



CEN/TC 234

Technical Standardisation for the Gas Sector in Europe

Madrid Forum, 2008-11-06



Who is CEN ?

European Committee for Standardization!

Comité Européen de Normalisation!

Europäisches Komitee für Normung!



CEN establishes European Standards

- § to build the Single European Market
- § to strengthen regional competitiveness in a global Economy – to export European know-how
- § to ease access to the Single European Market
- § to support EC Directives and Policies`
 - Ø Co-regulation or `new approach´ since 1985 by the market and best practice benchmark



What is a European Standard?

It is a document

- § approved by recognized bodies
- § implemented in all European Member Countries by reliable self-obligation of the Standardisation Bodies
- § established by experts and all interested parties in an open and transparent process
- § reflecting consensus for common and repeated use



The 'new approach' of EC (1985)

- **EC Directives**



- define essential requirements with obligatory and general character (ex. Security and Safety);
- indicate desired outcome WITHOUT specifying how it should be achieved.

- **European Standards**



- Standard Organisations (ex. CEN) develop and approve harmonised standards implemented in Europe on basis of a voluntary obligation;
- EN stipulates standards to meet directive essential requirements



**Why do we
need technical
European
Standards for
gas systems?**





Regulation (EC) No 1775 ...

...on conditions for access to natural gas transmission networks

- a)** security and reliability rules
- b) + c)** grid connection and access rules
- e)** interoperability rules
- f)** operational procedures in an emergency
- g)** **capacity** allocation and congestion management rules
- l)** energy efficiency regarding gas networks



... involved in the process ...

eurogas
General economic aspects

CEER/EREG – Madrid Forum

European organisations of national
regulatory authorities

ACER

Agency ...European Regulators

ENTSOG

European Network of Transmission
System Operators for gas

marcogaz

All technical aspects

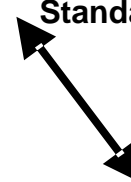
GERG

Research and development



International
Organization for
Standardization

Standardisation



GEODE

Energy distribution aspects



Gas transmission aspects

EASEE-gas

Common Business Practices

UNECE

Guidance with partly technical aspects



For this reason responsibilities and interfaces should be clearly defined!



CEN/TC 234 „Gas infrastructure“

Functional standardisation on ...

- | Design**
- | Choice of materials by product standards**
- | Construction**
- | Testing and commissioning**
- | Operation and maintenance**

...up from the input of gas in the transmission system up to the inlet connection of gas appliances.



Gas and appliance compatibility





CEN/TC 234 Initiative on definitions and terms...

Establishment of a CEN document giving definitions and descriptions of terms used in Europe in the context of the EC directive(s) for a common gas market:

Draft distributed for consultation to:

- CEN
- EASEE-gas
- GTE
- Marcogaz
- ERGEG
- DGTREN (for first information)

Deadline: 2008-10-27
Comments treatment follows



CEN/TC 234 Initiative on definitions and terms...

Strategic Guideline – Framework guideline (TC 234 proposal on the basis of ERGEG approach on ACER)

Document setting out clear and objective principles related to a specific subject, e.g. as a basis for the development of specific rules

Network Code (TC 234 proposal)

A document defining commercial rules associated with TSO – customer interface/relationship and describing requirements related to network access and balancing arrangements, e.g. management of capacity booking, nomination, flow management, balancing and subsequent charging for network access and balancing services.



CEN/TC 234 Initiative on definitions and terms...

Standard (as a document) (ISO/IEC Guide 2:2004, definition 3.2)

Definition document established by consensus and approved by a recognised body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context Note: Standards are based on the consolidated results of science, technology and experience, and aimed at the promotion of optimum community benefits

Common business practice (TC 234 proposal on the basis of EASEE-gas definition)

Common Business Practices (CBPs) describe business processes/procedures and/or protocols which are related to market aspects and which are commonly used in the gas industry in Europe. They are recommended for adoption by relevant industry players to simplify and streamline business processes across the whole of Europe.



CEN/TC 234 Initiative on definitions and terms...

