHumanConfiguration

Association (source - target): «place1Type»
capabilityInstance - Capability

Generalization (element - is a subtype of): «IDEAS:superSubtype»
capabilityInstance - modemIndividualTypeInstance

Attributes:

- A modemIndividualTypeInstance where the instance is a HumanAndNon-HumanConfiguration and the type is a Capability. This asserts that an individual configuration of people and equipment has a Capability.

capabilityRealisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
capabilityRealisation - modemIndividualTypeSpecialisation

Association (source - target): «place2Type»
capabilityRealisation - CapabilityConfiguration

Association (source - target): «place1Type»
capabilityRealisation - Capability

Attributes:

- A modemIndividualTypeSpecialisation that relates a CapabilityConfiguration to a Capability.

competenceForRole «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

competenceForRole - requiredCompetence

Association (source - target): «place1Type»

competenceForRole - Competence

Association (source - target): «place2Type»

competenceForRole - OrganisationRoleType

Attributes:

-
A requiredCompetence that asserts an OrganisationRoleType requires a Competence.

competenceToConduct «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

competenceToConduct - requiredCompetence

Association (source - target): «place1Type»

competenceToConduct - Competence

Association (source - target): «place2Type»

competenceToConduct - Function

Attributes:

-
A requiredCompetence that asserts a competence is required by the HumanResource to conduct the Function. Note: was called "toConduct" in M3.

configuredHumanAndNonHumanResource «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

configuredHumanAndNonHumanResource - individualResourceUsage

Association (source - target): «place1Type»

configuredHumanAndNonHumanResource - HumanAndNonHumanConfiguration

Association (source - target): «place2Type»

configuredHumanAndNonHumanResource - HumanAndNonHumanConfiguration

Attributes:

-
An individualResourceUsage that asserts a HumanAndNonHumanConfiguration uses another HumanAndNonHumanConfiguration.

configuredHumanResource «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

configuredHumanResource - individualResourceUsage

Association (source - target): «place2Type»

configuredHumanResource - HumanResource

Association (source - target): «place1Type»

configuredHumanResource - HumanAndNonHumanConfiguration

Attributes:

-
An individualResourceUsage that asserts that a HumanAndNonHumanConfiguration uses a HumanResource.

configuredNonHumanResource «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

configuredNonHumanResource - individualResourceUsage

Association (source - target): «place2Type»

configuredNonHumanResource - NonHumanResource

Association (source - target): «place1Type»

configuredNonHumanResource - HumanAndNonHumanConfiguration

Attributes:

-
n individualResourceUsage that asserts that a NonHumanResource uses a HumanAndNonHumanConfiguration.

connected «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

connected - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

connected - couple

Attributes:

-
A couple that asserts two things are connected.

fieldedConfiguration «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

fieldedConfiguration - resourceTypeInstance

Association (source - target): «place2Type»

fieldedConfiguration - FieldedCapabilityConfiguration

Association (source - target): «place1Type»

fieldedConfiguration - CapabilityConfiguration

Attributes:

-
A resourceTypeInstance where the type is a CapabilityConfiguration and the instance is a FieldedCapabilityConfiguration.

fieldedPhysicalArchitectureCapabilityConfigurationUsage «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

fieldedPhysicalArchitectureCapabilityConfigurationUsage - configuredHumanAndNonHumanResource

Association (source - target): «place2Type»

fieldedPhysicalArchitectureCapabilityConfigurationUsage - FieldedCapabilityConfiguration

Association (source - target): «place1Type»

fieldedPhysicalArchitectureCapabilityConfigurationUsage - PhysicalArchitecture

Attributes:

-
A configuredHumanAndNonHumanResource usage of a FieldedPhysicalArchitecture by a FieldedCapabilityConfiguration. Asserts that a FieldedCapabilityConfiguration is a component of a FieldedPhysicalArchitecture.

flowImplementation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

flowImplementation - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

flowImplementation - LogicalFlow

Association (source - target): «place2Type»

flowImplementation - ResourceInteraction

Attributes:

-

A modemIndividualTypeSpecialisation where a ResourceInteraction implements a LogicalFlow.

forecastFor «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

forecastFor - ModemThing

Association (source - target): «place2Type»

forecastFor - SubjectOfForecast

Generalization (element - is a subtype of): «IDEAS:superSubtype»

forecastFor - couple

Association (source - target): «place1Type»

forecastFor - Forecast

Attributes:

-

A couple that relates the Forecast to the SubjectOfForecast.

forecastPeriod «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

forecastPeriod - couple

Association (source - target): «place1Type»

forecastPeriod - Forecast

Association (source - target): «place2Type»

forecastPeriod - EnterprisePhase

Generalization (element - is a subtype of): «IDEAS:superSubtype»

forecastPeriod - ModemThing

Attributes:

-

A couple that relates the Forecast to the EnterprisePhase that it covers. Note: if a forecast does not correspond to an existing EnterprisePhase, new EnterprisePhases can be created to cover the period - i.e. you can have as many EnterprisePhases as are needed.

functionInSequence «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

functionInSequence - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

functionInSequence - ResourceFunction

Association (source - target): «place2Type»

functionInSequence - SequencedFunction

Attributes:

-

A modemIndividualTypeSpecialisation that relates a ResourceFunction to its usage (as a SequencedFunction) on a ResourceLifeLine. Note: A SequencedFunction is based on only one Function

implementsDataModel «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

implementsDataModel - couple

Association (source - target): «place2Type»

implementsDataModel - SoftwareType

Association (source - target): «place1Type»

implementsDataModel - PhysicalDataManager

Attributes:

-

A couple that asserts that a SoftwareType implements a PhysicalDataManager.

individualPortConnectedToPortConnector «IDEAS:TupleType»*Connectors:*

Association (source - target): «place1Type»

individualPortConnectedToPortConnector - IndividualPortConnector

Association (source - target): «place2Type»

individualPortConnectedToPortConnector - IndividualPort

Dependency (element - is instance of): «IDEAS:powertypeInstance»

individualPortConnectedToPortConnector - IndividualPortConnectedToPortConnectorPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualPortConnectedToPortConnector - connected

Attributes:

-

A connected relationship that asserts that an IndividualResourcePort is a part of an IndividualResourcePortConnection.

individualRadioFrequencyPortConnectedToPortConnector «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualRadioFrequencyPortConnectedToPortConnector - individualPortConnectedToPortConnector

Association (source - target): «place1Type»

individualRadioFrequencyPortConnectedToPortConnector - IndividualRadioFrequencyPortConnector

Association (source - target): «place2Type»

individualRadioFrequencyPortConnectedToPortConnector - IndividualRadioFrequencyPort

Attributes:

-

A individualPortConnectedToPortConnector that asserts that an IndividualRadioFrequencyPort is a part of an IndividualRadioFrequencyPortConnection.

individualResourceState «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualResourceState - individualResourceWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualResourceState - modemTemporalWholePart

Association (source - target): «place2Type»

individualResourceState - IndividualResourceState

Attributes:

-

An individualResourceWholePart and a modemTemporalWholePart that links an IndividualResource to one of its states.

individualResourceStateUsage «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

individualResourceStateUsage - individualResourceState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

individualResourceStateUsage - IndividualResourceStateUsagePowertype

Attributes:

- An individualResourceState that is a usage relation between the used IndividualResourceState and individualResource.

individualResourceStateWholeAndPart «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

individualResourceStateWholeAndPart - modemWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

individualResourceStateWholeAndPart - IndividualResourceStateWholeAndPartType

Association (source - target): «place2Type»

individualResourceStateWholeAndPart - IndividualResourceState

Association (source - target): «place1Type»

individualResourceStateWholeAndPart - IndividualResourceState

Attributes:

- A modemWholePart where both the whole and part are IndividualResourceStates.

individualResourceUsage «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

individualResourceUsage - individualResourceWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

individualResourceUsage - IndividualResourceUsagePowertype

Association (source - target): «place1Type»

individualResourceUsage - IndividualResource

Association (source - target): «place2Type»

individualResourceUsage - IndividualResource

Attributes:

- An individualResourceWholePart relationship where one IndividualResource uses a part (or all) of another.

individualResourceWholePart «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

individualResourceWholePart - modemWholePart

Association (source - target): «place2Type»

individualResourceWholePart - IndividualResourcePart

Association (source - target): «place1Type»

individualResourceWholePart - IndividualResource

Attributes:

- A modemWholePart where the whole is an IndividualResource and the part is an IndividualResourcePart.

interactionInScenario «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionInScenario - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

interactionInScenario - ResourceInteraction

Association (source - target): «place2Type»

interactionInScenario - SequencedResourceInteraction

Attributes:

-
A modemIndividualTypeSpecialisation that relates a ResourceInteraction to its usage (as a SequencedResourceInteraction) in an ImplementationScenario. Note: A SequencedResourceInteraction is based on only one ResourceInteraction

measureOfIndividualResourcePerformance «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

measureOfIndividualResourcePerformance - modemIndividualTypeInstance

Generalization (element - is a subtype of): «IDEAS:superSubtype»

measureOfIndividualResourcePerformance - measureOfIndividual

Association (source - target): «place1Type»

measureOfIndividualResourcePerformance - Measure

Association (source - target): «place2Type»

measureOfIndividualResourcePerformance - IndividualResource

Attributes:

-
A measureOfIndividual that specifies the level of performance of an IndividualResource.

naturalResourcePart «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

naturalResourcePart - individualResourceUsage

Association (source - target): «place2Type»

naturalResourcePart - NaturalResource

Association (source - target): «place1Type»

naturalResourcePart - NaturalResource

Attributes:

-
An individualResourceUsage that asserts one NaturalResource is part of another.

naturalResourceSpecification «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

naturalResourceSpecification - usedNonHumanResourceTypeSpecialisation

Association (source - target): «place1Type»

naturalResourceSpecification - NaturalResourceType

Association (source - target): «place2Type»

naturalResourceSpecification - NaturalResourceComponent

Attributes:

-
A usedNonHumanResourceTypeSpecialisation that asserts that a NaturalResourceTypeUsage is a specialisation of a NaturalResourceType.

nodeRealisation «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

nodeRealisation - bodyTypeSuperSubType

Association (source - target):«place1Type»

nodeRealisation - Node

Association (source - target):«place2Type»

nodeRealisation - ResourceType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

nodeRealisation - modemIndividualTypeSpecialisation

Attributes:

-

A superSubtype that asserts that a ResourceType provides the functionality specified by an operational node.

portComponentOfArtefact «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

portComponentOfArtefact - individualResourceWholePart

Dependency (element - is instance of):«IDEAS:powertypeInstance»

portComponentOfArtefact - PortComponentOfArtefactPowertype

Association (source - target):«place2Type»

portComponentOfArtefact - IndividualPort

Association (source - target):«place1Type»

portComponentOfArtefact - Artefact

Attributes:

-

An individualResourceWholePart where the whole is an IndividualResource and the part is an ResourcePort.

protocolStackSuperResourcePortConnectorTypeSubType «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

protocolStackSuperResourcePortConnectorTypeSubType - protocolStackSuperSubType

Association (source - target):«place2Type»

protocolStackSuperResourcePortConnectorTypeSubType - PortConnector

Attributes:

-

A superSubType relation with a superType ProtocolStack and a subType ResourcePortConnectorType.

protocolStackSuperPortSubType «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of):«IDEAS:superSubtype»

protocolStackSuperPortSubType - protocolStackSuperSubType

Association (source - target):«place2Type»

protocolStackSuperPortSubType - Port

Association (source - target):«place1Type»

protocolStackSuperPortSubType - ProtocolStack

Attributes:

-

A superSubType relation with a superType ProtocolStack and a subType Port.

protocolStackSuperSubType «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
protocolStackSuperSubType - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»
protocolStackSuperSubType - ProtocolStack

Attributes:

-
A modemIndividualTypeSpecialisation relation with a superType ProtocolStack.

protocolStackTypeIndividualPortConnector «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
protocolStackTypeIndividualPortConnector - protocolStackTypeInstance
Association (source - target): «place2Type»
protocolStackTypeIndividualPortConnector - IndividualPortConnector

Attributes:

-
A typeInstance relation between the type ProtocolStack and the instance IndividualResourcePortConnection.

protocolStackTypeInstance «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
protocolStackTypeInstance - modemIndividualTypeInstance
Association (source - target): «place1Type»
protocolStackTypeInstance - ProtocolStack

Attributes:

-
A modemIndividualTypeInstance that asserts that a ProtocolStack has a ResoucePort as an instance.

protocolStackTypePortInstance «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
protocolStackTypePortInstance - protocolStackTypeInstance
Association (source - target): «place2Type»
protocolStackTypePortInstance - IndividualPort

Attributes:

-
A ProtocolStackTypeInstance that asserts that a ProtocolStack has a ResourcePort as an instance.

providedService «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
providedService - modemIndividualTypeSpecialisation
Generalization (element - is a subtype of): «IDEAS:superSubtype»
providedService - bodyTypeSuperSubType

Association (source - target): «place2Type»
providedService - ResourceType
Association (source - target): «place1Type»
providedService - ServiceLevel

Attributes:

-

A superSubtype that asserts that a Resource delivers a Service to a specified ServiceLevel.

radioFrequencyPortConnectorFrequencyRange «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

radioFrequencyPortConnectorFrequencyRange - radioFrequencyRangeAssignment

Association (source - target):«place2Type»

radioFrequencyPortConnectorFrequencyRange - RadioFrequencyPortConnector

Association (source - target):«place1Type»

radioFrequencyPortConnectorFrequencyRange - FrequencyRange

Attributes:

-

A radioFrequencyRangeAssignment that asserts a radio frequency range has been assigned to a RadioFrequencyPortConnector.

radioFrequencyPortFrequencyRange «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

radioFrequencyPortFrequencyRange - radioFrequencyRangeAssignment

Association (source - target):«place2Type»

radioFrequencyPortFrequencyRange - RadioFrequencyPort

Association (source - target):«place1Type»

radioFrequencyPortFrequencyRange - FrequencyRange

Attributes:

-

A radioFrequencyRangeAssignment that asserts a radio frequency range has been assigned to a RadioFrequencyPort.

radioFrequencyRangeAssignment «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

radioFrequencyRangeAssignment - measureOfType

Association (source - target):«place1Type»

radioFrequencyRangeAssignment - FrequencyRange

Attributes:

-

A measureOfType that asserts a radio frequency range has been assigned.

realisationAsFieldedCapability «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

realisationAsFieldedCapability - modemIndividualTypeInstance

Association (source - target):«place2Type»

realisationAsFieldedCapability - FieldedCapabilityConfiguration

Association (source - target):«place1Type»

realisationAsFieldedCapability - CapabilityConfiguration

Attributes:

-

A modemIndividualTypeInstance that relates a CapabilityConfiguration to a FieldedCapabilityConfiguration.

requiredCompetence «IDEAS:TupleType»Connectors:

Association (source - target):«place1Type»

requiredCompetence - Competence

Generalization (element - is a subtype of):«IDEAS:superSubtype»

requiredCompetence - couple

Generalization (element - is a subtype of):«IDEAS:superSubtype»

requiredCompetence - ModemThing

Attributes:

-
A couple that asserts a Competence is required.

requiredService «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

requiredService - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

requiredService - couple

Association (source - target):«place1Type»

requiredService - ResourceType

Association (source - target):«place2Type»

requiredService - ServiceLevel

Attributes:

-
A couple that asserts a ResourceType requires a Service (to a given ServiceLevel) in order to function.

resourceTypeInstance «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

resourceTypeInstance - modemIndividualTypeInstance

Association (source - target):«place2Type»

resourceTypeInstance - IndividualResource

Association (source - target):«place1Type»

resourceTypeInstance - ResourceType

Attributes:

-
A modelIndividualTypeInstance that relates an IndividualResource to its ResourceType.

resourceTypeMeasure «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

resourceTypeMeasure - measureOfType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

resourceTypeMeasure - resourceTypeProperty

Association (source - target):«place1Type»

resourceTypeMeasure - Measure

Association (source - target):«place2Type»

resourceTypeMeasure - ResourceType

Attributes:

-
A measureOfType where the type is a ResourceType.

resourceTypeProperty «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
resourceTypeProperty - propertyOfType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
resourceTypeProperty - modemIndividualTypeSpecialisation
Association (source - target): «place1Type»
resourceTypeProperty - Property
Association (source - target): «place2Type»
resourceTypeProperty - ResourceType

Attributes:

-
A propertyOfType where the type is a ResourceType.

roleInIndividualInteraction «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
roleInIndividualInteraction - exchangedItemRoleInExchange
Dependency (element - is instance of): «IDEAS:powertypeInstance»
roleInIndividualInteraction - RoleInIndividualInteractionPowertype
Association (source - target): «place2Type»
roleInIndividualInteraction - IndividualInteractionElementRole
Association (source - target): «place1Type»
roleInIndividualInteraction - IndividualResourceInteraction

Attributes:

-
n exchangedItemRoleInExchange that asserts the IndividualInteractionElementRole is a component of the exchange.

roleOfIndividualResourceElement «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
RoleOfIndividualResourceElement - roleOfIndividualInteractionElement
Dependency (element - is instance of): «IDEAS:powertypeInstance»
RoleOfIndividualResourceElement - RoleOfIndividualResourceElementPowertype
Association (source - target): «place1Type»
RoleOfIndividualResourceElement - IndividualResource
Association (source - target): «place2Type»
RoleOfIndividualResourceElement - IndividualResourceElementRole

Attributes:

-
An roleOfIndividualInteractionElement that asserts the IndividualResourceElementRole is the thing being exchanged by the IndividualResource.

roleInIndividualResourceMovement «IDEAS:TupleType»*Connectors:*

Dependency (element - is instance of): «IDEAS:powertypeInstance»
roleInIndividualResourceMovement - RoleInIndividualResourceMovementPowertype
Generalization (element - is a subtype of): «IDEAS:superSubtype»
roleInIndividualResourceMovement - roleInIndividualInteraction
Association (source - target): «place2Type»
roleInIndividualResourceMovement - IndividualResourceElementRole
Association (source - target): «place1Type»
roleInIndividualResourceMovement - IndividualResourceMovement

Attributes:

- A roleInIndividualInteraction that asserts the IndividualResourceElementRole is a component of the exchange.

roleOfIndividualInteractionElement «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of):«IDEAS:powertypeInstance»

roleOfIndividualInteractionElement - RoleOfIndividualInteractionElementPowertype

Generalization (element - is a subtype of):«IDEAS:superSubtype»

roleOfIndividualInteractionElement - individualRoleAsExchangedItem

Generalization (element - is a subtype of):«IDEAS:superSubtype»

roleOfIndividualInteractionElement - modemWholePart

Association (source - target):«place1Type»

roleOfIndividualInteractionElement - IndividualResourceInteractionElement

Association (source - target):«place2Type»

roleOfIndividualInteractionElement - IndividualInteractionElementRole

Attributes:

- An individualRoleAsExchangedItem that asserts the IndividualResourceInteractionElement is the thing being exchanged by the IndividualResourceInteractionElement.

serviceConcurrency «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceConcurrency - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

serviceConcurrency - representedBy

Association (source - target):«place2Type»

serviceConcurrency - IntegerRepresentation

Association (source - target):«place1Type»

serviceConcurrency - ServiceLevel

Attributes:

- A representedBy that assigns an IntegerRepresentation for the number of concurrent ServiceSpecifications required for a ServiceLevel.

serviceFunctionFunctionMapping «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»

serviceFunctionFunctionMapping - ServiceFunction

Association (source - target): «place2Type»

serviceFunctionFunctionMapping - Function

Generalization (element - is a subtype of): «IDEAS:superSubtype»

serviceFunctionFunctionMapping - modemIndividualTypeSpecialisation

Attributes:

- A modemIndividualTypeSpecialisation that relates an OperationalActivity or ActivityGroup to the Function or FunctionGroup that realises it.

softwareComponent «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

softwareComponent - artefactPart

Association (source - target):«place2Type»

softwareComponent - Software

Association (source - target):«place1Type»

softwareComponent - Software

Attributes:

-
An artefactPart that asserts that a Software is component of an Artefact.

softwareSpecification «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

softwareSpecification - artefactSpecification

Association (source - target):«place1Type»

softwareSpecification - SoftwareType

Association (source - target):«place2Type»

softwareSpecification - SoftwareComponent

Attributes:

-
An artefactSpecification that asserts that a SoftwareComponent is a specialisation of a SoftwareType.

stateMachineForResourceType «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateMachineForResourceType - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

stateMachineForResourceType - appliedStateMachine

Association (source - target):«place1Type»

stateMachineForResourceType - ResourceType

Association (source - target):«place2Type»

stateMachineForResourceType - StateMachine

Attributes:

-
A appliedStateMachine that relates a ResourceType to its state machine.

usedCapabilityConfigurationSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

usedCapabilityConfigurationSpecialisation - usedHumanAndNonHumanConfigurationTypeSpecialisation

Association (source - target):«place1Type»

usedCapabilityConfigurationSpecialisation - CapabilityConfiguration

Association (source - target):«place2Type»

usedCapabilityConfigurationSpecialisation - CapabilityConfigurationConfigurationUsage

Attributes:

-
An usedHumanAndNonHumanConfigurationTypeSpecialisation between CapabilityConfiguration and CapabilityConfigurationConfigurationUsage.

usedHumanAndNonHumanConfigurationTypeSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

usedHumanAndNonHumanConfigurationTypeSpecialisation - usedResourceTypeSpecialisation

Association (source - target):«place1Type»

usedHumanAndNonHumanConfigurationTypeSpecialisation - HumanAndNonHumanConfigurationType

Association (source - target):«place2Type»

usedHumanAndNonHumanConfigurationTypeSpecialisation - HumanAndNonHumanResourceTypeConfigurationUsage

Attributes:

- A usedResourceTypeSpecialisation that asserts that an HumanAndNonHumanConfigurationType is a superType of a UsedHumanAndNonHumanConfigurationType.

usedNonHumanResourceTypeSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

usedNonHumanResourceTypeSpecialisation - usedResourceTypeSpecialisation

Association (source - target): «place1Type»

usedNonHumanResourceTypeSpecialisation - NonHumanResourceType

Association (source - target): «place2Type»

usedNonHumanResourceTypeSpecialisation - NonHumanResourceTypeConfigurationUsage

Attributes:

- An usedNonHumanResourceTypeSpecialisation between NonHumanResourceType and NonHumanResourceTypeConfigurationUsage.

usedOrganisationRoleTypeSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

usedOrganisationRoleTypeSpecialisation - usedResourceTypeSpecialisation

Association (source - target): «place1Type»

usedOrganisationRoleTypeSpecialisation - OrganisationRoleType

Association (source - target): «place2Type»

usedOrganisationRoleTypeSpecialisation - OrganisationRoleTypeUsage

Attributes:

- An usedResourceTypeSpecialisation that asserts a OrganisationRoleTypeUsage is a specialisation of a OrganisationRoleType.

usedOrganisationTypeSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

usedOrganisationTypeSpecialisation - usedResourceTypeSpecialisation

Association (source - target): «place1Type»

usedOrganisationTypeSpecialisation - OrganisationType

Association (source - target): «place2Type»

usedOrganisationTypeSpecialisation - OrganisationTypeUsage

Attributes:

- An usedResourceTypeSpecialisation that asserts a OrganisationTypeUsage is a specialisation of a OrganisationType.

usedPhysicalArchitectureSpecialisation «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

usedPhysicalArchitectureSpecialisation - usedHumanAndNonHumanConfigurationTypeSpecialisation

Association (source - target): «place1Type»

usedPhysicalArchitectureSpecialisation - PhysicalArchitecture

Association (source - target): «place2Type»

usedPhysicalArchitectureSpecialisation - PhysicalArchitectureConfigurationUsage

Attributes:

- An usedHumanAndNonHumanConfigurationTypeSpecialisation between PhysicalArchitecture and PhysicalArchitectureConfigurationUsage.

usedPostTypeSpecialisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

usedPostTypeSpecialisation - usedResourceTypeSpecialisation

Association (source - target): «place1Type»

usedPostTypeSpecialisation - PostType

Association (source - target): «place2Type»

usedPostTypeSpecialisation - PostTypeUsage

Attributes:

- An usedResourceTypeSpecialisation that asserts a PostTypeUsage is a specialisation of a PostType.

usedResourceTypeSpecialisation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

usedResourceTypeSpecialisation - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

usedResourceTypeSpecialisation - ResourceType

Association (source - target): «place2Type»

usedResourceTypeSpecialisation - ResourceTypeUsage

Attributes:

- A superSubtype that asserts that a ResourceType is a superType of ResourceTypeUsage.

versionIdentifier «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

versionIdentifier - representedBy

Generalization (element - is a subtype of): «IDEAS:superSubtype»

versionIdentifier - ModemThing

Association (source - target): «place2Type»

versionIdentifier - StringRepresentation

Association (source - target): «place1Type»

versionIdentifier - ResourceType

Attributes:

- A representedBy that asserts a StringRepresentation represents the version identifier of a ResourceType.

versionOf «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

versionOf - modemIndividualTypeSpecialisation

Association (source - target): «place1Type»

versionOf - ResourceTypeMaster

Association (source - target): «place2Type»

versionOf - ResourceType

Attributes:

- A modemIndividualTypeSpecialisation that asserts a ResourceType is a version of a ResourceTypeMaster.

2.6.14 System Views additional diagrams.

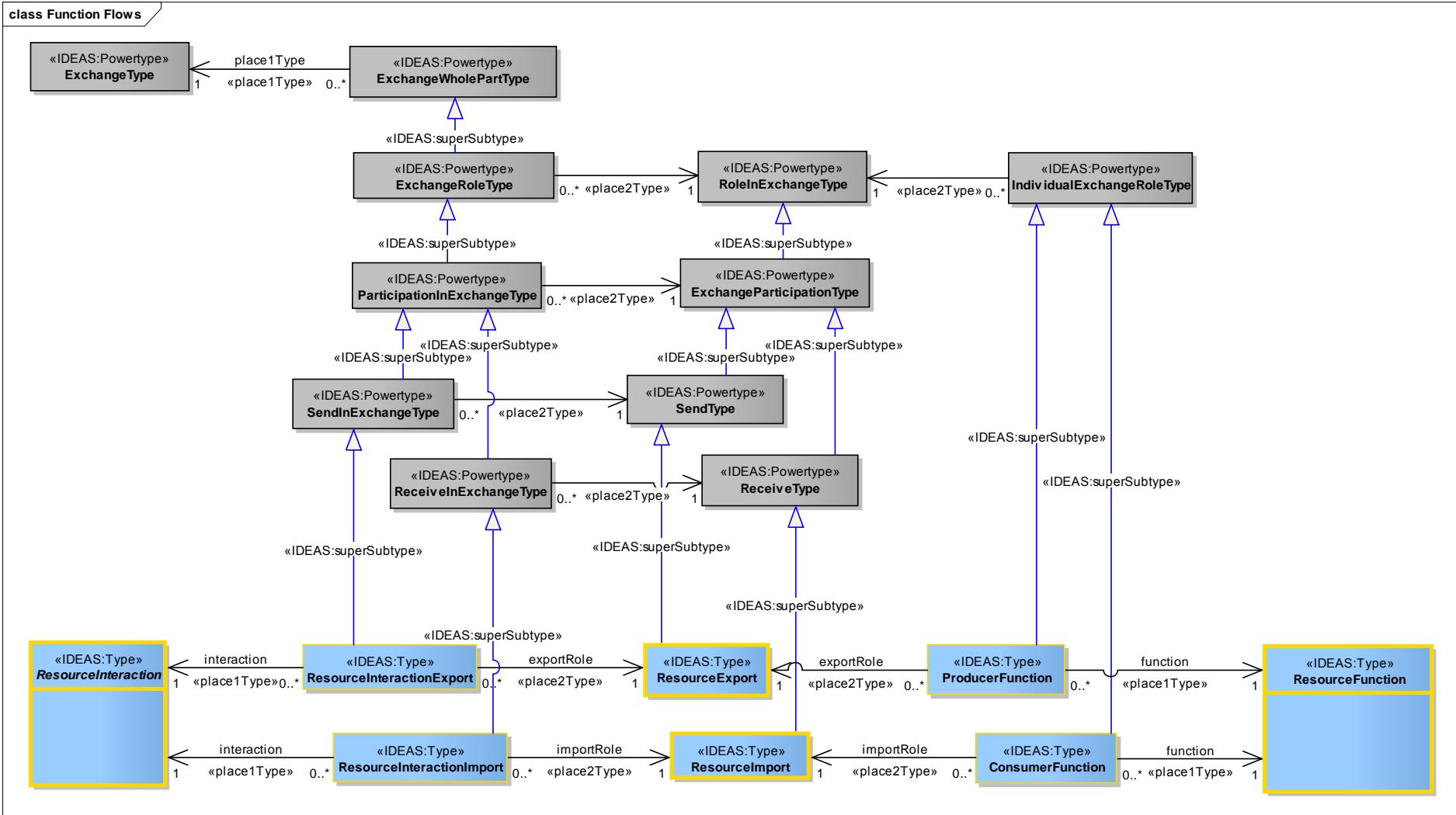


Figure 86 : Function Flows

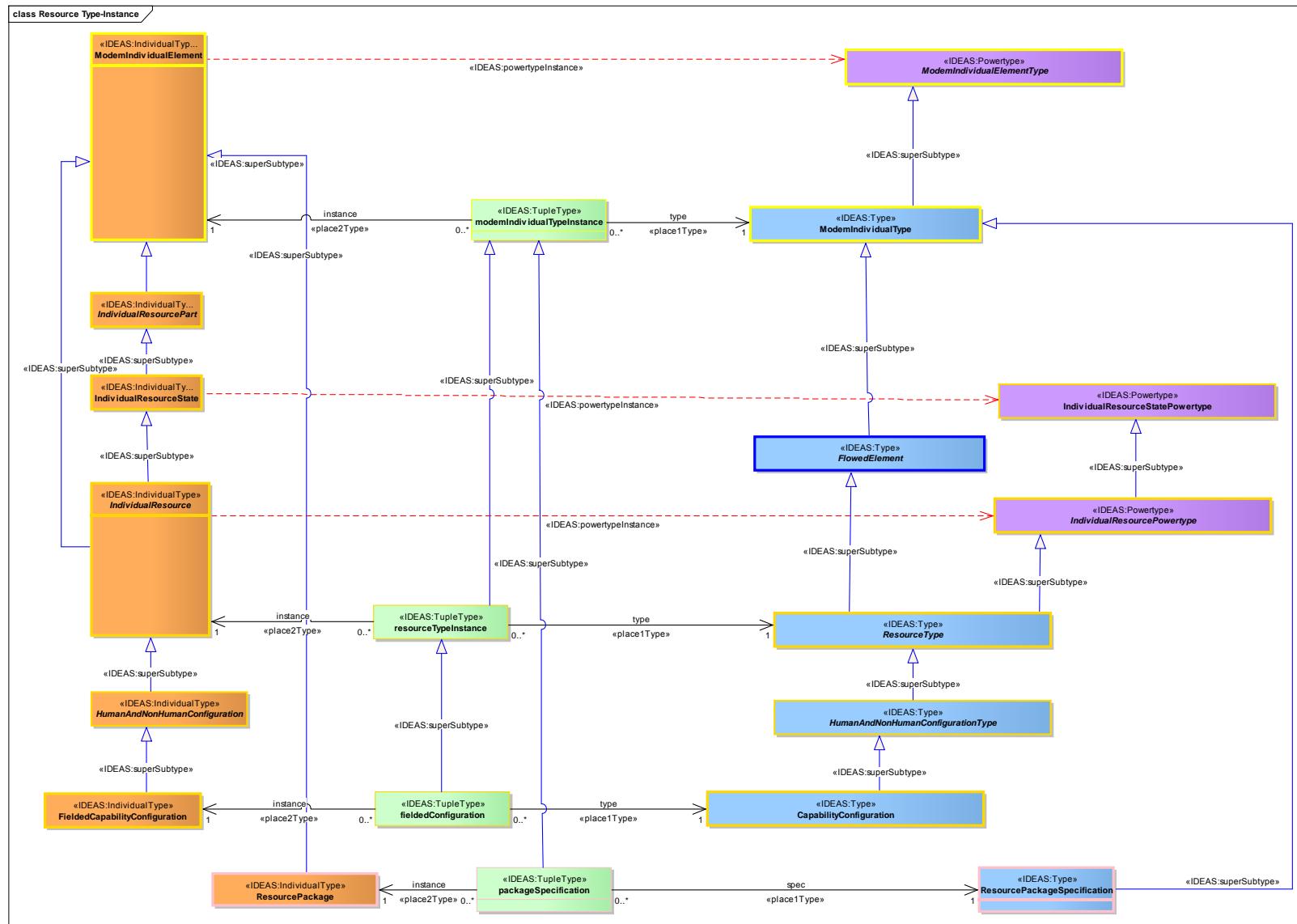


Figure 87 : Resource Type - Instance

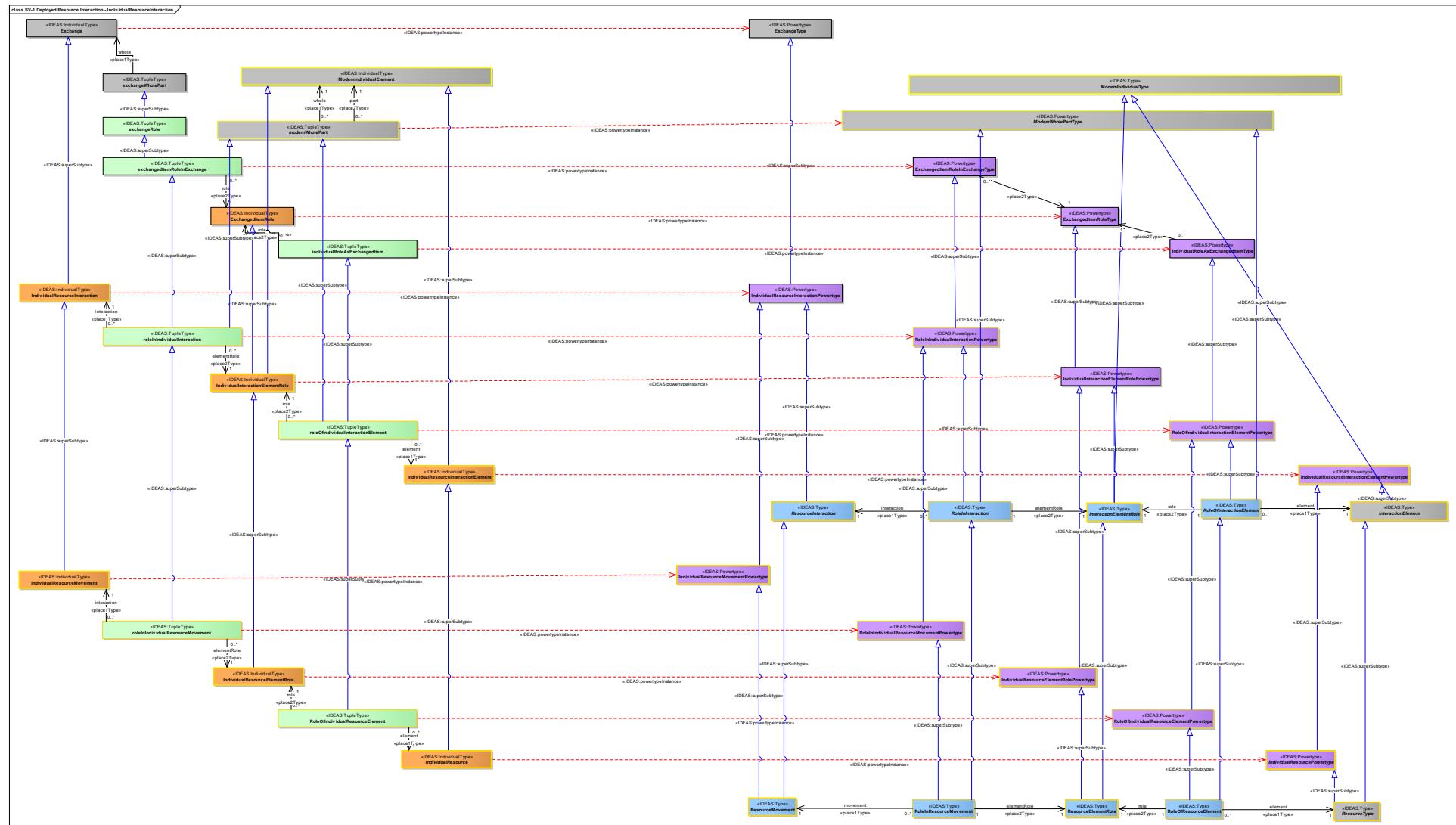


Figure 88 : SV-1 Deployed Resource Interaction - IndividualResourceInteraction

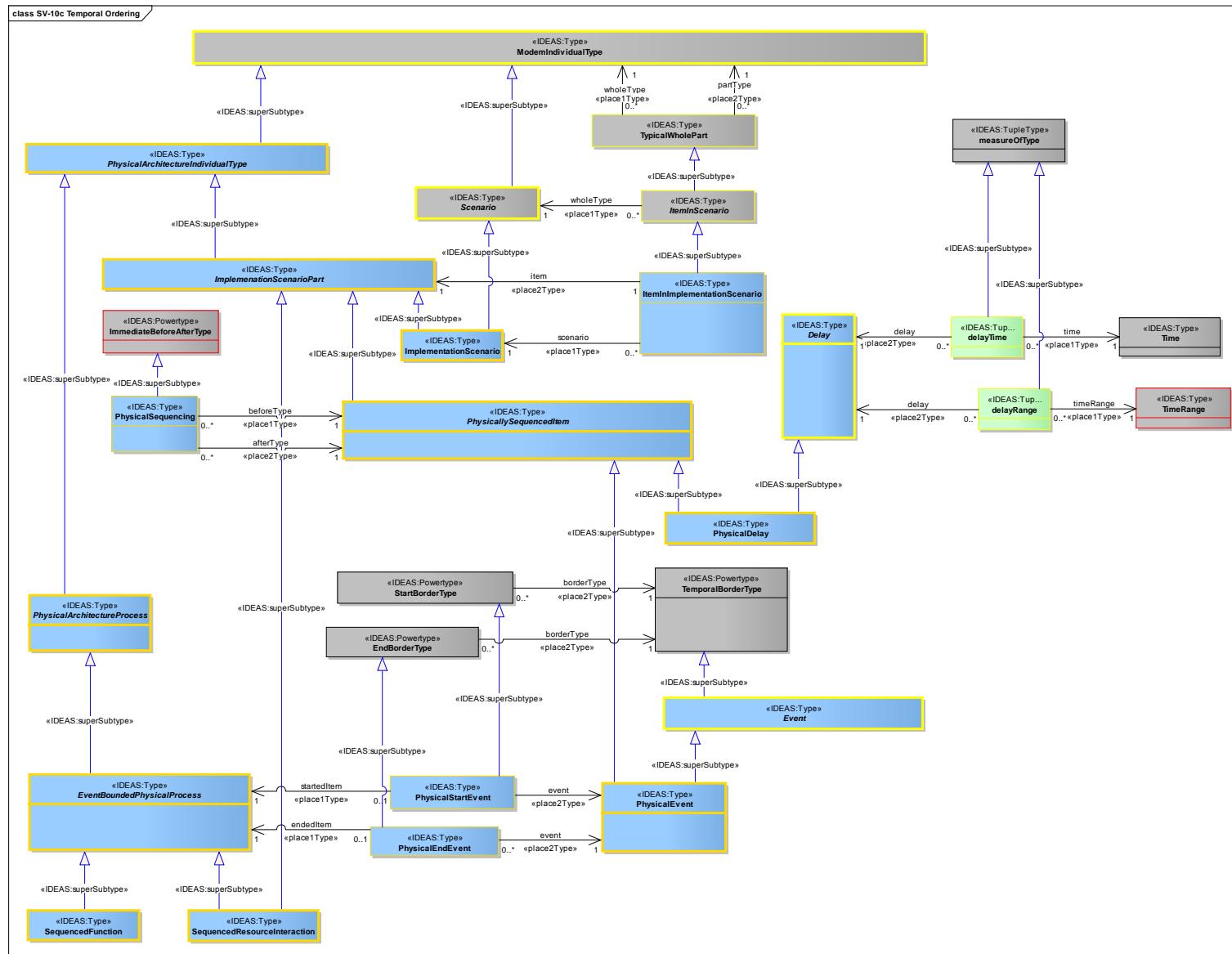


Figure 89 : SV-10c Temporal Ordering

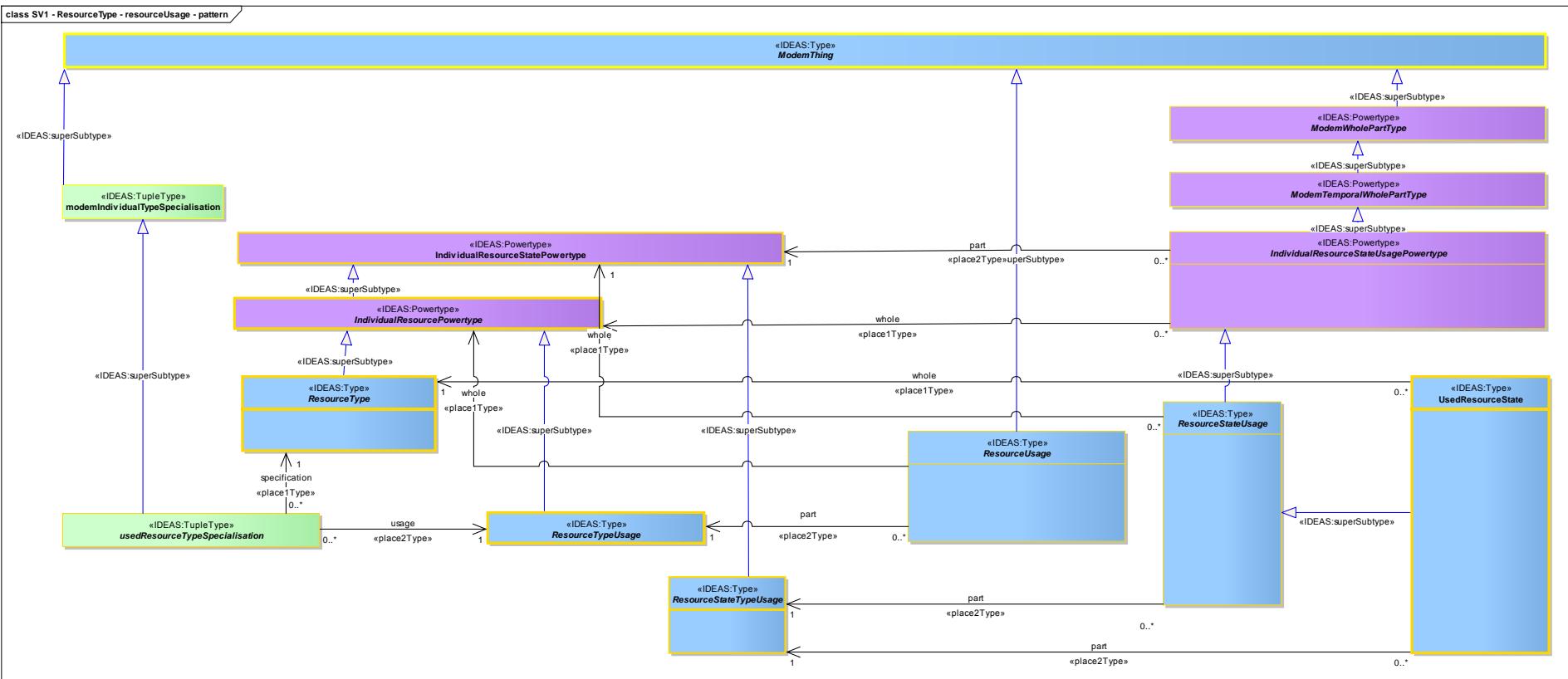


Figure 90 : SV1 - ResourceType - resourceUsage - pattern

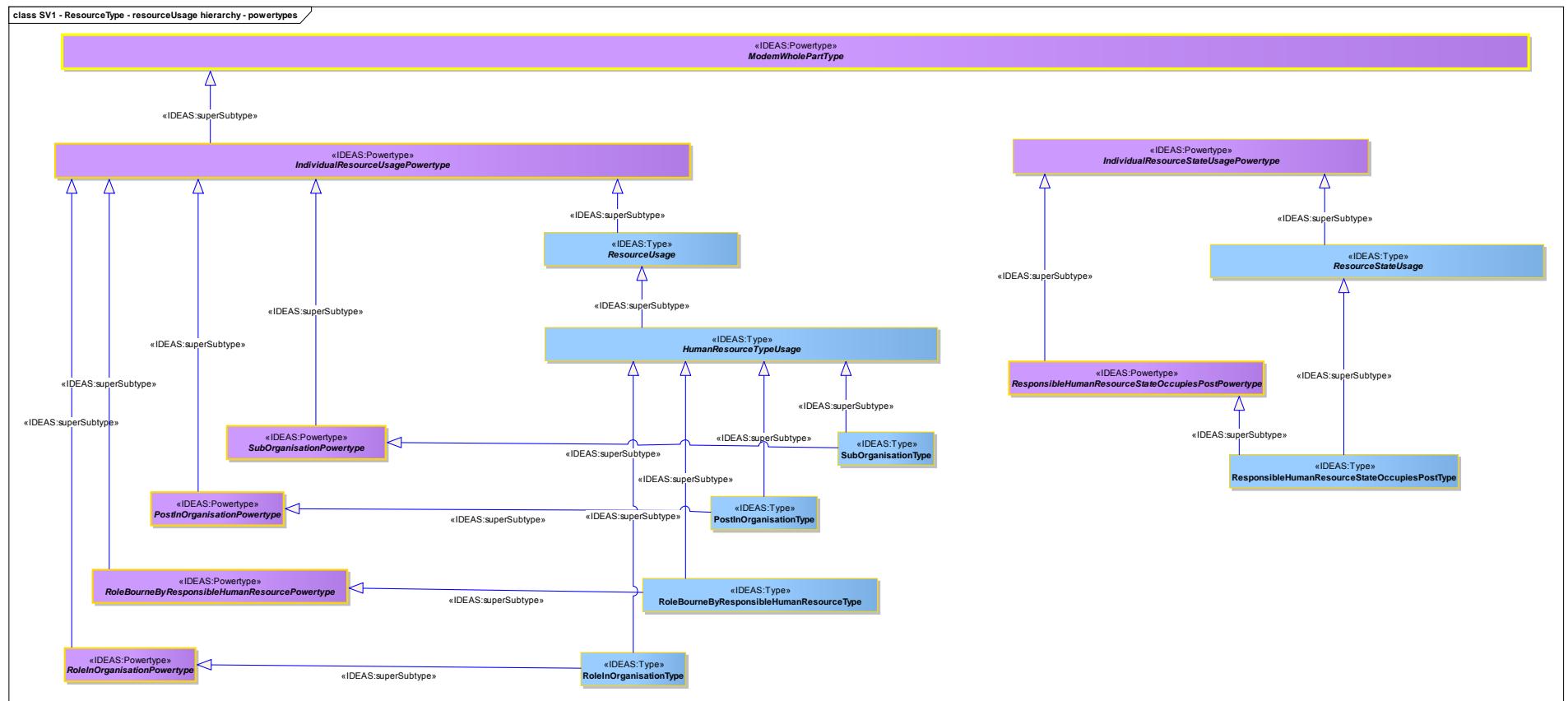


Figure 91 : SV1 - ResourceType - resourceUsage hierarchy - powertypes

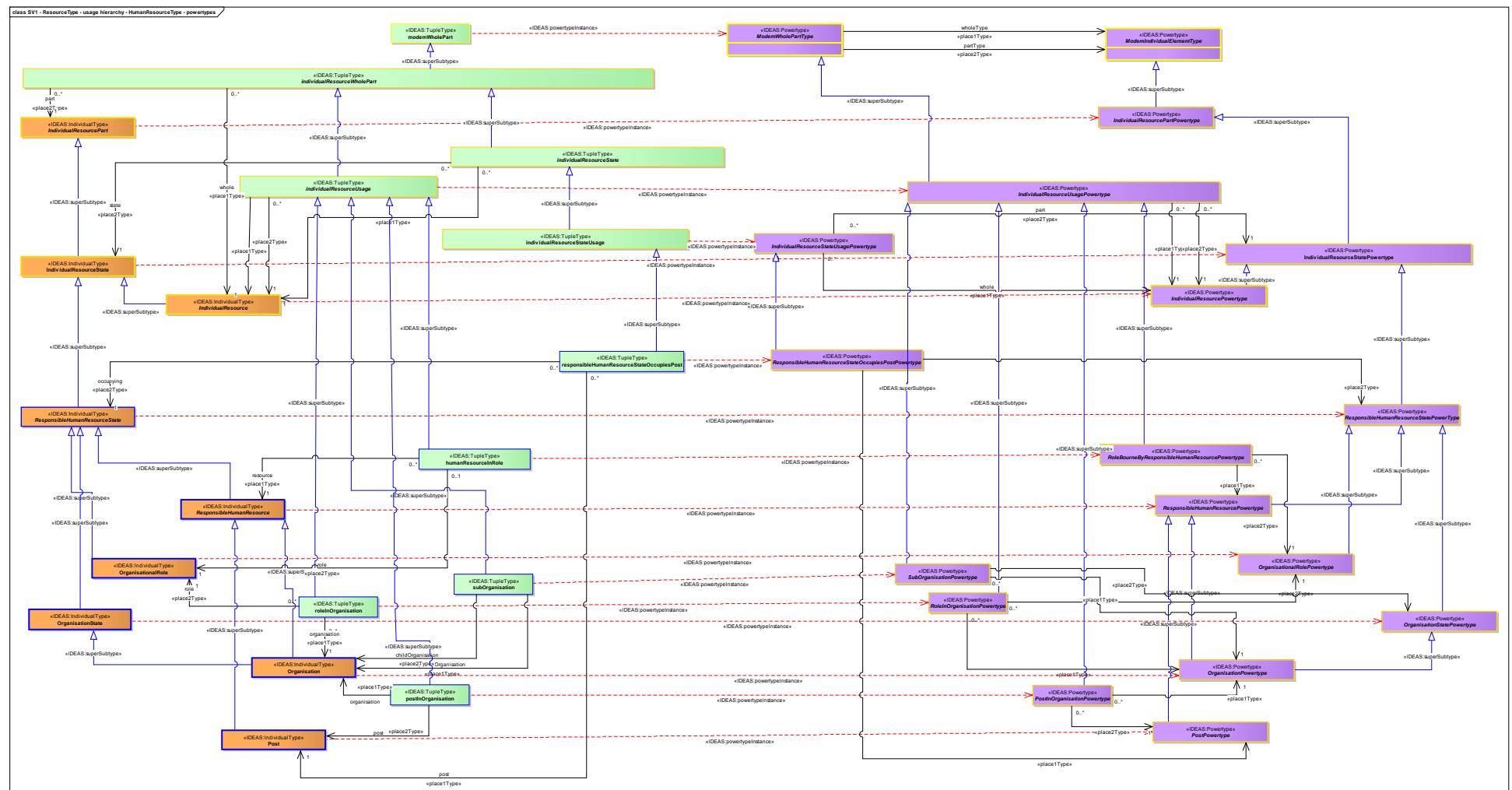


Figure 92 : SV1 - ResourceType - usage hierarchy - HumanResourceType - powertypes

