Minutes ETC meeting, April 28th and 29th, 2021

Date: Wednesday April 28th and 29th, 2021
Time: 10:00 – 12:00 (April 28th) and 13:00 – 15:00 (April 29th)
Place: GoToMeeting

Present: Jan (NL), EDSN
Jan (SE), Svenska kraftnät
Kees, TenneT
Marcin, Innogy (PL) (first day)
Ove, Edisys

Attachment:

1. Appendixes for ETC minutes (docx)
2. ETC workplan (see ebIX® file manager at https://filemanager.ebix.org/#)

1 Approval of agenda

Since Marcin from Innogy in Poland participated for the first time, the participants introduced themselves.

The agenda was approved with the following additions:

- Usage of Response Condition Code: **39** Approved / **41** Rejected" in CIM, see item 3.1.7.
- Some issues related to the ENTSO-E Acknowledgement document from NMEG, see item 3.1.8.
- The ebIX process for Maintenance Requests (MRs) on reference models (basic IEC CIM) and ESDM models, see item 3.1.9.
- The governance for reference models (basic IEC CIM) and ESDM models, see item 3.1.10.
- Suggestions for HRM extensions, see item 6.4.
- Metered data collection method, see item 7.2.
- ebIX HG MR 2021-02 - Rephrase definition of Meter Administrator - for ETC review, see item 11.1 under AOB.

During this item ETC meetings for the autumn were agreed until the day after next ebIX® Forum (Wednesday October 20th).

2 Minutes from previous meeting

The minutes from previous meeting were approved.

3 Resolve ebIX®/IEC issues

3.1 Making a European Style Downstream Market Profile (ESDMP)

3.1.1 MRs to WG16 CIM modelling team and Information from IEC meetings

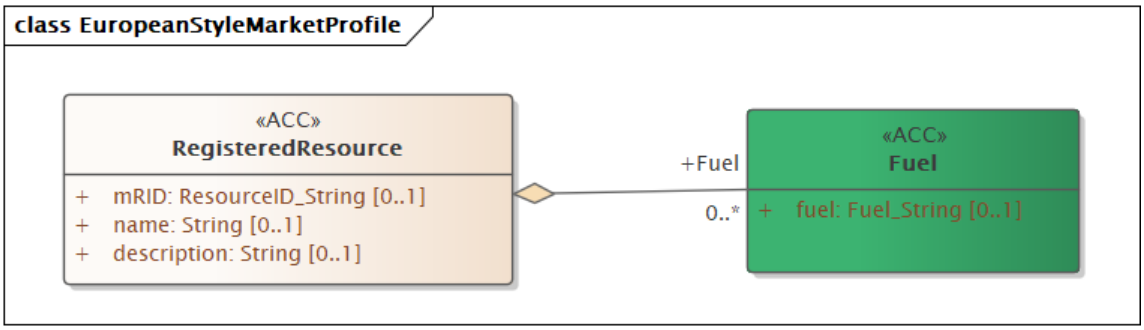
MRs to WG16 and their status are found in Appendix A in the separate appendix document. Minutes from WG16 meetings can be found at: WG16 / Modelling-Team-Minutes.

Jan (SE) had informed of a discussion within the ESMP SG originating from a discussion at a WG16 meeting March 25th (see mail from March 29th). At this meeting it was suggested to use the class MktPSRType for the technology and create a new class for the fuel type.

The reason for the discussion is the ENTSO-E need to specify technology and fuel type for a Registered Resource.

The problem is that ebIX® has suggested that there may be a need to specify more than one technology for a Market Evaluation Point, e.g. for a combined windmill and solar panel Accounting Point. In the ENTSO-E suggestion you would need to have more than one Registered Resource – but how should you distinguish them from each other?

The latest proposal for the ESMP SG is:



Conclusion:

- From an ebIX® perspective we will in addition request a 0..* association from Market Evaluation Point to the new Fuel class and to the MktPSRType.

Jan (SE) has also distributed the following information to ETC:

From the latest IEC TC57 WG16 modelling team meeting:

Issue WG 16_0084: Adding meteringMethod

Specifies how the energy volumes are established for the Market Evaluation Point, such as continuous, non-continuous, calculated, or not-metered.

