

A wide-angle photograph of a sunset over the ocean. The sky is a gradient of colors from orange and red near the horizon to a pale yellow and green at the top. The water is dark blue with white-capped waves in the foreground. A white horizontal line with arrowheads at both ends runs across the bottom of the image, partially obscured by the TNO logo.

>

North Sea Data Management Forum:
regional collaboration update 2019

TNO innovation
for life



NORWEGIAN PETROLEUM
DIRECTORATE



GEUS

TNO innovation
for life



Oil & Gas
Authority



DCCAE

North sea Data management Forum

- **Started in 2012**
- **Direct spinoff of NDR Work Group**
- **Inform / Learn / Collaborate**
- **Workshops every year**



NDR 2019 Utrecht

WHY DO WE PARTICIPATE?

Receive and provide knowledge on running an NDR:

- Organisation (operations / business model)
- Staff (competent / efficient / effective)
- Regulation / Legislation / guidelines

Share experiences related to data management.

- What is successful and what is not
- What time and resources are needed
- Re-use of solutions

Explore possibilities for common standards:

- Reporting
- International initiatives
- Re-use of data / Open data

New Organisation in
the UK: Oil and Gas
Authority
(Energy Act 2016)



WHAT DID WE DO?

2014: what is a well?

What is a Well? Revision 2.3 May 2014

Definitions Key concept Clarifications

	Well set	Well	WO	WB	WS	CI	C	WHS
	Definition	Key concept						
Netherlands	●	●	●	●	●	●	●	●
Norway	●	●	●	●	●	●	●	●
Denmark	●	●	●	●	●	●	●	●
United Kingdom (DECC)	●	●	●	●	●	●	●	●
United Kingdom (CDA)	●	●	●	●	●	●	●	●

● : Definition same as PPDM
 ● : Definition almost the same as PPDM
 ● : Definition different then PPDM
 ● : Other

WHAT IS A SURVEY?

Handwritten notes and diagrams defining survey types and classification criteria.

1. SURVEY CLASSIFICATION

- ACQUISITION TYPE
- ACQUISITION METHOD
- ACQUISITION AREA
- ACQUISITION DATE
- ACQUISITION STATUS
- ACQUISITION TYPE
- ACQUISITION METHOD
- ACQUISITION AREA
- ACQUISITION DATE
- ACQUISITION STATUS

2. WHY IS A DEFINITION NEEDED?

- REGULATORY PURPOSES
- DATA MANAGEMENT PURPOSES
- DATA INTEGRATION
- DATA ANALYSIS
- DATA REPORTING
- DATA ARCHIVING
- DATA SECURITY
- DATA ACCESS
- DATA SHARING
- DATA EXCHANGE
- DATA INTEROPERABILITY
- DATA PORTABILITY
- DATA REPRODUCIBILITY
- DATA VERIFIABILITY
- DATA ACCURACY
- DATA COMPLETENESS
- DATA TIMELINESS
- DATA RELIABILITY
- DATA AVAILABILITY
- DATA USABILITY
- DATA PERSISTENCE
- DATA SECURITY
- DATA ACCESS
- DATA SHARING
- DATA EXCHANGE
- DATA INTEROPERABILITY
- DATA PORTABILITY
- DATA REPRODUCIBILITY
- DATA VERIFIABILITY
- DATA ACCURACY
- DATA COMPLETENESS
- DATA TIMELINESS
- DATA RELIABILITY
- DATA AVAILABILITY
- DATA USABILITY
- DATA PERSISTENCE

Map interface showing 'Danish North Sea Fields and Platform' with a legend for 'Pipelines continental shelf' and 'Simplified pipelines'.

COMBINE DATA

- Use existing webservices:
- I have services from all 4 countries. GEUS is putting them together! Live demo?



