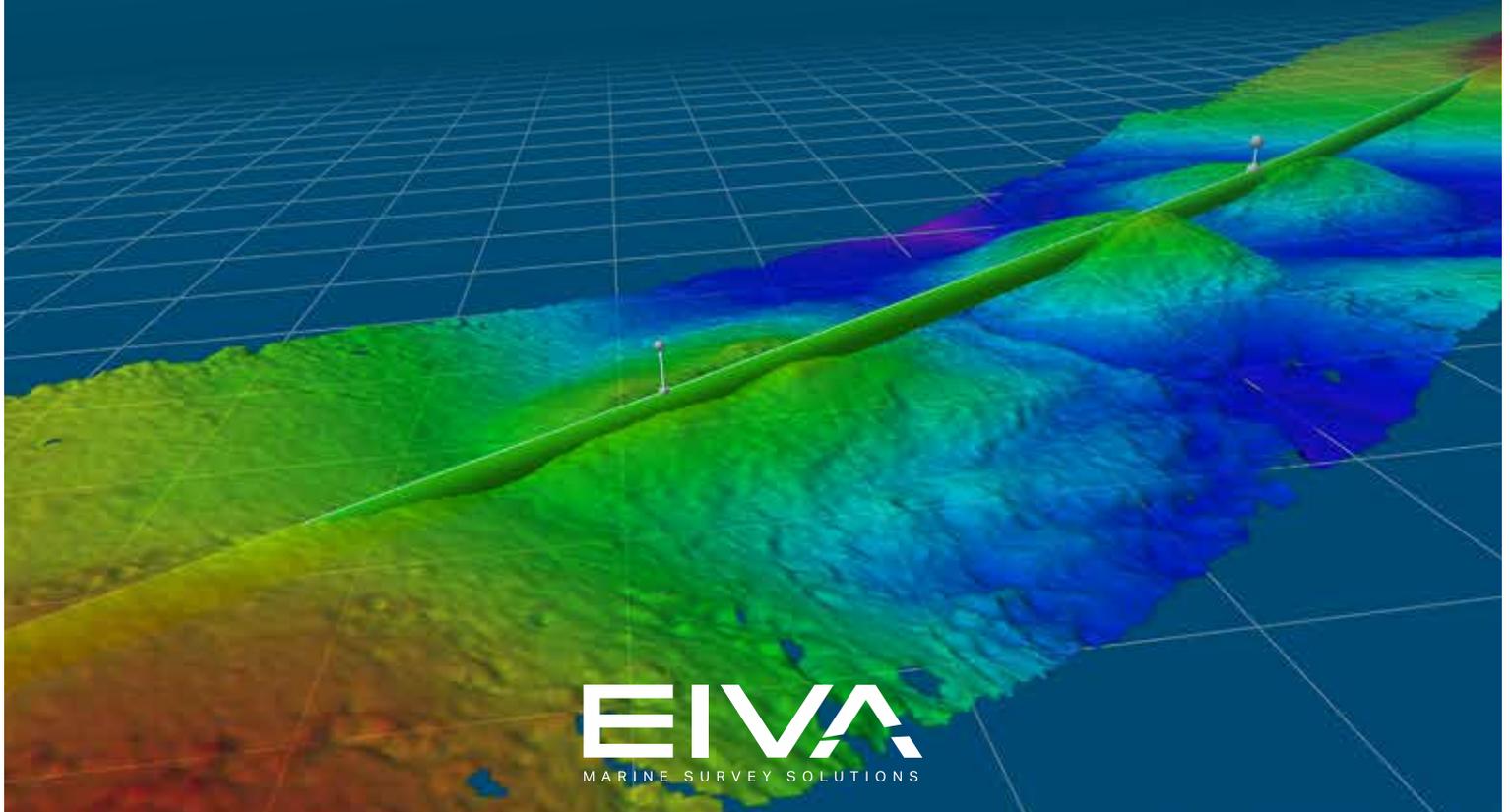
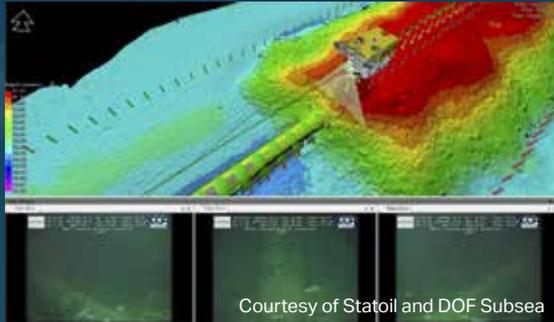


