

# TAP Offshore Pipeline

- The subsea section of TAP will cross the Adriatic Sea in the strait of Otranto between the Albanian coast south-west of Fier and the Italian coast north of San Foca.

- Length – 105 km

- Max water depth – 812 m

- Design capacity – 20 bcm

- Outer pipe diameter – 36"

- Steel wall thickness – 20-34mm (depending on the water depth)

- Concrete coated in water depths less than 300m for mechanical protection and stability

- The offshore pipeline will be installed using S-lay installation technique

**A Pipe Carrier Vessel**  
Carries pipes that weigh up to 20 tonnes each and are shipped to the pipelay vessel from Brindisi.

**B Stinger**  
Provides support to the pipeline as it is progressively lowered on to the seabed.

**C Crane**  
Unloads the pipes from the carrier vessel to the pipelay vessel.

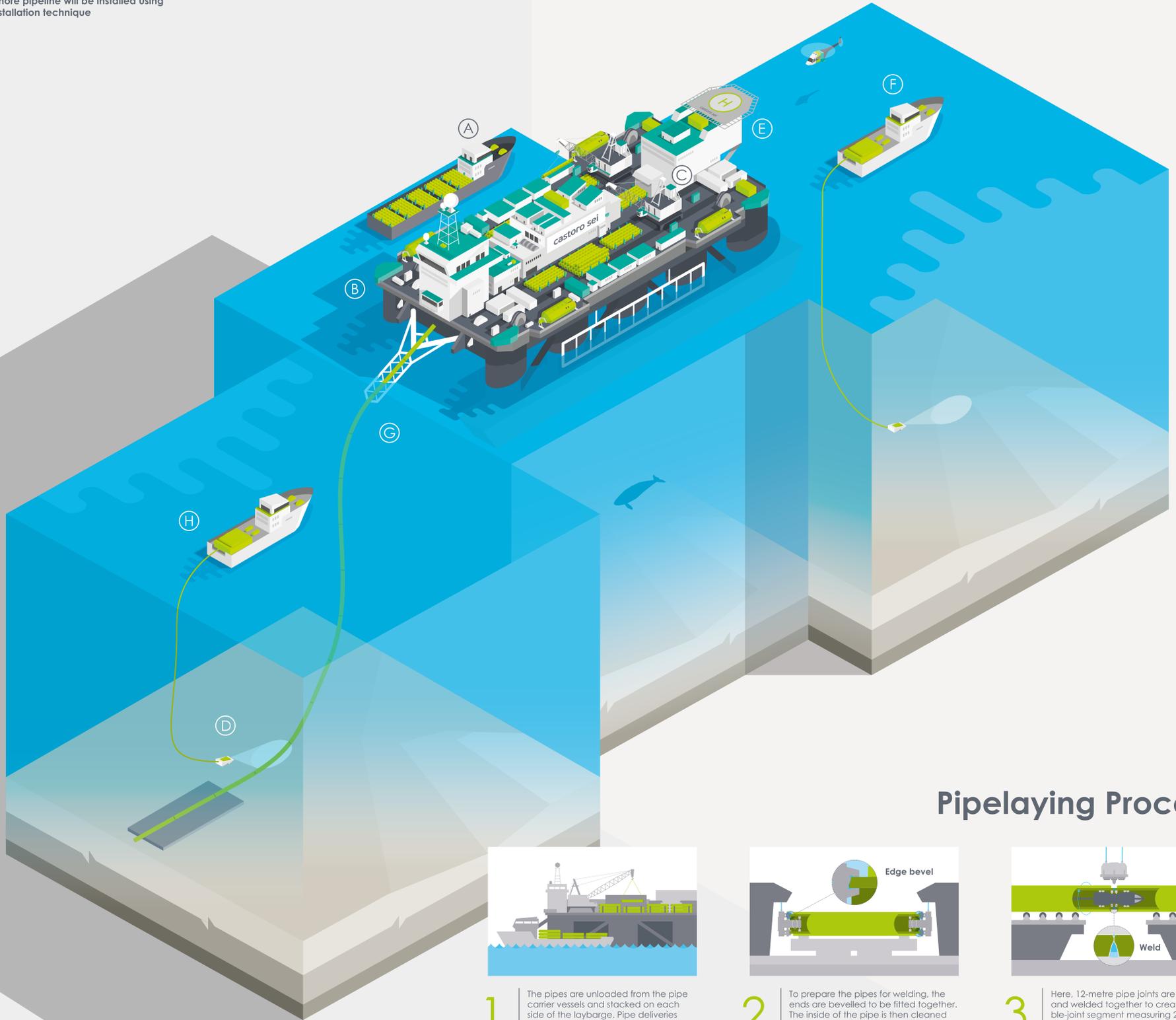
**D Touch Down Monitoring**  
Monitors the pipeline, as it touches down on the seabed to ensure that it is correctly positioned.

