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Research Executive Agency
Marie Curie Actions – Networks for Initial Training

Project No: 607545

Project Acronym: ForSeaDiscovery

Project Full Name: Forest resources for Iberian Empires: Ecology
and Globalization in the Age of Discovery

Marie Curie Actions

Periodic Report

Period covered: from 01/02/2014 to 31/01/2016

Period number: 1st

Project coordinator name:
Dr. Ana CRESPO SOLANA

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Project coordinator organisation name:
AGENCIA ESTATAL CONSEJO SUPERIOR DE
INVESTIGACIONES CIENTIFICAS

Periodic Report

PROJECT PERIODIC REPORT

Grant Agreement number:	607545
Project acronym:	ForSeaDiscovery
Project title:	Forest resources for Iberian Empires: Ecology and Globalization in the Age of Discovery
Funding Scheme:	FP7-MC-ITN
Periodic report:	1
Period covered - start date:	01/02/2014
Period covered - end date:	31/01/2016

Project co-ordinator:

Organisation PIC:	999991722
Organisation legal name:	AGENCIA ESTATAL CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS

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DECLARATION BY THE PROJECT COORDINATOR

I, Dr. Ana CRESPO SOLANA, as co-ordinator of the project (607545, ForSeaDiscovery), hereby confirm that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project has fully achieved its objectives and technical goals for the period;
- The project Website is up to date.
- To my best knowledge, the financial statements which are being submitted as part of this report are in line with the actual work carried out and are consistent with the report on the resources used for the project and if applicable with the certificate on financial statement.
- All beneficiaries, in particular non-profit public bodies, secondary and higher education establishments, research organisations and SMEs, have declared to have verified their legal status. Any changes have been reported under section 5 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

PUBLISHABLE SUMMARY

Comments:

In the Early Modern Age (16th-17th centuries) the construction of ocean-going ships was paramount in the development of cultural encounters in what became known as the Age of Discovery and European expansion. In the case of the Iberian Empires, the establishment of new trade routes brought with it an increased need for armed merchantmen, galleons and other smaller vessels, placing unprecedented demands on Iberian forests for the supply of construction timber. Forestry and sea power became inextricably linked, creating new geopolitical tensions, alliances and forest regulations. This project addresses questions related to Iberian forest resources and the history of shipbuilding through a multidisciplinary and innovative training research program to improve the understanding and conservation of our historical past and cultural heritage. The project research combines knowledge and methodology from the humanities (history and archaeology) and the life sciences (wood anatomy, dendrochronology, isotopes and geochemistry).

The main objective of this project is to increase the research background and experience of the fellows through a combination of dedicated training in both transferable and research specific skills, and their participation in a truly multidisciplinary research project which combines historical, archaeological and dendrochronological methodologies in the study of exploitation of Iberian and other European forest resources for shipbuilding during the Age of Discovery and European expansion. During the first half of the project, research actions have focused on addressing specific scientific and technological objectives:

- a) The creation of an inventory based on archival information of the sources of oak and pine used for shipbuilding in Atlantic Iberia during the Age of Discovery and European expansion (16th to 18th centuries).
- b) The collation of historical and archaeological information regarding construction features of specific ships in Atlantic Iberian shipyards and contemporary timber usage.
- c) The analysis of wood from living trees in source areas for ship timber in terms of tree-ring patterns, wood anatomy and geo/dendrochemistry.
- d) Research into how the supply of timber (both local supplies and imported timber) and its dynamic trade networks were organized.
- e) The production of guidance on best practice for multi-proxy methods for the analysis and provenance of timber employed in 16th to 18th centuries wooden ships.
- f) The development of a GIS-based model to provide a tool to study the use of European forest resources in Iberian shipbuilding.

Archival research has been conducted in many Spanish and Portuguese archives, both national and regional, and also in Dutch archives complementing analysis of the Danish Sound tolls. Patterns of demand for timber (particularly oak and pine) for Iberian shipbuilding are also being identified through examination and analysis of shipbuilding contracts ('asientos'), treatises and standards (e.g. 'ordenanzas'). A multi-lingual thesaurus of Iberian shipbuilding terms, focused on ship timbers, has been developed and continues to be expanded as the terminology of different authorities are added. A relational database has been designed to manage the diverse datasets being collected and synthesised including the journeys of ships and fleets which sailed from Spain and Portugal to the Americas and Asia; shipwrecks which have been identified as archaeological sites or in archival sources; architectural features of such shipwrecks; samples of timber coming from different sources (shipwrecks, historical buildings, and wood from living trees); and results of different types of analysis (dendro-analysis, isotope analysis, DNA analysis, etc.).

An archaeological diving team has been developed through a combination of assessment of fellows' diving qualification and competence, a period of intensive diver training leading to qualification (UK HSE SCUBA) as scientific divers, and a sustained campaign of archaeological diving and sampling of historic shipwrecks. In the United Kingdom, timber samples were recovered from the Yarmouth Roads protected wreck, a suspected late-16th century Spanish merchant vessel. This shipwreck will be the subject of further investigation in 2016. A month-long diving campaign was undertaken in Galicia on three historic shipwrecks including the possible 16th century galleon in Ribadeo. Samples taken from these sites were passed to wood science fellows for dendrochronological analysis, and to provide those developing new analytical approaches with control samples from shipwrecks with known origins (Bayonnais, Magdalena). During the late summer of 2015, a team, working in collaboration with local archaeologists, undertook a detailed study of an early collection of ship's

timbers in Esposende, Northern Portugal. These had been washed ashore in winter storms from an, as yet unlocated, shipwreck site. They provided an opportunity to develop innovative 3D digital approaches to recording and analysis, allowed targeted sampling for wood science, and, through running of an open summer school, access to this innovative work for other researchers and interested local volunteers. Throughout these research actions, public and journalistic engagement has been excellent leading to numerous opportunities for outreach of project objectives and actions, and the wider aspirations of the Marie Curie program to a wide, non-academic audience.

The third main group of researchers, developing approaches to wood provenance, have been equally industrious carrying out sampling of living trees and historic buildings in targeted locations in the Iberian Peninsula where, historically, timbers were sourced for shipbuilding. Such sampling campaigns in 2014/5 have included black pine from central Spain and Andalusia; and oaks from the Basque country and Eastern Cantabria. Core samples from these living trees, and for isotopic studies from adjacent soil too, are being collected to characterise the chemical composition of relevant species of trees in these locations, and to help develop ring-width chronologies with which to date material from Iberian shipwrecks. The chronologies produced are being extended back in time through analysis samples from historic buildings in selected regions such as the province of Granada. This historical material, together with that obtained in Southern Spain, and several samples from the first shipwrecks were the basis for the first methodological tests of the groups involved in organic and inorganic markers.

The project so far has been characterised by the multi-disciplinary approach with researchers training in each other's core disciplines, as well as their own, and participating in each other's research actions. Collaboration and interaction within teams has been encouraged to foster the skills needed for successful research career development. The project is developing a relational database to hold diverse data on historical shipbuilding in the Iberian Peninsula which will become a major research and heritage management tool in the future. In parallel, guidance on protocols and best practice (in areas such as archaeological diving and sampling practices) and the development of wood provenancing methods will foster scientific approaches in the understanding and protection of underwater cultural heritage wherever Iberian shipwrecks survive. These developments will have impacts within government policy, heritage practice (within both academic and commercial research environments), and more widely in terms of non-academic appreciation of the role of science in understanding our common maritime heritage.

Project Logo:

(See document attached in pdf: IMPORTANT NOTE: Please take into account that it is not possible to add here diagrams, photographs, project logo, etc. See the pdf version of the Periodic Report attached to SESAM for more information)

Contact:

web page: <http://forseadiscovery.cchs.csic.es/>

ITN Coordinator: Prof. Dr. Ana Crespo Solana, Instituto de Historia, Consejo Superior de Investigaciones Científicas, Calle Albasanz, 26-28, Madrid, Spain.

Training Coordinator: Prof. Nigel Nayling, School of Archaeology, History and Anthropology, University of Wales Trinity Saint David, Llandrindod, Ceredigion SA48 7ED, Cymru, United Kingdom.

Scientific Coordinator: Prof. Dr. Ignacio García-González, Universidad de Santiago de Compostela, Campus Lugo, Departamento de Botánica, Edificio Cactus Lugo, 27002 Lugo, Spain.

PROJECT OBJECTIVES FOR THE PERIOD

Comments:

An intensive program of scientific and academic interaction has taken place during the first two years of the ForSEAdiscovery project (2014-2016). A detailed description of scientific, training and dissemination activities can be found in parts 3, 4 and 5 of this report. The ForSEAdiscovery consortium have developed a working methodology to structure interdisciplinary work on History of shipbuilding, Nautical Archaeology and Dendrochronological analysis and the use of Database and Geographic Information System (Historical GIS).