MoU

- Commitment
- Annual work program
- Free to join topics
- Work together between meetings
- Report findings at meetings



EXECUTION COPY

MEMORANDUM OF UNDERSTANDING (MOU)

Data Management Cooperation between North Sea Regulators (the NSDM Forum)

Parties to the MOU

This MOU sets out the intentions of the following organisations with respect to the development and maintenance of common regulatory standards for the management and reporting of petroleum-related information and samples:

1. The Norwegian Petroleum Directorate ("NPD"): The paramount objective is to contribute to creating the greatest possible value for society from the means of prudent resource management, taking account of the preparedness and the natural environment, including the office at Professor Olav Hanssens vei 10, P.O. Box 600,
2. The Oil & Gas Authority: the authority for the United Kingdom, W.C.1.B 3HF ("OGA"), and petroleum licensing functions having its registered office at Anna van Buerenplein 1, 2516
3. Netherlands Organisation for Applied Scientific Research, duly organised and existing under the law, office at Anna van Buerenplein 1, 2516
4. The Danish Energy Agency ("DEA") energy and supply in Denmark, Amallegade 44, DK-1256 Copenhagen of Denmark and Greenland

and collectively referred to as the "Parties".

Representation

The Parties, unless as otherwise indicated, are represented by:

NPD	Eric Otto Toogood
OGA	Simon James
TNO	T.H. van Draaten
DEA	Trine Fugmann

The Parties agree that additional signatures may be required for the MOU to be valid.

EXECUTION COPY

Signed on behalf of the Parties:

NPD
Name: ERIC OTTO TOOGOOD
Position: DEPT. MANAGER
Signature: *[Signature]*
Date: 8/6/2017

OGA
Name: SIMON JAMES
Position: The Oil & Gas Authority
Signature: *[Signature]*
Date: 19/06/2017

TNO
Name: T.H. van Draaten
Position: Director, Geological Survey of the Netherlands (TNO)
Signature: *[Signature]*
Date: 8/06/2017

DEA
Name: TRINE FUGMANN
Position: HEAD OF DEPARTMENT
Signature: *[Signature]*
Date: 2/6-17

What did we agree



Purpose of the MOU

The purpose of the activities under this MOU is to maximise the contribution that the effective management of geoscience and production information can make to the society by the success of the oil and gas industry, principally but not exclusively in the offshore areas of the Parties' territories.

The parties to this MOU are convinced that working collaboratively in the way envisaged in this MOU will both directly and indirectly contribute to improving the productivity, exploration success and cost-efficiency of offshore operations around the territories over which they have jurisdiction.

What did we agree

Scope

By signature hereunder, the Parties hereby express their intent for their respective organizations to work collaboratively as equals towards common regulatory standards and definitions, in the following general areas:

1. Standards for reporting by licensees and related parties of information and samples to regulatory authorities;
2. Standards for publishing information by regulatory authorities and their agents, which facilitate its consumption by users;
3. Petroleum related technical information sharing across the international boundaries that separate the Parties from each other; within the constraints of confidentiality obligations and applicable law and to the extent necessary for such purpose;
4. Standard definitions for common 'objects' (such as well and surveys); respecting that the national language as used in the respective legal regime (acts and regulations) are the master versions of the definitions and terminology;
5. Standard definitions, descriptions, nomenclature and classifications; and
6. Media, format and content standards for information and samples retention, reporting and publication.

What did we agree

Principles

1. Where possible the Parties will adopt existing definitions and standards more or less unchanged. Some existing standards may have to be adapted and amended, but completely new standards and definitions will be avoided where possible, and only developed by the group as a last resort and where there is a sufficient business case to do so.
2. The Parties agree, where possible, to adopt and implement the standards and definitions agreed collectively by the Parties to the extent feasible under applicable law and as soon as practical within their respective jurisdictions. It is however agreed and understood that although the objective under this MOU is to achieve the maximum degree of alignment possible, no Party will be compelled to make any changes to its own standards and procedures against its will or contrary to its function.
3. The Parties agree collectively to maintain the implementation of existing and new standards and definitions agreed for the minimum period necessary (anticipated to be at least 5 years) subject to any applicable law.

