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Project acronym: AGFORWARD

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AGFORWARD (Grant Agreement N° 613520) is co-funded by the European Commission, Directorate General for Research & Innovation, within the 7th Framework Programme of RTD. The views and opinions expressed in this report purely those of the writers and may not in any circumstances be regarded as stating an official position of the European Commission

Reference:

Burgess PJ, Crous-Duran J, den Herder M, Dupraz C, Fagerholm N, Freese D, Garnett K, Graves AR, Hermansen JE, Liagre F, Mirck J, Moreno G, Mosquera-Losada MR, Palma JHN, Pantera A, Plieninger T, Upton M (2015). AGFORWARD Project Periodic Report: January to December 2014. Cranfield University: AGFORWARD.

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Funding Scheme: Collaborative Project

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Declaration by the scientific representative of the project coordinator

I, as scientific representative of the coordinator of this project and in line with the obligations as stated in Article II.2.3 of the Grant Agreement declare that:

- The attached periodic report represents an accurate description of the work carried out in this project for this reporting period;
- The project (tick as appropriate):
 - has fully achieved its objectives and technical goals for the period;
 - has achieved most of its objectives and technical goals for the period with relatively minor deviations.
 - has failed to achieve critical objectives and/or is not at all on schedule.
- The public website, if applicable
 - is up to date
 - is not 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 (submitted electronically) and if applicable with the certificates 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 B.10 (Project Management) in accordance with Article II.3.f of the Grant Agreement.

Name of scientific representative of the Coordinator: Paul Burgess

Date: 27/02/2015

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List of acronyms

Participant no.	Participant organisation name	Acronym	Country
1.	Cranfield University	CRAN	UK
2.	European Forest Institute	EFI	International
	Third party : Sveriges Lantbruksuniversitet	SLU	Sweden
3	Association de Coordination Technique Agricole	ACTA	France
	Third party: Centre National de la Propriete Forestiere	IDF	France
	Third party: Institut de L'elevage	IDELE	France
4	University of Santiago de Compostela	USC	Spain
5	TEI Stereas Elladas	TEI	Greece
6	Institut National de la Recherche Agronomique	INRA	France
7	Organic Research Centre	ORC	UK
8	BTU Cottbus-Senftenberg	BTU	Germany
9	Universidad de Extremadura	UEX	Spain
10	Instituto Superior de Agronomia, University of Lisbon	ISA	Portugal
11	University of Copenhagen	UCPH	Denmark
12	Research Station FDEA-ART Zurich	FDEA	Switzerland
13	Werkgroep voor Rechtvaardige en Verantwoorde Landbouw (Wervel vzw)	WER	Belgium
14.	Aarhus University	AU	Denmark
15	Agri Food and Biosciences Institute	AFBI	UK
16	Consiglio per la Ricerca e la Sperimentazione in Agricoltura <i>Renamed: Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria</i>	CRA	Italy
17	Louis Bolk Institute	LBI	The Netherlands
18	Consiglio Nazionale delle Ricerche	CNR	Italy
19	Nyugat-Magyarorszagi Egyetem Kooperacios Kutatasi Kozpont Nonprofit KFT	NYME	Hungary
20	Universitatea Babes Bolyai	UBB	Romania
21	Veneto Agricoltura	VEN	Italy
22	Agroof	AGROOF	France
23	Assemblée Permanente des Chambres d'Agriculture	APCA	France
24	Association Française d'AgroForesterie	AFAF	France
25	World Agroforestry Centre (International Centre for Research in Agroforestry)	ICRAF	International
26	European Agroforestry Federation	EURAF	Pan-European

Note on the numbering of milestones and deliverables

For the AGFORWARD Description of Work (19 September 2013), the milestones and deliverables of the project were given two numbers: the number of the work-package and the number of the milestone or deliverable within the work-package. Hence Deliverable or Milestone 9.2 was the second deliverable or milestone in work-package 9.

However, there is a different numbering system for the milestones and deliverables on the European Commission (EC) portal. For example Deliverable 9.2 became Deliverable 9.25, a deliverable from work-package 9 and the 25th deliverable on the project (Table A.1). In the new system, the milestones are now numbered in order (Table A.2). For example Milestone 9.2 becomes MS39. This report uses the numbering system on the EC Portal. A summary of the conversions are provided in the tables below.

Table A.1. Numbering of the deliverables in the Description of Work (DOW) and the new numbering system in this report to match the EC portal system (ECnew).

