

WORK OF ISO/TC 67

“GLOBAL STANDARDS FOR THE OIL AND GAS INDUSTRY”



CONTENTS

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ISO SYSTEM

- ▶ **Consensus-based**
- ▶ **Right to join any technical committee of commercial/technical interest**
- ▶ **Voting rights on all standards**
- ▶ **“one country, one vote”**
- ▶ **Market driven**
- ▶ **International technical expertise**
- ▶ **Voluntary, not mandated**
- ▶ **Meets requirements of WTO ‘Technical Barriers to Trade’**

ISO STANDARDS FOR OIL AND GAS INDUSTRY

Several ISO technical committees cover “energy” (and related) sectors including:

- ▶ *ISO/TC 193 – Natural gas*
- ▶ *ISO/TC 28 – Petroleum Products*
- ▶ **ISO/TC 67 – Materials, equipment & offshore structures for the PPNGI**

In this presentation, we will focus on ISO/TC 67.

TC 67 Chair receiving 2006 L.E. Award



Materials and Equipment ISO/TC 67

▶ TITLE:

“Materials, equipment and offshore structures for the petroleum, petrochemical and natural gas industries”

Excludes – aspects of offshore structures subject to IMO regulation (ISO/TC 8 “Ships and marine technology”). There is a MOU between TC 8 and TC 67.

▶ SCOPE

Standardization of the materials, equipment and offshore structures used in drilling, production, transport by pipelines and processing of liquid and gaseous hydrocarbons within the petroleum, petrochemical and natural gas industries.

ISO/TC 67 MEMBERS

▶ PARTICIPATING MEMBERS = 31

Argentina, Bahrain, Brazil, Canada, China, Denmark, Finland, France, Germany, Indonesia, Italy, Japan, Kazakhstan, Korea (Republic of), Iran, Libyan Arab Jamahiriya, Mexico, Netherlands, Nigeria, Norway, Portugal, Qatar, Romania, Russian Federation, South Africa, Spain, Sweden, Ukraine, United Kingdom, United States, Venezuela

▶ OBSERVING MEMBERS = 29

Australia, Austria, Azerbaijan, Belgium, Bulgaria, Colombia, Croatia, Cuba, Czech Republic, Ecuador, Egypt, Hong Kong, Hungary, India, Ireland, Malaysia, Moldova, Mongolia, Oman, Poland, Saudi Arabia, Serbia, Singapore, Slovakia, Switzerland, Thailand, Trinidad and Tobago, Viet Nam

ISO TC67 PARTICIPANTS

- ▶ **Operators**
- ▶ **Service/supply companies**
- ▶ **Manufacturers**
- ▶ **Government regulators**
- ▶ **Consultants**
- ▶ **Academics**
- ▶ **Note :** *Experts are nominated by their national standards body*

(e.g. Standards Australia) to participate in work effort.

ISO/TC 67 STANDARDS

▶ MISSION

- To create value-added standards for the oil and natural gas industries

▶ VISION

Global standards used locally worldwide

- ▶ TC created in 1947, reactivated 1987
- ▶ Secretariat – API on behalf of ANSI
- ▶ 135 published standards
- ▶ 50% adopted by API,
- ▶ 90% adopted by CEN or other Regional organisations,
- ▶ More than 45% adopted by CEN and API
- ▶ More than 70 on-going projects (60% ‘revising an existing document’, 40% ‘new document’)

- ▶ **Standards made by our Industry for our Industry.**

VISION OF GLOBAL STANDARDS

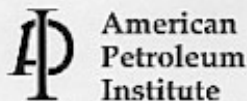
API Adopt-back of ISO 13706, as ANSI/API 661

European Standard (adoption of ISO 13706 via Vienna Agreement)

Air-Cooled Heat Exchangers for General Refinery Service

API Standard 661, Fifth Edition
March 2002

ISO 13706: 2000, Petroleum and Natural Gas
Industries—Air-cooled Heat Exchangers



Helping You
Get The Job
Done Right.™



EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 13706

April 2000

ICS 75.180.20

English version:

