

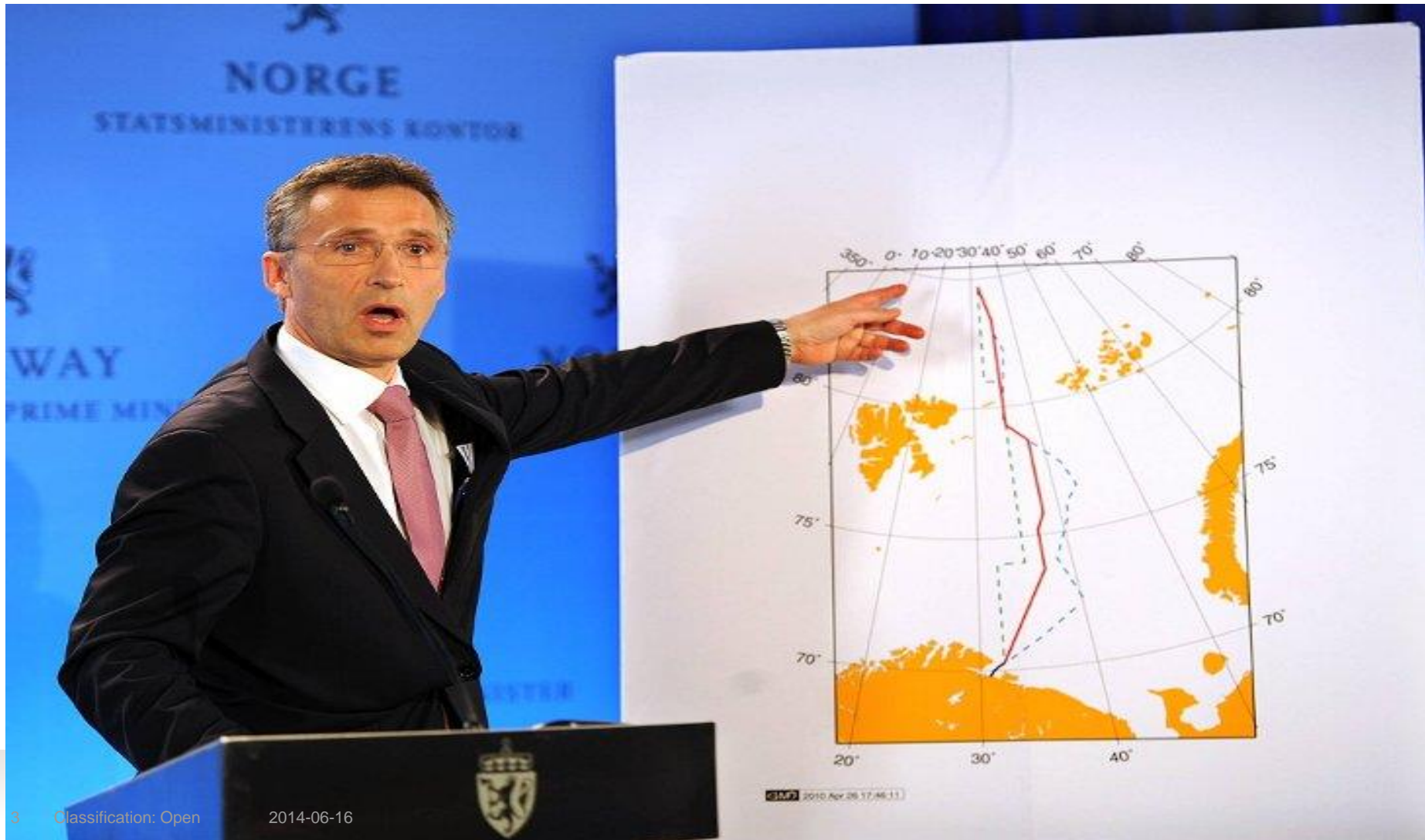
International standardization Arctic Operations (ISO TC67 SC8)

Hermod Ole Johansen

Content

- Forming of Arctic Operations (ISO TC67 SC8)
- Scope for the international subcommittee Arctic Operations
- Development of ISO standards
- The need for additional ISO standards...

