



STATUS

of the EU H-gas quality standardization process within CEN



Brussels, 28th of September 2017
workshop ENTSOG/CEN



European H-gas quality harmonisation

Background summary (1)

- **EC's M/400 – mandate** to CEN for standardization in the field of gas qualities
 - Phase I – testing of impact of combustion parameters on safety, efficiency and environment (cf. GASQUAL)
 - Phase II – elaboration of EN standard on combustion and non-combustion parameters based on the result and conclusions of phase I and the results of the EC's interoperability study

- Publication of **EN 16726 « Gas infrastructure – quality of gas – group H »** in OJEU in December 2015



European H-gas quality harmonisation

Background summary (2)

EN 16726 is applicable to the whole gas supply chain

- This European standard specifies gas quality characteristics, parameters and their limits, for gases classified as group H, that are to be transmitted, injected into and from storages, distributed and utilized.
- This standard does not cover gases conveyed on isolated networks.
- For biomethane additional requirements indicated in prEN16723-1 apply.



European H-gas quality harmonisation

Background summary (3)

EN 16726 contains specifications for

- relative density
- total sulfur without odorant
- hydrogen sulphide + carbonyl sulphide (as sulfur)
- mercaptan sulfur without odorant
- oxygen
- carbon dioxide
- hydrocarbon dewpoint
- water dewpoint
- methane number
- contaminants



European H-gas quality harmonisation Background summary (4)

EN 16726 does not contain any specifications for one of the combustion parameters as required by M/400 : the 'Gross Wobbe Index'.

EN 16726 also states

- *Gas quality shall not impede safety of gas appliances and operations of end users. Appropriate measures shall be taken.*
- *Note : applications are sensitive towards variations of the gas quality depending on the type of application and the degree of variation.*



European H-gas quality harmonisation

Madrid Forum conclusion 10/2016

- 29th Madrid Forum – conclusion on GQ (10/2016) :

04. Gas quality harmonisation

Following intensive discussions and recognising the lack of support for making the CEN Standard EN 16726 legally binding, the Forum supports the Commission's announcement not to pursue legally binding provisions on this matter at this stage.

Nevertheless, the Forum invites ENTSOG to finalise its assessment of the effects of the inclusion of the CEN Standard EN 16726 into the Network Code on Interoperability and Data Exchange Rules by the end of 2016.

The Forum confirms its support for CEN to carry on the work on finding an agreement on a band for the Wobbe Index, elaborating on the possibility of regional bands, to be included in an updated CEN standard while ensuring the integrity of the existing standard and calls on market participants to be constructively engaged in this process. The Commission will reconsider further harmonisation activities in light of the outcome of the CEN revision work.



European H-gas quality harmonisation

CEN approach

- 1. Pre-normative phase in a common WG of the CEN Sector Forum Gas (Infrastructure and Utilization):**
 - fact based study on *Wobbe index aspects and* - if justified and agreed in SFGas WG – *on other gas quality parameters.*
- 2. Normative phase within CEN/TC 234 WG 11:**
 - revision of EN 16726:2015 on the basis of the pre-normative study results.



CEN SFGas pre-normative study

Aim of the CEN pre-normative study

Study of impact of identified values of H-gas quality parameters not yet or insufficiently established in EN16726:2015

