



European Maritime and Fisheries Fund

1ST PROGRESS REPORT

COVER PAGE

PROJECT	
Project number:	863696
Title:	Digitalization Of Critical Components in OFFshore wind turbines
Acronym:	DOCC-OFF
Starting date:	01/11/2019
Duration:	24
Coordinator contact:	José I. Hormaeche, CLUSTER DE ENERGIA-CEPV
Project website:	www.doccoffproject.eu
Amendments:	AMD-863696-1


PERIOD COVERED	
<p> Please note that this is only a progress report. The information in this report must also be included in the next periodic report/final report.</p>	
Period (from last periodic report):	from [01/11/2019] to [30/04/2020]

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1. DELIVERABLES& MILESTONES (OUTPUTS/OUTCOME) & CRITICAL RISKS

Deliverables & milestones (outputs/outcomes)	YES/NO
We confirm that we updated the following PGMS Continuous Reporting screens: <ul style="list-style-type: none"> • Deliverables • Milestones 	YES

Critical risks	YES/NO
We confirm that we updated the following PGMS Continuous Reporting screen: <ul style="list-style-type: none"> • Critical risks 	YES

2. OVERVIEW OF THE PROGRESS & ACTIVITIES

Overview of the progress & activities	YES/NO
We confirm that the project activities are progressing as planned and that there are no major issues that would put the project implementation in danger. <i>If there are issues, identify them and explain the reasons why.</i>	NO
<p>The project was progressing as planned and with no mayor issues until February (M4), when one of the partners, NEM Solutions, communicated to the Project Coordinator that, due to a strategic realignment of their shareholders (CAF 50%, Siemens-Gamesa Renewable Energy 50%, had decided to split NEM in 2 different companies), they could not guarantee to deliver on expectations of the DOCC-OFF project with the degree of quality that it requires. As a consequence, NEM officially communicated to the consortium their intention of not continuing being partner of the DOCC-OFF project.</p> <p>WP1, WP2 and WP4 were already running by that time and the first steering committee had already been held (at HINE facilities, Olaberria). Therefore, the termination of NEM's participation has had different levels of impact in the activities of the WPs.</p> <p>WP1 activities (Project management and coordination), have progressed as planned. The kick-off meeting (milestone 1) was held on 21/1/2020 at HINE facilities (Olaberria, Spain), where the approach and work plan of all the WPs, as well as their coordination was discussed and agreed. The Project Management Handbook has been developed and delivered in due time (deliverable 1.1).</p> <p>The efforts of NEM Solutions in WP1 were devoted to the collaboration in the Project Management Handbook and mainly to the definition of the Data Management and IPR protection strategy. Unfortunately, the termination of NEM in the project has caused a delay in this activity and the Deliverable 1.2 will have to be postponed 2 months, until the new partner added to the consortium undertakes again this activity and redefines the systems and methodologies to apply to the Data generated in DOCC-OFF.</p> <p>WP2 has to do with digital technologies specification and development, in this case NEM Solutions was the leader. During this first period, a wind turbine engineering expert focused on pitch subsystems was committed to begging with the elaboration of a functional analysis and failure mode analysis to perform FMECA analysis. The goal of this analysis is to identify sub systems and components that can be used for hybrid modelling for condition monitoring, based on criticality. The termination of NEM participation has also had an impact in activities 2.1, 2.2 and 2.3 that will be further detailed in next section.</p> <p>Finally, WP4, focused on Communication tools and activities, has progressed accordingly to the planning during this period, through task number 4.1 In fact, the Communication Plan (deliverable 4.1) and the Website of the project (deliverable 4.2) have been delivered in due time (M3 and M4) Two partners (CEPV and SIRRIS) took part in the Kick-off event for projects funded under the Blue Economy call (5/12/2019 in Brussels) and the Project Coordinator attended the "BlueInvest Day 2020" (4/02/2020 in Brussels),</p> <p>After analyzing the consequences of NEM's communication, the rest of the partners of the consortium agreed that the best way to guarantee the project success was to add a new</p>	