Guideline for good practice - GGP (Working definition of ERGEG)

Document that presents an agreed set of non-binding principles or recommendations that parties should follow on a particular topic. It relates to the implementation of a specific piece of law and it is addressed to NRAs, TSOs, or others.

Note: These ERGEG GGP should not be confused with European Commission “Guidelines”, below which are legally binding or the framework guidelines established under the 3rd package proposals.

Code of practice (EN 45020, 3.5)

Document that recommends practices or procedures for the design, manufacture, installation or maintenance or utilization of equipment, structures or products



CEN/TC 234 Initiative on definitions and terms...

Safety (TC 234 proposal)

The state of being safe, of being protected against unacceptable and involuntary risk of harm and is ensured by activities such as planning, operation and maintenance of a gas system.

Safety is related to gas infrastructures.

Security (TC 234 proposal)

The level of protection or safeguarding of any installation against danger or damage caused by voluntary acts.

The absence of security could result in safety issues.

Security of supply (TC 234 proposal)

Security is related to the activity of gas supply (sale and resale..) and means security of supply of natural gas.

NOTE The term security of supply is interchangeable with reliability of supply

Recommendation: these definitions imply a change of the definitions in EC directive (see EC def security = security of supply and technical safety).



CEN/TC 234 Initiative on definitions and terms...

Reliability of gas systems/network (TC 234 proposal)

technical integrity of the system which ensures the proper function of the system

Emergency plan(ning) (*interface technique/others*) (TC 234 proposal)

Action plan(ning) containing measures to prevent* an emergency or to act in the case of an emergency

- technical measures (actions to bring the gas infrastructure into a safe condition)
- organisational measures (e.g. communication, security of information systems, awareness raising and training)

**(It is to discuss if an emergency plan contains prevention measures or not)*



CEN/TC 234 Initiative on definitions and terms...

Interoperability (TC 234 proposal)

The proper functioning of (inter)connected systems

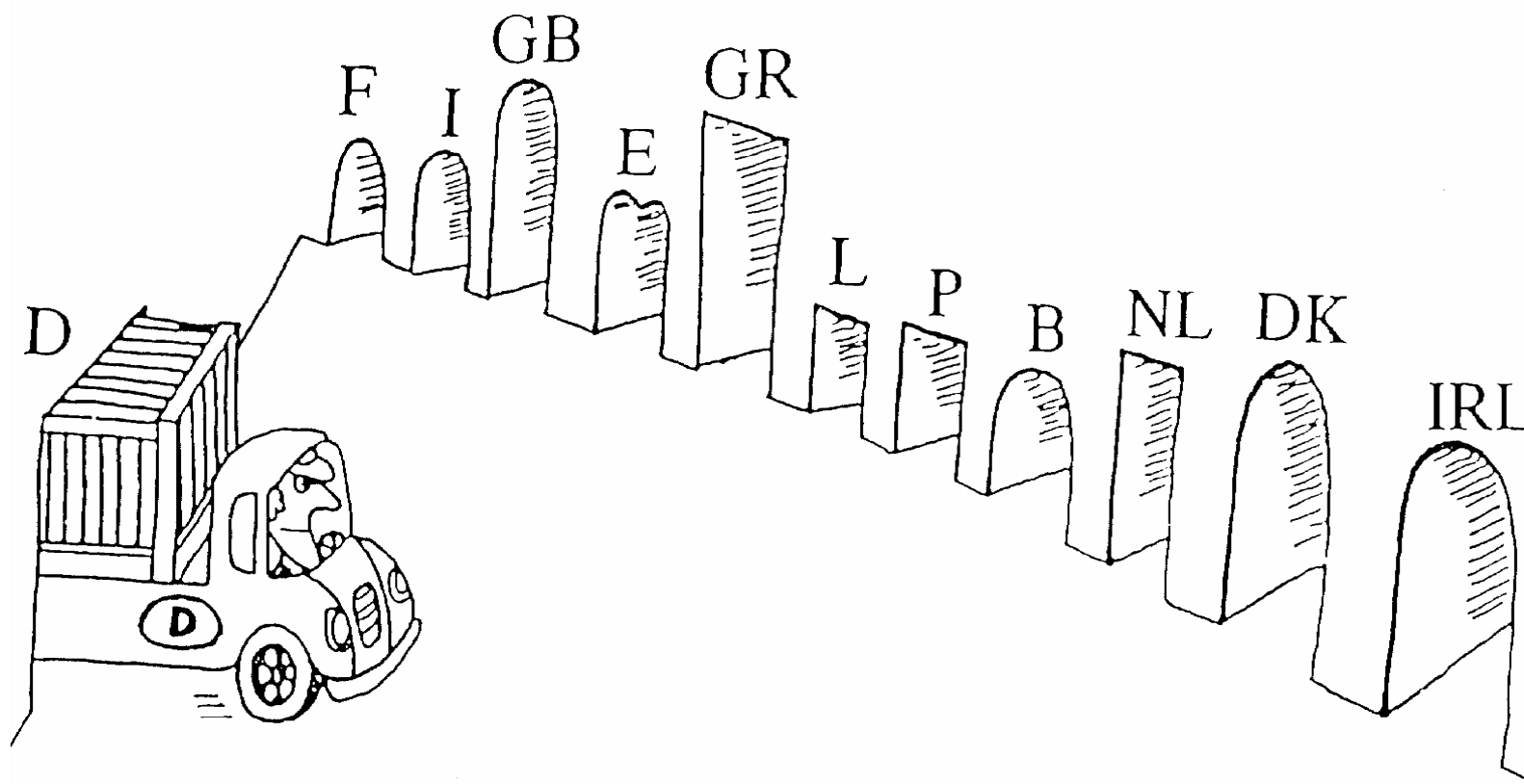
- Technical interoperability (compatibility of connected systems regarding operation, gas quality, pressure settings, gas flow and others)
- Organisational interoperability (agreements eg. between transporters and/or shippers)