An overview of the project objectives according the Annex 1 can be explained as follow:

The main objective of this multidisciplinary research training program is to increase the background and experience of the fellows in an interdisciplinary research and methodology. ForSEAdiscovery fellows are developing their transferable skills for future careers in academia or the private sector. This has been achieved by:

1. Training courses, network meeting and workshops aimed at developing their scientific, communication, management and leadership skills;
2. Applying methodological techniques of the Historical Sciences, Archaeology and Dendrochronology to the study of exploitation of Iberian and other European forest resources for shipbuilding during the Age of Discovery and European expansion. The scientific and technological objectives were developed during this first part of the ForSEAdiscovery ITN through the following achievements:
 - a) The creation of an inventory based on archival information of the sources of oak and pine used for shipbuilding in Atlantic Iberia during the Age of Discovery and European expansion (16th to 18th centuries) (implemented by fellows from WP1 and WP2). A substantial range of archives have been identified and interrogated leading to the collection of significant quantities of pertinent primary documents. Synthesis and analysis of these data is ongoing.
 - b) The collation of historical and archaeological information regarding construction features of specific ships in Atlantic Iberian shipyards and contemporary timber usage at a time of significant technological developments (16th and 17th centuries) (implemented by fellows from WP1 and WP2). One important milestone of this objective is the Thesaurus of shipbuilding (Milestone number 2 of the List, Appendix 2 of the Annex 1).
 - c) The analysis of wood from living trees in source areas for ship timber in terms of tree-ring patterns (ring widths, vessel area, pointer years), wood anatomy (species level) and geo/dendrochemistry (chemistry and isotopes) (implemented by fellows from WP3). Leading edge research is exemplified by analysis of living trees' DNA and strontium isotope ratios.
 - d) Research about how the supply of timber (both local supplies and imported timber) and its dynamic trade networks were organized (WP1 and WP3). Historical sources with information about timber trade network are being analyzed in connection with dendrochronological studies.
 - e) The production of guidance on best practice for multi-proxy methods for the analysis and provenance of timber employed in 16th to 18th centuries wooden ships.
 - f) The development of a GIS-based model combining information from the different disciplines involved in the project (history, archaeology, wood provenancing) to provide a tool to study the use of European forest resources for world exploration and European expansion between the 16th and 18th centuries (WP1, WP2 and WP3). This data model has been successfully developed by all the fellows led by the three Experienced Researchers (José Luis Gasch-Tomás, Sara Rich and Peter Groenendijk).

We are following the research approaches and methodologies specified in the Annex 1 with no deviations, comprising: compilation and checking of historical data collected in archives and literature about shipbuilding; integration and sharing databases and the development of a GIS data model; review of existing dendro-archaeological approaches for the analysis of shipwreck assemblages and the development of sampling methods and strategies focused on in situ Iberian shipwrecks located in Atlantic and adjacent waters (with the organization of archaeological campaigns); development of digital techniques for 3D reconstruction of the growth pattern, age structure and morphology of parent trees employed in ship timbers; and tree-ring research and sampling of living trees and historic buildings.

Innovative Aspects and Methodological Synergies of ForSEADiscovery lies in the interconnection of the different disciplines (Life Sciences, History and Maritime Archaeology) through a GIS model what will be used for interdisciplinary analysis and the integration of sciences with historical approaches that will offer new opportunities to understand the processes and impacts of European maritime exploration and expansion. This is an approaching that has never been undertaken before. The first ForSEADiscovery progress report was submitted to the REA on March 6 2015. No recommendations were made following review of that report, and the ITN has maintained its focus on the research and training program defined in the grant agreement.

WORK PROGRESS AND ACHIEVEMENTS DURING THE PERIOD

Comments:

During the delivery of scientific and training activities there have been no major deviations from Annex 1, only a few minor changes concerning dates of activities previously reported to the Project officer. The ForSEAdiscovery research team has followed the objectives and training plans.

A summary of progress towards objectives and research achievements in Historical research, wood sampling and Maritime archaeology expeditions, can be detailed as followed:

A) Nautical Archaeology campaigns:

In September 2014, following attendance at EURODENDRO 2014, a brief training and research action was undertaken in Finisterre to assess the potential of shipwrecks for sampling, and to assess the diving competence and experience of recruited WP2 ESRs. During spring 2015, WP2 divers received training in first aid, recompression chamber awareness and scientific diving acquiring the United Kingdom Health and Safety Executive (HSE) SCUBA qualification. This has significantly enhanced the ESRs skills and career potential. Diving practices, including the use of full face masks and underwater communications, in line with the HSE Approved Code of Practice for Scientific and Archaeological Diving Projects, have become the norm for the ForSEAdiscovery dive team. The team undertook a sustained program of diving and sampling of a range of shipwrecks in Galicia during June 2015. The diving operations were overseen by the Work Package 2 co-ordinator (Nigel Nayling) working closely with associate partner Miguel San Claudio (Archaeonauta SL) who acted as diving contractor. The first two shipwrecks which were sampled were control sites where the identity of the ships was already known and there was an opportunity for historians in WP1 to research information of the timber used in their construction. The first wreck investigated and sampled was the Bayonnaise – a French frigate built in Bayonne in the late 18th century which wrecked in the Gulf of Fisterra close to Finisterre. Samples were recovered for analysis by researchers in WP3, and diving researchers' skills and experience developed. The second wreck, the Spanish frigate La Magdalena, wrecked off Viveiro, was located and further samples taken from a range of timbers. Additional samples were recovered from a previously unknown shipwreck in close proximity to the Cee shipwreck (previously sampled in an early training action in September 2014) in the Gulf of Corcubion. Last, but far from least, the team successfully dived on the suspected 16th century Spanish galleon at Ribadeo, recovering numerous samples and gaining experience working in the more challenging tidal conditions. The relevant heritage agencies and departments have been supplied with a summary report on all fieldwork undertaken during these Galician research campaigns. Permissions were collected from Regional Government (Xunta de Galicia and other, see Table 4).

During Spring 2015, following agreement from Historic England, samples were taken from the designated historic wreck Yarmouth Roads off the coast of the Isle of Wight. Assessment of the site has confirmed that substantial parts of the hull of this suspected late 16th century Spanish ship survive and could be available for sampling. A project design for further work in 2016 is under development and a report nearing completion for submission to Historical England.

See: <http://www.maritimearchaeologytrust.org/yarmouth>

In August 2015, an assemblage of over 70 ship timbers washed ashore on the beach of Belinho in Northern Portugal were recorded by network researchers and partners in collaboration with the archaeologists of the city of Esposende. The project led to compilation of a timber catalogue including innovative 3D digitization of selected timbers, and sampling for wood science studies by WP3 researchers. This project was characterized by very effective collaboration with local heritage agencies and personnel, and involvement of external parties in the training school. The ForSEAdiscovery team has produced a Timber Catalogue led by Associate Partner Filipe Castro.

B) Sampling Campaigns (Living trees and Historical buildings):

Work Package 3 carried out several sampling actions following the recruitment of fellows, which involved both living trees and historical buildings. In addition, these campaigns also contributed significantly to training, as all fellows took part in most of these activities, so that they could become familiar with aspects of dendrochronological work in both forests and buildings. Furthermore, this

served to encourage discussion of methodologies among the different techniques of WP3, and consequently improve methods for sample extraction and manipulation, in order to avoid contaminations, and to obtain results that were comparable among methodologies.

Sampling work has been focused in the two main areas initially proposed, corresponding to completely different ecosystems and tree species used for shipbuilding i.e., oak forests in Northern Spain (Basque Country and Eastern Cantabrian Mountains), and pine forest in Southern Spain (picture shows ForSEADiscovery fellows storing samples in the Laboratory, Universidad Santiago de Compostela).

A first campaign was carried out in November 2014 in Jaen (Andalusia), mainly comprising field work around the Cazorla Mountains. This was performed in collaboration with a National Geographic project. In fact, the dendrochronological group of WP3 had access to available chronologies for this area, but previous results pointed out the need for increasing the amount of samples and series length at the mid-elevation sites, and also looking for additional sites in surroundings areas where trees could be controlled by other climatic constraints. Three different sites for black pine (*Pinus nigra*) were sampled, namely La Sagra (20 trees), Linarejos (61 trees to extend an existing chronology), and Navanoguera (65 trees). During the same trip, 99 samples were also extracted from seven historical buildings in the province of Granada. During 2014, laboratory work was also carried out using historical wood apparently from the Central Mountains of Spain, which were provided by the private company TRYCSA, following renovation works at the Cathedral of Segovia (64 pine samples). No fieldwork was carried out in this area, but it is planned as a third region for the project for next year. This historical material, together with that obtained in Southern Spain, and several samples from the first shipwrecks were the basis for the first methodological tests of the groups involved in organic and inorganic markers. (see photographs of ForSEADiscovery fellows taking samples in pdf file attached to this Periodic Report).

A second field campaign in May 2015, the first one with all fellows recruited to WP3, was carried out in the Basque country, including a brief scouting trip into Eastern Cantabria. The strategy in this case consisted of focusing on those forests that were known to have provided wood for shipbuilding in the past. The search for appropriate trees was unsuccessful in most cases, and the forest at low elevation only contained young trees with very fast growth, only 16 trees from four different sites were sampled. In addition, cross sections of oak trees were provided by the Albaola foundation from Sakana forest (Navarra); these trees are currently being used to build the replica of the San Juan. This included 32 wood pieces, which allowed the construction of a chronology that spans c. 300 years. This campaign was completed with the extraction of 18 wood cores from four historical buildings in the same area.

Andalusian sampling was completed in June 2015, also with the participation of the associate partner Tomasz Wazny. In this case, two new black pine sites were added (Cabrillas, 43 trees; Poyos de la Mesa, 17 trees), and also three more historical buildings in Úbeda (Jaén), with 39 wood cores. The last sampling action was performed in October 2015, following a previous scouting trip two weeks before in order to optimize subsequent fieldwork, focusing on different oak species in the Basque Country. Since the first campaign in May 2015 proved that it is not possible to develop appropriate chronologies in the areas exploited for shipbuilding timber, sampling needed to be carried out further inland, in locations with a similar climatic regime. In contrast to the first campaign, this proved to be very successful. The sampling strategy targeted living trees, comprising 98 trees from four sites, leading to construction of a c. 500 year chronology. All oak species intended to study were included in the sampling, and this should constitute an ideal pilot study to combine the four different methodologies of the work package on dendroprovenancing.

