

Memo: Ediel CIM master data documents From: NMEG (Nordic Market Experts Group) Technical Committee (NTC) To: Those it may concern	 Nordic Market Experts Group
April 9 th , 2024	

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1 Background

NMEG is asked by NBM (Fifty) to draft a set of master data documents. The information will be exchanged from the old Fifty system to the Nordic Market Management System (Nordic MMS).

The request was discussed in NMEG April 11th, 2023, and the conclusion was to try extending the master data documents found in the NBS master data BRS, i.e.

- NEG Party Master Data Document
- Ediel (NEG) Resource (Production Unit) Master Data Document
- Ediel Request Trade Structure Document

In addition, the documents must be extended with requirements from Unicorn.

After discussion in the NMEG Technical Committee (NTC) it was agreed to skip the “Ediel Trade Structure Document” in this project (this document), since it seems to be used for a different purpose than needed by NBM.

Based on the requirements from Unicorn, see [\[1\]](#), “A.4 Market- or Party master data requirements from Unicorn”, it was agreed making three documents with the CIM MktActivityRecord as the root class:

- Party master data
- Resource master data
- Portfolio master data

According to [\[1\]](#), “A.4 Market- or Party master data requirements from Unicorn”, it can look like it is a need for a “Market master data document”. However, after some discussions in NTC, it seems that we don’t need it.

2.2 Ediel CIM Party Master Data Document assembly model

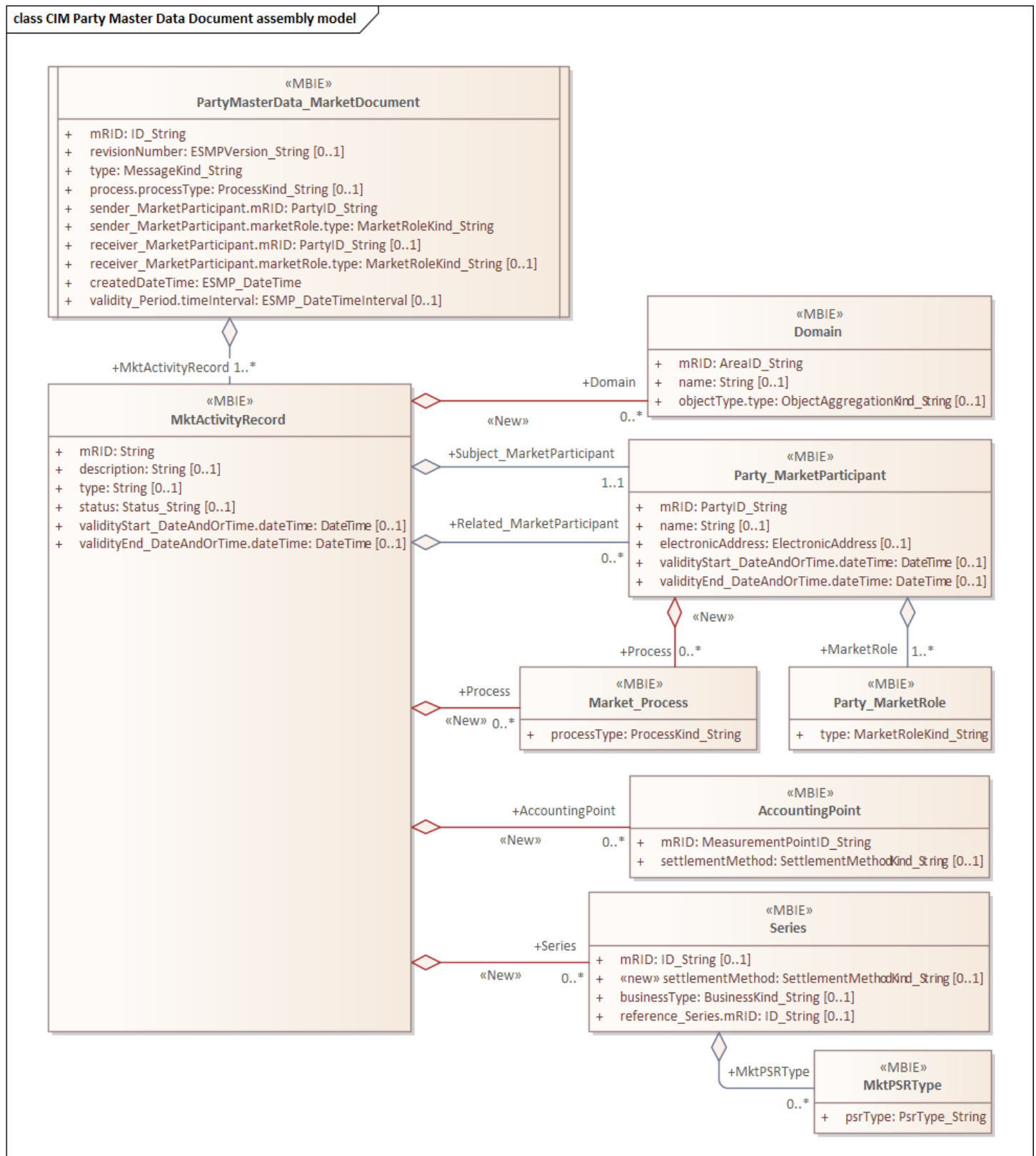


Figure 2: Class diagram: Ediel CIM Party Master Data Document assembly model

2.3 Comments to the Ediel CIM Party Master Data Document:

2.3.1 New attributes and associations needed by NBS (added March 5th, 2024)

- A Series class associated to the MktActivityRecord is added, containing three attributes and two associations to sub-classes:
 - The mRID is currently not used by NBM and NBS.
 - The settlementMethod(s) a party can send in time series, i.e. profiled, non-profiled or “flex settled”.
 - The businessType(s) a party can send in time series.
 - The association to Series, named Reference_Series, is intended used for informing of the MEC ID (Market Entity Connection Identification) in the mRID attribute.
 - The association to MktPSRType, named MktPSRType, is intended used for the Asset Types the party in question is responsible for.

2.3.2 Needed changes to ESMP and IEC 62325 (need for MRs):

- Add an association from MktActivityRecord to Domain in both TC57CIM/Market and in ESMP
- Add an association from MktActivityRecord to MarketEvaluationPoint in ESMP, or change the direction of the already existing association from MarketEvaluationPoint to MktActivityRecord
- Add an association from MktActivityRecord to TimeSeries (or Series) in both TC57CIM/Market and in ESMP
- Change the cardinality of the association from MktActivityRecord to Process to [0..*] in ESMP
- Add an association from MarketParticipant to DateAndOrTime in both TC57CIM/Market and in ESMP
- Add an association from MarketParticipant to Process in both TC57CIM/Market and in ESMP

2.4 Mapping to NBS Party master data document and Unicorn class diagram

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
mRID	[1]	Document Identification	Not applicable	Unique identification of the document
revisionNumber	[0..1]		Not applicable	
type	[1]	Document Type	Not applicable	<p><i>Message Type enumeration:</i></p> <p>Z12 Request change of retailer consumption master data</p> <p>Z20 Retailer consumption master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p>Z21 Retailer consumption master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p>Z18 Party Relation Master Data Document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p>Z19 Party Relation Master Data Document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive)</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • Z12 is used for requests (create and update) to Imbalance Settlement Responsible. • Z18, Z19, Z20 and Z21 are used for reporting from Imbalance Settlement Responsible.
Process.processType	[0..1]	Process Type	Not applicable	<p><i>Process Type enumeration:</i></p> <p>A55 Exchange of Master data</p>
Sender_MarketParticipant. mRID	[1]	Sender Identification	Not applicable	Identification of the party who is sending the document (and Coding Scheme).
Sender_MarketParticipant. MarketRole.type	[1]	Sender Role	Not applicable	<p><i>Role Type enumeration:</i></p> <p>A05 Imbalance settlement responsible</p> <p>A26 Metering Point Administrator (DSO)</p>