DOW	EC(new)	DOW	EC(new)	DOW	EC(new)	DOW	EC(new)	DOW	EC(new)
D1.1:	D1.1	D3.2:	D3.8	D5.3:	D5.15	D7.4:	D7.22	D9.5:	D9.29
D1.2:	D1.2	D3.3:	D3.9	D6.1:	D6.16	D8.1:	D8.23	D9.6:	D9.30
D1.3:	D1.3	D4.1:	D4.10	D6.2:	D6.17	D8.2:	D8.24	D9.7:	D9.31
D2.1:	D2.4	D4.2:	D4.11	D6.3:	D6.18	D9.1:	D9.25		
D2.2:	D2.5	D4.3:	D4.12	D7.1:	D7.19	D9.2:	D9.26		
D2.3:	D2.6	D5.1:	D5.13	D7.2:	D7.20	D9.3:	D9.27		
D3.1:	D3.7	D5.2:	D5.14	D7.3:	D7.21	D9.4:	D9.28		

Table A.2. Numbering of the deliverables in the Description of Work (DOW), and the new numbering system in this report to match the EC portal system (ECnew).

DOW	EC(new)	DOW	EC(new)	DOW	EC(new)	DOW	EC(new)	DOW	EC(new)
M1.1:	MS1	M3.3:	MS10	M4.6:	MS19	M6.3:	MS28	M8.2:	MS37
M2.1:	MS2	M3.4:	MS11	M5.1:	MS20	M6.4:	MS29	M9.1:	MS38
M2.2:	MS3	M3.5:	MS12	M5.2:	MS21	M6.5:	MS30	M9.2:	MS39
M2.3:	MS4	M3.6:	MS13	M5.3:	MS22	M7.1:	MS31	M9.3:	MS40
M2.4:	MS5	M4.1:	MS14	M5.4:	MS23	M7.2:	MS32	M10.1:	MS41
M2.5:	MS6	M4.2:	MS15	M5.5:	MS24	M7.3:	MS33	M10.2:	MS42
M2.6:	MS7	M4.3:	MS16	M5.6:	MS25	M7.4:	MS34		
M3.1:	MS8	M4.4:	MS17	M6.1:	MS26	M7.5:	MS35		
M3.2:	MS9	M4.5:	MS18	M6.2:	MS27	M8.1:	MS36		

SECTION A: Publishable summary of AGFORWARD (Jan-Dec 2014)

Context

The European Union has targets to improve the competitiveness of European agriculture and forestry, whilst improving the environment and the quality of rural life. At the same time there is a need to improve our resilience to climate change and to enhance biodiversity. During the twentieth century, large productivity advances were made by managing agriculture and forestry as separate practices, but often at a high environmental cost. In order to address landscape-scale issues such as biodiversity and water quality, we argue that farmers and society will benefit from considering land-use as a continuum including both agriculture and trees, and that there are significant opportunities for European farmers and society to benefit from a closer integration of trees with agriculture. Agroforestry is the practice of deliberately integrating woody vegetation (trees or shrubs) with crop and/or animal systems to benefit from the resulting ecological and economic interactions.

Project goal and objectives

The AGFORWARD project (Grant Agreement N° 613520) is co-funded by the European Commission, Directorate General for Research & Innovation, within the 7th Framework Programme of RTD, Theme 2 - Biotechnologies, Agriculture & Food. The project started in January 2014 and will end in December 2017. The overall goal of the project is to promote agroforestry practices in Europe that will advance sustainable rural development, i.e. improved competitiveness, and social and environmental enhancement.

The project has four objectives which are addressed through ten work packages (Figure A.1):

1. To understand the **context** and extent of agroforestry in Europe (work-package 1);
2. To **identify, develop and field-test innovations** to improve the benefits and viability of agroforestry systems in Europe. This is being achieved through four participatory networks focused on four sectors described on the next page (work-packages 2 to 5);
3. To **evaluate** innovative agroforestry designs and practices for locations where agroforestry is currently not practised or is declining and to quantify the opportunities for uptake at a field and farm scale (work-package 6) and at a landscape scale (work-package 7);
4. To **promote** the wider adoption of appropriate agroforestry systems in Europe through policy development (work-package 8) and dissemination (work-package 9).

There is also a project management activity (work-package 10).

Description of work against the four objectives (January to December 2014)

Objective 1: Context of agroforestry

The context of European agroforestry (work-package 1) is being led by Dr Michael den Herder from the European Forest Institute. In the first year, we have completed a preliminary stratification and quantification of European agroforestry systems using existing data sources ([MS1](#)). Whilst there are European estimates of grassland, arable crop, and forested areas, estimating the area of significant tree-crop and tree-livestock interactions is difficult. The report concludes that the CORINE land cover map suggests that there is 3.3 million ha of agroforestry in Europe, but this ignores the area covered by annual crops associated with permanent crops, and agriculture mosaics. Depending on the definition, the current area is in excess of 8.4 million hectares (i.e. greater than 5.4% of the utilisable agricultural area). We will release this report on the website during the first quarter of 2015.

