



European Technology & Innovation Platform for Ocean Energy

## **Annual reports on ETIP Ocean 2 project engagement with SET Plan actions**



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# 1. 2019 Annual Report

ETIP Ocean is the European Technology and Innovation Platform for Ocean Energy aiming at promoting ocean energy and supporting its path to industrialisation. In addition to facilitating knowledge sharing among industry stakeholders, ETIP Ocean supports the coordination of public and private stakeholders by acting as a bridge to the SET Plan Ocean Energy Working Group.

The objective of Work Package 5 is to ensure that ETIP Ocean supports the execution of the SET Plan Implementation Plan for Ocean Energy. This report describes the progress made and the actions carried out to reach that objective during the first year of the ETIP Ocean 2 project.

## 1.1 Progress

The work in Work Package 5 during the first year of the project has been carried out according to the original plan defined in the Grant Agreement. The plan for the continuation of the project is in line with what is described in the Grant Agreement. Some of the tasks might need further defining, because the project (OceanSET) to support the work of the SET Plan Ocean Energy Working Group was only initiated in March 2019. The person months dedicated for supporting the OceanSET project were performed under Work Package 5.

## 1.2 Actions & results

The tasks (see [Annex I](#) for the description) in Work Package 5 include participating in the SET Plan Implementation Plan Working Group meetings; gathering consolidated sectoral positions and structured information; responding to consultations; provision of specific advice where needed; informing the ocean energy sector about the work of SET Plan for Ocean Energy Working Group and facilitating participation of the sector in individual SET Plan Implementation Plan actions.

The actions performed under Work Package 5 strengthened the link between ETIP Ocean and the SET Plan Implementation Plan working group and ensured that the actions within ETIP Ocean are in line with the work of the Working Group.

The continuous liaison with the OceanSET project enabled efficient information sharing, which ensured consistency of the efforts in the two projects.

Participating in the wider SET Plan activities gave a good understanding of the progress of the whole SET Plan. It also allowed for ETIP Ocean to share updates with the wider SET Plan community and explore synergies with other sectors.

All actions ultimately contribute to achieving the SET Plan targets<sup>1</sup> for ocean energy.

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<sup>1</sup> 10 ct€/kWh by 2030 for tidal and by 2035 for wave energy.



A short description of the work performed during 2019 to advance in the tasks is provided in the table below.

Related task	Description of action	Outcome	Date
T5.3	OceanSET project partner calls every 2 weeks	Ensured industry remains an integrated partner in Ocean SET project and wider SET Plan implementation.	Continuously
T5.3	Follow-up work for OceanSET – e.g. review of documents for quality control and sourcing information for the project	High quality documents and comprehensive information on the sector to form appropriate positions	Continuously
T5.2 T5.3	Ensuring coordination between OceanSET and ETIP activities – e.g. budget figures in SRIA and the Implementation Plan, presentation of ETIP work at SET Plan/OceanSET meetings	Improved alignment between industry and national/regional authorities. More coherent view of sector's development + next steps	Continuously
T5.1	Hosting and participating in OceanSET kick-off meeting, including support with logistics	Successful meeting, clear action plan for OceanSET project	19-20 March 2019
T5.4	Webinar for the SET Plan Implementation Plan working group on the GVA study (see <a href="#">Annex II</a> for the webinar report)	Early engagement with OceanSET will increase quality of GVA study and maximise its impact upon publication	9 July 2019
T5.3	Support for organisation of OceanSET event at OEE2019	Successful meeting, information sharing to the sector	September 2019
T5.1	Attendance at SET Plan Implementation Plan working group meeting	Optimising sectoral efforts, information sharing, work plan for OceanSET in 2020. Correction of issue in previous SET Plan annual report.	30 Sept 2019
T5.3	Representing ocean energy at Workshop on SET-Plan operation	Contacts with other SET Plan sectors, profile-	11 June 2019



		raising, information sharing	
T5.3	Participation at SET Plan Conference in Bucharest	Contacts with other SET Plan sectors, profile-raising, information sharing	12-13 June 2019
T5.3	Participation at SET Plan Conference in Helsinki	Contacts with other SET Plan sectors, profile-raising, information sharing	14-15 Nov 2019

