Common Network Operation Tools

Process for the development of data exchanges

Monika Kaldonek

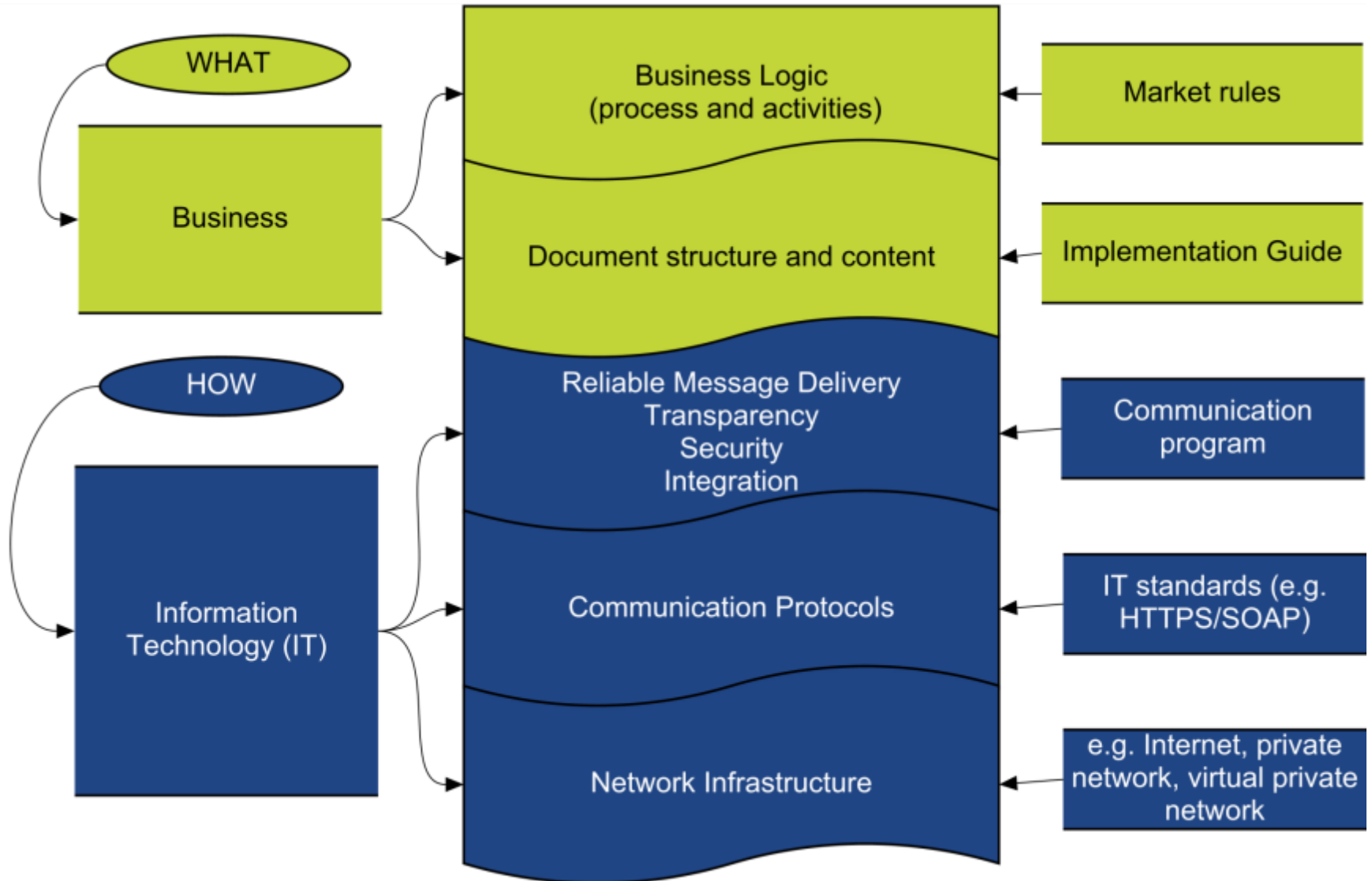**Adviser, System Operations**

Brussels xxx2014

Background

> **WHY: Regulation 715/2009 (Art 8)** – ...*ENTSOG shall adopt: common network operation tools to ensure coordination of network in normal and emergency conditions,..*

