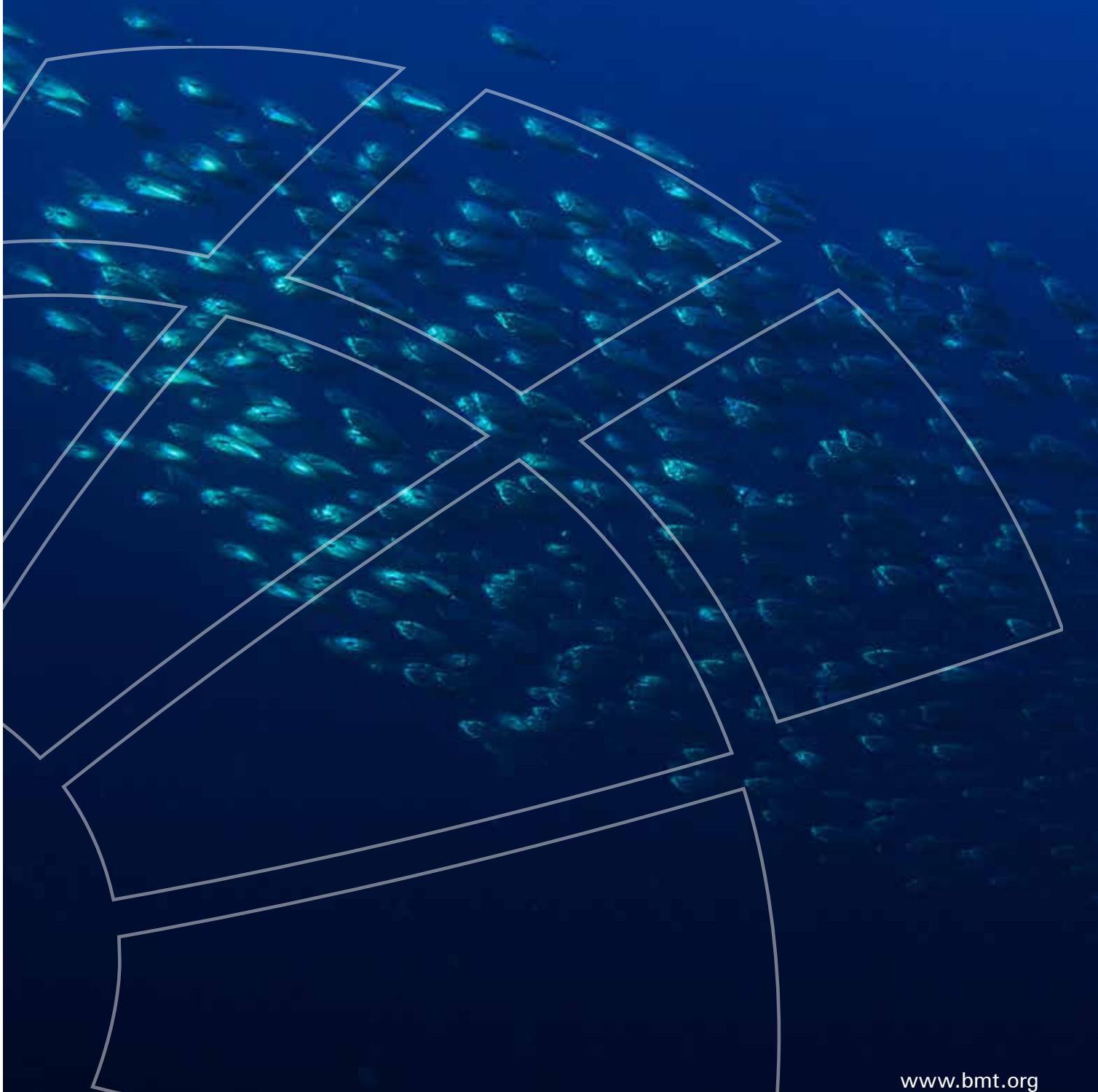




"Clarity from complexity"

BMT Deep

Engineering and Environment consulting services



BMT Deep in Environment

The interactive asset and environmental management data platform created for marine and offshore professionals by marine and offshore professionals.

BMT Deep is the product of over 20 years' practical in-field experience in the marine and offshore environment

We understand the marine and coastal environment with numerous marine ecologists and coastal engineers who are experts in environmental monitoring, management and compliance, numerical modelling and data analytics. This experience finds expression in a data platform that allows managers, operators and analysts to keep track of valuable environmental data.



Big data, clear picture

store, quality control, manage, integrate, post-process and visualise vast data sets, fast



Interactive and intuitive

explore a single monitoring site or operational history through easy-to-use graphical interface



Fully customisable

ensure data you analyse is specific to your needs to gain the most important insights within your timeframes



Secure and powerful

store, manage and process data in the cloud



Verified and supported

data quality verified by our analysts and consultants who can provide full technical support or additional insights into your data

Data collection

Instrumentation, raw data collection, available data

Data processing and analytics

Quality assurance and quality control (QA/QC), compliance statistics, historical trends, modelling, spatial representation

Exploration and visualisation

Models, maps

Reporting

Real-time, actionable insights

Why BMT Deep?

BMT Deep is a data management, exploration and analysis platform with many significant benefits built into the platform to help environmental managers and operators make faster informed decisions with up-to-date information to track compliance and plan for the future.