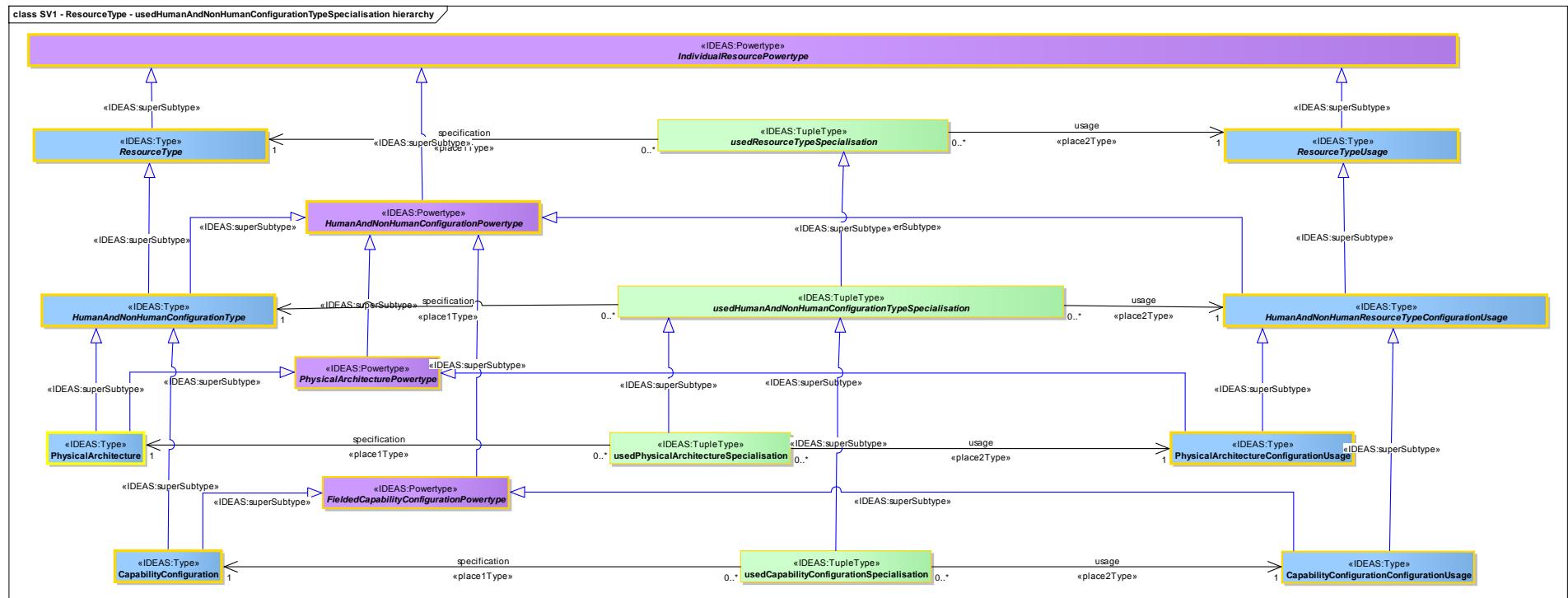


Figure 93 : SV1 - ResourceType - usedHumanAndNonHumanConfigurationTypeSpecialisation hierarchy

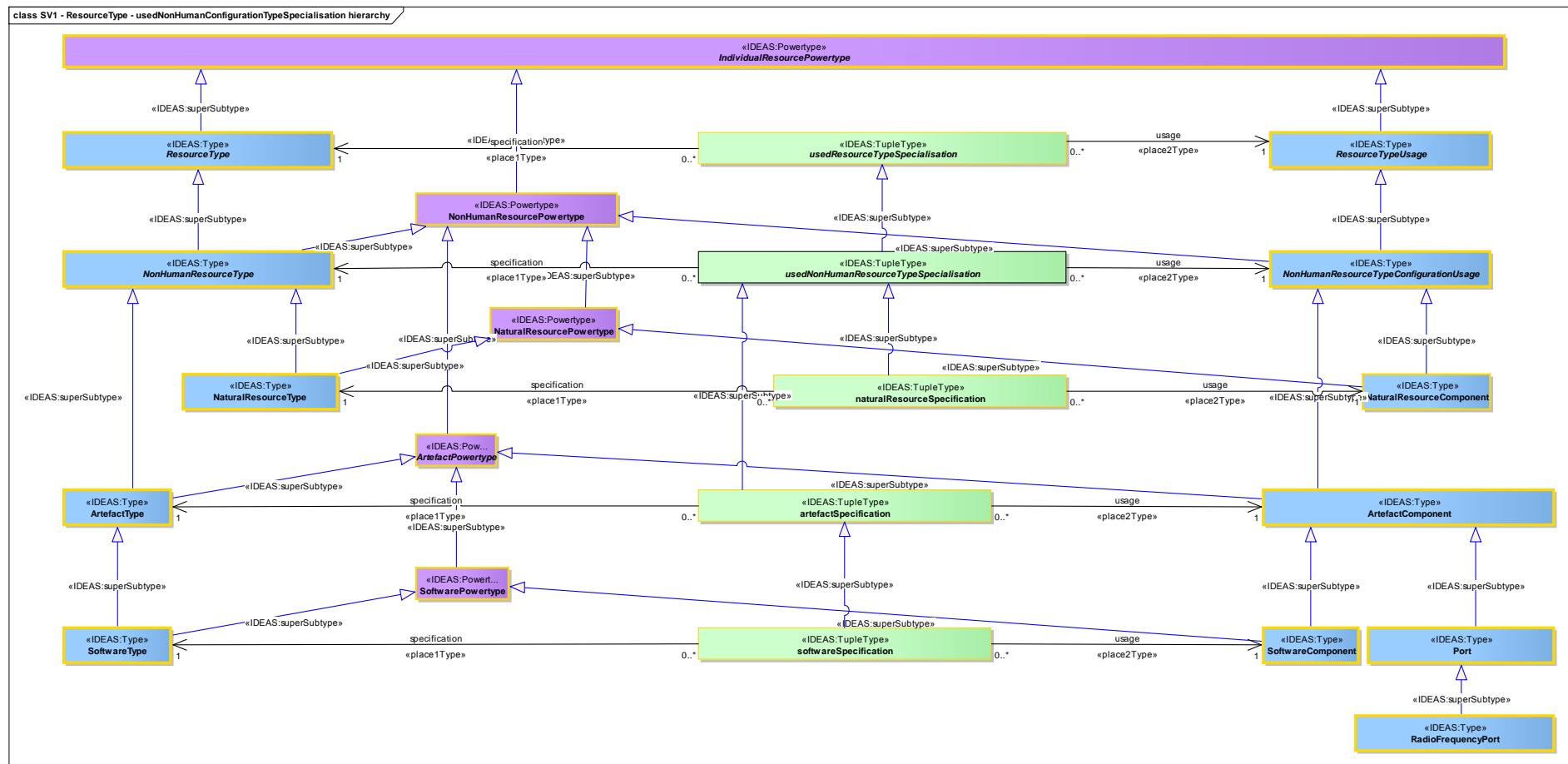


Figure 94 : SV1 - ResourceType - usedNonHumanConfigurationTypeSpecialisation hierarchy

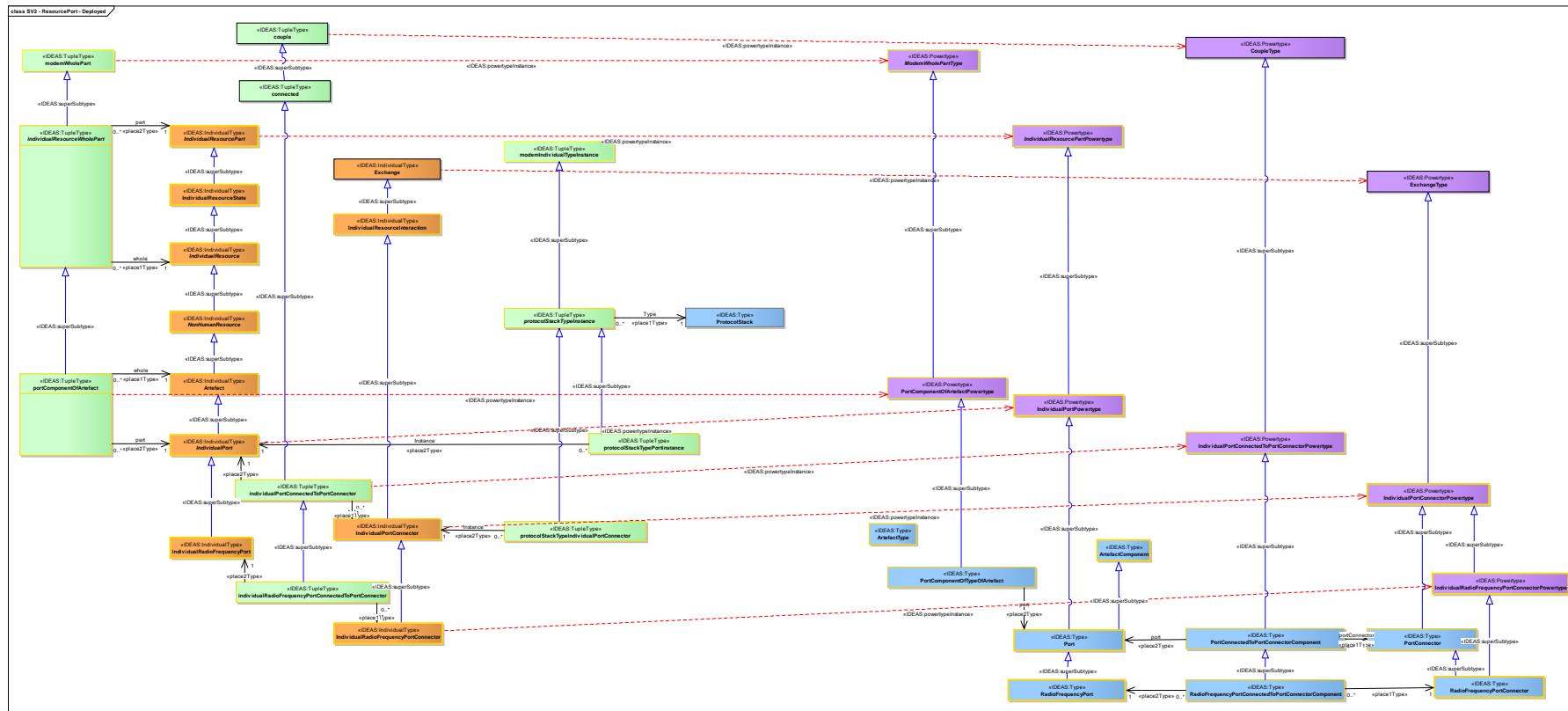


Figure 95 : SV2 - ResourcePort - Deployed

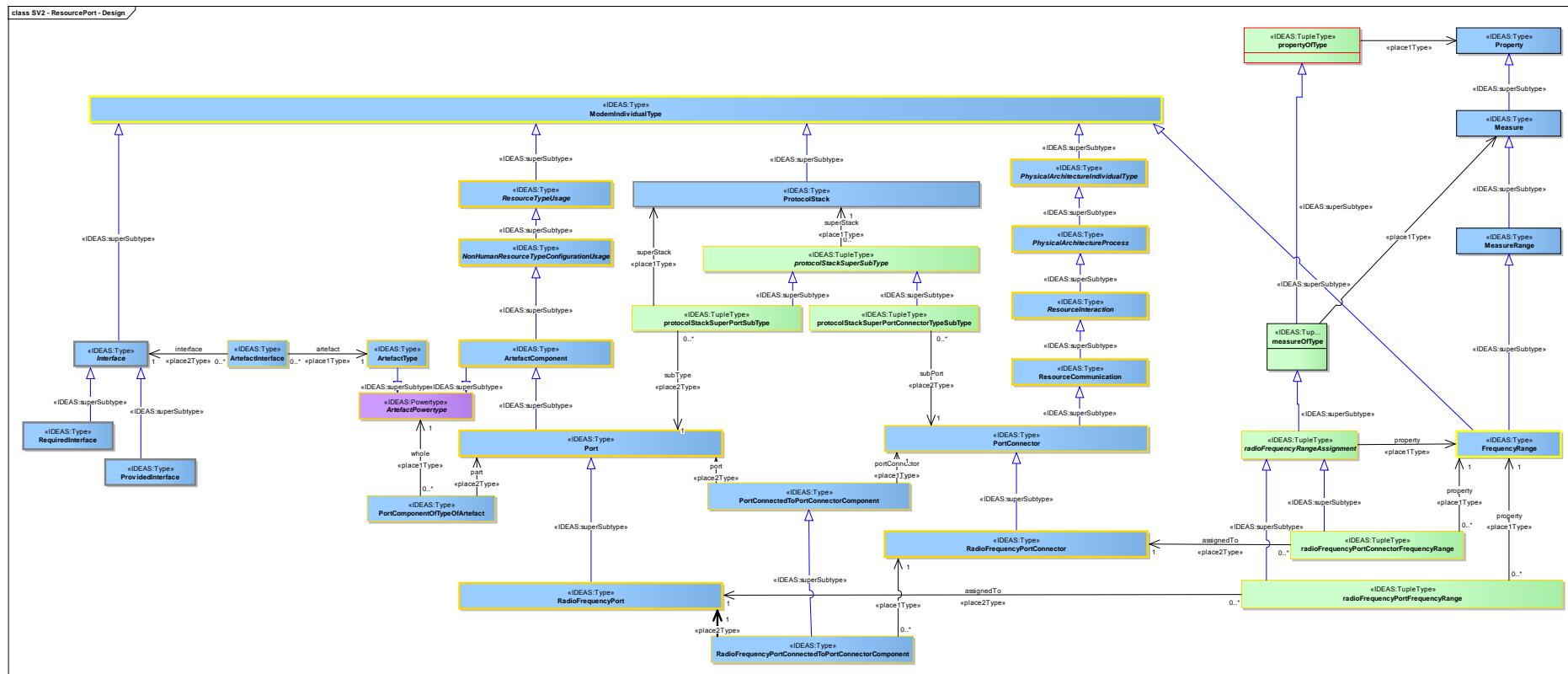


Figure 96 : SV2 - ResourcePort - Design

2.7 Technical standards views

2.7.1 TV-1: Standards profile, TV-2: Standards forecast

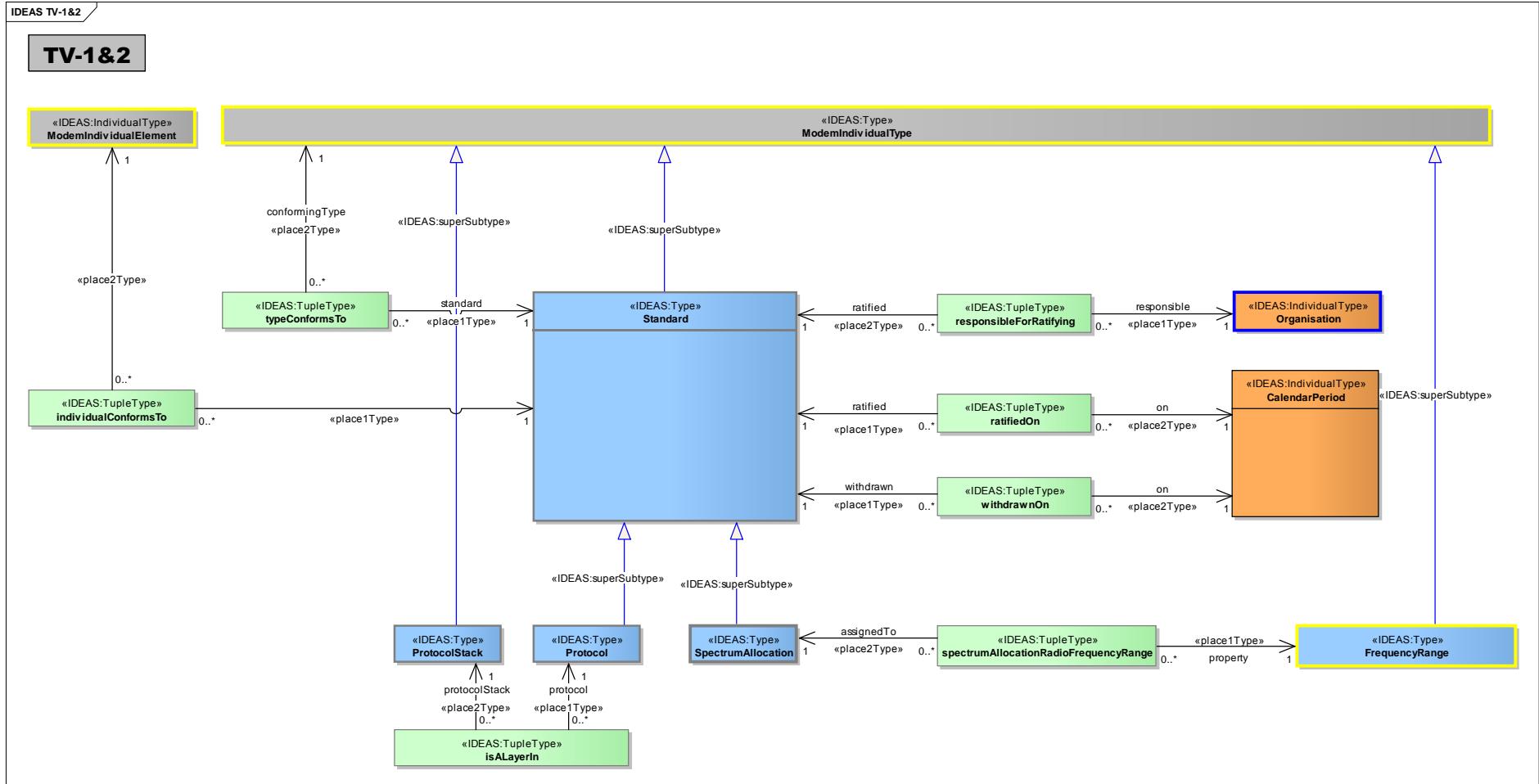


Figure 97 : TV-1&2

2.7.2 TV-3: Standard configuration

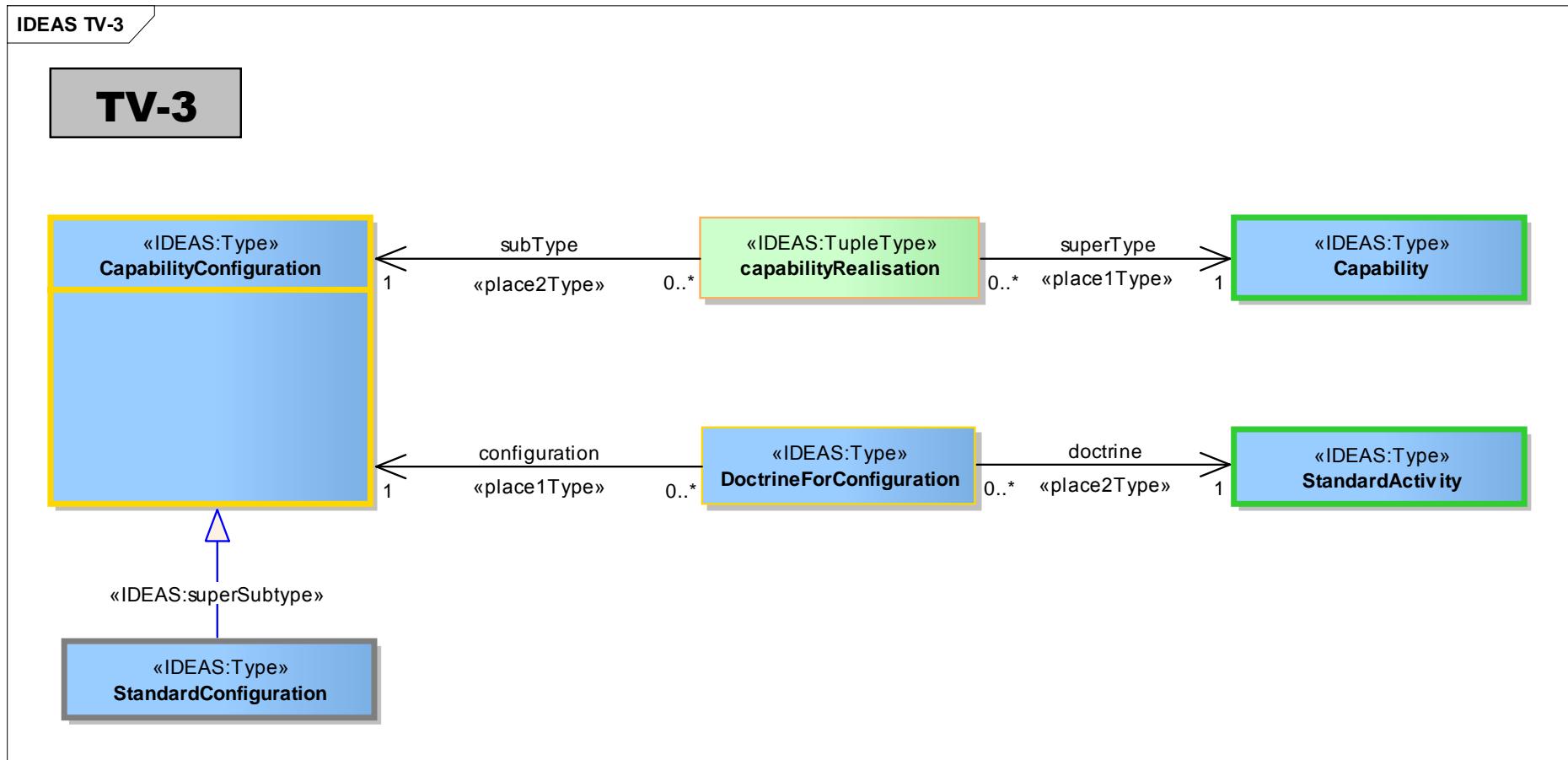


Figure 98 : TV-3

2.7.3 Protocols

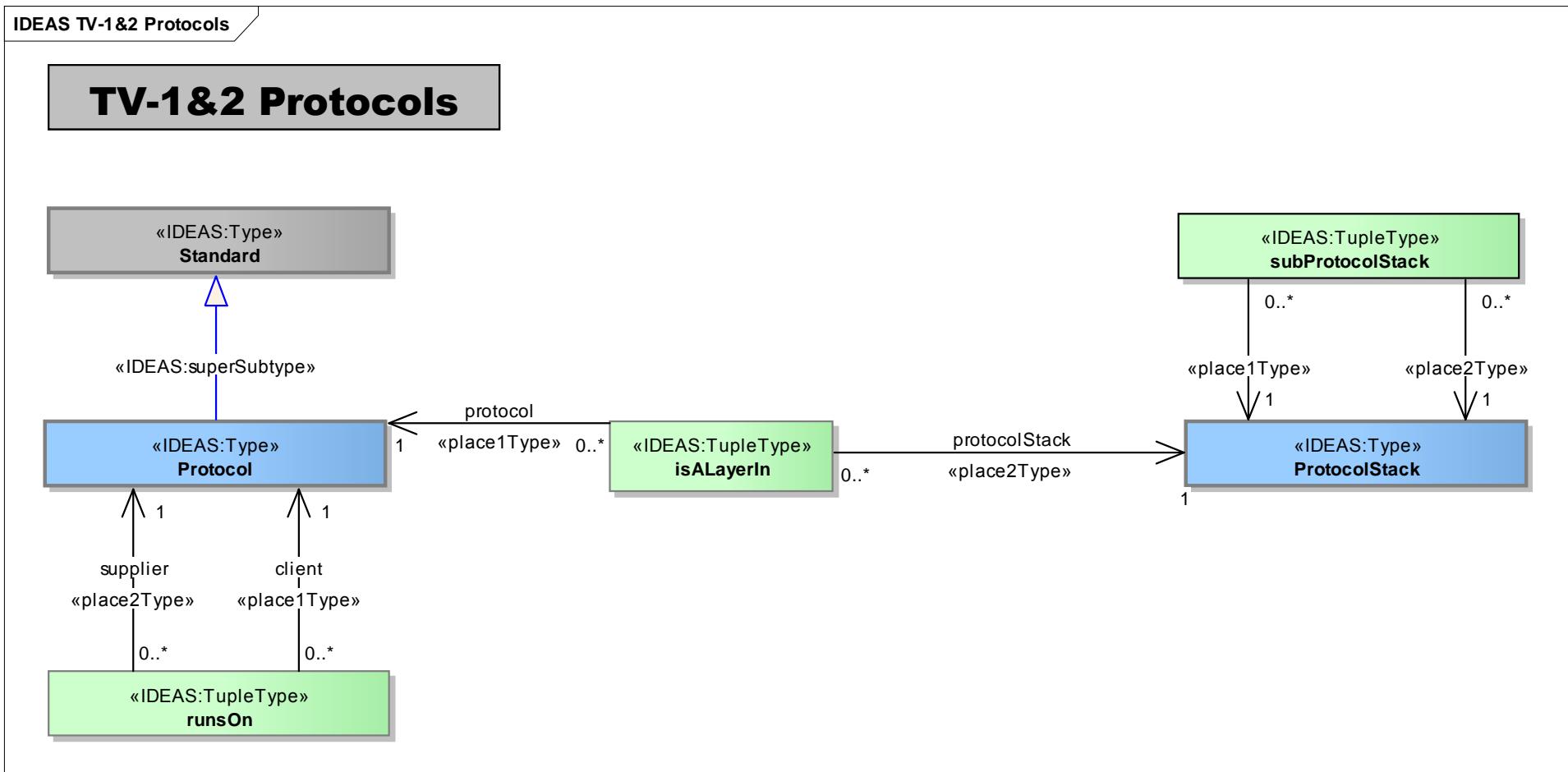


Figure 99 : TV-1&2 Protocols

2.7.4 Technical standards Views elements list

Technical Standard Views
AggregateDataType «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
AggregateDataType - DataModelTypeRepresentation
<i>Attributes:</i>
-
A DataModelTypeRepresentation which is an aggregate of other DataModelTypeRepresentations.
ArrayType «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ArrayType - AggregateDataType
<i>Attributes:</i>
-
An AggregateDataType whose members are addressed using a numeric index.
AsynchronousOperation «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
AsynchronousOperation - OperationSpecification
<i>Attributes:</i>
-
An OperationSpecification where the caller and called do not wait for each other to complete the communication.
Attribute «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
Attribute - DataModelComponent
<i>Attributes:</i>
-
A DataModelComponent that is a defined property of an Entity.
BagDataType «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
BagDataType - AggregateDataType
<i>Attributes:</i>
-
An AggregateDataType whose members are not kept in any particular order - i.e. there is no way to address a particular member.
BinaryDataType «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
BinaryDataType - SimpleDataType
<i>Attributes:</i>
-
A SimpleDataType whose instances are binary objects.
Note: Data Models may instantiate several different BinaryDataTypes - e.g. "BLOB", "MPEG", "varbinary", etc.

CardinalitySpecifier «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CardinalitySpecifier - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CardinalitySpecifier - IntegerRepresentation

Attributes:

exemplar

An IntegerRepresentation that specifies the cardinality of an EntityRelationshipEnd.

ChoiceDataType «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ChoiceDataType - DataModelTypeRepresentation

Attributes:

-
A DataModelTypeRepresentation which represents a choice of datatypes, restricted by the architect to a list. Note: Also known as a SELECT in some data modelling languages (e.g. ISO10303-11).

DataElement «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataElement - InteractionElement

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataElement – SymbolOrSymbolStringType

Attributes:

-
A SymbolOrSymbolStringType that represents interactions between resource elements.

DataModel «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataModel - StructuredRepresentation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataModel - ModemIndividualType

Attributes:

-
A StructuredRepresentation defining the structure of data, showing classifications of data elements and relationships between them.

DataModelComponent «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataModelComponent - Representation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataModelComponent - ModemIndividualType

Attributes:

-
A Representation that can be part of a DataModel.

DataModelTypeRepresentation «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DataModelTypeRepresentation - DataModelComponent

Attributes:

- A DataModelComponent that can be used to represent the type of something.

EndOfEntityRelationship «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EndOfEntityRelationship - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EndOfEntityRelationship - RepresentationInStructure

Association (source - target): «place2Type»

EndOfEntityRelationship - EntityRelationshipEnd

Association (source - target): «place1Type»

EndOfEntityRelationship - EntityRelationship

Attributes:

- A RepresentationStructure where an EntityRelationship has 2 or more EntityRelationshipEnds.

Entity «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Entity - DataModelTypeRepresentation

Attributes:

- A DataModelComponent that defines an item of interest.

EntityRelationship «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EntityRelationship - StructuredRepresentation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EntityRelationship - DataModelComponent

Attributes:

- A DataModelComponent that represents a relationship between two or more Entities.

EntityRelationshipEnd «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EntityRelationshipEnd - StructuredRepresentation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EntityRelationshipEnd - ModemIndividualType

Attributes:

- A DataModelComponent that is one end of an EntityRelationship.

EnumerationType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnumerationType - DataModelTypeRepresentation

Attributes:

- A DataModelTypeRepresentation which consists of named values.

FloatingPointDataType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

FloatingPointDataType - NumericDataType

Attributes:

-
A NumericDataType whose instances are real numbers. Note: Data Models may instantiate several different IntegerDataTypes - e.g. "float", "double", "real", etc.

HashedAggregate «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

HashedAggregate - AggregateDataType

Attributes:

-
An AggregateDataType whose members are indexed using an identifier.

IntegerDataType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IntegerDataType - NumericDataType

Attributes:

-
A NumericDataType whose instances are integer numbers. Note: Data Models may instantiate several different IntegerDataTypes - e.g. "LongInt", "short", "word", etc.

Interface «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Interface - ModemIndividualType

Attributes:

-
A ModemIndividualType that is an interface either provided or required by another ModemIndividualType.

InterfaceOperation «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InterfaceOperation - ProcessPartOfBodyType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InterfaceOperation - TypicalWholePart

Association (source - target): «place1Type»

InterfaceOperation - InterfaceSpecification

Association (source - target): «place2Type»

InterfaceOperation - OperationSpecification

Attributes:

-
A TypicalWholePart that relates an OperationSpecification to its InterfaceSpecification.

InterfaceSpecification «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InterfaceSpecification - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InterfaceSpecification - BodyType

Attributes:

- A ModemIndividualType that is a part of another ModemIndividualType that defines how it communicates.

ItemInDataModel «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ItemInDataModel - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ItemInDataModel - RepresentationInStructure

Association (source - target): «place2Type»

ItemInDataModel - DataModelComponent

Association (source - target): «place1Type»

ItemInDataModel - DataModel

Attributes:

- A RepresentationInStructure where a DataModelComponent is part of a DataModel.

ListDataType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ListDataType - AggregateDataType

Attributes:

- An AggregateDataType whose members are stored and accessed as an ordered list.

LogicalDataType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LogicalDataType - SimpleDataType

Attributes:

- A SimpleDataType whose instances are true/false or true/false/unknown. Note: Data Models may instantiate several different LogicalDataTypes - e.g. "Boolean", "YesNo", "BOOL", etc.

MaxAggregateSize «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MaxAggregateSize - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MaxAggregateSize - RepresentationInStructure

Association (source - target): «place1Type»

MaxAggregateSize - AggregateDataType

Association (source - target): «place2Type»

MaxAggregateSize - CardinalitySpecifier

Attributes:

- A RepresentationInStructure that specifies the maximum size of an AggregateDataType.

MaxCardinalityOfRelationshipEnd «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
MaxCardinalityOfRelationshipEnd - RepresentationInStructure
Generalization (element - is a subtype of): «IDEAS:superSubtype»
MaxCardinalityOfRelationshipEnd - ModemThing
Association (source - target): «place2Type»
MaxCardinalityOfRelationshipEnd - CardinalitySpecifier
Association (source - target): «place1Type»
MaxCardinalityOfRelationshipEnd - EntityRelationshipEnd

Attributes:

- A RepresentationInStructure that asserts a CardinalitySpecifier is part of an EntityRelationshipEnd, and that it represents the maximum cardinality value of that end.
Note: If no Maximum Cardinality is specified (i.e. there is no instance of this tuple type related to the EntityRelationshipEnd) then the default is "many" or "*".

MessageSpecification «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
MessageSpecification - DataElement

Attributes:

- A DataElement that specifies the content of a message.

MinAggregateSize «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
MinAggregateSize - RepresentationInStructure
Generalization (element - is a subtype of): «IDEAS:superSubtype»
MinAggregateSize - ModemThing
Association (source - target): «place1Type»
MinAggregateSize - AggregateDataType
Association (source - target): «place2Type»
MinAggregateSize - CardinalitySpecifier

Attributes:

- A RepresentationInStructure that specifies the minimum size of an AggregateDataType.

MinCardinalityOfRelationshipEnd «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»
MinCardinalityOfRelationshipEnd - RepresentationInStructure
Generalization (element - is a subtype of): «IDEAS:superSubtype»
MinCardinalityOfRelationshipEnd - ModemThing
Association (source - target): «place2Type»
MinCardinalityOfRelationshipEnd - CardinalitySpecifier
Association (source - target): «place1Type»
MinCardinalityOfRelationshipEnd - EntityRelationshipEnd

Attributes:

- A RepresentationInStructure that asserts a CardinalitySpecifier is part of an EntityRelationshipEnd, and that it represents the minimum cardinality value of that end. Note: If no Minimum Cardinality is specified (i.e. there is no instance of this tuple type related to the EntityRelationshipEnd) then the default is zero.

NumericDataType «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

NumericDataType - SimpleDataType

Attributes:

- A SimpleDataType whose instances are numbers.

OperationInputParameter «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

OperationInputParameter - TypicalWholePart

Association (source - target): «place1Type»

OperationInputParameter - OperationSpecification

Association (source - target): «place2Type»

OperationInputParameter - OperationParameter

Attributes:

- A TypicalWholePart where an OperationParameter is passed into a OperationSpecification.

OperationParameter «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

OperationParameter - ModemIndividualType

Attributes:

- A ModemIndividualType that is a part of an OperationSpecification

OperationParameters are passed in and out of OperationSpecifications.

OperationReadWriteParameter «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

OperationReadWriteParameter - TypicalWholePart

Association (source - target): «place1Type»

OperationReadWriteParameter - OperationSpecification

Association (source - target): «place2Type»

OperationReadWriteParameter - OperationParameter

Attributes:

- A TypicalWholePart where an OperationParameter is passed into a OperationSpecification that can then be modified and the result read after processing.

OperationReturnParameter «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

OperationReturnParameter - TypicalWholePart

Association (source - target): «place1Type»

OperationReturnParameter - OperationSpecification

Association (source - target): «place2Type»

OperationReturnParameter - OperationParameter

Attributes:

- A TypicalWholePart where an OperationParameter is passed out of an OperationSpecification.

OperationSpecification «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OperationSpecification - ModemIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OperationSpecification - ProcessType

Attributes:

- A ModemIndividualType that is an invokable part of an InterfaceSpecification.

[ABSTRACT]

Protocol «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Protocol - Standard

Attributes:

- A Standard for communication.

ProtocolStack «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProtocolStack - ModemIndividualType

Attributes:

- A ModemIndividualType that is all the Individuals which conform to one or more specified protocols (ordered into a stack) that may be implemented by one or more ResourcePorts. Note: was called "ImplementedProtocol" in M3.

ProvidedInterface «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProvidedInterface - Interface

Attributes:

- An Interface describing what a ServiceSpecification or a ResourceType is capable of providing when invoked by an external element.

RequiredInterface «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RequiredInterface - Interface

Attributes:

- An Interface describing what a ServiceSpecification or a ResourceType requires from an external element.

SecurityPolicy «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SecurityPolicy - Constraint

Attributes:

- A Constraint that is concerned with security.

SimpleDataType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SimpleDataType - DataModelTypeRepresentation

Attributes:

-
A DataModelTypeRepresentation that is used to specify the type of a literal (e.g. text, integer, floating point number, etc.)

SpectrumAllocation «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SpectrumAllocation - Standard

Attributes:

-
A Standard specifying a particular frequency range of the electromagnetic spectrum that is allotted to a particular usage.

Standard «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Standard - SubjectOfForecast

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Standard - ModemIndividualType

Attributes:

-
A ratified and peer-reviewed specification that is used to guide or constrain the architecture. A Standard may be applied to any element in the architecture.

StandardConfiguration «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StandardConfiguration - CapabilityConfiguration

Attributes:

-
A CapabilityConfiguration that has been designated as a standard configuration.

SupportedMessageFormat «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

supportedMessageFormat - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

supportedMessageFormat - couple

Association (source - target): «place1Type»

supportedMessageFormat - Interface

Association (source - target): «place2Type»

supportedMessageFormat - MessageSpecification

Attributes:

-
A couple that relates an Interface to a MessageSpecification that it can support.

SynchronousOperation «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SynchronousOperation - OperationSpecification

Attributes:

- An OperationSpecification where the caller and called wait for each other to complete the communication.

TextDataType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

TextDataType - SimpleDataType

Attributes:

- A SimpleDataType whose instances are text literals. Note: Data Models may instantiate several different TextDataTypes - e.g. "String", "XML Text", "WideString", etc.

aggregateElementType «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

aggregateElementType - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

aggregateElementType - couple

Association (source - target):«place1Type»

aggregateElementType - AggregateDataType

Association (source - target):«place2Type»

aggregateElementType - DataModelTypeRepresentation

Attributes:

- A couple that relates an AggregateDataType to the DataModelTypeRepresentation that specifies the data type of each of its elements.

attributeType «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

attributeType - couple

Generalization (element - is a subtype of):«IDEAS:superSubtype»

attributeType - ModemThing

Association (source - target):«place2Type»

attributeType - DataModelTypeRepresentation

Association (source - target):«place1Type»

attributeType - Attribute

Attributes:

- A couple that relates an Attribute to the DataModelTypeRepresentation that specifies its type.

choiceElement «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

choiceElement - couple

Generalization (element - is a subtype of):«IDEAS:superSubtype»

choiceElement - ModemThing

Association (source - target):«place1Type»

choiceElement - ChoiceDataType

Association (source - target):«place2Type»

choiceElement - DataModelTypeRepresentation

Attributes:

- A couple that asserts a DataModelTypeRepresentation is a valid choice in a ChoiceDataType.

conformsTo «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

conformsTo - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

conformsTo - ModemThing

Association (source - target): «place1Type»

conformsTo - Standard

Attributes:

- A couple that asserts a thing in the architecture model conforms to a standard.

dataElementRepresentation «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

dataElementRepresentation - representedByDataType

Association (source - target): «place1Type»

dataElementRepresentation - DataElement

Association (source - target): «place2Type»

dataElementRepresentation - DataModelTypeRepresentation

Attributes:

- A representedByDataType that asserts an DataElement is represented by a DataModelTypeRepresentation.

entityHasAttribute «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

entityHasAttribute - couple

Generalization (element - is a subtype of): «IDEAS:superSubtype»

entityHasAttribute - ModemThing

Association (source - target): «place2Type»

entityHasAttribute - Attribute

Association (source - target): «place1Type»

entityHasAttribute - Entity

Attributes:

- A couple asserting that an Entity has an Attribute.

entityInRelationship «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

entityInRelationship - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

entityInRelationship - couple

Association (source - target): «place2Type»

entityInRelationship - Entity

Association (source - target): «place1Type»

entityInRelationship - EntityRelationshipEnd

Attributes:

- A couple relating a RelationshipInDataModel to one of the Entities it relates.

enumerationItem «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enumerationItem - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

enumerationItem - couple

Association (source - target): «place2Type»

enumerationItem - StringRepresentation

Association (source - target): «place1Type»

enumerationItem - EnumerationType

Attributes:

-

A Couple that relates a StringRepresentation to an EnumerationType of which it is an element.

individualConformsTo «IDEAS:TupleType»*Connectors:*

Association (source - target): «place1Type»

individualConformsTo - Standard

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualConformsTo - conformsTo

Association (source - target): «place2Type»

individualConformsTo - ModemIndividualElement

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualConformsTo - modemIndividualTypeInstance

Attributes:

-

A modemIndividualTypeInstance that asserts that an element in the architecture conforms to a Standard.

isALayerIn «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IsALayerIn - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IsALayerIn - superSubtype

Association (source - target): «place2Type»

IsALayerIn - Protocol

Association (source - target): «place1Type»

IsALayerIn - ProtocolStack

Attributes:

A superSubtype that asserts that a ProtocolStack is a kind of Protocol. The Protocol is a layer in the ProtocolStack. The order of the layering is determined by the Protocols' runsOn relations. Note: amalgamates "ProtocolLayer" and "ImplementedOn" in M3.

parameterRepresentation «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

parameterRepresentation - representedByDataType

Association (source - target): «place2Type»

parameterRepresentation - DataModelTypeRepresentation

Association (source - target): «place1Type»

parameterRepresentation - OperationParameter

Attributes:

- A representedBy that links an OperationParameter to its datatype (DataModelTypeRepresentation).

ratifiedOn «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ratifiedOn - ModemThing

Association (source - target):«place2Type»

ratifiedOn - CalendarPeriod

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ratifiedOn - couple

Association (source - target):«place1Type»

ratifiedOn - Standard

Attributes:

- A couple that asserts a Standard has been ratified on a date.

representedByDataType «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

representedByDataType - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

representedByDataType - representedBy

Association (source - target):«place2Type»

representedByDataType - DataModelTypeRepresentation

Attributes:

- A representedBy that asserts a Thing is represented by a DataModelTypeRepresentation.

responsibleForRatifying «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

responsibleForRatifying - couple

Generalization (element - is a subtype of):«IDEAS:superSubtype»

responsibleForRatifying - ModemThing

Association (source - target):«place2Type»

responsibleForRatifying - Standard

Association (source - target):«place1Type»

responsibleForRatifying - Organisation

Attributes:

- A couple that asserts than an Organisation is responsible for the ratification of a standard.

Note: was called "RatificationBody" in M3.

runsOn «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

runsOn - couple

Generalization (element - is a subtype of):«IDEAS:superSubtype»

runsOn - ModemThing

Association (source - target):«place1Type»

runsOn - Protocol

Association (source - target):«place2Type»

runsOn - Protocol

Attributes:

-

A couple that asserts that one Protocol (client) may be implemented on another (supplier). This determines the layer order in the ProtocolStack.

specForInterface «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

SpecForInterface - modemIndividualTypeSpecialisation

Association (source - target):«place2Type»

SpecForInterface - Interface

Association (source - target):«place1Type»

SpecForInterface - InterfaceSpecification

Attributes:

-

A modemIndividualTypeSpecialisation that relates an Interface to the InterfaceSpecification that specifies it.

spectrumAllocationRadioFrequencyRange «IDEAS:TupleType»

Connectors:

Association (source - target):«place1Type»

spectrumAllocationRadioFrequencyRange - FrequencyRange

Generalization (element - is a subtype of):«IDEAS:superSubtype»

spectrumAllocationRadioFrequencyRange - radioFrequencyRangeAssignment

Association (source - target):«place2Type»

spectrumAllocationRadioFrequencyRange - SpectrumAllocation

Attributes:

-

A radioFrequencyRangeAssignment that asserts a spectrum allocation has been assigned to a frequency range.

subProtocolStack «IDEAS:TupleType»

Connectors:

Association (source - target):«place1Type»

subProtocolStack - ProtocolStack

Association (source - target):«place2Type»

subProtocolStack - ProtocolStack

Generalization (element - is a subtype of):«IDEAS:superSubtype»

subProtocolStack - superSubtype

Attributes:

-

A superSubtype that asserts that one ProtocolStack is a superType of another.

subtypeRelationship «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

subtypeRelationship - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

subtypeRelationship - couple

Association (source - target):«place1Type»

subtypeRelationship - Entity

Association (source - target):«place2Type»

subtypeRelationship - Entity

Attributes:

- A couple that asserts that the type represented by one Entity is a subtype of the type represented by the other Entity.

typeConformsTo «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

typeConformsTo - modemIndividualTypeSpecialisation

Association (source - target):«place2Type»

typeConformsTo - ModemIndividualType

Association (source - target):«place1Type»

typeConformsTo - Standard

Generalization (element - is a subtype of):«IDEAS:superSubtype»

typeConformsTo - conformsTo

Attributes:

- A modemIndividualTypeSpecialisation that asserts a type in the architecture conforms to a Standard.

withdrawnOn «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

withdrawnOn - ModemThing

Generalization (element - is a subtype of):«IDEAS:superSubtype»

WithdrawnOn - couple

Association (source - target):«place2Type»

WithdrawnOn - CalendarPeriod

Association (source - target):«place1Type»

WithdrawnOn - Standard

Attributes:

- A couple that asserts a Standard has been withdrawn on a date.

