

# Geophysical surveys

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mineral resources      offshore wind farms

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power and telecom cables      seabed monitoring

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pipelines      inspection works

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dredging works      aggregates

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coastal zone analysis

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Hydrographic surveys

UXO surveys

Seismic surveys

OBN seismic surveys

Analysis and interpretation of data  
processing results

Preparation of reports and resultant maps



# Our strength lies in people

**MEWO**  
SUBSEA SOLUTIONS

We offer professional consultancy as part of the measurements and surveys conducted, along with professional assistance in offshore project planning. We provide a full range of geophysical services – from surveying to data processing and submission of final reports containing comprehensive geophysical interpretation along with visualisations, including maps, seismic and geological cross-sections as well as 2D and 3D models.

At MEWO S.A., we focus on delivering work in a sustainable and efficient manner, meeting all international standards required in terms of safety, surveying and data processing. We have experienced surveyors as well as cutting-edge equipment. Our team comprises specialists in marine hydrography, geophysics, geology, subsea geomorphology, geodesy and oceanology. We constantly strive to improve our qualifications by participating in courses, training events and industry conferences in order to provide top class services.

**We specialise in comprehensive services for the offshore sector.**

In terms of geophysical surveys, we focus on comprehensive solutions: from an in-depth desktop study, through optimum survey line planning and design, followed by the execution of hydrographic surveys and seismic surveys, full data processing, analysis and interpretation of results, to detailed final analyses and preparation of reports with a complete visualisation of data processing results.

We have been building our dedicated team for over two decades. While delivering our final survey reports, we always focus on professionalism to help our Clients make informed decisions on the possibility of implementing their planned projects. We are convinced that detailed geophysical surveys and seabed assessments conducted for the purpose of comprehensive recognition of the seabed structure and deep geological formations are essential for cost-effective planning and design of offshore structures and subsea installations.

> mewo | our strength lies in people

## Hydrographic surveys – bathymetry, sonar and magnetometer data

At MEWO S.A., we take pride in our in-house team of highly qualified specialists, including Category A and B hydrographic surveyors. We specialise in the acquisition, interpretation and presentation of hydrographic data in accordance with IHO standards. We acquire information on the seabed morphology and structure as well as objects on the seabed (seabed cleanliness analysis). As part of hydrographic surveying, we also monitor the seabed in terms of sediment dynamics and variability. Based on the results obtained, we prepare bathymetric maps and hydrographic charts. Our knowledge and experience allow us to provide top-quality hydrographic survey services, using cutting-edge technology.

We work with state-of-the-art equipment, i.e.:

### ECHOSOUNDERS

- Multibeam Echosounder: Teledyne RESON SeaBat T50-R
- Multibeam Echosounder: Teledyne RESON SeaBat T50-R IDH
- Multibeam Echosounder: Teledyne RESON SeaBat T20-P
- Multibeam Echosounder: R2Sonic Sonic 2026

### SONARS

- Side Scan Sonar: EdgeTech 4205 Tri-Frequency 300/600/900 kHz
- Side Scan Sonar: EdgeTech 4200 300/600 kHz
- Side Scan Sonar: EdgeTech 4200 100/400 kHz
- Side Scan Sonar: EdgeTech 4125i 400/900 kHz
- Side Scan Sonar: EdgeTech 4125 600/1600 kHz

### MAGNETOMETER

- Geometrics G-882 + Altimeter Tritech PA500

### MAGNETOMETER FRAMES

- ScanFish Katria EIVA (ROTV for 2 to 4x G-882 magnetometers)
- TVG Frame (frame assembly for 2x G-882 magnetometers)

We use not only top-class equipment but also software enabling perfectly accurate visualisation of survey results:

AutoClean	Oasis montaj (geophysics)
CODA GeoSurvey	Oasis montaj UXO Marine
Fledermaus	Qimera
Discover	Qinsy
Oasis montaj Essentials	SonarWiz

# Seismic surveys

We specialise in exploring the geological structure of the seabed, both in its near-surface and deep layers. Such surveys are used for analysing layer sequences and geological cross-sections as well as for visualising the deposition depth of top sediment layers together with the determination of their thickness. Depending on the type of seabed sediments, we can perform seismic / geological interpretation to depths ranging from several metres below the seabed (high-frequency and high resolution shallow seismic data) to several dozen metres (low-frequency deeper seismic data). Our data analysis and interpretation results are essential for verifying the feasibility of specific subsea projects (e.g. installation of pipelines and cables, sourcing of raw materials).