- **Efficient access, saves time**
Significantly less time intensive. Access to life-of-field data immediately wherever you are.
- **Global collaboration**
Cloud allows for users to access and analyse datasets simultaneously wherever they are.
- **Single software package**
Access, analyse and work with different datasets irrespective of their origin.
- **Automated reporting**
Regular reporting tasks can be automated so operational teams can focus on critical tasks identified.
- **Continuous improvement**
Features go through rigorous testing and continual improvement cycle.
- **Quality control**
Automated and manual quality assurance and quality control options to meet rigorous standards in reporting.
- **Secure platform**
Built on banking-grade security features. Robust user management including entitlements and authorizations.
- **Data analytics**
In built tools for processing and ad hoc analysis collaboratively. Scalable computing resources to solve a variety of problems.
- **Custom / bespoke solutions**
The flexible platform enables building new fit-for-purpose applications.

“A powerful tool providing accurate decision-making information and greater insights into the environmental footprint of proposed operations and structures for robust environmental management.”

01

Real-time compliance monitoring

Real-time monitoring of time series telemetered data against reference or water quality objectives.

Automated reporting of exceedance of environmental compliance criteria, water quality triggers and thresholds.



02

Integrate environmental data

Easily handle spatially and temporarily large datasets. Switch between sites and variables to compare cause-and-effect pathways for environmental response.

Efficiently and transparently share data with regulators to build confidence.



03

Environmental management and impact assessment

Quantify baseline conditions with archived data. Apply rigorous statistical analysis to environmental data to aid systems understanding.

Assess trends and performance against control limits to track current against historical compliance statistics to demonstrate continuous performance improvement.

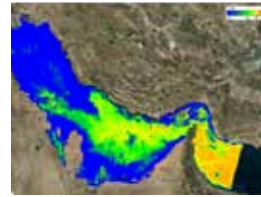


04

Marine spatial planning

Map spatial trends in metocean and marine water quality data.

Analyse recent and historical satellite derived data from a variety of sources to perform numerical transformations and compare against other datasets.



05

Animations and videos

Display 3D hydrodynamic and water quality model output as informative animations to inform management and demonstrate to regulators.

High resolution video footage from autonomous underwater vehicle (AUV) monitoring can be analysed in conjunction with other datasets to provide a representation of habitats, environmental impacts and marine flora and fauna.



Project experience



Desalination Operations - Environmental Compliance Monitoring

Location: Cape Preson, Australia

BMT Deep was used to collect water quality telemetered data from on-site sensors, undertake quality control and present the complete timeseries in the context of water quality objectives to assess the environmental performance of operations.

An automated warning system alerts stakeholders of any potential exceedances with details of location and impact.



Red Tide Decision Support System (prototype)

Location: Arabian Gulf

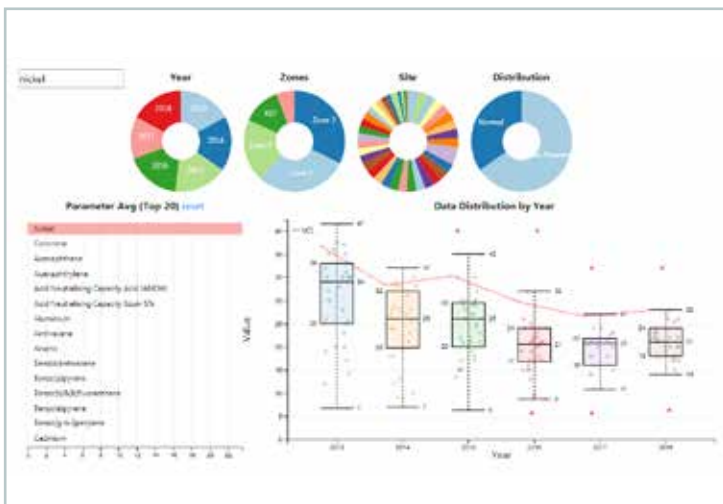
BMT are leveraging our expertise in data collection and modelling to develop a Decision Support System (DSS) for clients in the Arab Gulf to manage and respond to red tide events.

This DSS combines multiple capabilities within BMT Deep to provide the client/regulator with a single solution to accessing all data relevant to decision-making processes.

Potential data streams include satellite data, observed metocean and meteorological datasets and model outputs to assess risk from red tide events and undertake appropriate management responses.

Discover, analyse and act on your data

We combine our knowledge of metocean conditions, hydrology and the marine environment with structural understanding and sophisticated monitoring to help customers unlock opportunities.



Maintenance Dredging - Environmental Impact Studies

Location: Port of Brisbane, Australia

BMT collected environmental data in and around the dredge area to monitor sediment and water quality and assess the impact on marine flora and fauna.

The collected data is processed in line with NAGD (National Assessment Guidelines for Dredging) guidelines, which involve complex statistical methods to set control limits.

The BMT Deep dashboard allows the user to filter and easily compare geographical and temporal trends in the dataset.

For more information, please visit www.bmt.org/deep

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New Urban Development - Environmental Impact Assessment (EIAs)

Location: North Brisbane, Australia

As part of the EIA process, ground water and surface water data for 100 variables were collected monthly over the last 6 years.

An interactive dashboard on BMT Deep was created to toggle between sites and variables to visualise deviations from baseline and correlate behaviour of ground water and surface water.