



STANDARDISATION FOR ALLOCATION

ISO TR 26762 ALLOCATION OF GAS AND CONDENSATE

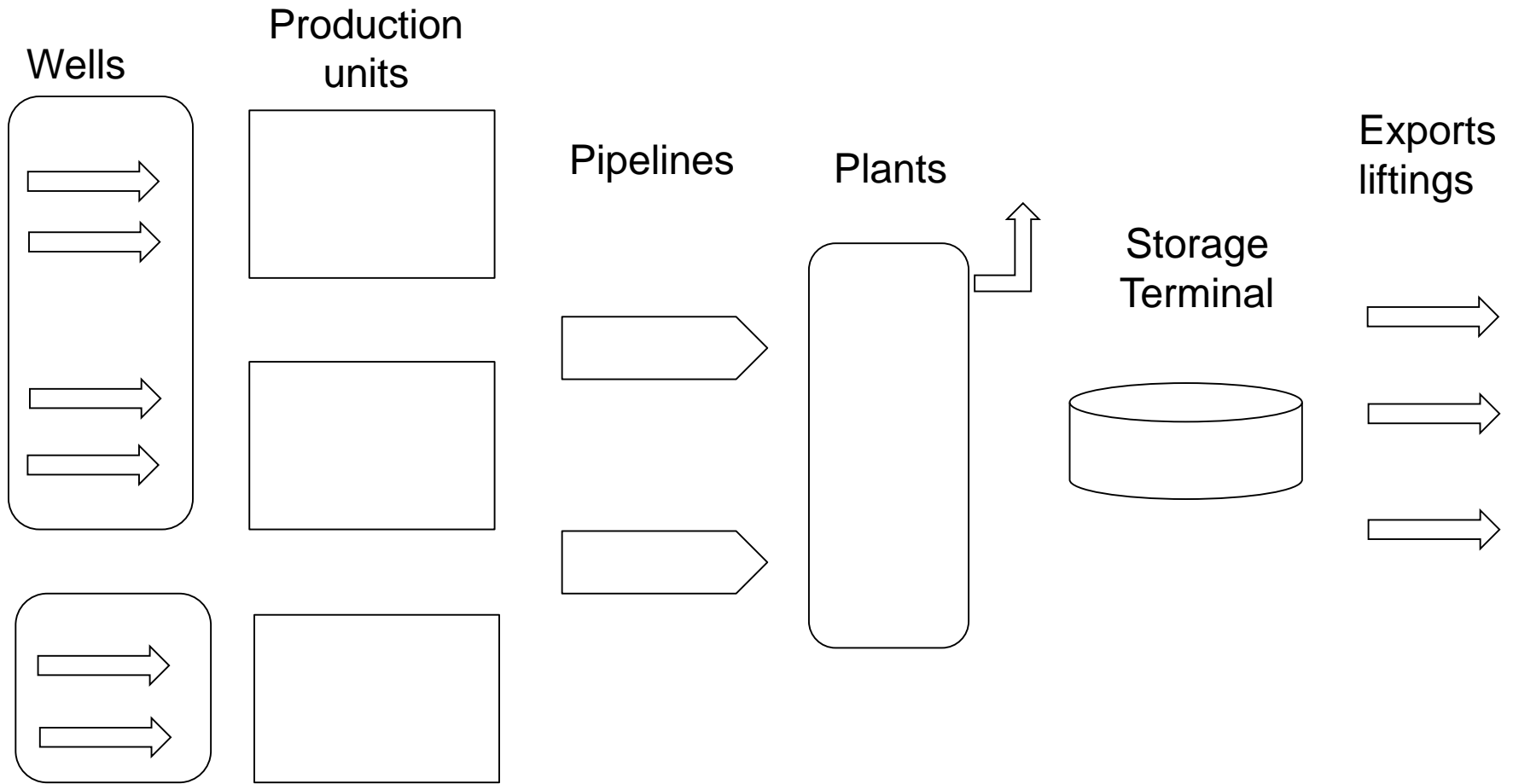
**JEAN-PAUL COUPUT
TOTAL**

**HYDROCARBON MANAGEMENT WORKSHOP
STAVANGER 2018**

AGENDA

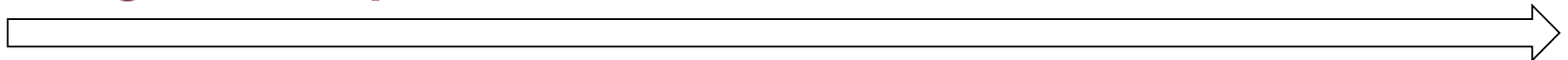
- Allocation Scheme
- Stakes regarding allocation
- Standards & regulations
- ISO TC 193
- New ISO TR 26762
- Way forward

ALLOCATION SCHEME



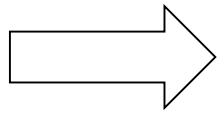
Oil , gas & water phases

Products



STAKES

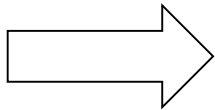
- More & more installations producing commingled fluids coming from different wells & fields belonging to different owners or submitted to different tax regimes



Need for documents giving standard ways of allocating streams for technical (reservoir) & fiscal purposes

- For fiscal & contractual applications :

Need to determine accurately quantity of end products to be attributed / allocated to each field / owner as well as consumptions , disposals ...