MarketEvaluationPoint: Issue # WG 16_0084 (meteringMethod); Suggestion was made to look at using MktActivityRecord to record the metering method. Discussion on common (master) data defined during creation of an object (the characteristics of an object) vs. activities or events that may affect changes to the object (such as a change in supplier). Will continue discussions in the next call.

Jan (SE)'s notes:

The metering method attribute is typically seen together with the settlement method attribute.

If the metering method is non-continuous, then the settlement method could only be profiled.

If the metering method is continuous, then the settlement method could both be profiled and non-profiled.

Nationally there may be more settlement methods than just profiled and non-profiled. E.g. you can have daily settlement, weekly settlement, monthly settlement, yearly settlement. Another attribute, telling in which type of settlement process the market evaluation point will be part of, could be the

“meterReadingPeriodicity” – if you just read (and then validate + submit) the values once a month, you can just have profiled settlement. Other national rules defining this could be that if the current level is above e.g. 63 Ampere (or above other levels like for voltage), the Market evaluation point must be non-profiled settled and/or have continuous metering method.

Issue WG16_0083: Adding marketEvaluationPointType

Specifies if the Market Evaluation Point is an Exchange Point or an Accounting Point.

From discussion April 8th:

MarketEvaluationPoint: Issue # WG 16_0083 (marketEvaluationPointType); In Harmonized role model; a MeteringPoint is the super class of AccountingPoint and ExchangePoint. Question was raised, should two new specialized classes be added to support the AccountingPoint and ExchangePoint which would inherit from MarketEvaluationPoint (rather than an attribute of type)? Postpone discussion, while evaluating the pros/cons of adding specialized classes.

Jan (SE)’s notes:

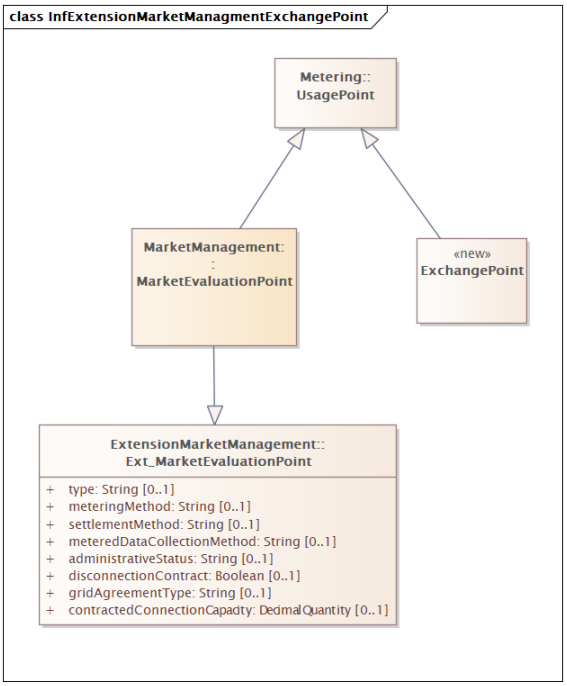
For Exchange points several of the (new) attributes of a Market evaluation point would not be relevant.