2.7.5 Technical standards Views additional diagrams.

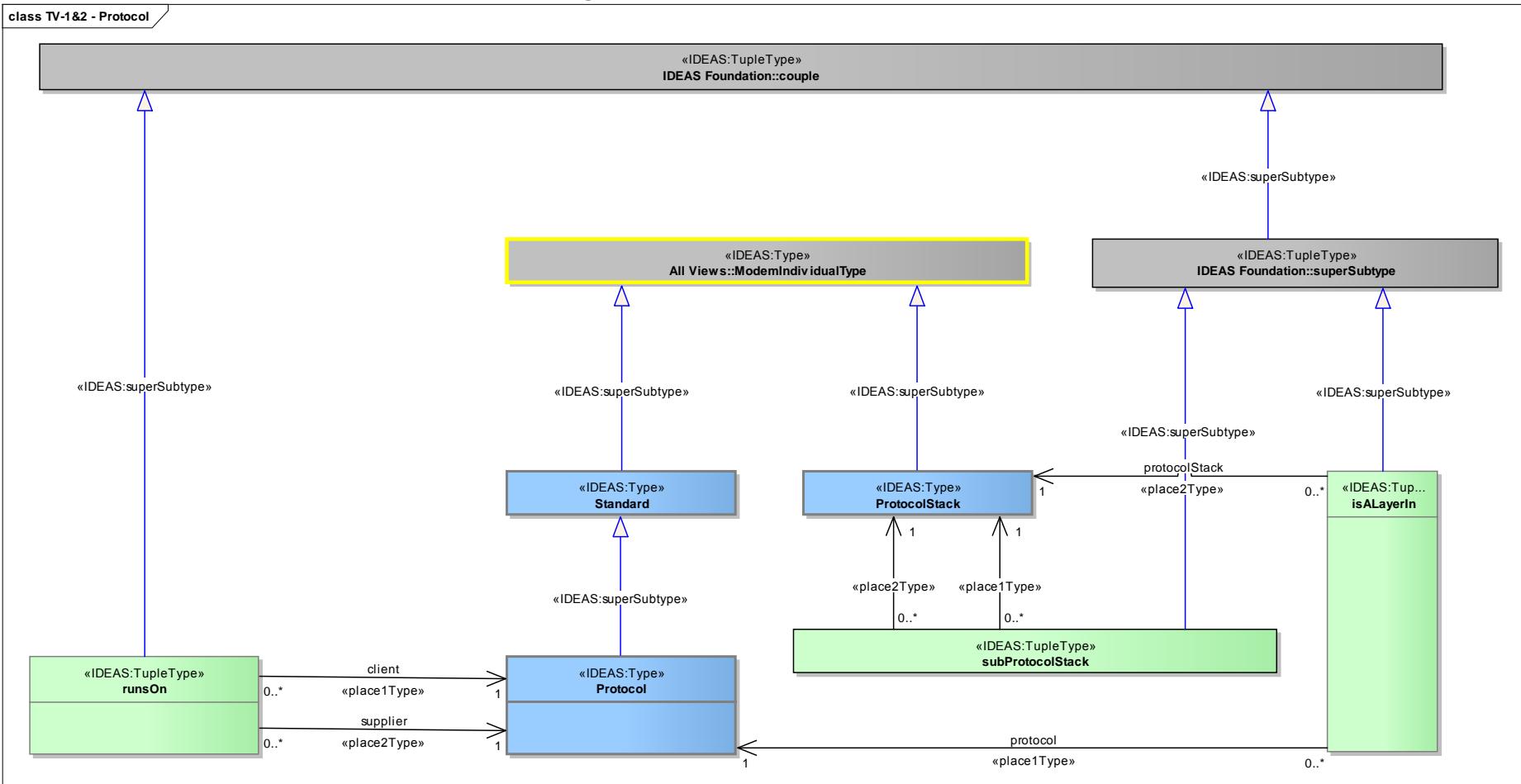


Figure 100 : TV-1&2 - Protocol

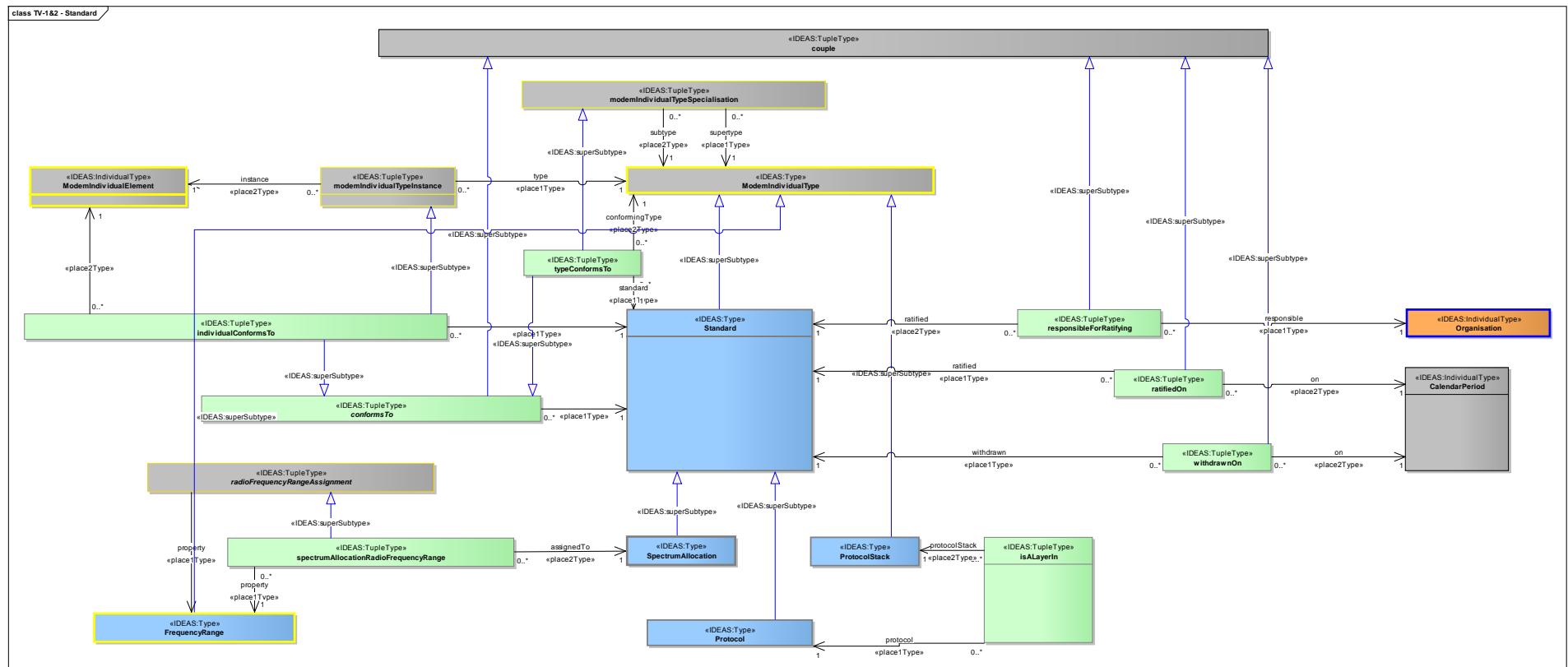


Figure 101 : TV-1&2 - Standard

2.8 Acquisition views

2.8.1 AcV-1: Acquisition clusters

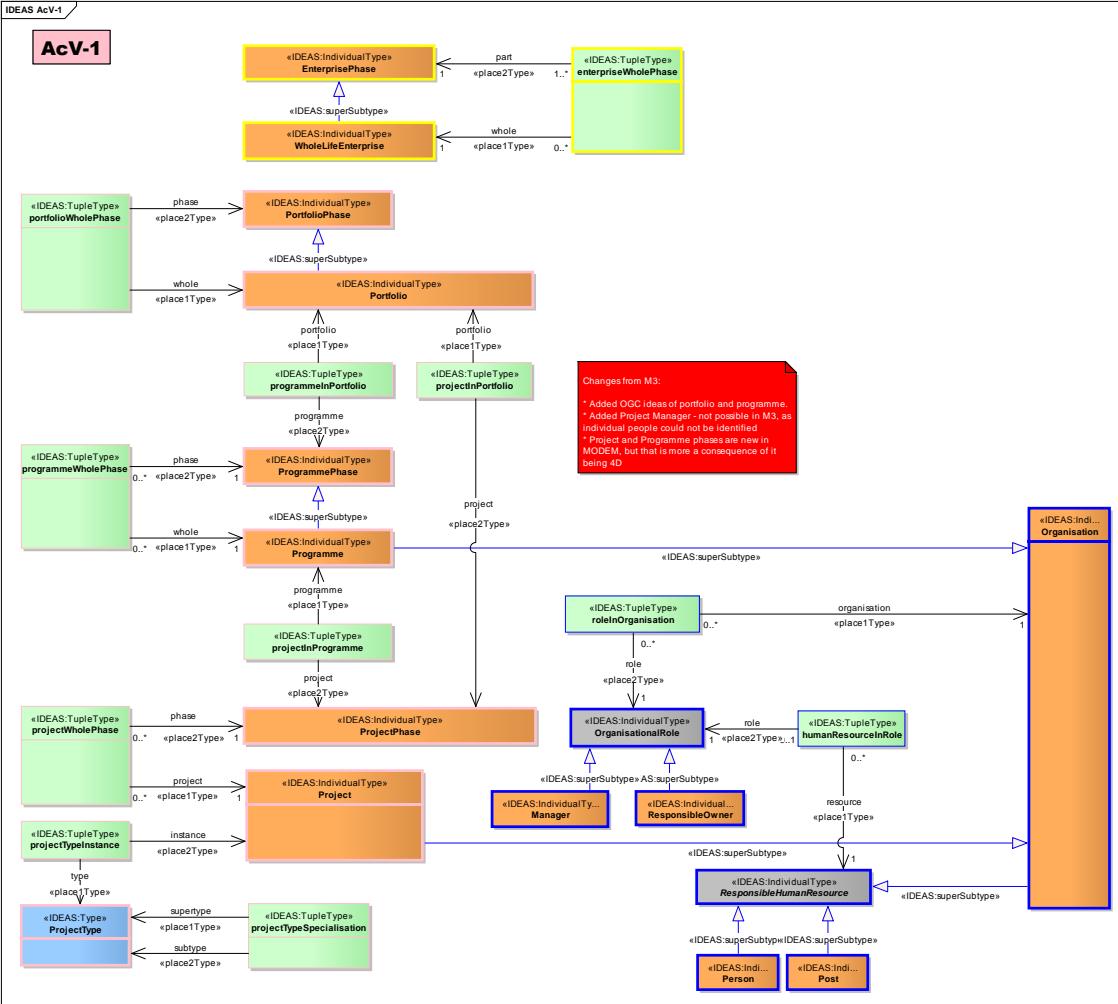


Figure 102 : AcV-1

2.8.2 AcV-2: Programme timelines

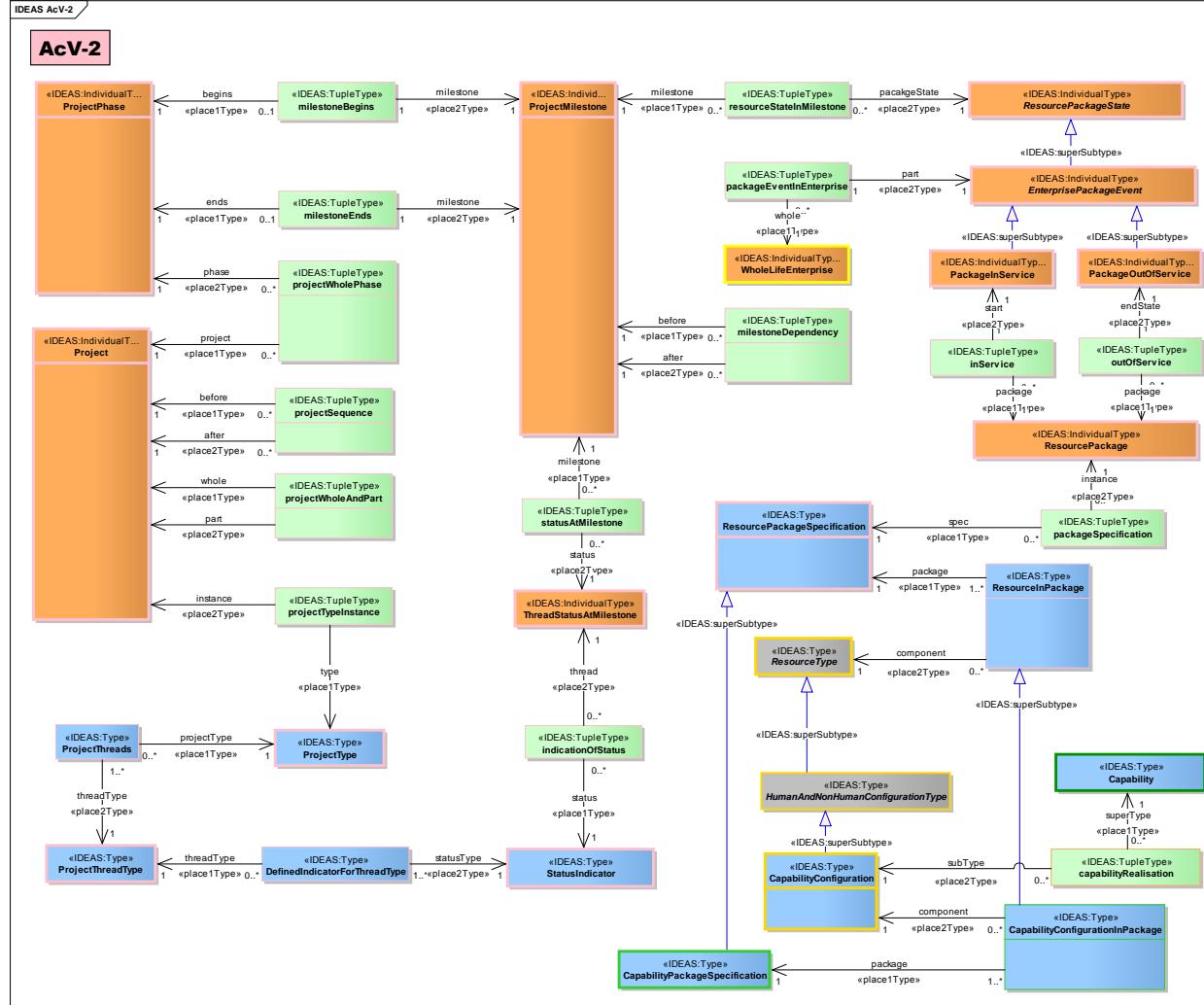


Figure 103 : AcV-2

2.8.3 Acquisition Views elements list

Acquisition Views

DefinedIndicatorForThreadType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DefinedIndicatorForThreadType - StatusOfThreadType

Association (source - target): «place2Type»

DefinedIndicatorForThreadType - StatusIndicator

Association (source - target): «place1Type»

DefinedIndicatorForThreadType - ProjectThreadType

Attributes:

-

A StatusOfThreadType that specifies a StatusIndicator may be used to classify ProjectThreads of a particular ProjectThreadType.

EnterprisePackageEvent «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterprisePackageEvent - ResourcePackageState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EnterprisePackageEvent - EnterprisePart

Attributes:

-

A ResourcePackageState that is an event that occurs in a WholeLifeEnterprise - e.g. the introduction of a new Capability at the point of a PackageInService.

OrganisationPackageEvent «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationPackageEvent - OrganisationPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

OrganisationPackageEvent - ResourcePackageState

Attributes:

-

A ResourcePackageState that is an event that occurs in a WholeLifeEnterprise - e.g. the introduction of a new Capability at the point of a PackageInService.

PackageInService «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PackageInService - EnterprisePackageEvent

Attributes:

-

An IndividualResourceState that marks in in-service point for a ResourcePackage.

PackageOutOfService «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PackageOutOfService - EnterprisePackageEvent

Attributes:

-

An IndividualResourceState which marks the point at which a ResourcePackage ceases to be in service. Note: the components of the package may go on in service in some other configuration, but the package itself is retired.

Portfolio «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Portfolio - Undertaking

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Portfolio - PortfolioPhase

Attributes:

- An Undertaking comprised of the Projects and Programmes that are the totality of an Organisation's investment (or segment thereof) in the changes required to achieve its strategic objectives.

[Based on OGC Definition]

OGC defines a portfolio as the totality of an organisation's investment (or segment thereof) in the changes required to achieve its strategic objectives. Portfolio Management is a coordinated collection of strategic processes and decisions which enable the most effective balance of organisational change and business as usual/operations.

PortfolioPart «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PortfolioPart - UndertakingPart

Attributes:

- An UndertakingPart that is part of a Portfolio.

PortfolioPhase «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PortfolioPhase - UndertakingState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PortfolioPhase - PortfolioPart

Attributes:

- A PortfolioPart that is a temporal part of a Portfolio.

Programme «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Programme - ProgrammePhase

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Programme - Organisation

Attributes:

- An Undertaking that is a temporary, flexible organisation created to co-ordinate, direct and oversee the implementation of a set of related Projects and Tasks in order to deliver outcomes and benefits related to the organisation's strategic objectives.

A programme is likely to have a lifespan of several years. During a programme lifecycle, projects are initiated, executed, and closed. Programmes provide an umbrella under which these projects can be co-ordinated. The programme integrates the projects so that it can deliver an outcome greater than the sum of its parts.

[Adapted from OGC definition)

ProgrammePart «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProgrammePart - OrganisationPart

Attributes:

- An OrganisationPart that is a part of a Programme.

ProgrammePhase «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProgrammePhase - ProgrammePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProgrammePhase - OrganisationState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProgrammePhase - PortfolioPart

Attributes:

-

A ProgrammePart that is a temporal part of a Programme

Project «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Project - ProjectState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Project - ProjectPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Project - Organisation

Attributes:

-

An Undertaking that is a time-limited endeavour to create a specific set of products or services.

ProjectMilestone «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectMilestone - ProjectState

Attributes:

-

A ProjectPart that marks the end of one ProjectPhase and possibly the beginning of another.

Note: the temporal extent of a ProjectMilestone is likely to be finite - e.g. there may be milestone meetings, funding reviews, etc. before another Project or ProjectPhase can start.

ProjectPart «IDEAS:IndividualType»Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ProjectPart - ProjectPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPart - UndertakingPart

Attributes:

-

A ProcessPart that is a part of a Project - i.e. an Individual whose entire spatio-temporal extent is within the extent of a Project.

Example - a document that is created for a project and only used within that project that is destroyed before the project completes.

Example - a milestone review meeting for a Project

Example - a ProjectPhase

ProjectPhase «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPhase - ProjectState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ProjectPhase - ProjectPhaseType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPhase - ProgrammePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectPhase - PortfolioPart

Attributes:

-
An UndertakingState that is a temporal part of a Project and has been nominated as a phase of a Project.

ProjectState «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectState - OrganisationState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectState - ProjectPart

Attributes:

-
A ProjectPart that is a temporal part of a Project.

ProjectThread «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectThread - ProjectThreadState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ProjectThread - ProjectThreadPowertype

Attributes:

-
A ProjectPart that is an aspect of the Project used for refining the measurement of progress of the project. In UK MOD, this could be one of the defence lines of development, or DOTMLP in the US.
Example: The Training aspect of a helicopter acquisition project.

ProjectThreadState «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectThreadState - ProjectPart

Attributes:

-
A temporal part of a ProjectThread.

ProjectThreadType «IDEAS>Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectThreadType - ProjectThreadPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProjectThreadType - ModemIndividualType

Attributes:

-
A ProjectThreadPowertype that is used to classify ProjectThreads.

ProjectThreads «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ProjectThreads - ThreadInProjectType

Association (source - target):«place1Type»

ProjectThreads - ProjectType

Association (source - target):«place2Type»

ProjectThreads - ProjectThreadType

Attributes:

- A ThreadInProjectType that relates a ProjectType to its ProjectThreadTypes.

ProjectType «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ProjectType - ProjectPowerType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ProjectType - ModemIndividualType

Attributes:

- A ProjectType that is used to classify Projects.

ResourceInPackage «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourceInPackage - ModemWholePartType

Association (source - target):«place2Type»

ResourceInPackage - ResourceType

Association (source - target):«place1Type»

ResourceInPackage - ResourcePackageSpecification

Attributes:

- A ResourceUsage that specifies that a ResourceType is part of a DeliveryPackageSpecification.

ResourcePackage «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourcePackage - ModemIndividualElement

Dependency (element - is instance of):«IDEAS:powertypeInstance»

ResourcePackage - ResourcePackageType

Attributes:

- A HumanAndNon-HumanConfiguration that is a collection of IndividualResources for a purpose.

Example: All the fully configured aircraft delivered in an acquisition programme.

Example: A force element package put together for a particular operation.

Example: A tranche of new assets delivered into an enterprise.

ResourcePackageSpecification «IDEAS:Type»Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourcePackageSpecification - ModemIndividualType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourcePackageSpecification - ResourcePackageType

Attributes:

- A ResourcePackageType that specifies the types of Resource (i.e. ResourceTypes) that make up a ResourcePackage.

ResourcePackageState «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourcePackageState - IndividualResourceState

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ResourcePackageState - TemporalBorder

Attributes:

- A temporal part of a ResourcePackage.

StatusIndicator «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StatusIndicator - ModemIndividualType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

StatusIndicator - ThreadStatusType

Attributes:

- A ThreadStatusType that classifies a ThreadStatusAtMilestone to indicate its status.

ThreadInProjectType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ThreadInProjectType - ProcessWholePartType

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ThreadInProjectType - ModemWholePartType

Attributes:

- The powertype of threadInProject.

ThreadStatusAtMilestone «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

ThreadStatusAtMilestone - ProjectThreadState

Dependency (element - is instance of):«IDEAS:powertypeInstance»

ThreadStatusAtMilestone - ThreadStatusType

Attributes:

- A ProjectThreadState that is part of a ProjectMilestone.

capabilityPackageDeliversCapability «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

capabilityPackageDeliversCapability - modemIndividualTypeSpecialisation

Association (source - target):«place1Type»

capabilityPackageDeliversCapability - Capability

Association (source - target):«place2Type»

capabilityPackageDeliversCapability - CapabilityPackageSpecification

Attributes:

- A modemIndividualTypeSpecialisation where a CapabilityPackageSpecification provides a Capability.

inService «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

inService - individualResourceState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

inService - startBorder

Association (source - target): «place1Type»

inService - ResourcePackage

Association (source - target): «place2Type»

inService - PackageInService

Attributes:

-

A startBorder that indicates that an PackageInService marks the introduction into service of a ResourcePackage.

indicationOfStatus «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

indicationOfStatus - modemIndividualTypeInstance

Association (source - target): «place1Type»

indicationOfStatus - StatusIndicator

Association (source - target): «place2Type»

indicationOfStatus - ThreadStatusAtMilestone

Attributes:

-

A modemIndividualTypeInstance where a ThreadStatusAtMilestone is classified by a StatusIndicator.

milestoneBegins «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneBegins - startBoundary

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneBegins - milestoneInProject

Association (source - target): «place1Type»

milestoneBegins - ProjectPhase

Association (source - target): «place2Type»

milestoneBegins - ProjectMilestone

Attributes:

-

A startBoundary that asserts a ProjectMilestone marks the beginning of a Project or ProjectPhase.

milestoneDependency «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneDependency - ModemThing

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneDependency - beforeAfter

Association (source - target): «place2Type»

milestoneDependency - ProjectMilestone
Association (source - target): «place1Type»
milestoneDependency - ProjectMilestone
Attributes:

- A beforeAfter that asserts one ProjectMilestone shall occur before the other. Note: This is intended to relate milestones from different projects where progress in one project depends on the other.

milestoneEnds «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneEnds - endBoundary

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneEnds - milestoneInProject

Association (source - target): «place1Type»

milestoneEnds - ProjectPhase

Association (source - target): «place2Type»

milestoneEnds - ProjectMilestone

Attributes:

- An endBoundary that asserts a ProjectMilestone marks the end of a Project or ProjectPhase.

milestoneInProject «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

milestoneInProject - projectTemporalPart

Association (source - target): «place2Type»

milestoneInProject - ProjectMilestone

Association (source - target): «place1Type»

milestoneInProject - ProjectPhase

Attributes:

- A projectWholePart that asserts that a ProjectMilestone is part of a Project or ProjectPhase.

outOfService «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

outOfService - endBorder

Generalization (element - is a subtype of): «IDEAS:superSubtype»

outOfService - individualResourceState

Association (source - target): «place2Type»

outOfService - PackageOutOfService

Association (source - target): «place1Type»

outOfService - ResourcePackage

Attributes:

- An endBorder that indicates that an PackageOutOfService marks the termination of service of a ResourcePackage.

packageEventInEnterprise «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

packageEventInEnterprise - enterpriseWholePart

Association (source - target): «place2Type»

packageEventInEnterprise - EnterprisePackageEvent

Association (source - target): «place1Type»

packageEventInEnterprise - WholeLifeEnterprise

Attributes:

- An enterpriseWholePart where a EnterprisePackageEvent is part of a WholeLifeEnterprise - e.g. the package is rolled-out into the enterprise.

packageSpecification «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

packageSpecification - modemIndividualTypeInstance

Association (source - target): «place2Type»

packageSpecification - ResourcePackage

Association (source - target): «place1Type»

packageSpecification - ResourcePackageSpecification

Attributes:

- A modemIndividualTypeInstance that relates a ResourcePackage to the ResourcePackageSpecification that specifies the types of Resource it consists of.

portfolioWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

portfolioWholeAndPart - undertakingWholeAndPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

portfolioWholeAndPart - portfolioWholePhase

Association (source - target): «place2Type»

portfolioWholeAndPart - Portfolio

Association (source - target): «place1Type»

portfolioWholeAndPart - Portfolio

Attributes:

- An undertakingWholeAndPart/ portfolioWholePhase where both the whole and part are Portfolios.

portfolioWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

portfolioWholePart - undertakingWholePart

Association (source - target): «place2Type»

portfolioWholePart - PortfolioPart

Association (source - target): «place1Type»

portfolioWholePart - Portfolio

Attributes:

- An undertakingWholePart where the whole is a Portfolio and the part is a PortfolioPart.

portfolioWholePhase «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

portfolioWholePhase - undertakingWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

portfolioWholePhase - portfolioWholePart

Association (source - target): «place2Type»

portfolioWholePhase - PortfolioPhase
Association (source - target): «place1Type»
portfolioWholePhase - Portfolio

Attributes:

-
A portfolioWholePart where the part is a temporal part and is a PortfolioPhase.

programmeInPortfolio «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

programmeInPortfolio - portfolioWholePart

Association (source - target): «place1Type»

programmeInPortfolio - Portfolio

Association (source - target): «place2Type»

programmeInPortfolio - ProgrammePhase

Attributes:

-

A portfolioWholePart where the part is a ProgrammePhase.

programmeWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

programmeWholeAndPart - programmeWholePhase

Association (source - target): «place2Type»

programmeWholeAndPart - Programme

Association (source - target): «place1Type»

programmeWholeAndPart - Programme

Attributes:

-

A programmeWholePhase where both the whole and part are Programmes.

programmeWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

programmeWholePart - undertakingWholePart

Association (source - target): «place2Type»

programmeWholePart - ProgrammePart

Association (source - target): «place1Type»

programmeWholePart - Programme

Attributes:

-

An undertakingWholePart where the whole is a Programme and the part is a ProgrammePart.

programmeWholePhase «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

programmeWholePhase programmeWholePart

Association (source - target): «place2Type»

programmeWholePhase - ProgrammePhase

Association (source - target): «place1Type»

programmeWholePhase - Programme

Attributes:

- A programmeWholePart where the part is temporal part and is a ProgrammePhase.

projectInPortfolio «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectInPortfolio - portfolioWholePart

Association (source - target): «place1Type»

projectInPortfolio - Portfolio

Association (source - target): «place2Type»

projectInPortfolio - ProjectPhase

Attributes:

-

A portfolioWholePart where the part is a ProjectPhase.

projectInProgramme «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectInProgramme - programmeWholePart

Association (source - target): «place1Type»

projectInProgramme - Programme

Association (source - target): «place2Type»

projectInProgramme - ProjectPhase

Attributes:

-

A programmeWholePart where the part is a ProjectPhase.

Note that because projects may move from one programme to another (e.g. in a re-organisation), it is a ProjectPhase that is part of the Programme. ProjectPhase is a supertype of Project, so this still allows for the limit case where a Project is part of a Programme for its whole life.

projectSequence «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectSequence - beforeAfter

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectSequence - ModemThing

Association (source - target): «place2Type»

projectSequence - Project

Association (source - target): «place1Type»

projectSequence - Project

Attributes:

-

A beforeAfter that asserts one Project cannot start until another has finished.

projectTemporalPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectTemporalPart - undertakingWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectTemporalPart - projectWholePart

Association (source - target): «place2Type»

projectTemporalPart - ProjectState

Association (source - target): «place1Type»

projectTemporalPart - Project

Attributes:

-
An undertakingWholeState that relates a Project to another ProjectState that is a temporal part of it.

projectTypeInstance «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectTypeInstance - modemIndividualTypeInstance

Association (source - target): «place2Type»

projectTypeInstance - Project

Association (source - target): «place1Type»

projectTypeInstance - ProjectType

Attributes:

-

A modafIndividualTypeInstance that asserts a Project is an instance of a ProjectType.

projectWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectWholeAndPart - projectWholePart

Association (source - target): «place2Type»

projectWholeAndPart - Project

Association (source - target): «place1Type»

projectWholeAndPart - Project

Attributes:

-

A projectWholePart where both the whole and part are Projects.

projectWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectWholePart - processWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectWholePart - modemWholePart

Association (source - target): «place2Type»

projectWholePart - ProjectPart

Association (source - target): «place1Type»

projectWholePart - Project

Attributes:

-
A processWholePart that relates a Project to a ProjectPart that is entirely within the extent of the Project.

projectWholePhase «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

projectWholePhase - projectTemporalPart

Association (source - target): «place2Type»

projectWholePhase - ProjectPhase

Association (source - target): «place1Type»

projectWholePhase - Project

Attributes:

- A projectPhaseTemporalPart where the whole is a Project.

resourceStateInMilestone «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

resourceStateInMilestone - modemWholePart

Association (source - target): «place1Type»

resourceStateInMilestone - ProjectMilestone

Association (source - target): «place1Type»

resourceStateInMilestone - ResourcePackageState

Attributes:

- A modemWholePart that asserts a ResourcePackageState occurs within a ProjectMilestone.

statusAtMilestone «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

statusAtMilestone - modemWholePart

Association (source - target): «place1Type»

statusAtMilestone - ProjectMilestone

Association (source - target): «place2Type»

statusAtMilestone - ThreadStatusAtMilestone

Attributes:

- A modemWholePart which relates a ThreadStatusAtMilestone to the ProjectMilestone it is part of.

statusOfThread «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

statusOfThread - StatusOfThreadType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

statusOfThread - threadTemporalWholePart

Association (source - target): «place2Type»

statusOfThread - ThreadStatusAtMilestone

Association (source - target): «place1Type»

statusOfThread - ProjectThread

Attributes:

- A threadTemporalWholePart that relates a ProjectThread to a ThreadStatus that is temporal part of the thread.

threadInProject «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

threadInProject - ThreadInProjectType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

threadInProject - projectWholePart

Association (source - target): «place1Type»

threadInProject - Project

Association (source - target): «place2Type»

threadInProject - ProjectThread

Attributes:

- A projectWholePart that relates a Project to a ProjectThread that is part of it.

threadTemporalWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of):«IDEAS:superSubtype»

threadTemporalWholePart - modemTemporalWholePart

Association (source - target):«place2Type»

threadTemporalWholePart - ProjectThreadState

Association (source - target):«place1Type»

threadTemporalWholePart - ProjectThread

Attributes:

- A modemTemporalWholePart that relates a ProjectThread to one of its states.

2.8.4 Acquisition Views additional diagrams.

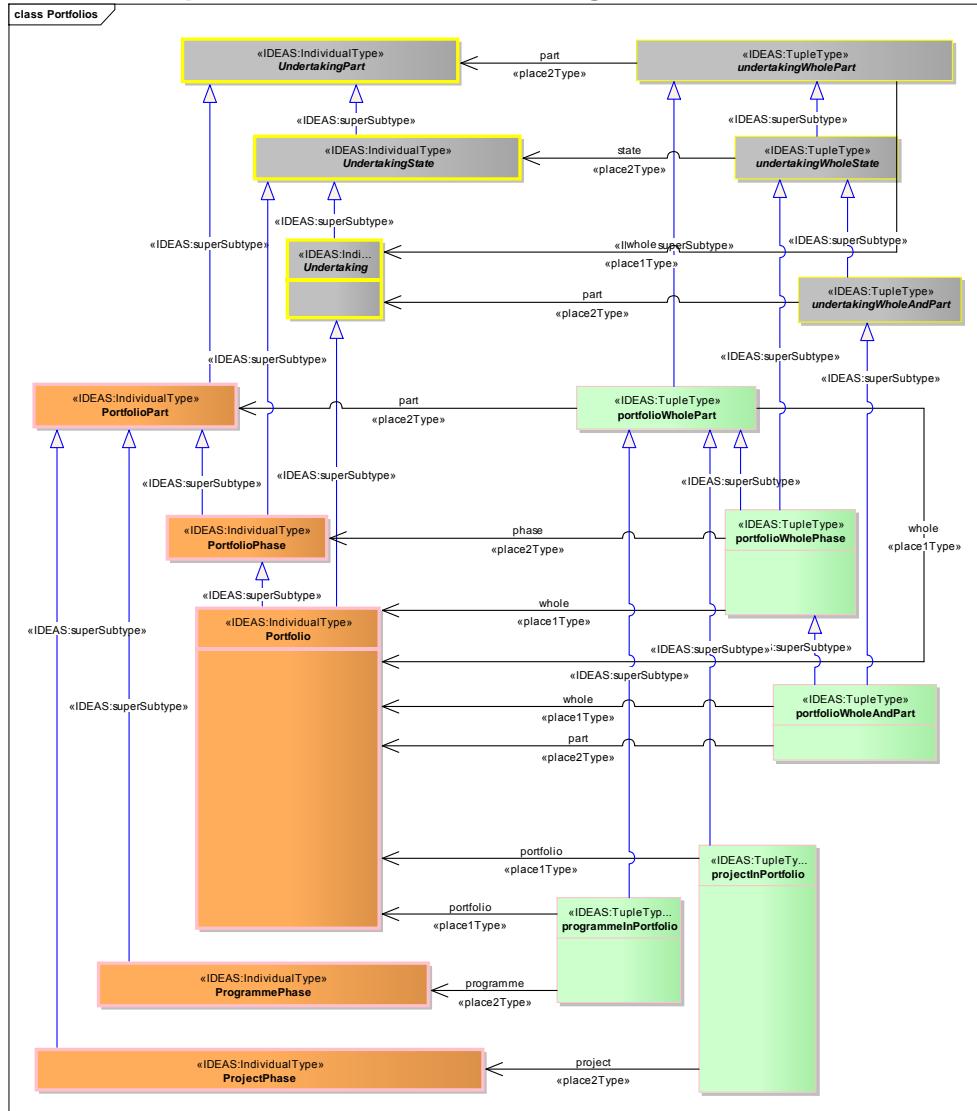


Figure 104 : Portfolios

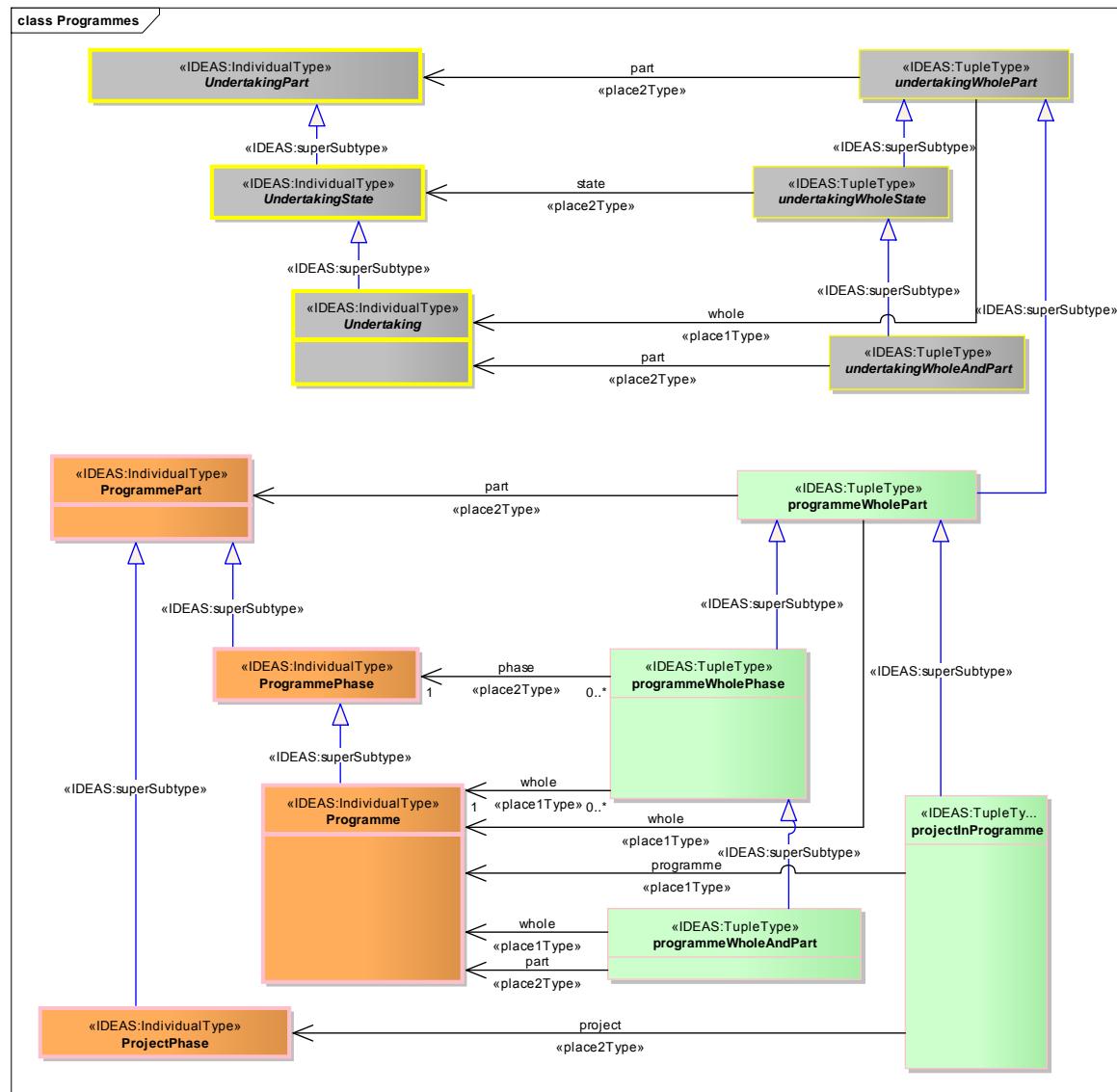


Figure 105 : Programmes

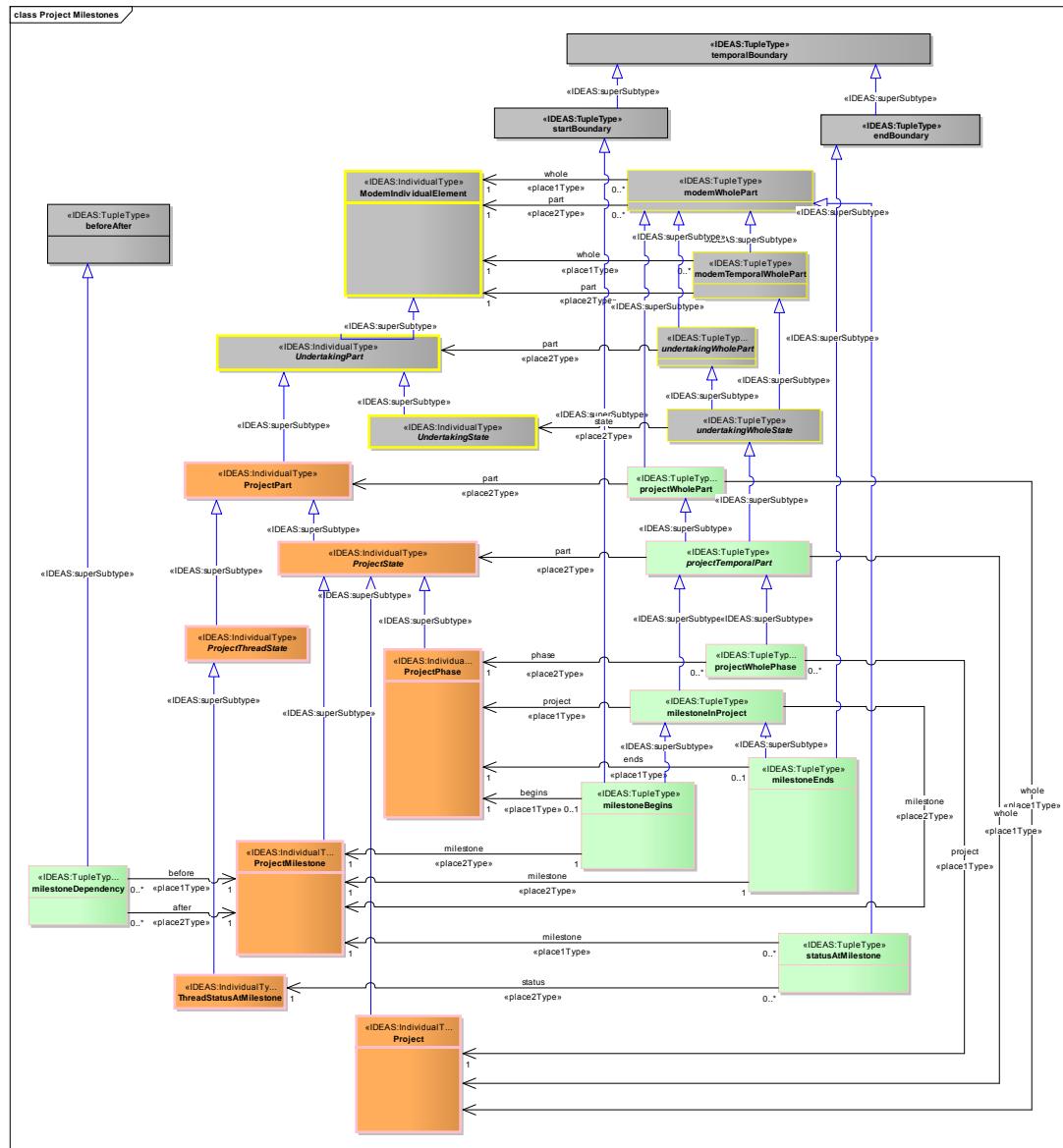


Figure 106 : Project Milestones

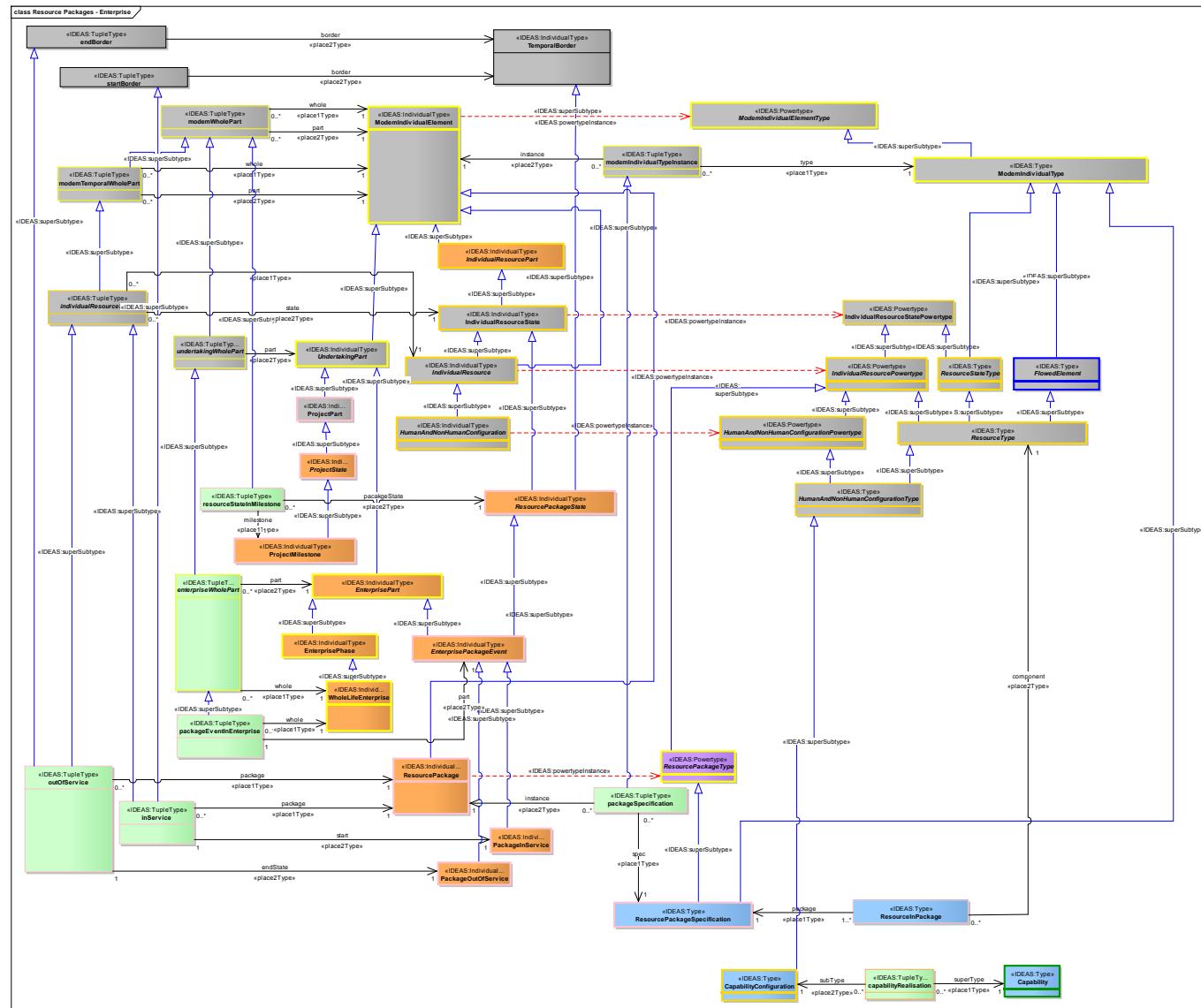


Figure 107 : Resource Packages - Enterprise

3. Additional information

3.1 Introduction

This section contains the following:

- The IDEAS foundation
- Additions made to the IDEAS foundation in order to deal with MODAF
- IDEAS patterns used to bridge the gap between the IDEAS foundation and MODAF

3.2 The IDEAS foundation

3.2.1 IDEAS Foundation elements list

IDEAS Foundation
<p>couple «IDEAS:TupleType»</p> <p><u>Connectors:</u></p> <p>Association (source - target):«place2Type»</p> <p>couple - Thing</p> <p>Dependency (element - is an instance of):«IDEAS:powertypeInstance»</p> <p>couple - CoupleType</p> <p>Association (source - target):«place1Type»</p> <p>couple - Thing</p> <p>Generalization (element - is a specialization of):«IDEAS:superSubtype»</p> <p>couple - tuple</p> <p><u>Attributes:</u></p> <p>-</p> <p>A tuple with two places.</p>
<p>Individual «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p>Generalization (element - is a specialization of):«IDEAS:superSubtype»</p> <p>Individual - Thing</p> <p>Dependency (element - is an instance of):«IDEAS:powertypeInstance»</p> <p>Individual - IndividualType</p> <p><u>Attributes:</u></p> <p>-</p> <p>A Thing that has spatio-temporal extent.</p> <p>Note1 - this may be some that existed in the past, exists now, or may exist in some future possible world.</p> <p>Note2 - the Individual may be scattered - i.e. it is the fusion of several disconnect parts.</p> <p>Examples:</p> <p>* Earth</p> <p>* The Eiffel Tower</p> <p>* Me, You</p> <p>* Me and You</p> <p>* France</p> <p>* Sir Isaac Newton</p>

IndividualType «IDEAS:Powertype»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

IndividualType - Type

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

IndividualType - IndividualTypeType

Dependency (element - is an instance of):«IDEAS:typeInstance»

IndividualType - Powertype

Attributes:

-

The Powertype of Individual.

Examples:

- * Cars
- * Boats
- * Mountains
- * Planets
- * Deliveries
- * Organisations

Powertype «IDEAS:Type»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Powertype - Type

Attributes:

-

A Powertype is a set of all the subsets of a given Type.

powertypeInstance «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

powertypeInstance - typeInstance

Association (source - target):«place1Type»

powertypeInstance - Powertype

Association (source - target):«place2Type»

powertypeInstance - Type

Attributes:

-

A typeInstance that asserts that the a Type is the **Powertype** of the type which is the instance.

Note: A powertype is the set of all subsets of a given type.

superSubtype «IDEAS:TupleType»Connectors:

Association (source - target):«place1Type»

superSubtype - Type

Association (source - target):«place2Type»

superSubtype - Type

Generalization (element - is a specialization of):«IDEAS:superSubtype»

superSubtype - couple

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

superSubtype - SuperSubtypeType

Attributes:

-

A couple relating two Types which asserts that one type is a subset of the other.

Note - This is the standard super-sub-type relation where the sub-type can either be a proper sub-type or an improper sub-type of the super-type. (An improper sub-type of a type is the type itself. A proper sub-type of a type is not the type itself.) This relation holds between types, where every instance of the sub-type is also an instance of the super-type. Hence the type, Humans, is a sub-type of the type, Animals, because every instance of a Human is also an instance of Animal.

Examples:

- * VW Golfs is a subtype of Cars
- * People over 2m tall is a subtype of People
- * Types of Pump is a subtype Types of Equipment

Thing «IDEAS:Type»

Connectors:

-

Attributes:

-

The union of Individual, Type, and tuple.

tuple «IDEAS:TupleType»

Connectors:

Association (source - target):«placeType»

tuple - Thing

Generalization (element - is a specialization of):«IDEAS:superSubtype»

tuple - Thing

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

tuple - TupleType

Attributes:

-

A relationship between two or more things.

Note: Tuples are identified by their places (i.e. the ends of the relationship).

Examples:

- * The year 2004 is after the year 2001
- * My car is an instance of the type "VW Golfs"
- * The type "VW Golfs" is a subtype of the type "Cars"

TupleType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

TupleType - PlaceableType

Dependency (element - is an instance of):«IDEAS:typeInstance»

TupleType- Powertype

Generalization (element - is a specialization of):«IDEAS:superSubtype»

TupleType - Type

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

TupleType - TupleTypeType

Association (source - target):«placeType»

TupleType - Type

Attributes:

-

The Powertype of tuple.

Examples:

- * wholePart
- * beforeAfter
- * typeInstance

*** superSubtype**

Type «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Type - Thing

Attributes:

-

A set (or class) of Things.

Note1: Types are identified by their members (i.e. all the things of that type).

Note2: The IDEAS Foundation is a higher-order ontology, so Types may have members that are also Types.

Examples:

- * Cars
- * Volkswagen Beetles
- * Red Things
- * Naval Commanders
- * Ranks

typeInstance «IDEAS:TupleType»

Connectors:

Association (source - target):«place2Type»

typeInstance - Thing

Association (source - target):«place1Type»

typeInstance - Type

Generalization (element - is a specialization of):«IDEAS:superSubtype»

typeInstance - couple

Attributes:

-

A couple that asserts that a Thing is a member of a Type.

Examples:

- * I am a member of the type People (hard to believe, but true)
- * Field Marshal is of the type Rank
- * Viscount Bernard Montgomery is of the type Person
- * The state of Viscount Bernard Montgomery from 1945 to his death is of type Field Marshal

wholePart «IDEAS:TupleType»

Connectors:

Association (source - target):«place1Type»

wholePart - Individual

Association (source - target):«place2Type»

wholePart - Individual

Generalization (element - is a specialization of):«IDEAS:superSubtype»

wholePart - couple

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

wholePart - WholePartType

Attributes:

-

A couple that asserts one (part) Individual is part of another (whole) Individual.

Note - This is the standard whole-part relation where the whole can either be a proper part or an improper part of the part. (An improper part of a whole is the whole itself. Whereas a chocolate chip would be a proper part of a cookie, only the entire cookie is an improper part of itself)

Examples:

- * My head is part of Me

- * January 2004 is part of 2004
- * The opening shot of the First World War is part of the First World War
- * The Border of France is part of France
- * The Border of France and Belgium is part of the Border of France
- * The Border of France and Belgium is part of the Border of Belgium

IDEAS Disjoint

SetOfDisjointIndividuals «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

SetOfDisjointIndividuals - SetOfDisjointThings

Generalization (element - is a specialization of): «IDEAS:superSubtype»

SetOfDisjointIndividuals - IndividualType

Attributes:

-

An IndividualType and a SetOfDisjointThings whose instances are types all of whose instances are Individuals and each instance is disjoint, i.e. has no common part.
This mirrors at the mereological level the mathematical notion of disjoint sets - see a DisjointType.

SetOfDisjointThings «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

SetOfDisjointThings - Type

Attributes:

-

A Type whose instances are types, where for each of them, all their instances are pairwise disjoint.

SetOfDisjointTypes «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

SetOfDisjointTypes - SetOfDisjointThings

Attributes:

-

A SetOfDisjointThings whose instances are Types(i) all of whose instances are Types(ii) where each Type(ii) is disjoint, i.e. has no common instance, from all others.

