

CEN SFGas WG pre-normative study on gas quality parameters

Brussels, 16/11/2016
ENTSOG workshop





Current situation

29th MF – 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.



European H-gas quality harmonisation

Scope of SFGas WG

- Scope of WG : 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.

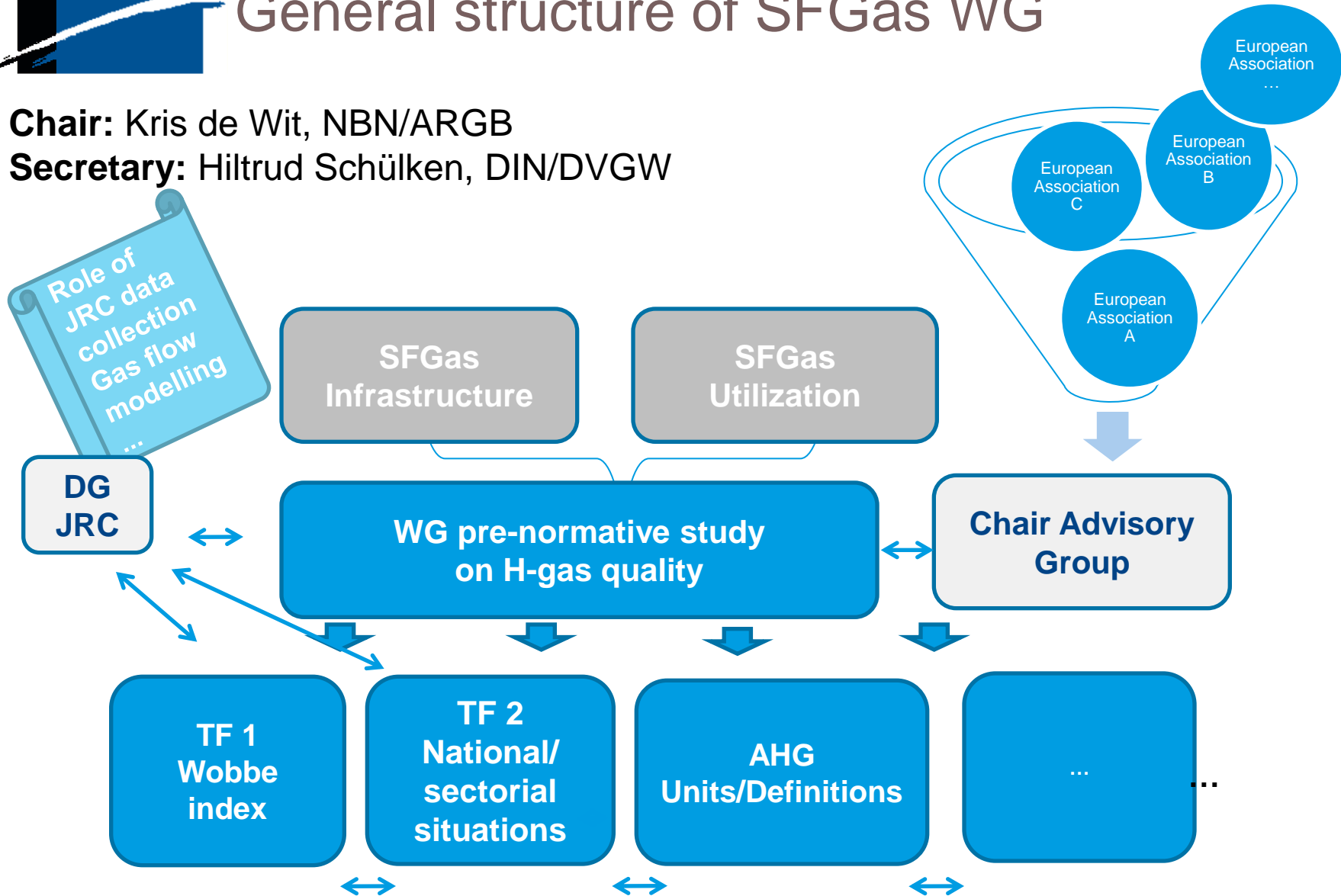


SFGas WG pre-normative H-GQ Study

General structure of SFGas WG

Chair: Kris de Wit, NBN/ARGB

Secretary: Hiltrud Schülken, DIN/DVGW





SFGas WG pre-normative H-GQ Study

Participation of stakeholders

Nomination by NSB:

AENOR (E) SIS (S)
AFNOR (F) UNI (I)
ASI (A)
[BSI (UK)]
DIN (G)
DS (DK)
ELOT (GR)
NBN (B)
NEN (NL)
NSAI (IRL)
MSZT (HU)
PKN (PL)



