



## CALL OF INTEREST Offshore Cable Shape Sensing (OCASS) Q&A Session of the Webinar

### **Is this only for French companies or can foreign companies also participate?**

French and foreign companies can participate with equal chances. Nationality is not a selection criterion.

### **Is it my correct understanding that you will only use your cable?**

Yes, we will only use the cable that was presented during the webinar.

### **Could you say more about the cable to be tested? Which supplier for instance? Will it be possible to obtain the exact technical specifications of these systems?**

We can send more information about the cable to be tested if needed. You can write an e-mail at: [ocass\\_project@france-energies-marines.org](mailto:ocass_project@france-energies-marines.org).

### **Is there an opportunity to change the cable specification to include tight buffer fibres?**

No, it will not be possible. There is no place to insert additional fibre inside the cable, but it is possible to add an external device or a very thin device in between the three cores.

### **Will the tests be purely mechanical tests?**

Yes, the cable will not be connected to any electrical power, so there will be no electricity in the conductors. The aim of the tests is to register the 3D shape of the cable continuously in time and space.

### **Please confirm that you are not looking for twist of the cable but the 3D representation of the cable in the environment.**

We confirm.

### **What is the maximum weight of the acceptable sensor if we must add one on the cable?**

We have not determined a maximum weight so far. This is something to be discussed, in particular for assessing the possibilities to compensate the additional weight via additional buoyancy. It depends on the number of sensors (one point or several points on the cable) and on what will be the changes of the cable configuration with this weight/drag addition. Do not hesitate to contact us using this address: [ocass\\_project@france-energies-marines.org](mailto:ocass_project@france-energies-marines.org).

### **How many candidates can participate simultaneously? Will you choose several candidates with similar technologies? How many monitoring systems are required for the project?**

The maximum number of participants will be around 5 or 6, but it can be less depending on the room necessary on the cable and on the deck. For instance, we will not be able to host many technologies using external sensors to be deployed on the cable because we will have issue in terms of space, weight and drag. The idea is not to have multiple providers for the same technology. The aim is to have different technologies to cover a wide It is more to have different technologies to cover a variety of solutions.

### **Is automatic measurement required, or is manual measurement acceptable?**

Manual measurement is acceptable. Additionally, there is no need to see the data in real time. The data can be processed after the test.

**If we connect optical system to fibre optic during deployment, will the cable top go underwater during deployment?**

The cable top will not be underwater, it will be above deck.

**What is the temporal resolution/frequency of the shape measurements of the cable?**

The shape measurements will be around 10 Hz, to be confirmed.

**How many measurements is required per day?**

The very maximum is six measurement windows per day, lasting no more than 30minutes each.

**You mention there is a limit on the form factor of the sensors. Do you have details on the size restrictions you can share?**

This is a case-by-case estimation. Do not hesitate to contact us using this address to assess feasibility: [ocass\\_project@france-energies-marines.org](mailto:ocass_project@france-energies-marines.org).

**Is the vessel from which the cable deployed from a dynamic positioning vessel, or are you going to have mooring lines in place?**

There will be mooring lines in place for most of the 2 days. Dynamic positioning may be used, but we will mostly use the mooring line to move the boat around at slow speed for the “extreme offset” load cases.

**Are all 6 degrees of freedom of the boat captured?**

Yes, the 6 degrees of freedom of the boat will be recorded.

**Is there a possibility to install a termination unit on the fibre at the sea-end, or to loop the fibre back to the boat?**

Yes, both are possible. This need must be specified in advance. Please contact us using this address to assess feasibility: [ocass\\_project@france-energies-marines.org](mailto:ocass_project@france-energies-marines.org).

**Is there any bend-stiffener or equivalent at cable top?**

This is not yet defined; it is currently in discussion. We will either use a free pivot end or a bend-stiffener.

**Do you have some mechanical models for this cable?**

Yes, we have a DeepLines™ model of the cable, so we will be able to run DeepLines™ calculations and use it to understand the global behaviour of the cable and to confront the 3D shape measurements with the model results.

**Have you approached the people working within the oil & gas industry who have large experience in offshore dynamic flexible pipes and umbilicals risers?**

Yes.