WORK OF

OTHER ISO TECHNICAL COMMITTEES

G.Trican, Perth, February 2009

ISO STANDARDS FOR OIL AND GAS INDUSTRY

Several ISO technical committees cover "energy" (and related) sectors.

- **ISO/TC 67** *(was presented yesterday)*

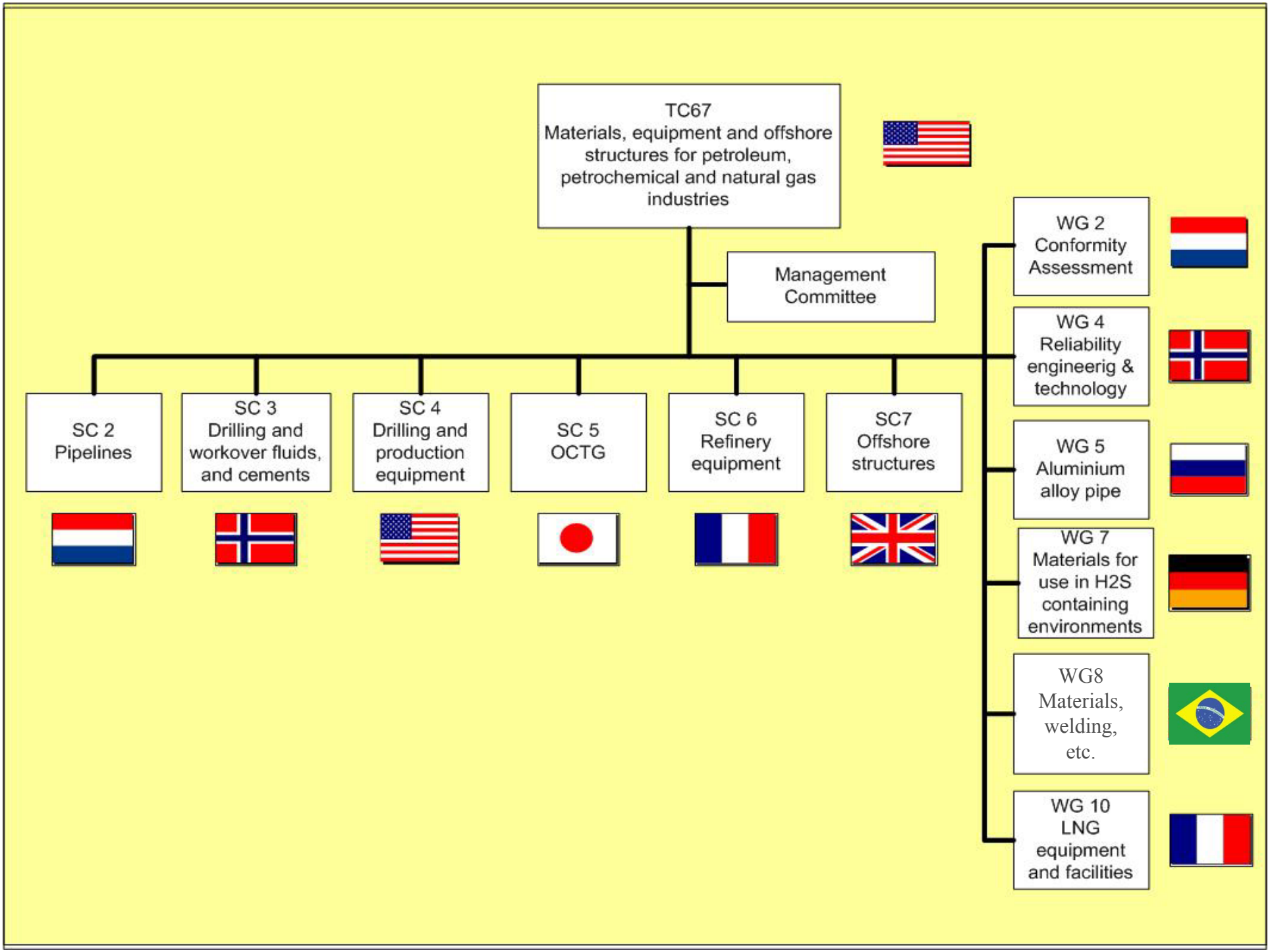
Today we will introduce 2 "product" TCs :

- **ISO/TC 193 – Natural gas**
- **ISO/TC 28 – Petroleum Products**

and also for illustration 2 "equipment" TCs :