Border with Russia is agreed, a “new area”
is to be opened (spring 2011)



Barents 2020

- In autumn 2005 the government launched Barents 2020, which purpose was to:
 - Create a new forum for collaboration on knowledge development between Norwegian and foreign expertise, business interests and authorities through a special grant
 - Barents 2020 represented a new tool in the Norwegian High North policy, with its emphasis on knowledge development in the High North and the cross-border element



03/11/2013
PTIL/PSA
6

Subcommittee Arctic Operations

(ISO TC67 SC8)

Development of Arctic standards under B2020

- The overall aim of the project was to ensure that all oil and gas operations in the Barents Sea, both on the Norwegian and the Russian continental shelf, should be carried out with an acceptable safety level
- The project included all aspects of offshore petroleum activity, i.e. exploration, drilling, production, transportation and support activities
- The project established a very good dialogue between Russian and Norwegian experts for recommendation of industry standards for use in the Barents Sea

Forming of Arctic Operations (ISO TC67 SC8)

- Mrs. Vlada Rusakova, member of Gazprom Management Committee, proposed the forming of a new international arctic operations subcommittee, in a steering committee meeting in the Barents 2020 project, May 2011
- The subcommittee was established with Russian leadership in the ISO TC67 Plenary meeting autumn 2011
- The Norwegian standards body, Standards Norway, was asked to nominate experts and propose New Work Item Proposals
- The kick off meeting was held 14th November 2012 in Moscow, where working groups were formed and New Work Item Proposals discussed
- Work group meetings and 2nd plenary planned 3rd and 4th April 2013 in Rotterdam, followed by plenary meeting in: St. Johns (Canada) autumn 2013, Paris (France) April 2014, Tromsø (Norway) autumn 2014

Subcommittee Arctic Operations

(ISO TC67 SC8)

Why arctic standards?

- Provides an acceptable and uniform safety level
- Provides a predictable HSE framework as references in regulations both on NCS and the RCS
- Are prerequisites for mutual understanding
- Is a provision for continuation of good cooperation between Russia and Norway for safety in the petroleum activities in the High North
- Is a tool for cooperation in safety

Subcommittee Arctic Operations (ISO TC67 SC8)

Scope

Standardization of operations associated with exploration, production and processing of hydrocarbons in onshore and offshore arctic regions, and other locations characterized by low ambient temperatures and the presence of ice, snow and/or permafrost.

- The work will be executed in coordination with the relevant ISO/TC 67 subcommittees and work groups.
- Excluded: Requirements for offshore pipelines that are under SC 2, requirements for offshore structures that are under SC 7.

Purpose and justification

To establish a sub committee to concentrate experience and knowledge in cold-climates and work on specific standards for safe operations in Arctic regions.

Today an increasing number of oil and gas companies focus on Arctic regions in the light of promising oil and natural gas fields. However severe weather conditions and lack of practical experience in cold climates result in great challenges for companies to provide safe and cost effective operations in these regions.

Over the last decades the oil and gas industry has accumulated very valuable practical experience and knowledge in onshore projects in cold climates on one hand and offshore projects in more temperate conditions on the other.

The vision is to build on and extend existing practical experience and solutions and to create a new set of standards that take into the account the specific environmental conditions and help define acceptable levels of safety and security for all facilities and processes associated with Arctic operations exploration.

The subcommittee aims to accumulate knowledge of a number of countries like Canada, Denmark, Norway, Netherlands, Russian Federation, United Kingdom and USA. Countries have experience in different aspects of cold-climate and offshore exploration so the best way to consolidate it is to establish a new subcommittee, the more so as such scope is not included in any existing subcommittee of ISO/TC 67.