Petroleum and natural gas industries - Air-cooled heat
exchangers (ISO 13706:1998)

Industries du pétrole et du gaz naturel - Échangeurs de
chaleur refroidis à l'air (ISO 13706:1998)

Erds- und Erdgasindustrien - Luftgekühlte Wärmetauscher
(ISO 13706:1998)

This European Standard was approved by CEN on 15 April 2000.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Ref. No. EN ISO 13706:2000 E

ISO/TC 67 MANAGEMENT COMMITTEE

- ▶ Representative from each “P” country
- ▶ Coordinates TC67 activities with ISO Central Secretariat
- ▶ Prepares organisation/structure adaptations whenever needed for relevant body (e.g. TC, ISO/TMB) approval.
- ▶ Seeks resources for SC – technical experts, editing funds, etc.
- ▶ Publishes the Business Plan (requirement of ISO Technical Management Board)
- ▶ Maintains Management Tools (N435, N654, and N731)
- ▶ Closely monitors progress of projects and publication targets, and works towards guiding document through DIS and FDIS.

ISO TC67 MANAGEMENT COMMITTEE

▶ CURRENT REPRESENTATIVES

- Brazil, Canada, China, France, Italy, Japan, Netherlands, Norway, Qatar, United Kingdom, United States

▶ LIAISONS

- OGP, IADC and CEN/TC 12

TC 67 ORGANISATION

TC67
Materials, equipment and offshore
structures for petroleum,
petrochemical and natural gas
industries



Management
Committee

WG 2
Conformity
Assessment



WG 4
Reliability
engineering &
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