For high-precision seismic surveys, we use:

## INNOMAR SES-2000 STANDARD SUB-BOTTOM PROFILER

### SEISMIC SURVEY SET

- Capacitor Charging Unit: Applied Acoustics CSP-Nv 2400
- Sparker: Applied Acoustics Dura Spark UHD Catamaran + 400 TIP
- Hydrophones: Applied Acoustics 20-element hydrophone, 150mm spacing

### SEISMIC SURVEY SET

- Boomer SIG Energos 3000
- Hydrophones: Applied Acoustics 8-element hydrophone, 150mm spacing

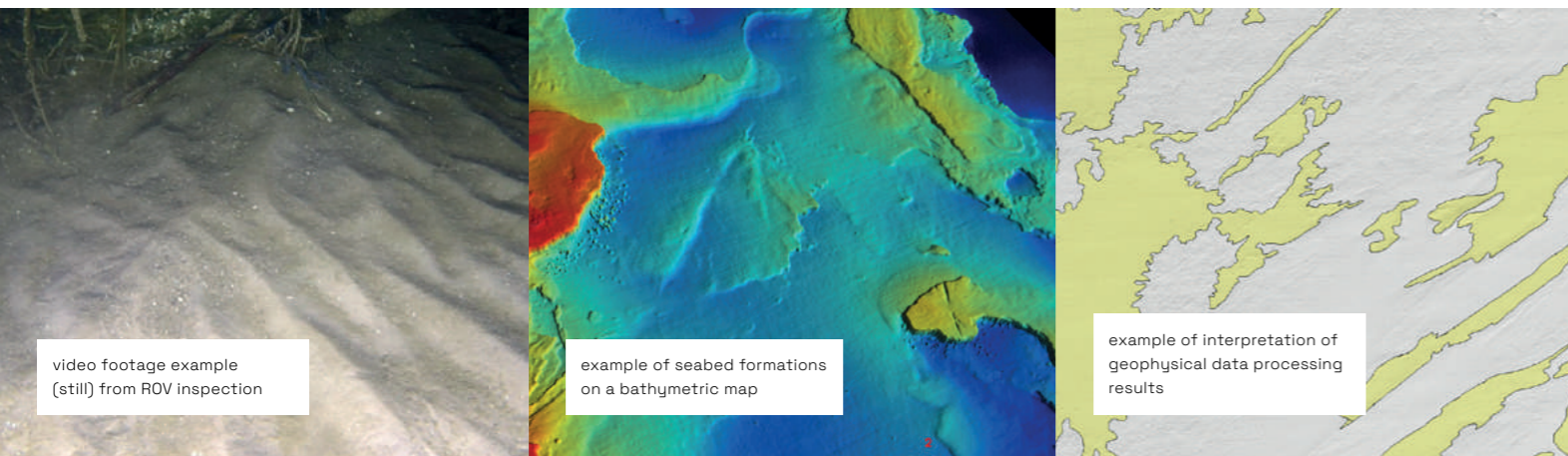
## 24/48 MULTI-CHANNEL SPARKER SYSTEM

CODA SurveyEngine	Kingdom VuPAK
Innomar ISE	SeaView
Kingdom 2D/3DPAK	SonarWiz
Kingdom EarthPAK	

# OBN seismic surveys

Using a specialist method called OBN (Ocean Bottom Nodes), we are able to survey the geological structure of the seabed even several kilometres below the seabed. Deep seismic surveys are used in projects related to the identification and evaluation of deep mineral deposits.

For the purpose of OBN surveys, we use such equipment as Geospace Technologies OBX-750E together with GeoReaper V.3.1 software. The OBX-750E wireless seismic data acquisition node allows for data acquisition at depths reaching up to 750 m. Nodes can be deployed in shallow coastal waters and transition zones including estuaries, marshlands and freshwater environments (rivers, lakes). Once deployed, the OBX-750E unit can collect seismic data continuously for up to 45 days.



video footage example (still) from ROV inspection

example of seabed formations on a bathymetric map

example of interpretation of geophysical data processing results



## UXO surveys

In order to ensure the safe implementation of planned projects, we conduct surveys to detect potentially hazardous objects. Following preliminary geophysical surveys (hydrographic surveys), we map the locations of anthropogenic objects and perform detailed magnetometer surveys of the seabed to determine the presence of potentially hazardous objects such as unexploded ordnance (pUXO). This service includes comprehensive anomaly analyses to determine what each seabed anomaly is.

Thanks to the use of innovative technologies our surveys are fully non-invasive – we do not work with divers or sappers. We use highly advanced equipment enabling extremely precise surveys (e.g. ROV video inspections).