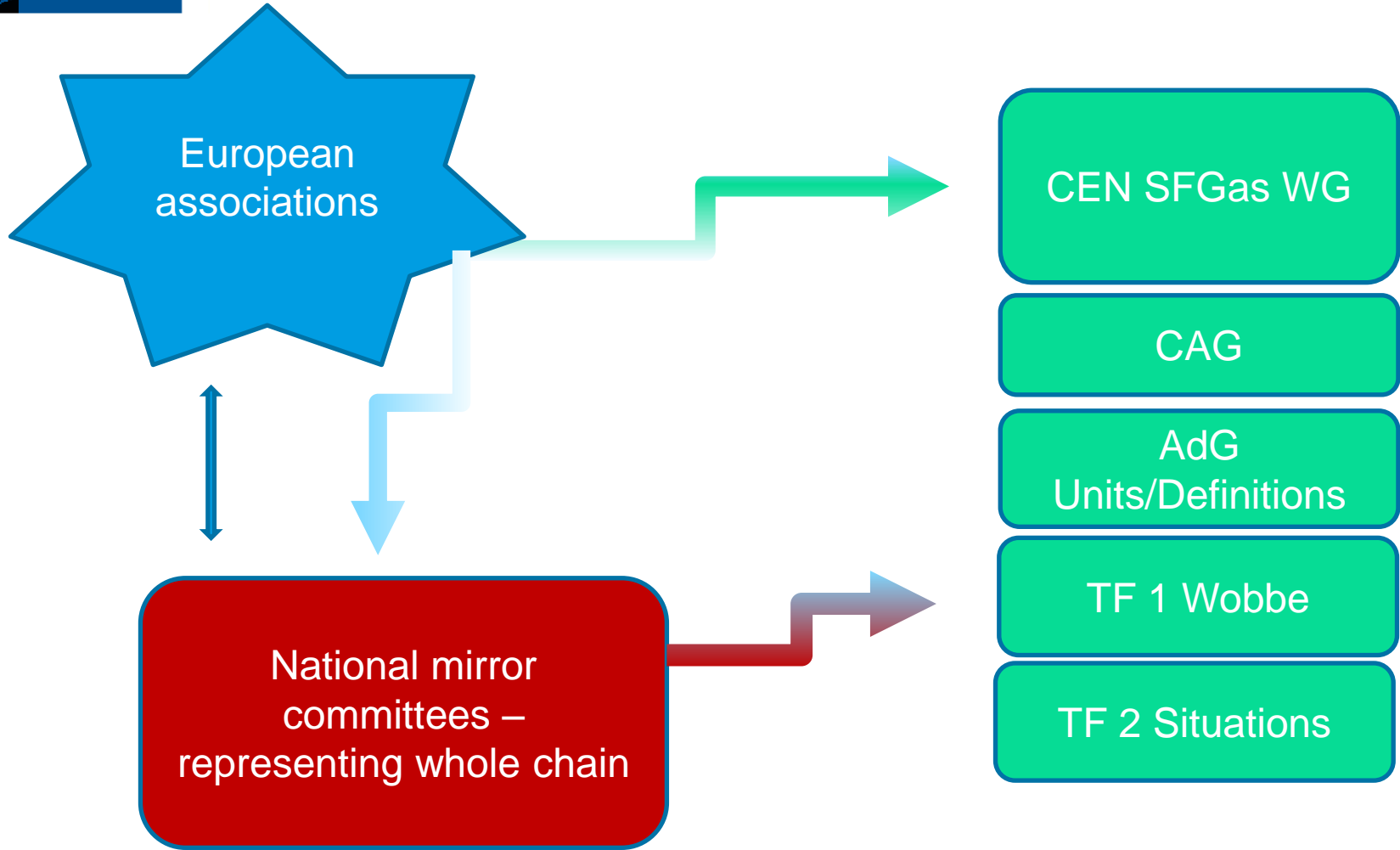
Nominations by Associations:

Afecor GIE
CECOF IFIEC
C.E.F.A.C.D. IOGP
CEFIC Marcogaz
EASEE-gas NGVA Europe
EHI
ELVHIS
ENTSOG
EURO-AIR
Euromot
EUTurbines
FARECOGAZ





Possible input of European associations in combination with national mirror committees

