DATEX II profile for RWW  
ECo-AT

Version 00-01-00

* 1. Overview

This profile describes the message content for the RWW use case as described by the project ECo-AT using the Situation publication. This profile distinguishes between 21 different message types in the context of roadworks, using beside the Roadwork class also the NetworkManagement or GeneralObstruction classes.

Location referencing is done using “ItineraryByIndexedLocations” in form of coordinates and ALERT-C. The extension “LinearByCoordinates” is used.

* 1. Data Dictionary for “RWW”
     1. "AlertCMethod4Linear" package
        1. "AlertCMethod4Linear" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| AlertCMethod4Linear | ALERT-C method4 linear | A linear section along a road between two points, Primary and Secondary, which are pre-defined ALERT-C locations plus offset distance. Direction is FROM the Secondary point TO the Primary point, i.e. the Primary point is downstream of the Secondary point. |  | no |

Table 1— Classes of the "AlertCMethod4Linear" package

* + - 1. "AlertCMethod4Linear" package association roles

There are no defined association roles in the "AlertCMethod4Linear" package.

* + - 1. "AlertCMethod4Linear" package attributes

There are no defined attributes in the "AlertCMethod4Linear" package.

* + 1. "AlertCMethod4Point" package
       1. "AlertCMethod4Point" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| AlertCMethod4Point | ALERT-C method4 point | A single point on the road network defined by reference to a point in a pre-defined ALERT-C location table plus an offset distance and which has an associated direction of traffic flow. |  | no |

Table 2— Classes of the "AlertCMethod4Point" package

* + - 1. "AlertCMethod4Point" package association roles

There are no defined association roles in the "AlertCMethod4Point" package.

* + - 1. "AlertCMethod4Point" package attributes

There are no defined attributes in the "AlertCMethod4Point" package.

* + 1. "Exchange " package
       1. "Exchange" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| Exchange | Exchange | Details associated with the management of the exchange between the supplier and the client. |  | no |
| InternationalIdentifier | International identifier | An identifier/name whose range is specific to the particular country. |  | no |

**Table 3— Classes of the "Exchange" package**

* + - 1. "Exchange" package association roles

| **Class name** | **Role name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| Exchange | supplierIdentification | Supplier identification | An identifier/name whose range is specific to the particular country. | 1..1 | InternationalIdentifier |

**Table 4— Associations of the "Exchange" package**

* + - 1. "Exchange" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| Exchange | clientIdentification | Client identification | In a data exchange process, an identifier of the organisation or group of organisations which receives information from the DATEX II supplier system. | 0..1 | String |

**Table 5— Attributes of the "Exchange" package**

* + 1. "D2LogicalModel " package
       1. "D2LogicalModel" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| Exchange | Exchange | Details associated with the management of the exchange between the supplier and the client. |  | no |
| D2LogicalModel | D2 logical model | The DATEX II logical model comprising exchange, content payload and management sub-models. |  | no |
| PayloadPublication | Payload publication | A payload publication of traffic related information or associated management information created at a specific point in time that can be exchanged via a DATEX II interface. |  | yes |

**Table 6— Classes of the "D2LogicalModel" package**

* + - 1. " D2LogicalModel" package association roles

There are no (or not used) association roles in the “D2LogicalModel” package

* + - 1. " D2LogicalModel" package attributes

There are no (or not used) package attributes in the “D2LogicalModel” package

* + 1. "GroupOfLocations " package
       1. "GroupOfLocations" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| AffectedCarriagewayAndLanes | Affected carriageway and lanes | Supplementary positional information which details carriageway and lane locations. Several instances may exist where the element being described extends over more than one carriageway. |  | no |
| AlertCDirection | ALERT-C direction | The direction of traffic flow along the road to which the information relates. |  | no |
| AlertCLocation | ALERT-C location | Identification of a specific point, linear or area location in an ALERT-C location table. |  | no |
| AlertCMethod4PrimaryPointLocation | ALERT-C method4 primary point location | The point (called Primary point) which is either a single point or at the downstream end of a linear road section. The point is specified by a reference to a point in a pre-defined ALERT-C location table plus a non-negative offset distance. |  | no |
| AlertCMethod4SecondaryPointLocation | ALERT-C method4 secondary point location | The point (called Secondary point) which is at the upstream end of a linear road section. The point is specified by a reference to a point in a pre-defined Alert-C location table plus a non-negative offset distance. |  | no |
| GroupOfLocations | Group of locations | One or more physically separate locations. Multiple locations may be related, as in an itinerary (or route), or may be unrelated. It is not for identifying the same physical location using different Location objects for different referencing systems. |  | yes |
| Itinerary | Itinerary | Multiple (i.e. more than one) physically separate locations arranged as an ordered set that defines an itinerary or route. |  | yes |
| ItineraryByIndexedLocations | Itinerary by indexed locations | Multiple physically separate locations arranged as an ordered set that defines an itinerary or route. The index qualifier indicates the order. |  | no |
| Location | Location | The specification of a location either on a network (as a point or a linear location) or as an area. This may be provided in one or more referencing systems. |  | yes |
| NetworkLocation | Network location | The specification of a location on a network (as a point or a linear location). |  | yes |
| OffsetDistance | Offset distance | The non negative offset distance from the ALERT-C referenced point to the actual point. |  | no |
| Point | Point | A single geospatial point. |  | no |
| PointCoordinates | Point coordinates | A pair of coordinates defining the geodetic position of a single point using the European Terrestrial Reference System 1989 (ETRS89). |  | no |
| SupplementaryPositionalDescription | Supplementary positional description | A collection of supplementary positional information which improves the precision of the location. |  | no |