> **WHERE:** INT NC provides tools to fulfill the box of `**<u>HOW</u>**' data exchanges shall be done
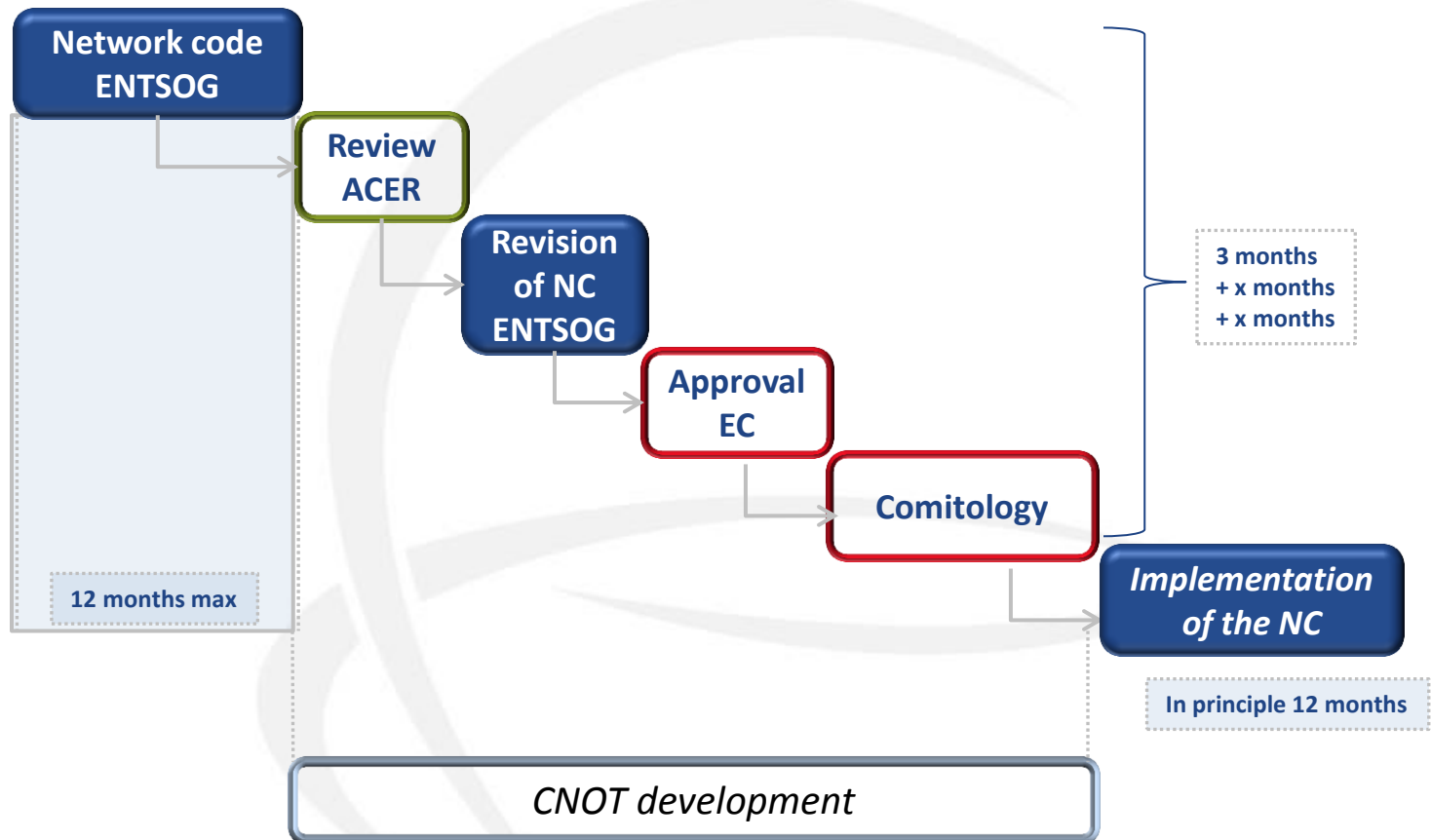
> **WHERE:** INT NC requires ENTSOG to prepare CNOTs wherever data exchange requirements are identified (the box of `**<u>WHAT</u>**')

> **STRUCTURE**: for each identified DE need (through NCs) CNOT may consist of:
- Business Requirement specification (BRS)
- Technical implementation guideline (IG) and supporting documents