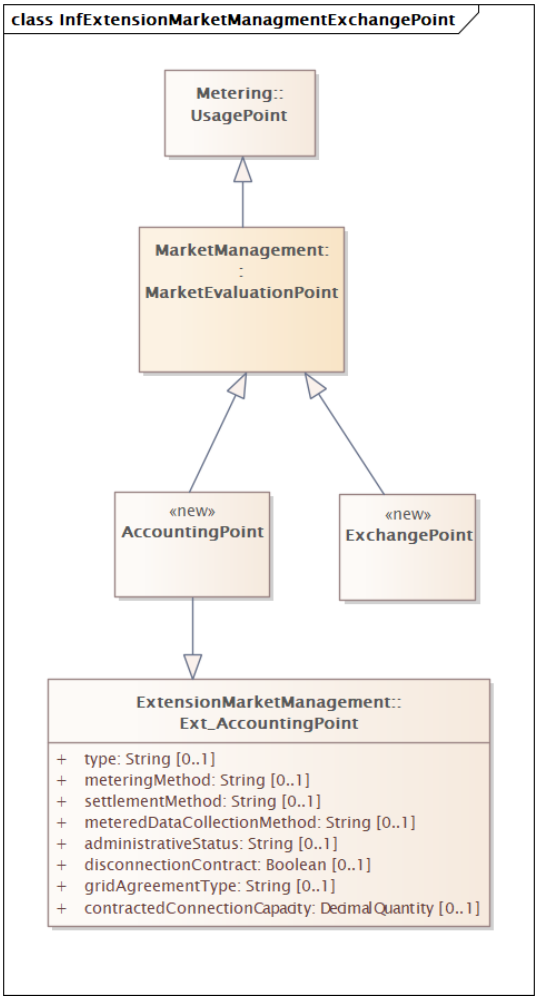
Questions to be discussed in ETC: Should we add an Exchange point as parallel class to MarketEvaluationPoint?

Then UsagePoint would correspond with Metering Point in HRM.

Or should we add two new classes to CIM, both inheriting from MarketEvaluationPoint?

Then MarketEvaluationPoint would correspond with Metering Point in HRM.





In both cases the attribute “type” may be removed from the list of added attributes.

Sub-metering points and resources

When having sub metering there would be a need to associate the “child” with its “parent”. Should the type attribute be used to tell: “This metering point is a sub metering point”? And then have an association to another metering point (market evaluation point)?

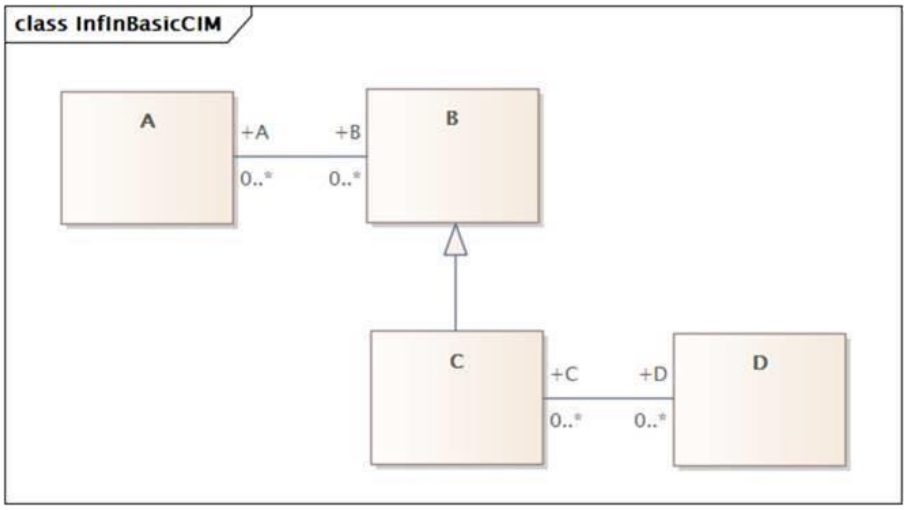
If a (sub) metering point is used as a resource (more or less flexible), how is that informed: “This metering point is a resource”? Or as an association: “This resource is associated to this (or these) metering point(s)”?

I.e. using a “type attribute”? Or just the association to other classes.

After a discussion related to the topic above, Jan (SE) sent the following mail to Becky (WG16):

In a profile you will simplify several things from the basic CIM model. E.g., you will not have (so many) many-to-many associations, you will not use all possible attributes, you can use inherited attributes and associations.

Let me assume having the following classes and associations in basic CIM (IEC 62325-301 or from WG13 and WG14 parts of CIM).

