



# IOGP Geomatics Committee key messages for the NDR Forum 2017



## IOGP – The Voice of the Upstream Industry

The International Association of Oil & Gas Producers (IOGP) is the voice of the global upstream industry. Our Members produce more than a third of the world's oil and gas. They operate in all producing regions: the Americas, Africa, Europe, the Middle East, the Caspian, Asia and Australia.

We serve industry regulators as a global partner for improving safety, environmental and social performance. We also act as a uniquely upstream forum in which our Members identify and share knowledge and good practices to achieve improvements in health, safety, the environment, security and social responsibility.

Common geography provides an extremely powerful means to integrate E&P information in support of business decision-making for exploration, new business, construction, field development and decommissioning – in fact every aspect of the upstream life-cycle. We develop industry guidelines, good practices and specifications regarding the use of this data.

IOGP, through their Geomatics Committee, are the global premier source of Spatial Data Guidance necessary to ensure geodetic integrity for all geoscience data handled within any National Data Repository. Our current products include:

### EPSG Geodetic Parameter Dataset

- This is a collection of definitions of coordinate reference systems and coordinate transformations. These may be global, regional, national or local in application. This dataset is the de facto source of CRS parameter information in the industry today. To learn more visit [www.epsg.org](http://www.epsg.org).

### Guidance for Industry

- Geodetic awareness. A brief overview of coordinates and their reference systems (373-01)
- Contract Area Definition. A guide for exploration managers and lawyers in hydrocarbon exploration companies and licensing authorities who legislate or negotiate for licence acreage (373-03)

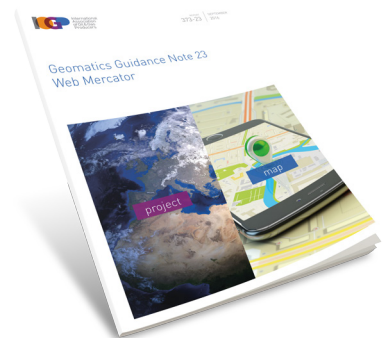
- Coordinate reference system definition. A guide on terminology and best practice (373-05)
- Web Mercator. A guide on the use of the Coordinate Reference System Web Mercator (373-23)
- Vertical CRS: Vertical Data in Oil and Gas Applications (373-24, release pending)

### Guidance for Geomatics professionals

- Use of the ITRF (373-04 Currently under revision to include Dynamic v Static CRSs)
- Coordinate Transformation evaluation and use (373-13)
- Grid Convergence (373-21)

### Guidance for working in specific areas

- Coordinate Transformations Offshore Norway (373-10)
- Coordinate Transformations in the Gulf of Mexico (373-17)
- Coordinate Reference systems for the Arctic (373-20)
- Geodetic referencing in Iraq (373-22)
- Guidance notes on the use of coordinate systems in data management on the UKCS – heritage UKOOA report





### GIS data models and Cartographic standardisation

- Shell Standard Legend & Symbology
- Seabed Survey Data Model and SeabedML Application Schema (SSDM), the de facto industry standard for delivering seabed survey data in geographic information system (GIS) format
- P6 Data Model for the storage and visualization of seismic bin grid definitions that is based on the new IOGP P6/11 seismic bin grid exchange format.
- Land Survey Data Model (release pending)
- Seabed Infrastructure Data Model (under development)
- Guidance the development and use of a Common Operating Picture (COP) as well as Oil Spill Surveillance, Modelling and Visualisation

### Geophysical Guidelines, Data Models and Exchange Standards

- Guidelines for the conduct of offshore drilling hazard site surveys
- Conduct of offshore drilling hazard site surveys – Technical Notes
- P1/11 Geophysical position data exchange format and User Guide
- P2/11 Positioning data exchange format
- P6/11 Seismic bin grid data exchange format and User Guide
- Guidelines for the use of the OGP P6/11 bin grid GIS data model



Legacy Positioning Formats also supported by IOGP Geomatics Committee

- P1/76 Data Exchange Format (UK00A)
- P1/78 Data Exchange Format (UK00A)
- P1/84 Data Exchange Format (UK00A)
- P1/90 Data Exchange Format – Post Plot (UK00A)
- P2/86 Data Exchange Tape Format – Raw Marine Positioning Data (UK00A)
- P2/94 Data Exchange Format – Raw Marine Positioning Data (UK00A)
- P6/98 Data Exchange Format – 3D Seismic Binning Grids (UK00A)
- P-EPSSG, EPSG Co-ordinate Reference System Description in UK00A P Formats
- P1, P2, P3, P4 Standard exchange formats for positional data (SEG)

### Surveying and Positioning – including well positioning, pipeline positioning/span description and wellbore deviation data exchange

- Guidelines for GNSS positioning in the oil and gas industry IOGP Report No. 373-19
- P5/94 Data Exchange Format – Pipeline Position Data (UK00A)
- P7/2000 Data Exchange Format for Well Deviation Data (UK00A)
- P7/11 (under development)

### Geospatial integrity of geoscience software – GIGS

- Guidance is to provide geoscience software developers and users with recommended industry best practice to evaluate the capabilities of their software with respect to establishing and maintaining geospatial data integrity.

### Earth Observation (Remote Sensing)

- Satellite data are part of our toolbox for creating geo-information for our decision making. To use the information effectively it has to be produced to existing, open standards.
- The OGEO Portal, supported by the IOGP Earth Observation Subcommittee, creates a platform designed to allow an improved communication between the service providers and the oil and gas companies. To find out more go to <http://www.ogeo-portal.eu>.