WHAT and HOW

CNOT Development Process

Network code ENTSOG

Review ACER

Revision of NC ENTSOG

Approval EC

Comitology

Implementation of the NC

3 months
+ x months
+ x months

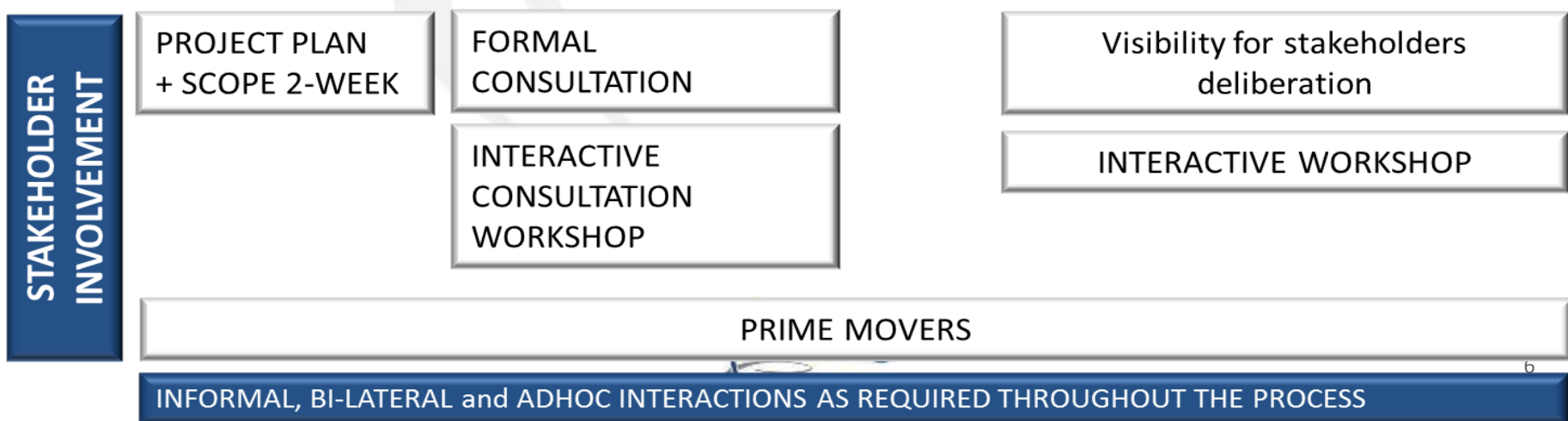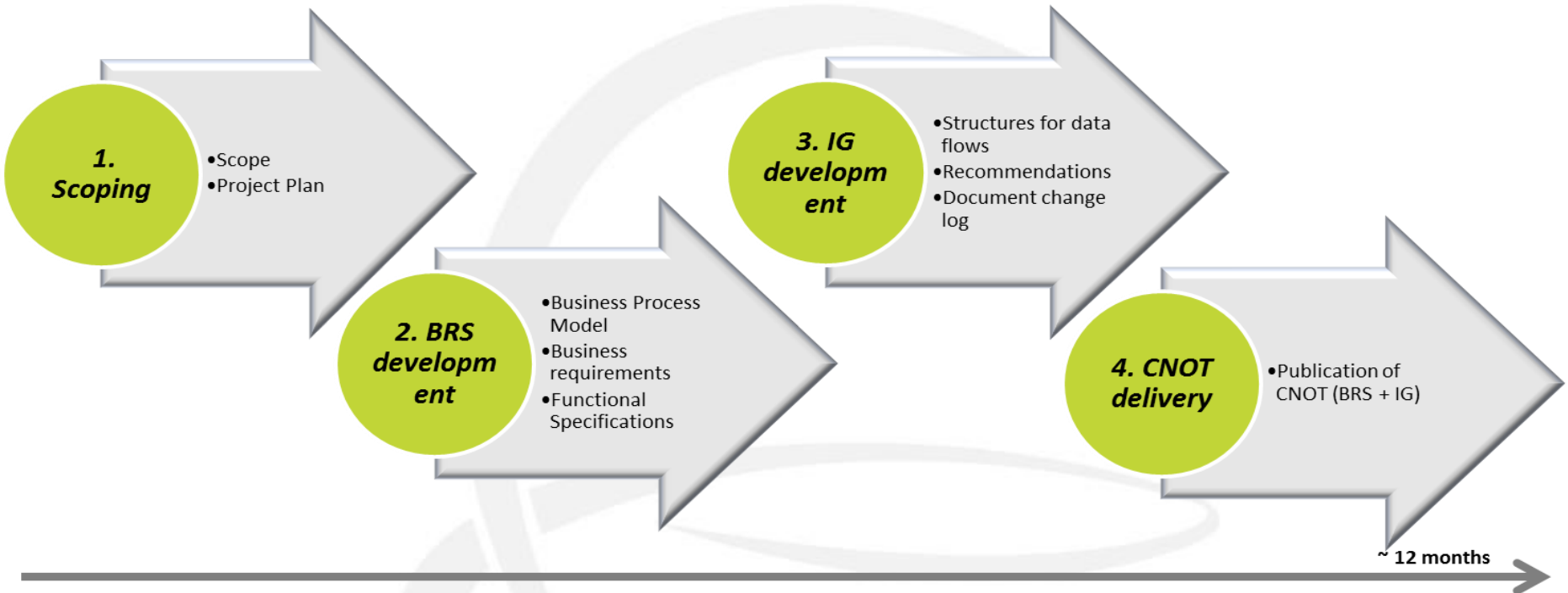12 months max

In principle 12 months

CNOT development

To ensure that DE solutions are ready when NC(s) has to be implemented

CNOT process objective

> To make clear and understandable rules for development of new CNOTs

> To indicate stakeholder's involvement

> To ensure transparency by publishing all the relevant documents on the ENTSOG website and organising Public Consultations

> To ensure that the data exchange solutions will be ready for implementation in due time

CNOT process description

1. Scoping
- Scope
- Project Plan

2. BRS development
- Business Process Model
- Business requirements
- Functional Specifications

3. IG development
- Structures for data flows
- Recommendations
- Document change log

4. CNOT delivery
- Publication of CNOT (BRS + IG)

~ 12 months

STAKEHOLDER INVOLVEMENT

PROJECT PLAN + SCOPE 2-WEEK

FORMAL CONSULTATION
INTERACTIVE CONSULTATION WORKSHOP

Visibility for stakeholders deliberation
INTERACTIVE WORKSHOP

PRIME MOVERS

INFORMAL, BI-LATERAL and ADHOC INTERACTIONS AS REQUIRED THROUGHOUT THE PROCESS

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PHASE I - Scoping

Activity
- Shall be **managed** by ENTSOG
- Based on relevant **NCs needs**
- Starts when relevant NC is submitted to ACER
- Shall be **announced** on the ENTSOG website for 2 week comments' period
- Establish a dedicated Task Force
- Prime Mover concept

Timing
- Foreseen to take 3-4 months

Key deliverables
- **Project plan** including **scope**
- BRS **Task Force**
- **Publication** of the **scope** and project plan

Stakeholders' engagement
- Information about upcoming project
- Project plan including scope will be published for 2 week comments' period
- Prime Mover concept

PHASE II – BRS development

Activity
- Shall be managed by **ENTSOG**
- Based on **scope**
- Based on Unified Modeling Language (**UML**):
    - Description of the Business Process Model
    - Development of business requirements
    - Functional Specification
    - Information model