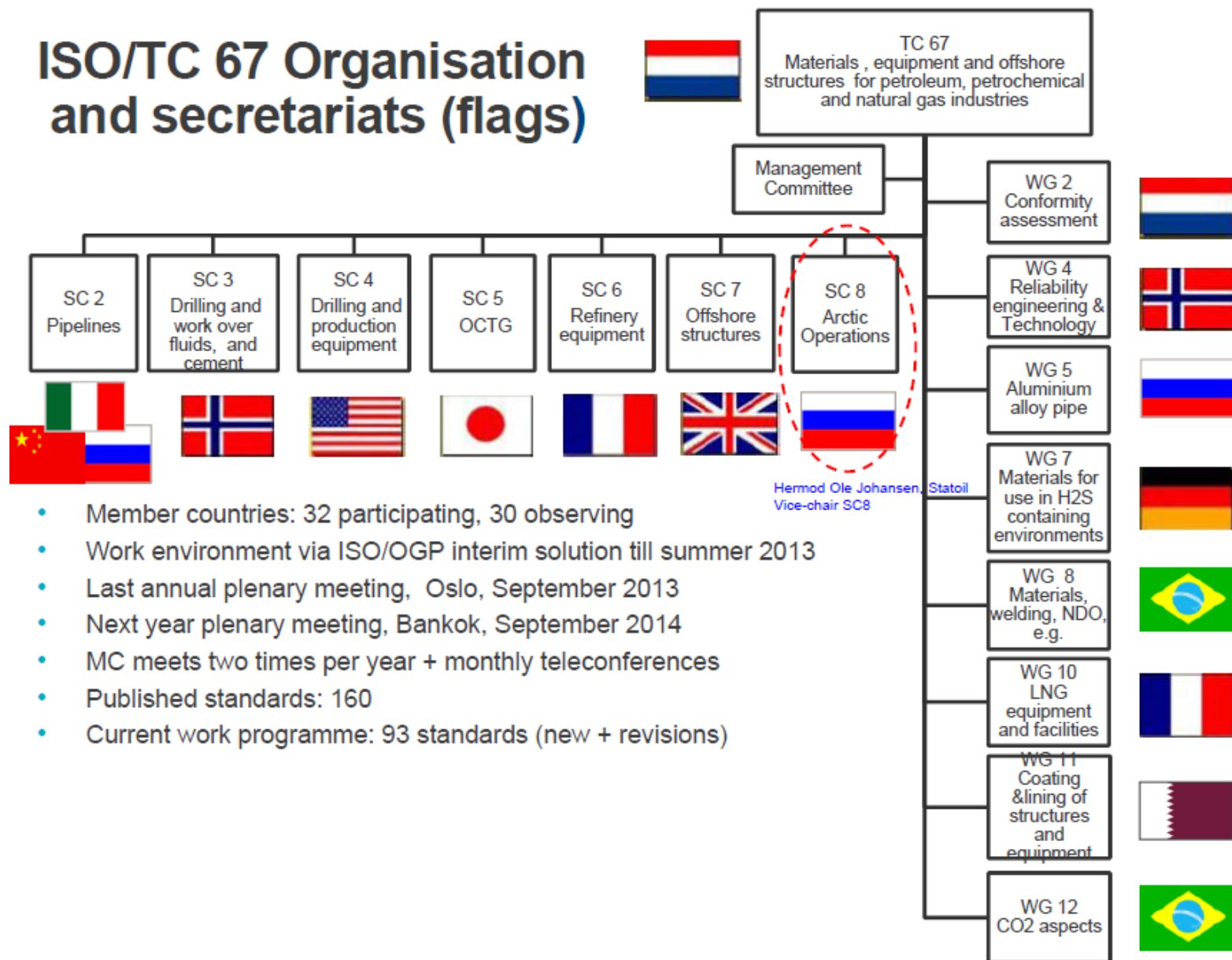
Standard Norge



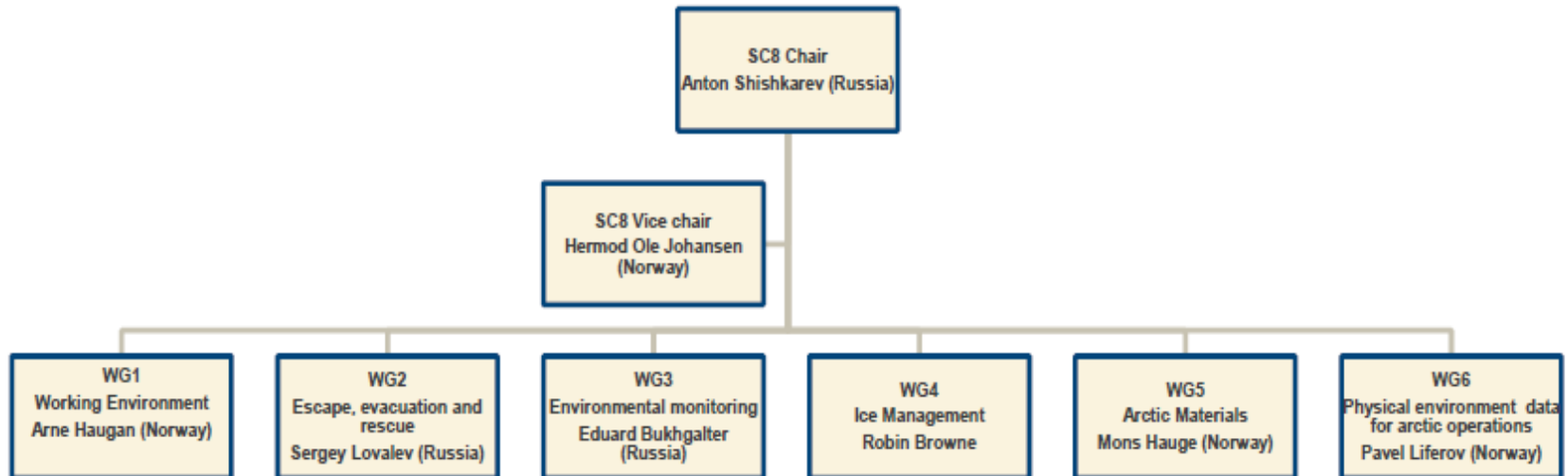
Styreleder Jan A. Oksum og adm. direktør Trine Tveter
NB! Styret har et medlem fra oljeindustrien v/Tor Skjærpe, Petoro.