- ISO/TC 118/SC 1 - Compressors
- ISO/TC 153/SC 1 - Valves

TOTAL


TC67
Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries
Management Committee
SC 2
Pipelines
SC 3
Drilling and workover fluids, and cements
SC 4
Drilling and production equipment
SC 5
OCTG
SC 6
Refinery equipment
SC7
Offshore structures
WG 2
Conformity Assessment
WG 4
Reliability engineerig & technology
WG 5
Aluminium alloy pipe
WG 7
Materials for use in H2S containing environments
WG8
Materials, welding, etc.
WG 10
LNG equipment and facilities

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ISO/TC 193 NATURAL GAS

created in 1988

Scope: standardization of terminology, quality specifications, methods of measurement, sampling, analysis and test for natural gas and natural gas substitutes (gaseous fuel), in all its facets from production to delivery to all possible end users

Vision:

- Global standards used locally worldwide

Mission:

- **to** create value-added **International standards for Natural Gas to support the liberalization of the gas markets, the energy efficiency, the environment protection and safety**

Key Values:

- **Harmonization of quality requirements: clear agreements about the measurements of volume and quality (e.g. calorific value) of the gas; accuracy of measurements**
- **The development and maintenance of the standards for allocation of the presence of solids and liquids in the gas (for the upstream industry)**
- **ISO/TC 193 standards - supporting tools for delivery contracts of natural gas.**
- **ISO/TC 193 standards - supporting tools for regulations in the field of natural gas.**

TOTAL

Members of ISO/TC193 Natural Gas

24 Participating (P) Members:

Austria (ON), Belgium (NBN), China (SAC), Czech Republic (CNI), Egypt (EOS), France (AFNOR), Germany (DIN), Hungary (MSZT), India (BIS), Italy (UNI), Kazakhstan (KAZMEMST), Kenya (KEBS), Korea (KATS), Norway (SN), Qatar (QS), Poland (PKN), Russian Federation (Rostechregulirovanie), Spain (AENOR), Thailand (TISI), Trinidad and Tobago (TTBS), USA (ANSI), Ukraine (DSSU), United Kingdom (BSI)

29 Observer (O) Members:

Argentina (IRAM), Bosnia and Herzegovina (BAS), Brazil (ABNT), Canada (SCC) , Chile (INN), Croatia (HZN), Cuba (NC), Côte-d'Ivoire (CODINORM), Denmark (DS), Finland (SFS), Hong Kong, China (ITCHKSAR), Iraq (COSQC), Ireland (NSAI), Japan (JISC), Lithuania (LST), Malaysia (DSM), Moldova, Republic of (MOLDST), Mongolia (MASM), New Zealand (SNZ), Oman (DGSM), Portugal (IPQ), Serbia (ISS), Singapore (SPRING SG), Slovakia (SUTN), Sweden (SIS), Switzerland (SNV), Tunisia (INNORPI), Turkey (TSE)

TOTAL

ISO/TC193 Natural Gas

ISO/TC193

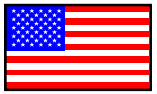
Chairman: Mr. Lex Scheers

Secretariat: Mr. Pim Bijl (NEN)

- WG 2 — Quality Designation
- WG 4 — Terminology
- WG 5 — Odorization
- WG 6 — Methane number
- WG 7 — Energy determination

SC 1 — Analysis of natural gas

- WG 10 — Sulphur
- WG 13 — Thermodynamic properties
- WG 15 — Uncertainty calculations
- WG 17 — Revision of ISO 6974 (except part 2)
- WG 18 — Revision of ISO 6976
- WG 19 — Liquid fomation



SC 3 — Upstream area

- WG 1 — Allocation and measurement
- WG 2 — Wet gas measurements
- WG 3 — Hydrate control
- WG4 — Upstream GC application
- AHG — Wet Gas Sampling

TOTAL

ISO/TC 193 Standards Work in Progress

- **Total number of published ISO/TC193 standards :** 37

- **Number of published ISO standards under the** direct **responsibility of the ISO/TC193 Secretariat:** 7
- **Number of published ISO standards under the responsibility of** SC1 Analysis of natural gas**:** 30
- **Number of published ISO standards under the responsibility of** SC3 Upstream area**:** 1 Allocation of gas and condensate

- **Total number of work-in-progress items (incl. "in-revision"):** 27
- **Number of work-in-progress items (incl. "in-revision") under the** direct **responsibility of ISO/TC 193:** 8
- **Number of work-in-progress items (incl. "in-revision") under the responsibility of** SC1**:** 14
- **Number of work-in-progress items under the responsibility of** SC3**:** 4 including wet gas measurements