Timing
- Foreseen to take max. 6 months
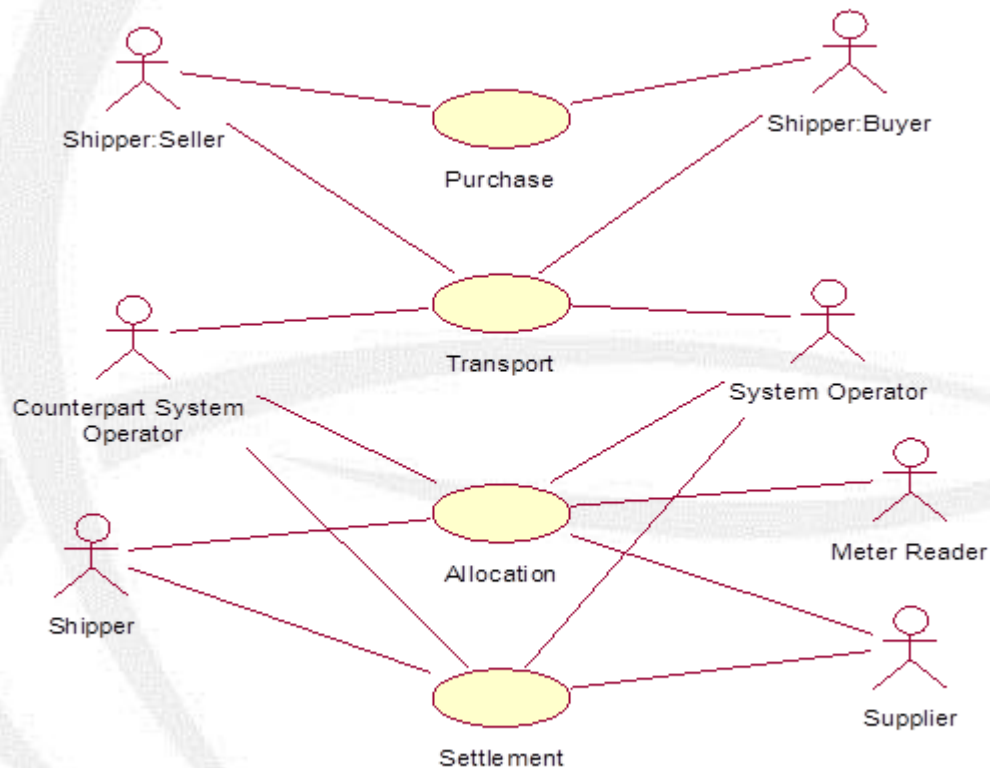
Key deliverables
- Business Requirement Specifications
- Public Consultation report

Stakeholders' engagement
- Formal public consultations
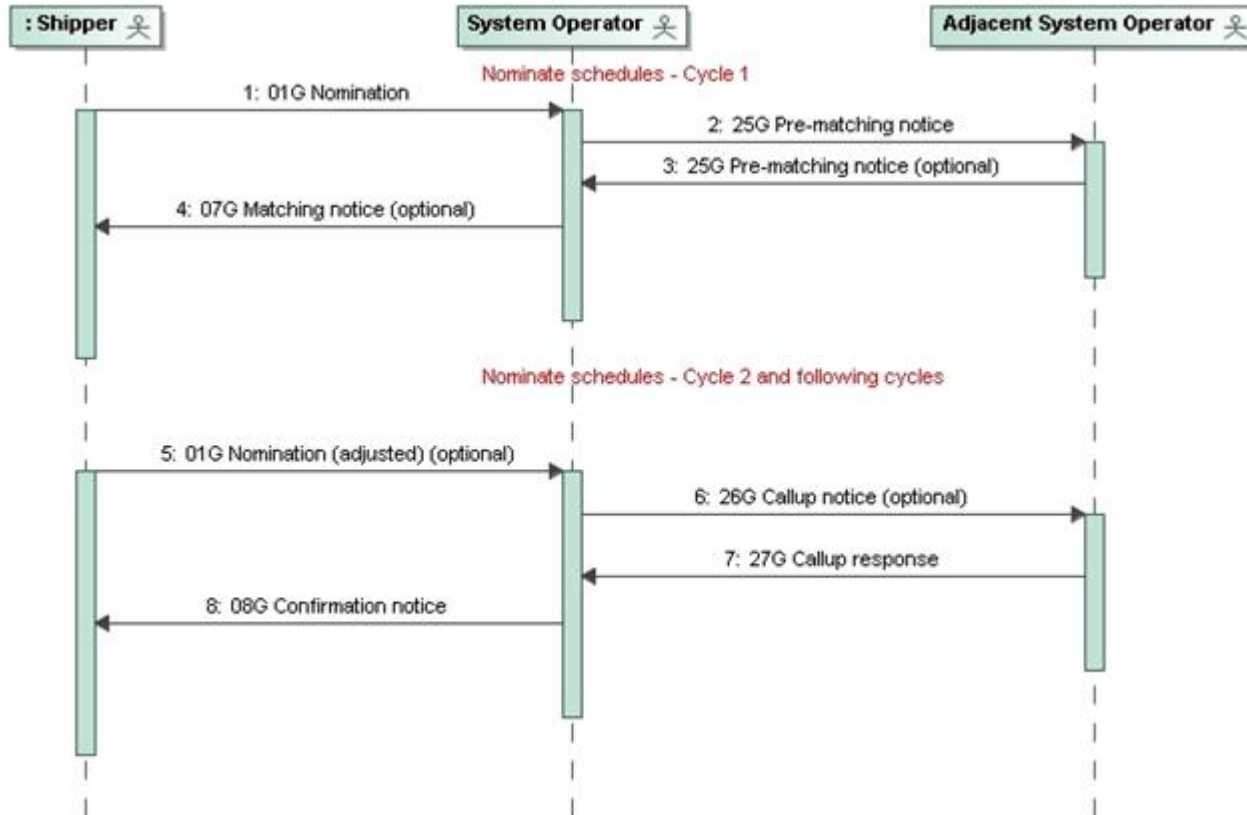- Interactive stakeholders' sessions
- Prime Movers' meeting (s)