Table 7— Classes of the "GroupOfLocations" package

* + - 1. "GroupOfLocations" package association roles

| **Class name** | **Role name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| ItineraryByIndexedLocations | locationContainedInItinerary | Location contained in itinerary | A location contained in an itinerary (i.e. an ordered set of locations defining a route or itinerary). | 0..\* | Location |
| Point | pointByCoordinates | Point by coordinates | A single point defined only by a coordinate set with an optional bearing direction. | 0..1 | PointByCoordinates |
| PointByCoordinates | pointCoordinates | Point coordinates | A pair of coordinates defining the geodetic position of a single point using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | PointCoordinates |

Table 8— Associations of the "GroupOfLocations" package

* + - 1. "GroupOfLocations" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| AffectedCarriagewayAndLanes | carriageway | Carriageway | Indicates the section of carriageway to which the location relates. | 1..1 | CarriagewayEnum |
|  | lane | Lane | Indicates the specific lane to which the location relates. | 0..\* | LaneEnum |
|  | specificLocation | Specific location | Unique code within the ALERT-C location table which identifies the specific point, linear or area location. | 1..1 | AlertCLocationCode |
| AlertCDirection | alertCDirectionCoded | ALERT-C direction coded | The direction of traffic flow to which the situation, traffic data or information is related. Positive is in the direction of coding of the road. | 1..1 | AlertCDirectionEnum |
|  | alertCDirectionNamed | ALERT-C direction named | ALERT-C name of a direction e.g. Brussels -> Lille. | 0..1 | MultilingualString |
|  | alertCDirectionSense | ALERT-C direction sense | Indicates for circular routes (i.e. valid only for ring roads) the sense in which navigation should be made from the primary location to the secondary location, to avoid ambiguity. TRUE indicates positive RDS direction, i.e. direction of coding of road. | 0..1 | Boolean |
| AlertCLocation | alertCLocationName | ALERT-C location name | Name of ALERT-C location. | 0..1 | MultilingualString |
|  | specificLocation | Specific location | Unique code within the ALERT-C location table which identifies the specific point, linear or area location. | 1..1 | AlertCLocationCode |
| OffsetDistance | offsetDistance | Offset distance | The non negative offset distance from the ALERT-C referenced point to the actual point. The ALERT-C locations in the Primary and Secondary locations must always encompass the linear section being specified, thus Offset Distance is towards the other point. | 1..1 | MetresAsNonNegativeInteger |
| PointByCoordinates | bearing | Bearing | A bearing at the point measured in degrees (0 - 359). Unless otherwise specified the reference direction corresponding to 0 degrees is North. | 0..1 | NonNegativeInteger |
| PointCoordinates | latitude | Latitude | Latitude in decimal degrees using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | Float |
|  | longitude | Longitude | Longitude in decimal degrees using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | Float |
| SupplementaryPositionalDescription | locationDescriptor | Location descriptor | Specifies a descriptor which helps to identify the specific location. | 0..\* | LocationDescriptorEnum |

Table 9— Attributes of the "GroupOfLocations" package

* + 1. "Impact" package
       1. "Impact" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| Impact | Impact | An assessment of the impact that an event or operator action defined by the situation record has on the driving conditions. |  | no |

Table 10— Classes of the "Impact" package

* + - 1. "Impact" package association roles

There are no defined association roles in the "Impact" package.

* + - 1. "Impact" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| Impact | numberOfLanesRestricted | Number of lanes restricted | The number of normally usable lanes on the carriageway which are now restricted either fully or partially (this may include the hard shoulder if it is normally available for operational use, e.g. in hard shoulder running schemes). | 0..1 | NonNegativeInteger |
|  | numberOfOperationalLanes | Number of operational lanes | The number of usable lanes in the specified direction which remain fully operational (this may include the hard shoulder if it is being used as an operational lane). | 0..1 | NonNegativeInteger |
|  | originalNumberOfLanes | Original number of lanes | The normal number of usable lanes in the specified direction that the carriageway has before reduction due to roadworks or traffic events. | 0..1 | NonNegativeInteger |
|  | trafficConstrictionType | Traffic constriction type | The type of constriction to which traffic is subjected as a result of an event or operator action. | 0..1 | TrafficConstrictionTypeEnum |

Table 11— Attributes of the "Impact" package

* + 1. "Linear" package
       1. "Linear" package classes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| Impact | numberOfLanesRestricted | Number of lanes restricted | The number of normally usable lanes on the carriageway which are now restricted either fully or partially (this may include the hard shoulder if it is normally available for operational use, e.g. in hard shoulder running schemes). | 0..1 | NonNegativeInteger |
|  | trafficConstrictionType | Traffic constriction type | The type of constriction to which traffic is subjected as a result of an event or operator action. | 0..1 | TrafficConstrictionTypeEnum |

Table 12— Classes of the "Linear" package

* + - 1. "Linear" package association roles

There are no defined association roles in the "Linear" package.