This corresponds to the mathematical notion of disjoint sets - see a definition below:

Two or more sets which have no elements in common. For example, the sets A = {a,b,c} and B = {d,e,f} are disjoint. (from http://www.mathwords.com/d/disjoint_sets.htm)

IDEAS Intersection

IntersectionOfSetOfOverlappingIndividuals «IDEAS:Type»

Connectors:

Association (source - target): «place1Type»

IntersectionOfSetOfOverlappingIndividuals - SetOfOverlappingIndividuals

Generalization (element - is a specialization of): «IDEAS:superSubtype»

IntersectionOfSetOfOverlappingIndividuals - IntersectionOfSetOfOverlappingThings

Association (source - target): «place2Type»

IntersectionOfSetOfOverlappingIndividuals - SingletonIndividualType

Generalization (element - is a specialization of): «IDEAS:superSubtype»

IntersectionOfSetOfOverlappingIndividuals - WholePartType

Attributes:

-

A WholePartType and an IntersectionOfSetOfOverlappingThings whose instances contain all wholePart couples that link SetOfOverlappingIndividuals with their overlapping parts.

IntersectionOfSetOfOverlappingThings «IDEAS:Type»*Connectors:*

Generalization (element - is a specialization of):«IDEAS:superSubtype»

IntersectionOfSetOfOverlappingThings - CoupleType

Association (source - target):«place1Type»

IntersectionOfSetOfOverlappingThings - SetOfOverlappingThings

Association (source - target):«place2Type»

IntersectionOfSetOfOverlappingThings - Singleton

Attributes:

- A CoupleType whose instances are couples that link the intersection of a set of Things with its sum.

For more details, see its sub-types: IntersectionOfSetOfOverlappingTypes and IntersectionOfSetOfOverlappingIndividuals

IntersectionOfSetOfOverlappingTypes «IDEAS:Type»*Connectors:*

Generalization (element - is a specialization of):«IDEAS:superSubtype»

IntersectionOfSetOfOverlappingTypes - IntersectionOfSetOfOverlappingThings

Generalization (element - is a specialization of):«IDEAS:superSubtype»

IntersectionOfSetOfOverlappingTypes - SuperSubtypeType

Association (source - target):«place1Type»

IntersectionOfSetOfOverlappingTypes - SetOfOverlappingTypes

Attributes:

- A SuperSubtypeType and an IntersectionOfSetOfOverlappingThings that contains all superSubtype couples that link a SetOfOverlappingTypes with the Types formed by their intersection.

IDEAS Numbers**RealNumberType «IDEAS:Powertype»***Connectors:*

Generalization (element - is a specialization of):«IDEAS:superSubtype»

RealNumberType - Type

Attributes:

- The Powertype of RealNumber

Integer «IDEAS:Type»*Connectors:*

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Integer - Number

Attributes:

- A RationalNumber that can be written without a fractional or decimal component.

Example: 65, 7, and -56 are integers; 1.6 and 1½ are not integers.

Note: In other terms, integers are the numbers one can count with items such as apples or fingers, and their negatives, as well as 0.

Number «IDEAS:Type»*Connectors:*

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Number - Type

Attributes:

- A Type that is a number - i.e. a RealNumber or an Integer

RealNumber «IDEAS:Type»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

RealNumber - Number

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

RealNumber - RealNumberType

Attributes:

- A Type that is a Dedekind cut of the set of rational numbers.

Note: There are different definitions for Real Number in mathematics

ScaleMapping «IDEAS:Type»Connectors:

Association (source - target):«place1Type»

ScaleMapping - MeasureCategory

Generalization (element - is a specialization of):«IDEAS:superSubtype»

ScaleMapping - CoupleType

Association (source - target):«place2Type»

ScaleMapping - RealNumberType

Attributes:

- A CoupleType whose members are all the couples linking MeasurePoints to RealNumbers. The CoupleType (i.e. the set of couples) represents the scale.

IDEAS Overlap**SetOfOverlappingIndividuals** «IDEAS:Type»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

SetOfOverlappingIndividuals - SetOfOverlappingThings

Generalization (element - is a specialization of):«IDEAS:superSubtype»

SetOfOverlappingIndividuals - IndividualType

Attributes:

- An IndividualType and a SetOfOverlappingThings whose instances are types all of whose instances are Individuals and each instance overlaps all others, i.e. there is a part common to all instances.

SetOfOverlappingThings «IDEAS:Type»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

SetOfOverlappingThings - Type

Attributes:

- A Type whose instances are types, where for each of them, all their instances overlap all other instances.

SetOfOverlappingTypes «IDEAS:Type»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

SetOfOverlappingTypes - SetOfOverlappingThings

Attributes:

- A SetOfOverlappingThings whose instances are Types(i) all of whose instances are Types(ii) where each Type(ii) overlaps all others, i.e. there is at least one instance common to all Types(ii)

SetOfProperOverlappingIndividuals «IDEAS:Type»	
<i>Connectors:</i>	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SetOfProperOverlappingIndividuals - SetOfProperOverlappingThings	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SetOfProperOverlappingIndividuals - SetOfOverlappingIndividuals	
<i>Attributes:</i>	
-	A SetOfOverlappingIndividuals and a SetOfProperOverlappingThings whose instances are types, where for each of them, none of their instances is a strict part of any other.
SetOfProperOverlappingThings «IDEAS:Type»	
<i>Connectors:</i>	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SetOfProperOverlappingThings - SetOfOverlappingThings	
<i>Attributes:</i>	
-	A SetOfOverlappingThings whose instances are types, where for each of them, none of their instances is a strict subtype or part of any other.
SetOfProperOverlappingTypes «IDEAS:Type»	
<i>Connectors:</i>	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SetOfProperOverlappingTypes - SetOfOverlappingTypes	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SetOfProperOverlappingTypes - SetOfProperOverlappingThings	
<i>Attributes:</i>	
-	A SetOfOverlappingTypes and a SetOfProperOverlappingThings whose instances are types, where for each of them, none of their instances is a strict subtype of any other.
SingletonIndividualType «IDEAS:Type»	
<i>Connectors:</i>	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SingletonIndividualType - IndividualType	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
SingletonIndividualType - Singleton	
<i>Attributes:</i>	
-	A Singleton and an IndividualType - i.e. a set containing exactly one Individual.
IDEAS Periods of time	
April «IDEAS:IndividualType»	
<i>Connectors:</i>	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
April - CalendarMonth	
<i>Attributes:</i>	
-	A CalendarMonth that is an April
August «IDEAS:IndividualType»	
<i>Connectors:</i>	
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»	
August - CalendarMonth	
<i>Attributes:</i>	
-	

A CalendarMonth that is an August

CalendarPeriod «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

CalendarPeriod - Period

Attributes:

-
A Period that corresponds to a recognised date or time

Examples:

1st June 1974

1885

14:44:01 on 2nd June 1974

December 2008

Day «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Day - CalendarPeriod

Attributes:

-
A CalendarPeriod that is a named day in a SevenDayWeek.

December «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

December - CalendarMonth

Attributes:

-
A CalendarMonth that is a December

February «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

February - CalendarMonth

Attributes:

-
A CalendarMonth that is a February

FractionOfASecond «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

FractionOfASecond - CalendarPeriod

Attributes:

-
A CalendarPeriod that is shorter than a Second

Friday «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Friday - Day

Attributes:

-
A Day that is a Friday

Hour «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Hour - CalendarPeriod

Attributes:

-
A Calendar Period that is 60 minutes. An hour roughly corresponds to 1/24th of a median earth day

January «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

January - CalendarMonth

Attributes:

-
A CalendarMonth that is a January

Examples:

* January 2008

* January 1592

July «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

July - CalendarMonth

Attributes:

-
A CalendarMonth that is a July

June «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

June - CalendarMonth

Attributes:

-
A CalendarMonth that is a June

March «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

March - CalendarMonth

Attributes:

-
A CalendarMonth that is a March

May «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

May - CalendarMonth

Attributes:

-
A CalendarMonth that is a May

Millisecond «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Millisecond - FractionOfASecond

Attributes:

-
A CalendarPeriod that corresponds to one thousandth of a Second.

Minute «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Minute - CalendarPeriod

Attributes:

-
A CalendarPeriod that corresponds to sixty seconds

Monday «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Monday - Day

Attributes:

-
A Day that is a Monday

CalendarMonth «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

CalendarMonth - CalendarPeriod

Attributes:

-
A CalendarPeriod that is a Month in the Gregorian Calendar

Nanosecond «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Nanosecond - FractionOfASecond

Attributes:

-
A CalendarPeriod that corresponds to one billionth of a Second

November «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

November - CalendarMonth

Attributes:

-
A CalendarMonth that is a November

October «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

October - CalendarMonth

Attributes:

-

A CalendarMonth that is an October
Saturday «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
Saturday - Day
<u>Attributes:</u>
-
A Day that is a Saturday
Second «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
Second - CalendarPeriod
<u>Attributes:</u>
-
A CalendarPeriod that corresponds to the period of time defined as one second by the International System of Units (SI).
September «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
September - CalendarMonth
<u>Attributes:</u>
-
A CalendarMonth that is a September
SevenDayWeek «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
SevenDayWeek - CalendarPeriod
<u>Attributes:</u>
-
A CalendarPeriod that is a grouping of seven Days
Sunday «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
Sunday - Day
<u>Attributes:</u>
-
A Day that is a Sunday
TenthOfSecond «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
TenthOfSecond - FractionOfASecond
<u>Attributes:</u>
-
A CalendarPeriod that corresponds to 0.1 Seconds
Thursday «IDEAS:IndividualType»
<u>Connectors:</u>
<i>Generalization (element - is a specialization of):</i> «IDEAS:superSubtype»
Thursday - Day
<u>Attributes:</u>

- A Day that is a Thursday

Tuesday «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):_«IDEAS:superSubtype»

Tuesday - Day

Attributes:

- A Day that is a Tuesday

Wednesday «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Wednesday - Day

Attributes:

- A Day that is a Wednesday

Year «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Year - CalendarPeriod

Attributes:

- A CalendarPeriod that corresponds to the time between two recurrences of an event related to the orbit of the Earth around the Sun

YearQuarter «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

YearQuarter - CalendarPeriod

Attributes:

- A CalendarPeriod that corresponds to three Months

timeSuperTypeDurationSubtype «IDEAS:TupleType»

Connectors:

Association (source - target):«place1Type»

timeSuperTypeDurationSubtype - Duration

Association (source - target):«place2Type»

timeSuperTypeDurationSubtype - Time

Generalization (element - is a specialization of):«IDEAS:superSubtype»

timeSuperTypeDurationSubtype - superSubtype

Attributes:

- Asserts that a given Time is the supertype of a Duration.

Duration «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Duration - PeriodType

Attributes:

- A PeriodType that is an arbitrary period of time

<p>Examples:</p> <p>20 Minutes - the set of all 20 minute periods</p> <p>3.345 Nanoseconds- the set of all 3.345 Nanosecond periods</p> <p>7000 Years- the set of all 7000 Year periods</p>	IDEAS Namespace
<p>DateTimeName «IDEAS:Type»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i></p> <p>DateTimeName - Name</p> <p><u>Attributes:</u></p> <p>-</p> <p>A Name that represents a CalendarPeriod</p>	
<p>ISO8601-YYYY «IDEAS:NamingScheme»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i></p> <p>ISO8601-YYYY - ISO8601DateTime</p> <p><i>Dependency (element - is an instance of):«IDEAS:typeInstance»</i></p> <p>ISO8601-YYYY - NamingScheme</p> <p><u>Attributes:</u></p> <p>-</p> <p>An ISO8601DateTime that is a a Representation of a Year</p> <p>Example:</p> <p>1994</p>	
<p>ISO8601-YYYY-MM «IDEAS:NamingScheme»</p> <p><u>Connectors:</u></p> <p><i>Dependency (element - is an instance of):«IDEAS:typeInstance»</i></p> <p>ISO8601-YYYY-MM - NamingScheme</p> <p><i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i></p> <p>ISO8601-YYYY-MM - ISO8601DateTime</p> <p><u>Attributes:</u></p> <p>-</p> <p>An ISO8601DateTime that is a a Representation of a Month.</p> <p>Example:</p> <p>1994-05</p>	
<p>ISO8601-YYYY-MM-DD «IDEAS:NamingScheme»</p> <p><u>Connectors:</u></p> <p><i>Dependency (element - is an instance of):«IDEAS:typeInstance»</i></p> <p>ISO8601-YYYY-MM-DD - NamingScheme</p> <p><i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i></p> <p>ISO8601-YYYY-MM-DD - ISO8601DateTime</p> <p><u>Attributes:</u></p> <p>-</p> <p>An ISO8601DateTime that is a a Representation of a SevenDayWeek.</p> <p>Example:</p> <p>1994-W20</p>	

ISO8601-YYYY-MM-DDThh «IDEAS:NamingScheme»Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

ISO8601-YYYY-MM-DDThh - ISO8601DateTime

Dependency (element - is an instance of): «IDEAS:typeInstance»

ISO8601-YYYY-MM-DDThh - NamingScheme

Attributes:

- An ISO8601DateTime that is a a Representation of a SevenDayWeek.

Example:

1994-W20

ISO8601-YYYY-MM-DDThh:mm «IDEAS:NamingScheme»Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

ISO8601-YYYY-MM-DDThh:mm - ISO8601DateTime

Dependency (element - is an instance of): «IDEAS:typeInstance»

ISO8601-YYYY-MM-DDThh:mm - NamingScheme

Attributes:

- An ISO8601DateTime that is a a Representation of a SevenDayWeek.

Example:

1994-W20

ISO8601-YYYY-MM-DDThh:mm:ss «IDEAS:NamingScheme»Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

ISO8601-YYYY-MM-DDThh:mm:ss - ISO8601DateTime

Dependency (element - is an instance of): «IDEAS:typeInstance»

ISO8601-YYYY-MM-DDThh:mm:ss - NamingScheme

Attributes:

- An ISO8601DateTime that is a a Representation of a SevenDayWeek.

Example:

1994-W20

ISO8601-YYYY-MM-DDThh:mm:ss. «IDEAS:NamingScheme»Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

ISO8601-YYYY-MM-DDThh:mm:ss. - ISO8601DateTime

Dependency (element - is an instance of): «IDEAS:typeInstance»

ISO8601-YYYY-MM-DDThh:mm:ss. - NamingScheme

Attributes:

- An ISO8601DateTime that is a a Representation of a SevenDayWeek.

Example:

1994-W20

ISO8601-YYYY-Qq «IDEAS:NamingScheme»Connectors:

Generalization (element - is a specialization of): «IDEAS:superSubtype»

ISO8601-YYYY-Qq - ISO8601DateTime

Dependency (element - is an instance of): «IDEAS:typeInstance»

ISO8601-YYYY-Qq - NamingSchemeAttributes:

- An ISO8601DateTime that is a Representation of a Quarter.

Note: this is a non-standard extension of the ISO8601 format

Example:

1994-Q2

ISO8601-YYYY-Www «IDEAS:NamingScheme»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

ISO8601-YYYY-Www - ISO8601DateTime

Dependency (element - is an instance of):«IDEAS:typeInstance»

ISO8601-YYYY-Www - NamingScheme

Attributes:

- An ISO8601DateTime that is a Representation of a SevenDayWeek.

Example:

1994-W20

ISO8601DateTime «IDEAS:Type»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

ISO8601DateTime - DateTimeName

Attributes:

- A DateTimeName that represents a CalendarPeriod in the extended format recommended by ISO8601

dayNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

dayNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

dayNamedByISO8601 - ISO8601-YYYY-MM-DD

Association (source - target):«place1Type»

dayNamedByISO8601 - Day

Attributes:

- A namedBy that asserts that an ISO8601-YYYY-MM-DD names a Day

fractionOfASecondNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

fractionOfASecondNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

fractionOfASecondNamedByISO8601 - ISO8601-YYYY-MM-DDThh:mm:ss.

Association (source - target):«place1Type»

fractionOfASecondNamedByISO8601 - FractionOfASecond

Attributes:

- A namedBy that asserts that an ISO8601-YYYY-MM-DDThh:mm:ss. names a FractionOfASecond

hourNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

hourNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

hourNamedByISO8601 - ISO8601-YYYY-MM-DDThh

Association (source - target):«place1Type»

hourNamedByISO8601 - Hour

Attributes:

- A namedBy that asserts that an ISO8601-YYYY-MM-DDThh names an hour

minuteNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

minuteNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

minuteNamedByISO8601 - ISO8601-YYYY-MM-DDThh:mm

Association (source - target):«place1Type»

minuteNamedByISO8601 - Minute

Attributes:

- A namedBy that asserts that an ISO8601-YYYY-MM-DDThh:mm names a Minute

monthNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

monthNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

monthNamedByISO8601 - ISO8601-YYYY-MM

Association (source - target):«place1Type»

monthNamedByISO8601 - CalendarMonth

Attributes:

- A namedBy that asserts that an ISO8601-YYYY-MM names a Month

namedByDateTimeName «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

namedByDateTimeName - namedBy

Association (source - target):«place1Type»

namedByDateTimeName - CalendarPeriod

Association (source - target):«place2Type»

namedByDateTimeName - DateTimeName

Attributes:

- A namedBy that asserts a CalendarPeriod is represented by a DateTimeName

quarterNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

quarterNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

quarterNamedByISO8601 - ISO8601-YYYY-Qq

Association (source - target):«place1Type»

quarterNamedByISO8601 - YearQuarter

Attributes:

-

A namedBy that asserts that an ISO8601-YYYY-Qq names a YearQuarter

secondNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

secondNamedByISO8601 - namedByDateTimeName

Association (source - target):«place2Type»

secondNamedByISO8601 - ISO8601-YYYY-MM-DDThh:mm:ss

Association (source - target):«place1Type»

secondNamedByISO8601 - Second

Attributes:

-

A namedBy that asserts that a nISO8601-YYYY-MM-DDThh:mm:ss names a Second

weekNamedByISO8601 «IDEAS:TupleType»Connectors:

Association (source - target):«place2Type»

weekNamedByISO8601 - ISO8601-YYYY-Www

Generalization (element - is a specialization of):«IDEAS:superSubtype»

weekNamedByISO8601 - namedByDateTimeName

Association (source - target):«place1Type»

weekNamedByISO8601 - SevenDayWeek

Attributes:

-

A namedBy that asserts that an ISO8601-YYYY-Www names a SevenDayWeek

yearNamedByISO8601 «IDEAS:TupleType»Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

yearNamedByISO8601 - namedByDateTimeName

Association (source - target):«place1Type»

yearNamedByISO8601 - Year

Association (source - target):«place2Type»

yearNamedByISO8601 - ISO8601-YYYY

Attributes:

-

A namedBy that asserts that an ISO8601-YYYY names a Year

IDEAS Powertypes
BeforeAfterType «IDEAS:Powertype» <u>Connectors:</u> <i>Association (source - target):«place1Type»</i> <i>BeforeAfterType - IndividualType</i> <i>Association (source - target):«place2Type»</i> <i>BeforeAfterType - IndividualType</i> <i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i> <i>BeforeAfterType - CoupleType</i> <u>Attributes:</u> - A TupleType that is Powertype of beforeAfter
CoupleType «IDEAS:Powertype» <u>Connectors:</u> <i>Dependency (element - is an instance of):«IDEAS:typeInstance»</i> <i>CoupleType - Powertype</i> <i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i> <i>CoupleType - TupleType</i> <i>Association (source - target):«place2Type»</i> <i>CoupleType - Type</i> <i>Association (source - target):«place1Type»</i> <i>CoupleType - Type</i> <u>Attributes:</u> - The TupleType that is the Powertype of couple
DescriptionType «IDEAS:Powertype» <u>Connectors:</u> <i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i> <i>DescriptionType - RepresentationType</i> <u>Attributes:</u> - A RepresentationType that is the Powertype of Description
IndividualTypeType «IDEAS:Powertype» <u>Connectors:</u> <i>Dependency (element - is an instance of):«IDEAS:powertypeInstance»</i> <i>IndividualTypeType - IndividualTypeTypeType</i> <i>Dependency (element - is an instance of):«IDEAS:typeInstance»</i> <i>IndividualTypeType - Powertype</i> <i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i> <i>IndividualTypeType - Type</i> <u>Attributes:</u> - A PlaceableType that is the Powertype of IndividualType
IndividualTypeTypeType «IDEAS:Powertype» <u>Connectors:</u> <i>Dependency (element - is an instance of):«IDEAS:typeInstance»</i> <i>IndividualTypeTypeType - Powertype</i> <i>Generalization (element - is a specialization of):«IDEAS:superSubtype»</i>

IndividualTypeType - Type

Attributes:

-
A PlaceableType that is the Powertype of IndividualTypeType

InstanType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):»IDEAS:superSubtype»

InstantType - IndividualType

Attributes:

-
An IndividualType that is the Powertype of Instant

NameType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):»IDEAS:superSubtype»

NameType - RepresentationType

Attributes:

-
A RepresentationType that is the Powertype of Name

PeriodType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):»IDEAS:superSubtype»

PeriodType - IndividualType

Attributes:

-
An IndividualType that is the Powertype of Period

PlaceableType «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):»IDEAS:superSubtype»

PlaceableType - Type

Attributes:

-
A Type which has placeTypes defined for it - e.g. TupleType and its powertype levels.

RepresentationType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):»IDEAS:superSubtype»

RepresentationType - Type

Attributes:

-
A Type that is the Powertype of Representation

SuperSubtypeType «IDEAS:Powertype»

Connectors:

Dependency (element - is an instance of):»IDEAS:powertypeInstance»

SuperSubtypeType - SuperSubtypeTypeType

Generalization (element - is a specialization of):»IDEAS:superSubtype»

SuperSubtypeType - CoupleType

Attributes:

-
A CoupleType that is the Powertype of superSubtype

SuperSubtypeTypeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

SuperSubtypeTypeType - TupleTypeType

Attributes:

-

A TupleTypeType that is the Powertype of SuperSubtypeType

TemporalWholePartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

TemporalWholePartType - WholePartType

Attributes:

-

A WholePartType that is the Powertype of temporalWholePart

TupleTypeType «IDEAS:Powertype»

Connectors:

Association (source - target):«placeType»

TupleTypeType - Type

Generalization (element - is a specialization of):«IDEAS:superSubtype»

TupleTypeType - PlaceableType

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

TupleTypeType - TupleTypeTypeType

Dependency (element - is an instance of):«IDEAS:typeInstance»

TupleTypeType - Powertype

Attributes:

-

A PlaceableType that is the Powertype of TupleType

TupleTypeTypeType «IDEAS:Powertype»

Connectors:

Association (source - target):«placeType»

TupleTypeTypeType - Type

Generalization (element - is a specialization of):«IDEAS:superSubtype»

TupleTypeTypeType - PlaceableType

Dependency (element - is an instance of):«IDEAS:typeInstance»

TupleTypeTypeType - Powertype

Dependency (element - is an instance of):«IDEAS:typeInstance»

TupleTypeTypeType - PlaceableType

Attributes:

-

A PlaceableType that is the Powertype of TupleTypeType

WholePartType «IDEAS:Powertype»

Connectors:

Association (source - target):«place1Type»

WholePartType - IndividualType

Association (source - target):«place2Type»

WholePartType - IndividualType

Generalization (element - is a specialization of):«IDEAS:superSubtype»

WholePartType - CoupleType

<u>Attributes:</u>	-
A CoupleType that is the Powertype of wholePart	IDEAS Singletons, Doubletons etc
doubletonTypeInstance «IDEAS:TupleType»	
<u>Connectors:</u>	
Association (source - target):«place1Type»	
doubletonTypeInstance - Doubleton	
Generalization (element - is a specialization of):«IDEAS:superSubtype»	
doubletonTypeInstance - typeInstance	
<u>Attributes:</u>	-
A typeInstance that asserts a Thing is an instance of a Doubleton	
quadrupletonTypeInstance «IDEAS:TupleType»	
<u>Connectors:</u>	
Association (source - target):«place1Type»	
quadrupletonTypeInstance - Quadrupleton	
Generalization (element - is a specialization of):«IDEAS:superSubtype»	
quadrupletonTypeInstance - typeInstance	
<u>Attributes:</u>	-
A typeInstance that asserts a Thing is an instance of a Quadrupleton	
quintupletonTypeInstance - «IDEAS:TupleType»	
<u>Connectors:</u>	
Association (source - target):«place1Type»	
quintupletonTypeInstance - Quintupleton	
Generalization (element - is a specialization of):«IDEAS:superSubtype»	
quintupletonTypeInstance - typeInstance	
<u>Attributes:</u>	-
A typeInstance that asserts a Thing is an instance of a Quintupleton	
singletontypeinstance «IDEAS:TupleType»	
<u>Connectors:</u>	
Association (source - target):«place1Type»	
singletontypeinstance - Singleton	
Generalization (element - is a specialization of):«IDEAS:superSubtype»	
singletontypeinstance - typeInstance	
<u>Attributes:</u>	-
A typeInstance that asserts a Thing is an instance of a Singleton	
tripletonTypeInstance «IDEAS:TupleType»	
<u>Connectors:</u>	
Generalization (element - is a specialization of):«IDEAS:superSubtype»	
tripletonTypeInstance - typeInstance	
Association (source - target):«place1Type»	
tripletonTypeInstance - Tripleton	
<u>Attributes:</u>	-

A typeInstance that asserts a Thing is an instance of a Tripleton

Doubleton «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Doubleton - Type

Attributes:

-

A Type that has exactly two instances

Quadrupleton «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Quadrupleton - Type

Attributes:

-

A Type that has exactly four instances

Quintupleton «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Quintupleton - Type

Attributes:

-

A Type that has exactly five instances

Singleton «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Singleton - Type

Attributes:

-

A Type with only one instance

Tripleton «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

Tripleton - Type

Attributes:

-

A Type that has exactly three instances

IDEAS Sum, fusion and union

FusionOfSetOfIndividuals «IDEAS:Type»

Connectors:

Association (source - target):«place2Type»

FusionOfSetOfIndividuals - IndividualType

Generalization (element - is a specialization of):«IDEAS:superSubtype»

FusionOfSetOfIndividuals - WholePartType

Generalization (element - is a specialization of):«IDEAS:superSubtype»

FusionOfSetOfIndividuals - SumOfSetOfThings

Association (source - target):«place1Type»

FusionOfSetOfIndividuals - SingletonIndividualType

Attributes:

- A SumOfSetOfThings and a WholePartType whose instances link the fusion of a set of Individuals with its fused whole.
In other words, this relates an IndividualType (a collection of Individuals) to its mereological sum.
See <http://plato.stanford.edu/entries/mereology/#Sum>

PartitionOfSetOfDisjointIndividuals «IDEAS:Type»

Connectors:

Association (source - target):«place2Type»

PartitionOfSetOfDisjointIndividuals - SetOfDisjointIndividuals

Generalization (element - is a specialization of):«IDEAS:superSubtype»

PartitionOfSetOfDisjointIndividuals - PartitionOfSetOfDisjointThings

Generalization (element - is a specialization of):«IDEAS:superSubtype»

PartitionOfSetOfDisjointIndividuals - FusionOfSetOfIndividuals

Attributes:

-

A FusionOfSetOfIndividuals whose fusioned Type is a SetOfDisjointIndividuals.

This is a division of a Individual into disjoint parts.

PartitionOfSetOfDisjointThings «IDEAS:Type»

Connectors:

Association (source - target):«place2Type»

PartitionOfSetOfDisjointThings - SetOfDisjointThings

Generalization (element - is a specialization of):«IDEAS:superSubtype»

PartitionOfSetOfDisjointThings - SumOfSetOfThings

Attributes:

-

A SumOfSetOfThings whose summed Type is a SetOfDisjointThings.

This is a division of a Thing into disjoint parts/sub-types.

PartitionOfSetOfDisjointTypes «IDEAS:Type»

Connectors:

Association (source - target):«place2Type»

PartitionOfSetOfDisjointTypes - SetOfDisjointTypes

Generalization (element - is a specialization of):«IDEAS:superSubtype»

PartitionOfSetOfDisjointTypes - UnionOfSetOfTypes

Generalization (element - is a specialization of):«IDEAS:superSubtype»

PartitionOfSetOfDisjointTypes - PartitionOfSetOfDisjointThings

Attributes:

-

A UnionOfSetOfTypes whose unioned Type is a SetOfDisjointTypes

This is a division of a Type into disjoint subTypes.

See http://en.wikipedia.org/wiki/Partition_of_a_set and http://en.wikipedia.org/wiki/Partition_of_a_set.

SumOfSetOfThings «IDEAS:Type»

Connectors:

Association (source - target):«place2Type»

SumOfSetOfThings - Type

Generalization (element - is a specialization of):«IDEAS:superSubtype»

SumOfSetOfThings - CoupleType

Association (source - target):«place1Type»

SumOfSetOfThings - Singleton

Attributes:

-
A CoupleType whose instances are couples that link the sum of a set of Things with its sum.
For more detail, see its subTypes - UnionOfSetOfTypes and FusionOfSetOfIndividuals.

UnionOfSetOfTypes «IDEAS:Type»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

UnionOfSetOfTypes - SuperSubtypeType

Generalization (element - is a specialization of):«IDEAS:superSubtype»

UnionOfSetOfTypes - SumOfSetOfThings

Association (source - target):«place2Type»

UnionOfSetOfTypes - Type

Attributes:

-
A SumOfSetOfThings and a SuperSubtypeType whose instances are couples that link the union of a set of Types with these Types.
In other words, this relates a Type (a collection of Types) to its set-theoretic sum (aka union).

IDEAS Tuples

quadruple «IDEAS:TupleType»

Connectors:

Association (source - target):«place2Type»

quadruple - Thing

Association (source - target):«place1Type»

quadruple - Thing

Association (source - target):«place4Type»

quadruple - Thing

Association (source - target):«place3Type»

quadruple - Thing

Generalization (element - is a specialization of):«IDEAS:superSubtype»

quadruple - tuple

Attributes:

-
A tuple which has four places

quintuple «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

quintuple - tuple

Association (source - target):«place2Type»

quintuple - Thing

Association (source - target):«place3Type»

quintuple - Thing

Association (source - target):«place5Type»

quintuple - Thing

Association (source - target):«place1Type»

quintuple - Thing

Association (source - target):«place4Type»

quintuple - Thing

Attributes:

-
A tuple which has five places

triple «IDEAS:TupleType»

Connectors:

Association (source - target):«place3Type»

triple - Thing

Association (source - target):«place2Type»

triple - Thing

Association (source - target):«place1Type»

triple - Thing

Generalization (element - is a specialization of):«IDEAS:superSubtype»

triple - tuple

Attributes:

-

A tuple which has three places

IDEAS Temporal whole part

endBoundary «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

endBoundary - temporalBoundary

Attributes:

-

A temporalBoundary where the boundary is a end boundary of the whole.

startBoundary «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

startBoundary - temporalBoundary

Attributes:

-

A temporalBoundary where the boundary is a start boundary of the whole.

temporalBoundary «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

temporalBoundary - temporalWholePart

Association (source - target):«place2Type»

temporalBoundary - Individual

Attributes:

-

A temporalWholePart where the part is a temporal boundary of the whole.

temporalWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialization of):«IDEAS:superSubtype»

temporalWholePart - wholePart

Dependency (element - is an instance of):«IDEAS:powertypeInstance»

temporalWholePart - TemporalWholePartType

Attributes:

-

A wholePart that asserts the spatial extent of the (whole) individual is co-extensive with the spatial extent of the (part) individual for a particular period of time.

IDEAS BeforeAfter
beforeAfter «IDEAS:TupleType» <u>Connectors:</u> <i>Association (source - target):</i> «place1Type» beforeAfter - Individual <i>Association (source - target):</i> «place2Type» beforeAfter - Individual <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» beforeAfter - couple <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» beforeAfter - BeforeAfterType <u>Attributes:</u> - A couple that asserts one Individual's temporal extent is completely before the temporal extent of another.
IDEAS Intentional construction
IntentionallyConstructedIndividual «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» IntentionallyConstructedIndividual - Individual <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» IntentionallyConstructedIndividual - IntentionallyConstructedThing <u>Attributes:</u> - An Individual that is an IntentionallyConstructedThing
intentionallyConstructedTuple «IDEAS:TupleType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» intentionallyConstructedTuple - IntentionallyConstructedThing <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» intentionallyConstructedTuple - tuple <u>Attributes:</u> - A tuple that is an IntentionallyConstructedThing
IntentionallyConstructedThing «IDEAS>Type» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» IntentionallyConstructedThing - Thing <u>Attributes:</u> - A Thing that is intentionally constructed. These are Things that society has come to identify as significant - e.g. money, marriage For more information on this refer to "The Construction of Social Reality" by John Searle ISBN 01402.35906
IDEAS Type
IntentionallyConstructedType «IDEAS>Type» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» IntentionallyConstructedType - Type <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» IntentionallyConstructedType - IntentionallyConstructedThing

<u>Attributes:</u>	
- A Type that is an IntentionallyConstructedThing	IDEAS Properties & Measures
propertyOfIndividual «IDEAS:TupleType»	
<u>Connectors:</u>	
<i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype»	
propertyOfIndividual - typeInstance	
<i>Association (source - target):</i> «place1Type»	
propertyOfIndividual - Property	
<i>Association (source - target):</i> «place2Type»	
propertyOfIndividual - Individual	
<u>Attributes:</u>	
-	
A typeInstance that asserts an Individual is an instance of a Property - i.e. the Individual "has" a property	
Examples:	
A product being "expensive"	
A laptop weighing 2.2kg	
A car travelling between 40 and 50 km/h	
propertyOfType «IDEAS:TupleType»	
<u>Connectors:</u>	
<i>Association (source - target):</i> «place1Type»	
propertyOfType - Property	
<i>Association (source - target):</i> «place2Type»	
propertyOfType - IndividualType	
<i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype»	
propertyOfType - superSubtype	
<u>Attributes:</u>	
-	
A superSubtype that asserts an IndividualType is a subtype of a Property - i.e. it asserts all members of the Individual type "have" a property	
Examples:	
All London Buses are red	
All Porsche 911 2.2S have a mass between 900 and 960 kg	
All atoms of mercury have an atomic weight of 200.59 ·mol⁻¹	
MeasureType «IDEAS:Powertype»	
<u>Connectors:</u>	
<i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype»	
MeasureType - IndividualTypeType	
<u>Attributes:</u>	
-	
The IndividualTypeType that is the powertype of Measure	
dispositionManifestation «IDEAS:TupleType»	
<u>Connectors:</u>	
<i>Association (source - target):</i> «place2Type»	
dispositionManifestation - CategoricalProperty	
<i>Association (source - target):</i> «place1Type»	
dispositionManifestation - DispositionalProperty	
<i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype»	

dispositionManifestation - couple

Attributes:

- A couple that asserts a CategoricalProperty has members that manifest a DispositionalProperty

electricCurrentInAmperes «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»

electricCurrentInAmperes - ElectricCurrent

Association (source - target): «place2Type»

electricCurrentInAmperes - ValueInAmperes

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

electricCurrentInAmperes - measureNamedNumericallyBy

Attributes:

-

A measureNamedNumericallyBy that names an ElectricCurrent with its ValueInAmperes

frequencyInHertz «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

frequencyInHertz - measureNamedNumericallyBy

Association (source - target): «place1Type»

frequencyInHertz - Frequency

Association (source - target): «place2Type»

frequencyInHertz - ValueInHertz

Attributes:

-

A measureNamedNumericallyBy that names a Frequency with its ValueInHertz

lengthInMetres «IDEAS:TupleType»

Connectors:

Association (source - target): «place1Type»

lengthInMetres - Length

Association (source - target): «place2Type»

lengthInMetres - ValueInMetres

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

lengthInMetres - measureNamedNumericallyBy

Attributes:

-

A measureNamedNumericallyBy that names a Length with its ValueInMetres

lowerBoundOfMeasureRange «IDEAS:TupleType»

Connectors:

Association (source - target): «place2Type»

lowerBoundOfMeasureRange - MeasurePoint

Association (source - target): «place1Type»

lowerBoundOfMeasureRange - MeasureRange

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

lowerBoundOfMeasureRange - superSubtype

Attributes:

-

A superSubtype that asserts the MeasureInstance that is the lower bound (i.e. minimum measure) of a MeasureRange

luminousIntensityInCandela «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

luminousIntensityInCandela - ValueInCandela

Association (source - target): «place1Type»

luminousIntensityInCandela - LuminousIntensity

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

luminousIntensityInCandela - measureNamedNumericallyBy

Attributes:

-

A measureNamedNumericallyBy that names a LuminousIntensity with its ValueInCandela

massInKilograms «IDEAS:TupleType»Connectors:

Association (source - target): «place1Type»

massInKilograms - Mass

Association (source - target): «place2Type»

massInKilograms - ValueInKilograms

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

massInKilograms - measureNamedNumericallyBy

Attributes:

-

A measureNamedNumericallyBy that names a Mass with its ValueInKilograms

measureNamedNumericallyBy «IDEAS:TupleType»Connectors:

Association (source - target): «place1Type»

measureNamedNumericallyBy - MeasurePoint

Association (source - target): «place2Type»

measureNamedNumericallyBy - NumericMeasureRepresentation

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

measureNamedNumericallyBy - namedBy

Attributes:

-

A namedBy that asserts that a MeasureInstance has a NumericMeasureRepresentation

measureOfIndividual «IDEAS:TupleType»Connectors:

Association (source - target): «place1Type»

measureOfIndividual - Measure

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

measureOfIndividual - propertyOfIndividual

Attributes:

-

A propertyOfIndividual that asserts an Individual is an instance of a Measure - i.e. the Individual "has" a property corresponding to the Measure.

Examples:

A laptop weighing 2.2kg

A car travelling between 40 and 50 km/h

measureOfType «IDEAS:TupleType»Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

measureOfType - propertyOfType

Association (source - target): «place1Type»

measureOfType - Measure

Attributes:

- A propertyOfType that asserts an IndividualType is a subtype of a Measure - i.e. it asserts all members of the Individual type have a property corresponding to the Measure

Examples:

All Porsche 911 2.2S have a mass between 900 and 960 kg

All atoms of mercury have an atomic weight of 200.59 · mol⁻¹

measureTypeInstance «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

measureTypeInstance - Measure

Association (source - target): «place1Type»

measureTypeInstance - MeasureCategory

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

measureTypeInstance - typeInstance

Attributes:

- A typeInstance that asserts a Measure is an instance of a MeasureCategory.

Examples:

2kg is a mass

40m/s is a velocity

temperatureInKelvin «IDEAS:TupleType»Connectors:

Association (source - target): «place1Type»

temperatureInKelvin - ThermodynamicTemperature

Association (source - target): «place2Type»

temperatureInKelvin - ValueInKelvin

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

temperatureInKelvin - measureNamedNumericallyBy

Attributes:

- A measureNamedNumericallyBy that names a ThermodynamicTemperature with its ValueInKelvin

timeInSeconds «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

timeInSeconds - ValueInSeconds

Association (source - target): «place1Type»

timeInSeconds - Time

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

timeInSeconds - measureNamedNumericallyBy

Attributes:

- A measureNamedNumericallyBy that names a Time with its ValueInSeconds

upperBoundOfMeasureRange «IDEAS:TupleType»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

upperBoundOfMeasureRange - superSubtype

Association (source - target): «place2Type»

upperBoundOfMeasureRange - MeasurePoint

Association (source - target): «place1Type»

upperBoundOfMeasureRange - MeasureRange

Attributes:

- A superSubtype that asserts the MeasureInstance that is the upper bound (i.e. maximum measure) of a MeasureRange

CategoricalMeasure «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

CategoricalMeasure - CategoricalProperty

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

CategoricalMeasure - Measure

Attributes:

- A CategoricalProperty and a Measure - i.e. a CategoricalProperty that is measurable

CategoricalProperty «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

CategoricalProperty - Property

Attributes:

- A Property that is always exhibited by its instances (Individuals). Formally, a CategoricalProperty is the set of things that have a property simpliciter without reference to the capability to manifest another property (as is the case with DispositionalProperties (qv.)). So, for example, the property of 'flying at Mach 2' is a CategoricalProperty, whereas 'being capable of flying at Mach 2' is not.

Examples:

10kg

40cm

Fitting in an ISO container

DispositionalMeasure «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

DispositionalMeasure - DispositionalProperty

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

DispositionalMeasure - Measure

Attributes:

- A MeasureableProperty and a DispositionalProperty whose members share a common property that is measurable.

DispositionalProperty «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

DispositionalProperty - Property

Attributes:

- A Property whose members are Individuals that have a property of being capable to manifest a CategoricalProperty under certain conditions other things being equal. It is critical when describing the disposition to

specify the conditions both for the dispositional and the categorical property that is capable of being manifested. These can range from quite stringent conditions, the DispositionalProperty of 'being capable of flying at Mach 2, at a moment's notice' to the more lax, the property of 'being capable of flying at Mach 2, once suitably configured'. Note that these have the same manifestation - the categorical property of 'flying at Mach 2'. Similarly, it is often critical to describe in detail the conditions that apply to the CategoricalProperty that can be manifested, so, for example, 'flying at Mach 2, in good weather'.

Example:

Ability to fly at Mach 2
Ability to strike a target 10km away
Ability to dissolve in water

ElectricCurrent «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ElectricCurrent - MeasurePoint

Dependency (element - is instance of): «IDEAS:typeInstance»

ElectricCurrent - MeasureCategory

Attributes:

-

A MeasureInstance whose members are Individuals that all have the same electric current flowing through them

Examples:

5 Amps
13 Amps

Frequency «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:typeInstance»

Frequency - MeasureCategory

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Frequency - MeasurePoint

Attributes:

-

A MeasureInstance whose instances are Individuals that all oscillate at the same frequency

Examples:

100Hz
60GHz

Length «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:typeInstance»

Length - MeasureCategory

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Length - MeasurePoint

Attributes:

-

A MeasureInstance whose instances are Individuals that all have the same length

Examples:

2mm
8 miles

LuminousIntensity «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:typeInstance»

LuminousIntensity - MeasureCategory

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

LuminousIntensity - MeasurePoint

Attributes:

- A MeasureInstance whose members are Individuals that all have the same luminous intensity

Examples:

5 Candela

20 Candle Power

4 hefnerkerze

Mass «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Mass - MeasurePoint

Dependency (element - is instance of): «IDEAS:typeInstance»

Mass - MeasureCategory

Attributes:

-

A MeasureInstance whose members are Individuals that all have the same mass

Examples:

2kg

2.8lbs

MeasureCategory «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

MeasureCategory - MeasureType

Attributes:

-

A MeasureType whose members are recognised types of MeasureInstance.

Examples:

Mass (included in IDEAS)

Length (included in IDEAS)

Velocity

Hardness

MeasurePoint «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

MeasurePoint - Measure

Attributes:

-

A Measure whose members are Individuals that all share a common property that can be measured.

Examples:

2kg

4 weeks

2km

MeasureNamingScheme «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

MeasureNamingScheme - NamingScheme

Attributes:

- A NamingScheme used for numerically representing MeasureInstances

MeasureRange «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

MeasureRange - Measure

Attributes:

- A Measure that is characterised by two MeasurePoints that define its upper and lower bounds.

Measure «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Measure - MeasureType

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Measure - Property

Attributes:

- An Property whose members are Individuals that all share a common, measurable property, or whose properties lie within a MeasureRange.

Examples:

2kg

4 weeks

2km

NumericMeasureRepresentation «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NumericMeasureRepresentation - FloatingPointRepresentation

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NumericMeasureRepresentation - Name

Attributes:

- A Name and a FloatingPointRepresentation that identifies a MeasureInstance using a numeric representation

Property «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Property - IndividualType

Attributes:

- An IndividualType whose members all exhibit a common trait or feature. Often the Individuals are states having a property (the state of being 18 degrees centigrade), where this property can be a CategoricalProperty (qv.) or a DispositionalProperty (qv.).

Examples:

Ability to fly at Mach 2

10kg

SiUnitRepresentationScheme «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

SiUnitRepresentationScheme - MeasureNamingScheme

Attributes:

-

A MeasureNamingScheme whose members are representations of SI Units.

ThermodynamicTemperature «IDEAS:Type»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ThermodynamicTemperature - MeasurePoint

Dependency (element - is instance of): «IDEAS:typeInstance»

ThermodynamicTemperature - MeasureCategory

Attributes:

-

A MeasureInstance whose members are Individuals that all have the same thermodynamic temperature

Examples:

4 deg K

12 deg F

22 deg C

Time «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:typeInstance»

Time - MeasureCategory

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Time - MeasurePoint

Attributes:

-

A MeasureInstance whose members are Individuals that have a particular temporal dimension of the same length.

Examples:

22 seconds

14 weeks

The time taken for light to travel 2km in a vacuum

ValueInAmperes «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:typeInstance»

ValueInAmperes - SiUnitRepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ValueInAmperes - NumericMeasureRepresentation

Attributes:

-

A NumericMeasureRepresentation that represents an ElectricCurrent in amperes

ValueInCandela «IDEAS:Type»

Connectors:

Dependency (element - is instance of): «IDEAS:typeInstance»

ValueInCandela - SiUnitRepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ValueInCandela - NumericMeasureRepresentation

Attributes:

-

A NumericMeasureRepresentation that represents a LuminousIntensity in candela

ValueInHertz «IDEAS:Type»*Connectors:**Dependency (element - is instance of):* «IDEAS:typeInstance»

ValueInHertz - SiUnitRepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ValueInHertz - NumericMeasureRepresentation

Attributes:

- A NumericMeasureRepresentation that represents a Frequency in hertz

ValueInKelvin «IDEAS:Type»*Connectors:**Generalization (element - is a specialisation of):* «IDEAS:superSubtype»

ValueInKelvin - NumericMeasureRepresentation

Dependency (element - is instance of): «IDEAS:typeInstance»

ValueInKelvin - SiUnitRepresentationScheme

Attributes:

- A NumericMeasureRepresentation that represents a ThermodynamicTemperature in degrees kelvin

ValueInKilograms «IDEAS:Type»*Connectors:**Dependency (element - is instance of):* «IDEAS:typeInstance»

ValueInKilograms - SiUnitRepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ValueInKilograms - NumericMeasureRepresentation

Attributes:

- A NumericMeasureRepresentation that represents a Mass in kilograms

ValueInMetres «IDEAS:Type»*Connectors:**Dependency (element - is instance of):* «IDEAS:typeInstance»

ValueInMetres - SiUnitRepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ValueInMetres - NumericMeasureRepresentation

Attributes:

- A NumericMeasureRepresentation that represents a Length in metres

ValueInSeconds «IDEAS:Type»*Connectors:**Dependency (element - is instance of):* «IDEAS:typeInstance»

ValueInSeconds - SiUnitRepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

ValueInSeconds - NumericMeasureRepresentation

Attributes:

- A NumericMeasureRepresentation that represents a Time in seconds

IDEAS Period or Instant
Instant «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» Instant - PeriodOrInstant <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» Instant - InstantType <u>Attributes:</u> - A PeriodOrInstant whose temporal extent tends towards zero.
Period «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» Period - PeriodOrInstant <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» Period - PeriodType <u>Attributes:</u> - A PeriodOrInstant whose temporal extent is greater than zero
PeriodOrInstant «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» PeriodOrInstant - Individual <u>Attributes:</u> - An Individual whose spatial extent is infinite, but whose temporal extent is finite or zero.
happensIn «IDEAS:TupleType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» happensIn - wholePart <i>Association (source - target):</i> «place1Type» happensIn - PeriodOrInstant <u>Attributes:</u> - A wholePart that asserts that an Individual is a part of a PeriodOrInstant. Note: IDEAS is 4D, so this means the individual [part] is entirely within the extent of the PeriodOrInstant [in]
IDEAS Representation
NumericSign «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a specialisation of):</i> «IDEAS:superSubtype» NumericSign - Sign <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» NumericSign - NumericSignType <u>Attributes:</u> - A Sign that signifies a number. Also known as a numeral.

Sign «IDEAS:IndividualType»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Sign - Individual

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Sign - SignType

Attributes:

-

An Individual that signifies a Thing.

Example: 'BOSTON' signifies BOSTON

IDEASName «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

IDEASName - StringRepresentation

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

IDEASName - Name

Dependency (element - is instance of): «IDEAS:typeInstance»

IDEASName - UniqueNamingScheme

Attributes:

-

A Name used by the IDEAS model to uniquely identify a Thing.

NumericSignType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NumericSignType - SignType

Attributes:

-

A SignType that is the Powertype of NumericSign

SignType «IDEAS:Powertype»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

SignType - IndividualType

Attributes:

-

An IndividualType that is the Powertype of Sign.

describedBy «IDEAS:TupleType»

Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

describedBy - representedBy

Association (source - target): «place2Type»

describedBy - Description

Attributes:

-

A representedBy that asserts that a Description describes a Thing.

descriptionSchemeInstance «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

descriptionSchemeInstance - Description

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

descriptionSchemeInstance - representationSchemeInstance

Association (source - target): «place1Type»

descriptionSchemeInstance - DescriptionScheme

Attributes:

- A representationSchemeInstance that asserts a Description is a member of a DescriptionScheme.

namedBy «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

namedBy - Name

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

namedBy - representedBy

Association (source - target): «place1Type»

namedBy - Thing

Attributes:

- A couple that asserts that a Name describes a Thing.

namingSchemeInstance «IDEAS:TupleType»Connectors:

Association (source - target): «place2Type»

namingSchemeInstance - Name

Association (source - target): «place1Type»

namingSchemeInstance - NamingScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

namingSchemeInstance - representationSchemeInstance

Attributes:

-

A representationSchemeInstance that asserts a Name is a member of a NamingScheme.

representationSchemeInstance «IDEAS:TupleType»Connectors:

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

representationSchemeInstance - typeInstance

Association (source - target): «place1Type»

representationSchemeInstance - RepresentationScheme

Association (source - target): «place2Type»

representationSchemeInstance - Representation

Attributes:

-

A typeInstance that asserts a Representation is a member of a RepresentationScheme.

representedBy «IDEAS:TupleType»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

representedBy - couple

Association (source - target): «place2Type»

representedBy - Representation

Attributes:

-

A couple that asserts that a Representation represents a Thing.

Description «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Description - Representation

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Description - DescriptionType

Attributes:

-

A Representation that describes a Thing

DescriptionScheme «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

DescriptionScheme - DescriptionType

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

DescriptionScheme - RepresentationScheme

Attributes:

A RepresentationScheme and DescriptionType whose members are intentionally descriptions

FloatingPointRepresentation «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

FloatingPointRepresentation - NumericSignType

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

FloatingPointRepresentation - Representation

Attributes:

exemplar

A NumericSignType and Representation in which a string of digits (or bits) represents a rational number.