UML methodology

1. Define Use cases with use case diagrams - Example

UML methodology
2. Identify operational sequences with sequence diagrams

UML methodology

3. Establish workflow with activity diagrams - Example

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PHASE III – Implementation Guidelines development

Activity
- o Shall be managed by **ENTSOG**
- o Stakeholders' (including Prime Movers) shall be duly informed
- o Development of detailed data format structures for every data flow
- o Based on **Edig@s-XML** or equivalent **format**
- o Define:
  - o Detailed structured for data flow
  - o Implementation requirements

Timing
- o Foreseen to take 3-4 months

Key deliverables
- o Implementation Guidelines
- o Document change log
- o Supporting documentation

Stakeholders' engagement
- o Interactive stakeholders' workshop
- o Prime Movers' meeting (s)

PHASE IV – CNOT delivery

Activity

- Shall be managed by ENTSOG
- Final CNOT documentation to be delivered and approved
- Final CNOT to be published on ENTSOG website

Key deliverables

- Final CNOT

CNOT development requires stakeholders' involvement as well as expertise (IT; NCs content)

Governance of future changes

Requirements for changes due to:

- New network code
- Amendment of existing network code
- Correction of identified errors
- Improvements in light of experience
- Developements/evolutions in technology

> Can be proposed by ENTSOG member or any stakeholder (by standarised form)

> It shall be motivated and explained

> In case ENTSOG does not accept the change the requesting party will be receive a motivated response

Document management and publication

> Officially validated documents will be published on ENTSOG website

> New releases will contain history log of changes

> Stakeholders shall be involved during the process to ensure completeness

Nominations and Matching CNOT

EASEE-gas workshop

Jan Vitovsky

ENTSOG Adviser

22 October 2014

Basis for Nomination and Matching CNOT

CNOT for the Nomination and Matching Procedures, based on three Network Codes

NC BAL

➢ Provides rules for the exchange of nominations and re-nominations at IPs

➢ Adopted by the European Commission on 26 March 2014

NC CAM

➢ Includes obligation to allow single nomination for bundled capacity at IPs (Article 19.7)

➢ Adopted by the European Commission on 14 October 2013

NC INT

➢ Provides rules on data exchange between TSOs and NUs at IPs and on the matching process

➢ Expected to be adopted in 2015

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Nomination process in chapter IV of BAL NC

Chapter IV of the BAL NC (Articles 12 – 18) provides general rules for the submission of nominations at IPs from network users to TSOs:

➢ Standardised units to be used in nominations/re-nominations

➢ A set of minimum information to be included in nominations/re-nominations

➢ Procedures for nominating at IPs (including deadlines, confirmations, etc.)

➢ Procedures for re-nominating at IPs (including deadlines, confirmations, etc.)

➢ Reasons for rejecting nominations/re-nominations

BAL NC:
Defines general rules and minimum requirements to be applied in nomination & matching process

Specified in:

Common Network Operation Tool:
Defines detailed process for harmonised transmission of information between parties and messages to be used

The processes defined in the NOM BRS are referring to nominations at interconnection points. Trade notifications in the context of gas title transfers at VTPs are not included in the processes described in this BRS.

Submitting nominations

Based on the provisions in the respective Network Codes, two different processes for submitting nominations are foreseen:

Single-Sided Nominations

➢ **Submitted only by one NU on behalf of both parties**

➢ **Only submitted to one TSO at the IP**

Double-Sided Nominations

➢ **Submitted by both NUs individually**

➢ **Submitted to both respective TSOs at the IP**

➢ Requirement for single-sided nominations is defined in CAM NC and is limited to the nomination of bundled capacity

➢ CNOT is not making this limitation – single-sided nominations developed in a way that it can be applied for bundled and unbundled capacity, with application based on individual TSO implementation

Role of TSO in nomination & matching process

In the context of double sided nominations:

➢ **Both TSOs** at the IP receive corresponding nomination messages from the network users active in the respective systems;

➢ The **Matching TSO** performs the matching process based on processed quantities received by the adjacent TSO.

In the context of single sided nominations:

➢ One TSO is receiving a nomination message in the name of the network user active in his system and on behalf of the network user active in the adjacent system. This TSO shall be deemed as **Initiating TSO;**

➢ The adjacent TSO receives the single sided nomination messages forwarded by the Initiating TSO and performs the matching process. This TSO shall be deemed as **Matching TSO**.

> ➢ **For clarification, the matching TSO can also receive a single-sided nomination and forward it to the adjacent TSO**
> ➢ **The TSOs involved in the matching process at an IP will dedicate the respective roles among each other and clarify the role distribution to network users**