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



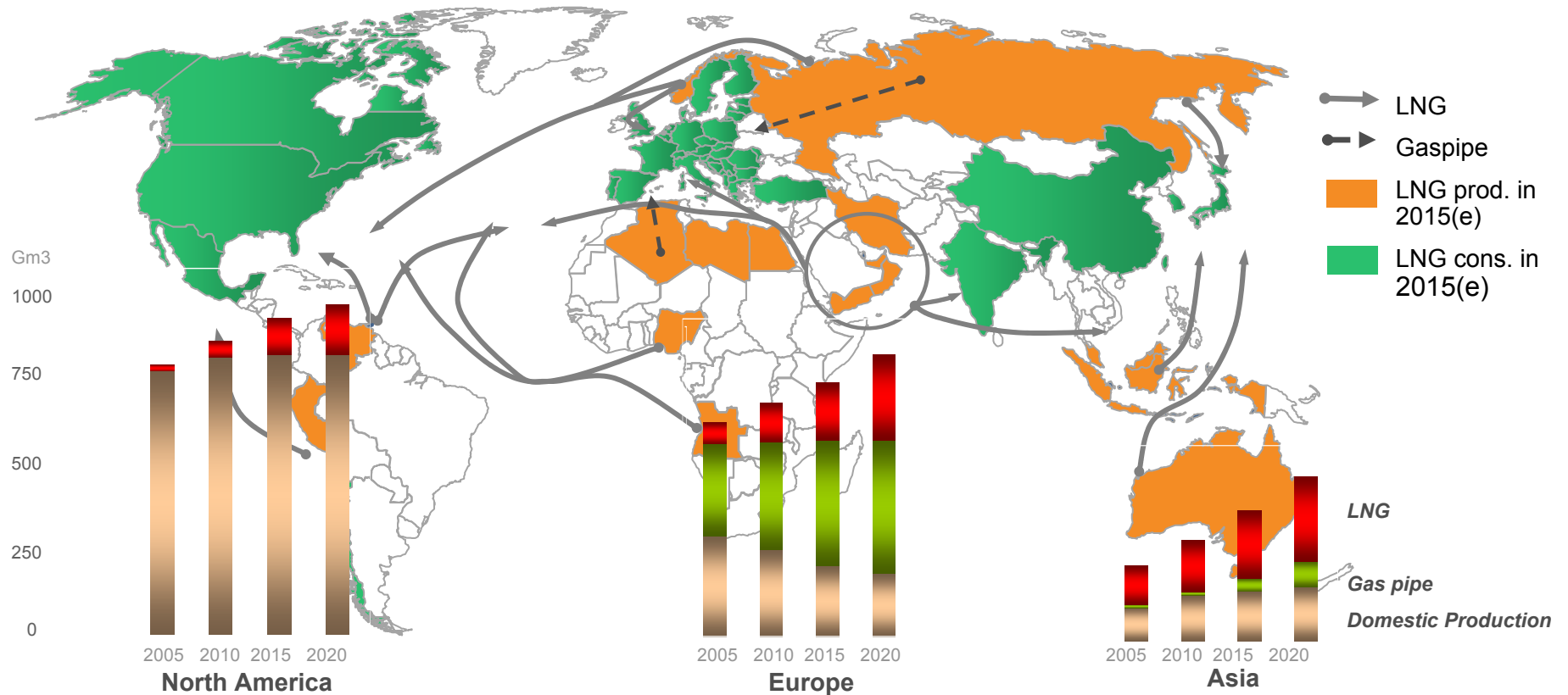
NEW ISO WORKGROUPS

An ISO Technical Committee is not “fixed for life”, but can adapt its structure whenever needed to suit the demand of Standards users.

We are going to see, *as an example*, how a new Working Group, has been decided by ISO/TC 67 in order to deal with LNG Equipment.