* + - 1. "Linear" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| AlertCLinear | alertCLocationCountryCode | ALERT-C location country code | EBU country code. | 1..1 | String |
|  | alertCLocationTableNumber | ALERT-C location table number | Number allocated to an ALERT-C table in a country. Ref. EN ISO 14819-3 for the allocation of a location table number. | 1..1 | String |
|  | alertCLocationTableVersion | ALERT-C location table version | Version number associated with an ALERT-C table reference. | 1..1 | String |

**Table 13— Attributes of the "Linear" package**

* + 1. "LinearByCoordinates" package
       1. "LinearByCoordinates" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| ExtendedLinear | Extended linear | Extension point for linear Locations. |  | no |
| LinearByCoordinates | Linear by coordinates | A linear location defined by coordinates. |  | no |

Table 14— Classes of the "LinearByCoordinates" package

* + - 1. "LinearByCoordinates" package association roles

| **Class name** | **Role name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| LinearByCoordinates | end | End | End point of a LinearByCoordinates | 1..1 | PointCoordinates |
|  | intermediate | Intermediate | Points of a LinearByCoordinates object that are neither start or end point. | 1..1 | PointCoordinates |
|  | start | Start | Start point of a LinearByCoordinates | 1..1 | PointCoordinates |

Table 15— Associations of the "LinearByCoordinates" package

* + - 1. "LinearByCoordinates" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| LinearByCoordinates | directed | Directed | Whether this linear is directed or not. Default is directed=true | 0..1 | Boolean |
|  | roadName | Road name | Name of the road of which the linear element forms a part. | 0..1 | MultilingualString |
|  | roadNumber | Road number | Identifier/number of the road of which the linear element forms a part. | 0..1 | String |

Table 16— Attributes of the "LinearByCoordinates" package

* + 1. "NetworkManagement" package
       1. "NetworkManagement" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| NetworkManagement | Network management | Network management action which is applicable to the road network and its users. |  | yes |
| RoadOrCarriagewayOrLaneManagement | Road or carriageway or lane management | Road, carriageway or lane management action that is instigated by the network/road operator. |  | no |
| SpeedManagement | Speed management | Speed management action that is instigated by the network/road operator. |  | no |

Table 17— Classes of the "NetworkManagement" package

* + - 1. "NetworkManagement" package association roles

There are no defined association roles in the "NetworkManagement" package.

* + - 1. "NetworkManagement" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| NetworkManagement | complianceOption | Compliance option | Defines whether the network management instruction or the control resulting from a network management action is advisory or mandatory. | 1..1 | ComplianceOptionEnum |
| RoadOrCarriagewayOrLaneManagement | roadOrCarriagewayOrLaneManagementType | Road or carriageway or lane management type | Type of road, carriageway or lane management action instigated by operator. | 1..1 | RoadOrCarriagewayOrLaneManagementTypeEnum |
| SpeedManagement | speedManagementType | Speed management type | Type of speed management action instigated by operator. | 0..1 | SpeedManagementTypeEnum |
| SpeedManagement | temporarySpeedLimit | Temporary speed limit | Temporary limit defining the maximum advisory or mandatory speed of vehicles. | 0..1 | KilometresPerHour |

Table 18— Attributes of the "NetworkManagement" package

* + 1. "Obstruction" package
       1. "Obstruction" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| GeneralObstruction | General obstruction | Any stationary or moving obstacle of a physical nature, other than of an animal, vehicle, environmental, or damaged equipment nature. |  | no |
| Obstruction | Obstruction | Any stationary or moving obstacle of a physical nature (e.g. obstacles or vehicles from an earlier accident, shed loads on carriageway, rock fall, abnormal or dangerous loads, or animals etc.) which could disrupt or endanger traffic. |  | yes |

Table 19— Classes of the "Obstruction" package

* + - 1. "Obstruction" package association roles

There are no defined association roles in the "Obstruction" package.

* + - 1. "Obstruction" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| GeneralObstruction | obstructionType | Obstruction type | Characterization of the type of general obstruction. | 1..\* | ObstructionTypeEnum |

Table 20— Attributes of the "Obstruction" package

* + 1. "OperatorAction" package
       1. "OperatorAction" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| OperatorAction | Operator action | Actions that a traffic operator can decide to implement to prevent or help correct dangerous or poor driving conditions, including maintenance of the road infrastructure. |  | no |

Table 21— Classes of the "OperatorAction" package

* + - 1. "OperatorAction" package association roles

There are no defined association roles in the "OperatorAction" package.

* + - 1. "OperatorAction" package attributes

There are no defined attributes in the "OperatorAction" package.

* + 1. "PayloadPublication" package
       1. "PayloadPublication" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| PayloadPublication | Payload publication | A payload publication of traffic related information or associated management information created at a specific point in time that can be exchanged via a DATEX II interface. |  | no |

Table 22— Classes of the "PayloadPublication" package

* + - 1. "PayloadPublication" package association roles

| **Class name** | **Role name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| PayloadPublication | publicationCreator | Publication creator | An identifier/name whose range is specific to the particular country. | 1..1 | InternationalIdentifier |

Table 23— Associations of the "PayloadPublication" package

* + - 1. "PayloadPublication" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| PayloadPublication | publicationTime | Publication time | Date/time at which the payload publication was created. | 1..1 | DateTime |
| PayloadPublication | lang | Language | The default language used throughout the payload publication. | 1..1 | Language |

Table 24— Attributes of the "PayloadPublication" package

* + 1. "ReusableClasses" package
       1. "ReusableClasses" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| HeaderInformation | Header information | Management information relating to the data contained within a publication. |  | no |
| InternationalIdentifier | International identifier | An identifier/name whose range is specific to the particular country. |  | no |
| Language | Language | A language datatype, identifies a specified language by an ISO 639-1 2-alpha / ISO 639-2 3-alpha code. |  | no |
| Source | Source | Details of the source from which the information was obtained. |  | no |

Table 25— Classes of the "ReusableClasses" package

* + - 1. "ReusableClasses" package association roles

There are no defined association roles in the "ReusableClasses" package.

