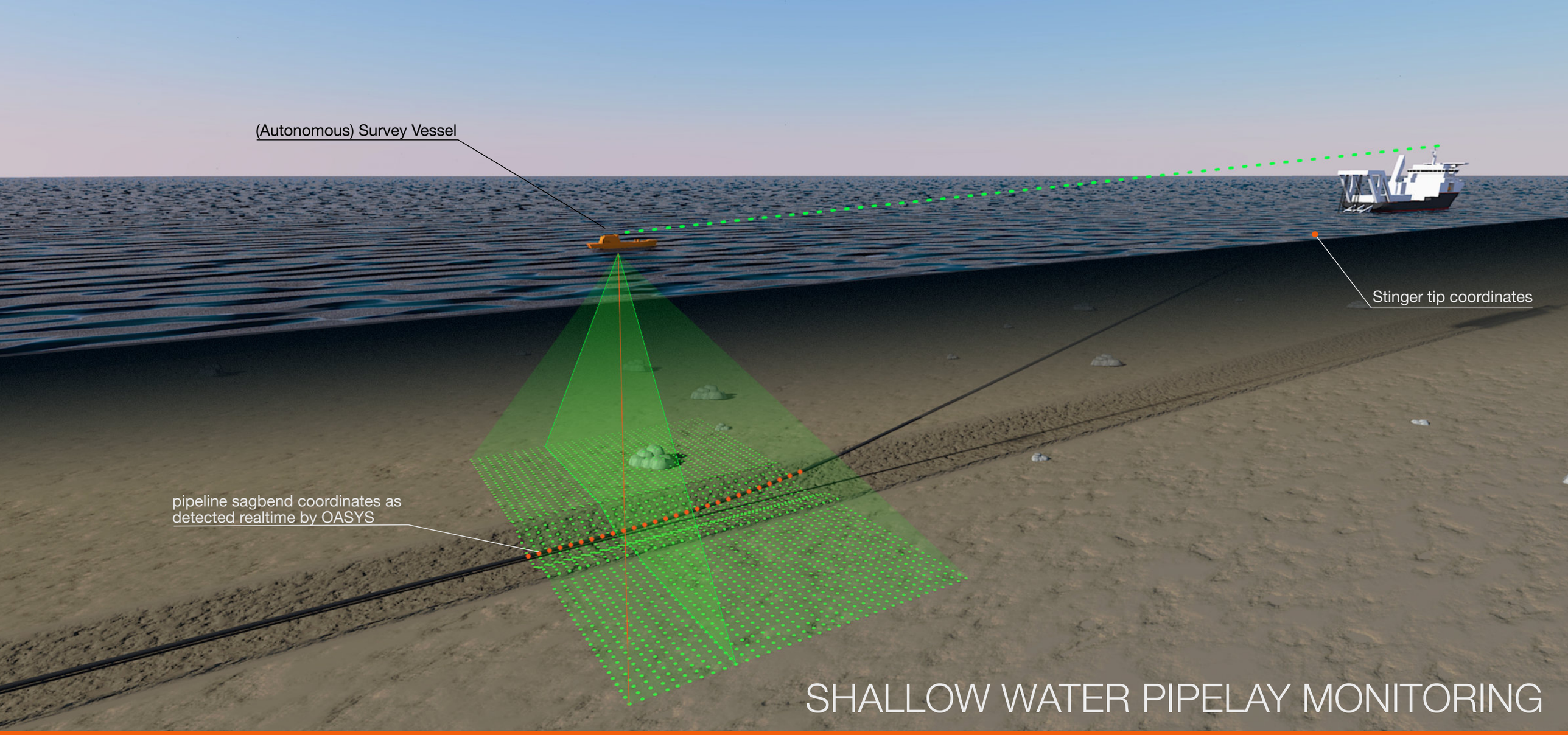


SHALLOW WATER PIPELAY MONITORING

Automatic pipeline monitoring

OASYS uses a echosounder to continuously scan the sagbend section of the pipeline. Acoustic reflections on the pipeline are detected and processed automatically using advanced algorithms . The coordinates of the reflections are combined with the stinger tip coordinates to define a pipeline geometry in realtime.

The detected geometry is used to provide touchdown point location, sagbend radius and catenary length. Combing the geometry and line pipe material properties provides tension distribution along the pipeline.

OASYS hardware & software

OASYS is based on a high-resolution 2D multibeam echosounder (MBES) mounted on a subsea pan-tilt system. The pan-tilt system moves the 2D MBES swath in the third dimension, providing 3D long-rang and high-accuracy detection capabilities.

Besides automatic object detection, OASYS software automatically visualizes scanned bathymetry and seabed features such as trenches or crossings.