System integrity (TC 234 proposal on the basis of REGULATION (EC) No 1775/2005, Art 2, 9)

means any situation in respect of a network including necessary facilities in which the pressure and the quality of the natural gas remain within the minimum and maximum limits laid down by the system operator, so that the transport of natural gas is guaranteed from a technical standpoint;



Together for European compatibility!





Thanks for your attention!

For any kind of question, please contact:

CEN/TC 234 Gas Infrastructure

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The following slides are only for information if presentation should be distributed to the participants of the Madrid Forum.

They are not meant to be presented on 2008-11-06.



CEN Basics

CEN was founded in 1961 by the National Standardisation Bodies in the European Economic Community and EFTA Countries and is shaped by

- § 30 National Members (27 EU, 3 EFTA)
- § 17 Affiliate countries + 1 Partner Standardisation Body
- § 2 Counsellors: EC, EFTA
- § 7 Associate organisations (pan-European organisations)
- § CEN Management Center (CMC), Brussels
- § More than 60,000 experts and 400 federations in liaison
- Ø Over 11.200 European Standards



Main principles of European standardisation

- § Openness and transparency through CEN Process**
- § Consensus among all CEN Members**
- § Voluntary in application**
- § National commitment to withdraw conflicting standards on national level**
- § Technical coherence at national and European level**
- § Market relevance**
- § Correct integration with international work (ISO) via Vienna Agreement**



CEN principles – more details

§ **How we work**

§ CEN coordinates efforts of its members to develop standards to be used by its members and associates. The terms and guidelines are as follows:

§ **Openness and Transparency:** all interested stakeholders may take part in the work; representation is secured primarily through the national standards bodies which send balanced delegations to the policy-making bodies and technical committees. (Depending on specific terms of reference, the committees are also open to Associate Members, Counsellors, European trade federations and international organizations.)

§ **Consensus:** standards are developed on the basis of voluntary agreement between all parties. National Commitment and Technical Coherence: formal adoption of European Standards is decided by a weighted majority vote of the CEN National Members and is binding on all of them. They must implement the standards at national level and withdraw conflicting standards.