C) Diving in Historical Sources:

Fellows from Work Packages 1 and 2 have made important and interesting advances by collecting historical sources in archives and libraries allowing historical analyses of the relationships between deforestation processes, timber supply and economic and social agents/networks in the use of resources for shipbuilding.

Three levels of cooperation have been developed here:

- a. The organization and compilation of a massive amount of existing archival and historiographic documentation available mostly in Spanish and Portuguese archives: Archivo General de Sevilla, Archivo General de Simancas, Archivo Histórico Nacional de Madrid, Museo Naval, Biblioteca Nacional, Archivo de la Marina Álvaro de la Bazán, Archivos de la Diputación Foral del País Vasco,

Archivo de Protocolos Notariales de Sevilla y Cádiz (Spain); and Arquivo Histórico Ultramarino, Arquivo Nacional Torre Do Tombo (Portugal). Important research has also been conducted in Dutch archives by fellows from Groningen and Leiden (Stadsarchief Amsterdam and Notarieel Archief, in The Hague).

b. The collection of historical documents from archival information on the sources of oak and pine used for shipbuilding and information regarding constructions features, collected in treatises of shipbuilding, Historical documents like “Ordenanzas”, and in historical cartography (see an example in the picture below). This information is implemented by fellows from WP1 and WP2). At the moment a lot of historical sources have been collected from archives and processing and analysis of these is ongoing. One important milestone of this objective is the thesaurus of shipbuilding (Milestone number 2 of the List, Appendix 2 of the Annex 1). This has expanded beyond its initial concept to provide a multi-lingual glossary of shipbuilding terms, with a particular focus on ship timbers, with linkage to terms employed by particular treatise or in specific dated documents such as “Ordenanzas”.

c. Before formulating the conceptual model and the subsequent GIS, the checking and synthesis of data is being achieved with the supervision of the three Experienced Researchers (ERs). This is very important from an interdisciplinary point of view ensuring effective integration of the complementary methods and information employed and delivered by the three research work packages.

The compilation of historical data from archival documentation, historiography and existing historical databases is leading to the development of a conceptual GIS model named “The ForSEADiscovery database” (see Figure in pdf file attached to this Periodic Report and link with extended explanation of the database in: <http://forseadiscovery.cchs.csic.es/databases>; and GIS database in: <http://forseadiscovery.cchs.csic.es/gis>).

The ForSEADiscovery database is a relational database (See Table 1 in the pdf file attached to this Periodic Report). The project will produce and manage large volumes of data of many sorts: journeys of ships and fleets which sailed from Spain and Portugal to the Americas and Asia; shipwrecks which have been identified as archaeological sites or in archival sources; architectural features of such shipwrecks; samples of timber coming from different sources (shipwrecks, historical buildings, and wood from living trees); and results of different types of analysis (dendro-analysis, isotope analysis, DNA analysis, etc.). Furthermore, we have started entering data in the main tables of the database:

A. Ships. Most data on Iberian ships which sailed across the Atlantic, and also from Portugal to Asia, come from DynCoopNet and Ana Crespo’s database. Exporting data from DynCoopNet and Ana Crespo’s database entails a definition of fields which has already be completed (see table Ships);

B. Shipwrecks-History. Information about shipwrecks documented in written information comes mainly from bibliography and PARES (Online Portal of Spanish Archives). Around 300 registers of 17th-century shipwrecks and 200 of 18th-century shipwrecks have already been entered in this table;

C. Shipwrecks-Archaeology. Data on archaeologically-documented shipwrecks and their constructive characteristics come from data of researchers of the project (Filipe Castro and Miguel San Claudio) as well as information produced in the archaeological campaigns (see above). We have already started entering data derived from Filipe Castro’s data in the different tables which collect data on archaeologically-documented wrecks and their architectural features (see the following tables in the screenshot: Shipwrecks_Archaeology, Dimensions, Type, Architectural_Information, and Additional_Information). Furthermore, members of the WP2 have started entering data coming from shipwrecks examined and sampled during the June 2015 campaign (Bayonnaise, La Magdalena ship of Viveiro, and the Galleon of Ribadeo).

D. Analysis results-Samples of timber. Members of the WP3 have started analysing timber samples and producing results. As soon as they systematize their results, data will be entered in the relevant tables.



DELIVERABLES AND MILESTONES TABLE

RECRUITMENT

Fellow First Name	Fellow Surname	Recruiting participant	Type of Contract	Category	Location of origin	Gender	Family charges	Start date of secondment/ recruitment	Duration of secondment / recruitment	End date of secondment/ recruitment	Working time commitment	Full-time equivalent person-months covered during the reporting period	Declaration of Conformity submitted
José Luis	Gasch Tomás	CSIC	A	ER	ES-Spain	Male	Yes	01/12/2014	24	30/11/2016	Full Time	14	Yes
Ana Rita	Trindade	CSIC	A	ESR	PT-Portugal	Female	No	01/10/2014	36	30/09/2017	Full Time	16	Yes
Koldo	Trapaga Monchet	FCSH-UNL	A	ESR	ES-Spain	Male	No	01/10/2014	36	30/09/2017	Full Time	16	Yes
António	Santos	FCSH-UNL	A	ESR	PL-Poland	Male	No	01/09/2014	36	31/08/2017	Full Time	17	Yes
Peter	Groenendijk	USC	A	ER	NL-Netherlands	Male	Yes	18/05/2015	24	17/05/2017	Full Time	8.5	Yes
Marta	Dominguez Delmas	USC	A	ESR	NL-Netherlands	Female	No	01/09/2014	28	31/12/2016	Full Time	17	Yes
Mohamed	Traore	USC	A	ESR	ML-Mali	Male	No	01/10/2014	36	30/09/2017	Full Time	16	Yes
Adolfo	Martins	UWTSD	A	ESR	PT-Portugal	Male	Yes	01/09/2014	36	31/08/2017	Full Time	17	Yes
Benat	Eguiluz	UWTSD	A	ESR	ES-Spain	Male	No	01/09/2014	36	31/08/2017	Full Time	17	Yes
Sara	Rich	MA Ltd	A	ER	BE-Belgium	Female	Yes	08/12/2014	24	07/12/2016	Full Time	13.75	Yes
Linar	Akhmetzyanov	WU	A	ESR	RU-Russian Federation	Male	Yes	20/08/2014	36	19/08/2017	Full Time	17.5	Yes
Maria	Bastiao	UL	A	ESR	PT-Portugal	Female	No	01/12/2014	12	30/11/2015	Other	12	Yes
Nathan	Gallagher	RUG	A	ESR	US-United States	Male	No	01/09/2015	18	28/02/2017	Full Time	5	Yes
Manish	Kumar	RUG	A	ESR	IN-India	Male	No	01/09/2015	18	28/02/2017	Full Time	5	Yes
Germán	Jiménez Montes	RUG	A	ESR	ES-Spain	Male	No	01/01/2015	36	31/12/2017	Full Time	13	Yes
FADI	HAJJ	UdL	A	ESR	LB-Lebanon	Male	No	01/09/2014	36	31/08/2017	Full Time	17	Yes

No. of full-time equivalent months covered during this reporting period: 221.75

M - Months

RESR - Researcher

FAC B - Fixed amount contract B (%)

RECRUITMENT																																						
Participants	R.1	R.2	R.3	R.4	R.5	R.6	R.7	R.8	R.9	R.10	R.11	R.12	R.13	R.14	R.15	R.16	R.17	R.18	R.19	R.20	R.21	R.22	R.23	R.24	R.25	R.26	R.27	R.28	R.29	R.30	R.31	R.32	R.33	R.34	R.35	R.36		
CSIC	36	1		16	1		20	0		24	1		14	1		10	0			0						0		0								0		
FCSH-UNL	72	2		33	2		39	0			0						0									0		0								0		
USC	72	2		33	2		39	0		24	1		8.5	1		15.5	0									0		0									0	
UWTSD	90	3		34	2		56	1			0						0									0		0									0	
MA Ltd		0			0			0		24	1		13.75	1		10.25	0									0		0									0	
WU	36	1		17.5	1		18.5	0			0						0									0		0									0	
UL	12	1		12	1			0			0						0									0		0									0	
RUG	72	3		23	3		49	0			0						0									0		0									0	
UdL	36	1		17	1		19	0			0						0									0		0									0	
Total	426	14		185.5	13		240.5	1		72	3		36.25	3		35.75	0							0		0		0							0		0	

- R.1 : Foreseen months (ESR)
- R.2 : Foreseen researchers (ESR)
- R.3 : Foreseen Fixed amount contract B (%) (ESR)
- R.4 : Implemented months (ESR)
- R.5 : Implemented researchers (ESR)
- R.6 : Implemented Fixed amount contract B (%) (ESR)
- R.7 : Difference months (ESR)
- R.8 : Difference researchers (ESR)
- R.9 : Difference Fixed amount contract B (%) (ESR)
- R.10 : Foreseen months (ER)
- R.11 : Foreseen researchers (ER)
- R.12 : Foreseen Fixed amount contract B (%) (ER)
- R.13 : Implemented months (ER)
- R.14 : Implemented researchers (ER)
- R.15 : Implemented Fixed amount contract B (%) (ER)
- R.16 : Difference months (ER)
- R.17 : Difference researchers (ER)
- R.18 : Difference Fixed amount contract B (%) (ER)
- R.19 : Foreseen months (VS <10)
- R.20 : Foreseen researchers (VS <10)
- R.21 : Foreseen Fixed amount contract B (%) (VS <10)
- R.22 : Implemented months (VS <10)
- R.23 : Implemented researchers (VS <10)
- R.24 : Implemented Fixed amount contract B (%) (VS <10)
- R.25 : Difference months (VS <10)
- R.26 : Difference researchers (VS <10)
- R.27 : Difference Fixed amount contract B (%) (VS <10)
- R.28 : Foreseen months (VS >10)
- R.29 : Foreseen researchers (VS >10)
- R.30 : Foreseen Fixed amount contract B (%) (VS >10)
- R.31 : Implemented months (VS >10)
- R.32 : Implemented researchers (VS >10)
- R.33 : Implemented Fixed amount contract B (%) (VS >10)
- R.34 : Difference months (VS >10)

R.35 : *Difference researchers (VS >10)*
R.36 : *Difference Fixed amount contract B (%) (VS >10)*

Comments:

The recruitment process has been developed in full agreement with the European Code of Conduct for Recruitment of Researchers and Marie Curie guidance on best practice, assuring that the recruitment and selection process has been open, supportive and transparent.