* + - 1. "ReusableClasses" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| HeaderInformation | confidentiality | Confidentiality | The extent to which the related information may be circulated, according to the recipient type. Recipients must comply with this confidentiality statement. | 1..1 | ConfidentialityValueEnum |
|  | informationStatus | Information status | The status of the related information (real, test, exercise ....). | 1..1 | InformationStatusEnum |
| InternationalIdentifier | country | Country | ISO 3166-1 two character country code. | 1..1 | CountryEnum |
|  | nationalIdentifier | National identifier | Identifier or name unique within the specified country. | 1..1 | String |
| Source | reliable | Reliable | An indication as to whether the source deems the associated information to be reliable/correct. "True" indicates it is deemed reliable. | 0..1 | Boolean |
|  | sourceCountry | Source country | ISO 3166-1 two character country code of the source of the information. | 0..1 | CountryEnum |
|  | sourceIdentification | Source identification | Identifier of the organisation or the traffic equipment which has produced the information relating to this version of the information. | 0..1 | String |
|  | sourceName | Source name | The name of the organisation which has produced the information relating to this version of the information. | 0..1 | MultilingualString |
|  | sourceType | Source type | Information about the technology used for measuring the data or the method used for obtaining qualitative descriptions relating to this version of the information. | 0..1 | SourceTypeEnum |

Table 26— Attributes of the "ReusableClasses" package

* + 1. "Roadworks" package
       1. "Roadworks" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| ConstructionWorks | Construction works | Roadworks involving the construction of new infrastructure. |  | no |
| MaintenanceWorks | Maintenance works | Roadworks involving the maintenance or installation of infrastructure. |  | no |
| Mobility | Mobility | An indication of whether the associated instance of a SituationRecord is mobile (e.g. a march or parade moving along a road) or stationary |  | no |
| Roadworks | Roadworks | Highway maintenance, installation and construction activities that may potentially affect traffic operations. |  | yes |
| Subjects | Subjects | The subjects with which the roadworks are associated. |  | no |

Table 27— Classes of the "Roadworks" package

* + - 1. "Roadworks" package association roles

There are no defined association roles in the "Roadworks" package.

* + - 1. "Roadworks" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| ConstructionWorks | constructionWorkType | Construction work type | The type of construction work being performed. | 0..1 | ConstructionWorkTypeEnum |
| MaintenanceWorks | roadMaintenanceType | Road maintenance type | The type of road maintenance or installation work at the specified location. | 1..\* | RoadMaintenanceTypeEnum |
| Mobility | mobilityType | Mobility type | An indication of whether the associated instance of a SituationRecord is mobile (e.g. a march or parade moving along a road) or stationary | 1..1 | MobilityEnum |
| Roadworks | roadworksDuration | Roadworks duration | Indicates in general terms the expected duration of the roadworks | 0..1 | RoadworksDurationEnum |
| Subjects | subjectTypeOfWorks | Subject type of works | The subject type of the roadworks (i.e. on what the construction or maintenance work is being performed). | 1..1 | SubjectTypeOfWorksEnum |

Table 28— Attributes of the "Roadworks" package

* + 1. "SituationPublication" package
       1. "SituationPublication" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| Situation | Situation | An identifiable instance of a traffic/travel situation comprising one or more traffic/travel circumstances which are linked by one or more causal relationships. Each traffic/travel circumstance is represented by a Situation Record. | versionedIdentifiable | no |
| SituationPublication | Situation publication | A publication containing zero or more traffic/travel situations. |  | no |

Table 29— Classes of the "SituationPublication" package

* + - 1. "SituationPublication" package association roles

There are no defined association roles in the "SituationPublication" package.

* + - 1. "SituationPublication" package attributes

There are no defined attributes in the "SituationPublication" package.

* + 1. "SituationRecord" package
       1. "SituationRecord" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| Comment | Comment | A free text comment with an optional date/time stamp that can be used by the operator to convey un-coded observations/information. |  | no |
| SituationRecord | Situation record | An identifiable versioned instance of a single record/element within a situation. | versionedIdentifiable | yes |

Table 30— Classes of the "SituationRecord" package

* + - 1. "SituationRecord" package association roles

| **Class name** | **Role name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| SituationRecord | generalPublicComment | General public comment | A comment which may be freely distributed to the general public | 0..\* | Comment |

Table 31— Associations of the "SituationRecord" package

* + - 1. "SituationRecord" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| Comment | comment | Comment | A free text comment that can be used by the operator to convey un-coded observations/information. | 1..1 | MultilingualString |
| SituationRecord | probabilityOfOccurrence | Probability of occurrence | An assessment of the degree of likelihood that the reported event will occur. | 1..1 | ProbabilityOfOccurrenceEnum |
|  | situationRecordCreationTime | Situation record creation time | The date/time that the SituationRecord object (the first version of the record) was created by the original supplier. | 1..1 | DateTime |
|  | situationRecordVersionTime | Situation record version time | The date/time that this current version of the SituationRecord within the situation was written into the database of the supplier which is involved in the data exchange. Identity and version of record are defined by the class stereotype implementation. | 1..1 | DateTime |

Table 32— Attributes of the "SituationRecord" package

* + 1. "TrafficElement" package
       1. "TrafficElement" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| TrafficElement | Traffic element | An event which is not planned by the traffic operator, which is affecting, or has the potential to affect traffic flow. |  | yes |

Table 33— Classes of the "TrafficElement" package

* + - 1. "TrafficElement" package association roles

There are no defined association roles in the "TrafficElement" package.

* + - 1. "TrafficElement" package attributes

There are no defined attributes in the "TrafficElement" package.