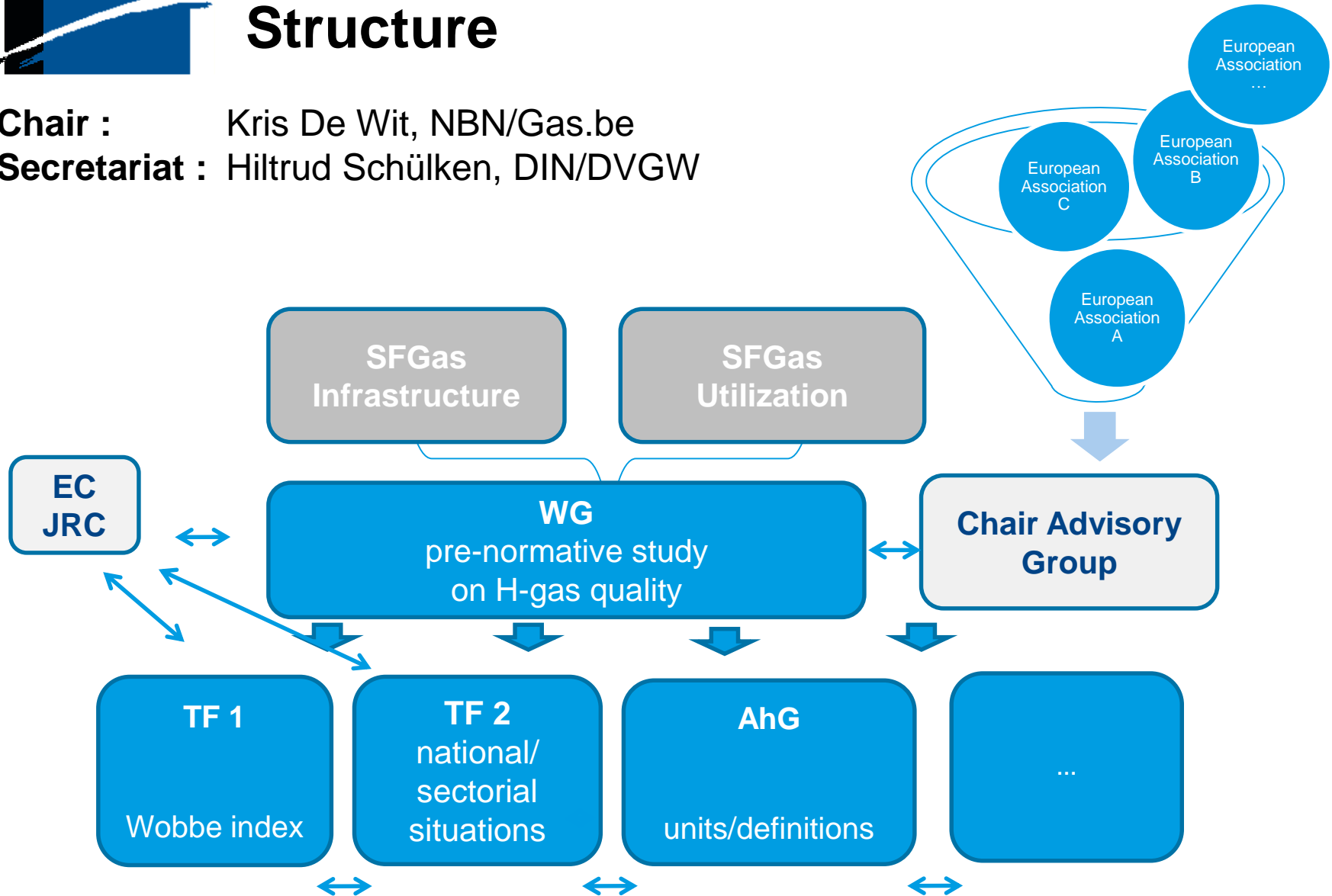
on the whole gas supply chain

on the basis of technical and fact based findings
with the purpose of supplying information and recommendations on the parameters in question to CEN/TC 234 in view of the future revision of EN 16726:2015.