<p>partner that could undertake most of the tasks assigned to NEM, so that the project could be developed as planned and deliver the expected results without relevant delays.</p> <p>The Project Officer was contacted on the 20th of march, to know his opinion and recommendations about how to proceed. A teleconference was organized between the Project Officer, the Financial Officer and the Project Coordinator on the 27/03, regarding the termination of NEM Solutions and the possibility of adding a new partner.</p> <p>The main conclusions were as follows:</p> <ul style="list-style-type: none"> - The Project Coordinator (CEPV) would collect all technical and financial information from NEM before the Grant Agreement Amendment would be done. - The partners would confirm if a new beneficiary could be added to the consortium in the short term, so that it could be included in the Grant Agreement in the same amendment process. <p>Both actions were achieved after two weeks. All the required information from NEM has been received. And the company XABET (whose skills profile is quite similar to NEM) is ready to join the project and has accepted to undertake the tasks that had been assigned to NEM and to deliver the results as expected. The "one-shot" amendment process was launched including the following changes:</p> <ul style="list-style-type: none"> - Termination of the participation of NEM Solutions - Addition of the company XABET as new beneficiary - Reallocation of activities and budget <p>The amendment was submitted on May 18th and is awaiting approval.</p>	
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Implementation timetable	YES/NO
<p>We confirm that the project activities are on schedule and that there are no significant delays.</p> <p><i>If there are delays, identify them and explain the reasons why.</i></p> <p>As a direct consequence of what stated in the previous point, the project will have delays in some of the tasks and activities that were led by NEM, or in which NEM was directly involved.</p> <p>The timeline of the project has been rescheduled, where only specific activities and Deliverables in Work Packages 1 and 2 will suffer some delay (maximum 2 months).</p> <p>Regarding WP1, the most affected activity is the Activity 1.4 (IPR protection and data management) since NEM was the company managing most of the data that will be generated within the project. The deliverable associated to this activity, which is D1.2 (Data Management Plan and IPR strategy), was scheduled for M6 (April 2020), and it will be delayed to M8 (June 2020). The leader in this case is CEPV, but the main contributor as already mentioned was NEM, and after the Grant Agreement amendment it will be the company XABET the one that will redefine the Data management procedures for the data produced in DOCC-OFF..</p> <p>As to WP2, all activities are directly affected by this setback since they were to be led and fully developed by NEM Solutions. In consequence, a delay of one or two months is expected in most of the activities so the new partner can develop them correctly. Activities 2.1 and 2.3 are already delayed because they were ongoing activities, while activity 2.2 is directly affected by the delay of the activity 2.1.</p> <p>Activity 2.1 (FMECA Analysis and CM strategy), led by HINE, is affected by NEM's leave, since a close collaboration between NEM and HINE was expected for the development of the FMECA analysis. XABET will undertake this activity and support HINE in the development of this analysis. The delay foreseen for the correct development of this activity is as follows:</p> <ul style="list-style-type: none"> • D2.1 (FMECA analysis results) was scheduled for M8 (June 2020) and will be delayed to M9 (July 2020). • NEM was the lead beneficiary for D2.2 (Data collection specification for CM strategy) scheduled for M10, which will be delayed to M11 	NO

Activity 2.2 (Model development/system diagnosis) is led by NEM and directly connected to activity 2.1, since the inputs for this activity will be the results from activity 2.1. Therefore activity 2.2 will suffer a delay of one month.

- D2.3 (Hybrid-model prototype) scheduled for M12 will be delayed to M13

Activity 2.3 (Digital architecture specification) was to be led by NEM. XABET will undertake the activity, and since it needs to start from scratch, this activity will be delayed by 2 months, to make sure the correct development of it.

- D2.4 (Digital computing digital architecture specification) scheduled for M9 will be delayed to M11

Activity 2.4 (Digital platform development) was to be led by NEM. After the amendment, XABET will undertake this task and since this activity also needs to start from scratch, the delay will be of two months.

- D2.5 (Digital platform prototype) scheduled for M15 will be delivered on M17

Respecting WP3 and WP4, these will not be affected. The consortium hopes to recover the initial path of the project in WP3.

In brief, the delay mainly affects activities **1.4, 2.1, 2.2, 2.3 and 2.4**. Regarding **deliverables, D1.2 (Data Management Plan and IPR strategy), D2.1 (FMECA analysis results), D2.2 (Data collection specification for CM strategy), D2.3 (Hybrid-model prototype), D2.4 (Digital computing digital architecture specification) and D2.5 (Digital platform prototype)** correspond to the mentioned activities, and all of them will be accordingly delayed.

The objective of this reprogramming is to give the chance to the new partner to develop the activities in accordance with what is proposed in the grant agreement, so that the final objectives of the project in terms of quality and timing are not affected .

The correction on the timeline can be seen in [Table 1. Timetable of deviations from the DoA]. Only activities affected by the termination of NEM have been included in the timeline.

Table 1. Timetable of deviations from the DoA

Timetable																									
Report on <u>deviations</u> from the description of the action (DoA) in Annex 1 GA.																									
Fill in the planned implementation in beige and the deviations in red. Repeat lines/columns as necessary.																									
ACTIVITY	MONTHS																								
	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12	M 13	M 14	M 15	M 16	M 17	M 18	M 19	M 20	M 21	M 22	M 23	M 24	
Activity 1.1 – Management and coordination			D1.1	M1																					
Activity 1.2 – Financial and administrative management																									
Activity 1.3 – Monitoring and reporting of progress																									
Activity 1.4 – IPR protection and data management								D1.2																	
Activity 2.1 – FMECA Analysis and CM strategy									D2.1		D2.2														
Activity 2.2 – Model development/ system diagnosis (5M)													D2.3												

Activity 2.3 – Digital architecture specification																													
Activity 2.4 – Digital platform development (7M)																													

3. BUDGET IMPLEMENTATION

Overall budget implementation — Use of resources	YES/NO
<p>We confirm that the overall budget consumption is in line with the advancement of the activities.</p> <p><i>If there are major deviations, identify them and explain the reasons why.</i></p>	
<p>In this first semester less resources than planned have been consumed due to the termination of the participation of NEM in M4. However, the perspective is that the activities stopped and delayed will be reinforced by XABET (the new partner) in the coming months. Accordingly, XABET will devote relevant resources concentrating the costs in the following phases, but causing none alteration to the total budget implementation.</p>	NO

ANNEXES

LIST OF ANNEXES

HISTORY OF CHANGES		
VERSION	PUBLICATION DATE	CHANGE
0.1	15.04.2020	Internal version
0.2	08.05.2020	Version for consortium review
0.3	22.05.2020	Version after consortium review
1.0	22.05.2020	Final version