* + 1. "Validity" package
       1. "Validity" package classes

| **Class name** | **Designation** | **Definition** | **Stereotype** | **Abstract** |
| --- | --- | --- | --- | --- |
| OverallPeriod | Overall period | A continuous or discontinuous period of validity defined by overall bounding start and end times and the possible intersection of valid periods (potentially recurring) with the complement of exception periods (also potentially recurring). |  | no |
| Validity | Validity | Specification of validity, either explicitly or by a validity time period specification which may be discontinuous. |  | no |

Table 34— Classes of the "Validity" package

* + - 1. "Validity" package association roles

| **Class name** | **Role name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| --- | --- | --- | --- | --- | --- |
| Validity | validityTimeSpecification | Validity time specification | A specification of periods of validity defined by overall bounding start and end times and the possible intersection of valid periods with exception periods (exception periods overriding valid periods). | 1..1 | OverallPeriod |

Table 35— Associations of the "Validity" package

* + - 1. "Validity" package attributes

| **Class name** | **Attribute name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| --- | --- | --- | --- | --- | --- |
| OverallPeriod | overallEndTime | Overall end time | End of bounding period of validity defined by date and time. | 0..1 | DateTime |
|  | overallStartTime | Overall start time | Start of bounding period of validity defined by date and time. | 1..1 | DateTime |
| Validity | validityStatus | Validity status | Specification of validity, either explicitly overriding the validity time specification or confirming it. | 1..1 | ValidityStatusEnum |

Table 36— Attributes of the "Validity" package

* 1. Data Dictionary of <<datatypes>> for "RWW Profile"

This clause contains the definitions of all data types which are used in the "RWW Profile".

* + 1. The <<datatype>> "KilometresPerHour"

A measure of speed defined in kilometres per hour.

* + 1. The <<datatype>> "MetresAsFloat"

A measure of distance defined in metres in a floating point format.

* + 1. The <<datatype>> "MetresAsNonNegativeInteger"

A measure of distance defined in metres in a non negative integer format.

* 1. Data Dictionary of <<enumerations>> for “RWW Profile”

This clause contains the definitions of all enumerations which are used in the “RWW Profile”.

* + 1. The <<enumeration>> "AlertCDirectionEnum"

The direction of traffic flow concerned by a situation or traffic data. In ALERT-C the positive (resp. negative) direction corresponds to the positive offset direction within the RDS location table.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| both | Both | Indicates that both directions of traffic flow are affected by the situation or relate to the traffic data. |
| negative | Negative | The direction of traffic flow concerned by a situation or traffic data. In ALERT-C the negative direction corresponds to the negative offset direction within the RDS location table. |
| positive | Positive | The direction of traffic flow concerned by a situation or traffic data. In ALERT-C the positive direction corresponds to the positive offset direction within the RDS location table. |
| unknown | Unknown | Unknown direction. |

Table 37— Values contained in the enumeration "AlertCDirectionEnum"

* + 1. The <<enumeration>> "CarriagewayEnum"

List of descriptors identifying specific carriageway details.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| mainCarriageway | Main carriageway | On the main carriageway. |
| slipRoads | Slip roads | On the slip roads. |

Table 38— Values contained in the enumeration "CarriagewayEnum"

* + 1. The <<enumeration>> "ComplianceOptionEnum"

Types of compliance.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| advisory | Advisory | Advisory compliance. |
| mandatory | Mandatory | Mandatory compliance. |

Table 39— Values contained in the enumeration "ComplianceOptionEnum"

* + 1. The <<enumeration>> "ConfidentialityValueEnum"

Values of confidentiality.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| internalUse | Internal use | For internal use only of the recipient organisation. |
| noRestriction | No restriction | No restriction on usage. |
| restrictedToAuthorities | Restricted to authorities | Restricted for use only by authorities. |
| restrictedToAuthoritiesAndTrafficOperators | Restricted to authorities | Restricted for use only by authorities and traffic operators. |
| restrictedToAuthoritiesTrafficOperatorsAndPublishers | Restricted to authorities traffic operators and publishers | Restricted for use only by authorities, traffic operators and publishers (service providers). |
| restrictedToAuthoritiesTrafficOperatorsAndVms | Restricted to authorities traffic operators and Vms | Restricted for use only by authorities, traffic operators, publishers (service providers) and variable message signs. |

Table 40— Values contained in the enumeration "ConfidentialityValueEnum"

* + 1. The <<enumeration>> "ConstructionWorkTypeEnum"

Types of works relating to construction.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| constructionWork | Construction work | Construction work of a general nature at the specified location. |
| roadImprovementOrUpgrading | Road improvement or upgrading | Construction work associated with improvements to the road or its layout or with it upgrading. |
| roadWideningWork | Road widening work | Road widening work at the specified location. |

Table 41— Values contained in the enumeration "ConstructionWorkTypeEnum"

* + 1. The <<enumeration>> "CountryEnum"

List of countries.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| at | at | Austria |
| de | de | Germany |

Table 42— Values contained in the enumeration "CountryEnum"

* + 1. The <<enumeration>> "InformationStatusEnum"

Status of the related information (i.e. real, test or exercise).