# NaviSuite Nardoa

Advanced 3D pipeline & cable route inspections

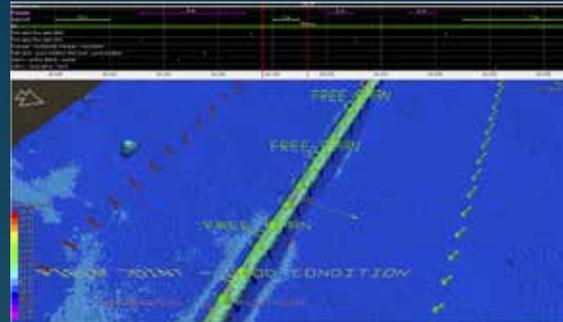


# Cost-effective workflow & high-quality inspection results

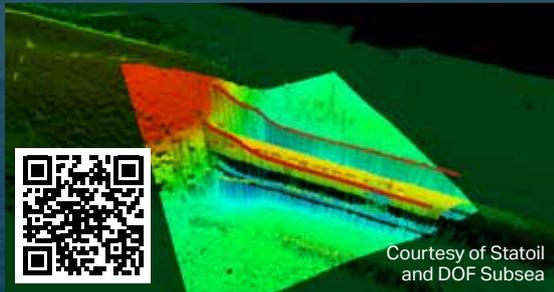


Courtesy of Statoil and DOF Subsea

**Integration of sonar, video and tracker data** providing a detailed and complete data overview throughout the workflow, synchronised in time, position and reference. This minimises the risk of data uncertainties through continuous comparison and verification.

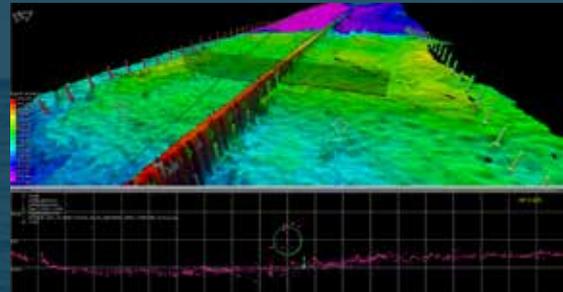


**Visualisation, processing and analysis in a 3D environment** leading to extensive possibilities, including automatic generation of seabed DTM, digitised pipe or cable object, calculation of free span, exposed and covered areas, as well as visualisation of events.



Courtesy of Statoil and DOF Subsea

**Automatic data cleaning and filtering** letting the software do most of the work quickly and efficiently, utilising intuitive features such as Kalman filtering and S-CAN cleaning.



**Raw data applied throughout the entire inspection workflow** eliminating the risk of errors due to data conversion and allowing for instant compensation of errors in the different workflow stages without having to step back in the process.

## Accurate time tagging for improved inspection results

When time accuracy is of pivotal importance to your inspection operation, the ATTU offers a simple way of taking the time-tagging feature of the NaviSuite Nardoa solution to the highest level.

The ATTU can be applied in any inspection setup that includes the EIVA NaviPac and NaviScan navigation and data acquisition software solutions.

### Accuracy better than 50 $\mu$ Sec

Knowing the when and where of your sensor data is an essential element when you want optimum accuracy and high-quality



data of your inspection operations. The ATTU ensures a time-tagging accuracy that is better than 50  $\mu$ Sec.

### Setting sail quickly through easy configuration

The rack-mounted unit enables plug'n'play installation into existing solutions – you simply connect the sensors and configure the unit in the intuitive web interface.