CEN SFGas pre-normative study Structure

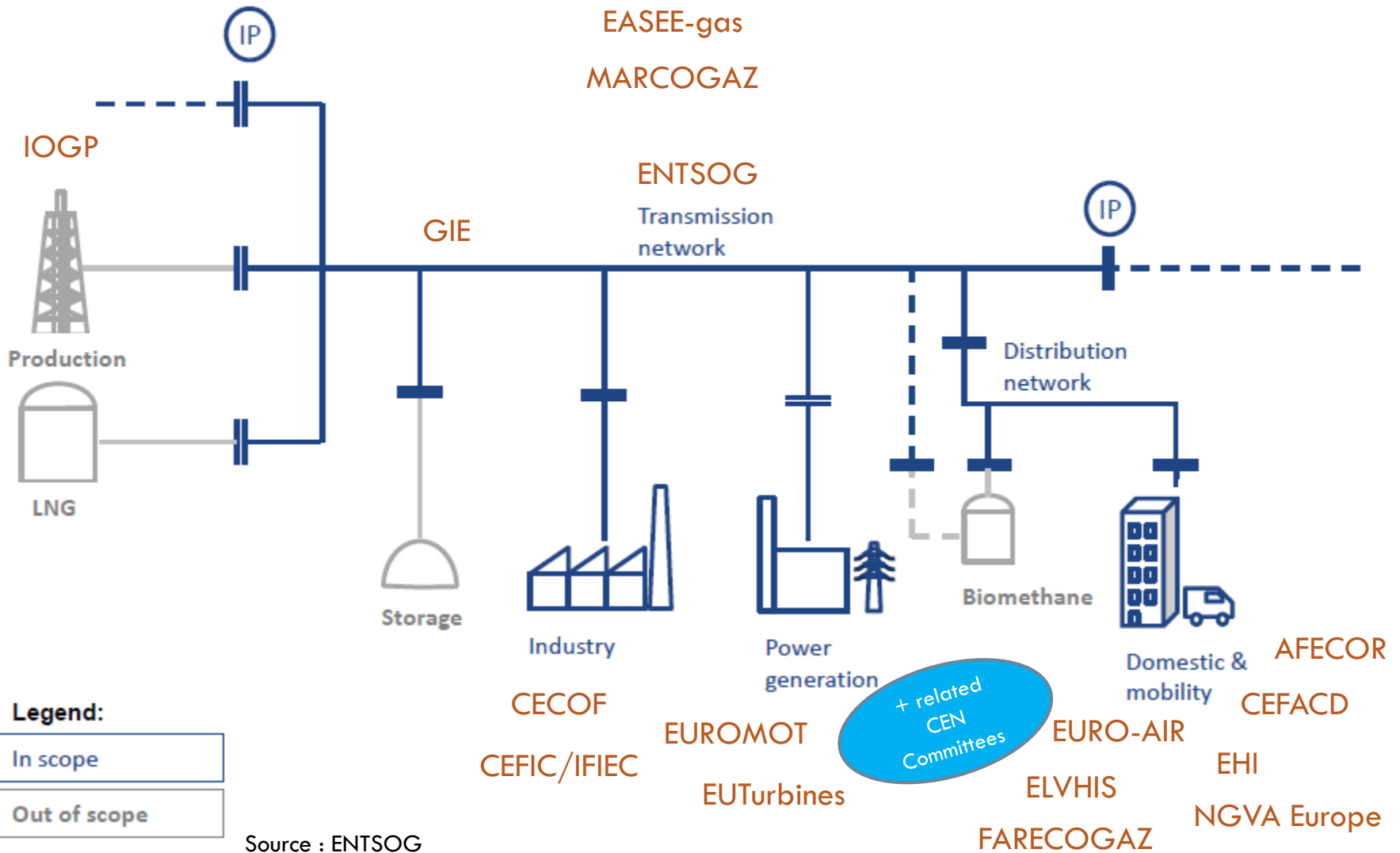
Chair : Kris De Wit, NBN/Gas.be
Secretariat : Hiltrud Schülken, DIN/DVGW





CEN SFGas pre-normative study

Stakeholder involvement (1)





CEN SFGas pre-normative study

Stakeholder involvement (2)