- Privat, uavhengig og non-profit medlemsorganisasjon
- Etablert i 2003 - med røtter tilbake til 1923
- Utvikler standarder på de fleste områder
- Har i dag ca 16 000 Norsk Standard
 - Over 90 % av nye standarder i dag er av europeisk eller internasjonal opprinnelse
- Norges medlem i CEN og ISO
- Ca. 75 medarbeidere

ISO/TC 67 Organisation and secretariats (flags)



ISO/TC67 SC8 Arctic Operations – working group structure



Sub committee 8: Chair, Vice-chair, Convenors (leader)

Members of SC8:

9 Participating (P)members

Canada	SCC
France	AFNOR
Italy	UNI
Kazakhstan	KAZMEMST
Netherlands	NEN
Norway	SN
Russian Federation	GOST R
United Kingdom	BSI
USA	ANSI

1 Observer (O) member:

Germany	DIN
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Liaison:

Liaison-ISO		IEC/TC 031
Liaison-External	OGP	

SC8 membership to ISO/TCs

ISO/TC67/SC8 is a Liaison member of ISO/TC 207 «Environmental management»

ISO/TC67/SC8 Working groups:

Working group	Title	Convenor
ISO/TC67/SC8/WG1	Working environment	Arne Haugan Norway
ISO/TC67/SC8/WG2	Escape, evacuation and rescue	Sergey Kovalev Russia
ISO/TC67/SC8/WG3	Environmental monitoring	(Eduard Bukhgalter) Natalia Pystina Russia
ISO/TC67/SC8/WG4	Ice management	Robin Browne Canada
ISO/TC67/SC8/WG5	Arctic materials	Mons Hauge Norway
ISO/TC67/SC8/WG6	Physical environment for arctic operations	Pavel Liferov Norway
ISO/TC67/SC8/WG7	Man-made islands and land extension	Rob de Jong The Netherlands

ISO TC67/SC8 Arctic operations – Nominated Norwegian experts

Chairman: Mr Anton Shishkarev, Russland

Vice chairman: Hermod Johansen, Norway

Working groups (WG)		Convenor/ Country	Norwegian experts	Secretariat/ Standards body	Coordinating Norwegian Expert groups
1	Working environment in arctic operations - ISO/AWI 18861	Arne Haugan, Norway	Arne Haugan (Statoil), Arild Øvrum (Statoil), Hilde Heber (BG), Anders Rommetveit (Aibel), Hilde Færevik (Sintef), Arne Larsen-Fløysvig (LO)	Standards Norway (SN), Nils-Erik Jacobsen	EG-S
2	Escape, evacuation and rescue from offshore installations - ISO/AWI 18819	Sergey Kovalev, Russia	Rune Bråthen (Statoil), Sigurd Jacobsen (PSA), Karin Klemetsrud (DNV), Paul Skulstad (Scandpower), Kjersti Høgestøl (Norwegian Shipowners' Association)	SN, Roar Heum	
3	Environmental monitoring for arctic offshore exploration - ISO/AWI 18820	Natalia Pystina, Russia	Sam-Arne Nøland (DNV), Lars Petter Myhre (Statoil), Are Børjesson (scandpower), Anne Gunn Rike, Standard Norge	SN, Roar Heum	
4	Ice management - ISO/AWI 19279	Robin Browne, Canada	Pavel Liferov (Statoil), Ove Tobias Gudmestad (UIS), Håvard Myhre (Aibel)	SN, Roar Heum	EG-N
5	Material requirements for arctic operations	Mons Hauge, Norway	Mons Hauge (Statoil), Jørund Furre (Aibel)	SN, Javad Sunde Fahadi	EG-M
6	Physical environmental data for arctic operations - ISO/NP 19067	Pavel Liferov, Norway	Pavel Liferov (Statoil), Ove Tobias Gudmestad (UIS), Håvard Myhra (Aibel)	SN, Anne Gunn Rike	EG-N
7	((Man-made islands and land extension– Flyttet til SC7 ISO-19906 Arctic structures))	Rob de Jong, Netherlands	Ove Tobias Gudmestad (UIS)	SN, Roar Heum	