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| real | Real | The information is real. It is not a test or exercise. |
| securityExercise | Security exercise | The information is part of an exercise which is for testing security. |
| technicalExercise | Technical exercise | The information is part of an exercise which includes tests of associated technical subsystems. |
| test | Test | The information is part of a test for checking the exchange of this type of information. |

Table 43— Values contained in the enumeration "InformationStatusEnum"

* + 1. The <<enumeration>> "LaneEnum"

List of descriptors identifying specific lanes.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| allLanesCompleteCarriageway | All lanes complete carriageway | In all lanes of the carriageway. |
| emergencyLane | Emergency lane | In the emergency lane. |
| hardShoulder | Hard shoulder | On the hard shoulder. |
| lane1 | Lane1 | In the first lane numbered from nearest the hard shoulder to central median. |
| lane2 | Lane2 | In the second lane numbered from nearest the hard shoulder to central median. |
| lane3 | Lane3 | In the third lane numbered from nearest the hard shoulder to central median. |
| lane4 | Lane4 | In the fourth lane numbered from nearest the hard shoulder to central median. |
| lane5 | Lane5 | In the fifth lane numbered from nearest the hard shoulder to central median. |
| lane6 | Lane6 | In the sixth lane numbered from nearest the hard shoulder to central median. |
| middleLane | Middle lane | In the middle lane. |
| turningLane | Turning lane | In the turning lane. |

Table 44— Values contained in the enumeration "LaneEnum"

* + 1. The <<enumeration>> "LocationDescriptorEnum"

List of descriptors to help to identify a specific location.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| atTunnelEntryOrExit | At tunnel entry or exit | At entry or exit of tunnel. |
| inTunnel | In tunnel | In tunnel. |
| onBridge | On bridge | On bridge. |
| onTheRoadway | On the roadway | On the roadway. |

Table 45— Values contained in the enumeration "LocationDescriptorEnum"

* + 1. The <<enumeration>> "MobilityEnum"

Types of mobility relating to a situation element defined by a SituationRecord.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| mobile | Mobile | The described element of a situation is moving. |
| stationary | Stationary | The described element of a situation is stationary. |
| unknown | Unknown | The mobility of the described element of a situation is unknown. |

Table 46— Values contained in the enumeration "MobilityEnum"

* + 1. The <<enumeration>> "ObstructionTypeEnum"

Types of obstructions on the roadway.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| other | Other | Other than as defined in this enumeration. |

Table 47— Values contained in the enumeration "ObstructionTypeEnum"

* + 1. The <<enumeration>> "ProbabilityOfOccurrenceEnum"

Levels of confidence that the sender has in the information, ordered {certain, probable, risk of}.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| certain | Certain | The source is completely certain of the occurrence of the situation record version content. |
| probable | Probable | The source has a reasonably high level of confidence of the occurrence of the situation record version content. |
| riskOf | Risk of | The source has a moderate level of confidence of the occurrence of the situation record version content. |

Table 48— Values contained in the enumeration "ProbabilityOfOccurrenceEnum"

* + 1. The <<enumeration>> "RoadMaintenanceTypeEnum"

Types of road maintenance.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| grassCuttingWork | Grass cutting work | Grass cutting work. |
| maintenanceWork | Maintenance work | Maintenance of road, associated infrastructure or equipments. |
| other | Other | Other than as defined in this enumeration. |
| repairWork | Repair work | Repair work to road, associated infrastructure or equipments. |
| resurfacingWork | Resurfacing work | Work associated with relaying or renewal of worn-out road surface (pavement). |
| roadMarkingWork | Road marking work | Striping and repainting of road markings, plus placement or replacement of reflecting studs (cats' eyes). |
| roadworks | Roadworks | Road maintenance or improvement activity of an unspecified nature which may potentially cause traffic disruption. |
| sweepingOfRoad | Sweeping of road | Sweeping of the roadway. |

Table 49— Values contained in the enumeration "RoadMaintenanceTypeEnum"

* + 1. The <<enumeration>> "RoadOrCarriagewayOrLaneManagementTypeEnum"

Management actions relating to road, carriageway or lane usage.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| carriagewayClosures | Carriageway closures | Carriageway closures are in operation at the specified location. |
| singleAlternateLineTraffic | Single alternate line traffic | Traffic is being controlled to move in alternate single lines. This control may be undertaken by traffic lights or flagman. |

Table 50— Values contained in the enumeration "RoadOrCarriagewayOrLaneManagementTypeEnum"

* + 1. The <<enumeration>> "RoadworksDurationEnum"

Expected durations of roadworks in general terms.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| longTerm | Long term | The roadworks are expected to last for a long term ( duration > 6 months) |
| mediumTerm | Medium term | The roadworks are expected to last for a medium term (1 month < duration <= 6 months). |
| shortTerm | Short term | The roadworks are expected to last for a short term ( duration < = 1 month) |

Table 51— Values contained in the enumeration "RoadworksDurationEnum"

* + 1. The <<enumeration>> "SourceTypeEnum"

Type of sources from which situation information may be derived.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| roadAuthorities | Road authorities | A road authority. |
| trafficMonitoringStation | Traffic monitoring station | A station, usually automatic, dedicated to the monitoring of the road network. |

Table 52— Values contained in the enumeration "SourceTypeEnum"

* + 1. The <<enumeration>> "SpeedManagementTypeEnum"

Management actions relating to speed.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| speedRestrictionInOperation | Speed restriction in operation | A speed restriction is in operation. |

Table 53— Values contained in the enumeration "SpeedManagementTypeEnum"

* + 1. The <<enumeration>> "SubjectTypeOfWorksEnum"

Subject types of construction or maintenance work.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| bridge | Bridge | Bridge on, over or under the highway. |
| gantry | Gantry | Gantry over or above the roadway. |
| levelCrossing | Level crossing | Level-crossing or associated equipment. |
| lightingSystem | Lighting system | Road lighting system. |
| noiseProtection | Noise protection | Installations along the roadway designed to reduce road noise in the surrounding environment. |
| road | Road | Road. |
| roadsideDrains | Roadside drains | Roadside drains. |
| roadsideEmbankment | Roadside embankment | Roadside embankment. |
| roadsideEquipment | Roadside equipment | Roadside equipment. |
| tunnel | Tunnel | Road tunnel. |
| waterMain | Water main | Water main under or along the highway. |