See http://en.wikipedia.org/wiki/Floating_point

IntegerRepresentation «IDEAS:Type»

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

IntegerRepresentation - NumericSignType

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

IntegerRepresentation - Representation

Attributes:

exemplar

A NumericSignType and Representation in which a string of digits (or bits) represents an integer.

Name «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Name - Representation

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Name - NameType

Generalization (element - is a specialisation of): «superSubtype»

Name - IndividualType

Attributes:

-
A Representation that identifies a Thing.

Implementation note: The inherited exemplarString provides a written example of the uttered name.

Example:

'USA' names the United States of America

NamingScheme «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NamingScheme - Type

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NamingScheme - RepresentationScheme

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NamingScheme - NameType

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

NamingScheme - IndividualTypeType

Attributes:

-
An NameType and a RepresentationScheme whose members are intentionally Names.

Examples:

ISO 3166 Country Codes

IdeasNames

Representation «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

Representation - SignType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Representation - RepresentationType

Attributes:

exemplar

A SignType where all the individual Signs are intended to signify the same Thing.

RepresentationScheme «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

RepresentationScheme - RepresentationType

Attributes:

-
A RepresentationType that is a collection of Representations that are intended to be the preferred Representations in certain contexts.

StringDescription «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

StringDescription - StringRepresentation

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

StringDescription - Description

Attributes:

-
A Description and a StringRepresentations that is a description expressed as text

StringName «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

StringName - StringRepresentation

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

StringName - Name

Attributes:

-
A Name and a StringRepresentations that is a name expressed as text

StringRepresentation «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

StringRepresentation - Representation

Attributes:

exemplar

A Representation whose all members are all strings.

UniqueNamingScheme «IDEAS:Type»*Connectors:*

Generalization (element - is a specialisation of): «IDEAS:superSubtype»

UniqueNamingScheme - NamingScheme

Attributes:

-
A NamingScheme where different Names will not contain tokens of the same Representation Type.

Example:

A UniqueNamingScheme would not have two names that used tokens of the character string 'USA' to name two different things. This does not exclude the possibility that the same thing may have two names within the scheme. For example, a scheme could contain the Names 'US' and 'USA', which both name the United States of America."

3.3 IDEAS Foundation additions

3.3.1 IDEAS foundation addition diagrams

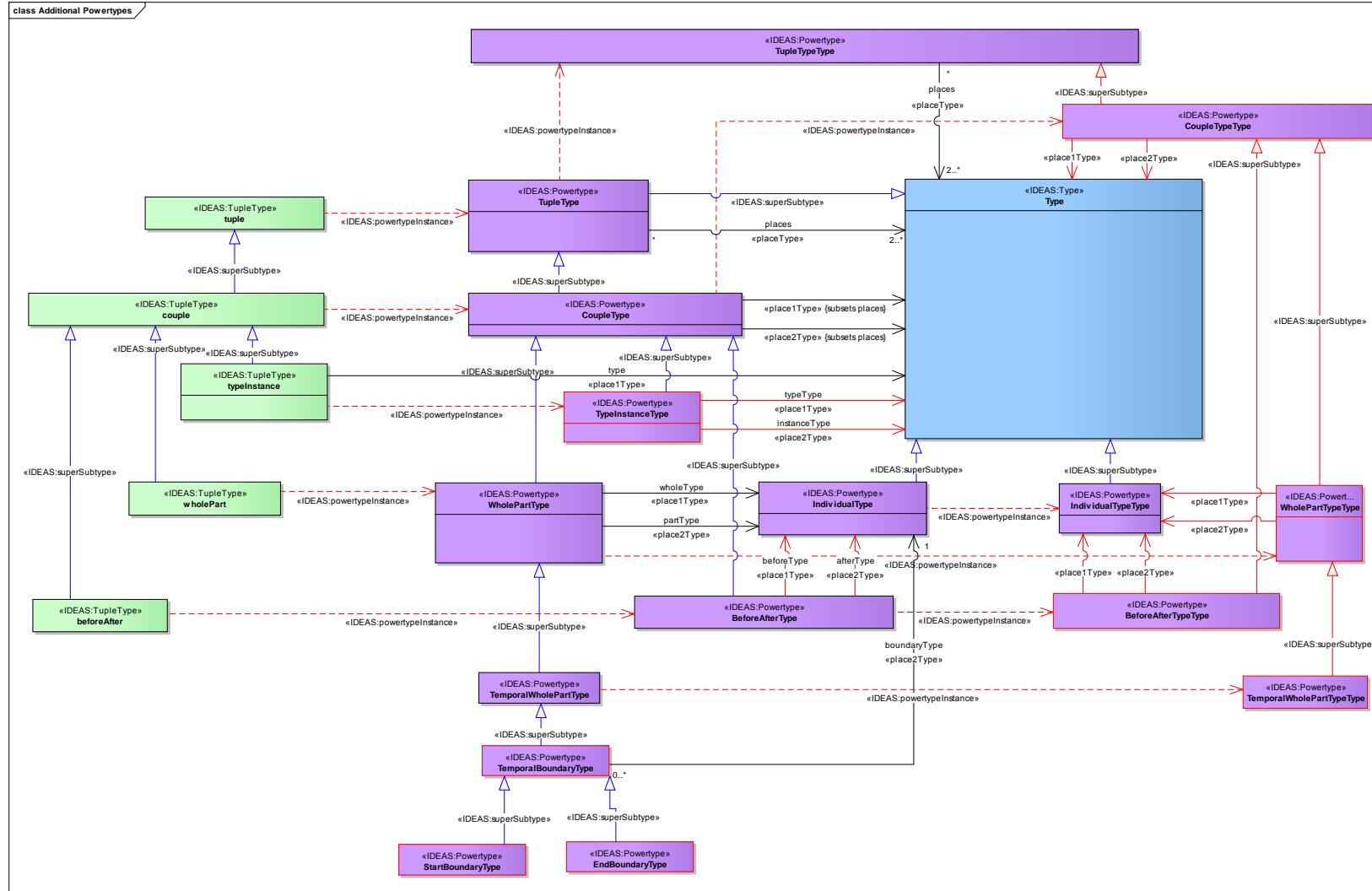


Figure 108 : Additional Powertypes

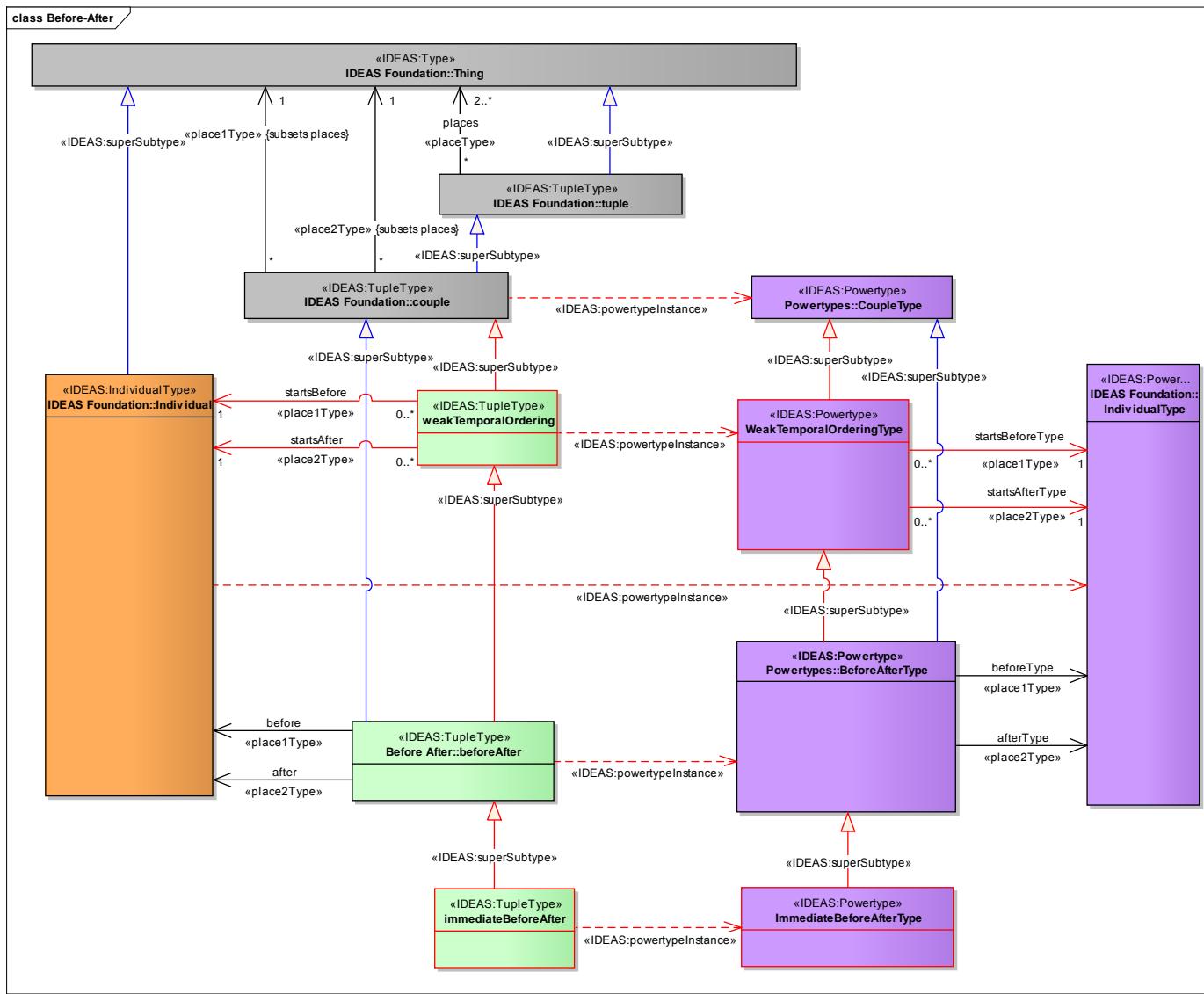


Figure 109 : Before - After

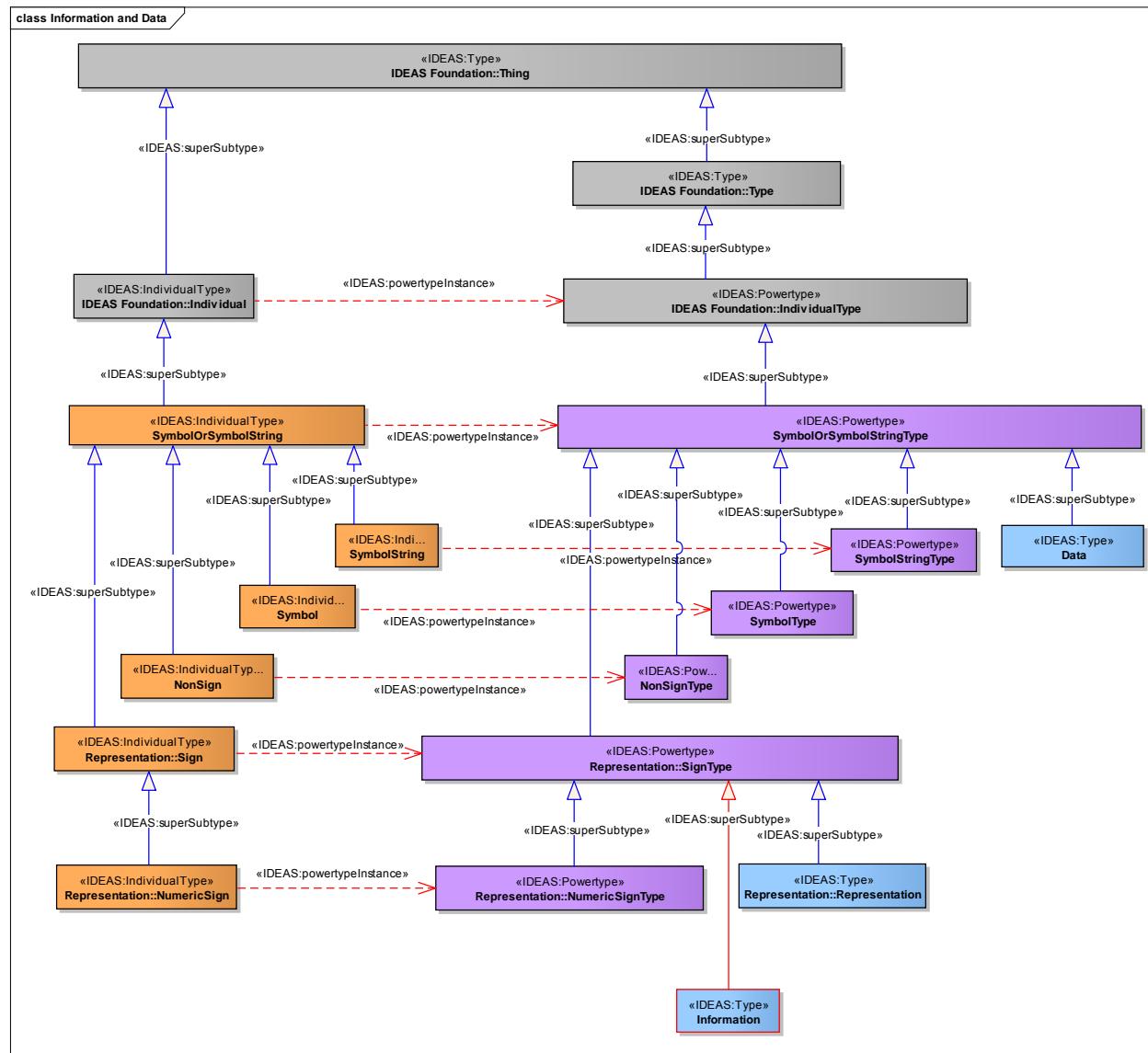


Figure 110 : Information and Data

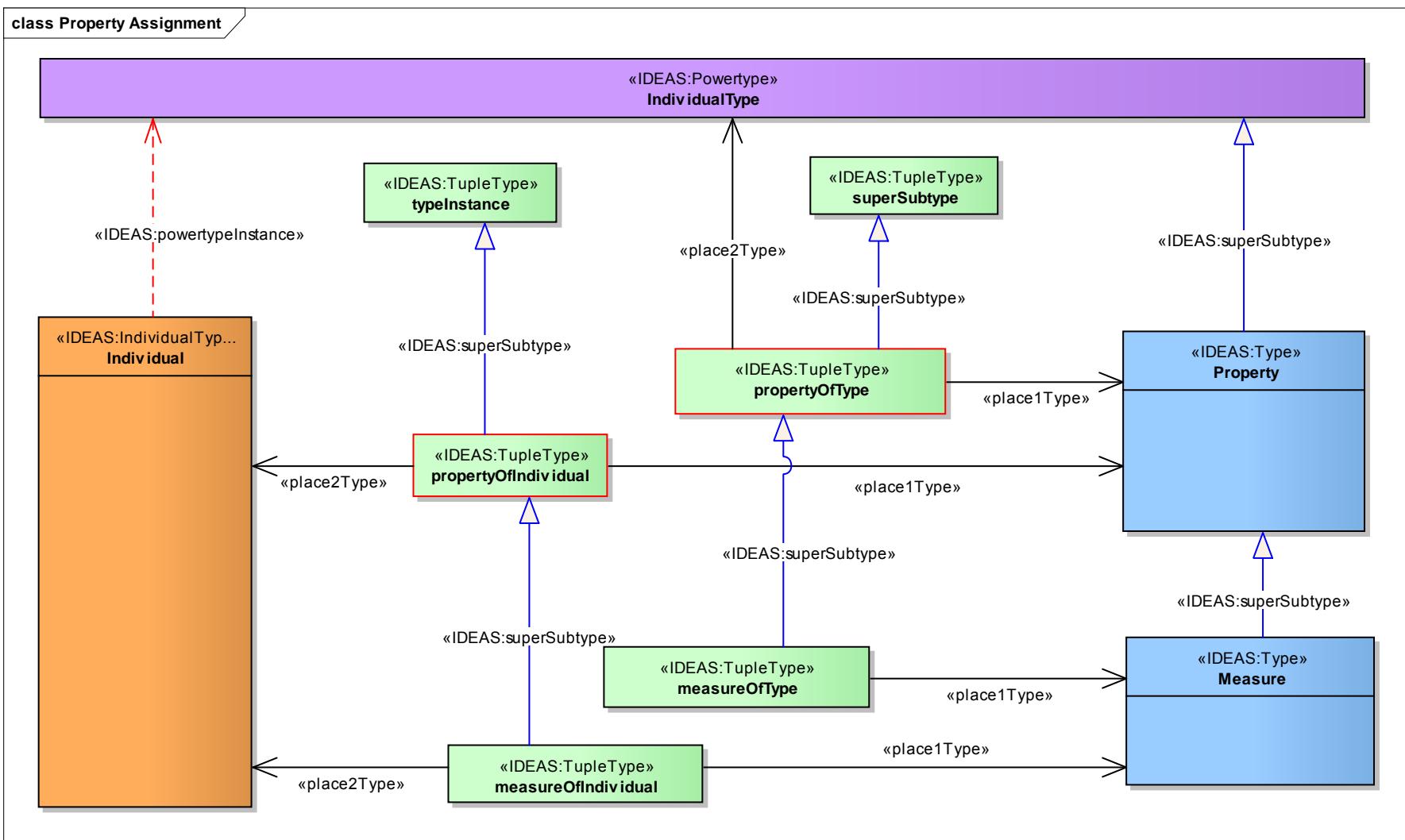


Figure 111 : Property Assignment

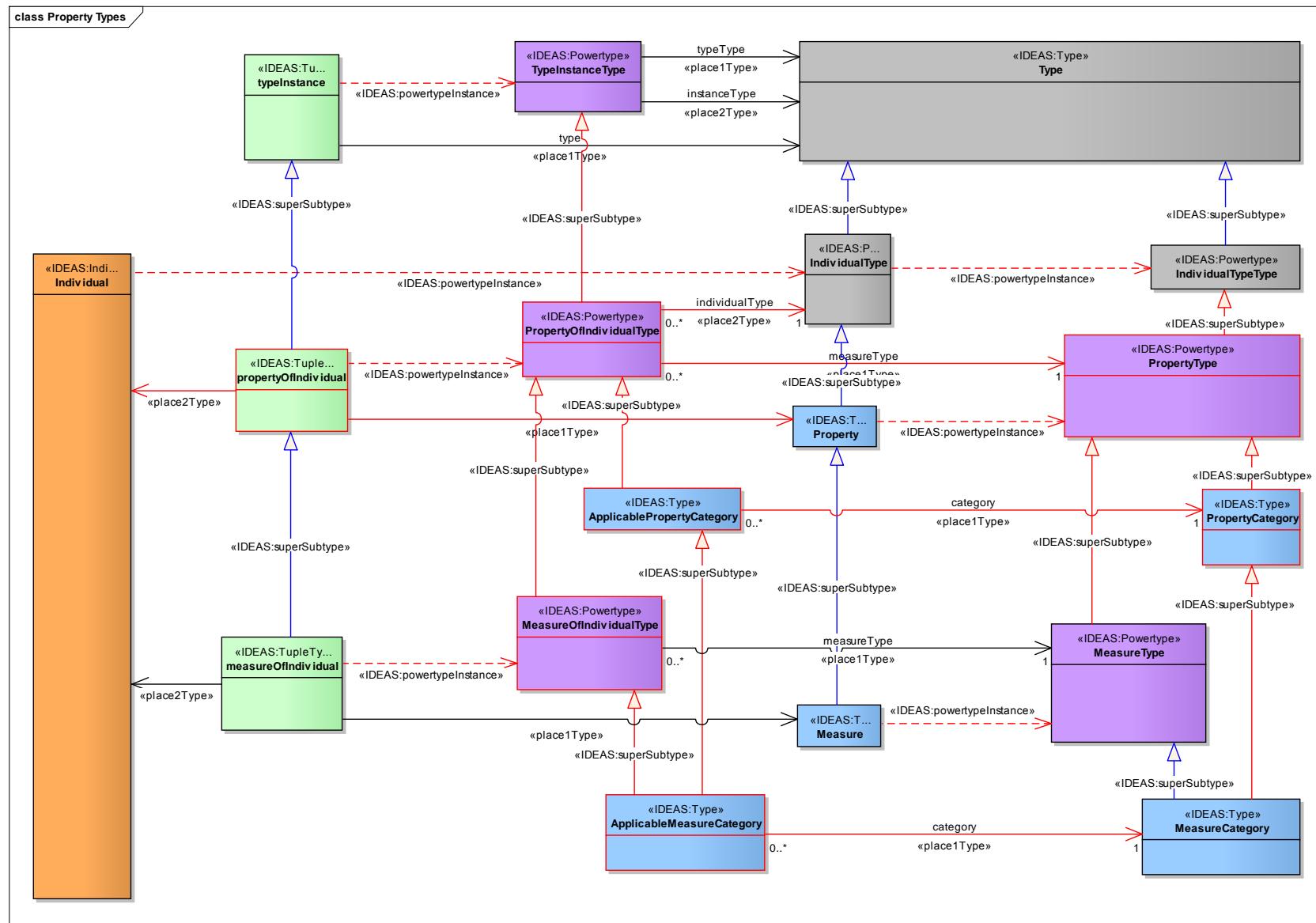


Figure 112 : Property types

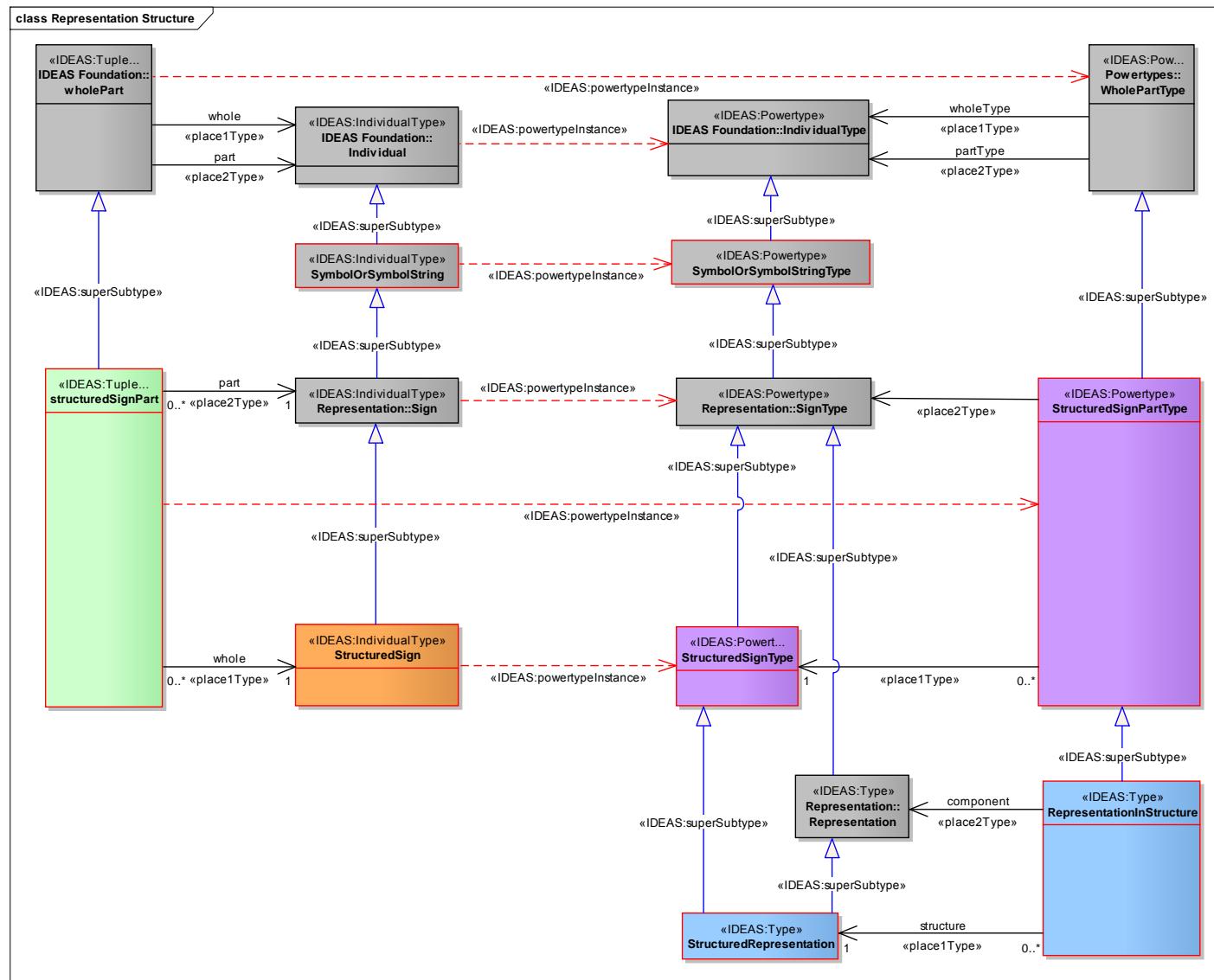


Figure 113 : Representation Structure

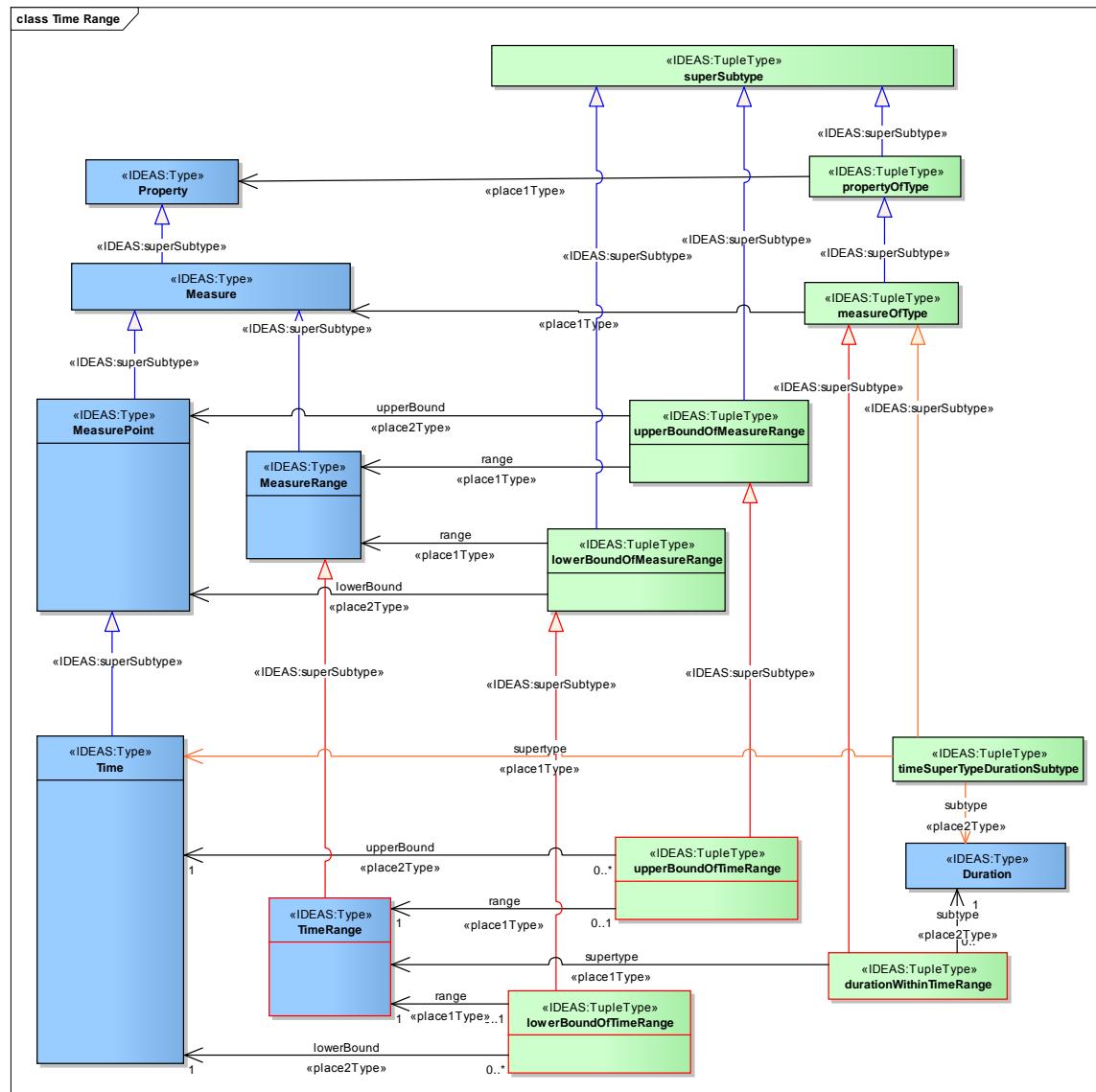


Figure 114 : Time Range

3.3.2 IDEAS Foundation addition elements list

Naming schemes
ModemName «IDEAS:UniqueNamingScheme»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ModemName - StringRepresentation
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ModemName - Name
<i>Attributes:</i>
-
A Name that originates in the MODEM Architecture Framework (MODEM).
IDEAS Foundation additions
ApplicableMeasureCategory «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ApplicableMeasureCategory - MeasureOfIndividualType
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ApplicableMeasureCategory - ApplicablePropertyCategory
<i>Association (source - target):</i> «place1Type»
ApplicableMeasureCategory - MeasureCategory
<i>Attributes:</i>
-
A MeasureOfIndividualType that asserts a given IndividualType has instances which may have properties that are instances of a MeasureCategory.
ApplicablePropertyCategory «IDEAS:Type»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ApplicablePropertyCategory - PropertyOfIndividualType
<i>Association (source - target):</i> «place1Type»
ApplicablePropertyCategory - PropertyCategory
<i>Attributes:</i>
-
A PropertyOfIndividualType that asserts a given IndividualType has instances which may have properties that are instances of a PropertyCategory.
BeforeAfterTypeType «IDEAS:Powertype»
<i>Connectors:</i>
<i>Association (source - target):</i> «place1Type»
BeforeAfterTypeType - IndividualTypeType
<i>Association (source - target):</i> «place2Type»
BeforeAfterTypeType - IndividualTypeType
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
BeforeAfterTypeType - CoupleTypeType
<i>Attributes:</i>
-
The powertype of BeforeAfterType
CoupleTypeType «IDEAS:Powertype»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
CoupleTypeType - TupleTypeType
<i>Association (source - target):</i> «place1Type»

CoupleTypeType - Type
Association (source - target): «place2Type»

CoupleTypeType - Type
Attributes:
-

The powertype of CoupleType

Data «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Data - SymbolOrSymbolStringType

Attributes:
-

A SymbolOrSymbolStringType that is a non arbitrary set of Symbols which may or may not convey meaning.

EndBoundaryType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

EndBoundaryType - TemporalBoundaryType

Attributes:
-

The powertype of endBoundary.

ImmediateBeforeAfterType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ImmediateBeforeAfterType - BeforeAfterType

Attributes:
-

The powertype of immediateBeforeAfter.

Information «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Information - SignType

Attributes:
-

A SignType that is a non-arbitrary set of Signs which together convey meaning.

MeasureOfIndividualType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

MeasureOfIndividualType - PropertyOfIndividualType

Association (source - target): «place1Type»

MeasureOfIndividualType - MeasureType

Attributes:
-

The powertype of measureOfIndividual.

NonSign «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonSign - SymbolOrSymbolString

Dependency (element - is instance of): «IDEAS:powertypeInstance»

NonSign - NonSignType

Attributes:

A SymbolOrSymbolString does not refer to anything. An example of this would be the symbol string that makes up an encryption key.

NonSignType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

NonSignType - SymbolOrSymbolStringType

Attributes:

-

The powertype of NonSign.

PropertyCategory «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PropertyCategory - PropertyType

Attributes:

-

A PropertyType that specifies a recognised type of Property.

PropertyOfIndividualType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

PropertyOfIndividualType - TypeInstanceType

Association (source - target): «place2Type»

PropertyOfIndividualType - IndividualType

Association (source - target): «place1Type»

PropertyOfIndividualType - PropertyType

Attributes:

-

The powertype of propertyOfIndividual.

PropertyType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

.PropertyType - IndividualTypeType

Attributes:

-

The powertype of Property.

RepresentationInStructure «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RepresentationInStructure - StructuredSignPartType

Association (source - target): «place2Type»

RepresentationInStructure - Representation

Association (source - target): «place1Type»

RepresentationInStructure - StructuredRepresentation

Attributes:

-

A StructuredSignPartType that asserts a Representation is part of a StructuredRepresentation.

StartBoundaryType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StartBoundaryType - TemporalBoundaryType

Attributes:

-

The powertype of startBoundary.

StructuredRepresentation «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StructuredRepresentation - StructuredSignType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StructuredRepresentation - Representation

Attributes:

-

A Representation that has parts that are also Representations.

StructuredSign «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StructuredSign - Sign

Dependency (element - is instance of): «IDEAS:powertypeInstance»

StructuredSign - StructuredSignType

Attributes:

-

A Sign that has parts that are also Signs.

StructuredSignPartType «IDEAS:Powertype»

Connectors:

Association (source - target): «place2Type»

StructuredSignPartType - SignType

Association (source - target): «place1Type»

StructuredSignPartType - StructuredSignType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StructuredSignPartType - WholePartType

Attributes:

-

The powertype of structuredSignPart.

StructuredSignType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StructuredSignType - SignType

Attributes:

-

The powertype of StructuredSign.

Symbol «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Symbol - SymbolOrSymbolString

Dependency (element - is instance of): «IDEAS:powertypeInstance»

<p>Symbol - SymbolType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A SymbolOrSymbolType that is a single Symbol.</p>
<p>SymbolOrSymbolString «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i></p> <p>SymbolOrSymbolString - Individual</p> <p><i>Dependency (element - is instance of): «IDEAS:powertypeInstance»</i></p> <p>SymbolOrSymbolString - SymbolOrSymbolStringType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>An Individual that collects either symbols or strings.</p>
<p>SymbolOrSymbolStringType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i></p> <p>SymbolOrSymbolStringType - IndividualType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of SymbolOrSymbolString.</p>
<p>SymbolString «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i></p> <p>SymbolString - SymbolOrSymbolString</p> <p><i>Dependency (element - is instance of): «IDEAS:powertypeInstance»</i></p> <p>SymbolString - SymbolStringType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A SymbolOrSymbolString whose extent is the fusion of two or more Symbols.</p>
<p>SymbolStringType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i></p> <p>SymbolStringType - SymbolOrSymbolStringType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of SymbolString.</p>
<p>SymbolType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i></p> <p>SymbolType - SymbolOrSymbolStringType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of Symbol.</p>
<p>TemporalBoundaryType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i></p> <p>TemporalBoundaryType - TemporalWholePartType</p> <p><i>Association (source - target): «place2Type»</i></p>

TemporalBoundaryType - IndividualType

Attributes:

-
The powertype of temporalBoundary.

TemporalWholePartTypeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TemporalWholePartTypeType - WholePartTypeType

Attributes:

-
The powertype of TemporalWholePartType.

TimeRange «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TimeRange - MeasureRange

Attributes:

-
A MeasureRange where the bounds are Times.

TypeInstanceType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

TypeInstanceType - CoupleType

Association (source - target): «place2Type»

TypeInstanceType - Type

Association (source - target): «place1Type»

TypeInstanceType - Type

Attributes:

-
The powertype of typeInstance.

WeakTemporalOrderingType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WeakTemporalOrderingType - CoupleType

Association (source - target): «place2Type»

WeakTemporalOrderingType - IndividualType

Association (source - target): «place1Type»

WeakTemporalOrderingType - IndividualType

Attributes:

-
The powertype of weakTemporalOrdering.

WholePartTypeType «IDEAS:Powertype»

Connectors:

Association (source - target): «place1Type»

WholePartTypeType - IndividualTypeType

Association (source - target): «place2Type»

WholePartTypeType - IndividualTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WholePartTypeType - CoupleTypeType

<p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of WholePartType.</p>
<p>ZeroDurationIndividual «IDEAS:IndividualType»</p> <p><u>Connectors:</u></p> <p><i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»</p> <p>ZeroDurationIndividual - ZeroDurationIndividualType</p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ZeroDurationIndividual - Individual</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>An Individual whose temporal extent is zero, but whose spatial extent is not zero (i.e. finite or infinite).</p>
<p>ZeroDurationIndividualType «IDEAS:Powertype»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>ZeroDurationIndividualType - IndividualType</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>The powertype of ZeroDurationIndividual.</p>
<p>durationWithinTimeRange «IDEAS:TupleType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>durationWithinTimeRange - measureOfType</p> <p><i>Association (source - target):</i> «place2Type»</p> <p>durationWithinTimeRange - Duration</p> <p><i>Association (source - target):</i> «place1Type»</p> <p>durationWithinTimeRange - TimeRange</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A superSubtype where the subtype is the set of all periods that fall within the lower and upper bounds of the TimeRange which is the supertype.</p>
<p>immediateBeforeAfter «IDEAS:TupleType»</p> <p><u>Connectors:</u></p> <p><i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»</p> <p>immediateBeforeAfter - ImmediateBeforeAfterType</p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>immediateBeforeAfter - beforeAfter</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> - <p>A beforeAfter where the preceding Individual's temporal end adjoins the temporal start of the following Individual - i.e. one individual immediate follows the other.</p>
<p>lowerBoundOfTimeRange «IDEAS:TupleType»</p> <p><u>Connectors:</u></p> <p><i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»</p> <p>lowerBoundOfTimeRange - lowerBoundOfMeasureRange</p> <p><i>Association (source - target):</i> «place2Type»</p> <p>lowerBoundOfTimeRange - Time</p> <p><i>Association (source - target):</i> «place1Type»</p> <p>lowerBoundOfTimeRange - TimeRange</p> <p><u>Attributes:</u></p> <ul style="list-style-type: none"> -

- A lowerBoundOfMeasureRange where the lower bound is a Time and the range is a TimeRange.

propertyOfIndividual «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

propertyOfIndividual - PropertyOfIndividualType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

propertyOfIndividual - typeInstance

Association (source - target): «place2Type»

propertyOfIndividual - Individual

Association (source - target): «place1Type»

propertyOfIndividual - Property

Attributes:

- A typeInstance where the type is a Property and the instance is an Individual that asserts the Individual "has" the property.

propertyOfType «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

propertyOfType - superSubtype

Association (source - target): «place2Type»

propertyOfType - IndividualType

Association (source - target): «place1Type»

propertyOfType - Property

Attributes:

- A superSubtype where the subtype is an IndividualType and the supertype is a Property that asserts all members of the IndividualType "have" the Property.

structuredSignPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

structuredSignPart - wholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

structuredSignPart - StructuredSignPartType

Association (source - target): «place2Type»

structuredSignPart - Sign

Association (source - target): «place1Type»

structuredSignPart - StructuredSign

Attributes:

- A wholePart where a StructuredSign has a part that is a Sign.

upperBoundOfTimeRange «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

upperBoundOfTimeRange - upperBoundOfMeasureRange

Association (source - target): «place1Type»

upperBoundOfTimeRange - TimeRange

Association (source - target): «place2Type»

upperBoundOfTimeRange - Time

Attributes:

- An upperBoundOfMeasureRange where the upper bound is a Time and the range is a TimeRange.

weakTemporalOrdering «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

weakTemporalOrdering - WeakTemporalOrderingType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

weakTemporalOrdering - couple

Association (source - target): «place2Type»

weakTemporalOrdering - Individual

Association (source - target): «place1Type»

weakTemporalOrdering - Individual

Attributes:

- A couple that asserts one Individual starts before another - i.e. the start temporal boundary of one occurs before the start temporal boundary of the other. Note: this includes cases where one Individual starts *and* ends before the other (see beforeAfter).

SingletonIndividualTypeType «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonIndividualTypeType - Singleton

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonIndividualTypeType - IndividualTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonIndividualTypeType - SetOfOwnedStateSets

Attributes:

-

An IndividualTypeType that has only one member.

singletonIndividualTypeTypeInstance «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

singletonIndividualTypeTypeInstance - singletonTypeInstance

Association (source - target): «place2Type»

singletonIndividualTypeTypeInstance - IndividualType

Association (source - target): «place1Type»

singletonIndividualTypeTypeInstance - SingletonIndividualTypeType

Attributes:

-

A singletonTypeInstance where the type is a SingletonIndividualTypeType and the instance is an IndividualType.

incompletePartitionOfSetsOfIndividuals «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

incompletePartitionOfSetsOfIndividuals - WholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

incompletePartitionOfSetsOfIndividuals - incompletePartitionOfSetsOfThings

Association (source - target): «place2Type»

incompletePartitionOfSetsOfIndividuals - SetOfDisjointIndividuals

Attributes:

-

An instance of this type contains all wholes-parts couples that link an element with each type in a set of disjoint elements that incompletely partition it. The ontic cardinalities are different from the epistemic ones.

incompletePartitionOfSetsOfThings «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

incompletePartitionOfSetsOfThings - CoupleType

Association (source - target): «place1Type»

incompletePartitionOfSetsOfThings - Singleton

Association (source - target): «place2Type»

incompletePartitionOfSetsOfThings - SetOfDisjointThings

Attributes:

-
An instance of this type contains all couples that link the incomplete partition of a set of objects with the object being partitioned. In this framework, an complete partition (AKA a partition) is the limiting case of a partition. For more detail, see its sub-types.

incompletePartitionOfSetsOfTypes «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

incompletePartitionOfSetsOfTypes - SuperSubtypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

incompletePartitionOfSetsOfTypes - incompletePartitionOfSetsOfThings

Association (source - target): «place2Type»

incompletePartitionOfSetsOfTypes - SetOfDisjointTypes

Attributes:

-
An instance of this type contains all super-sub-types couples that link a type with each type in a set of disjoint types that incompletely partition it. The ontic cardinalities are different from the epistemic ones.

3.4 Patterns

3.4.1 Body capable of process diagrams

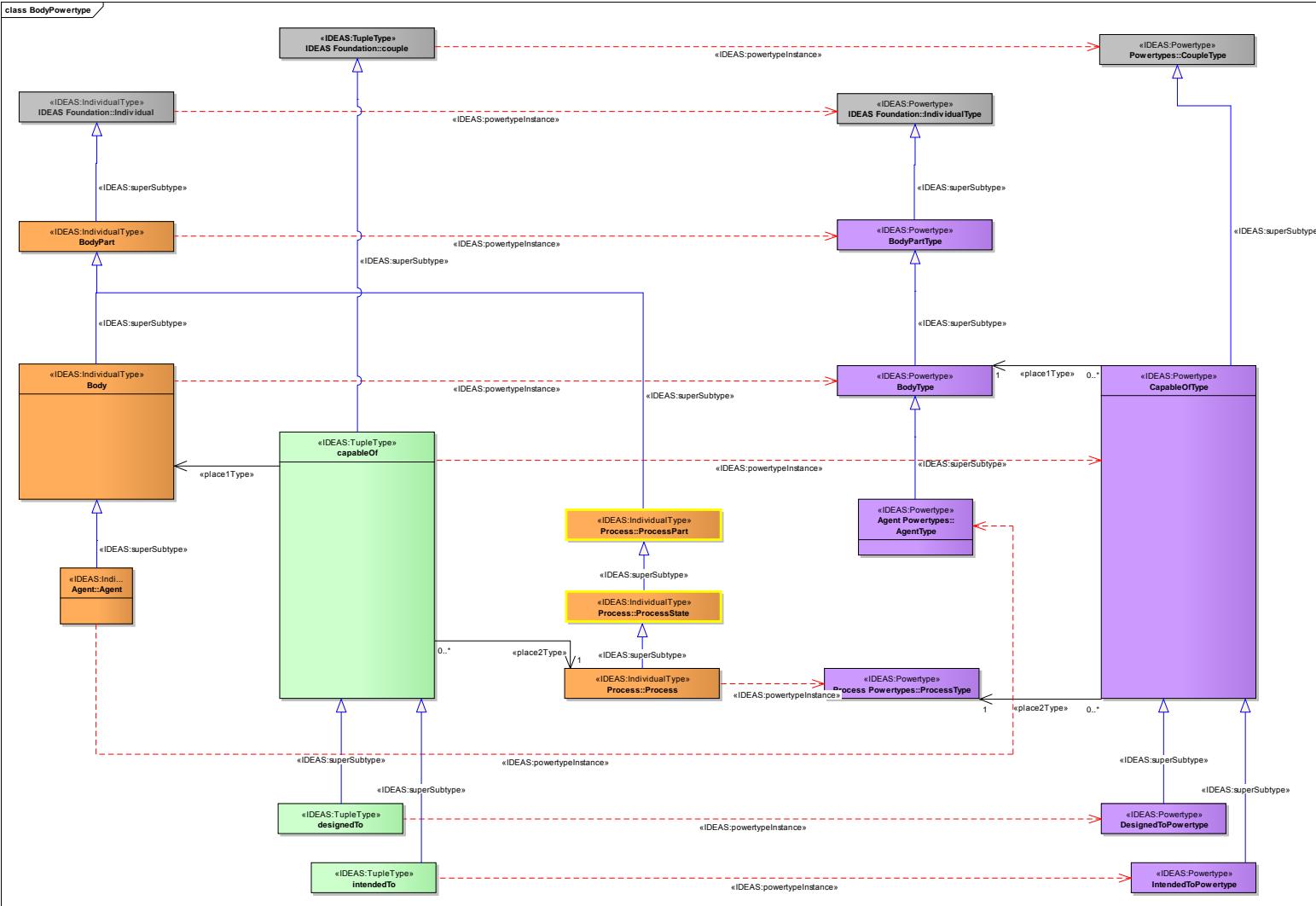


Figure 115 : BodyPowertype

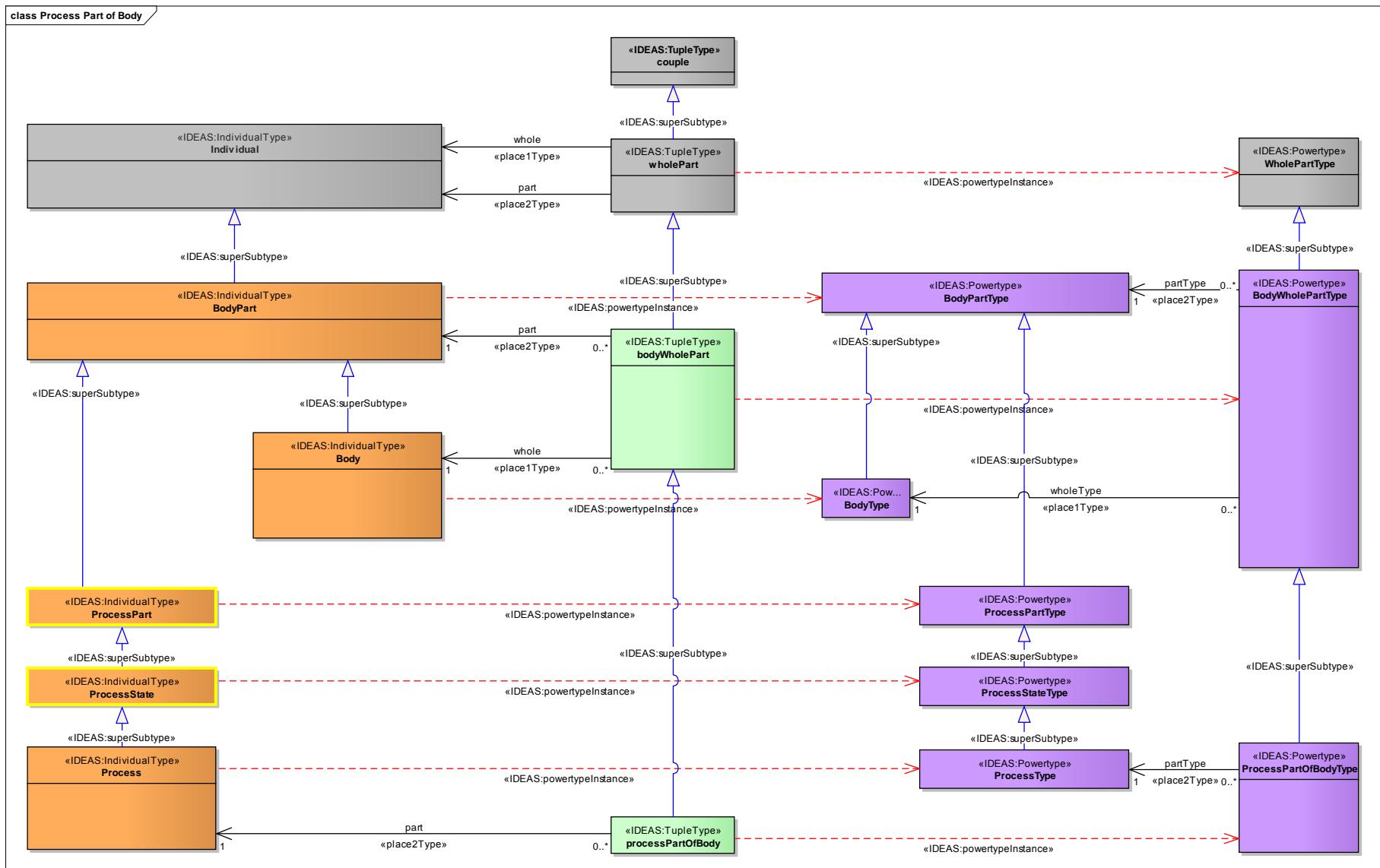


Figure 116 : Process Part of Body

3.4.2 Body capable of process elements list

Foundation additions	Body capable of process
Body «IDEAS:IndividualType»	
<i>Connectors:</i>	
<i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»	
Body - BodyType	
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»	
Body - BodyPart	
<i>Attributes:</i>	
-	
An Individual that is capable of performing a Process.	
BodyPart «IDEAS:IndividualType»	
<i>Connectors:</i>	
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»	
BodyPart - Individual	
<i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»	
BodyPart - BodyPartType	
<i>Attributes:</i>	
-	
An Individual that is a part of a Body.	
BodyPartType «IDEAS:Powertype»	
<i>Connectors:</i>	
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»	
BodyPartType - IndividualType	
<i>Attributes:</i>	
-	
The powertype of BodyPart.	
BodyType «IDEAS:Powertype»	
<i>Connectors:</i>	
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»	
BodyType - BodyPartType	
<i>Attributes:</i>	
-	
The powertype of Body.	
BodyWholePartType «IDEAS:Powertype»	
<i>Connectors:</i>	
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»	
BodyWholePartType - WholePartType	
<i>Association (source - target):</i> «place2Type»	
BodyWholePartType - BodyPartType	
<i>Association (source - target):</i> «place1Type»	
BodyWholePartType - BodyType	
<i>Attributes:</i>	
-	
The powertype of bodyWholePart.	