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
Receiver_MarketParticipant.mRID	[0..1]	Receiver Identification	Not applicable	Identification of the party who is receiving the master data (and Coding Scheme) <i>Business rules:</i> <ul style="list-style-type: none"> Required unless used for “broadcast” (same document to several recipients).
Receiver_MarketParticipant.MarketRole.type	[0..1]	Receiver Role	Not applicable	<i>Role Type enumeration:</i> A05 Imbalance Settlement Responsible A08 Balance Responsible Party A26 Metering Point Administrator (DSO) <i>Business rules:</i> <ul style="list-style-type: none"> Required unless used for “broadcast” (same document to several recipients)
createdDateTime	[1]	Creation Date Time	Not applicable	Date and time for creation of the document
Validity_Period.timeInterval	[0..1]	Validity Time Interval	Not applicable	The period for which this Party Master Data document details are valid.
MktActivityRecord	[1..*]	Party details	BSP	Business rules for Party Details when sending request for structure change to eSett: <ul style="list-style-type: none"> One Party Details represents one request There cannot be more than one Party Details with the same object identification present in one file (multiple requests for more than one Subject Party will be rejected)
mRID	[1]	Not applicable	Not applicable	Unique ID of this transaction.
description	[0..1]			

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
type	[0..1]	Business Type	Not applicable	<i>Business Type enumeration:</i> A01 Production A04 Consumption (general consumption) A07 Net production/ consumption (combined pumped storage) A15 Losses A72 Interruptible Consumption B27 Pumped B28 Large installation consumption B29 MGA imbalance B36 Production Units own consumption (Only used in Finland)
status	[0..1]	Status	Not applicable	<i>Status Type enumeration:</i> A14 Creation A15 Update <i>Business rules:</i> <ul style="list-style-type: none"> Only used when requesting a creation or update of an object. Not used for information notifications.
Domain	[0..*]			
mRID	[1]	Metering Grid Area Id.	BSP/BSP portfolio/ Bidding zone/mRID or TSO/Bidding zone/mRID	Unique ID of the MGA or BZ (and Coding Scheme)
name	[0..1]		BSP/BSP portfolio/ Bidding zone/name or TSO/Bidding zone/name	Not Used
ObjectType.type	[0..1]	Type of Area		<i>Object Aggregation Type enumeration:</i> A12 Bidding Zone (BZ) A14 Metering Grid Area (MGA)
ValidityStart_DateAndOrTime. dateTime	[0..1]	Not applicable	Not applicable	The validity start date and time for this transaction.

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
ValidityEnd_DateAndOrTime. dateTime	[0..1]	Not applicable	Not applicable	The validity end date and time for this transaction.
Subject_MarketParticipant	[1]			
mRID	[1]	Subject Party	BSP/Party/mRID	Unique ID of the Party in question (and Coding Scheme).
MarketRole	[1..*]			
type	[1]	Subject Party Role	BSP (class name)	<i>Role Type enumeration:</i> A08 Balance Responsible Party A12 Energy Supplier (Retailer)
name	[1..*]	Not applicable	BSP/Party/Name	Unique ID of the Party in question (and Coding Scheme).
electronicAddress. email1	[0..1]	Not applicable	BSP/Party/ECP endpoint+ EDX service+ Allowed email domains	
ValidityStart_DateAndOrTime. dateTime	[0..1]	Validity Start	BSP/Party/Validity	The validity start date and time for this market participant. <i>Business rules:</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, with one exception; The Validity End can be extended to “unlimited” (i.e. no Validity End) by sending a Party Detail with Status = “A15 Update” and no Validity Start or Validity End.
ValidityEnd_DateAndOrTime. dateTime	[0..1]	Validity End		The validity end date and time for this market participant. <i>Business rules:</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, with one exception; The Validity End can be extended to “unlimited” (i.e. no Validity End) by sending a Party Detail with Status = “A15 Update” and no Validity Start or Validity End.
Process	[1..*]			

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
processType	[1]	Not applicable	BSP/Party agents/Market1	Unique ID of the Party in question (and Coding Scheme).
Related_MarketParticipant	[0..*]			
mRID	[0..*]	Related Party	TSO/Party/mRID	Unique ID of the Party in question (and Coding Scheme).
MarketRole	[1..*]			
type	[1..*]	Related Party Role	TSO (class name)	<i>Role Type enumeration:</i> A08 Balance Responsible Party A12 Energy Supplier (Retailer)
name	[1..*]	Not applicable	TSO/Party/Name	
electronicAddress.email1	[0..1]	Not applicable	TSO/Party/ECP endpoint+ EDX service+ Allowed email domains	
ValidityStart_DateAndOrTime.dateTime	[0..1]	Validity Start	TSO/Party/Validity	Date Time <i>Business rules:</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, with one exception; The Validity End can be extended to “unlimited” (i.e. no Validity End) by sending a Party Detail with Status = “A15 Update” and no Validity Start or Validity End.
ValidityEnd_DateAndOrTime.dateTime	[0..1]	Validity End		Date Time <i>Business rules:</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, with one exception; The Validity End can be extended to “unlimited” (i.e. no Validity End) by sending a Party Detail with Status = “A15 Update” and no Validity Start or Validity End.
Process	[1..*]			

¹ The Market class from Unicorn consist of mRID, Name, Validity and association to BSP portfolio

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
processType	[1..*]	Not applicable	TSO/Party agents/Market ²	
Series	[0..*]			
mRID	[0..1]	Reference (MEC)	Not applicable	Reference to a set of "Party Details" ³
settlementMethod	[0..1]	Settlement Method	Not applicable	<i>Settlement Method Type enumeration:</i> E01 Profiled E02 Non-profiled E15 Non-profiled with special rules (Flex settled)
businessType	[0..1]	Business Type	Not applicable	<i>Business Type Type enumeration:</i> A01 Production A04 Consumption (general consumption) A07 Net production/ consumption (combined pumped storage) A15 Losses A72 Interruptible Consumption B27 Pumped B28 Large installation consumption B29 MGA imbalance B36 Production Units own consumption (Only used in Finland)
Series/ MktPSRType	[0..1]			
psrType	[1]	Asset Type	Not applicable	
Process	[0..1]			
Process.processType	[1]	Not applicable	Not applicable	
AccountingPoint	[0..1]			
mRID	[1]	Not applicable	Not applicable	

² The Market class from Unicorn consist of mRID, Name, Validity and association to BSP portfolio, however this is probably not relevant information to exchange in the market (?)

³ MEC (Market Entity Connection) ID. The element is only used if an entity has several MEC IDs and the MEC ID is needed to identify the correct MEC.