**E Helipad**  
Used as a landing and take off area for the helicopter that can transfer personnel to and from the vessel.

**F Pre-Pipelaying Survey**  
The pre-lay survey performed before pipeline installation confirms that no significant changes have occurred along the route since the previous survey which is done during the route planning phase.

**G S-Lay**  
As the pipeline is lowered to the seabed, it forms an "S" shape, which prevents it from being damaged during installation.

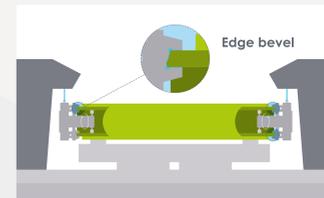
**H As-laid Survey**  
Ensures the pipeline is positioned accurately on the sea bed within the agreed Project parameters.



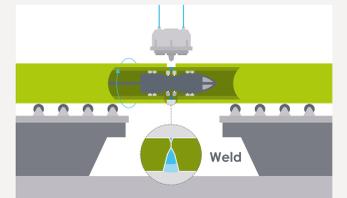
## Pipelaying Process



**1** The pipes are unloaded from the pipe carrier vessels and stacked on each side of the laybarge. Pipe deliveries occur regularly to maintain the 24-hour pipelay schedule.



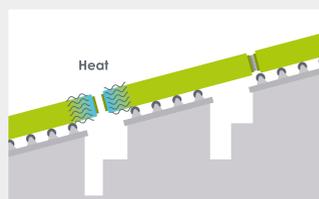
**2** To prepare the pipes for welding, the ends are bevelled to be fitted together. The inside of the pipe is then cleaned before it is conveyed to the double-joint welding station.



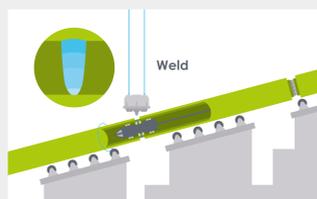
**3** Here, 12-metre pipe joints are aligned and welded together to create a double-joint segment measuring 24 metres. These sections will later be connected to the main pipe string.



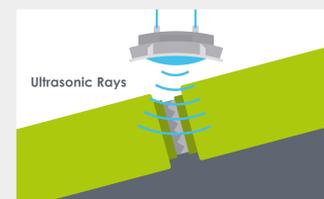
**4** The double-joint is moved to a non-destructive testing station where the weld undergoes testing to detect any unacceptable flaws. If required, the defect will be removed and the weld re-tested to ensure it meets international standards.



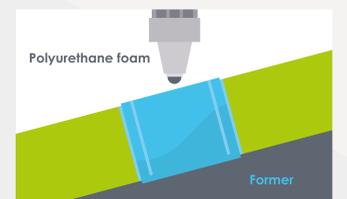
**5** Following the non-destructive testing, the double-joint is moved in a pipe elevator to the central assembly line.



**6** The double-joint is now joined to the end of the pipeline using a semi-automatic welding process. Qualified welding inspectors oversee each of the steps to ensure that welding is performed in accordance with TAP's and authority approved welding procedures.



**7** Following welding, the weld between the double-joint and the main pipeline undergoes non-destructive testing. Any unacceptable flaws will be removed, and the weld re-tested to ensure it meets international standards.



**8** Once the weld is confirmed acceptable, a corrosion resistant, heat-shrink sleeve is applied over the circumferential girth weld. Then, it will be coated and protected with field joint material.