Table 54— Values contained in the enumeration "SubjectTypeOfWorksEnum"

* + 1. The <<enumeration>> "TrafficConstrictionTypeEnum"

Types of constriction to which traffic is subjected as a result of an event.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| carriagewayBlocked | Carriageway blocked | The carriageway is totally obstructed in the specified direction due to an unplanned event. |
| lanesBlocked | Lanes blocked | One or more lanes is totally obstructed in the specified direction due to an unplanned event. |
| roadBlocked | Road blocked | The road is totally obstructed, for all vehicles in both directions, due to an unplanned event. |

Table 55— Values contained in the enumeration "TrafficConstrictionTypeEnum"

* + 1. The <<enumeration>> "ValidityStatusEnum"

Values of validity status that can be assigned to a described event, action or item.

| **Enumerated value name** | **Designation** | **Definition** |
| --- | --- | --- |
| active | Active | The described event, action or item is currently active regardless of the definition of the validity time specification. |
| definedByValidityTimeSpec | Defined by validity time spec | The validity status of the described event, action or item is in accordance with the definition of the validity time specification. |
| suspended | Suspended | The described event, action or item is currently suspended, that is inactive, regardless of the definition of the validity time specification. |

Table 56— Values contained in the enumeration "ValidityStatusEnum"

* 1. Alphabetical list of attributes

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Attribute name** | **Class name** | **Designation** | **Definition** | **Multiplicity** | **Type** |
| alertCDirectionCoded | AlertCDirection | ALERT-C direction coded | The direction of traffic flow to which the situation, traffic data or information is related. Positive is in the direction of coding of the road. | 1..1 | AlertCDirectionEnum |
| alertCDirectionNamed | AlertCDirection | ALERT-C direction named | ALERT-C name of a direction e.g. Brussels -> Lille. | 0..1 | MultilingualString |
| alertCDirectionSense | AlertCDirection | ALERT-C direction sense | Indicates for circular routes (i.e. valid only for ring roads) the sense in which navigation should be made from the primary location to the secondary location, to avoid ambiguity. TRUE indicates positive RDS direction, i.e. direction of coding of road. | 0..1 | Boolean |
| alertCLocationCountryCode | AlertCLinear | ALERT-C location country code | EBU country code. | 1..1 | String |
| alertCLocationName | AlertCLocation | ALERT-C location name | Name of ALERT-C location. | 0..1 | MultilingualString |
| alertCLocationTableNumber | AlertCLinear | ALERT-C location table number | Number allocated to an ALERT-C table in a country. Ref. EN ISO 14819-3 for the allocation of a location table number. | 1..1 | String |
| alertCLocationTableVersion | AlertCLinear | ALERT-C location table version | Version number associated with an ALERT-C table reference. | 1..1 | String |
| bearing | PointByCoordinates | Bearing | A bearing at the point measured in degrees (0 - 359). Unless otherwise specified the reference direction corresponding to 0 degrees is North. | 0..1 | NonNegativeInteger |
| carriageway | AffectedCarriagewayAndLanes | Carriageway | Indicates the section of carriageway to which the location relates. | 1..1 | CarriagewayEnum |
| clientIdentification | Exchange | Client identification | In a data exchange process, an identifier of the organisation or group of organisations which receives information from the DATEX II supplier system. | 0..1 | String |
| comment | Comment | Comment | A free text comment that can be used by the operator to convey un-coded observations/information. | 1..1 | MultilingualString |
| complianceOption | NetworkManagement | Compliance option | Defines whether the network management instruction or the control resulting from a network management action is advisory or mandatory. | 1..1 | ComplianceOptionEnum |
| confidentiality | HeaderInformation | Confidentiality | The extent to which the related information may be circulated, according to the recipient type. Recipients must comply with this confidentiality statement. | 1..1 | ConfidentialityValueEnum |
| constructionWorkType | ConstructionWorks | Construction work type | The type of construction work being performed. | 0..1 | ConstructionWorkTypeEnum |
| country | InternationalIdentifier | Country | ISO 3166-1 two character country code. | 1..1 | CountryEnum |
| directed | LinearByCoordinates | Directed | Whether this linear is directed or not. Default is directed=true | 0..1 | Boolean |
| informationStatus | HeaderInformation | Information status | The status of the related information (real, test, exercise ....). | 1..1 | InformationStatusEnum |
| lane | AffectedCarriagewayAndLanes | Lane | Indicates the specific lane to which the location relates. | 0..\* | LaneEnum |
| latitude | PointCoordinates | Latitude | Latitude in decimal degrees using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | Float |
| locationDescriptor | SupplementaryPositionalDescription | Location descriptor | Specifies a descriptor which helps to identify the specific location. | 0..\* | LocationDescriptorEnum |
| longitude | PointCoordinates | Longitude | Longitude in decimal degrees using the European Terrestrial Reference System 1989 (ETRS89). | 1..1 | Float |
| mobilityType | Mobility | Mobility type | An indication of whether the associated instance of a SituationRecord is mobile (e.g. a march or parade moving along a road) or stationary | 1..1 | MobilityEnum |
| nationalIdentifier | InternationalIdentifier | National identifier | Identifier or name unique within the specified country. | 1..1 | String |
| numberOfLanesRestricted | Impact | Number of lanes restricted | The number of normally usable lanes on the carriageway which are now restricted either fully or partially (this may include the hard shoulder if it is normally available for operational use, e.g. in hard shoulder running schemes). | 0..1 | NonNegativeInteger |
| numberOfOperationalLanes | Impact | Number of operational lanes | The number of usable lanes in the specified direction which remain fully operational (this may include the hard shoulder if it is being used as an operational lane). | 0..1 | NonNegativeInteger |
| obstructionType | GeneralObstruction | Obstruction type | Characterization of the type of general obstruction. | 1..\* | ObstructionTypeEnum |
| originalNumberOfLanes | Impact | Original number of lanes | The normal number of usable lanes in the specified direction that the carriageway has before reduction due to roadworks or traffic events. | 0..1 | NonNegativeInteger |
| overallEndTime | OverallPeriod | Overall end time | End of bounding period of validity defined by date and time. | 0..1 | DateTime |
| overallStartTime | OverallPeriod | Overall start time | Start of bounding period of validity defined by date and time. | 1..1 | DateTime |
| probabilityOfOccurrence | SituationRecord | Probability of occurrence | An assessment of the degree of likelihood that the reported event will occur. | 1..1 | ProbabilityOfOccurrenceEnum |
| publicationTime | PayloadPublication | Publication time | Date/time at which the payload publication was created. | 1..1 | DateTime |
| reliable | Source | Reliable | An indication as to whether the source deems the associated information to be reliable/correct. "True" indicates it is deemed reliable. | 0..1 | Boolean |
| roadMaintenanceType | MaintenanceWorks | Road maintenance type | The type of road maintenance or installation work at the specified location. | 1..\* | RoadMaintenanceTypeEnum |
| roadName | LinearByCoordinates | Road name | Name of the road of which the linear element forms a part. | 0..1 | MultilingualString |
| roadNumber | LinearByCoordinates | Road number | Identifier/number of the road of which the linear element forms a part. | 0..1 | String |
| roadOrCarriagewayOrLaneManagementType | RoadOrCarriagewayOrLaneManagement | Road or carriageway or lane management type | Type of road, carriageway or lane management action instigated by operator. | 1..1 | RoadOrCarriagewayOrLaneManagementTypeEnum |
| roadworksDuration | Roadworks | Roadworks duration | Indication of the scale of the roadworks in terms of the traffic disruption they are likely to cause. | 0..1 | RoadworksDurationEnum |
| situationRecordCreationTime | SituationRecord | Situation record creation time | The date/time that the SituationRecord object (the first version of the record) was created by the original supplier. | 1..1 | DateTime |
| situationRecordVersionTime | SituationRecord | Situation record version time | The date/time that this current version of the SituationRecord within the situation was written into the database of the supplier which is involved in the data exchange. Identity and version of record are defined by the class stereotype implementation. | 1..1 | DateTime |
| sourceCountry | Source | Source country | ISO 3166-1 two character country code of the source of the information. | 0..1 | CountryEnum |
| sourceIdentification | Source | Source identification | Identifier of the organisation or the traffic equipment which has produced the information relating to this version of the information. | 0..1 | String |
| sourceName | Source | Source name | The name of the organisation which has produced the information relating to this version of the information. | 0..1 | MultilingualString |
| sourceType | Source | Source type | Information about the technology used for measuring the data or the method used for obtaining qualitative descriptions relating to this version of the information. | 0..1 | SourceTypeEnum |
| subjectTypeOfWorks | Subjects | Subject type of works | The subject type of the roadworks (i.e. on what the construction or maintenance work is being performed). | 1..1 | SubjectTypeOfWorksEnum |
| speedManagementType | SpeedManagement | Speed management type | Type of speed management action instigated by operator. | 0..1 | SpeedManagementTypeEnum |
| temporarySpeedLimit | SpeedManagement | Temporary speed limit | Temporary limit defining the maximum advisory or mandatory speed of vehicles. | 0..1 | KilometresPerHour |
| trafficConstrictionType | Impact | Traffic constriction type | The type of constriction to which traffic is subjected as a result of an event or operator action. | 0..1 | TrafficConstrictionTypeEnum |
| validityStatus | Validity | Validity status | Specification of validity, either explicitly overriding the validity time specification or confirming it. | 1..1 | ValidityStatusEnum |