The project formally started on February 1, 2014, and the Open Call for Early Stage Researchers (12 positions available) was opened from March 1, 2014 to April 4, 2014. The call for Experienced Researchers (three positions available) was opened in May 2014 following the same protocols defined in the Grant Agreement (GA).

The recruitment of ESRs and ERs has been organized by setting up a committee composed of at least the Network Coordinator, the Training Coordinator, the PI of the specific individual project and an independent observer (e.g. member of human resources/personnel office of employing institution) to ensure transparency and candidate eligibility, both in terms of institutional requirements and Marie Curie rules. Calls for ESRs were disseminated via the website of ForSEADiscovery

(<http://forseadiscovery.eu/>), the websites of the institutions of the Consortium, EURAXESS, and the websites of other research centres and universities. They were also advertised through associations of history and archaeology, and networks of specialists and colleagues, including a range of internet fora. ESR opportunities of WP3 were also announced during the COST FP 1106 STREeSS Meeting in Hyytiälä (Finland) and were posted several times to the ITRDB Forum, in which most researchers in dendrochronology participate.

Each Research Coordinator involved in the process of recruitment completed a template to assist in the identification of eligible applicants, and facilitate transparent shortlisting of candidates. Although not detailed in Annex 1 of the GA, the Consortium has encouraged use of a “Fellow Specification” document to ensure the role of each researcher, and their lines of responsibility are clearly defined.

All these documents were overseen by Nigel Nayling as Training Coordinator and Ana Crespo Solana as ITN Coordinator. These documents helped to determine the eligibility of the candidates and their suitability for the position according to the Marie Curie Program criteria. The PI, the Training Coordinator and the ITN Coordinator agreed to shortlist candidates for the interview.

Invitation letters were sent to those who were shortlisted. Interviews were carried out in Leiden, Lisbon, Groningen, Lampeter, Santiago de Compostela and Southampton. Some of the interviews were made by Skype (Wageningen, Santiago, Lorraine).

Feedback letters were sent to candidates who had not been shortlisted, specifying the reasons why they were not chosen. In some cases this would have been due to ineligibility according to the Marie Curie rules, in other cases because they did not meet the research criteria of the position. Following interviews, all unsuccessful applicants were contacted and provided feedback indicating why others had been successful, and providing constructive feedback.

The ForSEADiscovery Consortium has encountered some problems during the recruitment process. Due to eligibility problems for candidates who applied for positions in the universities of Groningen, Leiden and Lorraine, further calls were opened in these cases. Leiden opened two new Calls (with deadlines May 15 and October 3, 2014), Lorraine opened a single new call. Both positions were successfully filled. Groningen opened a new call (with a deadline October 30, 2014) in which one new fellow was recruited. The other applicant, who was offered a fellowship, rejected the position. A new call was opened (with a deadline June 1, 2015). In this new call two persons were recruited for 18 months instead of one person for 36 months, in order to maintain adherence to project deadlines. As previously, each Research Coordinator involved in the process of recruitment completed a template to assist in the identification of eligible applicants, and facilitate transparency. At the moment all Early Stage and Established Researcher positions have been filled.

In order to bring the organization of recruitment to fruition several extraordinary management meeting was organized between the ITN Coordinator (Ana Crespo Solana), the Training Coordinator (Nigel Nayling) and some of the Principal investigators to review Curricula Vitae, documents concerning “Specification of Persons” and another documents regarding the results of the interviews. These meetings have improved the decision making about recruitment and costs have been charged to Category 4.

INTERNATIONAL CONFERENCES / EVENTS OPEN TO EXTERNAL RESEARCHERS

Event Number	Participant hosting the event	Type of Event	Month when the event took place	Start date of the event	End date of the event	Total number of researchers outside the network attending the event	Total number of researcher days for researchers from outside the network attending the event	Website of the event
1	CSIC	Network meeting	12	12/01/2015	13/01/2015		2	http://forsead.iscovery.cchs.csic.es/congressesworkshops
2	CSIC	Intensive Training Course	12	13/01/2015	16/01/2015	18	3	http://forsead.iscovery.cchs.csic.es/congressesworkshops
3	USC	EURODENDRO 2014	20	08/09/2014	09/09/2014	185	3	http://www.usc.es/en/congressos/eurodendro
4	WU	Wood in Spotlight	21	17/02/2014	17/02/2014	34	1	http://www.wageningenur.nl/en/activity/Wood-in-the-SPO+Tlight-Inte+ac+tive-evening-on-wood-its-sc+ience-and-bea+uty.htm
5	RUG	Course Historiography and Archive Research	16	06/05/2015	08/05/2015	2	3	http://forsead.iscovery.cchs.csic.es/congressesworkshops
6	CSIC	course Geographic Information System (GIS)	21	12/10/2015	16/10/2015	12	4	http://forsead.iscovery.cchs.csic.es/congressesworkshops
7	WU	Course Dendrochronology and wood anatomy	23	09/12/2015	10/12/2015	2	2	http://forsead.iscovery.cchs.csic.es/congressesworkshops

Total number of researchers outside the network attending the event	Total number of researcher days for researchers from outside the network attending the event
253	18

Planned number of researcher days for researchers from outside the network attending the event: 0

Remaining number of researcher days for researchers from outside the network attending the event: -18

I declare that the events in category F for which a contribution is claimed did not give rise to a profit: Yes

Comments:

Important note: Several Peer reviewed publications have been produced. See the “List of Publications” uploaded throughout the Participant Portal.

Several training courses took place during 2015:

* See programmes and presentations in web page: <http://forseadiscovery.cchs.csic.es/congressesworkshops>; and <http://forseadiscovery.cchs.csic.es/training-courses>

- a) Training course on “History of Wooden Shipbuilding (C1) and Books and treatises on Shipbuilding (C2)” (Madrid, 12#17 January 2015).
- b) Course on Historiography and archive research (Groningen, May 2015)
- c) Course on Geographic Information Systems (Madrid, 13-18 October 2015)
- d) Course on Dendrochronology and wood anatomy (Wageningen, 9-11 December 2015)

Training Courses included programs of complementary skills. The key issue of the Complementary Skills training programme is preparation for aspects of academic and related work beyond immediate research and personal publication activities. Particular emphases are being given to communication skills, diffusion and project management.

A Supervisory Board meeting took place during the Kick-off meeting (April 2014) alongside the Training Course on “History of Wooden shipbuilding”. An Extraordinary meeting regarding management took place during the Course on Geographic Information System (October 2015) in Madrid and in Wageningen (December 2015) between the ITN coordinator, the Training coordinator and the Scientific Coordinator. Such meetings have been charged to Category 4.

Network meeting and Courses (Research & Training): Sessions have (or will) cover: (i) Career planning; (ii) Grant and application writing; (iii) Publishing and diffusion; (iv) Project management; (v) Diving qualification; (vi) Feedback and development from the complementary skills elements within individual training programmes.

The majority of the Work Package 2 researchers engaged in an intensive program of training in March/April 2015 culminating in qualification as UK Health and Safety Executive SCUBA Divers with First Aid at Work, Recompression Awareness and Oxygen Administration. This additionally built team ethos within this group of researchers who then went on to practice this best practice approach to scientific diving in a month of operations in Galicia during June 2015.

An intensive program of academic interaction and dissemination has taken place during the first and second year of the ForSEADiscovery project:

1. EURODENDRO 2014, Lugo (Spain), 8#12 September, 2014. This is the first time this international conference on dendrochronology has been held in the Iberian Peninsula, and provided an opportunity to inform delegates of the ForSEADiscovery project's objectives. Numerous partners and ESRs participated.
2. IKUWA V: Un patrimonio para la Humanidad, Cartagena (Spain), 15#18 October 2014. This is the first time this international underwater archaeology conference has been held in the Iberian Peninsula and provided an opportunity to inform delegates of the ForSEADiscovery project's objectives. Numerous partners and ESRs participated. Publication through peer-reviewed conference proceedings is planned and a paper outlining the ForSEADiscovery project's objectives and methodological approach has been submitted. The next meeting of this international congress, closely associated with the UNESCO Convention on Protection of the Underwater Cultural Heritage, which is due to be held in Fremantle Australia in November/December 2016 (IKUWA VI) will include a session proposed by the ForSEADiscovery project (“Floating Forests/ Submerged Forests: An Environmental History of Trees”) which will

provide an excellent opportunity to disseminate the scientific results of our researchers.

