

**Kortfattet dansksproget projektbeskrivelse egnet til publikation på dansk EMPIR hjemmeside**

<b>2015 Research potential</b>	<b>Underwater acoustic calibration standards for frequencies below 1 kHz</b>	
<b>15RPT02</b>	<b>UNAC-LOW</b>	
<b>Projektets formål</b>		
<p>At udvikle den europæiske metrologiske infrastruktur der støtter kalibrering af undervands akustiske transducere, herunder hydrofoner og autonome lydoptagere i frekvenser under 1 kHz. I projektet skal udvikles de videnskabelige og teknologiske kapaciteter som skal understøtte undervands akustiske målinger som foretages for at etablere de europæiske direktiver for beskyttelse af havetsliv (for eksempel, den Marine Strategy Framework Directive) i den frekvens område som på nuværende tidspunkt mangler sporbarhed.</p>		
<b>Projektet er delt op i 4 arbejdsopgaver:</b>		
WP 1 Calibration of hydrophones for the frequency range between 20 Hz and 1 kHz		
WP 2 Calibration of autonomous noise recorders for the freq. range between 20 Hz and 1 kHz		
WP 3 Creating Impact		
WP 4 Management and Coordination		
Antal deltagere <b>6</b>	Projektets budget <sup>1</sup> <b>372 093.75 €</b>	Person-måneder <b>42.8</b>
Dansk deltager <b>DFM</b>	DFM Budget <sup>1</sup> <b>23 100.00 €</b>	Person-måneder <b>2.3</b>
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<sup>1</sup> Angives som EU finansiering (direct costs + 5 %)

**DFM's bidrag:**

DFM deltager i WP1, WP3, og WP4.

DFMs hovedopgave er at udvikle et kalibreringssystem for hydrofoner baseret på en sammenligning metode med en normalmikrofon i en lukket målekammer. Derudover skal DFM medvirke i den standardiserings proces for de metoder udviklede i projektet.

Konkret er DFM's milepæle:

- To evaluate methods for low frequency hydrophone calibration, particularly pressure comparison in a closed coupler against a reference microphone. This will be combined in a summary report of measurement methods for calibration of hydrophones for frequencies between 20 Hz and 1 kHz given more attention to 63 Hz and 125 Hz third octave bands centre frequencies. [**Deliverable 1**]
- To design a measurement setup for the selected method for DFM. The findings will be gathered in a setup, design and preparation report for hydrophone calibration for frequencies between 20 Hz and 1 kHz with target uncertainty of 1 dB. [**Deliverable 2**]
- To validate the methods experimentally for frequencies between 20 Hz and 1 kHz given more attention to 63 Hz and 125 Hz third octave bands centre frequencies. Uncertainties will be discussed between partners. A comparison will be conducted among all partners. This will be described in a report for agreed procedures, including results of comparison and uncertainty budgets for frequencies between 20 Hz and 1 kHz with target uncertainty of 1 dB. [**Deliverable 3**]