Table 57- Alphabetical list of attributes

* 1. Alphabetical list of roles

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Role name** | **Class name** | **Designation** | **Definition** | **Multiplicity** | **Target** |
| end | LinearByCoordinates | End | End point of a LinearByCoordinates | 1..1 | PointCoordinates |
| generalPublicComment | SituationRecord | General public comment | A comment which may be freely distributed to the general public | 0..\* | Comment |
| intermediate | LinearByCoordinates | Intermediate | Points of a LinearByCoordinates object that are neither start or end point. | 1..1 | PointCoordinates |
| locationContainedInItinerary | ItineraryByIndexedLocations | Location contained in itinerary | A location contained in an itinerary (i.e. an ordered set of locations defining a route or itinerary). | 0..\* | Location |
| pointByCoordinates | Point | Point by coordinates | A single point defined only by a coordinate set with an optional bearing direction. | 0..1 | PointByCoordinates |
| pointCoordinates | PointByCoordinates | Point coordinates | A pair of coordinates defining the geodetic position of a single point using the European Terrestrial Reference System 1989 (ETRS89). |  | PointCoordinates |
| start | LinearByCoordinates | Start | Start point of a LinearByCoordinates | 1..1 | PointCoordinates |
| validityTimeSpecification | Validity | Validity time specification | A specification of periods of validity defined by overall bounding start and end times and the possible intersection of valid periods with exception periods (exception periods overriding valid periods). | 1..1 | OverallPeriod |

Table 58- Alphabetical list of roles

* 1. Figures



Figure 1: Basic SituationPublication model



Figure 2: SituationRecord types used in the RWW profile



Figure 3: Location referencing in the RWW profile