3. A gestão dos recursos florestais Ibéricos na construção naval da Moderna: História e Arqueologia, Lisbon (Portugal), 26#27 November 2014. Presentations were made by Work Package 2 and Work Package 1 Research Coordinators and ESRs and publication of the proceedings has been completed.
4. Workshop Change point modelling, Department of Geological Sciences and the Bolin Centre for Climate Research, University of Stockholm (Sweden), 10#12 November 2014.
5. Participation N.W. Posthumus#Graduate Training Session 1, Brussels (Belgium), December 2014.
6. Participation in a meeting at the American Historical Association, New York (USA), January 2015.
7. Participation in local outreach activities by individual Fellows and in documentaries and news items, in Barcelona (February 2014); Madrid (March 2014); Lisbon (May 2014); Lugo (8 September 2014) and Finisterre, Galicia (September 2014, June 2015).
8. Outreach activity in Lugo: A stand was set up in the Plaza Mayor in Lugo to inform the citizens about dendrochronology and different application of this Science. Some samples were displayed from timber elements of the Ribadeo shipwrecks, collected by Miguel San Claudio, Archaeonauta SL. (7 September 2014, Lugo, Spain).
9. Outreach activity in Wageningen: Wood in the SPOTlight, an evening with six ten minutes lectures presenting different application of dendrochronology in different parts of the world and a wood market where the invited speakers showed posters and samples related to their research (17 February 2015).
10. Presentation: “Artefact or Ecofact? Assessing the Timbers from the Submerged Mesolithic Landscape at Bouldnor Cliff, UK”, 1st European Conference on Scientific Diving, Stuttgart (1-3 March 2015) Paper by Sara Rich.
11. Conference on Underwater Archaeology Land under water. Nuremberg (Germany). 22/03/2015 (Papers presented by Ana Crespo Solana, Koldo Trapaga Monchet, Antonio Rochas, Garry Momber & Sara Rich)
12. Lecture “Supplying the Enemy: Dutch Commercial Networks providing Timber to the Spanish Seaborne Empire, 1581-1621” by Germán Jiménez Montes. Early Modern Seminar at RUG (20th April)
13. Presentation by Sara Rich: Invited guest lecturer at the Vrije Universiteit Brussel, “Wood Provenance Methods and Applications in Archaeology” (29 April 2015).
14. “Las armadas en el reino de Portugal en los reinados de los Felipes (1580-1640)”, Paper presented by Koldo Trápaga Monchet in III Encuentro de Jóvenes Investigadores. Líneas recientes de investigación en Historia Moderna: Familia, cultura material y formas de poder. Held in Valladolid 2-3 July 2015.
15. Congreso LASA (Latin American Studies Association). San Juan de Puerto Rico, 27/05/2015-30/05/2015. Panel session and papers presented by Ana Crespo, Nigel Nayling, Miguel San Claudio, Adolfo Martins and Filipe Castro.
16. International Conference Connected Oceans 2015 – New Avenues of Research in Maritime and Oceans History, University of Porto (Portugal), 08/06/2015-12/06/2015. Papers presented by José Luis Gasch-Tomás, Koldo Trápaga & Ana Rita Trindade.
17. Congreso Internacional sobre Nuevas Tendencias en Humanidades 2015. Vancouver (Canadá), 17/06/2015-19/06/2015. Dissemination of the ForSEAdiscovery project by Ana Crespo Solana
18. 6th Sound Toll Registers Online Conference in Antwerp, Belgium (22-23 October, 2015), Paper presented by Manish Kumar.
19. Presentation by Sara Rich: “Nautical Archaeology and the Hermeneutics of the Anti-Social”, European Association of Archaeologists, Glasgow (2-5 September)
20. Conference: Session Chair by Sara Rich: Maritime Mobility, European Association of Archaeologists, Glasgow (2-5 September)
21. International Symposium on Boat and Ship Archaeology. Baltic and Beyond (ISBSA14), organized by National Maritime Museum in Gdansk (Poland), 21/09/2015-25/09/2015. An overview paper and several posters presented by members of ForSEAdiscovery Project: Nigel Nayling, Ana Crespo Solana, José Luis Gasch-Tomás, Ana Rita Trindade, Adolfo Martins, Antonio Rochas, María José García Rodríguez.
22. Tercer Coloquio Internacional sobre Cultura Marítima en México. Espacios Marítimos y proyecciones Culturales, organized by “Instituto Nacional de

Antropología e Historia (INAH)", Campeche (Mexico), 21/10/2015-23/10/2015. Papers presented by Miguel San Claudio & José Luis Gasch-Tomás.

23. Lecture "Bosques flotantes para los imperios ibéricos: Ecología y globalización en la Edad moderna", organized by Instituto Nacional de Antropología e Historia (INAH), México (27/10/2015). Paper presented by José Luis Gasch-Tomás.

24. Conference: EuroDendro 2015, Antalya (18-23 October 2015), attended by Ignacio García González and Ute Sass-Klaassen.

25. Congreso Internacional de Historia Económica del Caribe organized by University of West Indies. The history of investment in the Caribbean. 4/11/2015-7/11/2015. Trinidad y Tobago. Dissemination by Ana Crespo Solana.

26. Colóquio Internacional Património, Turismo e Desenvolvimento ESPOSENDE - 30 anos de Arqueologia 1985-2015 16-17/11/2015, Esposende, Portugal. Paper on recording and analysis of ship timber assemblage from Belinho presented by Adolfo Martins and Nigel Nayling.

Most Training networks activities and workshops have been placed in the second year of the Project life.

Additionally an intensive program of academic interaction and dissemination has taken place during these two years (2014-2015). Please, see list in the Periodic Report document attached to this online report.

MILESTONES

Milestone no.	Milestone name	Due achievement date from Annex I	Achieved	Actual / Forecast achievement date
1	Project Website	01/04/2014	Yes	15/09/2016
2	Thesaurus of shipbuilding construction features with reference to timber characteristics observed in historic written sources and archaeological records completed.	30/11/2015	Yes	15/09/2016
3	Demonstration sites selected, project designs agreed and all permissions for fieldwork obtained.	01/04/2016	Yes	15/09/2016
10	GIS data model	01/01/2018	Yes	15/09/2016

Comments:

MILESTONES: We only included below those Milestones that have been achieved. Please, see: <http://forseadiscovery.cchs.csic.es/content/milestones>.

a) Project website established on due date. This is being continuously updated and expanded as the project progresses in line with anticipated activity for this milestone to March 2018.

b) The thesaurus of shipbuilding has expanded from its initial concept to include a multilingual structure and is continuing to be developed to include technical terms found within historic shipbuilding treatises, "ordenanzas" and other sources being analysed by ESRs. WP2 team have developed a Glossary with information in an Excell sheet and a Database which its copyright belong to the ForSEAdiscovery Consortium.

c) Demonstration sites selected, project designs agreed and all permissions for fieldwork obtained. (see: <http://forseadiscovery.cchs.csic.es/content/permissions-fieldwork>)

d) The GIS data model was originally planned by January 2018. However, the three ERs working together have been able to develop the GIS data model early. GIS application design concerning Iberian shipwrecks between XVI-XVIII centuries is developed on the context of ForSEAdiscovery project. The overall research goal is to investigate the wood provenance and shipbuilding and to determine if there some pattern for the Iberian ship definition. In particular, we have focused on the study of Iberian shipwrecks to locate ancient ships of this period and collect underwater timber samples. Later, they will analyze with several dendro-archaeological analyses and so we could determine and know the origin of timber and forests, the influence of shipbuilding, and trade routes in the Age of Discovery and European expansion. In order to achieve that, a new approach was developed for mapping the historical data of ships and shipwrecks database.

See: <http://forseadiscovery.cchs.csic.es/gis>.

See too: Early Modern shipwrecks (by Associated Partner Prof. Filipe Castro):

<http://tamu.maps.arcgis.com/apps/MapJournal/index.html?appid=da41bddb126241fea235ec934428d48c>

See too: Crespo Ships' Database (By Prof. Ana Crespo Solana): <http://ships-database.silk.co/>

Please, keep into account that the copyright of the Data base belong to the ForSEAdiscovery Consortium)

DELIVERABLES (Please see: <http://forseadiscovery.cchs.csic.es/content/deliverables>)

Most of deliverables have been achieved in due time: Kick-off meeting, Project website, Training courses and attendance of international conferences, disseminations and outreach activities (see:

<http://forseadiscovery.cchs.csic.es/news>; and <http://iberianautical.blogspot.com.es/>

See fellow blog in: <https://forseadiscovery.wordpress.com/category/nautical-archaeology/>

ADDITIONAL INFORMATION

Fellows First name	Fellows Surname	Living allowance (€)	Mobility allowance (€)	Travel distance (km)	Travel allowance (€)	Career allowance (€)
José Luis	Gasch Tomás	66691.87	13678.00			
Ana Rita	Trindade	49501.28	10942.40			
Koldo	Trapaga Monchet	39947.76	11560.00			
António	Santos	42444.48	12282.05			
Peter	Groenendijk	37677.42	8257.23			
Marta	Dominguez Delmas	47240.11	10324.68			
Mohamed	Traore	47341.07	10942.40			
Adolfo	Martins	77305.99	25318.64			
Benat	Eguiluz	77305.99	25318.64			
Sara	Rich	67128.75	13770.00			
Linar	Akhmetzyanov	56040.50	15042.45			
Maria	Bastiao	38478.22	10618.20			
Nathan	Gallagher	16482.70	3643.05			
Manish	Kumar	16482.70	3643.05			
Germán	Jiménez Montes	42854.54	9473.10			
FADI	HAJJ	62500.50	16776.45			

Indicate any additional information, which may be considered useful to assess the work done during the reporting period. The socio-economic aspect of the project may be addressed in this section. If applicable, propose corrective actions related to discrepancies between planned and executed deliverables and milestones.