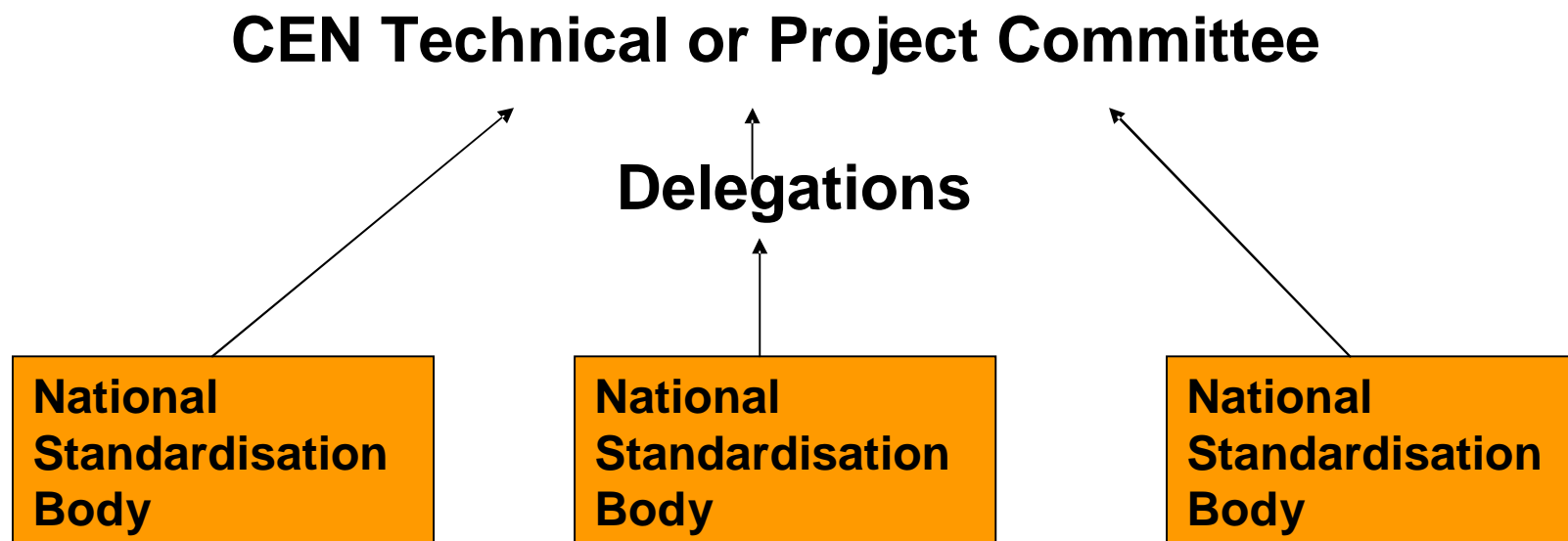
§ **Integration with other international work:** standardization is expensive and time-consuming. Wherever possible CEN works with other European bodies and international bodies in order to minimize overlaps and inefficiencies.

§ The standards programme is coordinated by the Technical Board of CEN.

§ Most standards are drawn up in technical committees and their working groups.



Participation in the standardisation process



Experts in the specific field representing: industry, trade, trade associations, government, consumer, academia,