### 1.3 Annex I: Task description

Task	Title
<b>WP5</b>	<b>Support to the SET Plan Ocean Energy Implementation plan</b>
<b>T5.1</b>	Participation at SET Plan Ocean Energy Working Group meetings
<b>T5.2</b>	Inform the sector about the work of the SET Plan WG for Ocean Energy to facilitate public-private cooperation
<b>T5.3</b>	Gather consolidated sectoral positions and structured information and respond to the consultations, provision of specific advice where needed
<b>T5.4</b>	Gather feedback from the SET Plan Working Group and Member States on the work of WP2, 3, 4, 6 & 7 for the SRIA update and for the preparation of Strategic Roadmap

### 1.4 Annex II: Webinar report

The SET Plan Implementation Plan working group was consulted on the GVA study methodology. The 'Gross Value Added' analysis will assess the economic impact of the ocean energy sector in Europe, based on growth scenarios. ETIP Ocean consortium wanted to make sure that the working group has the chance to input into the study.

The consultation was done via a webinar. During the webinar, the study methodology was presented to the working group by University of Edinburgh.

#### Webinar content

- Overview of the GVA study
- Deployment Modelling
- Geographical Scope
- Leakage
- Intended Results



The webinar recording can be found here: <https://www.etipocean.eu/events/eurocentric-gva-study-detailed-approach-for-consultation/>

The presentation slides can be found here: <https://www.etipocean.eu/assets/Uploads/GVA-Study-Approach-For-Consultation.pdf>

### **Date and time**

9<sup>th</sup> of July 2019

10 am to 11 am CEST

### **Presenters and registrants**

Chair: Donagh Cagney, OEE

Presenter: Charlotte Cochrane, University of Edinburgh

Number of registrants: 8

<b>Registrants</b>	
<b>Yann-Hervé</b>	De Roeck
<b>Gordon</b>	Patterson
<b>Silvia</b>	Martin
<b>Irene</b>	Mackay
<b>Maria</b>	Olsson
<b>Declan</b>	Meally
<b>Luisa</b>	Revilla
<b>Ana</b>	Andrade



## 2. 2020 Annual Report

ETIP Ocean is the European Technology and Innovation Platform for Ocean Energy aiming at promoting ocean energy and supporting its path to industrialisation. In addition to facilitating knowledge sharing among industry stakeholders, ETIP Ocean supports the coordination of public and private stakeholders by acting as a bridge to the SET Plan Ocean Energy Working Group.

The objective of Work Package 5 is to ensure that ETIP Ocean supports the execution of the SET Plan Implementation Plan for Ocean Energy. This is done mainly by supporting the [OceanSET](#) project. This report describes the progress made and the actions carried out to reach that objective during the second year of the ETIP Ocean 2 project.

### 2.1 Progress

The work in Work Package 5 during the second year of the project has been carried out according to the original plan defined in the Grant Agreement. The plan for the continuation of the project is in line with what is described in the Grant Agreement.

### 2.2 Actions & results

The tasks (see [Annex I](#) for the description) in Work Package 5 include participating in the work of SET Plan Ocean Energy Working Group meetings; gathering consolidated sectoral positions and structured information; responding to consultations; provision of specific advice where needed; informing the ocean energy sector about the work of SET Plan for Ocean Energy Working Group and facilitating participation of the sector in individual SET Plan Implementation Plan actions.

The actions performed under Work Package 5 strengthened the link between ETIP Ocean and the SET Plan Implementation Plan working group and ensured that the actions within ETIP Ocean are in line with the work of the Working Group.

The continuous liaison with the OceanSET project enabled efficient information sharing, which ensured consistency of the efforts in the two projects.

Participating in the wider SET Plan activities gave a good understanding of the progress of the whole SET Plan. It also allowed for ETIP Ocean to share updates with the wider SET Plan community and explore synergies with other sectors.

All actions ultimately contribute to achieving the SET Plan targets<sup>2</sup> for ocean energy.

A short description of the work performed during 2020 to advance in these tasks is provided in the table below.

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<sup>2</sup> 10 ct€/kWh by 2030 for tidal and by 2035 for wave energy.