“ We use the S-CAN feature on a daily basis when working with cable route inspection. It reduces the amount of manual work vastly, and we achieve a much better end result. ”

Thore Nellemann,  
Senior Dataprocessor, CT Offshore

“ By means of the S-CAN feature, we have reduced the time spent on cleaning by more than 25 percent, and we obtain a far better overall result. ”

Per Norvald Boge,  
Lead Data Processor, DOF Subsea

## Pipe down?

The NaviSuite Nardoa is a cutting-edge, completely integrated 3D software solution for acquisition and processing of data during pipeline and cable route inspections.

This proven, off-the-shelf software bundle allows you to save man-hours and money while delivering high-quality, thorough and comprehensive inspection results to your customers.

### Save man-hours and reduce the inspection timeframe

The NaviSuite Nardoa solution allows for near-real-time processing of large data sets, thereby reducing the timeframe of the inspection job to a minimum.

The software does most of the work, and the man-hours of the team are spent more efficiently on the details that require a human hand. Altogether, this translates into a far more cost-effective inspection workflow.

### No limitations as to inspection setup

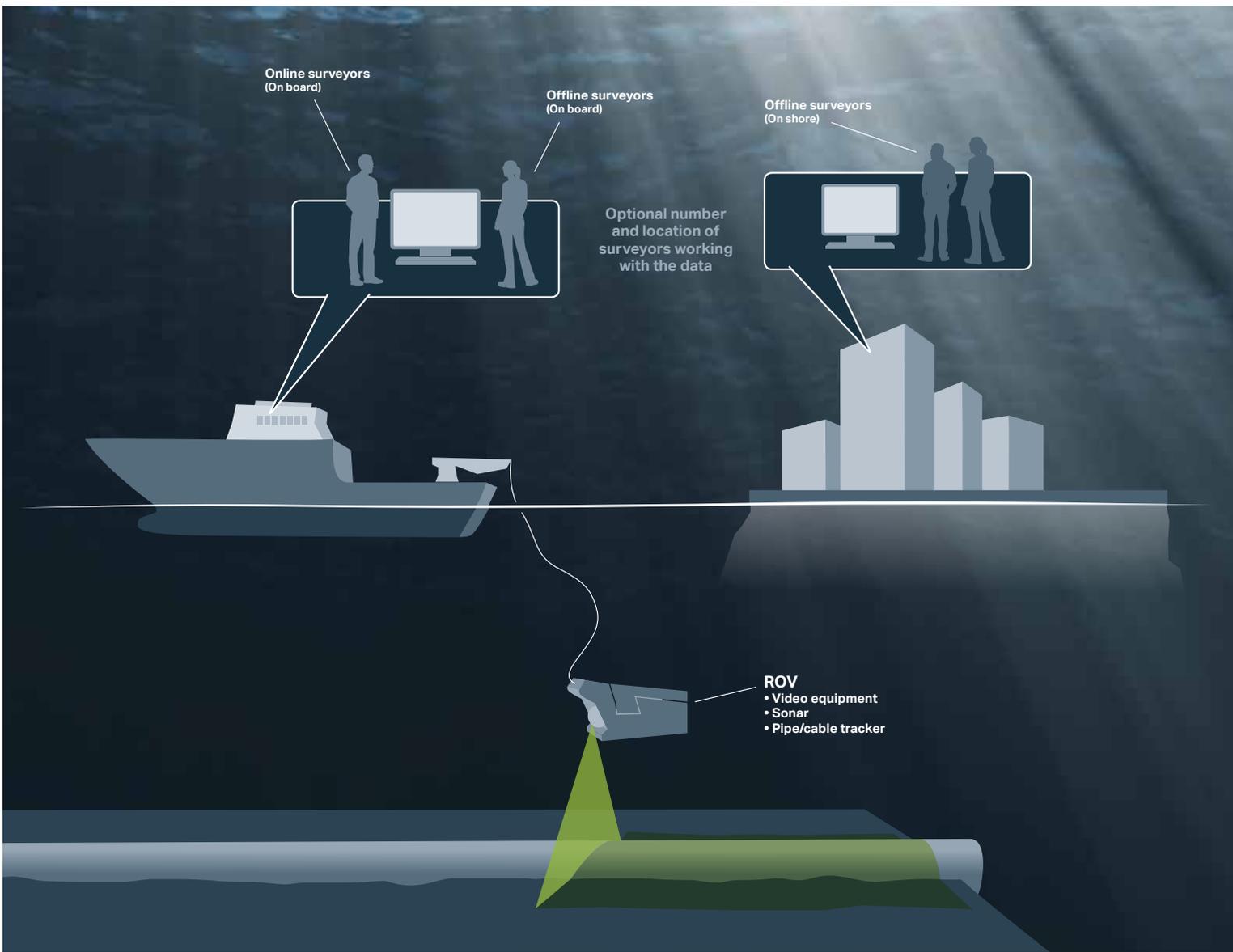
This open, modular solution supports all available software and hardware equipment for pipeline and cable route inspection.