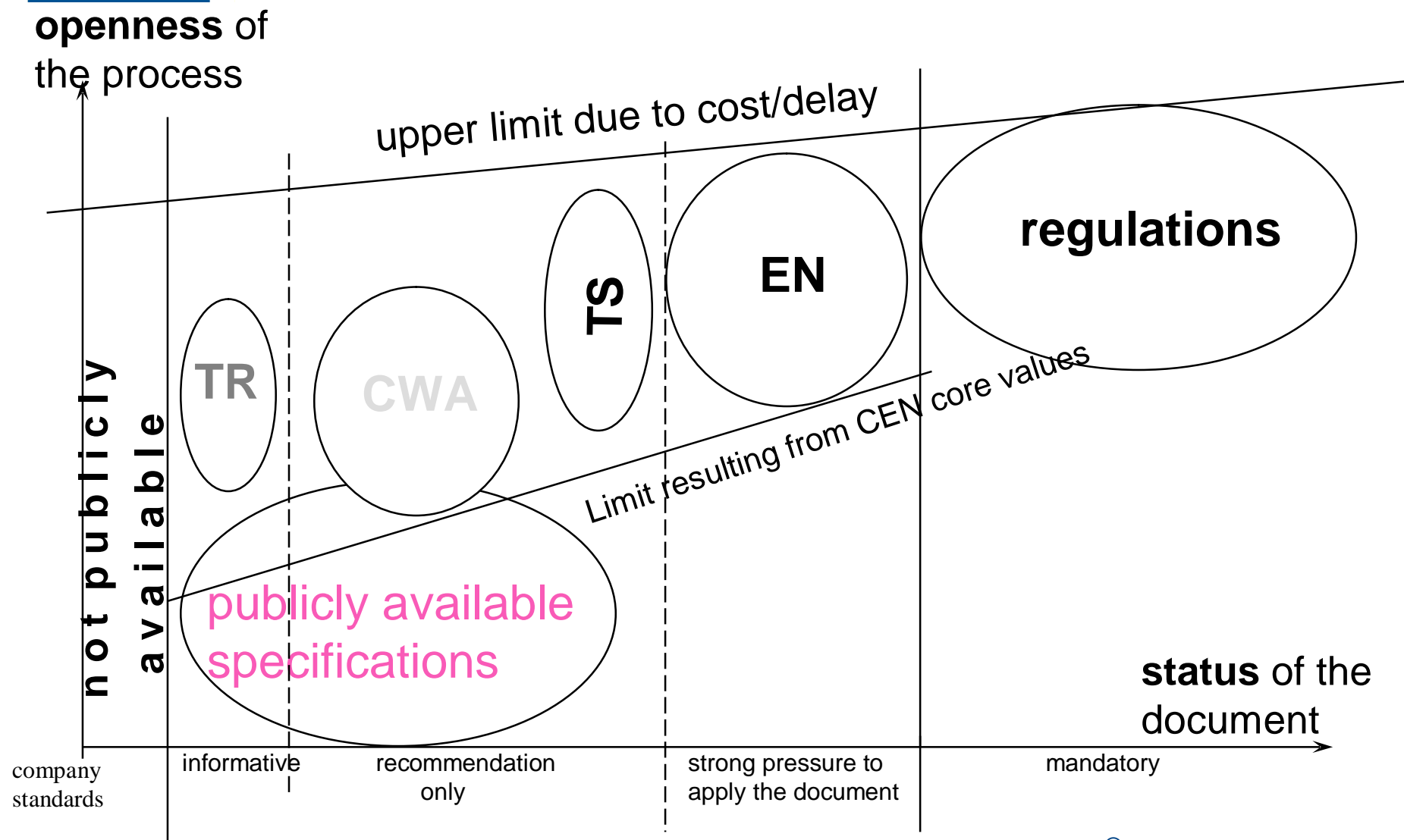


CEN Deliverables in comparison

Deliverable/ character	European Standard (EN)	Technical Specification (CEN/TS)	Technical Report (CEN/TR)	CEN Guide	CEN Workshop Agreement (CWA)
Status of document	Normativ	Normativ	Informative	Informative	Informative
Value of deliverable	<ul style="list-style-type: none"> • Consensus - Highest value • Self-obligation countries of national publication • Effective national implementation because of • withdrawal of any conflicting national standards 	<ul style="list-style-type: none"> • Self-obligation of countries of national publication • No conflict with EN (if so, withdrawal); • competition with other TSs • Guidance in support of the European market • evolving technologies and experimental circumstances 	<ul style="list-style-type: none"> • Internal to the CEN System • Information on technical content of standardization work • Character of "Memorandum" 	<ul style="list-style-type: none"> • Internal to the CEN System • Technical or administrative orientation to CEN work • Advice on CEN standardisation 	<ul style="list-style-type: none"> • Technical agreement in open structure • Consensus between WS participants • No conflict with EN/TS (if so, withdrawal) • Internal to the CEN System
Standstill *	Yes	No	No	No	No
* no national individual action that prejudices while European standardisation					
Approval	Public Enquiry (5 month) + Formal Vote (3 month – weighted) or both combined	Formal Vote (4 month – weighted) ! No Public Enquiry !	Simple majority in BT or TC	Ratification by CA (General Assembly) and/or AG (Admin. Board)	
Duration till pub.	21,5 to 36 month	21,5 month	21,5 month	Not fixed	Not fixed
Lifetime	Revision after mind. 5 years	2 times 3 years	No limit	No limit	2 times 3 years
Languages	E, F, G	E (others optional)	E (others optional)	E (others optional)	E (others optional)