Related task	Description of action	Outcome	Date
T5.3	OceanSET project partner calls every 2 weeks	Ensured industry remains an integrated partner in Ocean SET project and wider SET Plan implementation.	Continuously
T5.3	Follow-up work – e.g. review of documents for quality control and sourcing information for the project	High quality documents and comprehensive information on the sector to form appropriate positions	Continuously
T5.2 T5.3	Ensuring coordination between OceanSET and ETIP activities – e.g. presentation of ETIP work at SET Plan/OceanSET meetings	Improved alignment between industry and national/regional authorities. More coherent view of sector's development + next steps.	Continuously
T5.2	Circulating OceanSET <a href="#">Newsletter</a> to the ETIP Ocean mailing list	Informing the sector about the work of the SET Plan IWG to facilitate public-private cooperation	17 January 2020
T5.1	Participation in the OceanSET meeting in Dublin and presentation of the SRIA (see agenda in <a href="#">Annex II</a> )	Optimising sectoral efforts, information sharing. More coherent view of sector's development + next steps.	6 February 2020
T5.4	Consultation of the SET Plan Imp Working Group on the SRIA via email	Improved alignment between industry and national/regional authorities. More coherent view of sector's	12 February 2020





		development + next steps.	
T5.1	SET Plan Monitoring & Reporting Workshop (see notes in <a href="#">Annex III</a> )	Improved reporting on the progress of the Implementation Plans, representing the specific needs of the ocean energy sector.	27 February 2020
T5.2	Organising a webinar to disseminate the results of the OceanSET annual report	Informing the sector about the work of the SET Plan IWG to facilitate public-private cooperation	7 May 2020
T5.1	SET Plan IWG meeting	Optimising sectoral efforts, information sharing.	21 September 2020
T5.3	ETIP Ocean Steering Committee chair's participation in the virtual SET Plan Conference	Contacts with other SET Plan sectors, profile-raising, information sharing.	24 November 2020
T5.3	Support for organisation of OceanSET event at OEE2020	Successful meeting, information sharing to the sector.	1 December 2020

## 2.3 Annex I: Task description

Task	Title
<b>WP5</b>	<b>Support to the SET Plan Ocean Energy Implementation plan</b>
<b>T5.1</b>	Participation at SET Plan Ocean Energy Working Group meetings
<b>T5.2</b>	Inform the sector about the work of the SET Plan WG for Ocean Energy to facilitate public-private cooperation
<b>T5.3</b>	Gather consolidated sectoral positions and structured information and respond to the consultations, provision of specific advice where needed
<b>T5.4</b>	Gather feedback from the SET Plan Working Group and Member States on the work of WP2, 3, 4, 6 & 7 for the SRIA update and for the preparation of Strategic Roadmap



## 2.4 Annex II: OceanSET meeting agenda

### OceanSET Proposed Agenda

*Location: SEAI offices, Dublin*

*Date & Time: 2-5pm, 6th Feb 2020*

Agenda:

1.30pm – 2pm: Light lunch in SEAI

2.00 – 3.00pm: Review of OceanSET progress and;

- Outcome of the mapping and analysis from the data gathered (SEAI)
- Outcome of the gap analysis from the data gathered (WES)
- Outcome of the monitoring and review from the data gathered (DGEG)

3.00pm – 3.30pm: Partners to set out and agree what's going into the Annual report

3.30pm – 4.00pm: Communication and dissemination

- Strategic look at links with SETPlan IWG and others
- Dissemination and communication plan for 2020 (FEM)

4.30 – 5.00pm: ETIP 'Strategic Research + Innovation Agenda' (OEE/EUDIN)

## 2.5 Annex III: Notes from SET-Plan Monitoring & Reporting Workshop

### SET-Plan Monitoring & Reporting Workshop

**27/02/2020**

Meeting notes

**The objective of the meeting was to review the pilot reporting exercise of 2019 that evaluates the progress of the Implementation Plans, and identify areas that need improvement.**

*General comments from IWG representatives:*

- Level of investment, investment needs and impact of projects should be considered in the reporting



- Comparison between IWG activities is challenging, because respondents might have understood the questions in different ways
- It is challenging to categorise a project in just one discipline. This might cause double counting
- The role of the SET Plan in helping achieving the European Green Deal goals should be highlighted in the 2020 report, in order to showcase the relevance of the SET Plan.
- Joint Programming Platforms (ERA-Nets) were considered an important support structure to implement the SET Plan. They will be included in the SET Plan Implementation Landscape. This will also provide a more transparent environment that can foster further collaborations.

*Summary of the discussion on the review of the questionnaire:*

### **Implementation plan and targets**

It is hard to assess why targets might need revision. It is suggested to include a top-down list of reasons for revision (already met, unrealistic...) with a comment section. The nature of barriers could also be included (political, technological barriers etc.). It is suggested to ask about ways of how these barriers will be addressed.