Adaptability

The LNG market will be the most dynamic energy sector in the coming years

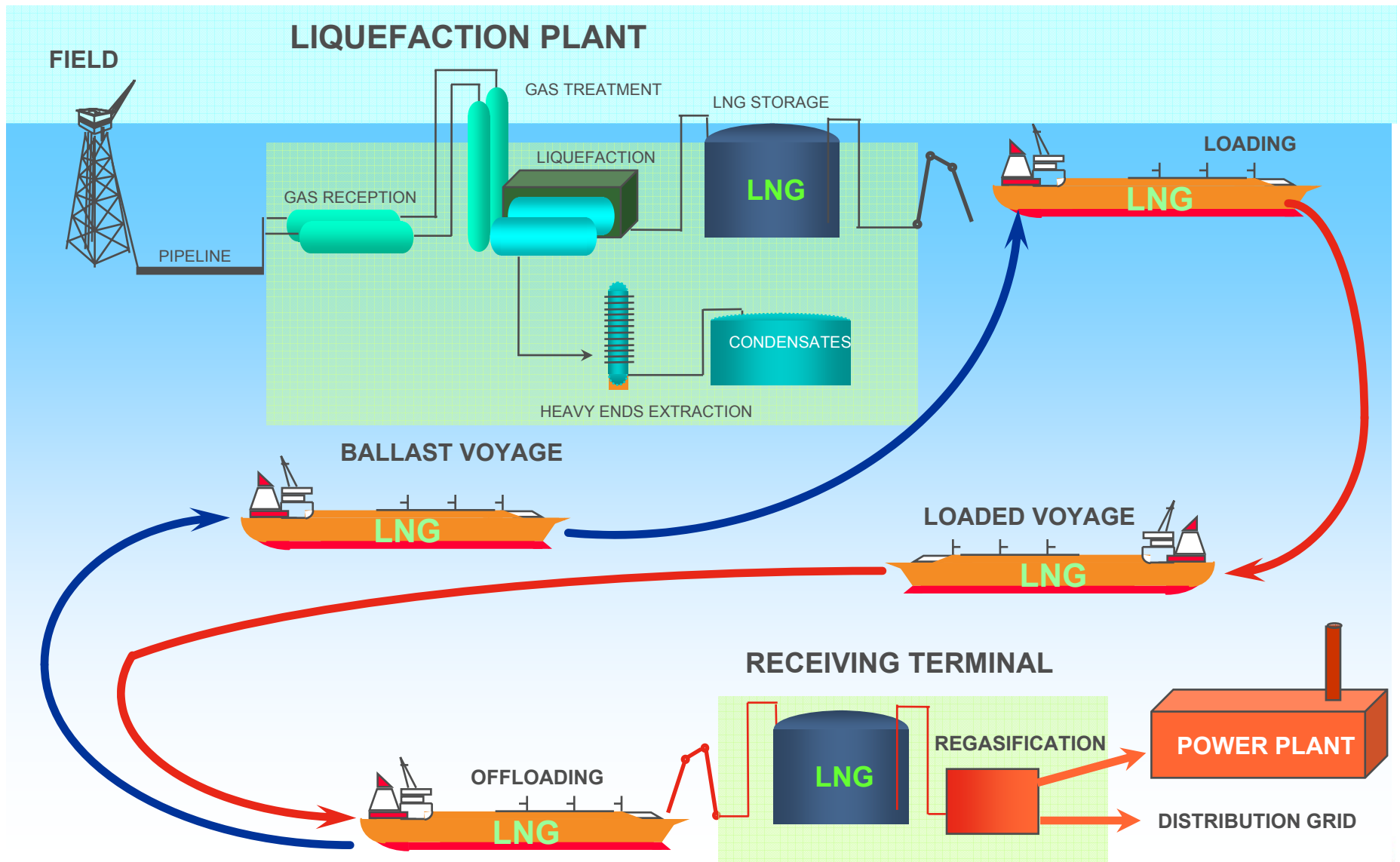


- LNG demand in Asia: pulled by China & India
- LNG demand in EU & America: link to flat/declining domestic production