Resources at our disposal:

### MAGNETOMETER

- Geometrics G-882

### MAGNETOMETER FRAMES

- ScanFish Katria EIVA – ROTV for 2 to 8x G-882 magnetometers
- TVG Frame – frame assembly for 2x G-882 magnetometers

### ROVs

- SAAB Seaeye ROV Falcon (visual inspection)
- SAAB Seaeye ROV Cougar XTi (visual inspection)
- SAAB Seaeye Panther XTi (UXO, TSS, MBES, visual inspection)

## Preparation of reports and resultant maps

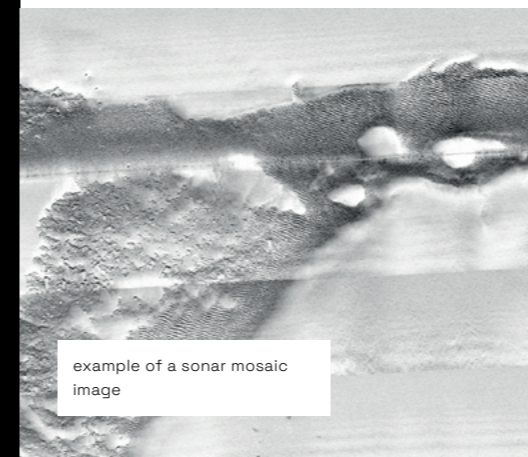
We conduct surveys at sea to identify potential offshore project sites. We develop reports comprising the results of operational, surveying and methodological activities (both in the context of the survey methodology and data processing methodology applied) as well as interpretation activities consisting of data processing and analysis accompanied by identification operations, e.g. concerning objects, seabed forms, infrastructure, geohazards.

An essential part of the reports comprises diverse types of annexes, e.g. separate operational documents, partial reports, geodatabases, maps and charts, alignment sheets, cross-sections with full digital data (raw and processed) as well as 2D and 3D models. Final reports are enriched with suggestions and recommendations regarding direct project implementation.

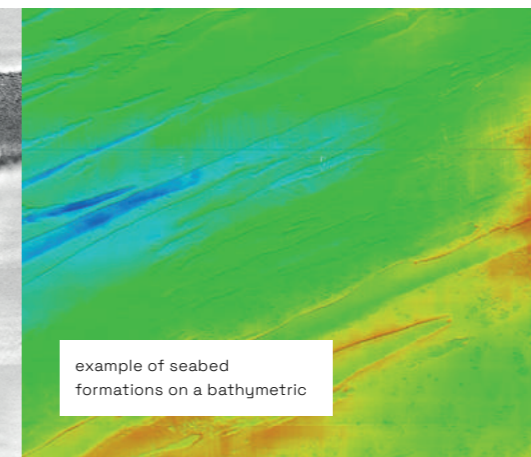
## Analysis and interpretation of data processing results

Once the necessary surveys are completed, we use the collected and processed data to perform specialist studies such as analyses of object density, sediment thickness, seabed types (also for environmental purposes), anomalies, etc. Our geophysical data processing experts produce high-quality visualisations of the data processing results, which we present in GIS and CAD formats. In the process of analysis preparation, we use the latest licensed software solutions, i.e.:

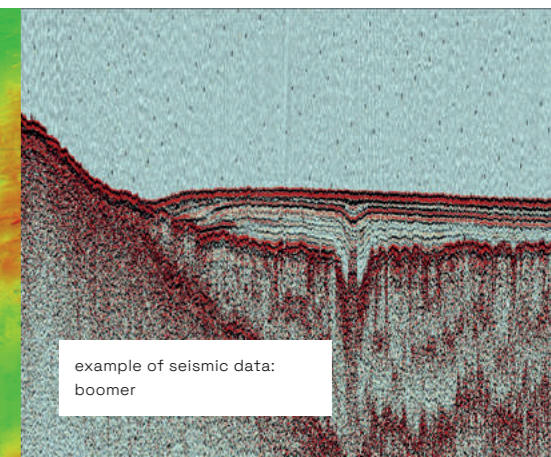
ArcGIS	AutoChart for AutoCAD
ArcGIS PRO	Global Mapper
AutoCAD	QGIS
AutoChart for ArcGIS	Surfer