### **Working Group organisation and structure**

Not relevant for the 2019 submission.

### **Ongoing R&I projects**

It can be challenging to determine, what is meant by *relevant projects*. If all projects are included, the list can be very long. However, if only the most impactful projects are included, the total budget doesn't reflect the reality. It is suggested to add a question on the success of the project and the level of private investment.

### **Progress and prioritisation of activities**

No comments.

### **Future R&I programme calls**

It is suggested to include a question on policies, directives, communications etc. related to R&I in energy.

### **Policies and measures (optional)**

If the question is optional, many replies cannot be expected. It is suggested to remove the optionality but add: "If you do not have this information, you may ignore this question".

### **Synergies with other Implementation Plans**



The wording of the question is misleading. 'Critically important' can be interpreted in different ways. It is suggested to divide this question into two:

1. Do you have collaboration with other IPs?
2. Would you like to collaborate and with whom?

### **Synergies beyond the SET Plan**

No comments.

### **Additional suggestions for monitoring**

No comments.

*Next steps:*

- March 2020 – draft questionnaire shared with IWGs
- April 2020 – questionnaires finalised for IWGs inputs
- 15 July 2020 – IWG inputs sent to SETIS
- October 2020 – SETIS first draft
- November 2020 SET Plan Conference in Berlin

## **2.6 Annex IV: Webinar report**

### **ETIP Ocean & OceanSET webinar: Ocean energy progress in Europe**

#### **Date and time**

7<sup>th</sup> of May 2020

11 am to 12 am CET

#### **Presenters and participants**

Chair: Lotta Pirttimaa, OEE

Presenters: Kelly Cayocca, France Energies Marines  
Patricia Comiskey, SEAI  
Tim Hurst, WES  
Ruairi Maclver, WES

Number of participants: 156

#### **Topic**

The [OceanSET](#) project provides support to ocean energy implementation in order to achieve the SET Plan targets. It helps to paint a clear picture of the ocean energy sector's development across Europe.



This webinar provides an update on the ocean energy sector, based on recent information on costs, technologies, revenue support and other facts across European countries as presented in the first annual report produced by the OceanSET project.

The webinar recording can be found here: <https://www.etipocean.eu/events/etip-ocean-and-oceanset-webinar-ocean-energy-progress-in-europe/>

The presentation slides can be found here:

<https://www.etipocean.eu/assets/Uploads/200507-oceanset-webinar.pdf>

## **Webinar findings**

### *OceanSET survey*

The OceanSET methodology consists of four key stages:

- To gather information on the ocean energy sector across Europe – survey
  - General, technical, financial and environmental
- To compile and analyse the data collected from stakeholders and to conduct a gap analysis
- To assess the progress of the ocean energy sector by tracking key metrics and to consider other factors (identification of best practices, state-of-the-art...)
- To provide recommendations on the next steps required to progress the implementation of the SET Plan and suggest approaches to stimulate industry and research progress in key priority areas

The survey was laid out in two sections:

- Section 1 captured high-level information from Member States on their OE sector
- Section 2 gathered detailed information on developers who have devices with a TRL 7

Main findings:

- The mapping exercise shows that 6 out of 11 MS have an Ocean Energy Policy
- Developers identify “Increasing device reliability and survivability” as the development area.
- Unlike tidal stream, wave technology types that have reached TRL 7 or above does not show a clear front runner. The technology types are mixed between point absorbers, Oscillating water column, and others.
- Nearly all Member States (10 of 11) had test site facilities in their country.
- More detail should be sought during the next survey to get a better understanding of the gaps in the supply chain across Member States.

Challenges:



- There is difficulty in accessing accurate funding information and performance of technology
- Industry partners are reluctant to provide accurate information, although the data is anonymous

#### *Pre-commercial procurement for wave energy*

##### Previous challenges:

- Technology companies were often unable to raise funding
- Developers took too many technical risks demanded by funders
- Duplication of effort – multiple developers creating their own components in isolation
- Lack of collaboration & sharing information

##### Pre-commercial procurement as a solution:

- Fund a number of potential suppliers simultaneously to develop early stage concepts that may provide solutions to the problem
- The best solutions go to the next stage, assessed against standards between each stage
- The funds can focus only on the technologies that meet the needs of the procurer