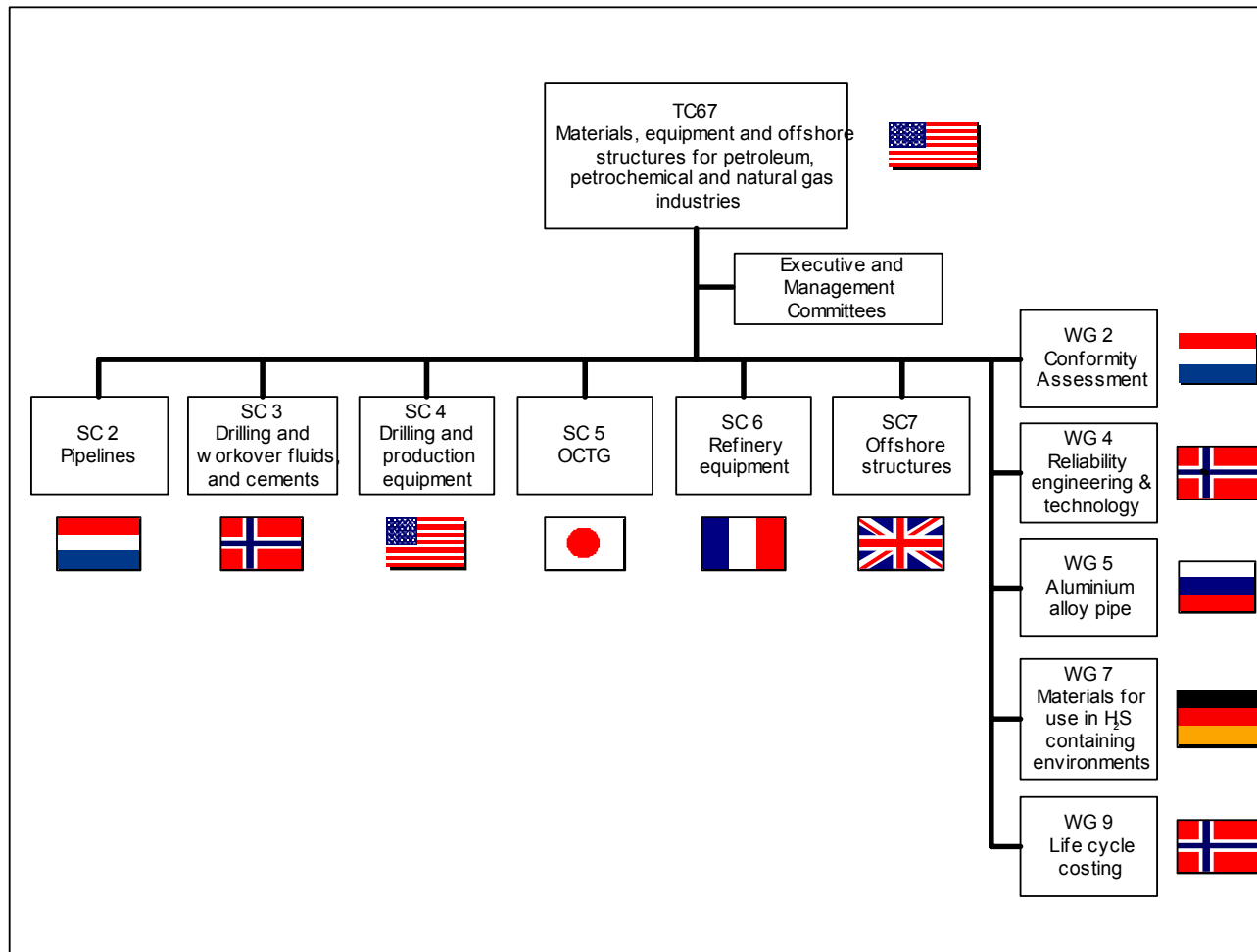
LNG World : Forthcoming challenges

- ▶ **Global and flexible market**
- ▶ **New environments and new concepts**
- ▶ **New liquefaction processes and cryogenic equipment**
- ▶ **Larger size of plants**
- ▶ **Increased safety and security requirements**
- ▶ **Lower capital expenditures**

LNG Chain



ISO/TC 67 in 2004



Investigating the needs

- ▶ The question having been raised by several members, ISO/TC 67 Management Committee decides in February 2005 to “..form a LNG Ad Hoc group to investigate the need for standards in this technology and report back..”.
- ▶ This Ad Hoc group confirms that many different Codes and Standards already exist within the LNG industry :

NFPA, ASME, API (USA) ; JGA (Japan); CSA (Canada); NOM (Mexico);

DIN (Germany); BS,IP (UK); EN (Europe), and others.
- ▶ A “Business Case” is prepared in 2006 and concludes that there is an actual need for global International Standards for the LNG industry. ‘LNG ship to shore interface’ is identified as a possible first New Work Item for the workgroup.

Decision by TC 67

- ▶ Following the conclusions of the Ad Hoc group, ISO/TC 67 plenary decides in September 2006 (resolution 25) :

“.... the formation of Work Group 10, 'LNG installations and equipment', ... asking P-members to name volunteers by end of October, 2006.