I confirm that information regarding research types and family statuses (mobility column), as well as the fellow person/months is correct.

Regarding ESR2 fellow Maria Bastiao, her both living allowance and Mobility allowance is correct as it is detailed in Form C of the Universiteit Leiden and approved by amendment.

Milestones and deliverables are been achieved in due time. No corrective actions are applicable.

PRIVATE SECTOR STAYS (FOR EID ONLY)

Researcher	Stayed at	Start date of stay	End date of stay	Time Commitment	Full-time equivalent person-months covered during the reporting period
				Full time	0

Summary per researcher

Researcher	Duration of recruitment within the reporting period	Person-months in PRIVATE sector within the reporting period	Percentage of time spent at PRIVATE sector within the reporting period
Adolfo Martins (birth date - 1975-04-25)	17.00	0.00	0
Ana Rita Trindade (birth date - 1983-03-02)	16.00	0.00	0
António Santos (birth date - 1987-06-19)	17.00	0.00	0
Benat Eguiluz (birth date - 1990-11-23)	17.00	0.00	0
FADI HAJJ (birth date - 1991-05-25)	17.00	0.00	0
Germán Jiménez Montes (birth date - 1991-02-26)	13.00	0.00	0
José Luis Gasch Tomás (birth date - 1984-07-19)	14.00	0.00	0
Koldo Trapaga Monchet (birth date - 1987-07-07)	16.00	0.00	0
Linar Akhmetzyanov (birth date - 1989-09-05)	17.38	0.00	0
Manish Kumar (birth date - 1987-09-11)	5.00	0.00	0
Maria Bastiao (birth date - 1982-01-24)	0.00	0.00	0
Marta Dominguez Delmas (birth date - 1977-10-05)	17.00	0.00	0
Mohamed Traore (birth date - 1990-09-19)	16.00	0.00	0
Nathan Gallagher (birth date - 1988-11-12)	5.00	0.00	0
Peter Groenendijk (birth date - 1984-01-04)	8.45	0.00	0
Sara Rich (birth date - 1980-09-01)	13.77	0.00	0

DISSEMINATION ACTIVITIES

Comments:

The ForSEAdiscovery Team also has undertaken outreach activities in accordance with those specified in Annex 1.

ForSEAdiscovery acknowledges the importance of training ESRs and ERs in communication skills in order to disseminate research and results of publicly funded research to society. The consortium is ensuring that the results will be made known to non-specialist audiences by the participation of ESRs, ERs and PIs in audiovisual reports (news-items, short documentaries) organised by Associated Partner 14, Malcolm Dixelius (Dixit International) as the individual research projects progress. Additionally, the ESRs and ERs will be engaged in other outreach activities that promote the public engagement of researchers with the broader public:

1. Dissemination of results to specialized audiences is being achieved through the attendance at established international conferences for specific research topics (e.g. International Association of Economic History, World History Association, IKUWA, ISBSA, EuroDendro, WorldDendro, etc). This gives the ESRs and ERs the chance to present their research, the ForSEAdiscovery project and themselves, enhancing the chances to expand and consolidate their network (see list of presentations and activities).

2. The development of a ForSEAdiscovery website (designed by Partner 1 and ER1) serves as the first platform to introduce the partners and their members to wider society. It also contains contact information, results and activities developed by the consortium. ESRs and ERs are responsible for updating the information related to each individual research project and the supervisor monitors the content on a regular basis.

<http://forseadiscovery.cchs.csic.es/>

3. Science fairs and oral presentations at universities and secondary schools. ESR and ER have participated in some presentation in local schools and at universities, targeting students in later stages of their education. This activity will help students in their decision-making process to choose a professional career.

4. Dissemination of results in the media:

<http://forseadiscovery.cchs.csic.es/content/shipwrecks-around-finisterre-coru%C3%B1a>

<http://www.abc.es/cultura/20150216/abci-forseadiscovery-globalizacion-estudia-desde-201502161006.html>

5. Social networks (facebook: <https://www.facebook.com/forseadiscovery>)

Outreach and dissemination formed an integral part of the nautical archaeology research actions undertaken by the network in 2015. During diving operations in Finisterre, Viveiro and Ribadeo, Galicia (June 2015), repeated engagement with local and national journalists led to articles appearing in local and national newspapers (and their associated web pages), and radio and television programs with a focus on science as well as regional news items.

See: <http://forseadiscovery.cchs.csic.es/news>

Collaboration with local dive clubs allowed sports divers to observe our work. Divers from the Spanish Armada also dived on our excavations, observing both the diving protocols and scientific procedures employed. Work at the Spanish galleon in Ribadeo was carried out with the support of the local association which is fostering research and protection of this internationally important shipwreck. The association hosted a very well attended evening conference where the ForSEAdiscovery network coordinator and associate partner spoke, explaining the scientific objectives of the network's work. An international fieldschool ("Esposende acolhe Escola Internacional de Arqueologia Náutica e Subaquática") was run during August 2015 at Esposende, Northern Portugal demonstrating innovative methods of ship timber recording and sampling. This collaboration with local archaeologists led to subsequent involvement in colloquia celebrating 30 years of archaeology in Esposende in November 2015.

Fellows have also developed two very interesting blogs:

<https://forseadiscovery.wordpress.com/category/nautical-archaeology/>

<http://iberianautical.blogspot.com.es/>

Stories from the fellows:

1. "A historian caught under the waves" (by Koldo Trápaga Monchet)
2. "Building an interdisciplinary bridge of wood ... samples" (by Mohamed Traoré)
3. "Chopping up shipwrecks: The science of the saw" (by Sara Rich)
4. "Crossing over: Archives of paper, water, and wood" (by Ana Rita Trindade)
5. "Digital Humanities: Navigating a Sea of Data" (by Nathan Gallagher)
6. "Has archival research provided a name for the Ribadeo galleon?" (by José Luis Gasch-Tomás)
7. "Safety First! A new way forward for archaeological diving operations" (by Antonio Rochas)
8. "The Galleon of Ribadeo, the dormant colossus from the Age of Discovery that awakens..." (by Beñat Eguiluz Miranda)
9. "Tracking "Anna Maria" through Sound Toll Registers Online" by Manish Kumar
10. "Confronting Portuguese palaeography: `You never know 'til you know'" by Koldo Trápaga Monchet
11. "Annual dive medical vs. scientific waistlines" by Sara Rich
12. "Strong Straightforward Strontium Strategy, yes Sr!" by Fadi Hajj
13. "Dendroprovenancing shipwrecks timbers: on overlaps and pizzas...", by Peter Groenendijk

The ER2 fellow, Sara Rich is developing: "In-situ Timber Sampling Protocols (With a focus on 'Iberian' shipwrecks)". Draft prepared in collaboration with WP2, in discussion with WP3, to be published in print and online.

Videos on YouTube:

<https://forseadiscovery.wordpress.com/wp2/nautical-archaeology-video-playlist/>

Contribution from outside the network: members of the ForSEADiscovery Consortium also have their own networks, which include contacts with the public sector and with private companies. Some members of the network have visited and organized a meeting in the Centro de Arqueología Subacuática de la Junta de Andalucía (CAS#IAPS) (Cádiz, 5#7 February 2015). The dendrochronological team also works in collaboration with the Department of Agroforestry Sciences at the University of Huelva, who participated in the sampling campaigns in Southern Spain.

Planned dissemination for 2016 and 2017:

- a. Experienced Researchers have submitted a proposal to the H2020-MSCA-NIGHT-2016 call: Researcher's night with the Acronym: WreckNIGHTdiscovery. The proposal gives the ForSEADiscovery fellows the opportunity to take the lead in creating an event night that brings the creative aspects of its research to the public, especially younger audiences. The event will comprise open activities at the Maritime Archaeology Centre in Southampton (United Kingdom) and in Fundación Albaola (San Sebastián, Spain).
- b. Videos and presentation in public schools.
- c. Public talks, TV-Talks, podcasts and articles in newspapers: Marie Curie fellows and supervisors give a public talk/TV interview or write an article in the local newspaper about the results of the project.
- d. e-Newsletters and Blog (Nautical Archaeology): Marie Curie fellows develop a web-based document to be released on internet to the attention of the public at large.
- e. Papers and presentations at International Congresses (Historia Económica, IKUWA6, etc.).
- f. Organization of an International Congress to be held in Madrid (autumn, 2017).

PROJECT MANAGEMENT

Comments:

CONSORTIUM MANAGEMENT

In order to bring ForSEAdiscovery Project to fruition, these two first years (2014-2015) of the ForSEAdiscovery ITN has required a great deal of coordination and management. The host institution is the Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC) (www.csic.es).

The objectives of the Management work packages are:

1. To finalize the consortium agreement between the partners and clarify all administrative, management and financial procedures to the partners.
2. Overall management and coordination of consortium meetings, workshops and activities and to prepare and continuously develop a plan for the use and dissemination of foreground.
3. Administration of human resources, including the recruitment of research fellows.
4. Financial management rules to provide the financial and executive management and scientific and training coordination support.
5. Definitions of procedures, voting methods and responsibilities of the various decision-making bodies within the consortium, and to clarify all administrative, management and financial procedures to the partners which are specified in the Consortium Agreement of the ForSEAdiscovery project.
6. Definition of individual and collective responsibilities and liabilities of partners to the consortium
7. To monitor secondments of ESRs and ERs
8. To develop and maintain a project website for project coordination and dissemination of results
9. To coordinate all reports and the compilation of the Final Reports once the ITN is finished; to coordinate the annual review of fellows and the maintenance of progress records and the monitoring of project activities, milestones and deliverables.