CapableOfType «IDEAS:Powertype»Connectors:

Association (source - target): «place2Type»

CapableOfType - ProcessType

Association (source - target): «place1Type»

CapableOfType - BodyType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

CapableOfType - CoupleType

Attributes:

- A powertype of capableOf.

DesignedToPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DesignedToPowertype - CapableOfType

Attributes:

- A powertype of designedTo.

IntendedToPowertype «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IntendedToPowertype - CapableOfType

Attributes:

- A powertype of intendedTo.

ProcessPartOfBodyType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProcessPartOfBodyType - BodyWholePartType

Association (source - target): «place2Type»

ProcessPartOfBodyType - ProcessType

Attributes:

-

The powertype of processPartOfBody.

bodyTypeSuperSubType «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

bodyTypeSuperSubType - superSubtype

Association (source - target): «place2Type»

bodyTypeSuperSubType - BodyType

Association (source - target): «place1Type»

bodyTypeSuperSubType - BodyType

Attributes:

-

A superSubtype whose superType and subType are BodyTypes.

bodyWholePart «IDEAS:TupleType»*Connectors:*

Dependency (element - is instance of): «IDEAS:powertypeInstance»

bodyWholePart - BodyWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

bodyWholePart - wholePart

Association (source - target): «place2Type»

bodyWholePart - BodyPart

Association (source - target): «place1Type»

bodyWholePart - Body

Attributes:

-

A wholePart that asserts an Individual is part of a Body.

capableOf «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

capableOf - couple

Dependency (element - is instance of): «IDEAS:powertypeInstance»

capableOf - CapableOfType

Association (source - target): «place1Type»

capableOf - Body

Association (source - target): «place2Type»

capableOf - Process

Attributes:

-

A couple that asserts that a Body is capable of having a Process as part of it.

designedTo «IDEAS:TupleType»*Connectors:*

Dependency (element - is instance of): «IDEAS:powertypeInstance»

designedTo - DesignedToPowertype

Generalization (element - is a subtype of): «IDEAS:superSubtype»

designedTo - capableOf

Attributes:

-

A capableOf that asserts that a Body is designed to have a Process as part of it.

intendedTo «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

intendedTo - capableOf

Dependency (element - is instance of): «IDEAS:powertypeInstance»

intendedTo - IntendedToPowertype

Attributes:

-

A capableOf that asserts that a Body is intended to have a Process as part of it.

processPartOfBody «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

processPartOfBody - bodyWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

processPartOfBody - ProcessPartOfBodyType

Association (source - target): «place2Type»

processPartOfBody - Process

Attributes:

-

A bodyWholePart where the part is an entire Process - i.e. the process is entirely within the extent of the Body.

3.4.3 Temporal border diagrams

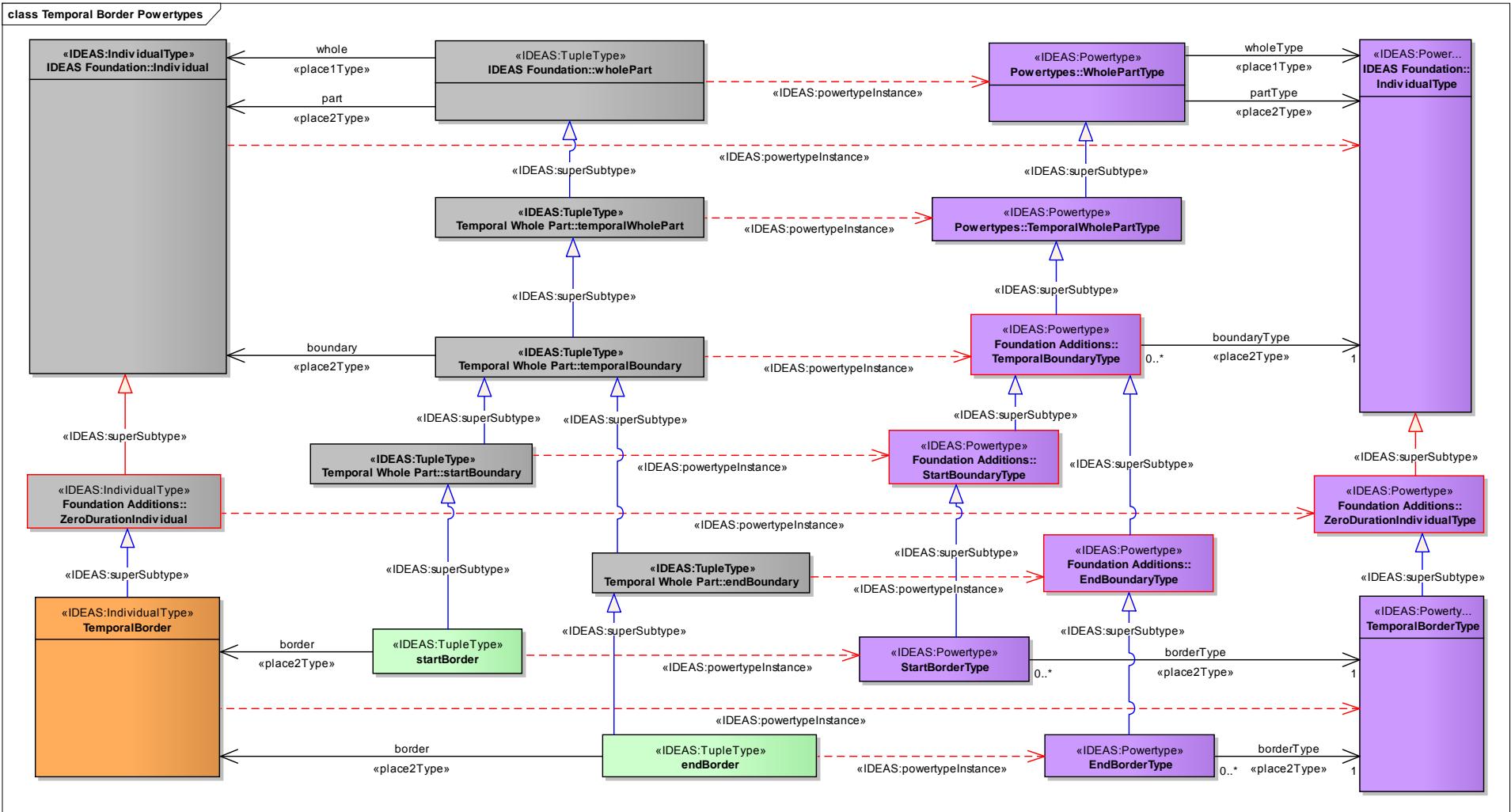


Figure 117: Temporal Border Powertypes

3.4.4 Temporal border elements list

Temporal border
EndBorderType «IDEAS:Powertype» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» EndBorderType - EndBoundaryType <i>Association (source - target):</i> «place2Type» EndBorderType - TemporalBorderType <u>Attributes:</u> - The powertype of endBorder.
StartBorderType «IDEAS:Powertype» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» StartBorderType - StartBoundaryType <i>Association (source - target):</i> «place2Type» StartBorderType - TemporalBorderType <u>Attributes:</u> - The powertype of startBorder.
TemporalBorder «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» TemporalBorder - ZeroDurationIndividual <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» TemporalBorder - TemporalBorderType <u>Attributes:</u> - An Individual whose temporal extent is instantaneous, and whose spatial extent corresponds with the start or end of the Individuals for which it is the temporal border.
TemporalBorderType «IDEAS:Powertype» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» TemporalBorderType - ZeroDurationIndividualType <u>Attributes:</u> - The powertype of TemporalBorder.
endBorder «IDEAS:TupleType» <u>Connectors:</u> <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» endBorder - EndBorderType <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» endBorder - endBoundary <i>Association (source - target):</i> «place2Type» endBorder - TemporalBorder <u>Attributes:</u> - An endBoundary where the boundary is a TemporalBorder.

startBorder «IDEAS:TupleType»

Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

startBorder - StartBorderType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

startBorder - startBoundary

Association (source - target): «place2Type»

startBorder - TemporalBorder

Attributes:

-

A startBoundary where the boundary is a TemporalBorder.

3.4.5 State and interaction diagrams

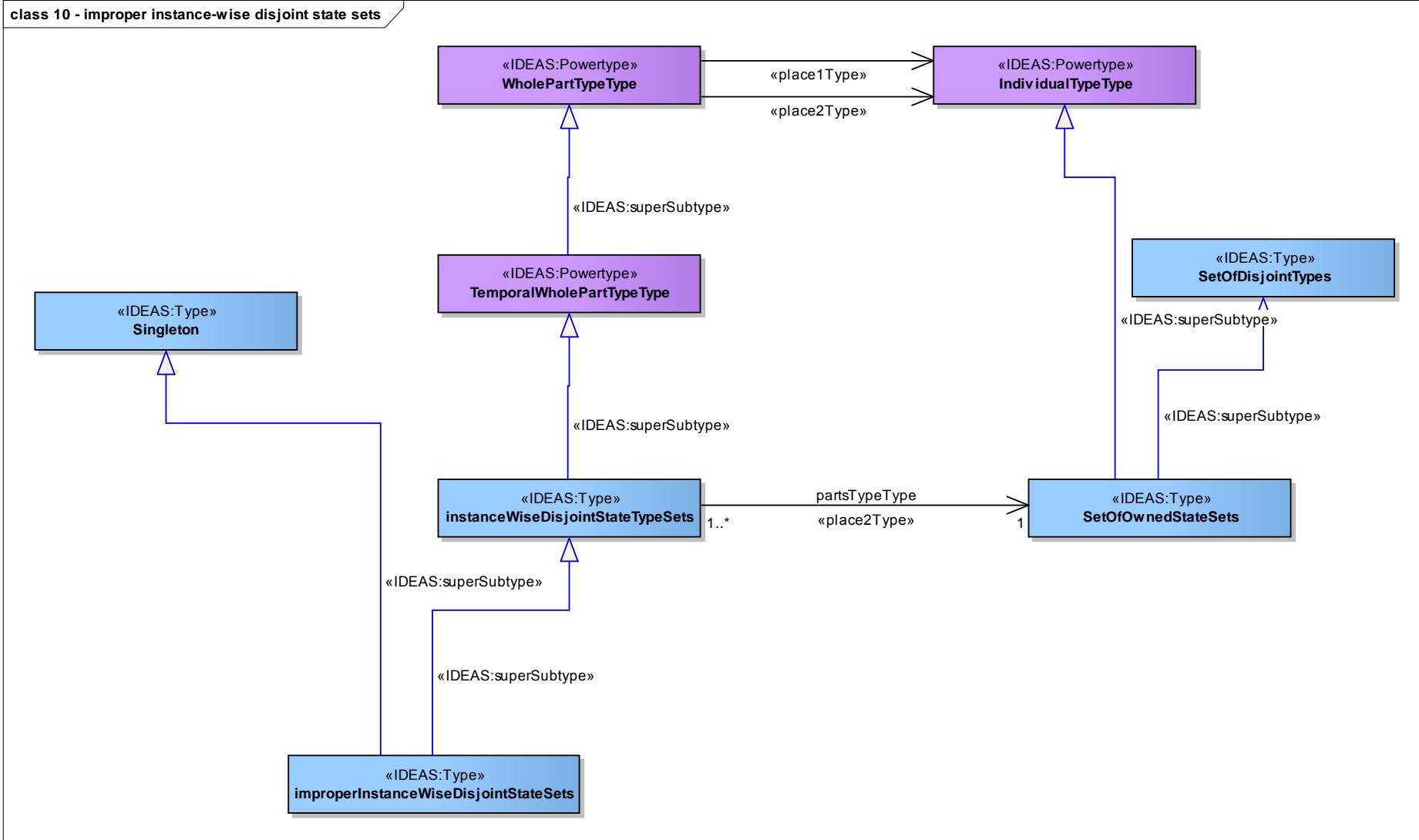


Figure 118 : improper instance-wise disjoint state sets

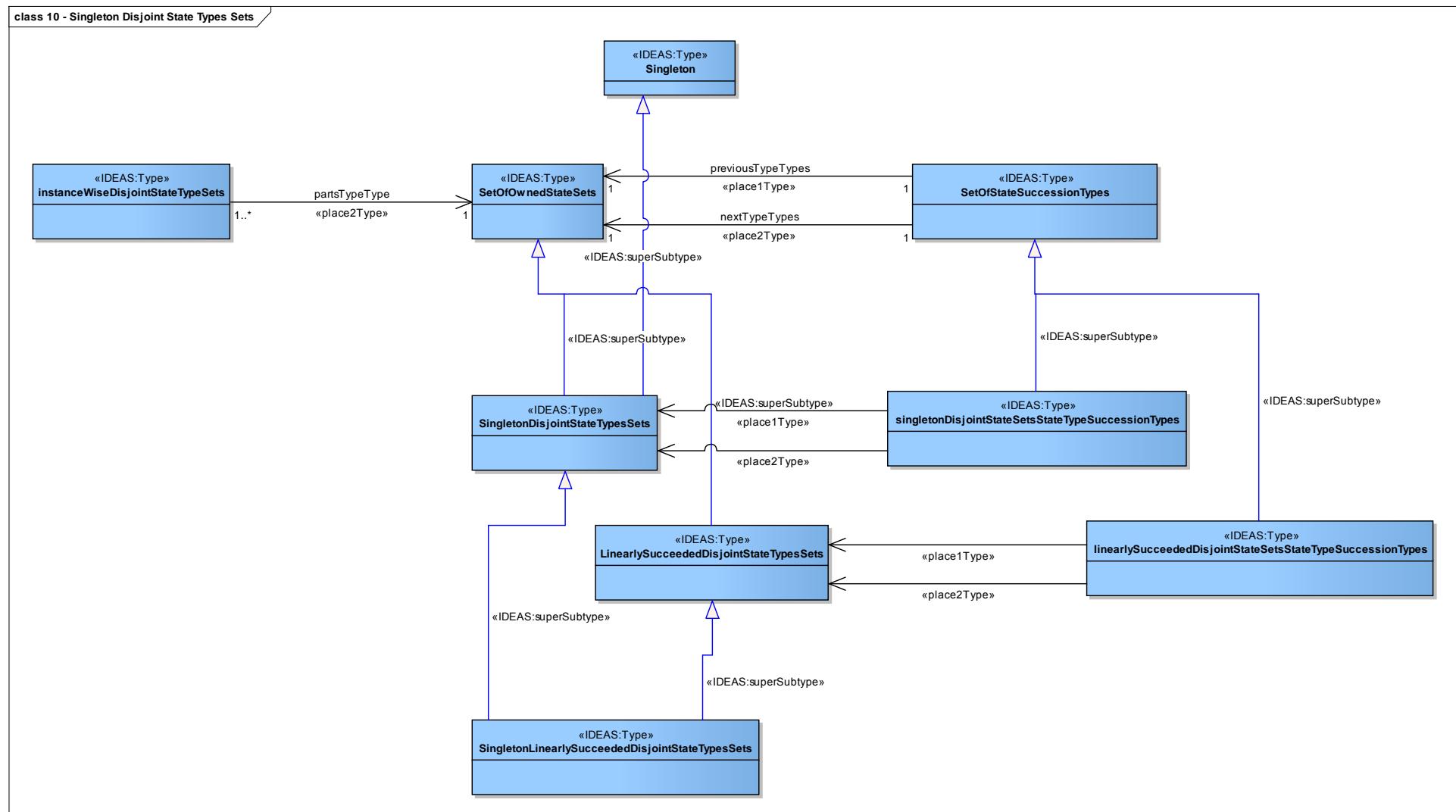


Figure 119 : Singleton Disjoint State Types Sets

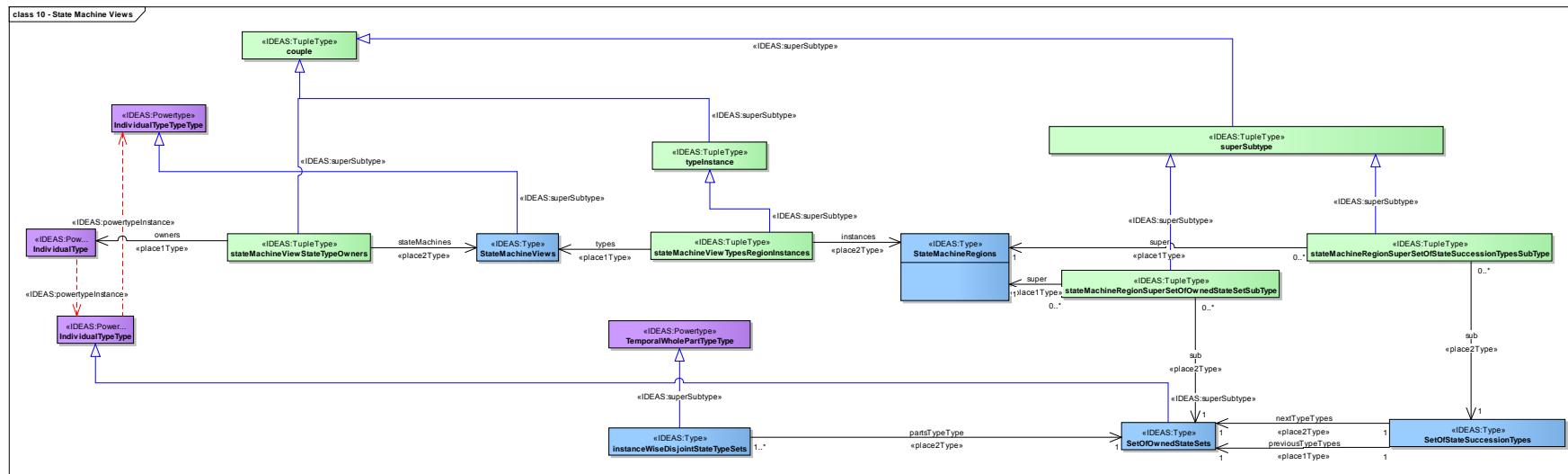


Figure 120 : State Machine Views

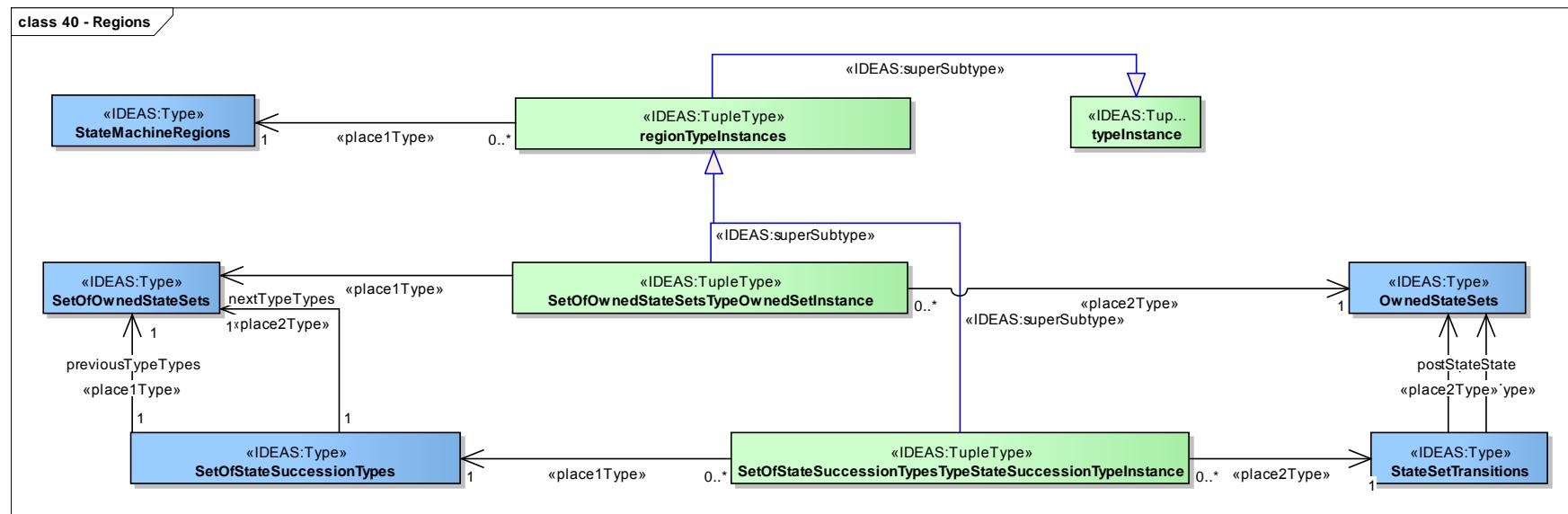


Figure 121 : Regions

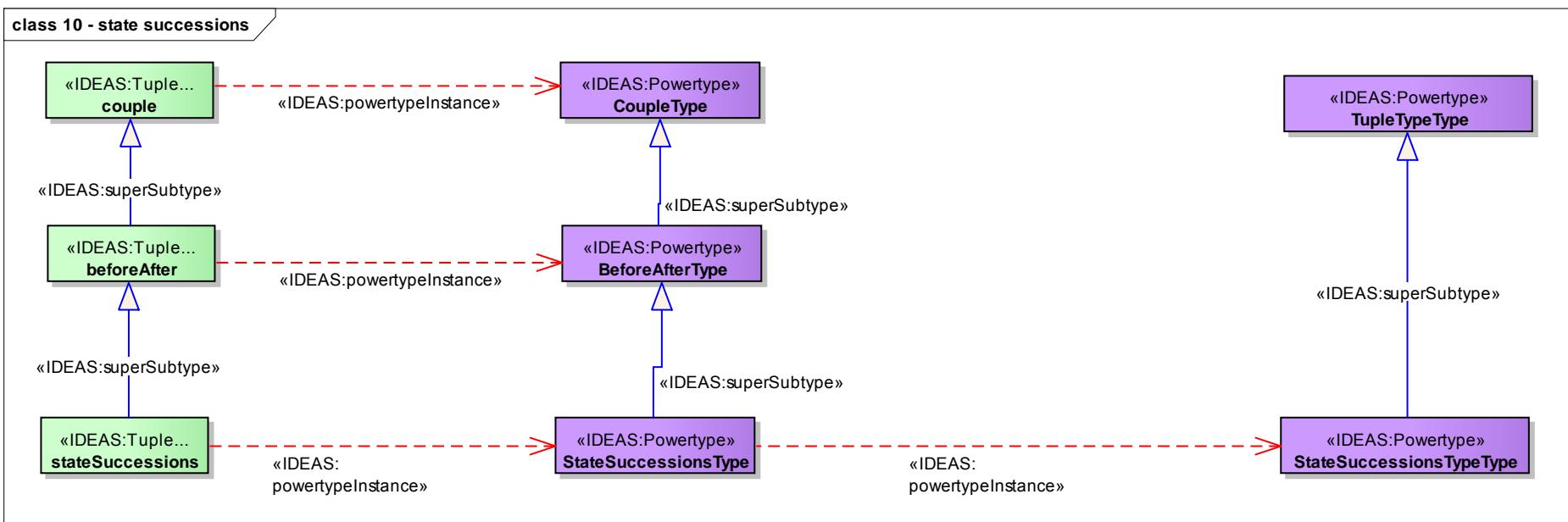


Figure 122 : state successions

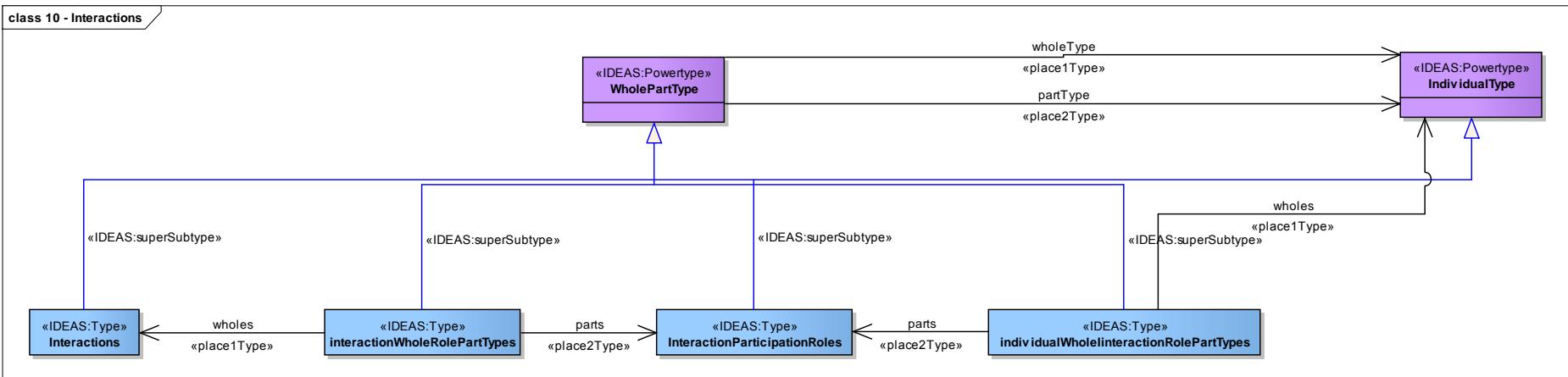


Figure 123 : Interactions

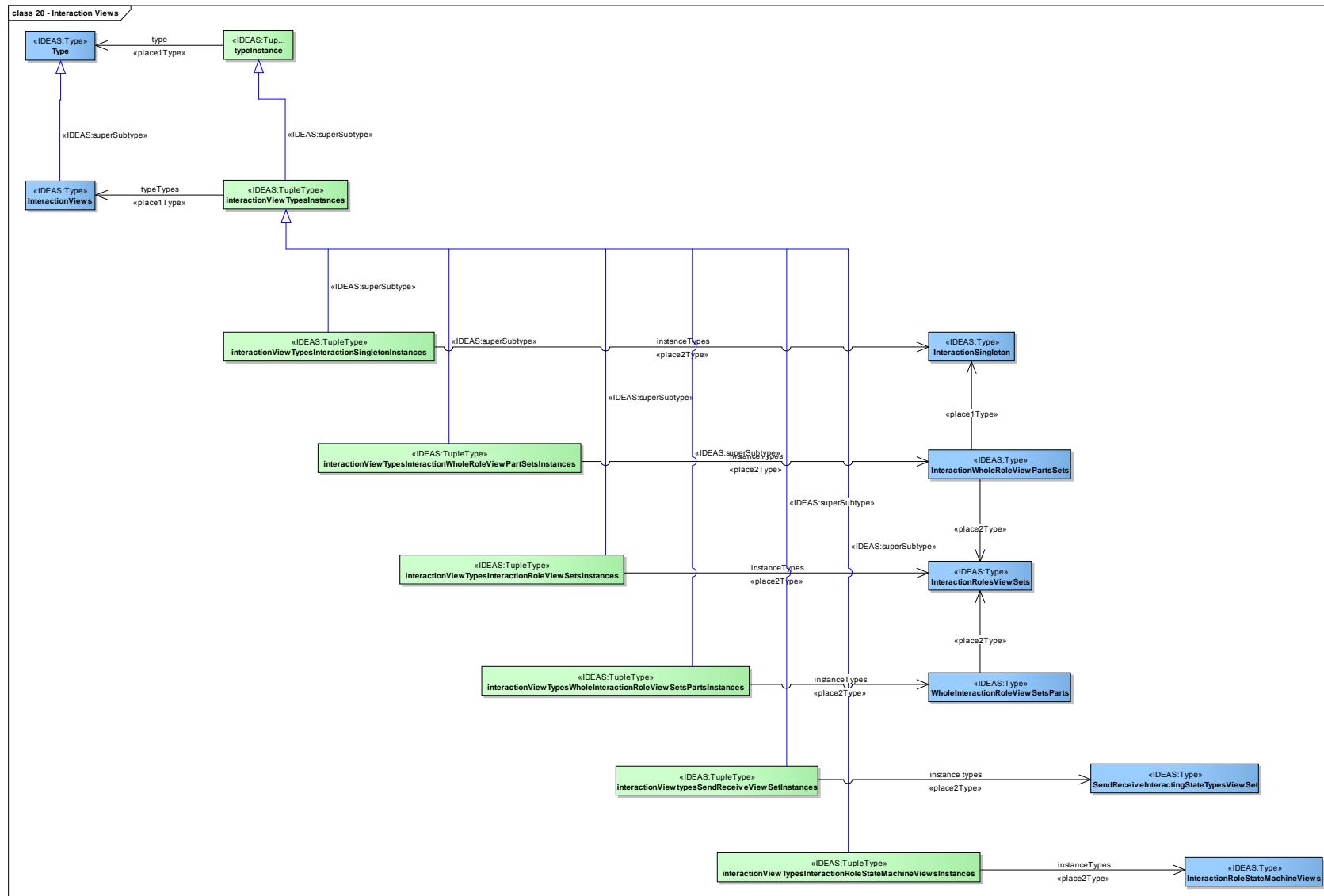


Figure 124 : Interaction Views

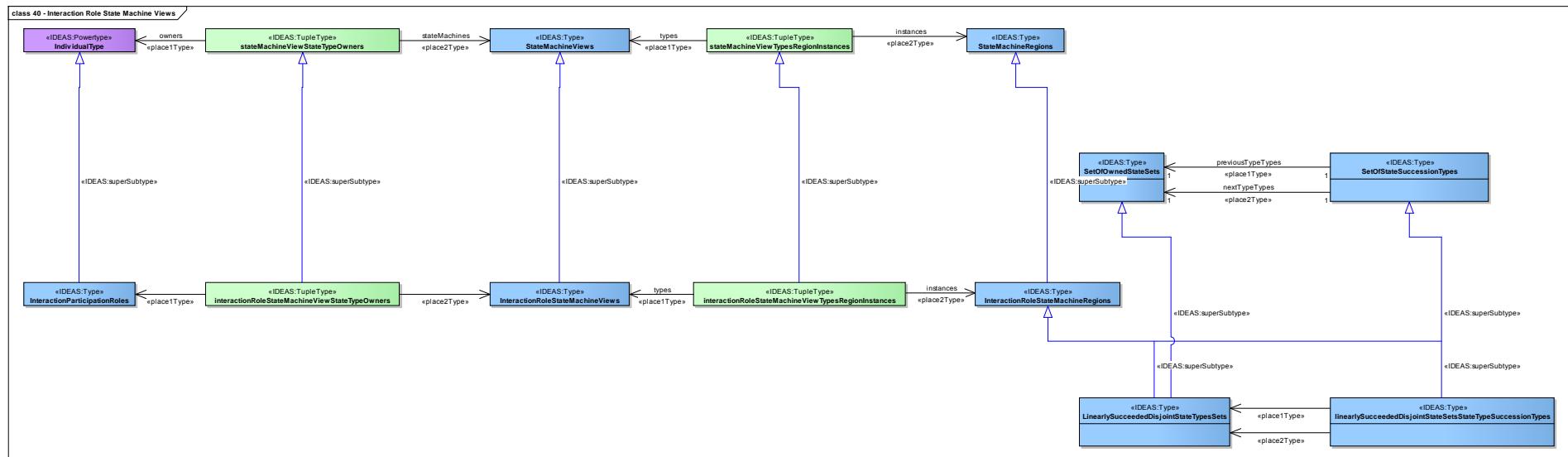


Figure 125 : Interaction Role State Machine Views

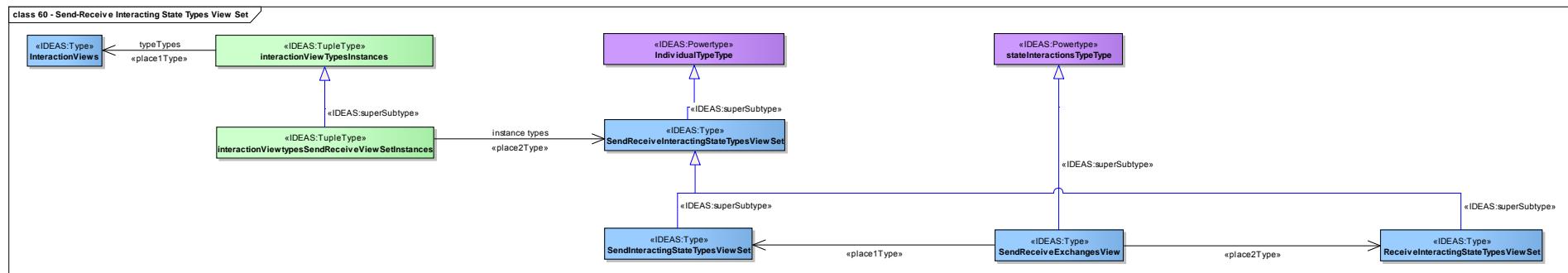


Figure 126 : Send-Receive Interacting State Types View Set

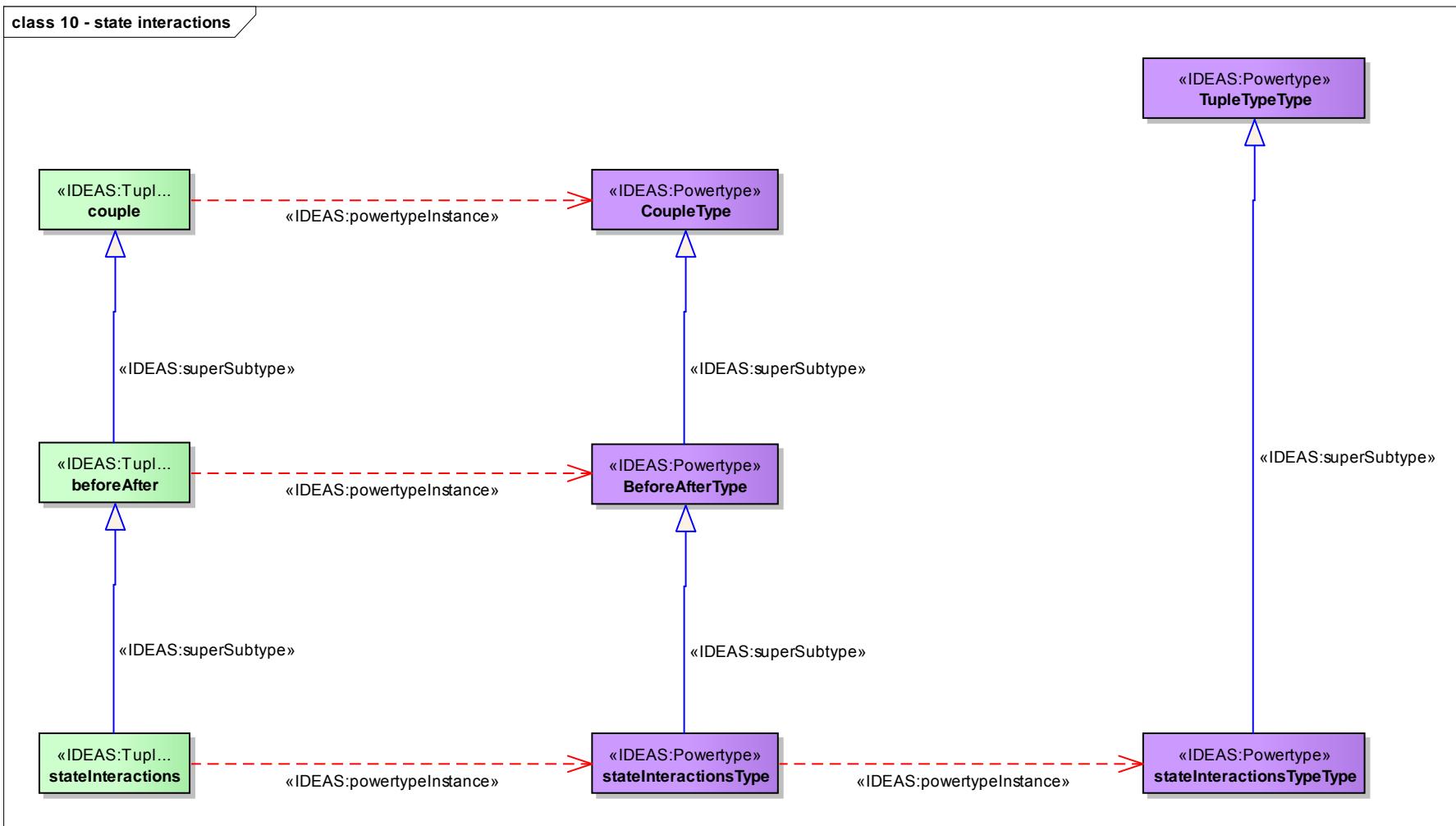


Figure 127 : state interactions

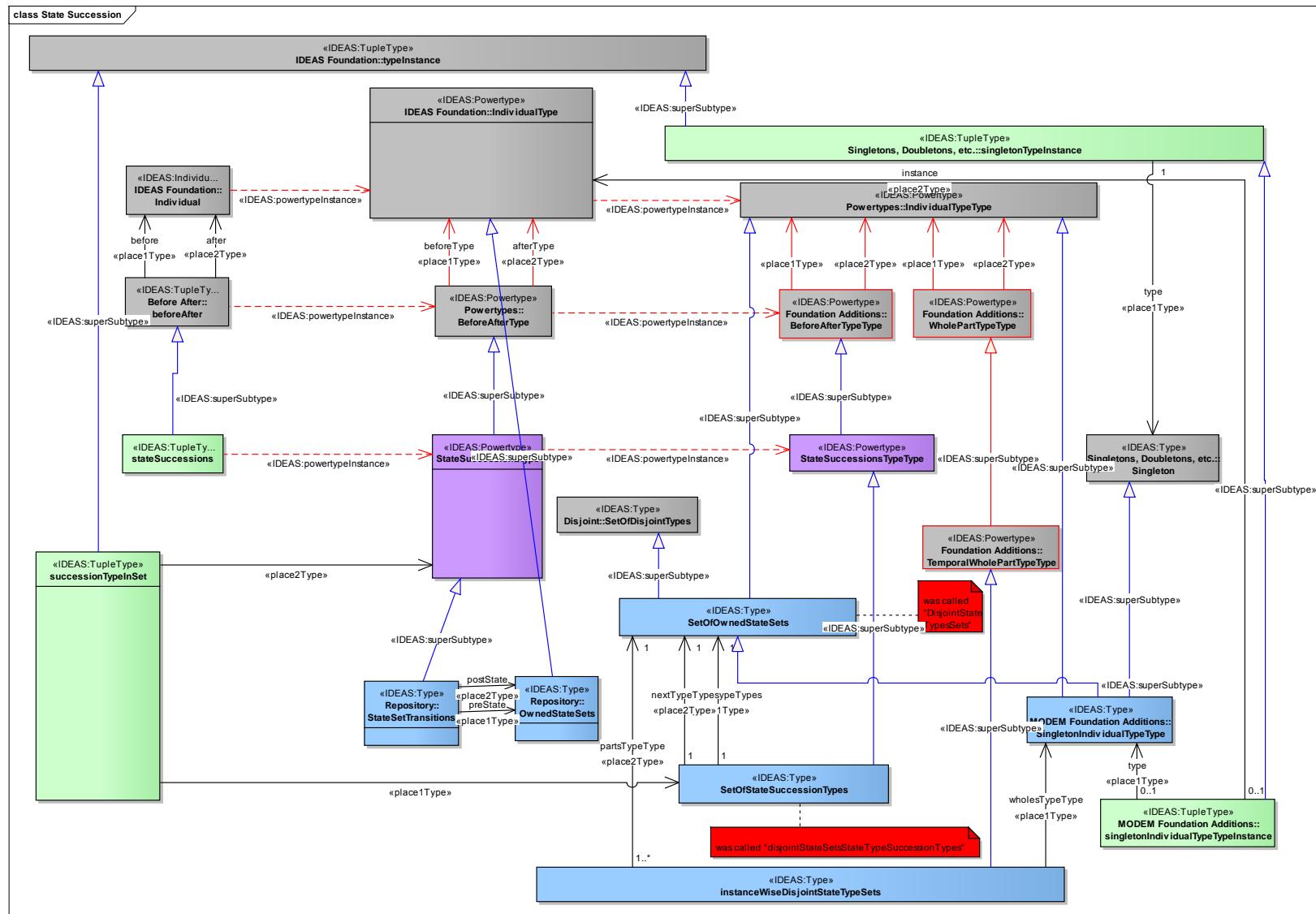


Figure 128 : State Succession

3.4.6 State and interactions elements list

State machine views
OwnedStateSets «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> OwnedStateSets - IndividualType <i>Dependency (element - is instance of): «IDEAS:powertypeInstance»</i> OwnedStateSets - OwnedStateSetsType <u>Attributes:</u> - An IndividualType that contains all the state for an owning IndividualType.
OwnedStateSetsType «IDEAS:Powertype» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> OwnedStateSetsType - IndividualTypeType <u>Attributes:</u> - A powertype of OwnedStateSetsType.
SetOfOwnedStateSetsTypeOwnedSetInstance «IDEAS:TupleType» <u>Connectors:</u> <i>Association (source - target): «place1Type»</i> SetOfOwnedStateSetsTypeOwnedSetInstance - SetOfOwnedStateSets <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> SetOfOwnedStateSetsTypeOwnedSetInstance - RegionTypeInstances <i>Association (source - target): «place2Type»</i> SetOfOwnedStateSetsTypeOwnedSetInstance - OwnedStateSets <u>Attributes:</u> - A regionTypeInstance that asserts an OwnedStateSet is an instance of a SetOfOwnedStateSets.
SetOfStateSuccessionTypesTypeStateSuccessionTypeInstance «IDEAS:TupleType» <u>Connectors:</u> <i>Association (source - target): «place2Type»</i> SetOfStateSuccessionTypesTypeStateSuccessionTypeInstance - StateSetTransitions <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> SetOfStateSuccessionTypesTypeStateSuccessionTypeInstance - RegionTypeInstances <i>Association (source - target): «place1Type»</i> SetOfStateSuccessionTypesTypeStateSuccessionTypeInstance - SetOfStateSuccessionTypes <u>Attributes:</u> - A regionTypeInstance that asserts an StateSetTransitions is an instance of a SetOfStateSuccessionTypes.
StateMachineRegions «IDEAS:Type» <u>Connectors:</u> <i>Generalization (element - is a subtype of): «IDEAS:superSubtype»</i> StateMachineRegions - Type <u>Attributes:</u> - A Type that has a subTypes one SetOfOwnedStateSets and its associated SetOfStateSuccessionTypes.

StateMachineViews «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of): «IDEAS:superSubtype»*

StateMachineViews - IndividualTypeTypeType

Attributes:

-
An IndividualTypeTypeType that contains one or more StateMachineViews as instances.

StateSetTransitions «IDEAS:Type»*Connectors:**Generalization (element - is a subtype of): «IDEAS:superSubtype»*

StateSetTransitions - transitions

Dependency (element - is instance of): «IDEAS:powertypeInstance»

StateSetTransitions - stateSetTransitionsType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateSetTransitions - stateSuccessionsType

Association (source - target): «place2Type»

StateSetTransitions - OwnedStateSets

Association (source - target): «place1Type»

StateSetTransitions - OwnedStateSets

Attributes:

-
A Transitions and a stateSuccessionType that asserts transitions for an OwnedStateSets.

regionTypeInstances «IDEAS:TupleType»*Connectors:**Association (source - target): «place1Type»*

regionTypeInstances - StateMachineRegions

Generalization (element - is a subtype of): «IDEAS:superSubtype»

regionTypeInstances - typeInstance

Attributes:

-
A typeInstance that asserts a StateMachineRegion is a type of some instance.

stateMachineRegionSuperSetOfOwnedStateSetSubType «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of): «IDEAS:superSubtype»*

stateMachineRegionSuperSetOfOwnedStateSetSubType - superSubtype

Association (source - target): «place2Type»

stateMachineRegionSuperSetOfOwnedStateSetSubType - SetOfOwnedStateSets

Association (source - target): «place1Type»

stateMachineRegionSuperSetOfOwnedStateSetSubType - StateMachineRegions

Attributes:

-
A superSubType that asserts a SetOfOwnedStateSets is a subType of a StateMachineRegion.

stateMachineRegionSuperSetOfStateSuccessionTypesSubType «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of): «IDEAS:superSubtype»*

stateMachineRegionSuperSetOfStateSuccessionTypesSubType - superSubtype

Association (source - target): «place2Type»

stateMachineRegionSuperSetOfStateSuccessionTypesSubType - SetOfStateSuccessionTypes

Association (source - target): «place1Type»

stateMachineRegionSuperSetOfStateSuccessionTypesSubType - StateMachineRegions

Attributes:

-

A superSubType that asserts a SetOfStateSuccessionTypes is a subType of a StateMachineRegion.

stateMachineViewStateTypeOwners «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateMachineViewStateTypeOwners - couple

Association (source - target): «place1Type»

stateMachineViewStateTypeOwners - IndividualType

Association (source - target): «place2Type»

stateMachineViewStateTypeOwners - StateMachineViews

Attributes:

-

A couple that asserts that an IndividualType is a type of owner of a StateMachine View.

stateMachineViewTypesRegionInstances «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateMachineViewTypesRegionInstances - typeInstance

Association (source - target): «place2Type»

stateMachineViewTypesRegionInstances - StateMachineRegions

Association (source - target): «place1Type»

stateMachineViewTypesRegionInstances - StateMachineViews

Attributes:

-

A typeInstance that asserts a StateMachineRegion is an instance of a StateMachineViews.

stateSetOwners «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateSetOwners - TemporalWholePartType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

stateSetOwners - stateSetOwnersType

Association (source - target): «place2Type»

stateSetOwners - OwnedStateSets

Association (source - target): «place1Type»

stateSetOwners - IndividualType

Attributes:

-

A TemporalWholeParttype that asserts an OwnedStateSet is a type of temporal part of the owning IndividualType.

stateSetOwnersType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateSetOwnersType - TemporalWholePartTypeType

Attributes:

- A powertype of StateSetOwners.

stateSetTransitionsType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateSetTransitionsType - StateSuccessionsTypeType

Attributes:

-

A powertype of StateSetTransitions.

transitions «IDEAS>Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

transitions - CoupleType

Attributes:

-

A CoupleType.

Interaction view patterns**InteractionParticipationRoles** «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionParticipationRoles - IndividualType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

InteractionParticipationRoles - InteractionParticipationRolesType

Attributes:

-

An IndividualType that is the type of participation of an Individual in an Interaction. For example, 'Waiter role in Eat Restaurant Meal'.

InteractionParticipationRolesType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionParticipationRolesType - IndividualTypeType

Attributes:

-

The powertype of InteractionParticipationRoles.

InteractionRoleStateMachineRegions «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionRoleStateMachineRegions - StateMachineRegions

Attributes:

-

A StateMachineRegions for a InteractionRoleStateMachineView.

InteractionRoleStateMachineViews «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionRoleStateMachineViews - StateMachineViews

Attributes:

-

A StateMachineView for a InteractionParticipationRole.

InteractionRolesViewSets «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionRolesViewSets - InteractionParticipationRolesType

Attributes:

-

A InteractionParticipationRolesType that is a set of the InteractionParticipationRoles in the InteractionView.

InteractionSingleton «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionSingleton - InteractionsType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionSingleton - Singleton

Attributes:

-

An InteractionsType and a Singleton.

InteractionViews «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Interaction Views - Type

Attributes:

-

A Type that contains as instances all the elements of the view.

InteractionWholeRoleViewPartsSets «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionWholeRoleViewPartsSets - WholePartTypeType

Association (source - target): «place1Type»

InteractionWholeRoleViewPartsSets - InteractionSingleton

Association (source - target): «place2Type»

InteractionWholeRoleViewPartsSets - InteractionRolesViewSets

Attributes:

-

A WholePartTypeType that asserts the InteractionParticipationRolesType is a type of part of the InteractionSingleton.

Interactions «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Interactions - IndividualType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Interactions - InteractionsType

Attributes:

-

An IndividualType that is composed of types of participating Individuals. For example, 'Eat Restaurant Meal'.

InteractionsType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

InteractionsType - IndividualTypeType

Attributes:

- The powertype of Interactions.

ReceiveInteractingStateTypesViewSet «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ReceiveInteractingStateTypesViewSet - SendReceiveInteractingStateTypesViewSet

Attributes:

- A SendReceiveInteractingStateTypesViewSet that contains a type of receiving state in the view.

SendInteractingStateTypesViewSet «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SendInteractingStateTypesViewSet - SendReceiveInteractingStateTypesViewSet

Attributes:

- A SendReceiveInteractingStateTypesViewSet that contains a type of sending state in the view.

SendReceiveExchangesView «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SendReceiveExchangesView - stateInteractionsTypeType

Association (source - target): «place2Type»

SendReceiveExchangesView - ReceiveInteractingStateTypesViewSet

Association (source - target): «place1Type»

SendReceiveExchangesView - SendInteractingStateTypesViewSet

Attributes:

- A stateInteractionsTypeType that asserts one type of state sends an exchange and another receives the exchange.

SendReceiveInteractingStateTypesViewSet «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SendReceiveInteractingStateTypesViewSet - IndividualTypeType

Attributes:

- An IndividualTypeType that contains a type of sending or receiving state in the view.