Class/attribute				Code and description
Ediel CIM Party Master Data Document		NBS Party master data document	Unicorn class diagram	Usage in NBS Party master data document
settlementMethod	[0..1]	Not applicable	Not applicable	<i>Settlement Method Type enumeration:</i> E01 Profiled E02 Non-profiled E15 Non-profiled with special rules (Flex settled)

3 Ediel CIM Portfolio Master Data Document

3.1 Ediel CIM Portfolio Master Data Document contextual model

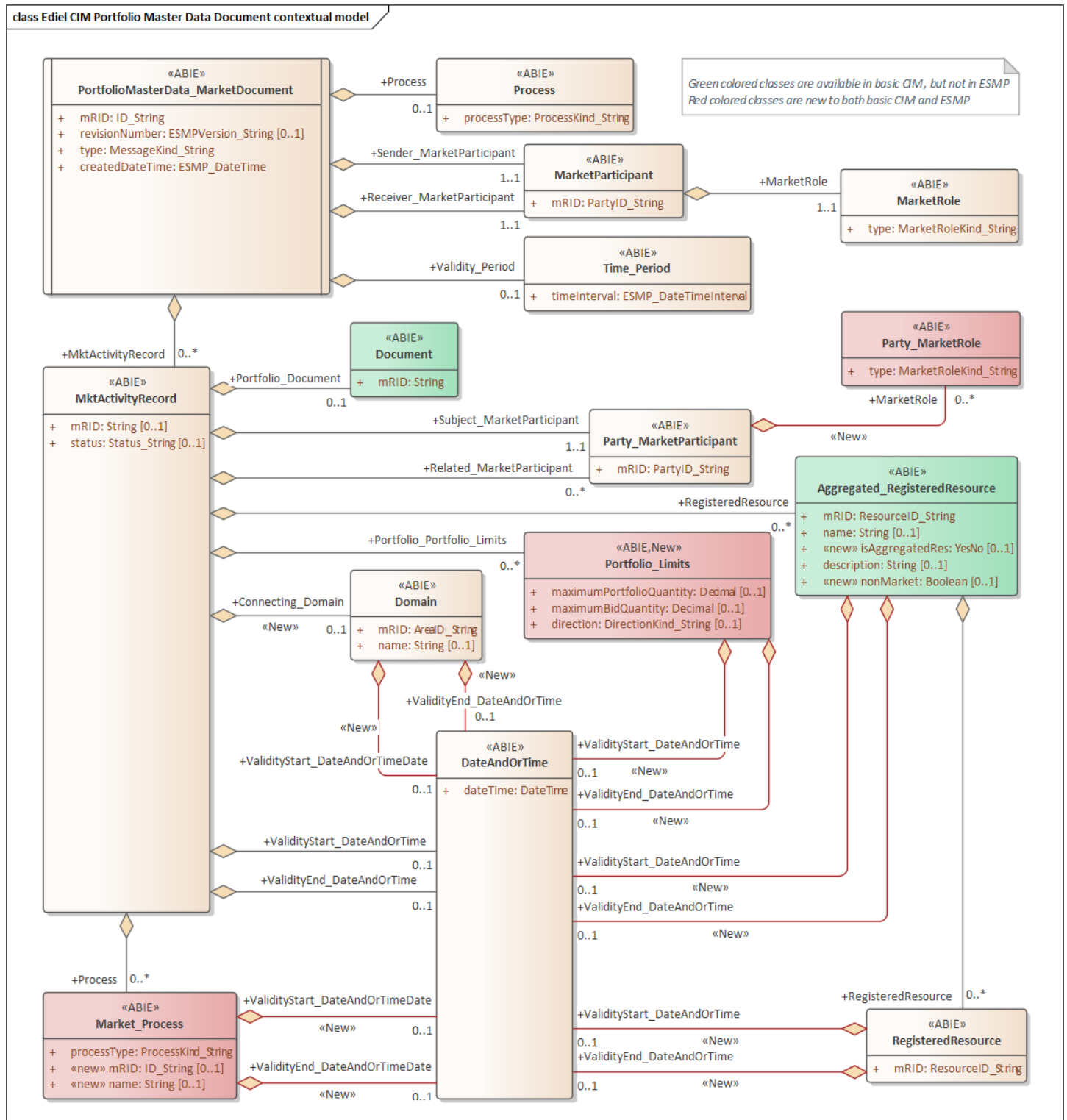


Figure 3: Class diagram: Ediel CIM Portfolio Master Data Document Contextual model

3.1.1 Needed changes to ESMP and IEC 62325 (need for MRs):

- Addition of a new class Portfolio_Limits
 - We must make a MR for addition of the new class in both IEC/62325 and ESMP.
- Extension of the ESMP RegisteredResource class:
 - Addition of the attribute nonMarket (Boolean)
 - The attribute is present in the IEC62325/MarketCommon/RegisteredResource class
 - This attributed will be used for the Resource membership/Active attribute from Unicorn.
 - Addition of the attribute isAggregatedRes (Boolean or YesNo?)
 - The attribute is present in the IEC62325/MarketCommon/RegisteredResource class
 - Will be used to tell if the associated RegisteredResource class is present or not.
 - Addition of an association from RegisteredResource to itself named Aggregated_RegisteredResource:
 - There is already an association from RegisteredResource to itself named AggregatedRegisteredResource in the IEC62325/MarketCommon package, hence we need the association from RegisteredResource to itself only in ESMP
- Extension of the ESMP Process class
 - Addition of the two attributes mRID (ID_String) and name (String) – none of these are present in IEC62325/ MarketManagement/Process class
- Addition of associations
 - From MktActivityRecord to Portfolio_Limits
 - From MktActivityRecord to Domain
 - From MktActivityRecord to Aggregated_RegisteredResource
 - From Domain to DateAndOrTime
 - From RegisteredResource to DateAndOrTime
 - From Process to DateAndOrTime
- Change the cardinality of the association from MktActivityRecord to Process to [0..*]

