OTM-021: Air quality (emissions) monitoring

Air quality (emissions) monitoring

Challenge

	Challenge ID	OTM:021				
1	Title	Air quality (emissions) monitoring				
2	Theme ID	ON 4.2: Environmental monitoring - Continuous monitoring of changes throughout the lifecycle				
3	Originator of Challenge	Onshore: OTM				
4	Challenge Reviewer / initiator	PEMEX, Statoil, PetroSA, Shell, Ardan-Afrca, Sasol, Chevron				
	General description	Overview of Challenge				
5	What is the nature of the challenge? (What is not adequately addressed at present?)	We aim to minimise the amount of emissions, and gas flared or vented to the environment at all stages of O&G development. It would be beneficial to have a tool that allowed us to monitor this remotely so that we could monitor our impact on the environment and highlight good and bad performers.				
6	Thematic information requirements	7. Determine air quality,				
7	Nature of the challenge - What effect does this challenge have on operations?	Gas that is vented or flared is wasted resource that is damaging to the environment. Being able to monitor these events would allow us to better understand how to improve our operations.				
8	What do you currently do to address this challenge?/ How is this challenge conventionally addressed?	We use data from the assets themselves, but this needs to be corroborated against other monitoring benchmarks. On a wider scale, we use data from GGFR satellite derived imagery.				
9	What kind of solution do you envisage could address this challenge?	EO data in combination with in situ measurements and modelling are used to provide up-to-date, timely information and forecasts on air pollutant concentrations.				
10	What is your view on the capability of technology to meet this need? – are you currently using EO tech? If not, why not?	EO could be a useful complimentary technology.				
	Challenge classification					
11	Lifecycle stage	Pre license	Exp.	Dev.	Prod.	Decom.
	Score from impact quantification [1]	0	1	2	3	1
12	Climate classification	NOT CLIMATE SPECIFIC				
13	Geographic context/restrictions	Generic onshore (Unspecified)				
14	Topographic classification / Offshore classification	Generic onshore (Unspecified)				
15	Seasonal variations	Any season				
16	Impact Area	Environmental and H&S				
17	Technology Urgency (How quickly does the user need the solution)	Immediately (0-2 years)				
	Information requirements					
18	Update frequency	monthly				
19	Data Currently used					
20	Spatial resolution					
21	Thematic accuracy					
22	Example formats					
23	Timeliness	Within a week				
24	Geographic Extent	reservoir footprint				
25	Existing standards	GGFR partnership has guidelines relating to venting and flaring monitoring				

[1] Impact quantification scores: *4 – Critical/ enabling; 3 – Significant/ competitive advantage; 2 – Important but non-essential; 1 – Nice to have; 0 – No impact, need satisfied with existing technology*

Relevant products

Content by label

There is no content with the specified labels