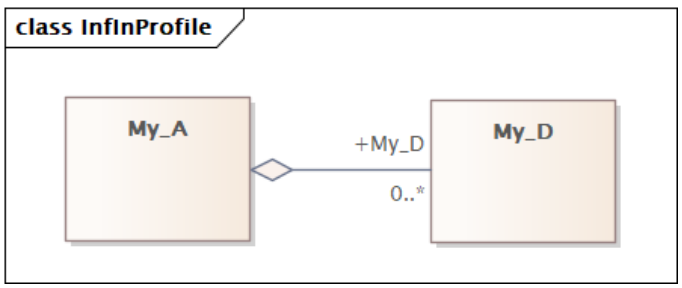


E.g., class C inherits from B.

A and B are associated, and C and D are associated.

However, in my profile I am not really interested in the class C (nor B) – nor their attributes, but I am, seen from class A, interested in class D (and its attributes).

Would it then be allowed, and possible, in a profile having an association like this:



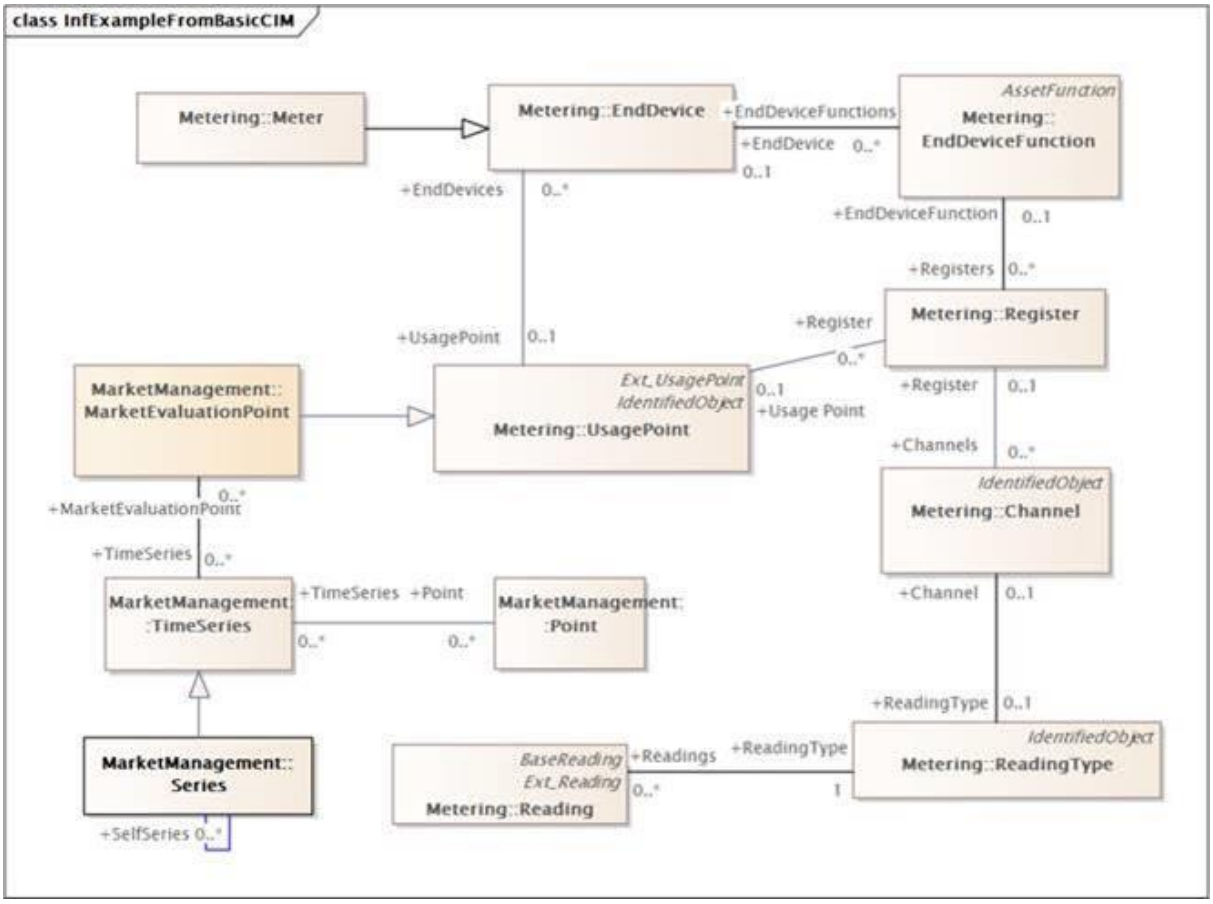
I.e., where class My_A in the profile is based on class A in basic CIM and class My_D in the profile is based on class D in basic CIM?