3.2 Ediel CIM Portfolio Master Data Document assembly model

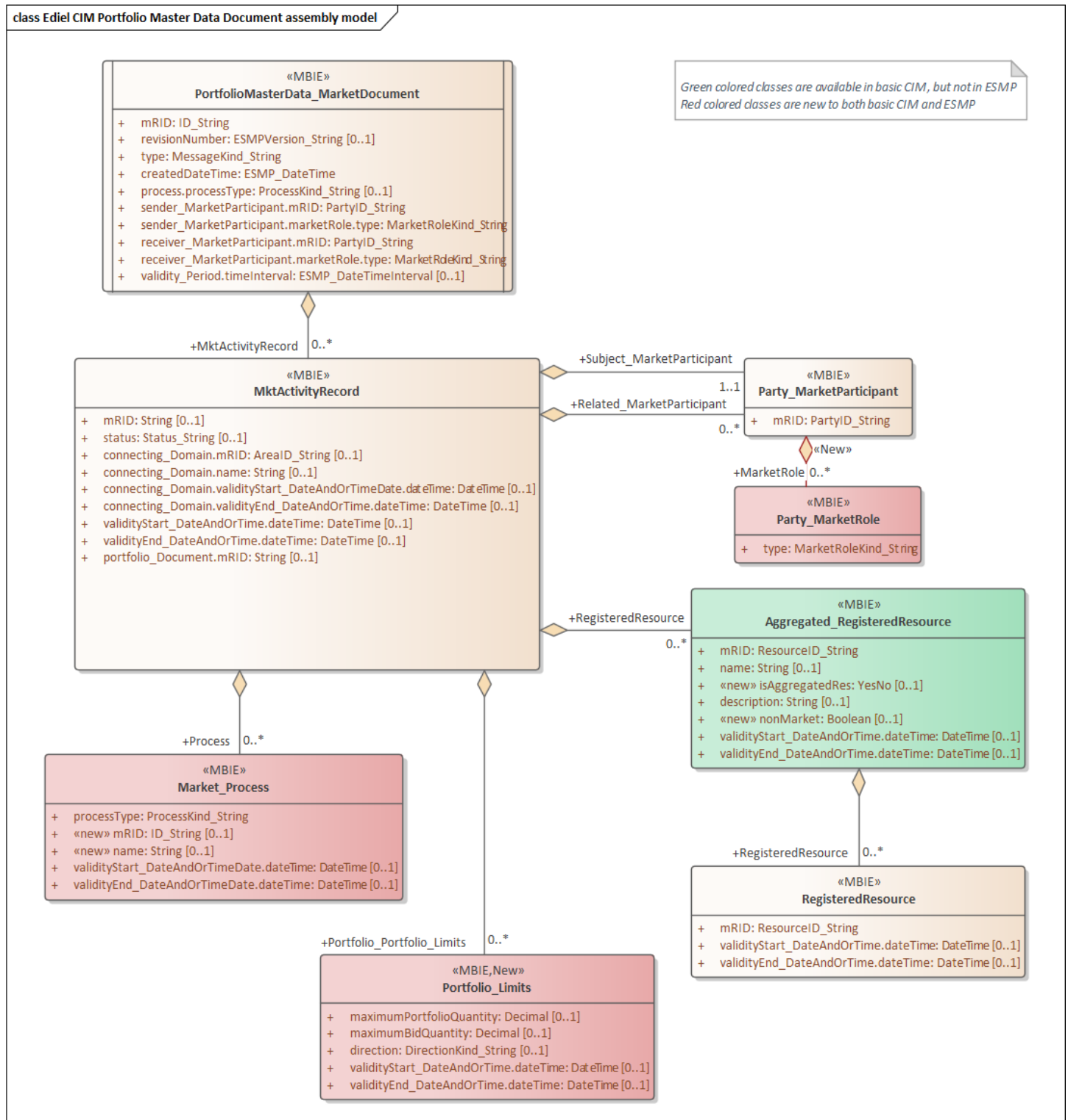


Figure 4: Class diagram: Ediel CIM Portfolio Master Data Document assembly model

4 Ediel CIM Resource Master Data Document

4.1 Ediel CIM Resource Master Data Document contextual model

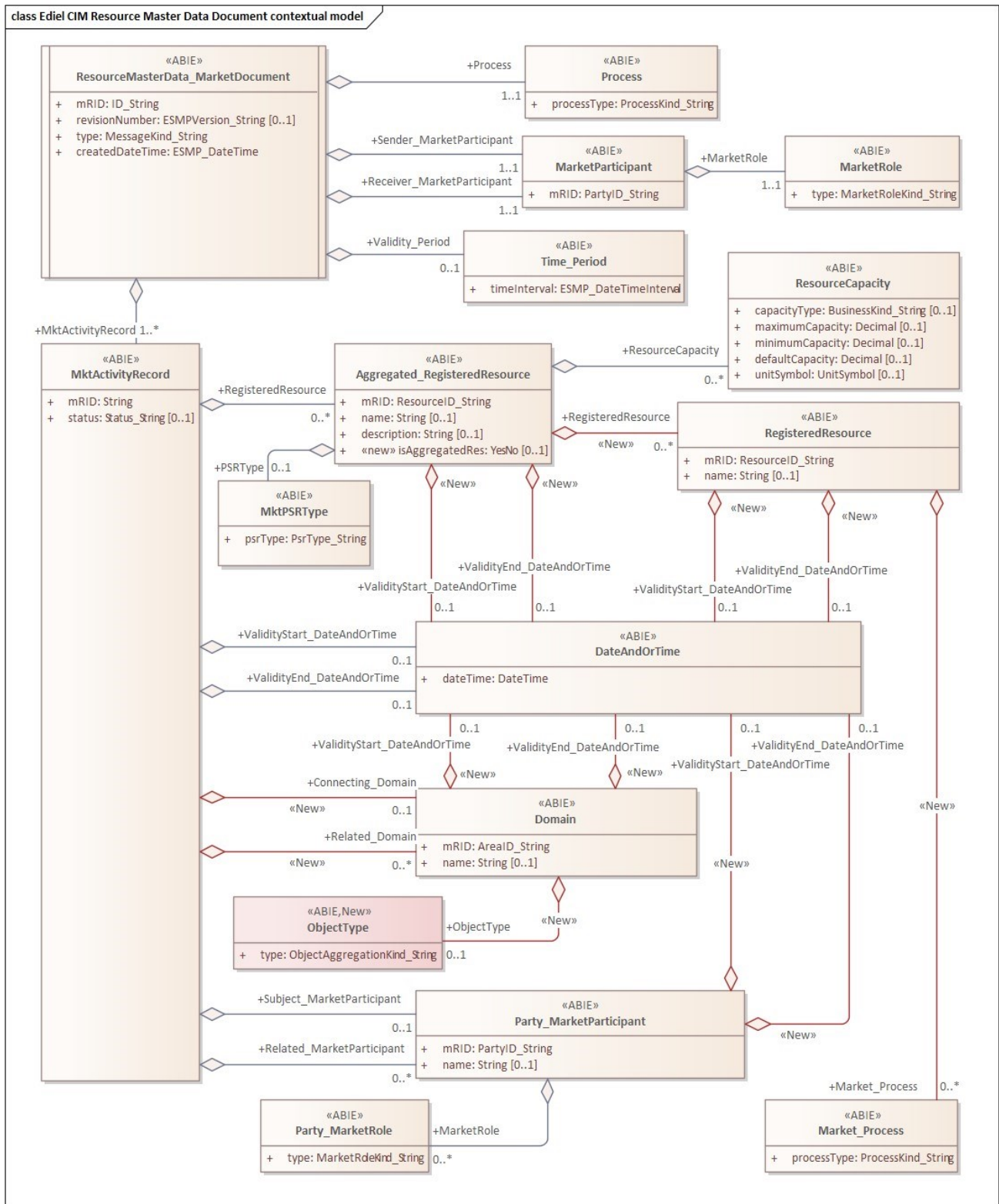


Figure 5: Class diagram: Ediel CIM Resource Master Data Document Contextual model