WholeInteractionRoleViewSetsParts «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

WholeInteractionRoleViewSetsParts - WholePartTypeType

Association (source - target): «place2Type»

WholeInteractionRoleViewSetsParts - InteractionRolesViewSets

Attributes:

- A WholePartTypeType that asserts the InteractionParticipationRolesType is a type of part of the type Individual participating in the Interaction.

individualWholeInteractionRolePartTypes «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualWholeInteractionRolePartTypes - WholePartType

Association (source - target): «place2Type»

individualWholeInteractionRolePartTypes - InteractionParticipationRoles

Association (source - target): «place1Type»

individualWholeInteractionRolePartTypes - IndividualType

Attributes:

- A WholePartType that asserts an InteractionParticipationRole is a type of part of an IndividualType.

interactionRoleStateMachineViewStateTypeOwners «IDEAS:TupleType»*Connectors:*

Association (source - target): «place1Type»

interactionRoleStateMachineViewStateTypeOwners - InteractionParticipationRoles

Association (source - target): «place2Type»

interactionRoleStateMachineViewStateTypeOwners - InteractionRoleStateMachineViews

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionRoleStateMachineViewStateTypeOwners - stateMachineViewStateTypeOwners

Attributes:

- A stateMachineViewStateTypeOwner that asserts a InteractionRoleStateMachineView is owned by a InteractionParticipationRole.

interactionRoleStateMachineViewTypesRegionInstances «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionRoleStateMachineViewTypesRegionInstances - stateMachineViewTypesRegionInstances

Association (source - target): «place2Type»

interactionRoleStateMachineViewTypesRegionInstances - InteractionRoleStateMachineRegions

Association (source - target): «place1Type»

interactionRoleStateMachineViewTypesRegionInstances - InteractionRoleStateMachineViews

Attributes:

- A stateMachineViewTypesRegionInstances that asserts a InteractionRoleStateMachineRegion is an instance of a InteractionRoleStateMachineView.

interactionViewTypesInstances «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewTypesInstances - typeInstance

Association (source - target): «place1Type»

interactionViewTypesInstances - InteractionViews

Attributes:

- A typeInstance that asserts something is an instance of an InteractionView.

interactionViewTypesInteractionRoleStateMachineViewsInstances «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewTypesInteractionRoleStateMachineViewsInstances - interactionViewTypesInstances

Association (source - target): «place2Type»

interactionViewTypesInteractionRoleStateMachineViewsInstances - InteractionRoleStateMachineViews

Attributes:

- A interactionViewTypesInstances that asserts a InteractionRoleStateMachineViews is an instance of an InteractionView.

interactionViewTypesInteractionRoleViewSetsInstances «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewTypesInteractionRoleViewSetsInstances - interactionViewTypesInstances

Association (source - target): «place2Type»

interactionViewTypesInteractionRoleViewSetsInstances - InteractionRolesViewSets

Attributes:

- A interactionViewTypesInstances that asserts an InteractionRolesViewSets is an instance of an InteractionView.

interactionViewTypesInteractionSingletonInstances «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewTypesInteractionSingletonInstances - interactionViewTypesInstances

Association (source - target): «place2Type»

interactionViewTypesInteractionSingletonInstances - InteractionSingleton

Attributes:

- A interactionViewTypesInstances that asserts a InteractionSingleton is an instance of an InteractionView.

interactionViewTypesInteractionWholeRoleViewPartSetsInstances «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewTypesInteractionWholeRoleViewPartSetsInstances - interactionViewTypesInstances

Association (source - target): «place2Type»

interactionViewTypesInteractionWholeRoleViewPartSetsInstances - InteractionWholeRoleViewPartsSets

Attributes:

- A interactionViewTypesInstances that asserts an InteractionWholeRoleViewPartsSets is an instance of an InteractionView.

interactionViewTypesWholeInteractionRoleViewSetsPartsInstances «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewTypesWholeInteractionRoleViewSetsPartsInstances - interactionViewTypesInstances

Association (source - target): «place2Type»

interactionViewTypesWholeInteractionRoleViewSetsPartsInstances - WholeInteractionRoleViewSetsParts

Attributes:

- A interactionViewTypesInstances that asserts an WholeInteractionRoleViewSetsPart is an instance of an InteractionView.

interactionViewtypesSendReceiveViewSetInstances «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionViewtypesSendReceiveViewSetInstances - interactionViewTypesInstances

Association (source - target): «place2Type»

interactionViewtypesSendReceiveViewSetInstances - SendReceiveInteractingStateTypesViewSet

Attributes:

- A interactionViewTypesInstances that asserts a SendReceiveInteractingStateTypesViewSet is an instance of an InteractionView.

interactionWholeRolePartTypes «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

interactionWholeRolePartTypes - WholePartType

Association (source - target): «place2Type»

interactionWholeRolePartTypes - InteractionParticipationRoles

Association (source - target): «place1Type»

interactionWholeRolePartTypes - Interactions

Attributes:

-

A WholePartType that asserts an InteractionParticipationRole is a type of part of an Interaction.

State interactions**stateInteractions** «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateInteractions - beforeAfter

Dependency (element - is instance of): «IDEAS:powertypeInstance»

stateInteractions - stateInteractionsType

Attributes:

-

A beforeAfter that asserts that one state is before another.

stateInteractionsType «IDEAS:Powertype»Connectors:

Dependency (element - is instance of): «IDEAS:powertypeInstance»

stateInteractionsType - stateInteractionsTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateInteractionsType - BeforeAfterType

Attributes:

-

The powertype of stateInteractions.

stateInteractionsTypeType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateInteractionsTypeType - TupleTypeType

Attributes:

-

The powertype of stateInteractionsType.

LinearlySucceededDisjointStateTypesSets «IDEAS:Type»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LinearlySucceededDisjointStateTypesSets - SetOfOwnedStateSets

Generalization (element - is a subtype of): «IDEAS:superSubtype»

LinearlySucceededDisjointStateTypesSets - InteractionRoleStateMachineRegions

Attributes:

-

A SetOfOwnedStateSets where each state type is succeeded by no more than one other state type.

SingletonDisjointStateTypesSets «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonDisjointStateTypesSets - SetOfOwnedStateSets

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonDisjointStateTypesSets - Singleton

Attributes:

- A SetOfOwnedStateSets and a Singleton.

SingletonLinearlySucceededDisjointStateTypesSets «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonLinearlySucceededDisjointStateTypesSets - SingletonDisjointStateTypesSets

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingletonLinearlySucceededDisjointStateTypesSets - LinearlySucceededDisjointStateTypesSets

Attributes:

- A SingletonDisjointStateTypesSets and a LinearlySucceededDisjointStateTypesSets. Note: 'Singleton Linearly Succeeded Disjoint State Types Sets' cannot have any succession, as any such successions would not be linear.

disjointStateTypesSetsSuperSubTypeHierarchy «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

disjointStateTypesSetsSuperSubTypeHierarchy - superSubtype

Association (source - target): «place2Type»

disjointStateTypesSetsSuperSubTypeHierarchy - SetOfOwnedStateSets

Association (source - target): «place1Type»

disjointStateTypesSetsSuperSubTypeHierarchy - SetOfOwnedStateSets

Attributes:

- A superSubType that asserts one SetofOwnedStateSets is a subType of another.

improperInstanceWiseDisjointStateSets «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

improperInstanceWiseDisjointStateSets - Singleton

Generalization (element - is a subtype of): «IDEAS:superSubtype»

improperInstanceWiseDisjointStateSets - instanceWiseDisjointStateTypeSets

Attributes:

- A Singleton and an InstanceWiseDisjointStateTypeSets that asserts a SetOfOwnedStateSets is an improper part of an IndividualTypeType. At the limit, each instance of an Element Powertype has itself as an improper temporal stage. The union of these is the instance of the Element Powertype.

instanceWiseCompletePartitionStateTypeSets «IDEAS:Type»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

instanceWiseCompletePartitionStateTypeSets - instanceWiseDisjointStateTypeSets

Attributes:

- A instanceWiseDisjointStateTypeSets where the state types completely partition the whole.

linearlySucceededDisjointStateSetsStateTypeSuccessionTypes «IDEAS:Type»Connectors:*Generalization (element - is a subtype of):* «IDEAS:superSubtype»

linearlySucceededDisjointStateSetsStateTypeSuccessionTypes - InteractionRoleStateMachineRegions

Association (source - target): «place1Type»

linearlySucceededDisjointStateSetsStateTypeSuccessionTypes - LinearlySucceededDisjointStateTypesSets

Association (source - target): «place2Type»

linearlySucceededDisjointStateSetsStateTypeSuccessionTypes - LinearlySucceededDisjointStateTypesSets

Generalization (element - is a subtype of): «IDEAS:superSubtype»

linearlySucceededDisjointStateSetsStateTypeSuccessionTypes - SetOfStateSuccessionTypes

Attributes:

-

A SetOfStateSuccessionTypes that asserts that a one LinearlySucceededDisjointStateTypesSets is succeed by only one other.

singletonDisjointStateSetsStateTypeSuccessionTypes «IDEAS:Type»Connectors:*Association (source - target):* «place2Type»

singletonDisjointStateSetsStateTypeSuccessionTypes - SingletonDisjointStateTypesSets

Association (source - target): «place1Type»

singletonDisjointStateSetsStateTypeSuccessionTypes - SingletonDisjointStateTypesSets

Generalization (element - is a subtype of): «IDEAS:superSubtype»

singletonDisjointStateSetsStateTypeSuccessionTypes - SetOfStateSuccessionTypes

Attributes:

-

A SetOfStateSuccessionTypes where the successions are between SingletonDisjointStateTypesSets.

State successions**SetOfOwnedStateSets** «IDEAS:Type»Connectors:*Generalization (element - is a subtype of):* «IDEAS:superSubtype»

SetOfOwnedStateSets - IndividualTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SetOfOwnedStateSets - OwnedStateSetsType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SetOfOwnedStateSets - SetOfDisjointTypes

Attributes:

-

A SetOfDisjointTypes and IndividualTypeType where each instance is a disjoint set of state types, whose union is instance-wise disjoint relative to the related instance of Element Powertype.

SetOfStateSuccessionTypes «IDEAS:Type»Connectors:*Generalization (element - is a subtype of):* «IDEAS:superSubtype»

SetOfStateSuccessionTypes - StateSuccessionsTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SetOfStateSuccessionTypes - stateSetTransitionsType

Association (source - target): «place2Type»

SetOfStateSuccessionTypes - SetOfOwnedStateSets

Association (source - target): «place1Type»

SetOfStateSuccessionTypes - SetOfOwnedStateSets

Attributes:

-

A StateSuccessionsTypeType that asserts a type of succession between instances of SetOfOwnedStateSets.

instanceWiseDisjointStateTypeSets «IDEAS:Type»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

instanceWiseDisjointStateTypeSets - stateSetOwnersType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

instanceWiseDisjointStateTypeSets - TemporalWholePartTypeType

Association (source - target): «place2Type»

instanceWiseDisjointStateTypeSets - SetOfOwnedStateSets

Association (source - target): «place1Type»

instanceWiseDisjointStateTypeSets - SingletonIndividualTypeType

Attributes:

-

A TemporalWholePartTypeType that asserts a SetOfOwnedStateSets is a type of type of part of an IndividualTypeType.

stateSuccessions «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateSuccessions - beforeAfter

Dependency (element - is instance of): «IDEAS:powertypeInstance»

stateSuccessions - stateSuccessionsType

Attributes:

-

A beforeAfter that asserts a succession between states.

StateSuccessionsType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

stateSuccessionsType - BeforeAfterType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

stateSuccessionsType - StateSuccessionsTypeType

Attributes:

-

A powertype of stateSuccessions.

StateSuccessionsTypeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateSuccessionsTypeType - TupleTypeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

StateSuccessionsTypeType - BeforeAfterTypeType

Attributes:

-

A powertype of stateSuccessionType.

successionTypeInSet «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

successionTypeInSet - typeInstance

Association (source - target): «place2Type»

successionTypeInSet - stateSuccessionsType

Association (source - target): «place1Type»

successionTypeInSet - SetOfStateSuccessionTypes

Attributes:

-

A typeInstance that asserts a StateSuccessionType is a member of a SetOfStateSuccessionTypes.

3.4.7 Exchange diagrams

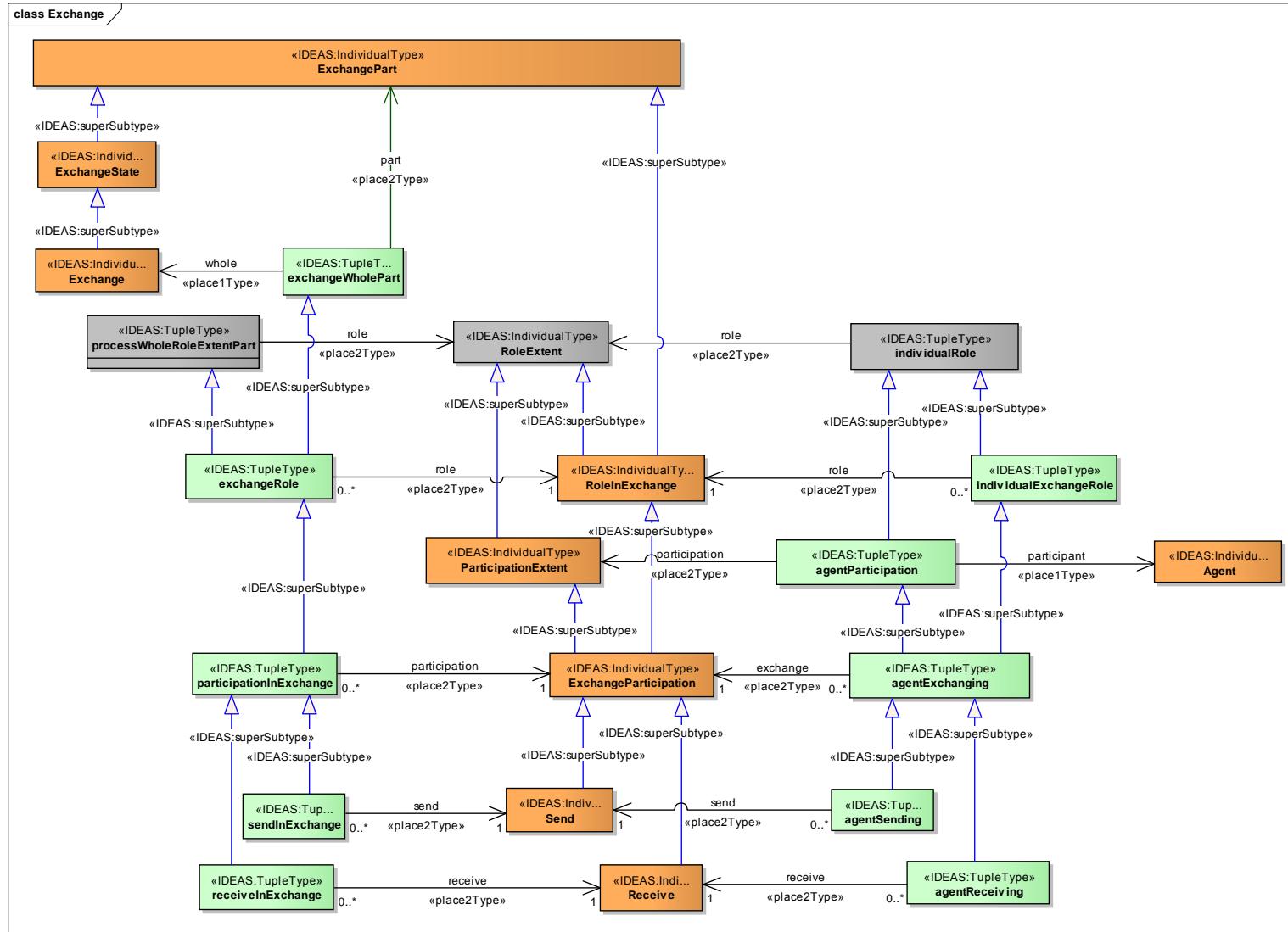


Figure 129 : Exchange

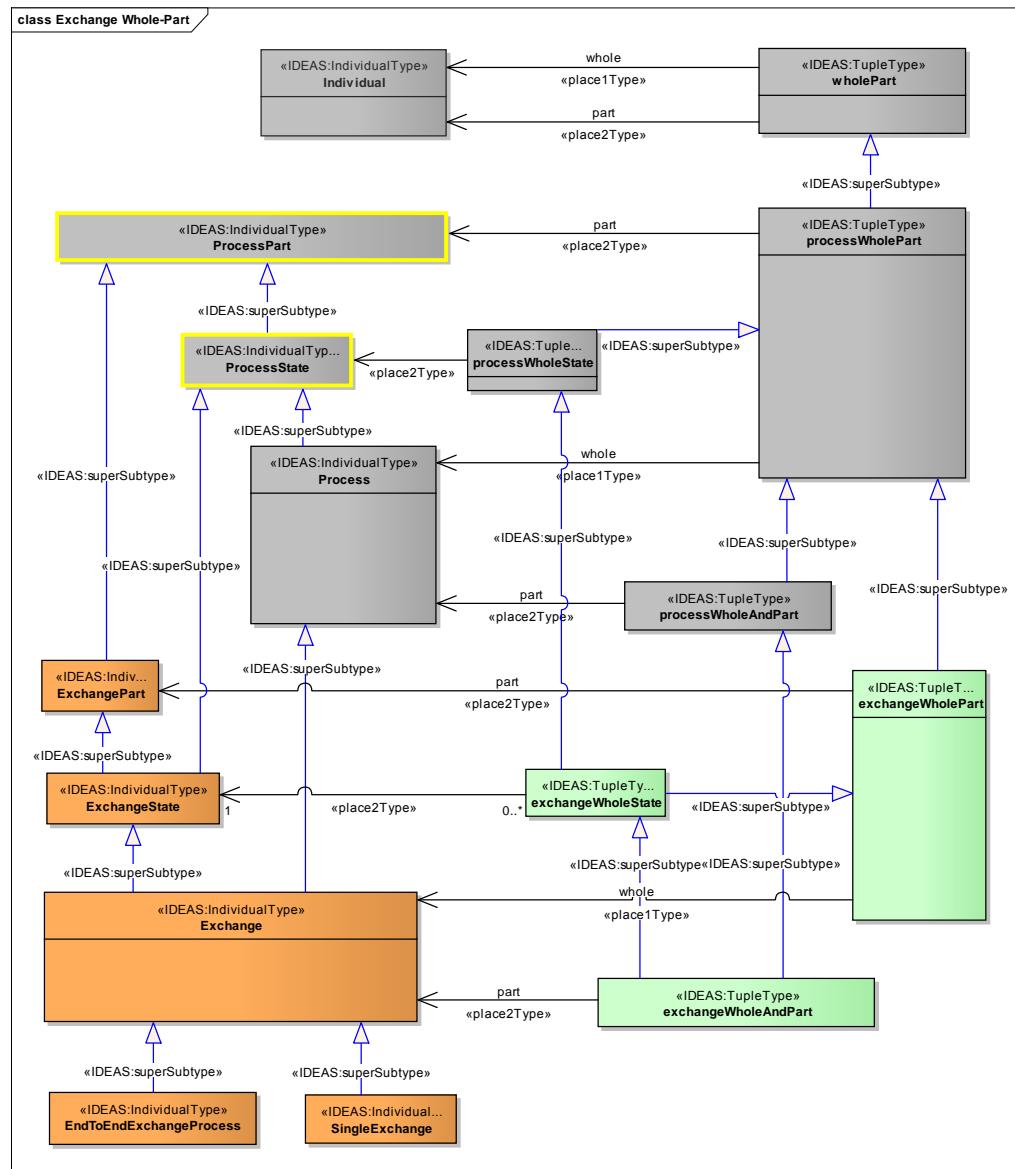


Figure 130 : Exchange Whole-Part

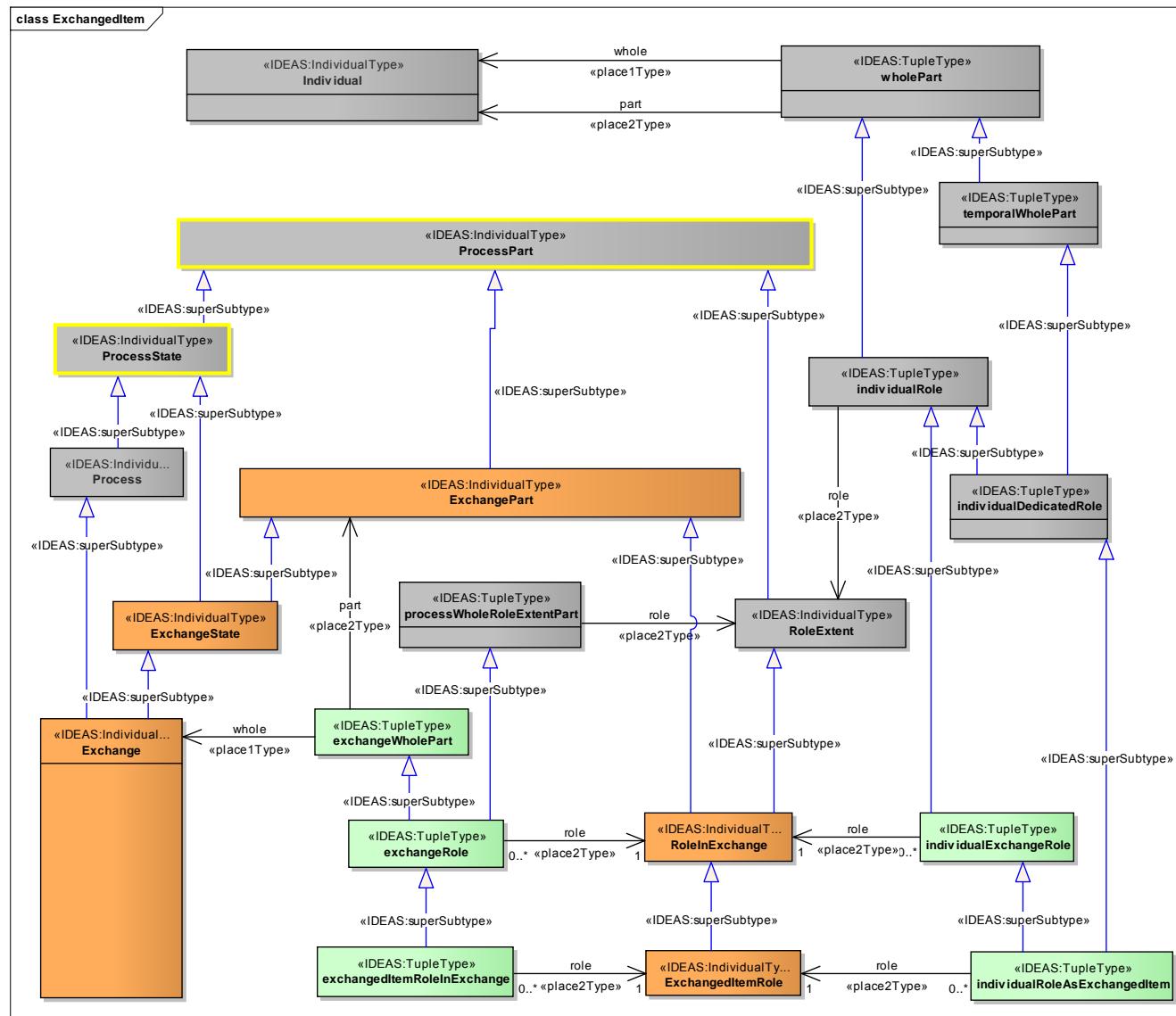


Figure 131 : ExchangedItem

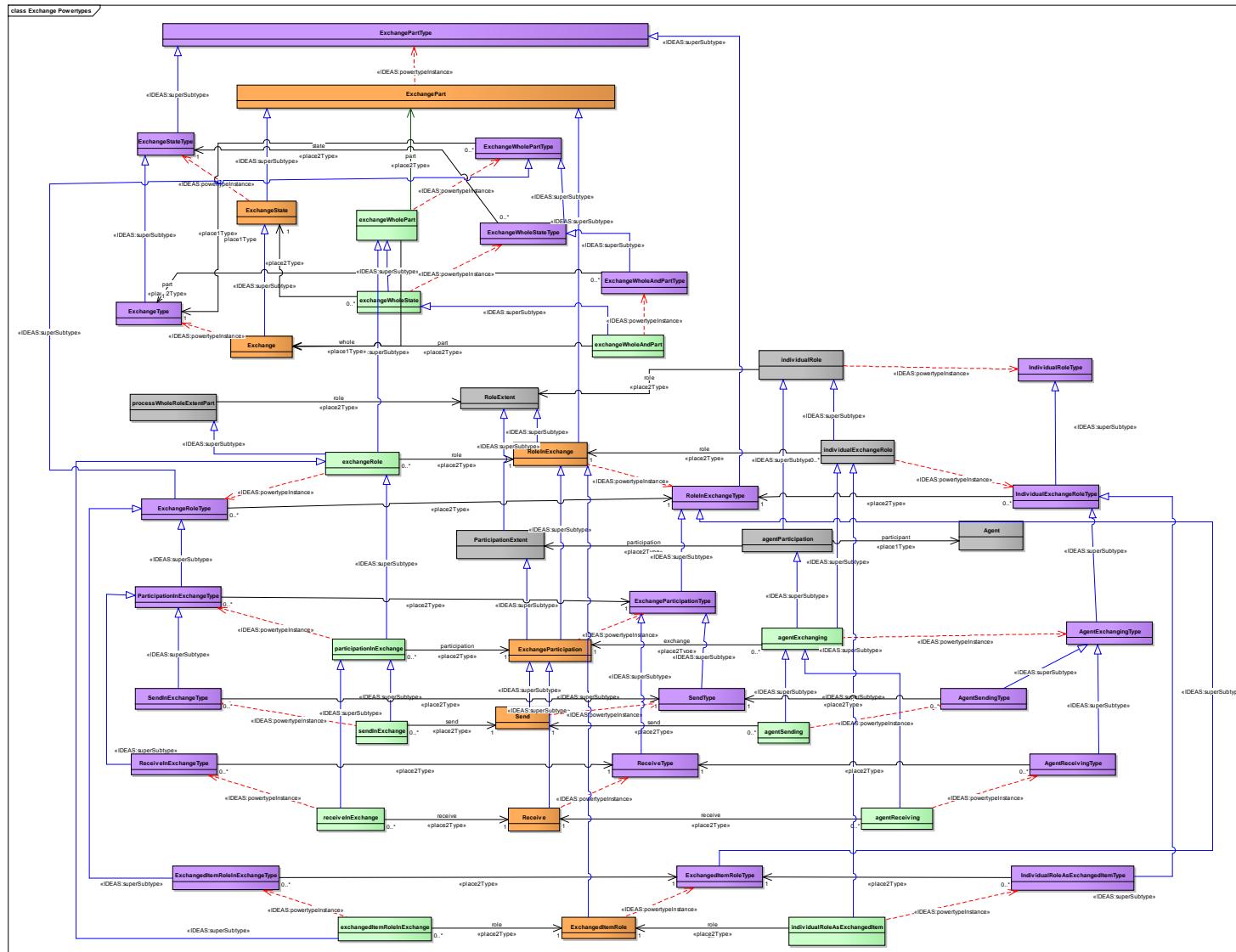


Figure 132 : Exchange Powertypes

3.4.8 Exchange elements list

Exchange
DirectedExchange «IDEAS:IndividualType»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
DirectedExchange - Exchange
<i>Attributes:</i>
-
An Exchange where the exchanged Individuals all flow in one direction.
EndToEndExchangeProcess «IDEAS:IndividualType»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
EndToEndExchangeProcess - Exchange
<i>Attributes:</i>
-
An Exchange which consists of other Exchanges. Note: the Exchanges which are part of the EndToEndExchangeProcess need not be a sequence - some may run in parallel.
Exchange «IDEAS:IndividualType»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
Exchange - Process
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
Exchange - ExchangeState
<i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»
Exchange - ExchangeType
<i>Attributes:</i>
-
A Process where one Agent exchanges one or more Individuals with another Agent.
ExchangePart «IDEAS:IndividualType»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ExchangePart - ProcessPart
<i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»
ExchangePart - ExchangePartType
<i>Attributes:</i>
-
A ProcessPart that is part of an Exchange.
ExchangeParticipation «IDEAS:IndividualType»
<i>Connectors:</i>
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ExchangeParticipation - ParticipationExtent
<i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype»
ExchangeParticipation - RoleInExchange
<i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance»
ExchangeParticipation - ExchangeParticipationType
<i>Attributes:</i>
-
A RoleInExchange and a ParticipationExtent that is an Agent's participation in an Exchange.

ExchangeState «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeState - ExchangePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeState - ProcessState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ExchangeState - ExchangeStateType

Attributes:

-

An ExchangePart that is a temporal part of an Exchange.

ExchangedItemRole «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangedItemRole - RoleInExchange

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ExchangedItemRole - ExchangedItemRoleType

Attributes:

-

A RoleinExchange where the Process is an Exchange and the Individual's role is as the thing being exchanged.

Receive «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Receive - ExchangeParticipation

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Receive - ReceiveType

Attributes:

-

An ExchangeParticipation that is the receiving Agent's participation in an Exchange.

RoleInExchange «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInExchange - ExchangePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInExchange - RoleExtent

Dependency (element - is instance of): «IDEAS:powertypeInstance»

RoleInExchange - RoleInExchangeType

Attributes:

-

An ExchangePart that is an Individual's role in the Exchange.

Send «IDEAS:IndividualType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Send - ExchangeParticipation

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Send - SendType

Attributes:

-

An ExchangePart and a ParticipationExtent that is the sending Agent's participation in an Exchange.

SingleExchange «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SingleExchange - Exchange

Attributes:

-

An Exchange that has no parts that are also Exchanges. Example: One person handing another a document.

agentExchanging «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentExchanging - agentParticipation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentExchanging - individualExchangeRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentExchanging - AgentExchangingType

Association (source - target): «place2Type»

agentExchanging - ExchangeParticipation

Attributes:

-

An agentParticipation where the participation is in an Exchange.

agentReceiving «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentReceiving - agentExchanging

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentReceiving - AgentReceivingType

Association (source - target): «place2Type»

agentReceiving - Receive

Attributes:

-

An agentExchanging where the Agent's participation is as the receiver.

agentSending «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentSending - agentExchanging

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentSending - AgentSendingType

Association (source - target): «place2Type»

agentSending - Send

Attributes:

-

An agentExchanging where the Agent's participation is as the sender.

exchangeRole «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exchangeRole - exchangeWholePart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exchangeRole - processWholeRoleExtentPart
Dependency (element - is instance of): «IDEAS:powertypeInstance»
exchangeRole - ExchangeRoleType
Association (source - target): «place2Type»
exchangeRole - RoleInExchange
Attributes:
-
An exchangeWholePart where the part is a RoleInExchange.

exchangeWholeAndPart «IDEAS:TupleType»

Connectors:
Generalization (element - is a subtype of): «IDEAS:superSubtype»
exchangeWholeAndPart - exchangeWholeState
Generalization (element - is a subtype of): «IDEAS:superSubtype»
exchangeWholeAndPart - processWholeAndPart
Dependency (element - is instance of): «IDEAS:powertypeInstance»
exchangeWholeAndPart - ExchangeWholeAndPartType
Association (source - target): «place2Type»
exchangeWholeAndPart - Exchange
Attributes:
-

An exchangeWholePart where the part is an exchange.

exchangeWholePart «IDEAS:TupleType»

Connectors:
Generalization (element - is a subtype of): «IDEAS:superSubtype»
exchangeWholePart - processWholePart
Dependency (element - is instance of): «IDEAS:powertypeInstance»
exchangeWholePart - ExchangeWholePartType
Association (source - target): «place2Type»
exchangeWholePart - ExchangePart
Association (source - target): «place1Type»
exchangeWholePart - Exchange
Attributes:
-

A processWholePart where the whole is an Exchange and the part is an ExchangePart.

exchangeWholeState «IDEAS:TupleType»

Connectors:
Generalization (element - is a subtype of): «IDEAS:superSubtype»
exchangeWholeState - exchangeWholePart
Association (source - target): «place2Type»
exchangeWholeState - ExchangeState
Generalization (element - is a subtype of): «IDEAS:superSubtype»
exchangeWholeState - processWholeState
Dependency (element - is instance of): «IDEAS:powertypeInstance»
exchangeWholeState - ExchangeWholeStateType
Attributes:
-

An exchangeWholePart where the part is a temporal state of the whole.

exchangedItemRoleInExchange «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

exchangedItemRoleInExchange - exchangeRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

exchangedItemRoleInExchange - ExchangedItemRoleInExchangeType

Association (source - target): «place2Type»

exchangedItemRoleInExchange - ExchangedItemRole

Attributes:

-

An exchangeRole where the role is that of the Individual being exchanged.

individualExchangeRole «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualExchangeRole - individualRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

individualExchangeRole - IndividualExchangeRoleType

Association (source - target): «place2Type»

individualExchangeRole - RoleInExchange

Attributes:

-

An individualRole where the process is an Exchange.

individualRoleAsExchangedItem «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualRoleAsExchangedItem - individualExchangeRole

Generalization (element - is a subtype of): «IDEAS:superSubtype»

individualRoleAsExchangedItem - individualDedicatedRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

individualRoleAsExchangedItem - IndividualRoleAsExchangedItemType

Association (source - target): «place2Type»

individualRoleAsExchangedItem - ExchangedItemRole

Attributes:

-

An individualExchangeRole the Individual is the thing being exchanged.

participationInExchange «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

participationInExchange - exchangeRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

participationInExchange - ParticipationInExchangeType

Association (source - target): «place2Type»

participationInExchange - ExchangeParticipation

Attributes:

-

An exchangeWholePart where the part is an ExchangeParticipation.

receiveInExchange «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
receiveInExchange - participationInExchange

Dependency (element - is instance of): «IDEAS:powertypeInstance»

receiveInExchange - ReceiveInExchangeType

Association (source - target): «place2Type»

receiveInExchange - Receive

Attributes:

- A participationInExchange where the participation is a Receive.

sendInExchange «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
sendInExchange - participationInExchange

Dependency (element - is instance of): «IDEAS:powertypeInstance»

sendInExchange - SendInExchangeType

Association (source - target): «place2Type»

sendInExchange - Send

Attributes:

- A participationInExchange where participation is a Send.

Exchange Powertypes**AgentExchangingType** «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentExchangingType - AgentParticipationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentExchangingType - IndividualExchangeRoleType

Attributes:

-

The powertype of agentExchanging.

AgentReceivingType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentReceivingType - AgentExchangingType

Association (source - target): «place2Type»

AgentReceivingType - ReceiveType

Attributes:

-

The powertype of agentReceiving.

AgentSendingType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentSendingType - AgentExchangingType

Association (source - target): «place2Type»

AgentSendingType - SendType

Attributes:

- The powertype of agentSending.

ExchangePartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangePartType - ProcessPartType

Attributes:

- The powertype of ExchangePart.

ExchangeParticipationType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeParticipationType - RoleInExchangeType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeParticipationType - ParticipationExtentType

Attributes:

- The powertype of ExchangeParticipation.

ExchangeRoleType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeRoleType - ProcessWholeRoleExtentPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeRoleType - ExchangeWholePartType

Association (source - target): «place2Type»

ExchangeRoleType - RoleInExchangeType

Attributes:

- The powertype of exchangeRole.

ExchangeStateType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeStateType - ExchangePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeStateType - ProcessStateType

Attributes:

- The powertype of ExchangeState.

ExchangeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeType - ExchangeStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ExchangeType - ProcessType

Attributes:

- The powertype of Exchange.

ExchangeWholeAndPartType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangeWholeAndPartType - ExchangeWholeStateType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangeWholeAndPartType - ProcessWholeAndPartType
Association (source - target): «place2Type»
ExchangeWholeAndPartType - ExchangeType

Attributes:

-

The powertype of exchangeWholeAndPart.

ExchangeWholePartType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangeWholePartType - ProcessWholePartType
Association (source - target): «place1Type»
ExchangeWholePartType - ExchangeType

Attributes:

-

The powertype of exchangeWholePart.

ExchangeWholeStateType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangeWholeStateType - ExchangeWholePartType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangeWholeStateType - ProcessWholeStateType
Association (source - target): «place2Type»
ExchangeWholeStateType - ExchangeStateType

Attributes:

-

The powertype of exchangeWholeState.

ExchangedItemRoleInExchangeType «IDEAS:Powertype»Connectors:

Association (source - target): «place2Type»
ExchangedItemRoleInExchangeType - ExchangedItemRoleType
Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangedItemRoleInExchangeType - ExchangeRoleType

Attributes:

-

The powertype of exchangedItemRoleInExchange.

ExchangedItemRoleType «IDEAS:Powertype»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»
ExchangedItemRoleType - RoleInExchangeType

Attributes:

-

The powertype of ExchangedItemRole.

IndividualExchangeRoleType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualExchangeRoleType - IndividualRoleType

Association (source - target): «place2Type»

IndividualExchangeRoleType - RoleInExchangeType

Attributes:

-
The powertype of individualExchangeRole.

IndividualRoleAsExchangedItemType «IDEAS:Powertype»*Connectors:*

Association (source - target): «place2Type»

IndividualRoleAsExchangedItemType - ExchangedItemRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualRoleAsExchangedItemType - IndividualExchangeRoleType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

IndividualRoleAsExchangedItemType - IndividualDedicatedRoleType

Attributes:

-
The powertype of individualRoleAsExchangedItem.

ParticipationInExchangeType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ParticipationInExchangeType - ExchangeRoleType

Association (source - target): «place2Type»

ParticipationInExchangeType - ExchangeParticipationType

Attributes:

-
The powertype of participationInExchange.

ReceiveInExchangeType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ReceiveInExchangeType - ParticipationInExchangeType

Association (source - target): «place2Type»

ReceiveInExchangeType - ReceiveType

Attributes:

-
The powertype of receiveInExchange.

ReceiveType «IDEAS:Powertype»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ReceiveType - ExchangeParticipationType

Attributes:

-
The powertype of Receive.

RoleInExchangeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInExchangeType - RoleExtentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

RoleInExchangeType - ExchangePartType

Attributes:

-
The powertype of RoleInExchange.

SendInExchangeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SendInExchangeType - ParticipationInExchangeType

Association (source - target): «place2Type»

SendInExchangeType - SendType

Attributes:

-
The powertype of sendInExchange.

SendType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

SendType - ExchangeParticipationType

Attributes:

-
The powertype of Send.