The temperatures and rainfall patterns experienced by agroforestry areas are changing due to increases in greenhouse gas concentrations. In [Deliverable 1.2](#), ICRAF reports that some agroforestry areas in Southern Spain are predicted to have climate patterns currently found in parts of Northern Africa. The report also concludes that the understanding of agroforestry systems in such areas is typically less than in Europe. A detailed analysis of agroforestry in one of the “climate analogue” areas in Morocco, describes some of the agroforestry practices and their site-specific nature. The same report also shows that modelling activity can help provide guidance on when trees, for example, may have a positive effect on crop yields.

Objective 2: Identify, develop and field-test agroforestry innovations

Work-packages 2, 3, 4 and 5 are identifying, developing, and field-testing agroforestry innovations within four participatory research and development networks (Figure A.2). These are:

- Existing agroforestry systems of high nature and cultural value such as the dehesa and montado systems in Spain and Portugal, and other European wood-pastures (work-package 2).
- The integration of grazing or intercropping in high value tree systems including olives, fruit trees, and walnut and chestnut grown for high value timber (work-package 3).
- The integration of trees in arable systems (work-package 4).
- The integration of trees in livestock systems (work-package 5).

During 2014, the AGFORWARD project established 42 stakeholder groups involving 824 stakeholders with different agroforestry practices across 13 European countries. This is double the number of stakeholders (380) envisaged in the Description of Work. This includes 227 stakeholders across ten groups focused on agroforestry systems of high nature and cultural value, and 178 stakeholders across ten groups focused on the grazing and intercropping of orchard, olive and other high value tree systems. The thirteen agroforestry for arable systems groups involved 283 stakeholders, and 136 people were involved in the initial eight groups focused on agroforestry for livestock systems.

An initial report has been written for each stakeholder group and each one has been reviewed and is available on the AGFORWARD website. Each report describes an agroforestry system and the key positive and negative aspects as perceived by farmers and other stakeholders. The full analysis is still on-going but it appears that the production, environmental, and societal benefits of agroforestry are generally well recognised. The key negative issues often revolve around management, administration, labour costs, and issues of complexity.

During December 2014 and January 2015, the four participative research and development networks have each synthesised a list of innovations and research topics. Sharing existing knowledge and tree regeneration and protection were recognised as priorities within work-packages 2, 4 and 5. Livestock management (including the use of GPS and “invisible fencing”), securing a premium price for the agroforestry product and new products were also highlighted in work-package 2. The use of sheep in apple orchards is the focus of three groups in work-package 3, and has synergies with work-package 5. Work-package 3 also focused on the intercropping and grazing of olive or citrus groups in four groups. Weed management near trees was highlighted in work-package 4, and system design and the nutritional value of woody vegetation were highlighted issues in work-package 5. The stakeholder groups are now working with the work-package leaders to develop research and development protocols. These will also feed into the evaluation and modelling work.

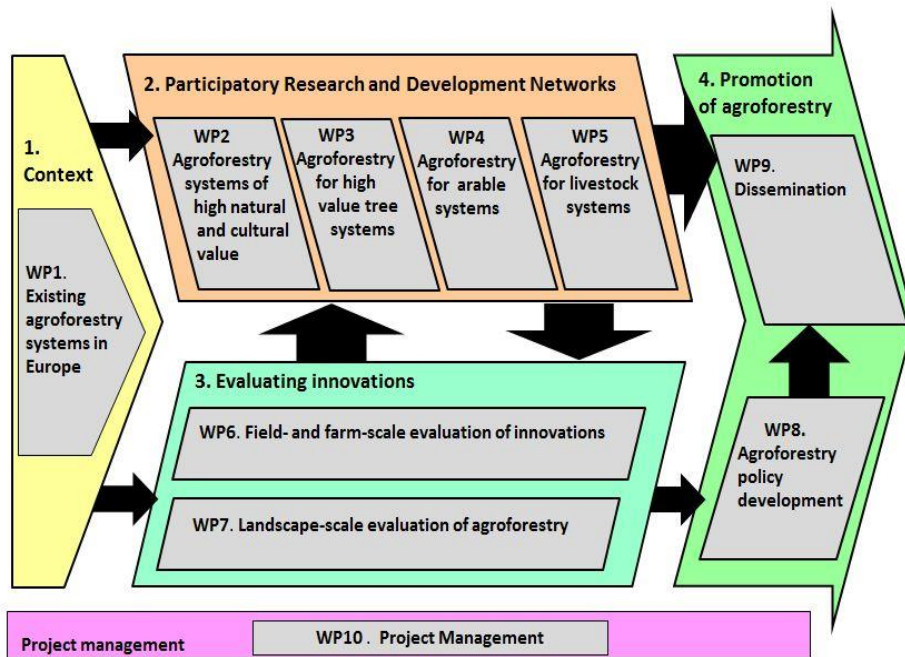


Figure A.1. Schematic diagram showing the key components of the AGFORWARD project

