





D10.2 NeXOS Project Video

Lead organisation for this deliverable SECTION FRANÇAISE DE L'INSTITUT DES INGÉNIEURS ÉLECTRICIENS ET ÉLECTRONICIENS (IEEE)

Lead authors: Françoise Pearlman, Jay Pearlman and René Garello (IEEE)



NeXOS - Next generation Low-Cost Multifunctional Web Enabled Ocean Sensor Systems Empowering Marine, Maritime and Fisheries Management, is funded by the European Commission's 7th Framework Programme - Grant Agreement number 614102

Doc.N°: 170915-NXS-WP10_D.10.2





Deliverable 10.2 - NeXOS Project Video

Project Acronym: NeXOS

Project Title: Next generation Low-Cost Multifunctional Web Enabled Ocean Sensor Systems Empowering

Marine, Maritime and Fisheries Management.

Project Coordinator: Eric Delory

Programme: The Ocean of Tomorrow 2013 – 7th Framework Programme

Theme 2: Food, Agriculture and Fisheries, and Biotechnology

Theme 4: Nanosciences, Nanotechnologies, Materials and new Production Technologies

Theme 5: Energy

Theme 6: Environment (including climate change)

Theme 7: Transport (including aeronautics)

Topic: OCEAN.2013-2 Innovative multifunctional sensors for in-situ monitoring of marine environment and

related maritime activities

Instrument: Collaborative Project

Deliverable Code: 170915-NXS-WP10 D.10.2 final

Due date: 2017-09-15

The NeXOS Project owns the copyright of this document (in accordance with the terms described in the Consortium Agreement), which is supplied confidentially and must not be used for any purpose other than that for which it is supplied. It must not be reproduced either wholly or partially, copied or transmitted to any person without the authorization of PLOCAN. NeXOS is a Cooperation Research Project funded by the Research DG of the European Commission within the Ocean of Tomorrow 2013 Joint Call of the 7th Framework Programme (FP7). This document reflects only the authors' views. The Community is not liable for any use that may be made of the information contained therein.

Doc.N°: 170915-NXS-WP10_D.10.2





DISSEMINATION LEVEL	
Public	Х
Restricted to other programme participants (including the Commission Services)	
Restricted to a group specified by the consortium (including the Commission Services)	
Confidential, only for members of the consortium (including the Commission Services)	

DOCUMENT HISTORY				
Edit./Rev.	Date	Name		
Prepared	12/09/2017	Francoise Pearlman, Jay Pearlman and Rene Garello		
Checked	13/09/2017	Project Manager		
Approved	14/9/2017	Project Coordinator		

DOCUMENT CHANGES RECORD					
Edit./Rev.	Date	Chapters	Reason for change		
IEEE/v.0.0	12/09/2017	Whole document	Original Version		
			Final Formatting		
PLOCAN/v0.00		Whole document	Quality review		

Doc.Nº: 170915-NXS-WP10_D.10.2





DISTRIBUTION LIST					
Сору по.	Company / Organization (country)	Name and surname			
1	PLOCAN (ES)	Eric Delory, Ayoze Castro			
2	IFREMER (FR)	Jean-Francois Rolin, Jerome Blandin, Laurent Delauney, Patrice Woerther			
3	UNI-HB (DE)	Christoph Waldmann, Eberhard Kopiske			
4	52-N (DE)	Simon Jirka, Matthes Rieke			
5	AMU (FR)	Madeleine Goutx, Marc Tedetti,			
6	UPC (ES)	Joaquín del Río, Daniel Mihai Toma			
7	ACSA (FR)	Yann Le Page, Frédéric Fiquet, François-Xavier Demotes-Mainard, Dorothée Coulomb			
8	UNOL (DE)	Oliver Zielinski, Rohan Henkel, Daniela Voß			
9	NKE (FR)	Patrice Brault, Damien Malardé, Arnaud David			
10	TRIOS (DE)	Rüdiger Heuermann			
11	CMR (NO)	David Peddie			
12	CTN (ES)	Noelia Ortega, Pablo Ruiz, Daniel Alonso			
13	HZG (DE)	Wilhelm Petersen, Steffen Assmann, RüdigerRoettgers, Frank Carsten			
14	REC (NO)	Nils Roar Hareide, Karsten Kvalsund			
15	NIVA (NO)	Lars Golmen, Kai Sørensen			
16	SMID (IT)	Luigi Corradino			
17	FRANATECH (DE)	Michel Masson, Joaquim Schwerdtfeger			
18	UNIRESEARCH (NO)	Svein Østerhus			
19	CNR-ISMAR (IT)	Marco Faimali, Stefania Sparnocchia, Giovanni Pavanello, Michela Martinelli			
20	IEEE (FR)	Jay Pearlman, Francoise Pearlman, René Garello			
21	ECORYS (NL)	Johan Gille, Dick Mans			