3.4.9 Agent diagrams

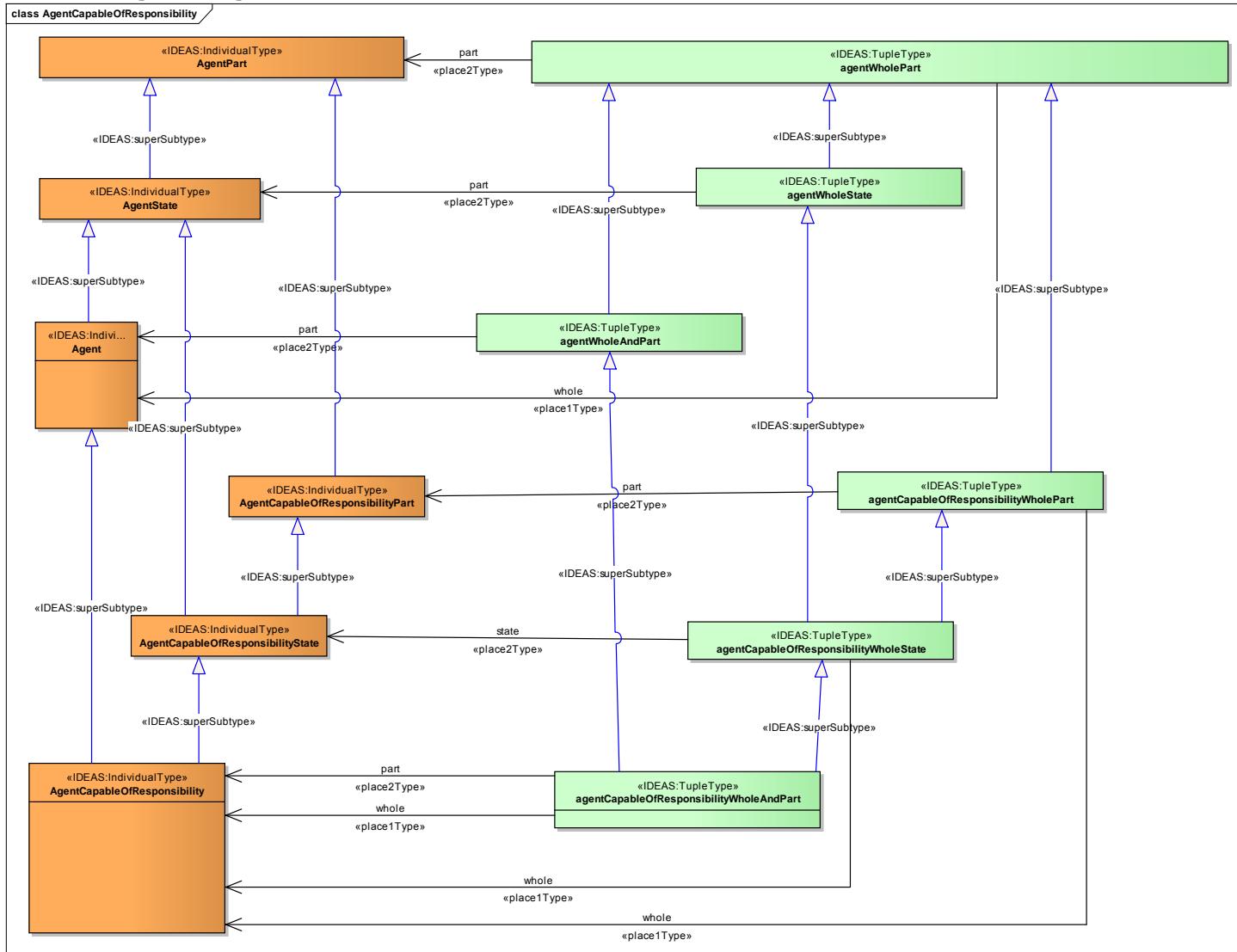


Figure 133 : AgentCapableOfResponsibility

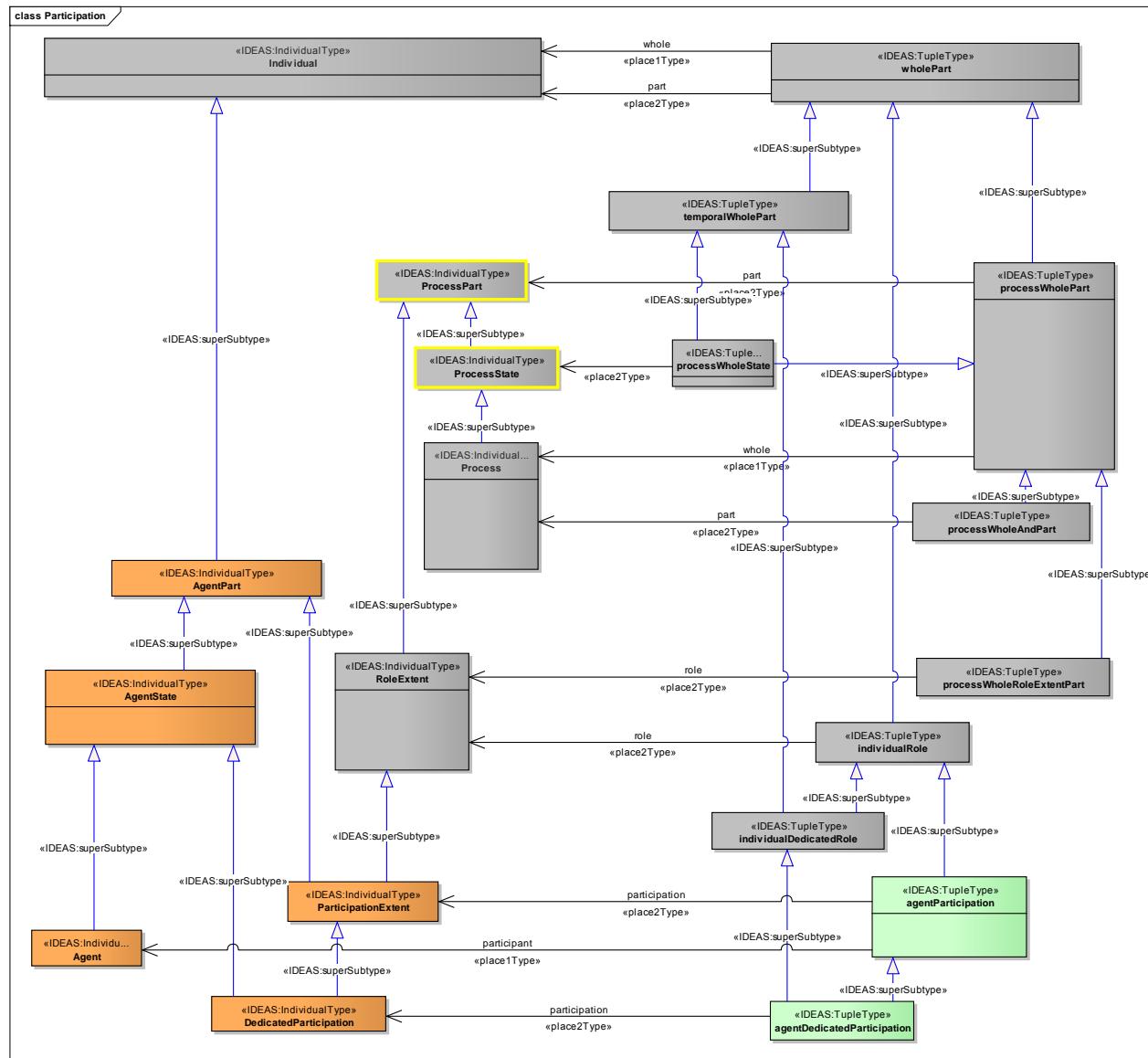


Figure 134 : Participation

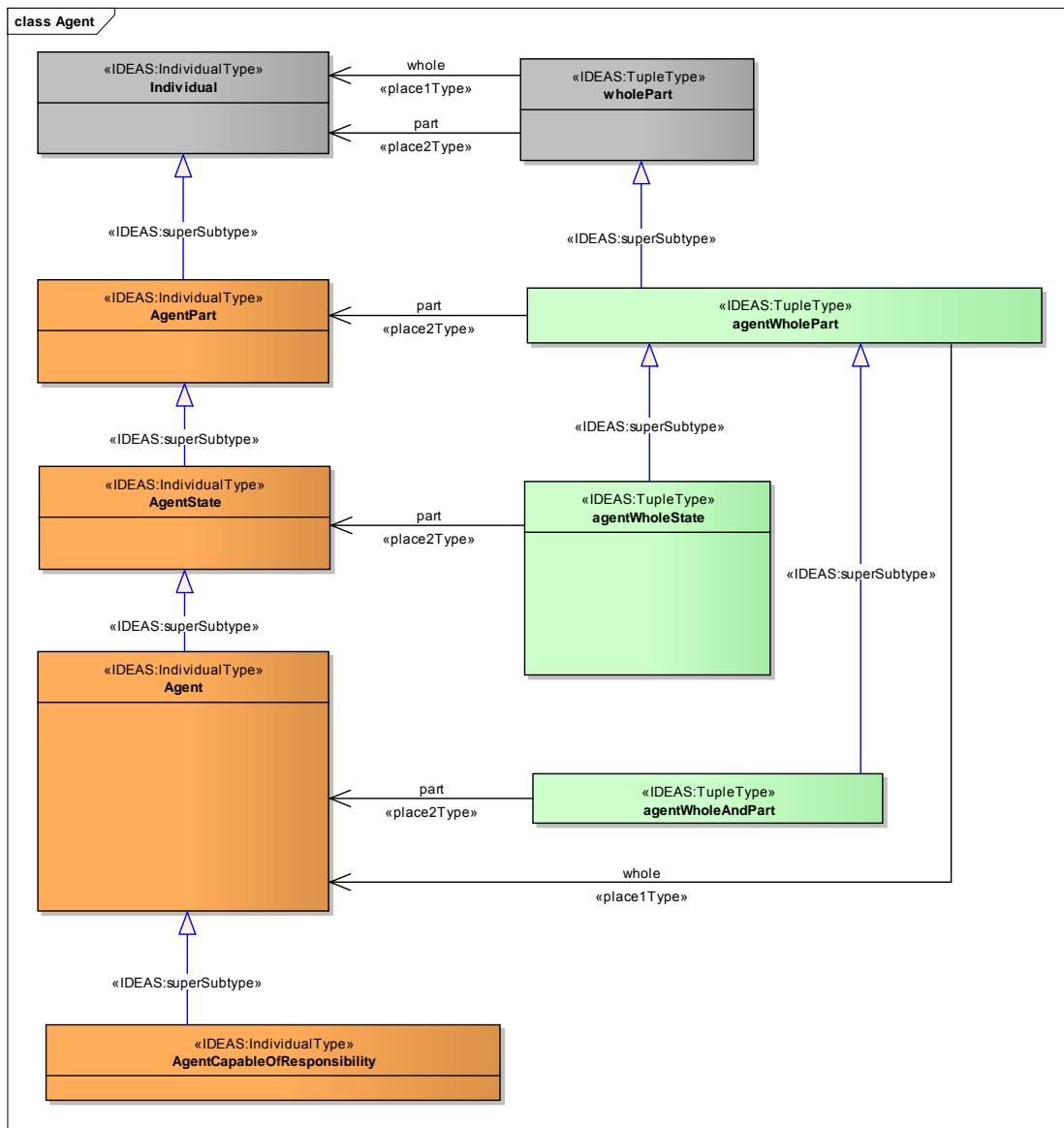


Figure 135 : Agent

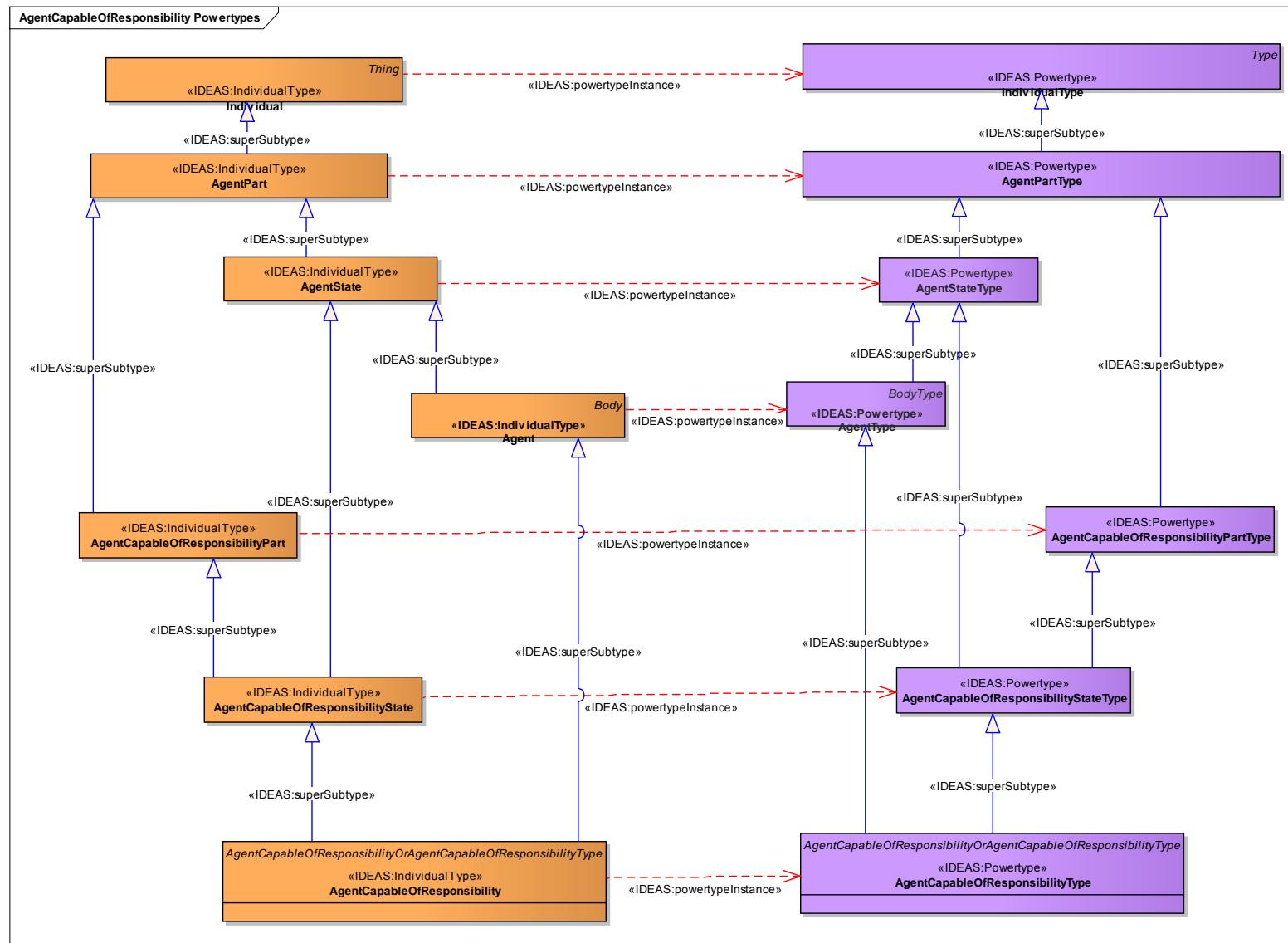


Figure 136 : AgentCapableOfResponsibility Powertypes

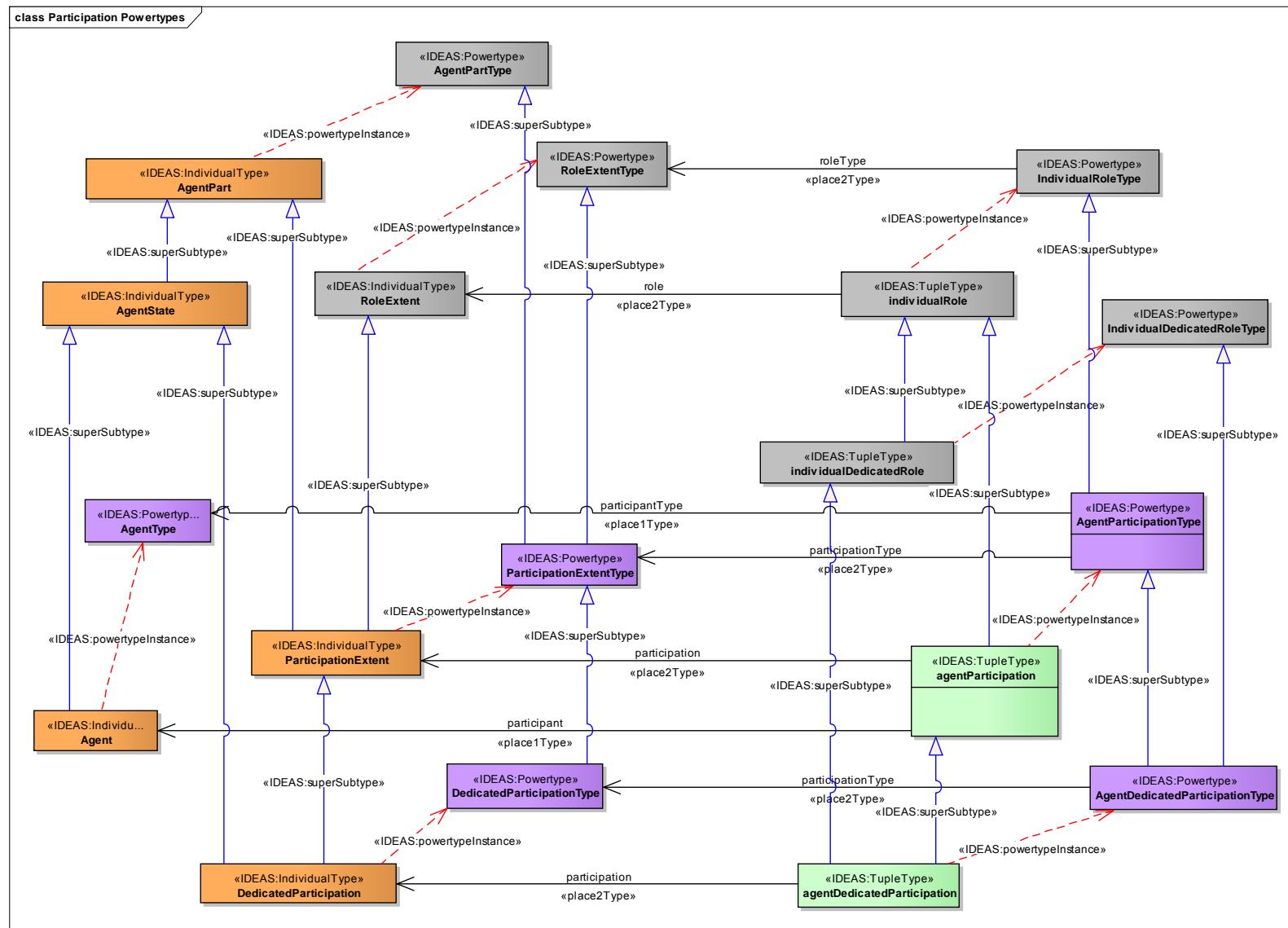


Figure 137 : Participation Powertypes

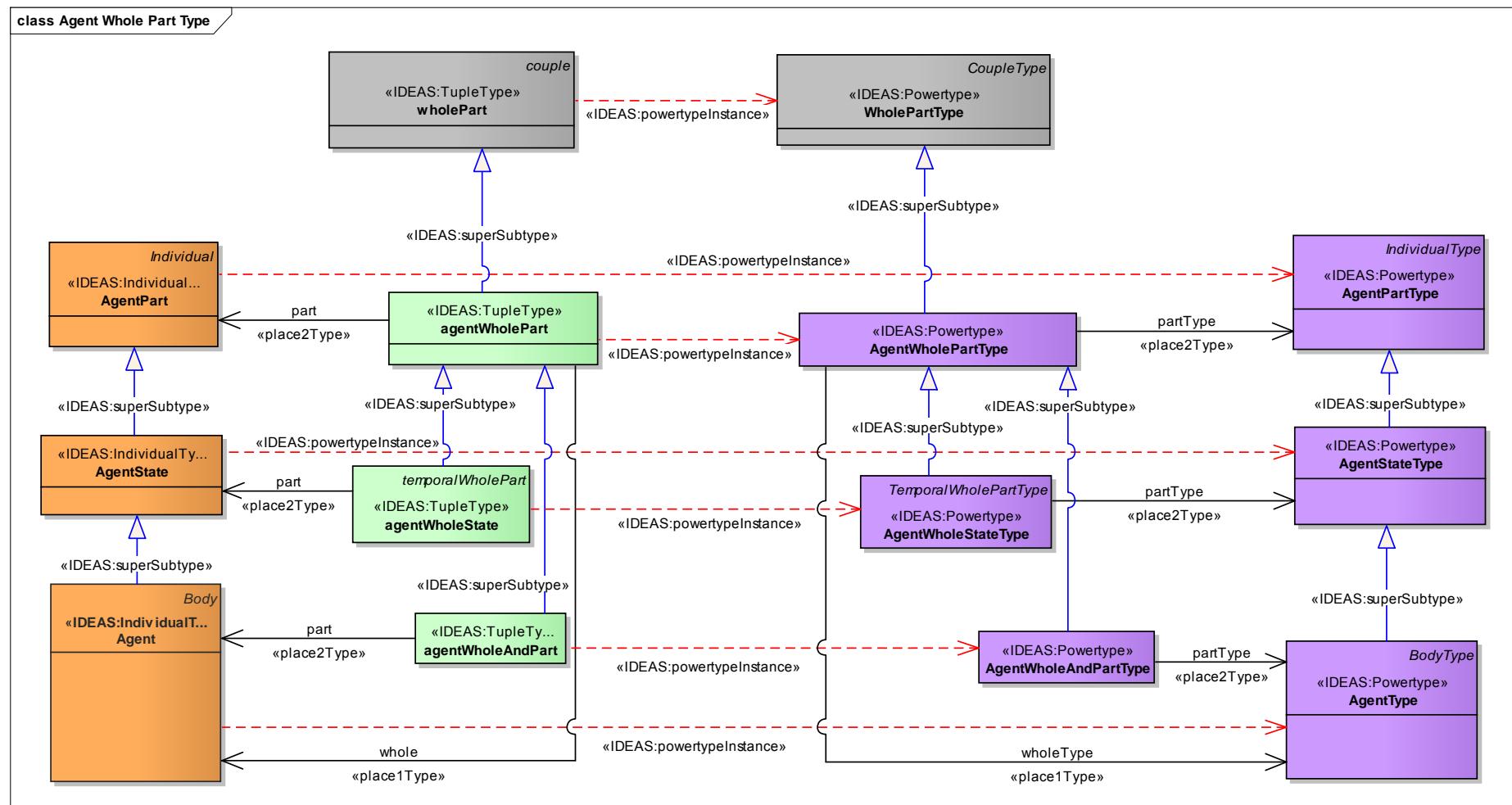


Figure 138 : Agent Whole Part Type

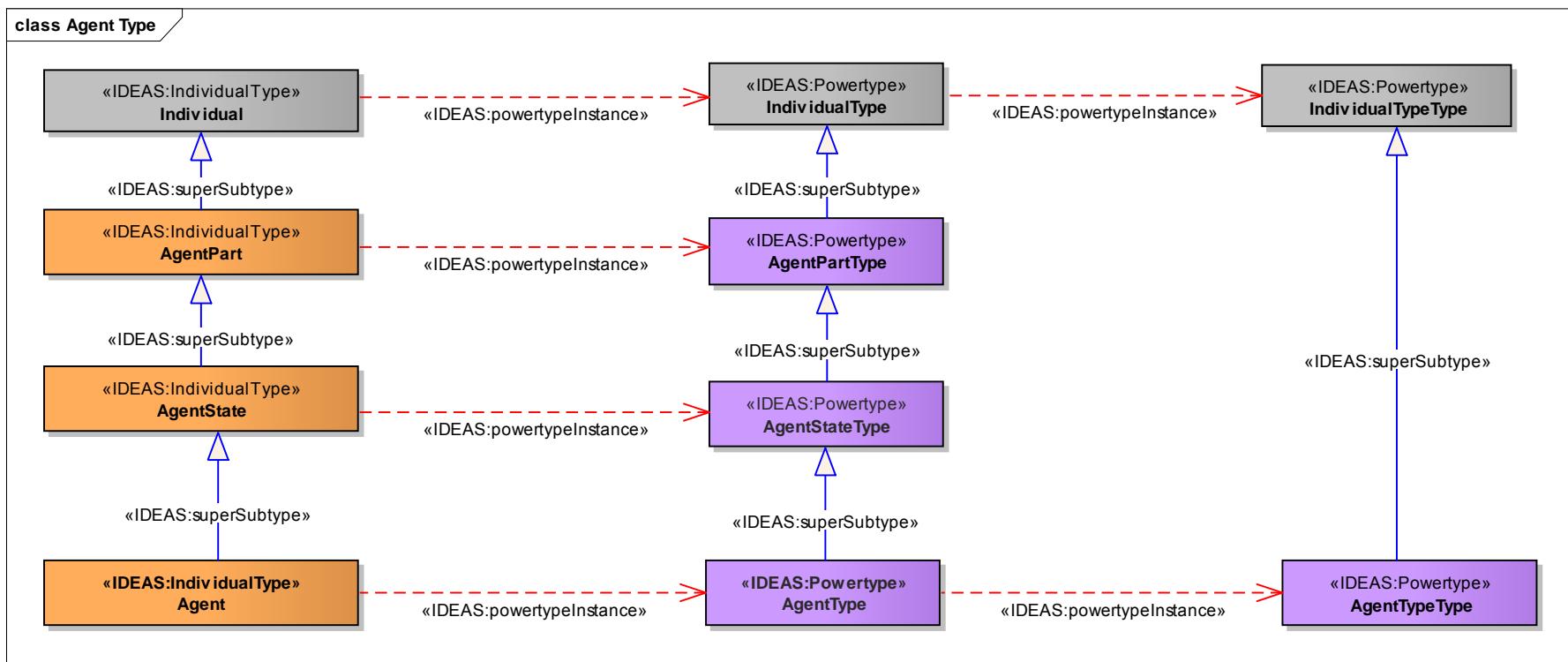


Figure 139 : Agent Type

3.4.10 Agent elements list

Agent
AgentCapableOfResponsibility «IDEAS:IndividualType» <u>Connectors:</u> Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentCapableOfResponsibility - AgentCapableOfResponsibilityOrAgentCapableOfResponsibilityType Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentCapableOfResponsibility - Agent Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentCapableOfResponsibility - AgentCapableOfResponsibilityState Dependency (element - is instance of): «IDEAS:powertypeInstance» AgentCapableOfResponsibility - AgentCapableOfResponsibilityType <u>Attributes:</u> - An Agent that, from a legal perspective, has responsibility for its actions.
AgentCapableOfResponsibilityPart «IDEAS:IndividualType» <u>Connectors:</u> Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentCapableOfResponsibilityPart - AgentPart Dependency (element - is instance of): «IDEAS:powertypeInstance» AgentCapableOfResponsibilityPart - AgentCapableOfResponsibilityPartType <u>Attributes:</u> - An AgentPart that is part of an AgentCapableOfResponsibility.
AgentCapableOfResponsibilityState «IDEAS:IndividualType» <u>Connectors:</u> Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentCapableOfResponsibilityState - AgentState Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentCapableOfResponsibilityState - AgentCapableOfResponsibilityPart Dependency (element - is instance of): «IDEAS:powertypeInstance» AgentCapableOfResponsibilityState - AgentCapableOfResponsibilityStateType <u>Attributes:</u> - An AgentState that is a temporal part of an AgentCapableOfResponsibility.
AgentPart «IDEAS:IndividualType» <u>Connectors:</u> Generalization (element - is a subtype of): «IDEAS:superSubtype» AgentPart - Individual Dependency (element - is instance of): «IDEAS:powertypeInstance» AgentPart - AgentPartType <u>Attributes:</u> - An Individual that is part of an Agent.

AgentState «IDEAS:IndividualType»*Connectors:*

Dependency (element - is instance of): «IDEAS:powertypeInstance»

AgentState - AgentStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentState - AgentPart

Attributes:

-

An AgentPart that is a temporal part of an Agent.

DedicatedParticipation «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DedicatedParticipation - AgentState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

DedicatedParticipation - DedicatedParticipationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DedicatedParticipation - ParticipationExtent

Attributes:

-

A ParticipationExtent which is also an AgentState - i.e. a temporal part of an Agent. Note: A DedicatedParticipation may be temporally scattered - i.e. the fusion of the all the participations of an Agent.

ParticipationExtent «IDEAS:IndividualType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ParticipationExtent - RoleExtent

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ParticipationExtent - AgentPart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

ParticipationExtent - ParticipationExtentType

Attributes:

-

A RoleExtent where the involved Individual is an Agent that participates actively in the Process.

agentCapableOfResponsibilityWholeAndPart «IDEAS:TupleType»*Connectors:*

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentCapableOfResponsibilityWholeAndPart - agentWholeAndPart

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentCapableOfResponsibilityWholeAndPart - agentCapableOfResponsibilityWholeState

Association (source - target): «place2Type»

agentCapableOfResponsibilityWholeAndPart - AgentCapableOfResponsibility

Association (source - target): «place1Type»

agentCapableOfResponsibilityWholeAndPart - AgentCapableOfResponsibility

Attributes:

-

An AgentCapableOfResponsibility where both the whole and part are AgentsCapableOfResponsibility.

agentCapableOfResponsibilityWholePart «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentCapableOfResponsibilityWholePart - agentWholePart

Association (source - target): «place2Type»

agentCapableOfResponsibilityWholePart - AgentCapableOfResponsibilityPart

Association (source - target): «place1Type»

agentCapableOfResponsibilityWholePart - AgentCapableOfResponsibility

Attributes:

-

An agentWholePart where the whole is an AgentCapableOfResponsibility.

agentCapableOfResponsibilityWholeState «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentCapableOfResponsibilityWholeState - agentWholeState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentCapableOfResponsibilityWholeState - agentCapableOfResponsibilityWholePart

Association (source - target): «place2Type»

agentCapableOfResponsibilityWholeState - AgentCapableOfResponsibilityState

Association (source - target): «place1Type»

agentCapableOfResponsibilityWholeState - AgentCapableOfResponsibility

Attributes:

-

A temporalWholePart and an agentCapableOfResponsibilityWholePart where an AgentCapableOfResponsibilityState is a temporal part of an Agent.

agentDedicatedParticipation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentDedicatedParticipation - agentParticipation

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentDedicatedParticipation - individualDedicatedRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentDedicatedParticipation - AgentDedicatedParticipationType

Association (source - target): «place2Type»

agentDedicatedParticipation - DedicatedParticipation

Attributes:

-

An agentParticipation which is also an individualDedicatedRole and the participation is a DedicatedParticipation.

agentParticipation «IDEAS:TupleType»Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentParticipation - individualRole

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentParticipation - AgentParticipationType

Association (source - target): «place1Type»

agentParticipation - Agent

Association (source - target): «place2Type»

agentParticipation - ParticipationExtent

Attributes:

-

An individualRole where the role is a ParticipationExtent.

agentWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentWholeAndPart - agentWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentWholeAndPart - AgentWholeAndPartType

Association (source - target): «place2Type»

agentWholeAndPart - Agent

Attributes:

-

An agentWholePart where both the whole and part are Agents.

agentWholePart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentWholePart - wholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentWholePart - AgentWholePartType

Association (source - target): «place2Type»

agentWholePart - AgentPart

Association (source - target): «place1Type»

agentWholePart - Agent

Attributes:

-

A wholePart where the whole is an Agent.

agentWholeState «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentWholeState - temporalWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

agentWholeState - AgentWholeStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

agentWholeState - agentWholePart

Association (source - target): «place2Type»

agentWholeState - AgentState

Attributes:

-

A temporalWholePart and an agentWholePart where an AgentState is a temporal part of an Agent.

overlapTypeIndividualInstance «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

overlapTypeIndividualInstance - typeInstance

Association (source - target): «place1Type»

overlapTypeIndividualInstance - SetOfOverlappingIndividuals

Association (source - target): «place2Type»

overlapTypeIndividualInstance - Individual

Attributes:

-

A typeInstance where an Individual is an instance of a SetOfOverlappingIndividuals.

Agent «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Agent - AgentState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Agent - Body

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Agent - AgentType

Attributes:

-

An AgentState that is an Individual capable of actively participating in Processes.

Agent Powertypes

AgentCapableOfResponsibilityPartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentCapableOfResponsibilityPartType - AgentPartType

Attributes:

-

The powertype of AgentCapableOfResponsibilityPart.

AgentCapableOfResponsibilityStateType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentCapableOfResponsibilityStateType - AgentCapableOfResponsibilityPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentCapableOfResponsibilityStateType - AgentStateType

Attributes:

-

The powertype of AgentCapableOfResponsibilityState.

AgentCapableOfResponsibilityType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentCapableOfResponsibilityType - AgentCapableOfResponsibilityStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentCapableOfResponsibilityType - AgentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentCapableOfResponsibilityType - AgentCapableOfResponsibilityOrAgentCapableOfResponsibilityType

Attributes:

-

The powertype of AgentCapableOfResponsibility.

AgentDedicatedParticipationType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentDedicatedParticipationType - AgentParticipationType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentDedicatedParticipationType - IndividualDedicatedRoleType

Association (source - target): «place2Type»

AgentDedicatedParticipationType - DedicatedParticipationType

Attributes:

- The powertype of agentDedicatedParticipation.

AgentPartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentPartType - IndividualType

Attributes:

- An IndividualType that is the Powertype of AgentPart.

AgentParticipationType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentParticipationType - IndividualRoleType

Association (source - target): «place1Type»

AgentParticipationType - AgentType

Association (source - target): «place2Type»

AgentParticipationType - ParticipationExtentType

Attributes:

- The powertype of agentParticipation.

AgentStateType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentStateType - AgentPartType

Attributes:

- The powertype of AgentState.

AgentType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentType - AgentStateType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentType - BodyType

Dependency (element - is instance of): «IDEAS:powertypeInstance»

AgentType - AgentTypeType

Attributes:

- The powertype of Agent.

AgentTypeType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentTypeType - IndividualTypeType

Attributes:

-

The powertype of AgentType.

AgentWholeAndPartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentWholeAndPartType - AgentWholePartType

Association (source - target): «place2Type»

AgentWholeAndPartType - AgentType

Attributes:

-
The powertype of agentWholeAndPart.

AgentWholePartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentWholePartType - WholePartType

Association (source - target): «place2Type»

AgentWholePartType - AgentPartType

Association (source - target): «place1Type»

AgentWholePartType - AgentType

Attributes:

-
The powertype of agentWholePart.

AgentWholeStateType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentWholeStateType - TemporalWholePartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

AgentWholeStateType - AgentWholePartType

Association (source - target): «place2Type»

AgentWholeStateType - AgentStateType

Attributes:

-
The powertype of agentWholeState.

DedicatedParticipationType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DedicatedParticipationType - ParticipationExtentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

DedicatedParticipationType - AgentStateType

Attributes:

-
The powertype of DedicatedParticipation.

ParticipationExtentType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ParticipationExtentType - RoleExtentType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ParticipationExtentType - AgentPartType

Attributes:

-

The powertype of ParticipationExtent.

3.4.11 Process diagrams

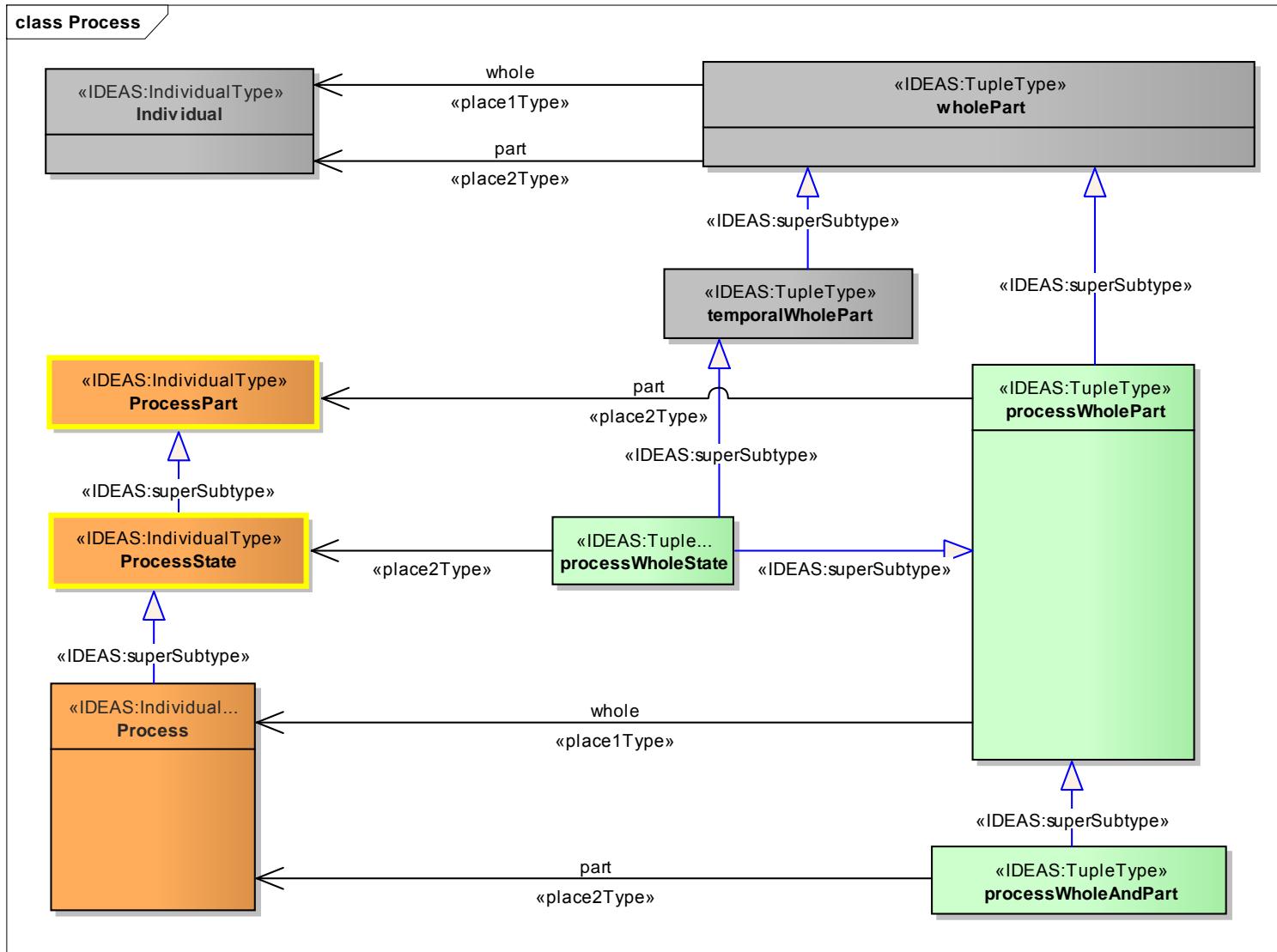


Figure 140 : Process

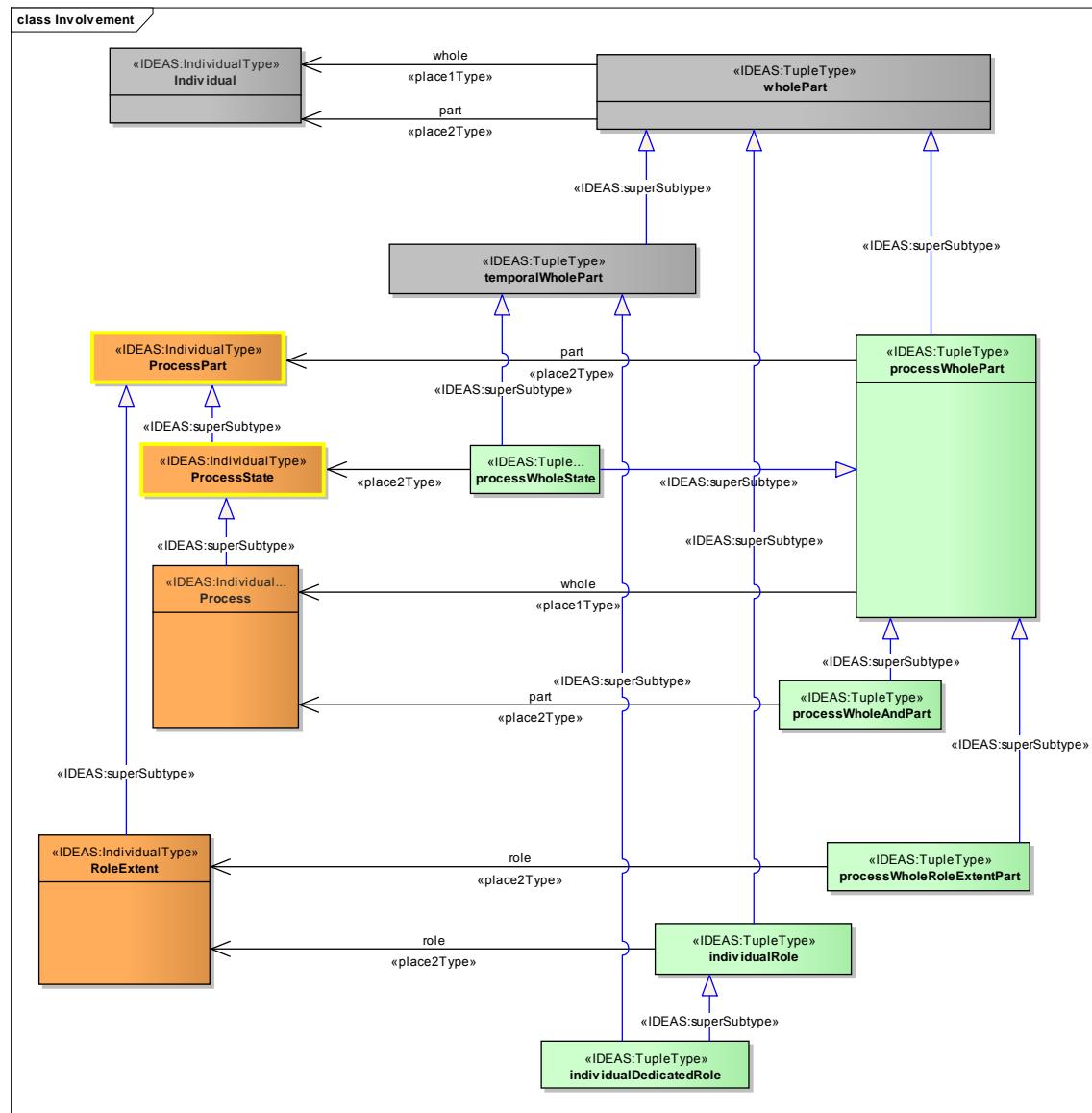


Figure 141 : Involvement

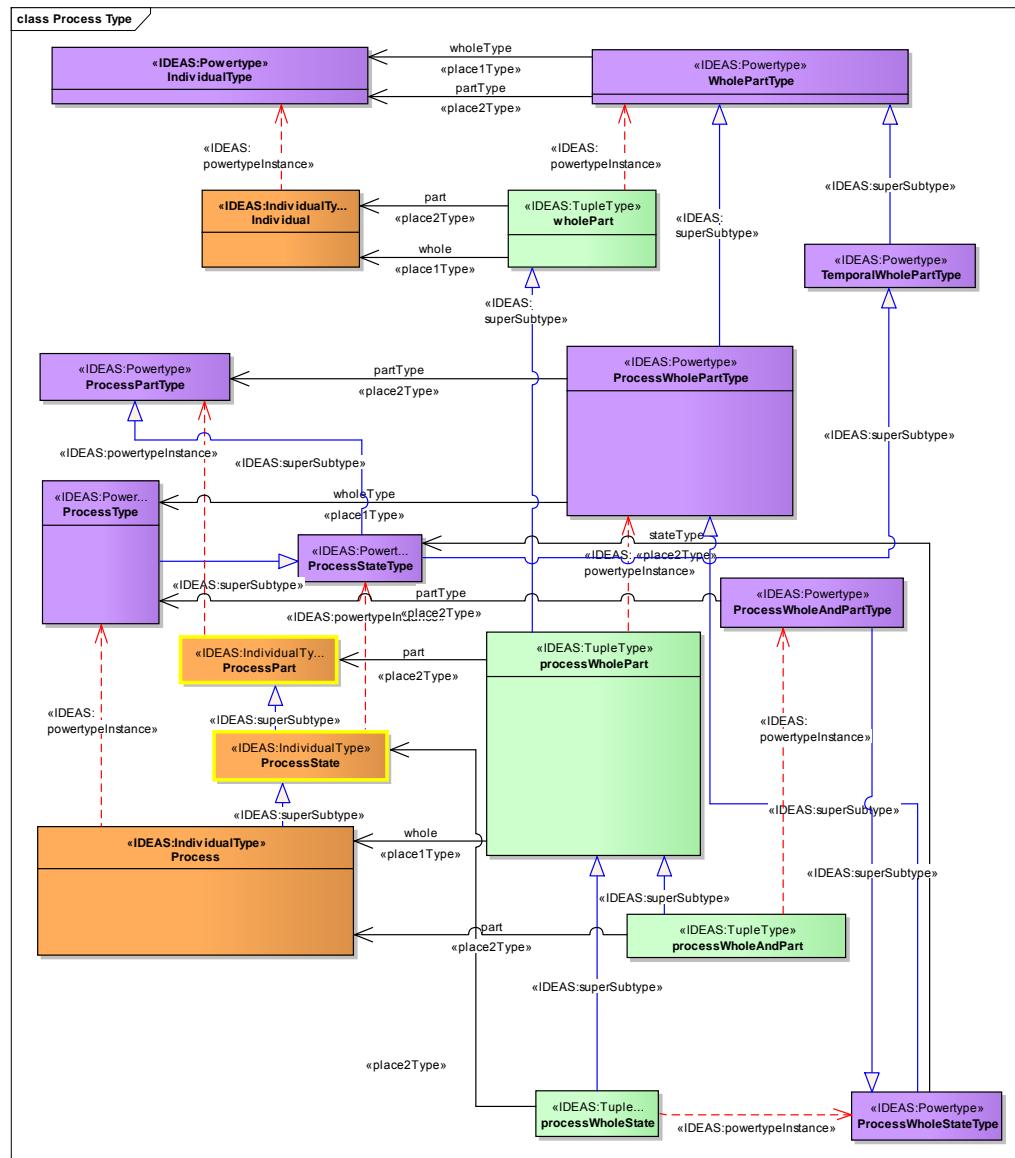


Figure 142 : ProcessType

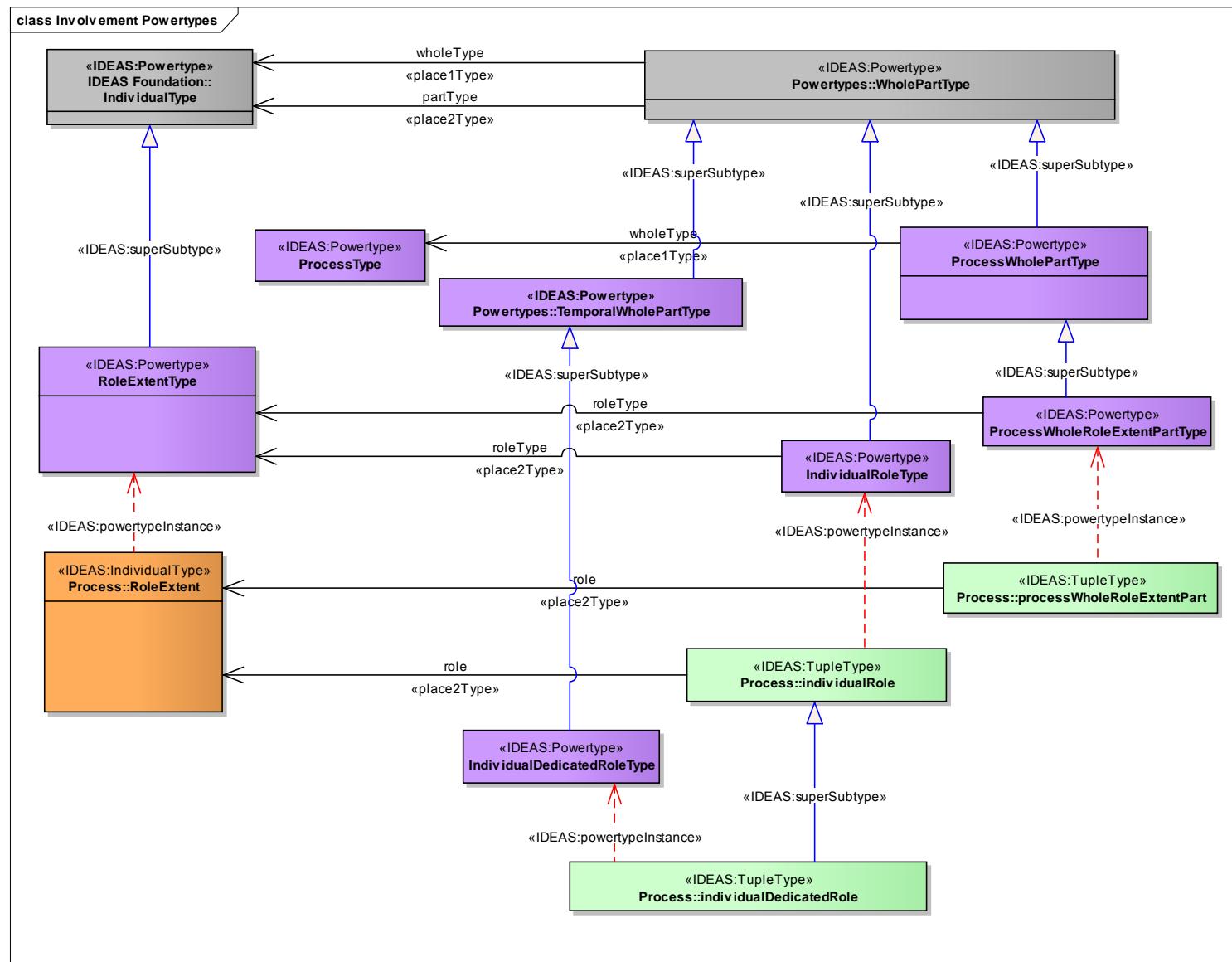


Figure 143 : Involvement Powertypes

3.4.12 Process elements list

Process
ProcessPart «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» ProcessPart - BodyPart <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» ProcessPart - ProcessPartType <u>Attributes:</u> - An Individual that is part of a Process.
ProcessState «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» ProcessState - ProcessPart <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» ProcessState - ProcessStateType <u>Attributes:</u> - A ProcessPart that is a temporal part of a Process.
RoleExtent «IDEAS:IndividualType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» RoleExtent - ProcessPart <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» RoleExtent - RoleExtentType <u>Attributes:</u> - A ProcessPart that is the extent of an Individual's involvement in a Process.
individualDedicatedRole «IDEAS:TupleType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» individualDedicatedRole - temporalWholePart <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» individualDedicatedRole - individualRole <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» individualDedicatedRole - IndividualDedicatedRoleType <u>Attributes:</u> - An individualRole where the RoleExtent is a temporal part of the Individual involved in the Process - i.e. all the Individual for a period of time. Note: The RoleExtent may be temporally scattered - i.e. the fusion of all occasions the Individual was involved.
individualRole «IDEAS:TupleType» <u>Connectors:</u> <i>Generalization (element - is a subtype of):</i> «IDEAS:superSubtype» individualRole - wholePart <i>Dependency (element - is instance of):</i> «IDEAS:powertypeInstance» individualRole - IndividualRoleType <i>Association (source - target):</i> «place2Type»

individualRole - RoleExtent

Attributes:

-
A wholePart where the part is the extent of the Role played by the Individual in a particular Process.

processWholeRoleExtentPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

processWholeRoleExtentPart - processWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

processWholeRoleExtentPart - ProcessWholeRoleExtentPartType

Association (source - target): «place2Type»

processWholeRoleExtentPart - RoleExtent

Attributes:

-
A processWholePart where the part is a RoleExtent - i.e. the extent of an Individual's role in the Process.

processWholeState «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

processWholeState - processWholePart

Association (source - target): «place2Type»

processWholeState - ProcessState

Generalization (element - is a subtype of): «IDEAS:superSubtype»

processWholeState - temporalWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

processWholeState - ProcessWholeStateType

Attributes:

-
A processWholeState where the part is a ProcessState - i.e. all of the spatial extent of the process for a period of time.

Process «IDEAS:IndividualType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

Process - ProcessState

Dependency (element - is instance of): «IDEAS:powertypeInstance»

Process - ProcessType

Attributes:

-
A ProcessPart that is an Individual whose extent is defined by its involvements.

processWholeAndPart «IDEAS:TupleType»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

processWholeAndPart - processWholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

processWholeAndPart - ProcessWholeAndPartType

Association (source - target): «place2Type»

processWholeAndPart - Process

Attributes:

-
A processWholePart that asserts a Process is part of a Process.

processWholePart «IDEAS:TupleType»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

processWholePart - wholePart

Dependency (element - is instance of): «IDEAS:powertypeInstance»

processWholePart - ProcessWholePartType

Association (source - target): «place2Type»

processWholePart - ProcessPart

Association (source - target): «place1Type»

processWholePart - Process

*Attributes:**-*
A wholePart that asserts an Individual is part of a Process.**Process Powertypes****IndividualDedicatedRoleType** «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualDedicatedRoleType - TemporalWholePartType

*Attributes:**-*
The powertype of individualDedicatedRole.**IndividualRoleType** «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

IndividualRoleType - WholePartType

Association (source - target): «place1Type»

IndividualRoleType - RoleExtentType

*Attributes:**-*
The powertype of individualRole.**ProcessPartType** «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ProcessPartType - BodyPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProcessPartType - ModemIndividualElementType

*Attributes:**-*
The powertype of ProcessPart.**ProcessStateType** «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ProcessStateType - ProcessPartType

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProcessStateType - TemporalWholePartType

*Attributes:**-*
The powertype of ProcessState.

ProcessWholeAndPartType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ProcessWholeAndPartType - ProcessWholeStateType

Association (source - target): «place2Type»

ProcessWholeAndPartType - ProcessType

Attributes:

- The ProcessWholePartType that is the Powertype of processWholeAndPart.

ProcessWholeRoleExtentPartType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ProcessWholeRoleExtentPartType - ProcessWholePartType

Association (source - target): «place2Type»

ProcessWholeRoleExtentPartType - RoleExtentType

Attributes:

- The powertype of processWholeRoleExtentPart.

ProcessWholeStateType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ProcessWholeStateType - ProcessWholePartType

Association (source - target): «place2Type»

ProcessWholeStateType - ProcessStateType

Attributes:

- The powertype of processWholeState.

RoleExtentType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

RoleExtentType - IndividualType

Attributes:

- The powertype of RoleExtent.

ProcessType «IDEAS:Powertype»*Connectors:**Generalization (element - is a subtype of):* «IDEAS:superSubtype»

ProcessType - ProcessStateType

Attributes:

- The powertype of Process.

ProcessWholePartType «IDEAS:Powertype»

Connectors:

Generalization (element - is a subtype of): «IDEAS:superSubtype»

ProcessWholePartType - WholePartType

Association (source - target): «place2Type»

ProcessWholePartType - ProcessPartType

Association (source - target): «place1Type»

ProcessWholePartType - ProcessType

Attributes:

-

The powertype of processWholePart.

List of figures:

Figure 1 : AV-1	9
Figure 2 : AV-1 Architecture Project	10
Figure 3 : AV-1 Meta-Data	11
Figure 4 : Individual handling of DateAndTime	12
Figure 5 : Properties and Measures	13
Figure 6 : Environment.....	14
Figure 7 : Architectural Meta-Data	58
Figure 8 : Enterprise.....	59
Figure 9 : Facade	60
Figure 10 : Individual Part Hierarchy.....	61
Figure 11 : Location	62
Figure 12 : Project Types	63
Figure 13 : Service Delivery	64
Figure 14 : Undertaking	65
Figure 15 : Architecture Framework	66
Figure 16 : Stakeholder Concern.....	67
Figure 17 : View and model.....	68
Figure 18 : Viewpoint & Model kind.....	69
Figure 19 : Modem Thing	70
Figure 20 : Modem representation	71
Figure 21 : StV-1.....	72
Figure 22 : StV-2.....	73
Figure 23 : StV-3.....	74
Figure 24 : StV-4.....	75
Figure 25 : StV-5.....	76
Figure 26 : StV-6.....	77
Figure 27 : Capability.....	88
Figure 28 : Enduring Task.....	89
Figure 29 : Enterprise Capability	90
Figure 30 : Enterprise Goals and Vision	91
Figure 31 : Standard Operational Activities.....	92
Figure 32 : OV-1	93
Figure 33 : OV-2	94

Figure 34 : OV-3	95
Figure 35 : OV-4 Typical	96
Figure 36 : OV-4 Actual.....	97
Figure 37 : OV-5	98
Figure 38 : OV-6a	99
Figure 39 : OV-6b	100
Figure 40 : OV-6c	101
Figure 41 : OV-6 Triggers.....	102
Figure 42 : OV-7	103
Figure 43 : OV-2 Structure.....	133
Figure 44 : Measures of performance.....	134
Figure 45 : Nodes and Services	135
Figure 46 : OV-2/3 – Flowed Elements	136
Figure 47 : Flow Properties	137
Figure 48 : OV-3/7 Information	138
Figure 49 : OV-4 Actual Organisation Snapshots.....	139
Figure 50 : OV-5 Service Orchestration.....	140
Figure 51 : OV-6b States.....	141
Figure 52 : OV-6c Scenario Elements.....	142
Figure 53 : SOV-1	143
Figure 54 : SOV-2	144
Figure 55 : SOV-3	145
Figure 56 : SOV-4a	146
Figure 57 : SOV-4b	147
Figure 58 : SOV-4c	148
Figure 59 : SOV-4 Triggers.....	149
Figure 60 : SOV-5	150
Figure 61 : SOV Service specification versions.....	151
Figure 62 : Service Functions.....	165
Figure 63 : Service Level	166
Figure 64 : Service Operations	167
Figure 65 : Services.....	168
Figure 66 : SV-1 Design.....	169
Figure 67 : SV-1 Design Resource Interactions	170
Figure 68 : SV-1 Deployed	171

Figure 69 : SV-1 Deployed Resource Interaction	172
Figure 70 : SV-2a	173
Figure 71 : SV-2b	174
Figure 72 : SV-2c	175
Figure 73 : SV-3	176
Figure 74 : SV-4	177
Figure 75 : SV-5	178
Figure 76 : SV-6	179
Figure 77 : SV-7	180
Figure 78 : SV-8	181
Figure 79 : SV-9	182
Figure 80 : SV-10a	183
Figure 81 : SV-10b	184
Figure 82 : SV-10c	185
Figure 83 : SV-10 Triggers	186
Figure 84 : SV-11	187
Figure 85 : SV-12	188
Figure 86 : Function Flows	243
Figure 87 : Resource Type - Instance.....	244
Figure 88 : SV-1 Deployed Resource Interaction - IndividualResourceInteraction.....	245
Figure 89 : SV-10c Temporal Ordering	246
Figure 90 : SV1 - ResourceType - resourceUsage - pattern.....	247
Figure 91 : SV1 - ResourceType - resourceUsage hierarchy - powertypes	248
Figure 92 : SV1 - ResourceType - usage hierarchy - HumanResourceType - powertypes.....	249
Figure 93 : SV1 - ResourceType - usedHumanAndNonHumanConfigurationTypeSpecialisation hierarchy	250
Figure 94 : SV1 - ResourceType - usedNonHumanConfigurationTypeSpecialisation hierarchy	251
Figure 95 : SV2 - ResourcePort - Deployed.....	252
Figure 96 : SV2 - ResourcePort - Design.....	253
Figure 97 : TV-1&2.....	254
Figure 98 : TV-3.....	255
Figure 99 : TV-1&2 Protocols.....	256
Figure 100 : TV-1&2 - Protocol.....	272
Figure 101 : TV-1&2 - Standard	273
Figure 102 : AcV-1	274
Figure 103 : AcV-2	275

Figure 104 : Portfolios.....	290
Figure 105 : Programmes	291
Figure 106 : Project Milestones.....	292
Figure 107 : Resource Packages - Enterprise	293
Figure 108 : Additional Powertypes.....	337
Figure 109 : Before - After.....	338
Figure 110 : Information and Data	339
Figure 111 : Property Assignment.....	340
Figure 112 : Property types	341
Figure 113 : Representation Structure.....	342
Figure 114 : Time Range.....	343
Figure 115 : BodyPowertype.....	354
Figure 116 : Process Part of Body	355
Figure 117: Temporal Border Powertypes	360
Figure 118 : improper instance-wise disjoint state sets.....	363
Figure 119 : Singleton Disjoint State Types Sets	364
Figure 120 : State Machine Views	365
Figure 121 : Regions	365
Figure 122 : state successions	366
Figure 123 : Interactions.....	366
Figure 124 : Interaction Views	367
Figure 125 : Interaction Role State Machine Views	368
Figure 126 : Send-Receive Interacting State Types View Set.....	368
Figure 127 : state interactions	369
Figure 128 : State Succession.....	370
Figure 129 : Exchange.....	384
Figure 130 : Exchange Whole-Part	385
Figure 131 : ExchangedItem	386
Figure 132 : Exchange Powertypes	387
Figure 133 : AgentCapableOfResponsibility	398
Figure 134 : Participation	399
Figure 135 : Agent.....	400
Figure 136 : AgentCapableOfResponsibility Powertypes.....	401
Figure 137 : Participation Powertypes	402
Figure 138 : Agent Whole Part Type	403

Figure 139 : Agent Type	404
Figure 140 : Process	413
Figure 141 : Involvement	414
Figure 142 : ProcessType	415
Figure 143 : Involvement Powertypes.....	416