As coordinator, Ana Crespo Solana, is being assisted in the management tasks and website maintenance by two hired part-time project managers:

1. Project manager (María Luisa Bas Pardo): assistant in economic staff, organization of economic logistics of scientific activities and project's archaeological campaigns
2. Technician manager (María José García Rodríguez): web page maintenance, logistic of network meetings and courses.

In addition to this, the CSIC European Project Management offices also provide assistance in the implementation of the project.

The project has been designed in six Work Packages (WPs). Three of these WPs are dedicated to research (WP1, Historical wood supply and dynamic trade networks; WP2, Nautical archaeology and shipbuilding; WP3, Wood provenancing). The remaining three WPs involve training activities (WP4), project management (WP5) and dissemination and outreach activities (WP6). The consortium as a whole is integrated by 9 full partners, including the Host Institution (CSIC) and 4 associated partners actively involved at the time of this report.

From a management perspective, the Project's planning status is as follows:

The role and structure of the Consortium is based on a Supervisory Board (SB) in which all full partners and associated partners participate. The Consortium Agreement rules this SB specifying the relationship between the Parties with respect to the Project, in particular concerning the organization of the work between the Parties, the management of the Project and the rights and obligations of the Parties. The Supervisory Board (SB) is the governing and ultimate decision-making-body of the Consortium. The composition of the SB is:

- The Network coordinator
- The Principal Investigator (PI) of each individual project
- The Training and Scientific coordinators (TC and SC)
- Associated Partners (advisory role)

The SB governs the ForSEAdiscovery consortium and all decisions are taken during the Supervisory Board meetings. To achieve this all full and associated partners are invited to the SB and travel expenses are charged under Category 4 (management). The Supervisory Board has meet regularly and can hold extraordinary meetings at any time upon written request of the Coordinator or 1/3 of the Parties. The Coordinator has given notice in writing of a meeting to each member, especially to the

Training Coordinator and Scientific Coordinator. Extraordinary meetings are organized with a written agenda sent to the TC and SC via e-mail, skype or phone. Several meetings took place from 1 February onwards in order to coordinate the project start up, and to proceed with the recruitment: the Kick-off meeting (Madrid, April 8-10 2014), various recruitment management meetings (to manage the documentation and evaluation of candidate curricula) and interviews (Madrid, Lisbon, Lampeter, Groningen, Leiden and Southampton). Interviews have been made both in-person and by Skype with candidates in most of cases. Once the project had been fully implemented, Supervisory Board meetings were timetabled to coincide with the training courses in order to facilitate knowledge exchange and network strengthening. SB has taken place in January (13-14), and October (16-18) 2015, both held in CSIC. During the Training course in Wageningen Universiteit (9-11 December 2015) an important management meeting of the three heads of the three Work Packages was held to develop an amended Annex 1, and associated Gantt Chart and consider decisions about management tasks to propose in the Supervisory Board that took place in Madrid during the Mid Term meeting (December 17-18 2015). Additionally, four extraordinary management meetings have taken place:

a. Two Work Package coordination meetings:

1. Lugo- University of Santiago de Compostela (September 7-9 2014): meeting to develop organization of Work Package 3 and take decisions about role of members, chaired by Ignacio García-González.

2. Lisbon - UNLA (November 25- 28 2014): meeting to develop organization of Work Package 2 and take decisions about role of members, chaired by Nigel Nayling.

b. Madrid – CSIC (November 2 2015): Head of WP3 and Scientific coordinator (Ignacio García-González) came to Madrid to meet the ITN Coordinator Ana Crespo Solana to organize and take decisions about roles of WP3 participants and write the management report of WP3.

c. Madrid – CSIC (December 4 2015) between the three heads of the Work Packages (ITN coordinator Ana Crespo Solana, Training Coordinator Nigel Nayling and Scientific Coordinator Ignacio García-González) to write biannual report: the Mid Term and Financial report, collecting ethics documents and organizing the agenda of the Mid Term Meeting.

d. and Supervisory Board meetings conducted during the Kick#off meeting and the first Network Meeting and Training Course held in Madrid on January 13, 2015 and October 13 2016.

Note: Travel and meeting costs for both extraordinary and Supervisory Board have been split between categories 3 and 4 as both management and organizational activities and coordination of RTD and dissemination activities have been decided during the meetings.

Each ForSEAdiscovery training course always includes a meeting between the fellows and the heads of the Work packages chaired by the three Experienced Researchers as a tool to achieve the best organizational knowledge transfer practices, the coordination of the GIS database and the interdisciplinarity of the three scientific work packages. Such meetings are very useful for administrative and project planning information, and to stimulate cooperation between the fellows and within the network.

Both full and associated partners have an important role in recruitment and training. SB has organized the recruitment of ESRs and ERs setting up a committee composed by the Network Coordinator, the Research Coordinator of the research WP, the PI of the specific individual project, and an independent observer (e.g. member of human resources/personnel office of employing institution) to ensure transparency and candidate eligibility. The recruitment and selection process have been developed in full agreement with the European Code of Conduct for Recruitment of Researchers. The ITN coordinator (Ana Crespo Solana) is assisted by a Research Coordinator, or Scientific Coordinator (SC) (Ignacio García González) and a Training Coordinator (Nigel Nayling). Each fellow has two clearly identified supervisors within the network to whom they can refer for advice on their research. One supervisor is local, and a second supervisor is assigned from within the network.

ESR	Supervisor	Co-supervisor within the Network
ESR1 Ana Rita Trindade	Prof. Ana Crespo Solana	Prof. Nigel Nayling
ESR3 Manish Kumar	Prof. Jan Willem Veluwenkamp	Prof. Rosa Varela
ESR4 Germán Jiménez Montes	Prof. Jan Willem Veluwenkamp	Prof. Ana Crespo Solana
ESR5 Beñat Eguiluz Miranda	Prof. Nigel Nayling	Prof. Ana Crespo Solana

ESR6 Adolfo Miguel Martins	Prof. Nigel Nayling	Prof. Rosa Varela
ESR7 Antonio Rochas	Prof. Rosa Varela	Prof. Nigel Nayling
ESR8 Koldo Trápaga Monchet	Prof. Rosa Varela	Prof. Ana Crespo Solana
ESR9 Marta Domínguez Delmás	Prof. Ignacio García González	Prof. Ute Sass-Klaasen
ESR10: Linar Akhmetzyanov	Prof. Ute Sass-Klaasen	Prof. Ignacio García González
ESR11: Mohamed Traoré González	Prof. Antonio Martínez Cortizas	Prof. Ignacio García
ESR12: Fadi Hajj	Prof. Anne Poszwa	Prof. Antonio Martínez Cortizas
ESR13 Nathan Gallagher	Prof. Jan Willem Veluwenkamp	Prof. Ana Crespo Solana
ER1: José Luis Gasch	Prof. Ana Crespo Solana	Prof. Jan Willem Veluwenkamp
ER2: Sara Rich	Garry Momber	Prof. Nigel Nayling
ER3: Peter Groenendijk	Prof. Ignacio García González	Prof. Ana Crespo Solana

Fellows and supervisors carry out a training-needs assessment based on the fellow's existing skills, the requirements of their personalised research project, and the fellow's longer term career plans. The training-needs assessment has been used to develop a Personal Development Plan or Career Development Plan (PDP, or CDP), which forms the basis of the fellow's training and individual learning objectives. The PDP includes a balance of training in TSRS and GTRS tailored to the individual fellow. (See list of CDP and another information about fellows in: <http://forseadiscovery.cchs.csic.es/itn-fellows>).

COORDINATION AND COMMUNICATION SKILLS BETWEEN PARTNERS

ITN-ForSEAdiscovery network coordination implies both ensuring the oversight, coordination, and monitoring of the whole research programme from a scientific perspective and carrying out all the management, training courses, research objectives and dissemination tasks.

Both the scientific and management coordination (i.e. recruitment process, project implementation, financial supervision) have been performed by email, phone, Skype, in#person meetings and electronic media. All members of the Consortium, Full Partners and Associated Partners are strongly interlinked and close collaboration is guaranteed through this coordination. Associated Partners are strongly involved in both scientific and training activities. In#person meetings among the partners have also been crucial in the development of the project (see above). Scientific and management coordination involve organizing meetings between members of the network (especially the three heads of the scientific Work Packages: "Historical Wood Supply and dynamic trade networks"; "Nautical Archaeology and Shipbuilding"; and "Wood Provenance"). Running the ForSEAdiscovery project also involves coordinating internal training courses, lectures, and other academic activities, creating and distributing tools as well as capitalizing on knowledge and best practices through the sharing of documents across the network (a fully detailed list of activities is attached to this report).

CHANGES IN THE CONSORTIUM:

On December 2015 Leiden University withdrew from the ForSEAdiscovery Consortium and returned the remaining funds to the Consortium after a formal request for termination of the participation of Leiden University as a beneficiary, and an amendment of Annex 1 of the grant agreement to reflect this change in beneficiaries and reallocation of tasks and the associated fellow month resource within the budget. This development was thoroughly discussed between the Leiden University PI (Catia Antunes), ITN coordinator (Ana Crespo Solana), Training Coordinator (Nigel Nayling) and Scientific Coordinator (Ignacio García-González) during a management meeting that convened on December 10 2015, in Wageningen (Netherlands). The Network coordinator opened a channel of communication with the project REA for further advice. This extraordinary meeting took place in order to agree a proposal to the Parties (according to the Consortium Agreement) for an amendment to the GA and agree on the withdrawal of the University of Leiden.