How this is implemented in an XML schema or JSON schema, or future technologies should here be irrelevant. This is just the profile.

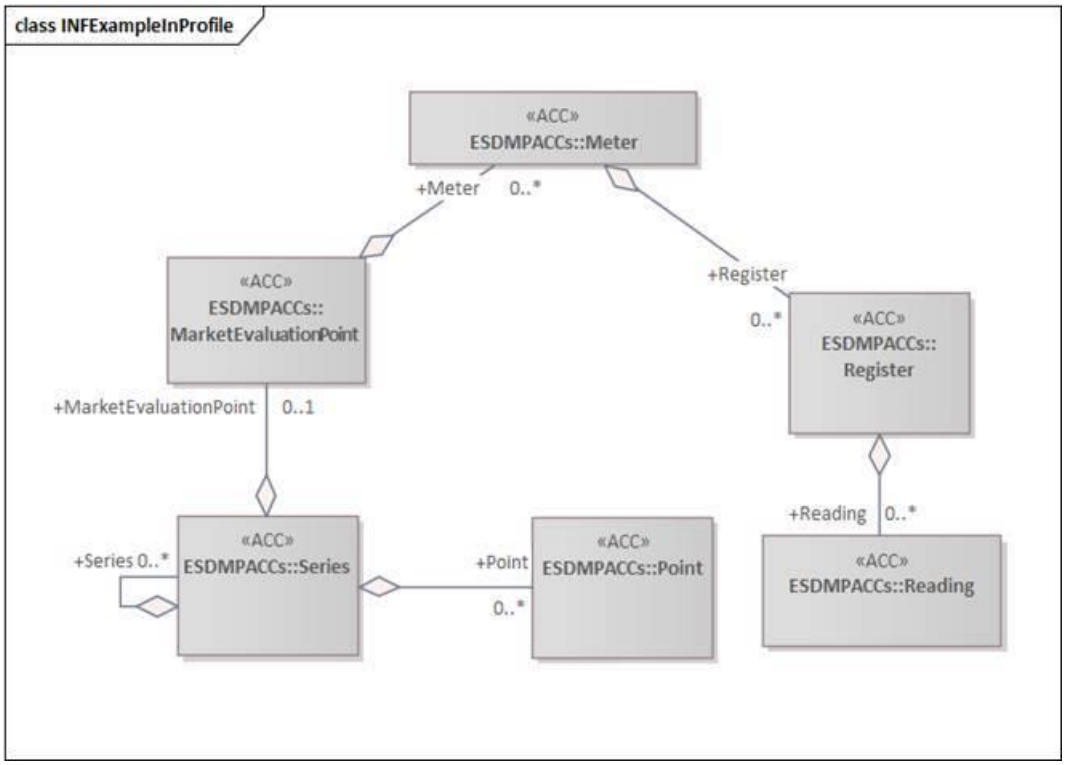
Another question would be: What are the requirements in the profile for the association end names in situations like this?

A possible example, taking most classes from IEC 61968 and some from IEC 62325, could be the following.

I.e., a need to not only specify energy volumes for a Market Evaluation Point but also single meter readings from the registers for the meters associated with the Market Evaluation Point. (The figure is a bit simplified, e.g., not including the possible Period nor the Quantity classes next to the TimeSeries class. And also, not including a product that together with its unit could tell if it is reactive or active energy that is provided.)



In a Profile could it then look something like the figure below? I.e., you send time series with energy volumes for a Market Evaluation Point, together with meter readings. The former would be used by the Energy supplier to charge me as a customer for the energy that I have consumed, the latter would be used to inform me what has been read from the meter, typically the final reading at the turn of last month. (In some cases, the customer will have more than one meter with more than one register – then it may also be several time series). And again, the figure is simplified.