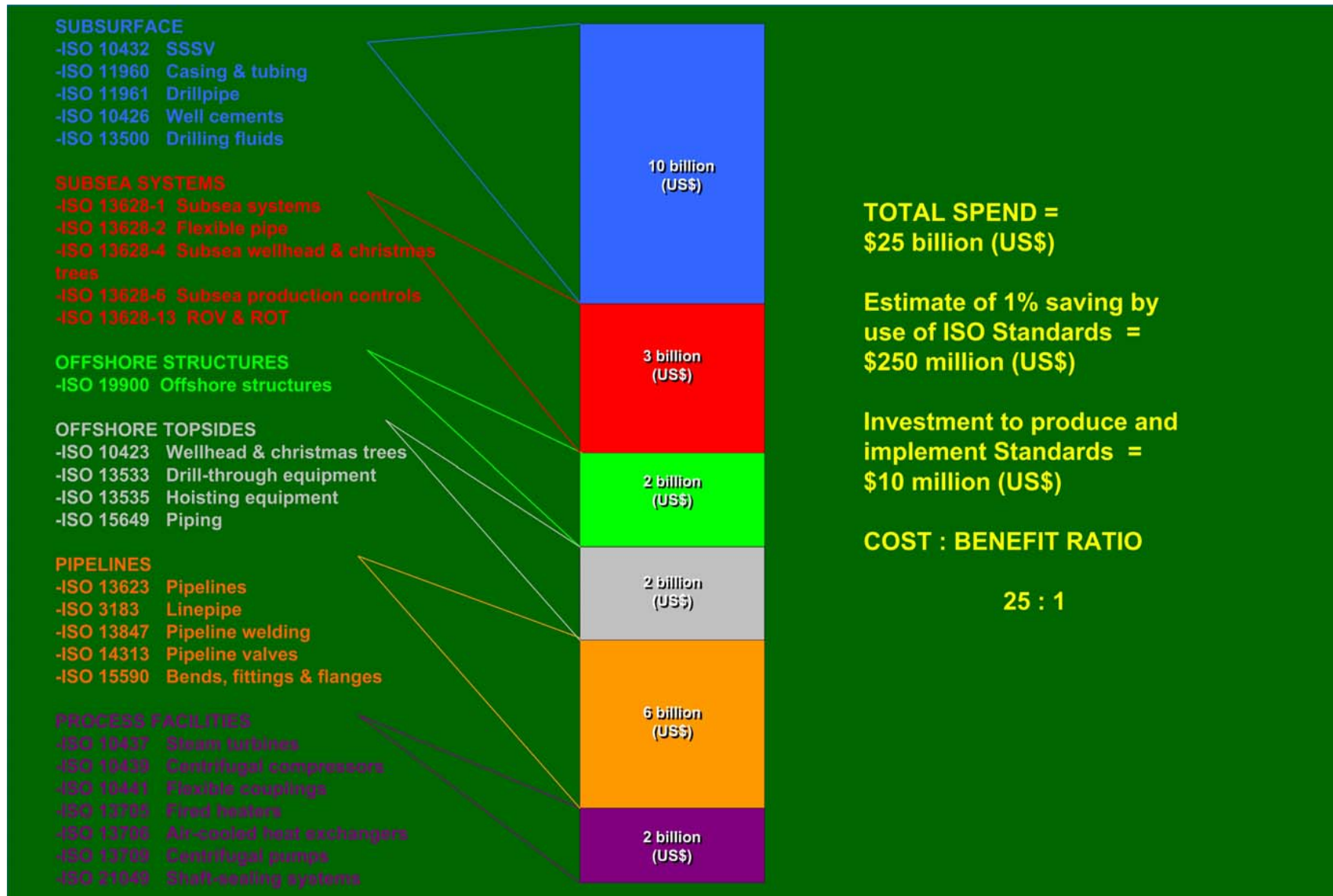
This work group's scope will be standardization for installations and equipment for liquefied natural gas, **excluding product or testing.**”

- ▶ It is requested by TC 67 for WG 10 to : “.. develop by 1 June 2007 a proposed work group programme, taking into consideration all current LNG standards. The first meeting of the work group is expected to be held during the first week of December, 2006.”

Achievements of the new Working Group

- ▶ Two meetings of WG 10 were held soon afterwards, in December 2006 and April 2007.
- ▶ Due to the large number of participants, a steering committee was established, and a number of Task Groups were initiated, one of them being “LNG ship to shore interface and port operations” : ISO/DIS_28460 is currently balloted.
- ▶ TG 3 deals with risk assessment in the design of onshore LNG installations.
- ▶ TG 4 with materials.
- ▶ Regular meetings are held for WG 10 and TG’s.
- ▶ Recently, a new TG 5 was established for ‘LNG storage tanks’, to be followed by TG 6 on ‘marine transfer systems’.
- ▶ *Creating a new working group within the Technical Committee has opened a new field for global standards needed by all segments of the industry.*
- ▶ *Initial outcomes show a very pro-active partnership between the various participants, and confirm this decision was fully justified.*

CONCLUSION : Estimated cost savings with 30 TC67 standards



www.tc67.net

www.iso.org

THANK YOU FOR YOUR ATTENTION