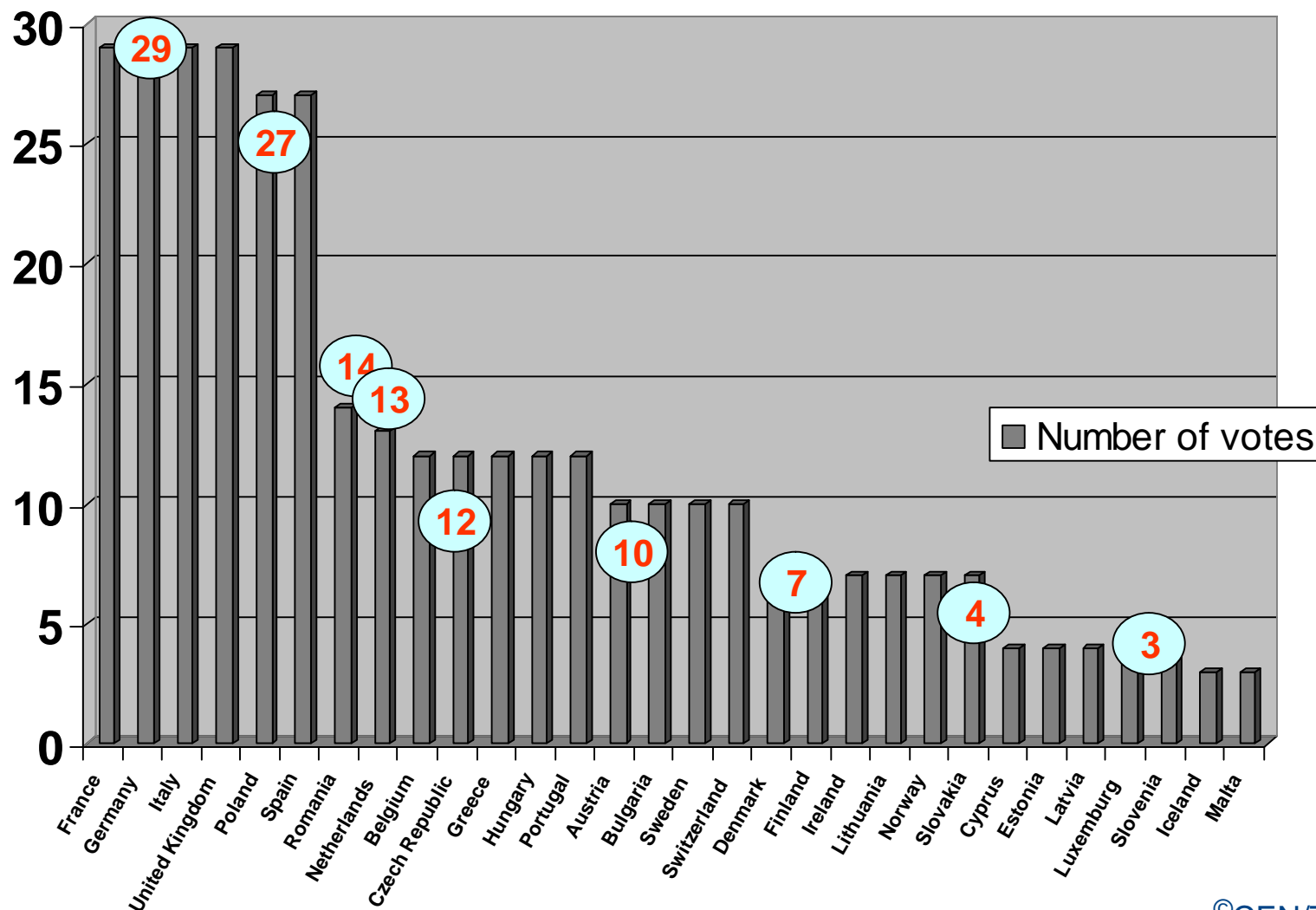


CEN products - status / openness





Votes allocated to CEN national members in case of weighted voting





The standards based on 'new approach' in Europe

Mandatory

**Directive
Essential requirements**



EC Mandate to CEN



Voluntary

European Standard (EN)*