##### OceanSET Work Package 4:

- Task 4.1: Define the technical focus of a European PCP call on the basis of existing strategies – *completed*
  - Reviewed strategies and priorities from Member States & regions, technology roadmaps and ETIP Ocean's SRA and SRIA
- Task 4.2: Define a consistent mechanism for financial interactions between EU, partner regions and beneficiaries – *completed*
- Task 4.3: Define specific technology areas, development stages, and key activities to be supported. Identify metrics for stage gate evaluation – *ongoing*
- Task 4.4: Develop and document the processes for evaluation, selection, monitoring and management of programme calls and stage gates – *ongoing*

##### Proposed Technology Priority Areas:

- Scaled prototype testing – Progression to open water testing of utility-scale generation technology at an appreciable scale with functional subsystems, demonstrating performance in representative and then operational wave climates, i.e. between TRL 5 and 7.
- Technology for off-grid applications – Product development for the blue economy sectors – Lower power requirements (a few hundred watts to a few hundred kilowatts) allow for smaller designs and faster design cycle iteration.



- Mooring and anchoring systems – Improved mooring and anchoring concepts to provide a cost-effective subsystem in a wide range of seabed conditions and permit rapid installation and removal operations through improvements in connection and disconnection techniques.

Currently there are many procurers across Europe all looking at different interpretations of the challenges – the PCP will bring them together and nominate a lead procurer for a streamlined process.

#### Q&A

- A carrot approach rather than a stick approach is preferred for collecting information, so obliging developers to provide data in exchange of public funds is not encouraged. OceanSET prefers to work with the developers to gather the required data and confirm that it will remain confidential.
- The technology developers were asked the percentage of how much was private and public investment. The information was not complete, and this needs to be addressed in this year's survey.



### 3. 2021 Annual Report

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#### 3.1 Progress

The work in Work Package 5 during the third year of the project has been carried out according to the original plan defined in the Grant Agreement.

#### 3.2 Actions & results

The tasks (see [Annex I](#) for the description) in Work Package 5 include participating in the work of SET Plan Ocean Energy Working Group meetings; gathering consolidated sectoral positions and structured information; responding to consultations; provision of specific advice where needed; informing the ocean energy sector about the work of SET Plan for Ocean Energy Working Group and facilitating participation of the sector in individual SET Plan Implementation Plan actions.

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All actions ultimately contribute to achieving the SET Plan targets<sup>3</sup> for ocean energy.

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T5.2 T5.3	Ensuring coordination between OceanSET and ETIP activities – e.g. presentation of ETIP work at SET Plan/OceanSET meetings	Improved alignment between industry and national/regional authorities. More coherent view of sector's development + next steps.	Continuously
T5.2	Circulating OceanSET <a href="#">Newsletter</a> to the ETIP Ocean mailing list	Informing the sector about the work of the SET Plan IWG to facilitate public-private cooperation	8 February
T5.3	Presentation at the SET Plan Steering Group meeting (about the EU offshore renewables strategy)	Contacts with other SET Plan sectors, profile-raising, information sharing.	6 May 2021
T5.2	Organising a webinar to disseminate the results of the OceanSET annual report	Informing the sector about the work of the SET Plan IWG to facilitate public-private cooperation	26 May 2021
T5.1	Extensive involvement in the revision of SET Plan Implementation Plan for ocean energy. Participation in meetings, provision of supporting data, extensive writing of text of the new Plan.	An approved revised SET Plan Implementation Plan for ocean energy (pending publication)	Q3-Q4 2021



		at the time of writing)	
T5.1	Facilitating the IWG to reach a common position on the Horizon Europe Cluster 5 2023-24 Work Programme. Providing supporting analysis, chairing discussions, turning IWG ideas into a coherent & accessible position paper.	<a href="#">Common position on the Horizon Europe Cluster 5 2023-24 Work Programme</a>	November 2021
T5.1	Support and participation in the OceanSET workshop at the OEE2021 conference.	Optimising sectoral efforts, information sharing. More coherent view of sector's development + next steps.	8 December 2021
T5.1	Facilitated discussion and a common approach for the application for OceanSET 2.	Strong proposal to continue the key OceanSET actions to support the implementation of the SET Plan for ocean energy.	Q3-Q4 2021

### 3.3 Annex I: Task description

Task	Title
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<b>T5.4</b>	Gather feedback from the SET Plan Working Group and Member States on the work of WP2, 3, 4, 6 & 7 for the SRIA update and for the preparation of Strategic Roadmap