What did we agree

4. The Parties agree to consult with each other before engaging with industry standards bodies on any matter that falls within the scope of the MOU, or which is actively being considered to be performed within the scope of this MOU.
5. The Parties agree to work together in an honest, open, constructive and collaborative way, to the mutual benefit of all Parties.
6. The Parties undertake to work together as equals to achieve the objectives and tasks that are agreed annually.
7. The Parties agree to contribute equally to the achievement of agreed annual objectives through the equitable sharing of effort and other resources.
8. Unless objections are raised by any of the Parties, the Parties will agree to share information related to policies, procedures and mechanisms associated with their joint activities under this MOU with other national regulatory authorities.

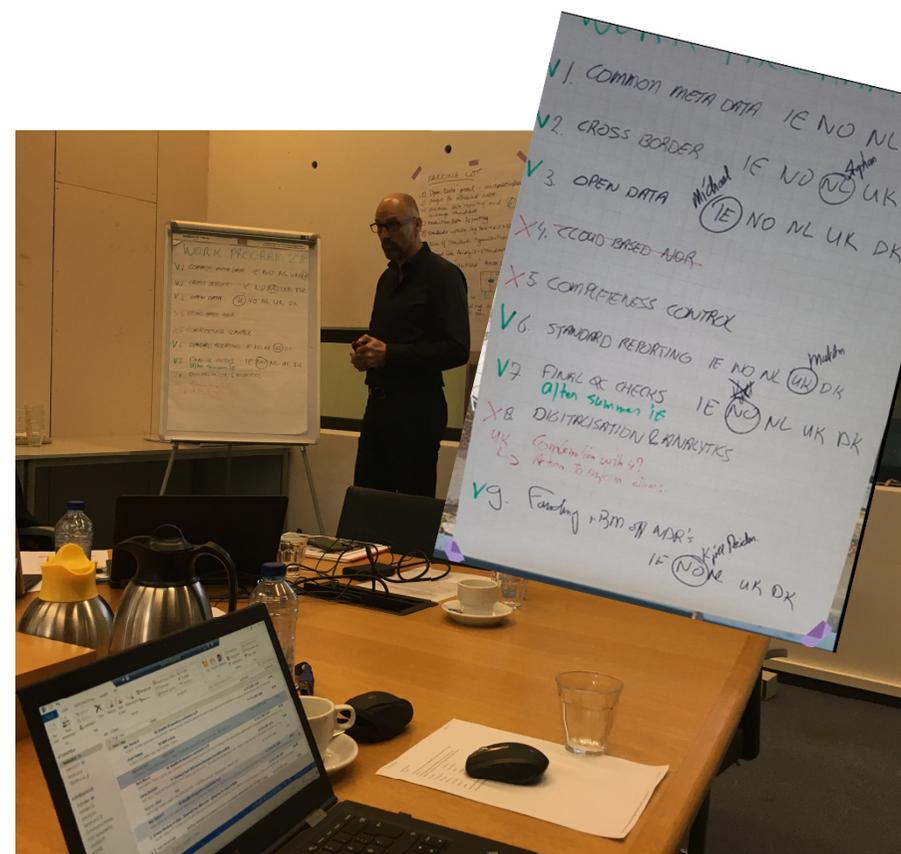
What did we agree

Annual Work Programme

- 1. The Parties' Principal Representatives (the Steering Committee) and their Alternates, Deputies and other staff as necessary, will meet annually for the purpose of developing a joint work programme for the following calendar year and to identify, quantify and commit the resources necessary to deliver the programme within the context of the priorities of their own individual plans (the Annual Work Programme).**
- 2. The final decision regarding the Annual Work Programme (and any subsequent amendments made to it) will be unanimously taken by the Parties, represented by their Principal Representatives, and no Party shall be bound by any decision with which it is not in agreement.**

Topics first workprogram

- Common Metadata (Wells, Surveys etc.)
- Cross-border data issues (wells & surveys; regulation, access etc.)
- Open Data (policies, licensing, pricing, more..)
- ~~Cloud based NDR~~
- ~~Completeness Control; 1) defining and 2) achieving completeness~~
- Standard Reporting Guidelines (Samples, Wells and Seismic)
- Final QC Checks for Reporting (relief from obligation)
- ~~Digitalisation and Data Analytics~~
- Funding and BM for NDR's



Results so far...



We have the people...