**OJ Citation
harmonised**



CE

*EN = presumption
(proof) of conformity to
mandatory essential
requirements



Development of CEN/TC 234 „Gas Supply“ (Infrastructure)

March 1990

Foundation

June 1993:

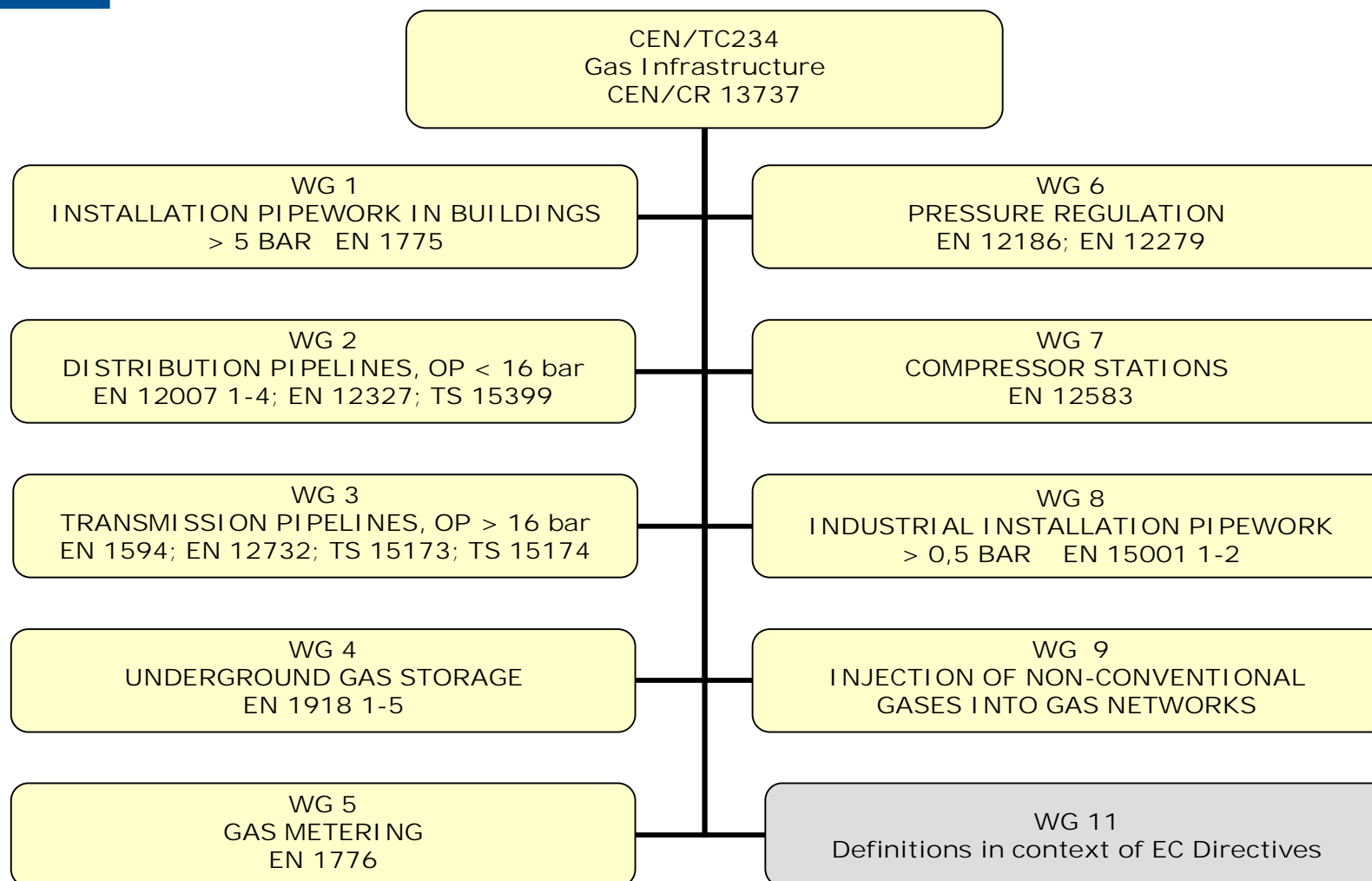
Mandate on the basis of
Public Procurement Directive
(90/531/EEC