4.2 Ediel CIM Resource Master Data Document assembly model

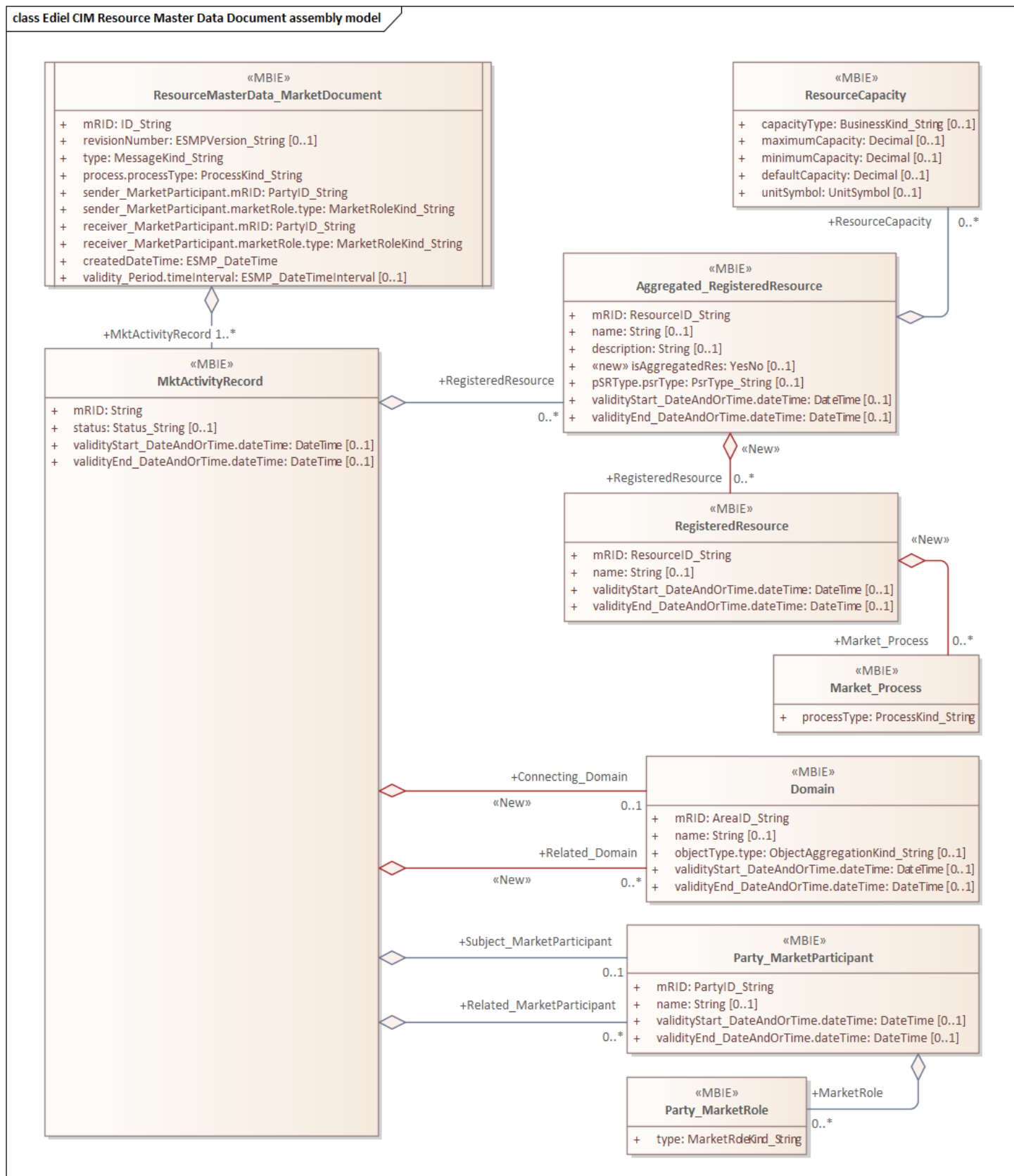


Figure 6: Class diagram: Ediel CIM Resource Master Data Document assembly model

4.3 Comments to the Ediel CIM Resource Master Data Document:

4.3.1 New attributes and associations needed by NBS (added March 5th, 2024)

- An ObjectType class is added, containing the attribute: type. The ObjectType class is associated to the Domain class and is used for telling the type of Domain.

4.3.2 Needed changes to ESMP and CIM/Market (IEC 62325) (need for MRs):

- Add an association from MktActivityRecord to Domain in both TC57CIM/Market and in ESMP
- Add the class ObjectType and the association from Domain to ObjectType in ESMP (the class and association are already present in TC57CIM/IEC61970/Base/Core)
- Add an association from Domain to TimeSeries (or Series) in both TC57CIM/Market and in ESMP
- Add an association from Domain to DateAndOrTime in both TC57CIM/Market and in ESMP
- Add an association from RegisteredResource to DateAndOrTime in both TC57CIM/Market and in ESMP
- Add an association from RegisteredResource to itself named AggregatedRegisteredResource in ESMP (already present in CIM/Market)
- Add an association from MarketParticipant to DateAndOrTime in both TC57CIM/Market and in ESMP
- Add an association from RegisteredResource to Process in both TC57CIM/Market and in ESMP
- Add the isAggregatedRes attribute to RegisteredResource in ESMP (already present in CIM/Market)

4.4 Mapping to NBS Resource master data document and Unicorn class diagram

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
mRID	[1]	Document Identification		Unique identification of the document
revisionNumber	[0..1]			Not used
type	[1]	Document Type		<p><i>Message Type enumeration:</i></p> <ul style="list-style-type: none"> Z13 Request change of Resource master data Z16 Generator Group Relations document Z22 Resource master data document containing master data changed within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) Z23 Resource master data document containing all valid master data within the Validity Time Interval (Start date/time inclusive and End date/time exclusive) Z30 Request change of Generator Group (Regulation Object) relations Z31 Production Plan Structure – valid for the whole time-interval Z32 Production Plan Structure – having a start or end within the validity period <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • Z13 is used for requests (create, update and deactivate) to Imbalance Settlement Responsible • Z16 is only used for updates of BRP and/or Bidding Zone. • <i>Resource (Production Unit):</i> <ul style="list-style-type: none"> ○ Z22 and Z23 are used for reporting from Imbalance Settlement Responsible • <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> ○ Z22 and Z23 contains a list of all “MACs” identifying production plans and are only sent to the System Operators. The documents are without the Generator Group and Generator relations.

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
Process.processType	[1]	Process Type		<i>Process Type enumeration:</i> A55 Exchange of Master data
Sender_MarketParticipant. mRID	[1]	Sender Identification		Identification of the party who is sending the document (and Coding Scheme).
Sender_MarketParticipant. MarketRole.type	[1]	Sender Role		<i>Role Type enumeration:</i> A05 Imbalance settlement responsible A08 Balance Responsible Party A26 Metering Point Administrator (DSO)
Receiver_MarketParticipant. mRID	[1]	Receiver Identification		Identification of the party who is receiving the master data (and Coding Scheme)
Receiver_MarketParticipant. MarketRole.type	[1]	Receiver Role		<i>Role Type enumeration:</i> A05 Imbalance Settlement Responsible A08 Balance Responsible Party A26 Metering Point Administrator (DSO)
createdDateTime	[1]	Creation Date Time		Date and time for creation of the document
Validity_Period. timeInterval	[0..1]			The period for which this Resource Master Data document details are valid.
MktActivityRecord	[1..*]	Resource Object Details		<i>Business rules for Resource Details when sending request for structure change:</i> <ul style="list-style-type: none"> • One Resource Details represents one request • There cannot be more than one Resource Details with the same object identification present in one xml file (multiple requests for more than one Production Unit will be rejected) <i>Business rules for Resource Details when distributed from Imbalance Settlement Responsible:</i> <ul style="list-style-type: none"> • Resource Details will repeat for each change of a time-dependent attribute • Resource Details contain all attributes
mRID	[1]			Unique ID of this transaction

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
RegisteredResource	[0..*]			
mRID	[1]	Resource Object Identification		Unique ID of the Resource (Generator Group) in question
name	[0..1]	Resource Object Name		Name of the Resource (Generator Group) in clear text <i>Business rules:</i> <ul style="list-style-type: none"> Resource Name and Asset Type for Production Units are not time-dependent, hence Validity Start and Validity End are NOT used when updating these attributes.
description	[0..1]			Not Used
isAggregatedRes	[0..1]	Object Aggregation		<i>Boolean:</i> True False If "True", a Generator group is assumed.