Reply from Becky:

> My perspective is that you cannot "skip" class "C" in your example. You could have A->C->D. But in order to have A->D, D would need to inherit from B.

Reply from Jean-Luc:

> If there a need that, in the profile, D is a complex property of A, the only way is to have an association between A and D in CIM.
>
> (the alternate way would be to have in CIM D inheriting from a class that has an association with A).

From discussion:

- There was a longer discussion related to how to add the Exchange Point to CIM, i.e. if we shall propose to let it inherit from Usage Point or Market Evaluation Point (See class diagrams above).
    - Arguments for having the Exchange Point as a specialisation of the Market Evaluation Point:
        - The structure fits best to the HRM.
        - The ebIX® has a "market need" for the Exchange Point, hence it is logically most correct to link it to the Market Evaluation Point.
- It was noted that we need a Flow Direction associated to the Market Evaluation Point.
- Further it was noted that we in the ebIX® BRS for alignment of AP characteristics has split the characteristics two classes, i.e. physical characteristics and administrative characteristics. And many of the physical characteristics has already been added to UsagePoint in basic CIM, such as:
    - physicalConnectionCapacity
    - connectionCategory
    - disconnectionMethod
    - connectionState

    - ratedCurrent (fuse size)
- Jan (NL) noted that, related to the class diagram "InfExampleFromBasicCIM above, that the Dutch requirements requires a direct association from Register to Reading.

Conclusion:

- All associations in a profile, e.g. ESMP, must be based on an association in basic CIM, i.e. you cannot shortcut a set of intermediate classes, such as the set of association between Meter and Register.
- Regarding how to add the Exchange Point to CIM, i.e. if we shall propose to let it inherit from Usage Point or Market Evaluation Point (See class diagrams above), the preferred solution is having the Exchange Point as a specialisation of the Market Evaluation Point, among others because:
    - The structure fits best to the HRM.
    - ebIX® has a "market need" for the Exchange Point, hence it is logically most correct to link it to the Market Evaluation Point.

3.1.2 MRs based on Dutch requirements

Jan (SE) informed that Alvaro has made a proposal for MRs to WG16.

Conclusion:

- We will for coming MRs use the WG16 MR proposed by Alvaro and if needed proposed enhancements to the MR template.

Continued actions:

- Kees will add a MR to the series of other MRs that will be sent from ebIX® based on the Dutch requirements for changing the cardinality of the association between Acknowledgement_ MarketDocument and Sender_MarketParticipant/Receiver_MarketParticipant from mandatory [1] into optional [0..1].
- Kees will try to come up with a refined table showing the Dutch MRs, including examples.
- Jan (NL)/Kees will make class diagram(s) for one (or some) BRSs where extensions to ESMP is shown with different colours and use extension classes and inheritance where new attributes are needed in an ACC.
- Kees will investigate the usage of a reference to a related document (probably only used in the acknowledgement in the Netherlands) and see if he can find a justification of the "rename of the association named Original Market Document to something more generic".

3.1.3 How to implement code lists in the European Style Downstream Market Profile (ESDMP)

The item concerns how to make sure that the Assembled code list has unique codes (when combining national codes with other (international) code lists).

Continued action:

- Kees will, as a start, see if he can find an option for combining the Enumeration literals (codes) with a listIdentifier attribute.

3.1.4 Aligning the result from the Dutch and the Nordic IEC CIM pilot projects

Jan (NL) has as action updated the common cloud version of EA with the latest ESMP CIM model from April 2nd.
The action item from previous meeting ("Ove will update the common ESDMP by creating a ESDMP class diagram that includes ESMP and "ESDMP extensions" from separate Extension packages") was not clear. I.e. should proposed downstream additions to ESMP be added directly to the ESMP package or in a separate package using IsBasedOn dependencies? If the latter, how shall we for instance add an attribute to an ESMP ACC?