Single-sided and double-sided nominations
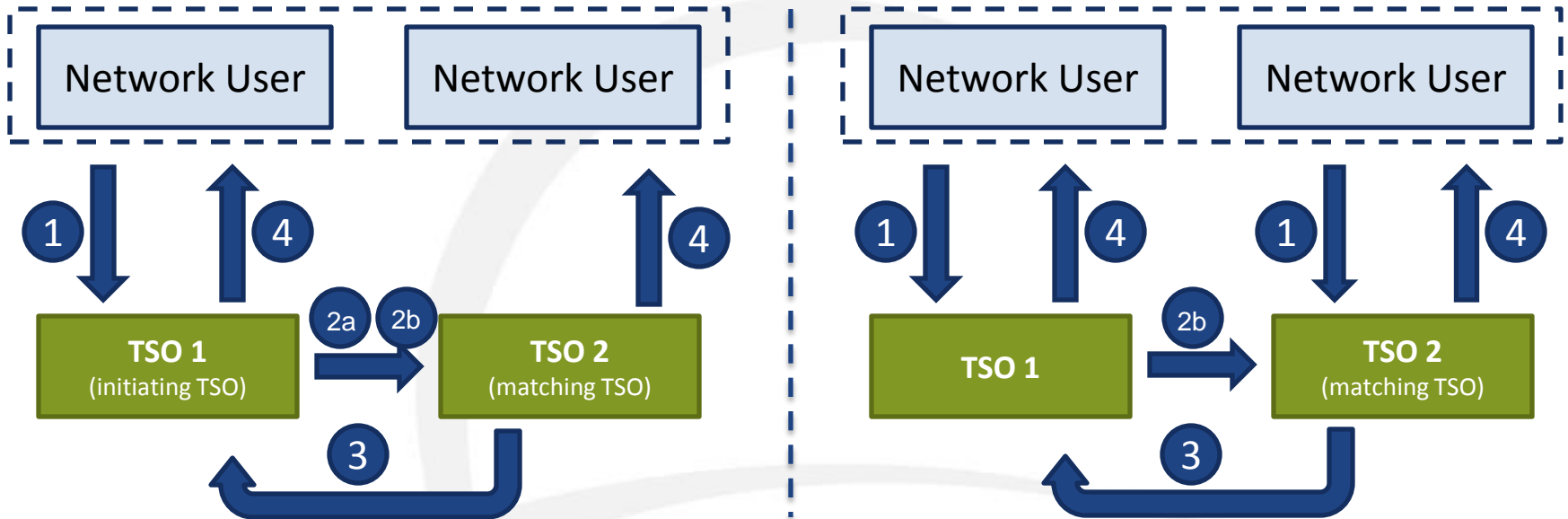
	Single-Sided Nomination	Double-Sided Nomination
1	Nomination of transport at IP from NU to initiating TSO	Nomination of transport at IP from NUs to both respective TSOs at the IP
2	(a) Forwarding of single sided nomination and (b) information on processed quantities to matching TSO	(b) Information on processed quantities to matching TSO
3	Information about matching results from matching TSO to initiating TSO	Information about matching results from matching TSO to initiating TSO
4	Confirmation of transport from both TSOs to respective NU	Confirmation of transport from both TSOs to respective NU

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Current status of BRS/CNOT

➤ ENTSOG consulted on Business Requirement Specification in March 2014 and received feedback from stakeholders

➤ ENTSOG is currently assessing whether to conduct an amendment to the BRS based on additional processes suggested by stakeholders, EASEE-gas and ENTSOG members

➤ Alternative procedures for handling and allowing single-sided nominations are currently evaluated by an ENTSOG TF

➤ ENTSOG will involve stakeholders in the process of amending the BRS

CAM NC and CMP guidelines CNOT

EASEE-gas workshop

Jan Vitovsky

ENTSOG Adviser

October 22 2014

Agenda

1. CAM NC and CMP guidelines

2. Scope of CAM/CMP BRS

3. Project Plan in 2013-2014, current status

4. CAM/CMP BRS Structure

5. CAM/CMP requirements

6. Secondary market capacity rights transfers

7. Credit limit management

CAM NC and CMP guidelines

CAM NC and CMP guidelines sets forth provisions regarding capacity allocation mechanisms and congestion management procedures.

CAM NC defines
- standardised capacity allocation mechanism in the form of an auction procedure for relevant Interconnection Points within Europe, including the underlying Capacity Products to be offered and the description of how cross-border capacity is to be allocated.

- the manner in which adjacent TSOs cooperate in order to facilitate capacity sales, taking into consideration general commercial as well as technical rules related to capacity allocation mechanisms

CMP guidelines defines
- how congestion management procedures are put into place in the event of contractual congestion.

Scope of CAM/CMP BRS

CAM/CMP BRS defines the business requirements that are necessary for a harmonised implementation of the Network Code and guidelines.

In particular, it forms a specification to enable EASEE-gas to produce documentation that can be approved and published.

ENTSOG agreed in November 2013 to extend the BRS for CAM area for the following business functionalities:

- CMP (Buy-back, Surrender of capacity, UIOLI)

- Capacity rights transfer for secondary market (for CAM NC but not included in earlier pilot project CNOT)

- Credit limit management (for CAM NC)

Project Plan in 2013-2015

~ Q4 2013

Preparation stage

| Identification of DE need by business area | Project planning | BOA approval + creation of BRS Task force | Publication of plan & scope |

~ Q1 2014 – Q1 2015

Develop BRS

| BRS TF work | .... | WGs and BOA approval | Stakeholder session and consultation | BOA and GA approval |

~ Q2 2015

Develop MIG

| BRS TF work (w/ EASEE-gas) | WGs and BOA approval | Stakeholder expert sessions and consultation | BOA and GA approval | Publication of CNOT |

Scope of CAM/CMP BRS

Ref	Parties	Description	Application of criteria by relevant KG
2.2.2	TSO-TSO, TSO-NU	Overselling	N/A – covered by pilot BRS project (capacity auctions)
2.2.2		Buy back	**In line with draft INT NC: Yes** **Voluntary development: not applicable (NA)** Data exchange could include: - Network user (NU) submits offer (standing offer, offer in response to alert) - TSO alerts market that buyback offers are requested TSO accepts bids and reduces users capacity rights - Communication between TSOs regarding bundled product buyback NB. Likely to be complex given different conditions of capacity products in different countries
2.2.3		Surrender (user communicates that he wishes to surrender)	**In line with draft INT NC: Yes** **Voluntary development: NA** Data exchange could include: - NU notifies TSO that he wishes to surrender capacity - TSO notifies NU that surrender is valid/not valid - TSO notifies NU when capacity has been reallocated (amount, price, NUs' new rights and obligations) - Communication between TSOs regarding bundled product
2.2.4, 2.2.5		Application of UIOLI	**In line with draft INT NC: Yes** **Voluntary development: NA** Data exchanged likely to be very similar to the case of surrender, with possible additional notification to user that his capacity has been put back on the market/his re-nomination rights have been changed. NB. Some TSOs may sell UIOLI product in primary market. The requirements of this product also need to be clarified. Optimisation may also require some exchange of information (e.g. TIGF/Enagas).