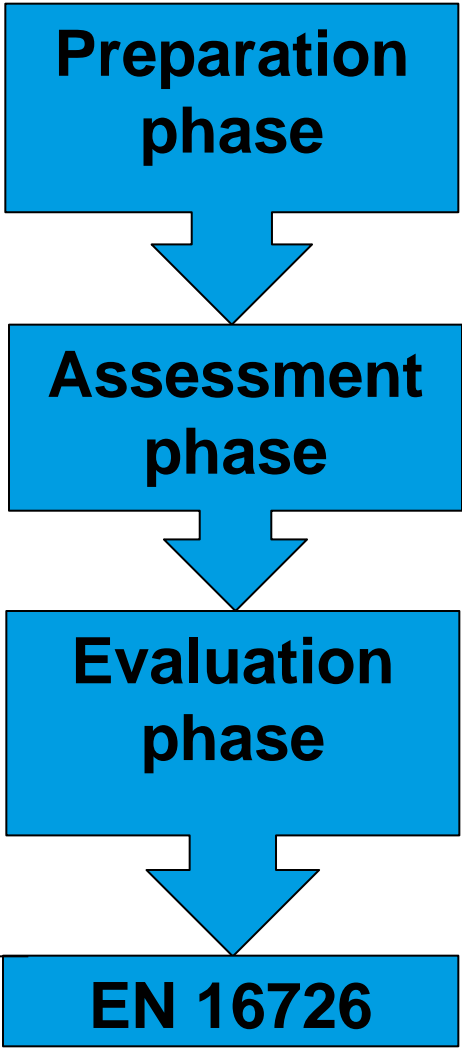




SFGas WG pre-normative H-GQ Study

Timeline SFGas

1st year
2nd year
3rd year
+



- Definition Wobbe Index Scenarios (TF1: range, fluctuation and fluctuation rate, ...)
- Data enquiries (TF2: national/sectorial GQ data, ...)
- Common understanding (AhG + TF 1: units and definitions incl. safety and reliability)
- Application of cases using:
 - the enquired data and
 - data from sectorial/national studies
- Further data enquiries, if needed
- Objective analysis of the assessment results
- Deducing consensus based recommendations for standardisation in normative phase
- Revision according to CEN Rules



CEN SFGas WG GQS – Conclusions (1)

Other GQ parameters (besides WI)

SFGas WG GQS postpones the decision whether further GQ parameter should be treated in the CEN SFGas pre-normative study until the results of the ENTSOG study and other relevant studies, carried out in parallel to the ENTSOG process, are available and analyzed.

Furthermore, the WG agrees to focus the resources on the Wobbe Index aspects at the time being, as it is expected that the same experts would be involved in the work on other GQ parameters, too.

Regulation (EU) 2016/426 on appliances burning gaseous fuels (GAR)

- Adoption
 - European Parliament on 20.01.2016
 - Council on 12.02.2016
- Signature on 09.03.2016
- OJEU L 81 of 31.03.2016
- Entering into force on 21.04.2016
- Application from **21.04.2018**
- Exceptions:
 - Articles 4, **19 to 35** and 42 and Annex II apply from **21.10.2016**
 - Article 43(1) applies 21.03.2018



ANNEX II

CONTENT OF THE MEMBER STATES COMMUNICATIONS OF THE GAS SUPPLY CONDITIONS

1. The communications of the Member States to the Commission and the other Member States provided for in Article 4 shall have the following content:

- (a) (i) gross calorific value (GCV) in MJ/m³ minimum/maximum;
- (a) (ii) Wobbe index in MJ/m³ minimum/maximum.
- (b) Gas composition by volume in % of the total content:
 - C₁ to C₅ content in % (sum) minimum/maximum;
 - N₂ + CO₂ content in % minimum/maximum;
 - CO content in % minimum/maximum;
 - unsaturated HC content in % minimum/maximum;
 - hydrogen content in % minimum/maximum.
- (c) Information on toxic components contained in the gaseous fuel.

That communication shall also include either of the following:

- (a) supply pressure at the inlet of appliances in mbar: nominal/minimum/maximum;
- (b) (i) supply pressure at the point of delivery in mbar: nominal/minimum/maximum;
- (b) (ii) admissible pressure loss in the end-user gas installation in mbar: nominal/minimum/maximum.

2. The reference conditions for Wobbe index and gross calorific value shall be the following:

- (a) combustion reference temperature: 15 °C;
- (b) volume measurement reference temperature: 15 °C;
- (c) volume measurement reference pressure: 1 013,25 mbar.



CEN SFGas WG GQS – Conclusions (2)

Reference conditions (a)

As a CEN committee acknowledging the use of different reference conditions and respecting EC mandate M/400, EN ISO 13443 and EN 16726:2015, the following reference conditions apply:

Combustion temperature	15°C (= 288,15 K)
Volume measurement temperature	15°C (= 288,15 K)
Reference pressure	1013.25 hPa (= 101,325 KPa)

For easy comparison, all contributed data have to be delivered with clear indication of these reference conditions. Also in case other reference conditions are originally in the documents, the values converted to the agreed reference conditions have to be indicated in addition. [...]



CEN SFGas WG GQS – Conclusions

(2)

Reference conditions (b)

(...) For all contributed data reference conditions have to be indicated expressively by units in brackets, eg, . xxx [MJ/m³, 15°C/15°C] in order to avoid any confusion in discussions and documentations.

To switch from one set of reference conditions to another, the table given below, basing on EN ISO 13443, gives multiplying Coefficients:

Reference temperature (combustion volume)	25/20 to 15/15	25/0 to 15/15	0/0 to 15/15
Wobbe Index (for real gas)	1,018 5	0,948 7	0,946 1

(The reference conditions have to be indicated expressively even if the agreed ISO reference conditions (15°/15°) are used.)



**Let us understand
other stakeholders' challenges
and try to identify all obstacles linked
to the different scenarios and
FIND SOLUTIONS!**



...in the CEN Gas Quality Study!