Conclusion:

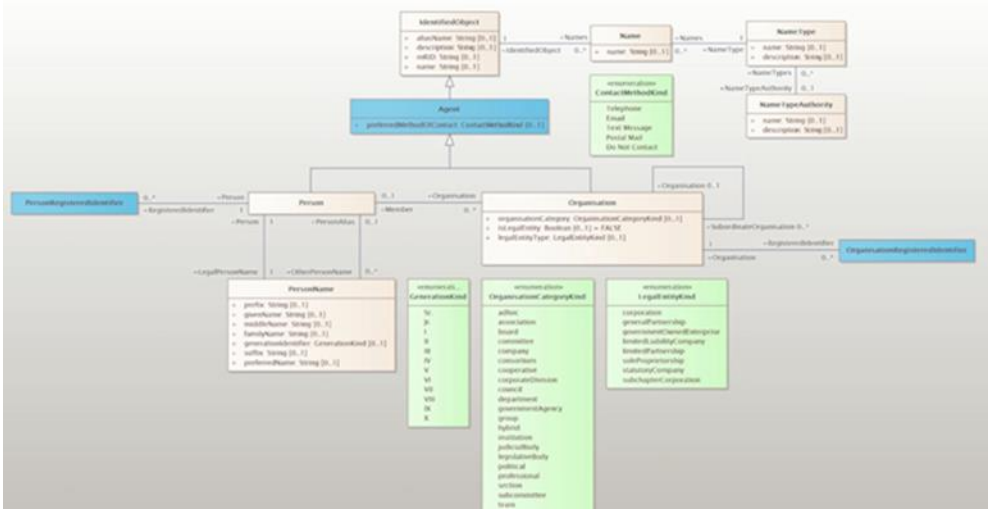
- It was agreed to have a meeting between Jan (NL), Kees and Ove on Friday May 7th in the morning to discuss the practical way of proposing updates to ESMP.

Action:

- Ove will remove the Market Document header classes from a set of Nordic documents that cover the proposed extensions to CIM and ESMP and, replace the current documents in the cloud version.
- Ove will update the common ESDMP by creating a ESDMP class diagram that includes ESMP and "ESDMP extensions" from separate Extension packages.

3.1.5 Status from WG14 taskforce for update of Organisation, Person and Party information

Jan (SE) informed that the association between Person and Organisation was suggested to be removed since that would rather be handled using a "role class":



To be continued.

3.1.6 Review of new associations that are candidates for MRs to CIM - From Jan (SE)

Due to lack of time, the item was postponed.

3.1.7 Usage of Response Condition Code: **39** Approved / **41** Rejected" in CIM

Jan (SE) and Ove brought up a question from the NMEG: Shall we continue using the "Response Condition Code: **39** Approved / **41** Rejected" in Reject/Confirm CIM documents?

This topic should be discussed together with a discussion related to usage of the Acknowledgement document, see 3.1.8 below.

However, it was agreed that using the Response Condition Codes **39** (Approved) and **41** (Rejected) is not needed when we have the term "confirm" or "reject" as part of the schema name.

Item closed.

3.1.8 Some issues related to the ENTSO-E Acknowledgement document from NMEG

Due to lack of time, the item was postponed.

3.1.9 The ebIX process for Maintenance Requests (MRs) on reference models (basic IEC CIM) and ESDM models

The item was requested from Jan (NL). However, due to lack of time, the item was postponed.

3.1.10 The governance for reference models (basic IEC CIM) and ESDM models

The item was requested from Jan (NL). However, due to lack of time, the item was postponed.

3.2 How to add additions to CIM

Continued action:

- Ove will make a memo based on the description from Jan (SE) from spring 2020.

3.3 Procedures for how to align IEC MRs between EBG and ETC

Due to lack of time, the item was postponed.

4 EG1 status

5 Problems with TT (Eclipse) – To remember item (to be reopened when the TT is needed)

6 Resolve HG issues

6.1 BRP vs Energy Trader

Kees suggest we "*should think again on the inheritance relations. Now we pretend that a Trader is different from a Balance Responsible Party and the Trader is explicitly used for not being a Balance Responsible Party, but also when you look at the characteristics of a Trader in UML, it is everything a BRP is*".