Arbeidsprogram og fremdrift ISO TC 67/SC8 Arctic operations

Arbeidsgruppe	Standard/TS	Tittel	Plandatoer i ISO-prosessen
WG1 Working environment	ISO/AWI 18861 (WG1)	Petroleum and natural gas industries. Arctic Operations. Working environment	CD: 2014-03-26 DIS: 2014-09-26 FDIS: 2015-09-26 ISO: 2016-03-26
WG2 Escape, evacuation and rescue	ISO/AWI 18819 (WG2)	Petroleum and natural gas industries. Arctic operations. Escape, evacuation and rescue from offshore installations	CD: 2014-03-26 DIS: 2014-09-26 FDIS: 2015-09-26 ISO: 2016-03-26
WG3 Environmental monitoring	ISO/AWI 18820 (WG3)	Petroleum and natural gas industries. Arctic Operations. Environmental monitoring for offshore exploration	CD: 2014-09-26 DIS: 2014-03-26 FDIS: 2015-03-26 ISO: 2016-09-26
WG4 Ice management	ISO/AWI 19279 (WG4)	Petroleum and natural gas industries. Arctic operations. Ice management	CD: 2014-06-27 DIS: 2014-12-27 FDIS: 2015-12-27 ISO: 2016-06-27
WG5 Arctic materials	ISO TS	Petroleum and natural gas industries. Material requirements for arctic operations	<u>Init: aug. 2013</u> <u>CD: sept. 2014</u> <u>ISO: sept. 2016</u>
WG6 Physical environment for arctic operations	ISO/NP 19067 (WG6)	Petroleum and natural gas industries. Arctic operations. Physical environmental data for arctic operations	CD: 2014-06-04 DIS: 2014-12-04 FDIS: 2015-12-04 ISO: 2016-06-04