Nomination by 13 national standardization bodies

AENOR		NEN	
AFNOR		NSAI	
ASI		MSZT	
DIN		PKN	
DS		SIS (S)	
ELOT		UNI	
NBN			

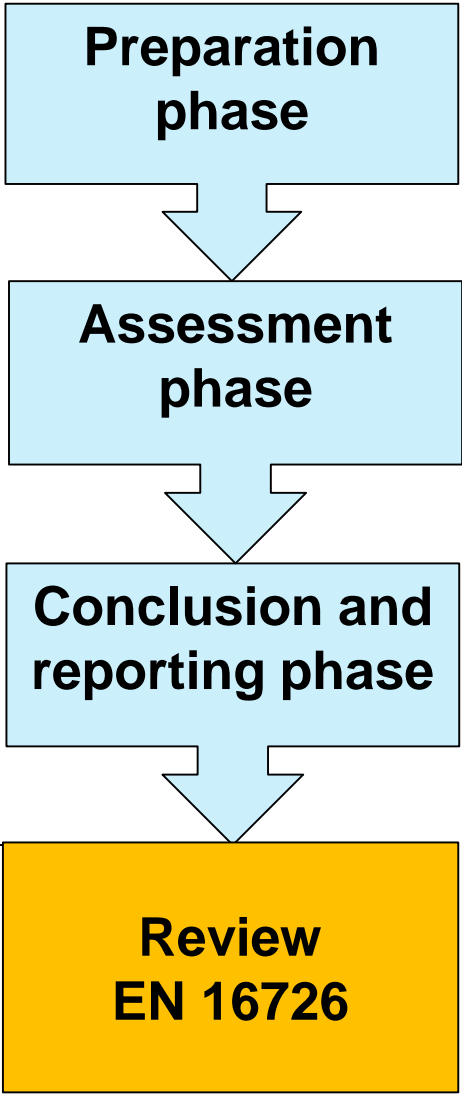
More east-european
countries are
encouraged to
participate



CEN SFGas pre-normative study

Timeline

1st year
2nd year
3rd year



Preparation phase

- Definition WI Scenarios (TF1: range, fluctuations..)
- **Data enquiries (TF2: national/sectorial GQ data...)**
- Common understanding (AhG + TF 1: units and definitions incl. safety and reliability)

Assessment phase

- Application of the WI scenario using:
 - the enquired data and
 - data from sectorial/national studies
- **Further data enquiries, if needed**

Conclusion and reporting phase

- Objective analysis of the assessment results
- Deducing consensus based recommendations for standardisation in normative phase

**Review
EN 16726**

- Revision according to CEN Rules



CEN SFGas pre-normative study

Surveys

Survey 1 : legal and technical national/regional framework

Part A: Legal and technical framework on gas quality

Data have been collected. Analysis ongoing.

Part B: Legal and technical framework on end use performance

including e.g. emissions, efficiency, safety, maintenance, adjustment on installation.

Survey 2 : distributed natural gas quality

Information on the currently distributed natural gas quality in different European member states for mapping relevant national and sectorial situations and experiences for the assessments in TF 1. Detailed information and adequate data coverage, both in terms of time-span and geography, are necessary for enabling a reliable analysis and deriving meaningful conclusions.

Data have been collected. Analysis ongoing.

Survey 3 : sensitivity of applications/appliances to WI aspects linked to the scenarios produced by TF1

This survey will be based on the scenarios elaborated by TF1 and be prepared on the basis of available information/studies, such as the IGU study, Marcogaz study compilation or the DVGW project and others.



CEN SFGas pre-normative study

Schedule of upcoming meetings

SFGas Group	date	time	place	focus
workshop	28/09/2017	10:30 – 16:00	Brussels - THON Hotel	Information on survey results (JRC/ENTSOG), hosted by ENTSOG
CAG	16/10/2017	11:00 – 16:00	Brussels – CEN/CENELEC	Preparation of WG meeting and input for definition of simple Scenarios in TF 1
TF 1	17/10/2017	10:00 – 16:30	Brussels – CEN/CENELEC	Definition of simple scenarios
WG	24/10/2017	10:00 – 16:30	Paris/Neuilly-sur-Seine - AFG	Approval of simple scenarios
TF 1	13/12/2017	10:00 – 16:30	Brussels, CEN/CENELEC	Start of assessment of the simple scenarios



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