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Scope of CAM/CMP BRS

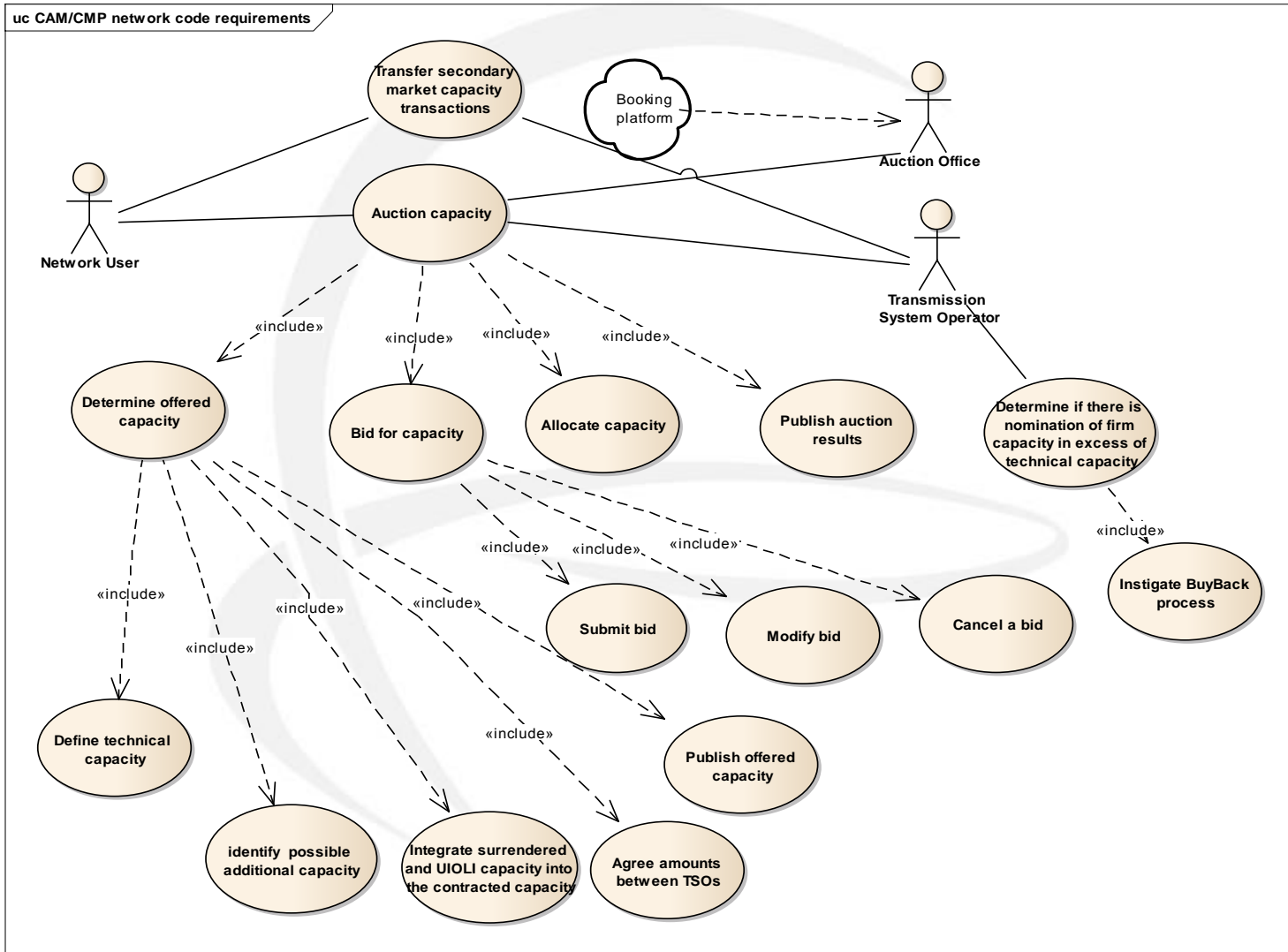| Transfer of capacity rights			
Various references e.g. CAM NC 19 (8); 20 (3); 27 (2) c Also used in application of CMPs	TSO-TSO, TSO-NU	Transfer of rights/ obligations associated with capacity (including nomination rights)	**In line with draft INT NC: Yes** **Voluntary development: NA** Need to monitor potential scope and timelines for Rules for Trading code in order to ensure efficient CNOT development Issues to be considered during CNOT development include: - How/if unbundling of bundled capacity could be prevented - Whether specific DE needed for implementation of sunset clause or whether this can be handled using standard procedures