Standards Development

Key principles in standard development

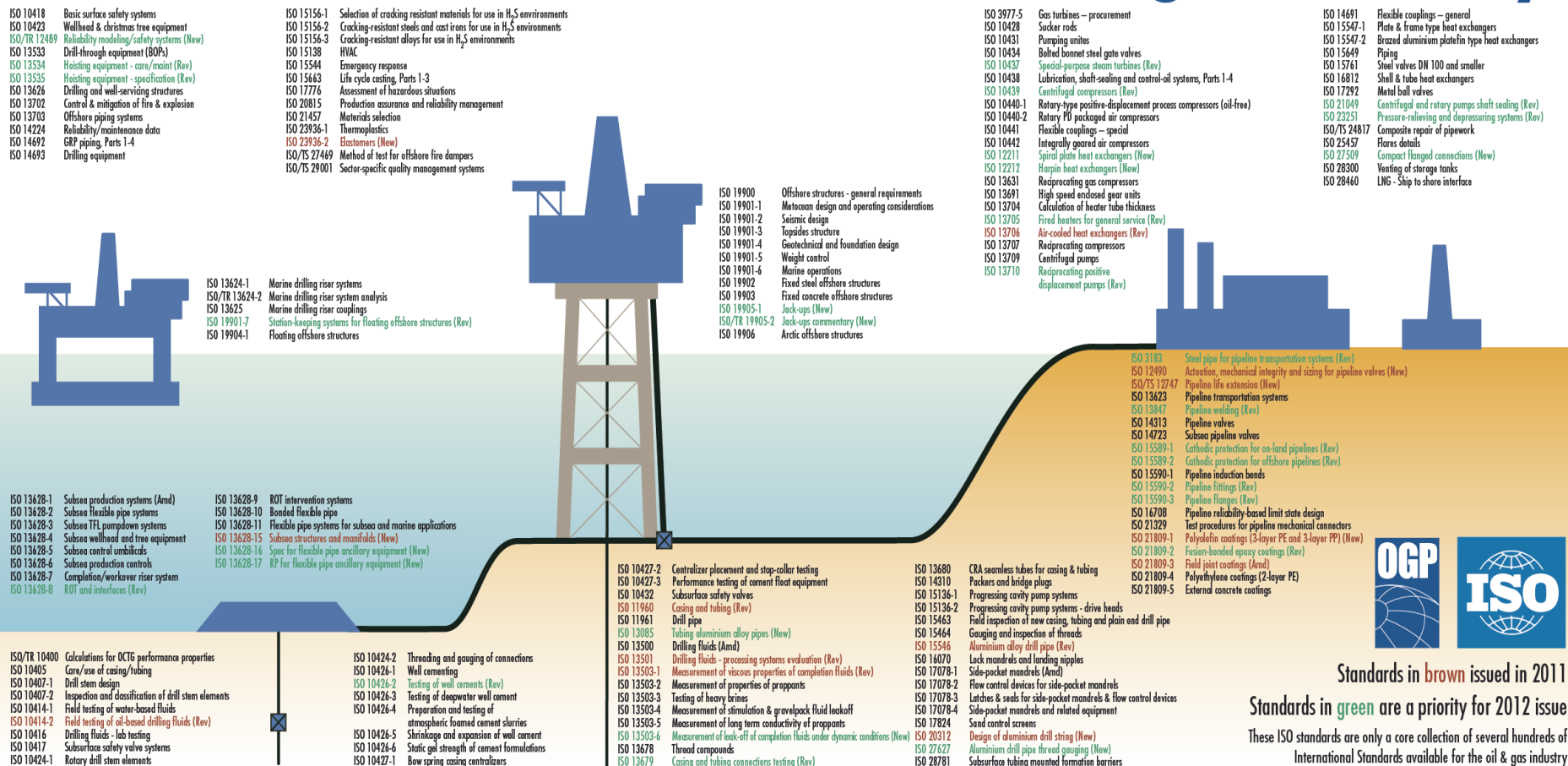
1. ISO standards respond to a need in the market
2. ISO standards are based on global expert opinion
3. ISO standards are developed through a multi-stakeholder process
4. ISO standards are based on a consensus

There are three core documents describing basic procedural and [drafting rules to be followed by ISO committees](#), namely

- ISO/IEC Directives, Part 1: Procedures for the technical work
- ISO/IEC Directives, Part 1: Consolidated ISO Supplement - Procedures specific to ISO
- ISO/IEC Directives, Part 2: Rules for the structure and drafting of International Standards



ISO Standards for use in the oil & gas industry



Standards in **brown** issued in 2011

Standards in **green** are a priority for 2012 issue

These ISO standards are only a core collection of several hundreds of International Standards available for the oil & gas industry



ISO Development Process

TC/SC route

Deliverables

STAGE 1

NP
(new work item proposal)

STAGE 2

Building expert consensus

STAGE 3

Consensus building within TC/SC

STAGE 4

Enquiry on DIS (Draft International Standard)

STAGE 5

Formal vote on FDIS (proof check by secretariat)

STAGE 6

Publication of International Standard

First CD or **ISO/PAS**:

- Simple Maj of P-members
- Review 3 years – Max 6

DIS or **ISO/TS** :

- $\frac{2}{3}$ Maj of P-members,
- Review: 3 years – Max 6

ISO/TR for non-normative documents

- Simple Maj of P-members
- No review

FDIS

$\frac{2}{3}$ Maj of P-members less than $\frac{1}{4}$ negative votes

Final text of International Standard

ISO International Standard

Review: 5 years

International Workshop Agreement

FAST TRACK

Workshop route

NEW!

IS Development Timeframes

Possible alternatives- 3 TRACKS

Recommended timeframe	36 months
Accelerated timeframe	24 months
Enlarged timeframe	48 months

The TC/SC has to decide at the beginning of the work which of these timeframes applies.

Norwegian delegation St. Jones 2013 - ISO TC 67/SC8 Arctic operations



There's never been a better
time for **good ideas**

International standardization
Arctic Operations (ISO TC67 SC8)

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