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
pSRType.psrType	[0..1]	Asset Type		<p><i>Asset Type enumeration:</i></p> <p>A05 Load (replaces Z07) B14 Nuclear B16 Solar B18 Wind offshore B19 Wind onshore (replaces Z05) B20 Other production B25 Energy storage B31 Hydro unspecified (replaces Z06) B37 Thermal unspecified (replaces Z04) Z04 Thermal Z05 Wind Z06 Hydro Z07 Consumption</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Resource Name and Asset Type for Production Units are not time dependent, hence Validity Start and Validity End are NOT used when updating these attributes. Not required when updating Resource (Production Units)
ResourceCapacity	[0..*]			
capacityType	[0..1]	Production Type		<p><i>Business Type enumeration:</i></p> <p>Z01 Normal Z02 Minor</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> Production Type is only used for creation of Production Units and for structure information sent from Imbalance Settlement Responsible to Market Parties, i.e. the Production Type cannot be changed
maximumCapacity	[0..1]			Not Used
minimumCapacity	[0..1]			Not Used

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
defaultCapacity	[0..1]	Capacity		Capacity of the Resource <i>Business rules:</i> <ul style="list-style-type: none"> Not used for Generator Groups
unitSymbol	[0..1]	Measure Unit		<i>Unit of Measure Type enumeration:</i> MAW Megawatt <i>Business rules:</i> <ul style="list-style-type: none"> Not used for Generator Groups
validityStart_DateAndOrTime.dateTime	[0..1]	Validity Start		<i>Resource (Production Unit):</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, except for Status = “A15 Update”, for not time-dependent attributes (Resource Name and Asset Type) <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present.
validityStart_DateAndOrTime.dateTime	[0..1]	Validity End		<i>Resource (Production Unit):</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present, except for Status = “A15 Update”, for not time-dependent attributes (Resource Name and Asset Type) <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present.
RegisteredResource	[0..*]	Related Resource Object		<i>Business rules:</i> <ul style="list-style-type: none"> Only used for “Generator Group – Generator Relations”, i.e. Document Type Z30
mRID	[1]	Resource Object Identification		Unique ID of the Resource (Generator) in question
name	[0..1]			Not Used
Market_Process	[0..*]			
processType	[1]			Not Used
validityStart_DateAndOrTime.dateTime	[0..1]			Not Used
validityStart_DateAndOrTime.dateTime	[0..1]			Not Used

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
status	[0..1]	Status		<p><i>Status Type enumeration:</i></p> <p>A14 Creation A15 Update A16 Deactivation</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • Only used when requesting a change to an object. Not used for information notifications • Deactivation is used to remove a linked party (Supplier, Retailer or Balance Responsible Party) from a Resource. To reactivate a deactivation, A15 Update is used • For “A14 Creation”, all time-dependent attributes have the same validity as the Production Unit • An “A14 Creation” for a Resource already crated, will be rejected • An “A15 Update”, for a not existing Resource, will be rejected • An “A16 Deactivation”, for an already deactivated Resource, will be rejected
validityStart_DateAndOrTime.dateTime	[0..1]	Validity Start		<p>Date Time</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • At least one of Validity Start or Validity End must be present, except for Status = “A15 Update”, for not time-dependent attributes (Resource Name and Asset Type)
validityEnd_DateAndOrTime.dateTime	[0..1]	Validity End		<p>Date Time</p> <p><i>Business rules:</i></p> <ul style="list-style-type: none"> • At least one of Validity Start or Validity End must be present, except for Status “A15 Update” for not time-dependent attributes (Resource Name and Asset Type)
Connecting_Domain	[0..1]			
mRID	[1]			Not Used
name	[0..1]			Not Used
objectType.type	[0..1]			Not Used

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
validityStart_DateAndOrTime.dateTime	[0..1]			Not Used
validityStart_DateAndOrTime.dateTime	[0..1]			Not Used
Related_Domain	[0..1]	Related Area		<i>Business rules:</i> <ul style="list-style-type: none"> • Required for Generators • Required for Generator Groups in Sweden • May be repeated if a Generator or a Generator group covers more than one area • Related Area is only used for creation of Production Units and for structure information sent from Imbalance Settlement Responsible to Market Parties, i.e. the Related Area cannot be changed
mRID	[1]	Area Identification		Unique ID of the MGA or BZ (and Coding Scheme)
name	[0..1]			Not Used
objectType.type	[0..1]	Type of Area		<i>Object Aggregation Type enumeration:</i> A12 Bidding Zone (BZ) A14 Metering Grid Area (MGA)
validityStart_DateAndOrTime.dateTime	[0..1]	Validity Start		<i>Resource (Production Unit):</i> <ul style="list-style-type: none"> • Not Used <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> • At least one of Validity Start or Validity End must be present.
validityStart_DateAndOrTime.dateTime	[0..1]	Validity End		<i>Resource (Production Unit):</i> <ul style="list-style-type: none"> • Not Used <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> • At least one of Validity Start or Validity End must be present.
Subject_MarketParticipant	[0..1]	Party Details		
mRID	[1]	Subject Party		Unique ID of the Retailer or Balance Responsible Party in question (and codingScheme)
name	[0..1]			Not Used

Class/attribute				Code and description
Ediel CIM Resource Master Data Document	Card.	NBS Resource master data document	Unicorn class diagram	Usage in NBS Resource master data document
MarketRole	[0..*]			
type	[1]	Subject Party Role		<i>Role Type enumeration:</i> A08 Balance Responsible Party A12 Energy Supplier
validityStart_DateAndOrTime.dateTime	[0..1]	Validity Start		<i>Resource (Production Unit):</i> <ul style="list-style-type: none"> Not Used <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present.
validityStart_DateAndOrTime.dateTime	[0..1]	Validity End		<i>Resource (Production Unit):</i> <ul style="list-style-type: none"> Not Used <i>Resource Object (Generator Group Relations):</i> <ul style="list-style-type: none"> At least one of Validity Start or Validity End must be present.
Related_MarketParticipant	[0..*]			
mRID	[1]			Not Used
name	[0..1]			Not Used
MarketRole	[0..*]			
type	[1]			Not Used
validityStart_DateAndOrTime.dateTime	[0..1]			Not Used
validityStart_DateAndOrTime.dateTime	[0..1]			Not Used