It is easily integrated into your existing inspection setup and equipment, enabling you to create the optimum tool box that fits your needs perfectly – using your existing equipment and thus saving money, or buying new equipment without having to worry about integration complications.

## Ideal solution for clients with high expectations

The NaviSuite Nardoa solution allows you to deliver high-quality inspection reports shortly after the inspection vessel arrives at port, as a paper report combining raw data and 3D models or displayed in a free 3D viewer.

‘High-quality’ means highly accurate, extensive and thorough results that are easily comprehended, a key element being the possibility of 3D visualisation. In sum, your clients will get a sound decision-making basis in the work that follows the delivery of the inspection results.



## Lining up a scalable solution fitting your needs and resources perfectly

The NaviSuite Nardoa solution is built around a database network, making it a scalable solution to match your preferred setup perfectly.

Multiple users can access and process the data simultaneously, which vastly reduces the timeframe of the inspection job. Moreover, the team can be situated both on board the inspection vessel and on shore, depending on your specific needs and options. This

renders the size of the team and their physical location an open choice rather than a hindrance.

Add to this the possibility of combining the software bundle with whatever inspection equipment you prefer, and you're guaranteed the resources spent on putting your new tool box together and into operation will match the desired level.

# Diving into an efficient workflow

The features offered in the NaviSuite Nardoa solution will ensure a fast and flexible workflow and inspection results of the highest quality, saving you time and money.

Through the possibility of near-real-time data processing, you can produce preliminary reports and thereby carry out on-the-fly data QC. This lets you know straight away if there is a need for recapturing and virtually eliminates the risk of insufficient or flawed data.

## Comprehensive tool

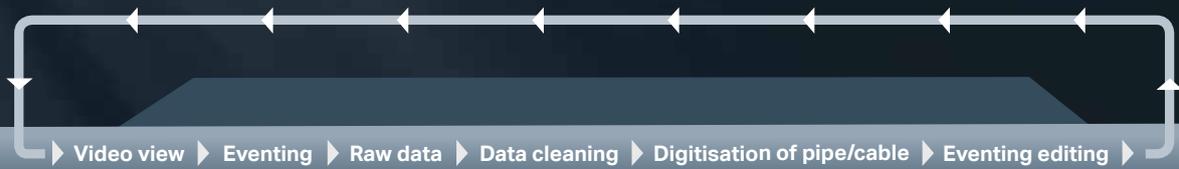
The software is applied throughout the inspection process, offering you a comprehensive and advanced

tool, from video data providing an integrated view and eventing both during data acquisition and processing, to manual or automatic data cleaning and generation of digital models of seabed and pipe or cable in a 3D environment.

## Utilising raw data

The NaviSuite Nardoa solution makes use of raw data throughout the workflow, offering you complete traceability and eliminating errors due to data conversion. This means that you can instantly compensate for data inconsistencies and sensor inaccuracies without having to step back in the process and you can export the data to any relevant third-party software.

## Data processing workflow



Free 3D viewer



Survey report



Export to  
third-party  
(GIS) software

“ Two distinct advantages of NaviModel are that it is a good and comprehensible presentation tool and handles large data sets well. ”

Øystein Pettersen, Marine Operations, Statnett, Norway's national main grid owner and operator

## The NaviSuite Nardoa solution comprises of:

### NaviPac

Navigation & positioning

Comprehensive ROV and vessel navigation information and positioning calculation.

### NaviScan

Sonar data acquisition

Real-time visualisation of sonar data acquisition and eventing, enabling on-the-fly QC.