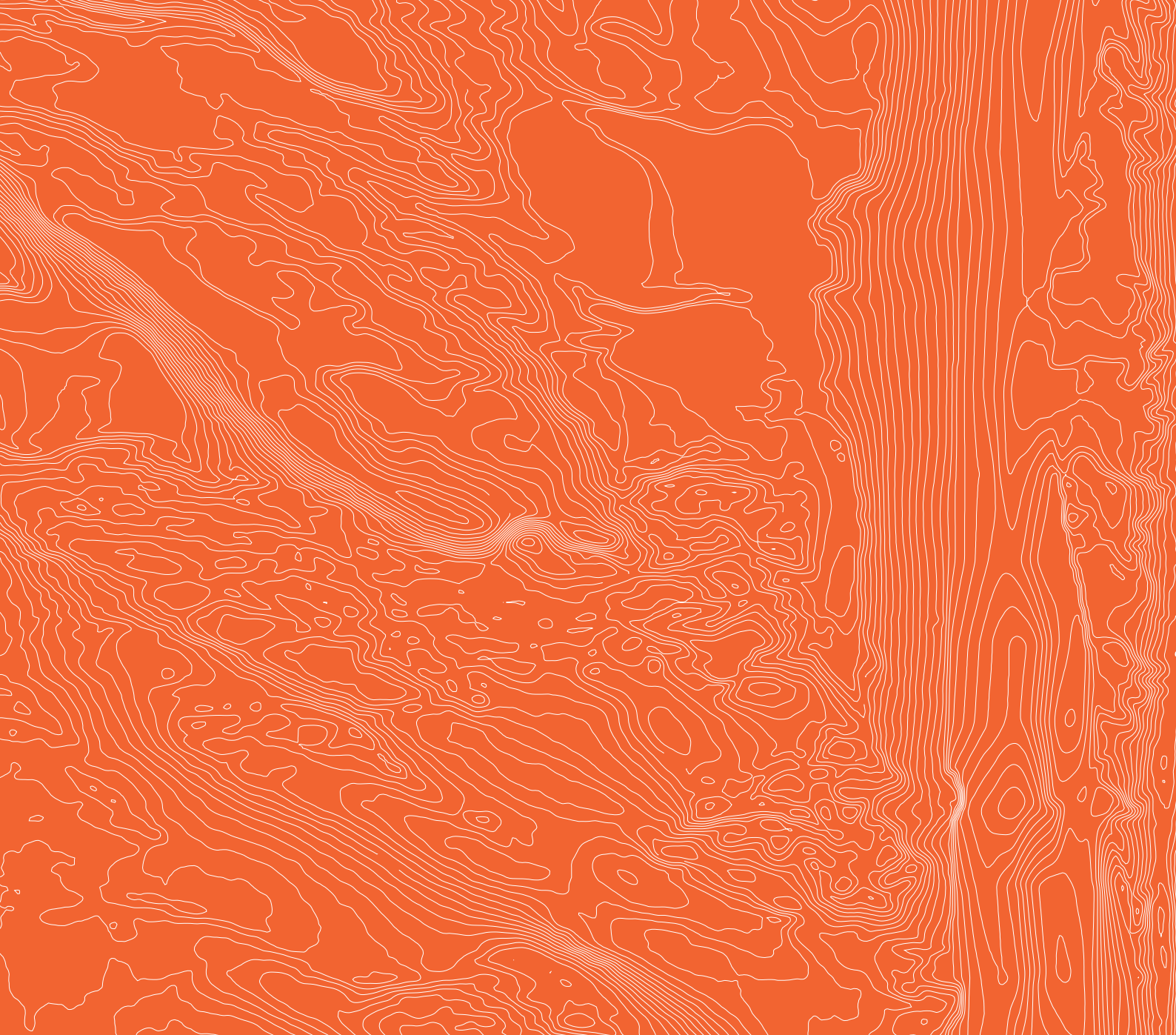
example of a sonar mosaic image



example of seabed formations on a bathymetric



example of seismic data: boomer



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#### **Our Safety Management System**

MEWO S.A. continually strives to ensure the highest level of safety in projects implemented both at sea and on land. We are guided by international standards in terms of workflow planning, risk assessment and selection of personal protective equipment.

#### **Integrated Management System**

MEWO S.A. pledges to provide services at the highest quality level and to meet the highest standards of occupational health and safety, with full commitment to environmental protection. In order to fulfil this declaration, an Integrated Management System has been implemented in accordance with the requirements of ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018, certified by the DNV certification body. The system is continuously monitored, improved, developed and managed.

Focused on sustainable development, natural environment and corporate social responsibility, MEWO S.A. operates in accordance with the guidelines of ISO 26000. In line with the sustainable development strategy adopted, we strive to integrate business activities and values, thanks to which the needs of all stakeholders, clients, employees, communities and the environment are reflected in the Company's policies and activities. We make every effort to ensure that all business operations are conducted in an ethical and sustainable manner.

#### **Policies established at MEWO S.A.:**

- Quality Policy
- Environmental Protection Policy
- Occupational Health and Safety Policy
- Alcohol and Drug Policy
- Compliance Policy
- MEWO S.A. Code of Ethics
- Human Rights Policy
- ESG Strategy
- Sustainable Development Policy