Appendix A NMEG and Unicorn requirements

A.1 NEG Party Master Data Document

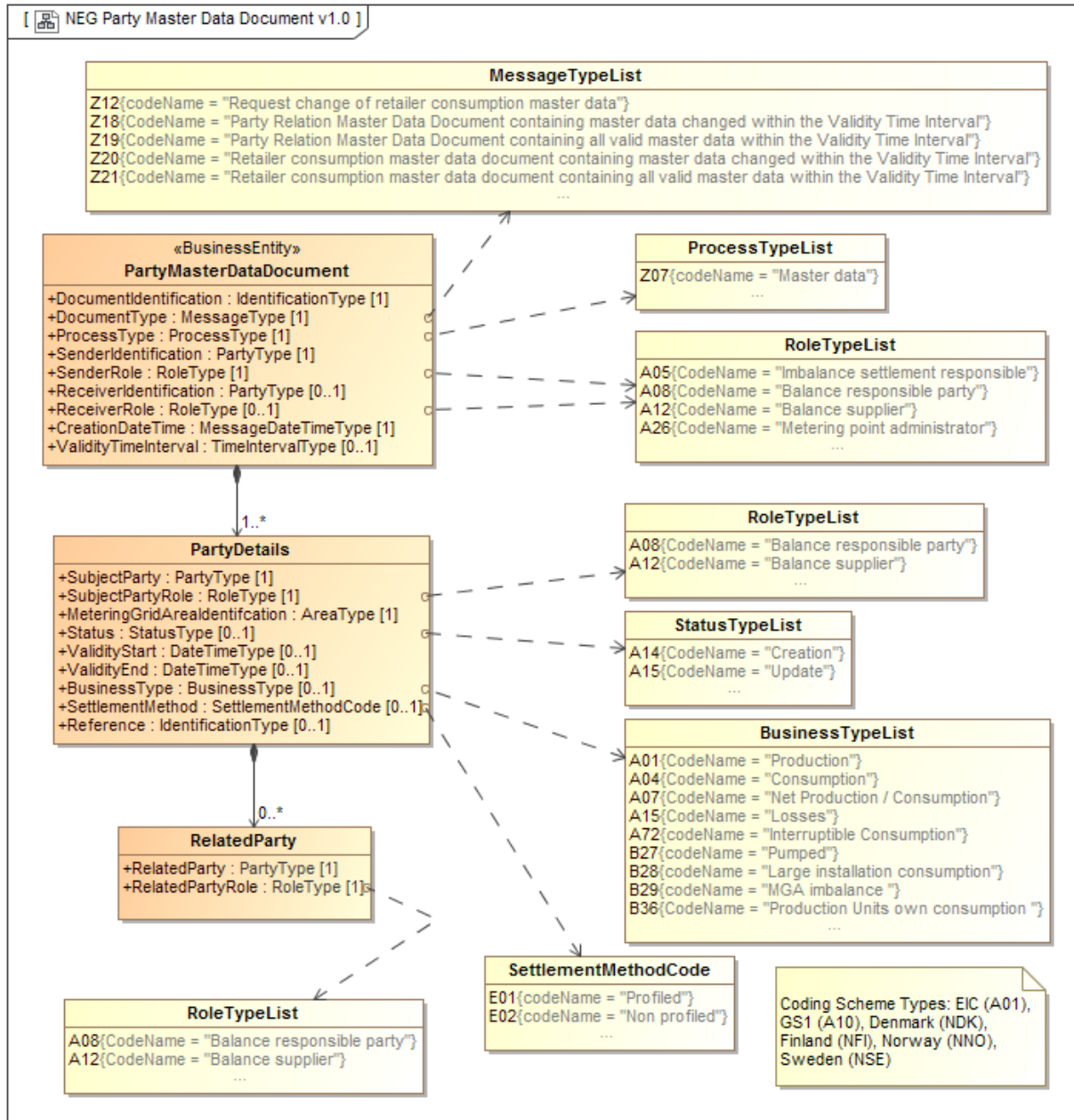


Figure 7: Class diagram: NEG Party Master Data Document

A.2 Ediel (NEG) Resource (Production Unit) Master Data Document

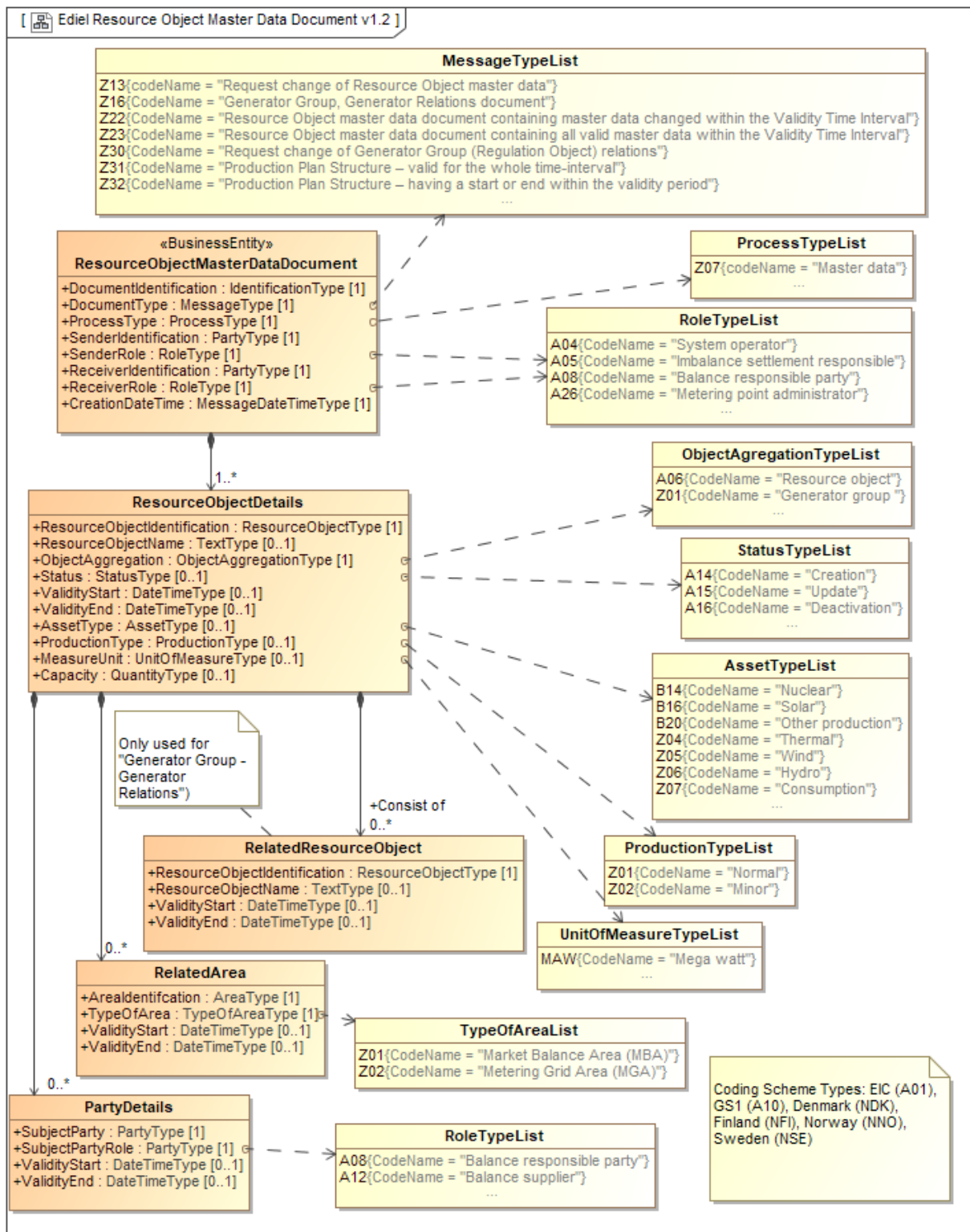


Figure 8: Class diagram: Ediel (NEG) Resource (Production Unit) Master Data Document