6.2 Status for harmonisation of the electricity and gas markets role models

6.3 Procedures cooperation between EBG and ETC regarding updates of HRM

Due to lack of time, the item was postponed.

6.4 Suggestions for HRM extensions

Kees has been thinking over the recent pressures from the BRIDGE research project and has combined this with his thoughts about the possible consequences of the recent European Gaia-X initiative. So these are his preliminary thoughts. But he would like to share these with us during this meeting.

- Now a lot is happening around the Harmonised Role Model (HRM) as we know it now since some 20 years.
- Seen from the positive side, we should be happy with all this interest. From the other side it shows that not all have a correct understanding about the nature and about the importance of the present role model for the alignment between business stakeholders in the sector.
- What Kees suggest here, might also apply to the Gas Role Model (GRM). But he refrains now from an explicit inclusion of consequences for the GRM.
- For Kees the triggers to think about the possibility of extensions are to be found in the BRIDGE research project and in the European Gaia-X initiative.
- What Kees has in his mind is to create subsections in the Harmonised Role Model for the various types of roles:
    - Roles linked to physical devices (probably mainly linked to the work area of IEC TC57 wg13 (CGM) and wg14 (metering infrastructure);
    - Business Roles (present HRM and GRM);
    - Implementation dependent roles (responsibilities that stem from the way we implement the role-to-role business information exchange).

      For example: the actual implementation of a role-to-role business process in an architecture based on data sharing may need additional responsibilities (roles) than when based on the architecture based on document exchange.

<table>
<tr><th>Business roles</th><th>Implementation-dependent roles</th><th>Roles linked to physical devices</th></tr>
<tr><td rowspan="2">HRM / GRM

This is already available in the present HRM and GRM (maybe with the exception of the meter-related roles which may have to be moved to the physical devices)</td><td>Exchange architecture:
• Document exchange
• Web service
• Data sharing</td><td></td></tr>
<tr><td>System/device roles</td><td></td></tr>
</table>

Conclusion:

- The topic should be in “the back of the mind” of the participants of the coming meeting between the HG and the BRIDGE initiative.
- The item will be put on the next ETC agenda and should be agreed by ETC before presented for the HG.

Action:

- Kees will try to make the table above more “understandable”

7 ebIX® Business Information Model 2020.A

7.1 Use of XOR in combination with cardinalities

Due to lack of time, the item was postponed.

7.2 Metered data collection method

EBG has noted that the "Metered data collection method" currently is part of both the "Accounting Point characteristics" and the "Metering configuration characteristics".

After discussion in EBG it was agreed to rename "Metered Data Collection Method" to "Meter Read Collection Method" in the BRS for Metering configuration characteristics.

Hence, ETC is asked to add a new Meter Read Collection Method code with the same enumerations as the Metered data collection method. Or could we use the same code list for two different attributes?

Conclusion:

- Due to lack of time, the item was postponed, i.e. added to Appendix B.6 new item 20).

Item closed.

7.3 Continue review and update of version 2020.A

Due to lack of time, the item was postponed.

8 Code lists from Magic Draw model in Word format

Due to lack of time, the item was postponed.

9 Review of ETC workplan

Due to lack of time, the item was postponed.

10 Next meetings[1]

- Thursday June 10th, 2021 from 10:00 to 12:00 and from 13:00 to 15:00, GoToMeeting.
- Wednesday July 7th, 2021 from 10:00 to 12:00 and from 13:00 to 15:00, GoToMeeting.
- Wednesday August 25th, 2021 from 10:00 to 12:00 and from 13:00 to 15:00, GoToMeeting.
- Wednesday September 22nd, 2021 from 10:00 to 12:00 and from 13:00 to 15:00, GoToMeeting.
- Monday October 18th, from 10:00 to 12:00, GoToMeeting.
- Thursday October 21st, from 10:00 to 12:00, GoToMeeting.

11 AOB

11.1 ebIX HG MR 2021-02 - Rephrase definition of Meter Administrator - for ETC review

Due to lack of time, the item was postponed.

[1] All Face-to-face meeting starts 09:00 the first day and end at 16:00 unless otherwise explicitly stated.