The reason for the withdrawal of the University of Leiden was extensively explained in the Amendment document and the associated letter from the Coordinator (Madrid, January 11 2016): It is unfortunate that Maria Paula Pereira Bastião (ESR2), employed by beneficiary Leiden University, found herself unable to continue due to health problems which have been explained by Catia Antunes, the PI from Leiden University. As a result, Maria's contract, through mutual agreement, has not been renewed and came to an end on November 30th 2015. Before completion of this contract, Maria provided the consortium with a significant contribution towards the database

containing information about merchant networks, volume of timber trade and transport, and areas supplying timber for shipbuilding to Atlantic Iberia (16th to 18th centuries). This meets the expected contribution of University of Leiden towards Deliverable 1.1 (due for completion in March 2018) indicated in Appendix 2 of Annex 1 of the grant agreement. The situation was the subject of discussion within the management committee (Network, Scientific and Training Coordinators) of the network and was discussed at the full ForSEAdiscovery Supervisory Board on December 17th 2015. It has been agreed by all parties within the consortium that the University of Leiden's involvement as a beneficiary should be terminated as of November 30th 2015.

The Supervisory Board also discussed how tasks and fellow months could most usefully be reallocated to meet the primary objective of the network (research training of fellows) and the scientific and technical objectives of the work packages. It was agreed, in line with the recommendation of the management committee that the University of Leiden's contribution to scientific and technical objectives STO2 and STO4 had been met, and that contribution towards STO1 and STO6 should be reallocated by:

a) Extending the contract of ER3 by four months (to a total of 24 months)

b) Recruitment of a further Early Stage Researcher (ESR14) by beneficiary University of Wales Trinity Saint David (UWTSD) for 18 months to develop the workflow for a research data digital archive design, its inception and submission; and to produce an archive design and deposition plan in agreement with network Established Researchers and a selected digital repository.

An amended version of Annex 1 of the grant agreement, in line with the proposal of the network's Supervisory Board, and documentation associated with the withdrawal of Leiden University have been submitted alongside this formal request.

DEVELOPMENT OF THE PROJECT WEBSITE

A well#designed web page (<http://forseadiscovery.eu/>) provides quick and helpful access to information and communication. Spaces in professional and social networks (LinkedIn and Facebook: <https://www.facebook.com/forseadiscovery/>) also facilitate good communication between partners and fellows, and dissemination of information to a wider audience.

LIST OF PROJECT MEETINGS, DATES AND VENUES

As is specified in Annex 1 some network meetings, training activities and management meetings were planned during the two first years of the life of the project. Expenses have been justified under categories 3 (R&T) and 4 (M).

a) Kick –off-meeting (Madrid, Spain, CSIC, April 8-10 2014) to be justified under Management.

b) Supervisory Board, Network meeting (with fellows' presentations) and Training courses on "History of Wooden Shipbuilding (C1) and Books and treatises on Shipbuilding (C2)" (Madrid, Spain, CSIC, 12#17 January 2015). To be justified under Management, Research and Training.

b) Course on Historiography and archive research (Universiteit Groningen, The Netherlands, May 6-8 2015). To be justified under Research and Training.

c) Course on Geographic Information Systems and an extraordinary management meeting (Madrid, Spain, CSIC, October 13-18 2015). To be justified under Management, Research and Training.

d) Course on Dendrochronology and wood anatomy and an extraordinary management meeting (Universiteit Wageningen, The Netherlands, December 9-11 2015). To be justified under Management, Research and Training.

During the Network Courses fellows have received Complementary Skills and Individual Training. Sessions have (or will) include: Career planning – NB Career Development Plans; Grant and application writing; Publishing and dissemination; Project management; Diving qualification and feedback and development from the complementary skills elements within individual training programmes.

Three Supervisory Board meetings took place during Network meetings and Courses to monitor ESR progress and their training; to review and approve inter-institutional exchanges through secondments; to define procedures, voting methods and responsibilities of the various decision-making bodies within the ForSEAdiscovery Consortium; to approve all administrative and financial procedures; and to consider the coordination of meetings, workshops and activities as part of a plan for the use and dissemination of foreground.

There has not been any deviation from the planned milestones and deliverables.

COOPERATION WITH OTHER PROJECTS/PROGRAMMES AND PLANS FOR IMPLEMENTATION OF NEW RESEARCH PROJECTS

ForSEAdiscovery is promoting and fostering new scientific collaborations. The research is set in a complex scenario that goes beyond the capacity and expertise of any single institute or laboratory, therefore the establishment of multidisciplinary, multi-site approaches through a network is a necessity. Some of the partners have already collaborated or have on-going collaboration projects (see table) which are supported either by national or EU funding. ForSEAdiscovery starts thus from a previous level of collaborative research. Consolidating this multidisciplinary, international research network will increase the chances of further national and international funding, thus creating possibilities for follow-up research as well as training opportunities for young researchers. We intend to extend our collaboration to future calls within Framework Programmes, expecting to achieve a ForSEAdiscovery network of laboratories, institutes and companies with different perspectives and common goals to train future researchers. In this way, we anticipate a long-term effect of ForSEAdiscovery to attract funding. (SEE Table 3 in document attached about: "Previous or on-going collaboration project between Full Partners and/or Associated Participants")

The ForSEAdiscovery Consortium has plans to submit new proposals to the ITN Marie Curie Programme, PEOPLE and Horizon 2020

GENDER ISSUES; ETHICAL ISSUES

The ForSEAdiscovery project has made a commitment to follow the spirit and text of the UNESCO Convention on the Protection of the Underwater Cultural Heritage especially in the matters detailed in its Annex.

<http://www.unesco.org/new/en/culture/themes/underwater#cultural#heritage/2001#convention/>

Also, the ForSEAdiscovery Consortium confirms its responsibility to ensure approvals are negotiated with appropriate local and/or national authorities in relation to underwater archaeology. We have received permissions from regional and national government and authorized representatives for underwater archaeology operations and copies have been forwarded to the European Commission. The beneficiaries confirm that they will not affect or destroy the protected underwater habitat. (SEE Table 4 with information regarding Ethic Documents ForSEAdiscovery Nautical Archaeology campaigns and all permissions achieved as state in Deliverable number 3 of the Annex 1. SEE:<http://forseadiscovery.cchs.csic.es/content/permissions-fieldwork>)

JUSTIFICATION OF REAL COSTS (MANAGEMENT COSTS)

Management Costs breakdown table and justification per single beneficiary:

- a) Management, Category 4: According to the Annex 1 (B.4.3.2), GA and the ForSEAdiscovery Consortium Agreement: "Financial management will be overseen by the Network Coordinator (Ana Crespo Solana, CSIC) who will be supported by a team of dedicated Framework Programme administrators. Financial management costs will be largely assumed by the Coordinating Partner (97'94%). The remaining part (2'05%) will be distributed among the other participants."
- b) Category 1 (Monthly living allowance), 2 (monthly mobility allowance).
- c) Category 3 (Research & Training) is distributed between beneficiaries as it shown in Form C (Financial statement filled by each beneficiary): See Financial statement.

Management costs breakdown of Category 4 assumed and justified by the Agencia Estatal del Consejo Superior de Investigaciones Científicas (CSIC): 188404,07 Euros (Costs declared under this category are in line with the principles of eligible costs.)

A) Personnel Costs ITN coordinator, Prof. Dr. Ana Crespo Solana (Staff costs: 2256 hours): 82050,72 Euros.

B) Personnel costs: Personnel costs for project management/administrative activities: preparation of reports (declarations of conformity, progress reports, mid-term report, periodic reports and final report), organising management meetings, preparation of travel, administrative project assistance etc.

a) Person: María Luisa Bas Pardo

Task Description: salary of the person recruited to manage the project.

Staff costs (100%)

Total: 42753,77 Euros

b) Person: María José García Rodríguez

Task description: Personnel costs for website design and maintenance

Staff costs (100%)

Total: 29239,92 Euros

A) Management costs specified by concepts:

a) Personnel costs for management of the recruitment/interview process: 3454,62 Euros

b) Travel and expenses related to management meetings (Supervisory Board and Extraordinary meeting as is specified in page 28 of this PR); to Mid-term review meeting and Kick-off-meeting (for all persons, including fellows): 26023,27 Euros

c) Website design by an external provider: 4881,77 Euros (Maintenance is managed internally by the project manager María José García Rodríguez, salary specified above).

FINANCIAL STATEMENTS – FORM C AND SUMMARY FINANCIAL REPORT

Comments:

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CERTIFICATES

List of Certificates which are due for this period, in accordance with Article II.4.4 of the Grant Agreement.

Beneficiary	Organisation short name	Certificate on the financial statements provided?	Any useful comment, in particular if a certificate is not provided
1	CSIC	Yes	
2	FCSH-UNL	Yes	
3	USC	Yes	
4	UWTSD	Yes	
5	MA Ltd	Yes	
6	WU	Yes	
7	UL	Yes	
8	RUG	Yes	
9	UdL	Yes	

Attachments

20160531 TOR e informe FORSEADISCOVERY
pdf.pdf, Form Cs Financial Statement
607545.pdf, PREPORT
607545ForSEAdiscovery2016.pdf

Name**Date**

This declaration was visaed electronically by Ana CRESPO SOLANA (ECAS user name nresana) on