

# CLS-3.1: Recommendations for the design of the structure

## Recommendations for the design of the structure

### Challenge

#### CLS\_OFF.3.1 : Recommendations on the design of the structure

1	Challenge ID	CLS_OFF.3.1				
2	Title	Recommendations for the design of the structure				
3	Originator of Challenge	TECHNIP/SAIPEM				
	General description					
4	What data/products do you currently use ?	<ul style="list-style-type: none"> <li>• Profile of current for 95% occurrence, 1y, 10y and 100y return period</li> <li>• Extreme wave event data (H/T for 1y,10y,100y return period)</li> <li>• Wave scatter diagram (H/T) based on annual recording</li> <li>• Wind, Wave and current data</li> </ul>				
5	When do you use this kind of dataset?	These extreme event data are useful during project development phase for the design of structures.				
6	What are your actual limitations and do you have a work around?	<p>Actual limitations:</p> <ul style="list-style-type: none"> <li>• Very low level of correlated data, i.e. we know well independently current velocities/directions, wave height/period/direction but have very low correlated data (which current to be associated to such extreme wave).</li> <li>• Current profile trough the water depth considered unidirectional.</li> <li>• Wave scatter diagram based on annual recording are often given omnidirectional (better for us to have one scatter per direction).</li> </ul>				
7	Needs and expectations on EO data	<p>Data provide by Company, so no work around as no way to act on it.</p> <p>When no correlated data exist, we combine even in a conservative way (max value of everything in the most critical combination of directions)</p>				
	<b>Challenge classification</b>					
8	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact			4		
9	Geographic context /restrictions	All over the world but some parameters are more predominant in some region; exemple: current important in West Africa and wave predominant in Brazil				
10	Topographic classification / Offshore classification	Deep water to very deep water (around 1800m)				
11	Activity impacted /concerned	Design of Riser: Best estimation of environmental conditions could optimize Riser design, structural support design, Major cost impact				
12	Urgency (How quickly does the user need the solution)	Immediate (0-2 yrs); Short term (2-5 yrs);				
	<b>Information requirements</b>					
13	Update frequency	Annual				

14	Temporal resolution	Every 1h/3h;
15	Spatial resolution	1km
16	Data quality	Geo-stationary referred to a specific location
17	Data Coverage and extent	Geo-stationary
18	Example formats	Text, excel, GEOTIFF, GIS...
19	Timeliness	Around a week
20	Existing standards	Yes, quality systems in place internally

## Relevant products

### Content by label

There is no content with the specified labels