Common understanding to avoid conflicts and facilitate communication between stakeholders : Owners , Operators , Authority

STANDARDS / GUIDELINES / REGULATIONS

- ISO International standard organization
 - Several countries involved with nominated experts / votes
 - ISO TR 26762 published in 2008
- National standards : ANSI / API
 - API MPMS 20.1 ALLOCATION MEASUREMENTS : CRUDE / WELLS
 - API RECOMMENDED PRACTICE 85 / WET GAS
- Guidelines :
 - HM 96 developed by Energy Institute : oil & gas / focus on design / UK specific
- Regulations generally refer to existing standards

ISO STANDARDS

- ISO = international = easy for acceptance worldwide = reflect different sensibility
- Several Technical Committee (TC) addressing metering , analysis & allocation
- ISO TC 28 Petroleum products : include topics like crude measurements , sampling , tank measurements but also Multiphase measurements & LNG meters
- ISO TC 30 : dedicated to flow metering : ultrasonic , mass meters , dp measurements

ISO TC 193

- ISO TC193 deals with NATURAL GAS / NEN (NL) SECRETARY
- Subcommittee 1 (SC1) is dealing with gas analysis , property calculations
- SC3 is dealing with Upstream area / SAC (CHINA) SECRETARY
- SC3 WG1 (Working Group) dealing with allocation
- New convenor for SC3 WG1 established in 2016 (FRANCE : Jean Paul Couput)

NEW ISO TR 26762

- Preliminary work in 2017 together with Norwegian Experts (*)
 - first compilation of existing documents (HM 96 , API) as well a first cleaning of previous ISO TR 26762
 - Meeting in Tonsberg to set up a first table of contents
- **New Work Item Proposal _ Positive international ballot in April 2018**
- 6 countries have nominated Experts : China , France , Nederland , Norway , Russia , UK
- US has not nominated any expert but has recommended to include state of art like API MPMS 20.1

(*) *Sidsel Elisabeth Corneliussen - Ranveig Nygaard Bjørk*

NEW ISO NP/ TR 26762 PROGRAM

- New title : **Design & operation of allocation systems in natural gas facilities**
- Replacement of existing ISO from 2005 : more practical , less developments on measurements
- Document within 24 months
- Focus on allocation of productions & products in gas facilities
- Gas facilities = Production , transportation and processing installations currently used in production & transport of gas , liquid , water as well as end products like gas , LPG , LNG , condensate , CO2 ..

NEW ISO TR 26762

- In addition to design, the report will indicate how to operate allocation systems in order to maintain accuracy and eliminate bias & errors
- The proposal will result in a report that can be referred to in gas processing & transportation agreements as well in regulatory documents.
- It may be also used to carry out audit of Measurement & allocation systems as well as by Company to improve gas allocation for internal purposes

TABLE OF CONTENT



1	Scope
2	Normative references
3	Terminology & abbreviations
4	Allocation applications & schemes including different ownerships
5	Fluid / EOS / compositions / phase transition
6	Allocation measurements : quantity & quality
7	Allocation principles - reconciliation – imbalances – balances
8	Equations -
9	Allocation uncertainty
10	Risks
11	Project & design / model / description /CAPEX
12	Operation of allocation systems - IT part - misallocation - validation - OPEX
12	Audits
	Examples / rules of thumbs

OTHERS POINTS TO BE CONSIDERED

- Quantity : volumes , mass , components , energy
- Allocation pro rata / allocation per difference
- Applicable to subsea
- Applicable when using MPFM & WGFM
- Recommendations for operation : validation , monitoring , audits

WAY FORWARD

- ISO TC 193 Plenary Conference in Paris :
 - 12-16th june
- Meeting of Working group WG1 to validate table of contents & allocate roles
 - Wednesday 13th June in Paris
 - 9:00 - 12:00
- Working meeting in Aberdeen during NSFMW 2018
- First DIS document mid 2019

Accelerated			
M	Stage	10.99	
1	DIS Preparation (including optional WD and CD)	20	↓
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12	Document preparation	40	
13	Translation	↓	
14			
15	DIS ballot	↓	
16			
17			
18	Comment resolution - preparation of final text	↓	
19			
20			
21	Publication processing	↓	
22			
23			
24		60	