Doc.N°: 170915-NXS-WP10_D.10.2





Acknowledgements

Funding for the NeXOS project (Grant Agreement No. 614102) was received from the EU Commission as part of the 7th Framework Programme, "The Ocean of Tomorrow".

The help and support, in preparing the proposal and executing the project, of the partner institutions is also acknowledged:PlataformaOceánica de Canarias (ES), InstitutFrançais de Recherche pour l'Exploitation de la Mer (FR), Universität Bremen (DE), 52°North Initiative for Geospatial Open Source Software GmbH (DE), Aix Marseille University (FR), UniversitatPolitècnica de Catalunya (ES), Architecture et Conception de SystèmesAvancés (FR), Carl von Ossietzky Universität Oldenburg (DE), NKE Instrumentation (FR), TriOSMEss- und Datentechnik GmbH (DE), Christian Michelsen Research AS (NO), Centro Tecnológico Naval y del Mar (ES), Helmholtz-ZentrumGeesthachtZentrum fur Material-und Kustenforschung GmbH (DE), RundeMiljøsenter AS (NO), NorskInstitutt for VAnnforskning (NO), SMID Technology s.r.l. (IT), Franatech AS (NO), Uni Research AS (NO), ConsiglioNazionaledelleRicerche (IT), IEEE France Section (FR) and ECORYS Nederland BV (NL).

Abstract

With ocean sustainability an ever-growing concern, a global team of researchers set out to create next-generation, web-enabled sensors that make monitoring and measuring the oceans more precise and effective. This video is an overview of the NeXOS Project, which sought to develop cost-effective, innovative, compact, integrated, multifunctional sensor systems (ocean optics, ocean passive acoustics, and sensors for an Ecosystem Approach to Fisheries), which can be deployed from mobile and fixed ocean observing platforms, as well as to develop downstream services for the Global Ocean Observing System (GOOS), Good Environmental Status (GES) of European marine waters (Marine Framework Strategy Directive) and the European Common Fisheries Policy (CFP).

Table of Contents

1. Deliverable 10.2 - NeXOS project video.

6

5

Doc.Nº: 170915-NXS-WP10_D.10.2





1. Deliverable 10.2 – NeXOS project video.

The subject deliverable, which is entitled "NeXOS – Observations supporting ocean sustainability", highlights key elements of the four year NeXOS project. The video sets the base for sensors by addressing the MSFD and the importance of sensors to achieving the Directive goals. With this understanding, the sensors developed by NeXOS in acoustics, optics and fisheries are explained. Important cross-disciplinary developments that impact more than one sensor are included; these are reduction of biofouling for longer-term observations and the interoperability framework together with the implementation based on OGC standards. The demonstration of these in the field is identified. The presentation of the material is through a series of interviews of both NeXOS partners and stakeholders along with animations highlighting technical aspects of the development.

The twelve-minute video is available through a link on the IEEE-Tv streaming website at https://ieeetv.ieee.org/ieeetv-specials/nexos-observations-supporting-ocean-sustainability.

Doc.No: 170915-NXS-WP10_D.10.2