A.3 Ediel Request Trade Structure Document

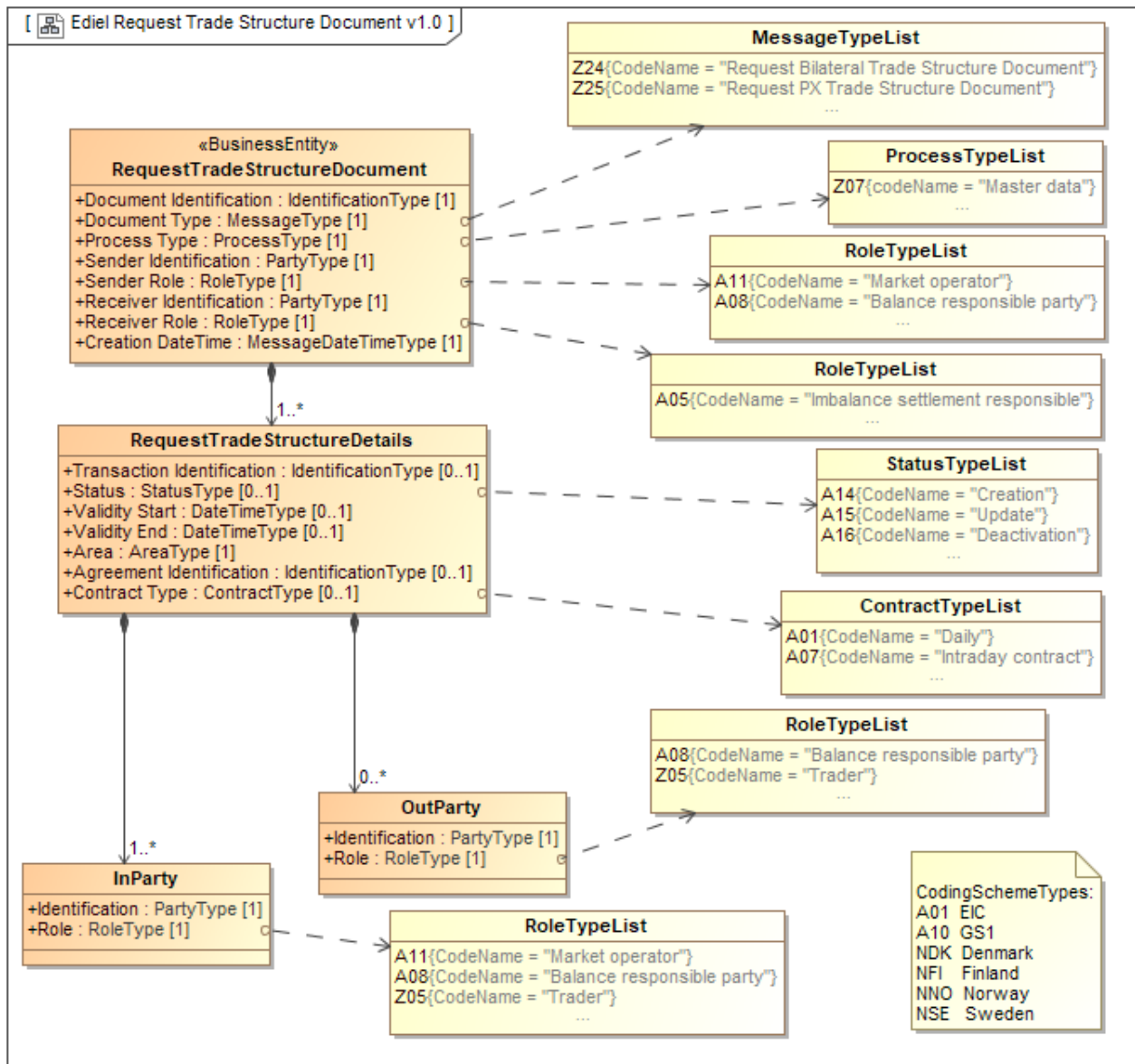


Figure 9: Class diagram: Ediel Request Trade Structure Document

A.4 Market- or Party master data requirements from Unicorn

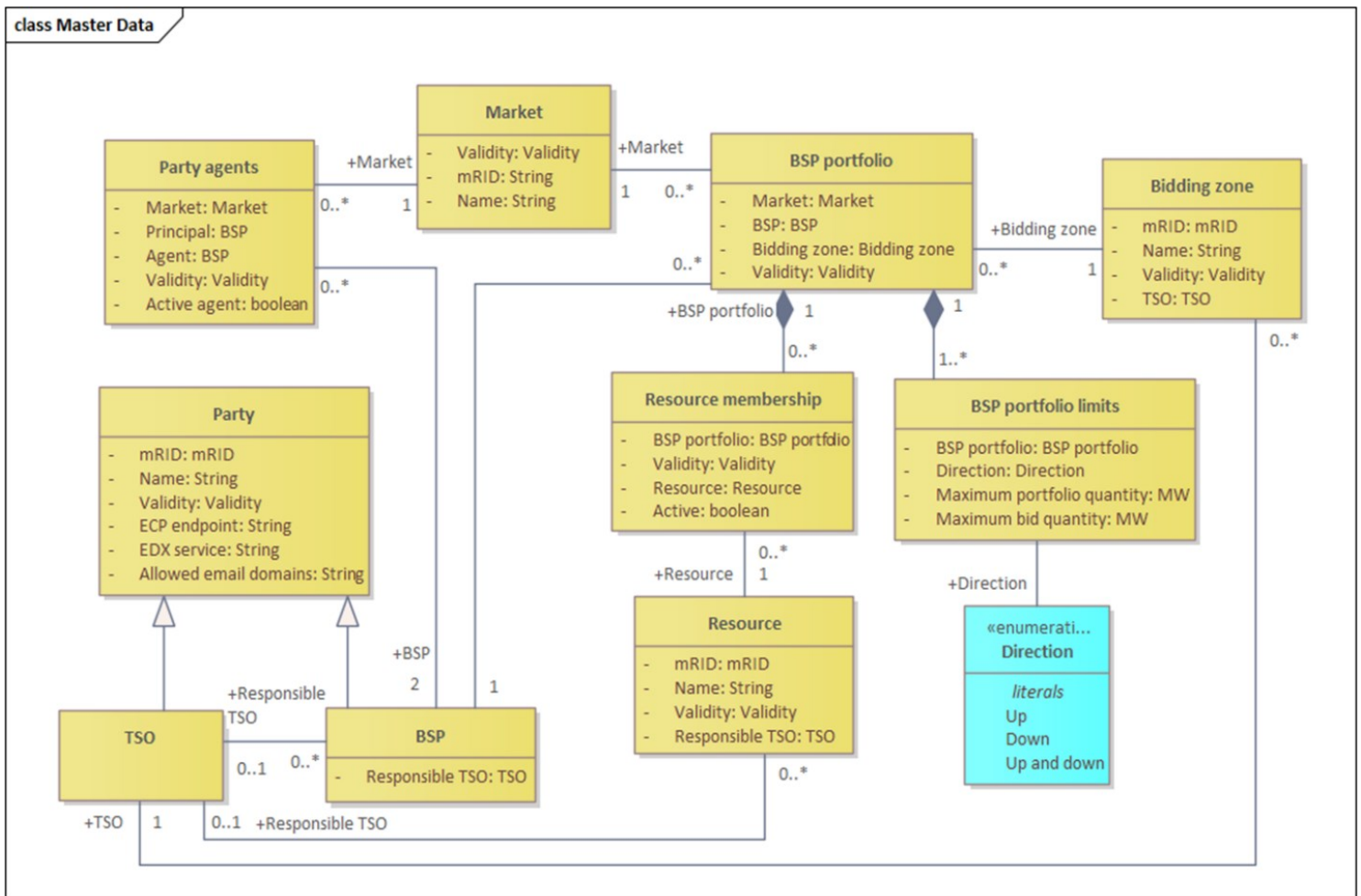


Figure 10: Class diagram: Party master data requirements from Unicorn