Operated from an (A)SV

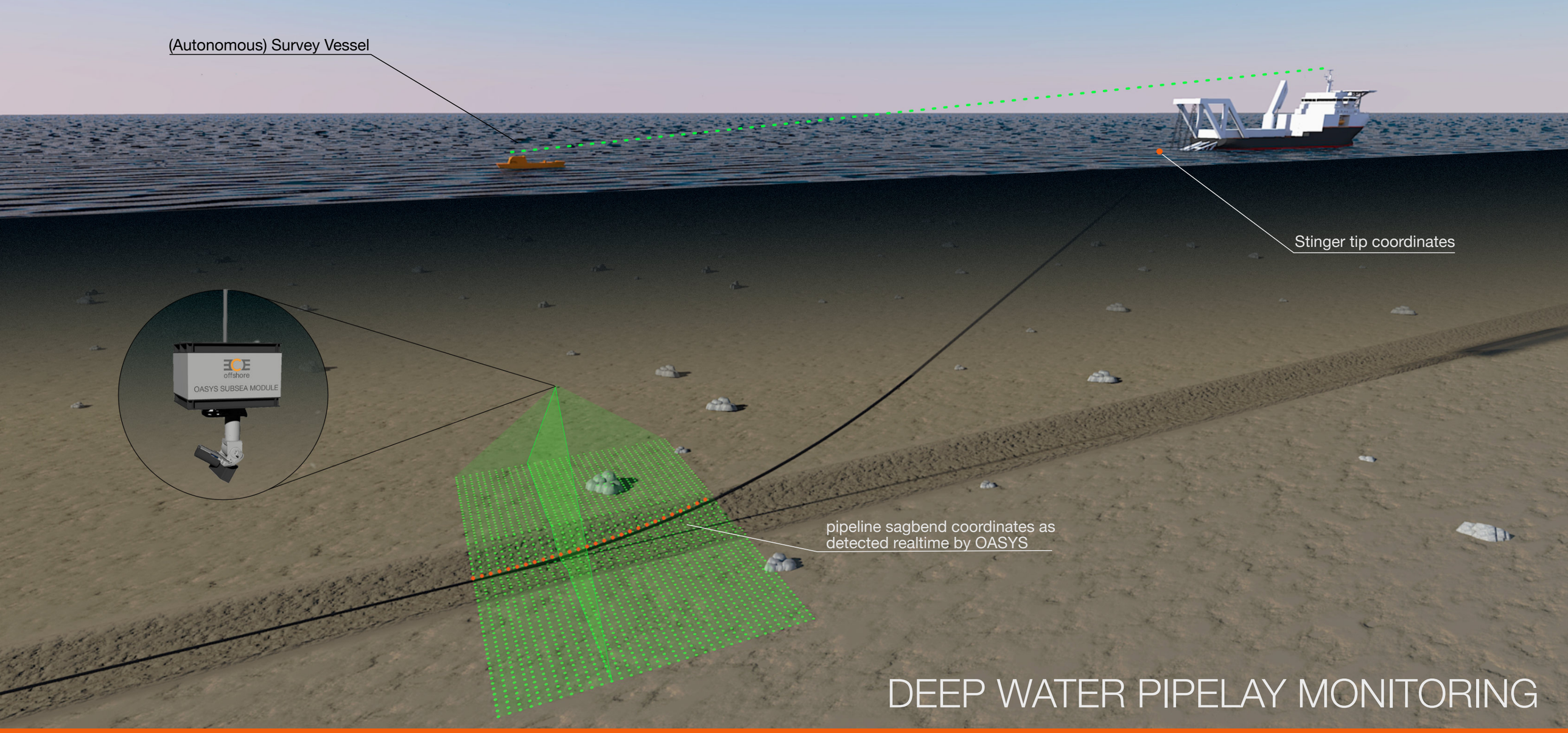
In shallow water, OASYS can monitor lay operations directly from an (autonomous) survey vessel (ASV) up to water depths of 100m.

The ASV is controlled from the lay vessel and has a typical endurance of 10 days. Workability limits up to 3.5m can be achieved.

OASYS PIPE

ECE offshore

www.eceoffshore.com | info@eceoffshore.com | +31 70 204 0129



DEEP WATER PIPELAY MONITORING

Operated from an (A)SV or ROV

In deep water, OASYS is deployed from an (autonomous) survey vessel to 50m above seabed level from where it will monitor the sagbend section of the pipeline.

Alternatively, the system can be mounted on a ROV or underneath a ROV TMS.

Based on OASYS Cable

Both hardware and software is used extensively in the offshore wind farm construction industry to monitor cable lay operations.

The system has proven to be

Benefits

- Cost-effective: 1 operator per 12h shift
- Fully automatic real-time object detection capabilities
- Integrity monitoring
- Applicable to pipe, umbilical and cable lay monitoring
- Can be deployed from a survey vessel, ASV or ROV

Specifications

- Automatic detection - operational range: 100m
- Ping frequency: 200-400kHz
- Swath range: 10-160°
- Angular resolution: 0.001°
- Depth rating: 3000m

OASYS PIPE

www.eceoffshore.com | info@eceoffshore.com | +31 70 204 0129

ECE offshore