TOTAL

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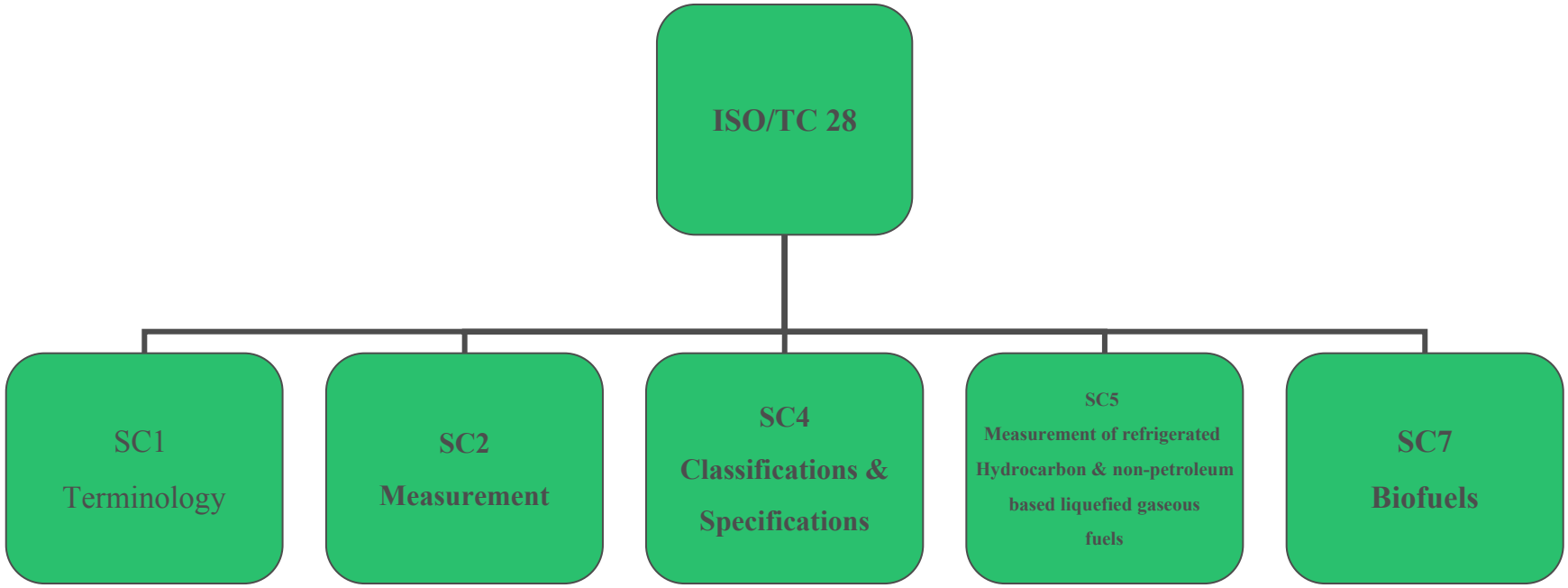
ISO/TC 28 : PETROLEUM PRODUCTS



ISO/TC 28

SCOPE :

Terminology, classification, specifications, methods of sampling, measurement, analysis and testing for :

- **Petroleum**
- **Petroleum products**
- **Petroleum based lubricants and hydraulic fluids**
- **Non-petroleum based liquid fuels**
- **Non-petroleum based lubricants and hydraulic fluids.**

ISO/TC 28

METRICS :

- **P- Members : 30 countries**
- **O- Members : 56 countries**
- **Number of ISO standards published : 232**

(out of which 118 are under direct responsibility of TC)

- **6 active Working Groups reporting directly to TC**

TOTAL

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OTHER ISO/TC AND SC : ISO/TC 118/SC 1

This sub-committees deals with compressors for the Petroleum and Natural Gas industries.

Work is performed jointly with ISO/TC 67/SC 6 (Refinery equipment).

Published standards include positive-displacement compressors, reciprocating compressors, air compressors, etc.

Under development is ISO/NP 10439 on Centrifugal compressors

OTHER ISO/TC AND SC : ISO/TC 153/SC 1

Within the "Valves" TC, Sub-Committee SC 1 scope relates to : design, manufacture, marking and testing.

Within TC 153/SC 1, a number of Working Groups are of particular interest for our Industry :

- WG 1 : Valves for Petroleum industry
- WG 6 : Fire resistance test for valves
- WG 10 : Fugitive emissions
- WG 11 : Ball valves
- WG 13 : Valves for low temperature applications

TOTAL

CONCLUSION

In addition to the "main" Technical committees where we are directly involved, it is important to keep informed of the work done in a number of other TCs, and also to participate in the development of standards through Joint-Working Groups (JWG).

Thank you for your attention