### NaviEdit

Inspection data editing

Detailed data editing, cleaning and position calculation.

### NaviModel

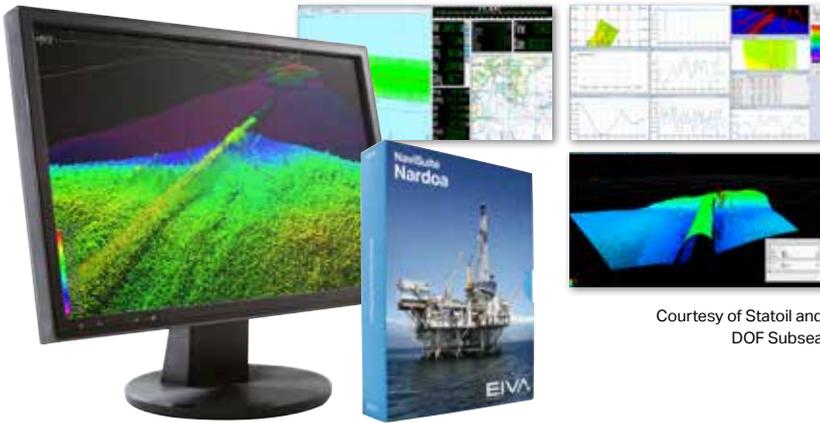
3D terrain modelling

Advanced automatic cleaning and digitisation of terrain and pipe or cable in a 3D environment, and eventing editing.

### NaviPlot

Chart production

Easy creation of inspection charts, providing extensive overview of results.



Courtesy of Statoil and  
DOF Subsea

## What's included in the bundle

- **EIVA NaviPac**
- **EIVA NaviScan**
- **EIVA NaviEdit**
- **EIVA NaviModel, including S-CAN and 3D Pipe module**
- **EIVA NaviPlot**
- **Optional extra: EIVA ATTU time tagging unit**

## Software training courses

Why not let EIVA teach your team about EIVA software? Our experienced instructors will ensure that your crew members are completely up to speed, making certain that you get the most out of the advanced software's many features.

We offer training courses at different locations throughout the world, including at your premises. You can choose between our standard courses on the offline and online software, or have a course tailored to your specific needs.

## Maintenance & 24/7 support programme

To EIVA, a sale goes far beyond delivery of the solution. Assisting our customers with any question or challenge that may arise is second nature to us, and we're constantly working on improving our software solutions according to user inputs, new requirements and future technologies.

### Remain competitive

On our website, you can find an extensive amount of product information, software downloads and a knowledge base with answers to frequently asked questions.

You can subscribe to our software maintenance programme and 24/7 software and hardware support service. The possibility of getting in contact with the support team

regardless of the time or day of the week means that downtime is minimised. Via the maintenance programme, you benefit from the ongoing further development of the software suite through regular updates and thus remain up-to-date and competitive.

### An experienced service and support team

The service and support team are qualified to deal with all aspects of hardware, software and system integration issues, drawing on our many years of experience in the industry. Our fully equipped electronics workshop is manned by a team of highly specialised electronics engineers, who also often assist our customers on-site in terms of commissioning and post-processing services.

# About EIVA

EIVA is an engineering company with more than 30 years' experience in the offshore construction and survey industry. We provide software, hardware and turn-key solutions to a wide range of segments for virtually any subsea task.

## Seeing our solutions out to the deck

The key purpose of our solutions is to optimise our customers' marine construction or survey businesses. We know and understand the challenges they face and work closely together with them in choosing and implementing

the solution that will offer the most value to their often mission-critical operations with all that implies.

## Worldwide customer base and workplace

Our extensive customer base comprises organisations and companies from the international industry. This means that our staff are as familiar with the inside of aircraft cabins as they are with the seabed from travelling worldwide to assist our customers on-site.

- 
- EIVA offices  
■ EIVA representatives
- The map shows a global distribution of EIVA's presence. Offices are marked with black squares, and representatives are marked with blue squares. Offices are located in the UK, Norway, and the US. Representatives are spread across Europe, Africa, Asia, and Australia.