up from 2005

Revision process and new
projects



CEN/TC234 - Organisation chart





CEN/TC 234 goals coherent with EC goals in Gas Directive 2003/55/EC

- Provide a **safe and reliable gas supply**
- Establishment of the technical safety criteria needed to realise a safe interoperability of network respecting the requirements of **objectivity** and **non-discrimination**
- Support of the technical **self-regulation** of the gas sector in Europe by setting the necessary technical standards



Current projects

- Ø Revision EN1594 (Transmission)
- Ø Revision EN 1775:2006 (Gas installation in buildings up to and including 5 bar)
- Ø Revision EN 12732 (welding steel pipework)
- Ø Revision EN12583 (compressor stations)
- Ø Revision EN12186 and EN12279 (pressure regulation)
- Ø Elaboration of prEN 15001-1 und -2 (Industrial Gas installations over 0,5 bar and non-industrial over 5 bar), publication 2008
- Ø Conversion CEN/TS 15173 and 15174 into an EN standard on pipeline integrity management
- Ø Injection of non conventional gases in natural gas network



Mandate M 400 – Gas Quality

EC Mandate on gas quality to be launched after final signature of EC and CEN.

2 steps:

- § 1. Test of gas appliances (CEN/BT WG 197)
- § 2. Elaboration of functional Standard (CEN/TC 234)
 - Standardisation of gas quality parameters (broadest range by reasonable costs)
 - Integration of EC Interoperability Study
 - Consideration of EASEE-gas CBP



The 'new approach- more details

- § Some European Standards are drawn up to support this policy, adopted in 1985, which decided that:
- § legislative harmonization is limited to the 'essential requirements', these being obligatory and formulated in general terms;
- § writing of the detailed technical specifications necessary for the implementation of directives is entrusted to the European, voluntary standards organizations like CEN;
- § the standards are not mandatory, but products manufactured according to such 'harmonized' standards gives a 'presumption of conformity' to the essential legal requirements in the directives;
- § compliance results in the right of the product to bear the CE marking of conformity and market release throughout Europe.



The 'new approach- more details

The **new approach and European standardisation** have contributed significantly to the development of the Single Market. The success of the European standardisation system, in removing technical barriers to trade, has played a vital role in ensuring the free movement of goods between Member States.

This Web site has been realised to increase the visibility of New Approach Standardisation in Europe and to provide information on the standardisation process. This site provides access to information on standards and routes into the standardisation process, irrespective of which of the three European Standards Organisations is responsible for the standards applicable to the products: Information on the New Approach legislation is available in the [Guide to the Implementation of Directives based on New Approach and Global Approach](#).

www.newapproach.org represents the joint efforts of the three European Standards Organisations (CEN, CENELEC and ETSI) together with both the European Commission and EFTA.



European gas grids : a very ramified system

[dated 2006]