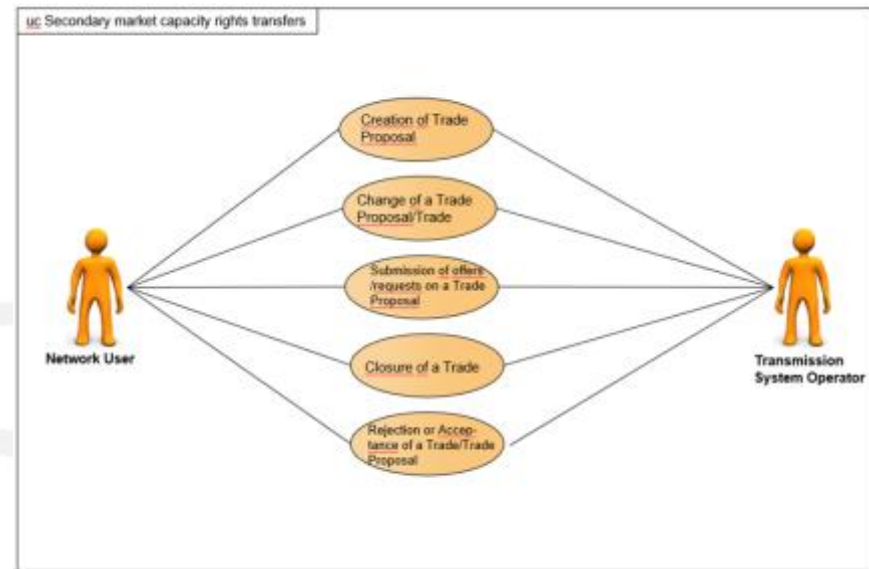| Credit limit management | TSO-NU and/or TSO-platform | Customer close to his limit should not be authorised to bid. | **In line with draft INT NC: No**
Voluntary development: Yes (based on benefits for TSOs)
Information is not static and may change regularly – e.g. whenever a shipper bids
Could cover exchange between NUs and TSO and perhaps between TSO and platform |

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CAM/CMP requirements

Secondary market capacity rights transfers

- Following an auction a secondary market may be opened to enable network users to buy and sell capacity between themselves or to simply transfer the right to use capacity.

- The Transmission System Operator must be informed about the trade by the involved Network Users or by the Auction Office on their behalf.

- The Transmission System Operator indicates acceptance or rejection of the transfer after carrying out the necessary validity checks.

- The Transmission System Operator can involve the Auction Office for offering the marketing service and booking platform on behalf of the Transmission System Operator.

uc Secondary market capacity rights transfers

Network User

Creation of Trade Proposal

Change of a Trade Proposal/Trade

Submission of offers /requests on a Trade Proposal

Closure of a Trade

Rejection or Acceptance of a Trade/Trade Proposal
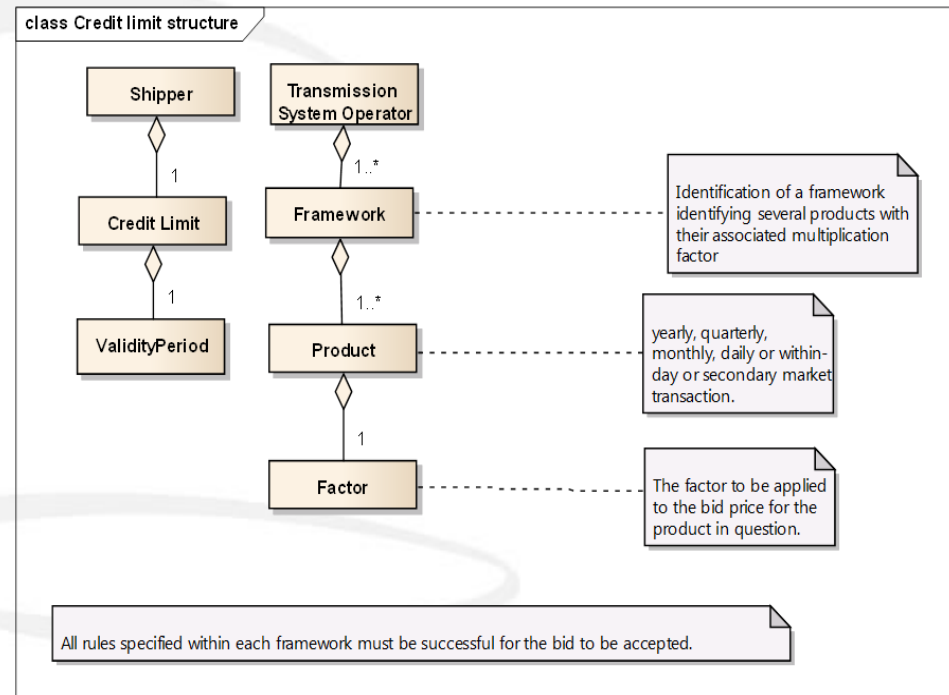
Transmission System Operator

Credit limit management

In order to ensure that a Network User is permitted to purchase a given quantity of capacity during the auction process or a secondary market transaction a TSO may inform the Auction Office of the permitted financial limits for a Network User.

The Transmission System Operator indicates also two essential pieces of information:

- Information concerning the set of rules in which a TSO identifies each product (auction and secondary trades) subjected to credit limit verification and the multiplication factor to be applied to a Network User's bid associated to a specific product.

- Information concerning the Network User validity period(s) of the limits and associated credit value(s).

class Credit limit structure

Shipper — 1 — Credit Limit — 1 — ValidityPeriod

Transmission System Operator — 1..* — Framework — 1..* — Product — 1 — Factor

Identification of a framework identifying several products with their associated multiplication factor

yearly, quarterly, monthly, daily or within-day or secondary market transaction.

The factor to be applied to the bid price for the product in question.

All rules specified within each framework must be successful for the bid to be accepted.

Thank You for Your Attention

Jan Vitovsky
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