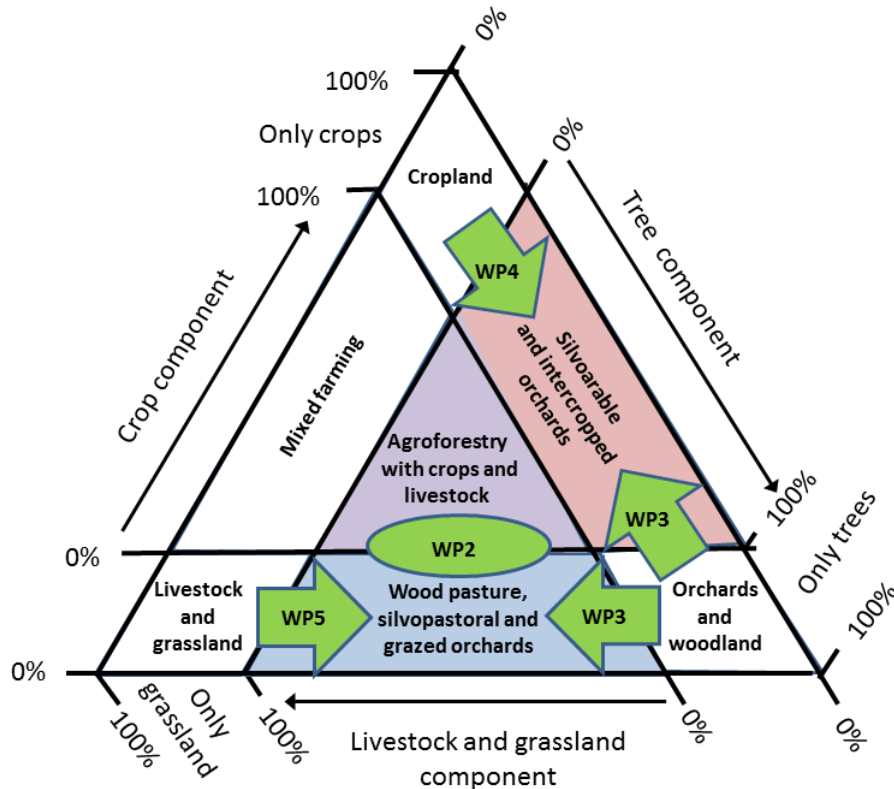


Figure A.2. Rather than monocultures of crops, trees, and livestock and grassland, AGFORWARD focuses on identifying opportunities to benefit from interactions of trees with livestock and/or crops. The four participative work-packages (WP2, WP3, WP4, and WP5) focus on different starting points.

Evaluation of agroforestry designs and practices at field- and landscape-scale

Now that the key agroforestry systems and innovations have been identified, the project will increasingly focus on the evaluation of the innovations. Whilst some evaluation will be completed in the field, because tree responses can take years, if not decades, we are also making use of bio-economic models. Because climate change could be critical to some systems, where appropriate, the systems will be modelled using climate projections. Hence Joao Palma, the leader of work-package 6, which focuses on the field- and farm-scale evaluation, has collated a climate database called "Clipick" (MS26) for use in the modelling work.

To allow the research to be up-scaled to a European level, the landscape-scale analysis in work-package 7 has identified 12 sample sites using stratification. The stratification comprises a 3 x 4 matrix across three agro-ecological zones (Mediterranean, Atlantic, and Continental) and four agroforestry practices (agroforestry of high nature and cultural value, high value trees, agroforestry for arable systems, and agroforestry for livestock systems). An initial description of the 12 samples has been reported (MS32) and a protocol for describing the biodiversity, ecosystem services and farm profitability of the sites has been agreed (MS31). During 2015, the research will focus on two pilot areas: one in Spain and one in Switzerland.

Policy development and dissemination

Objective 4 of promoting agroforestry is focused on policy development (work-package 8) and dissemination activities (work-package 9).

Prof Rosa Mosquera Losada, leader of work-package 8, was elected as the President of the European Agroforestry Federation in early June 2014. Work is proceeding with the evaluation of agroforestry-related policies within the 2007-2013 Common Agricultural Policy and the associated rural development programmes (Deliverable 8.23). The project is also synthesising current developments of the new 2014-2020 programme. In order to allow the integration of the new measures, we are recommending that whilst a report on the 2007-2013 will still be available for April 2015, we propose that Deliverable 8.23 should also address the 2014-2020 programme. Hence we recommend that the submission date is delayed to October 2015. AGFORWARD member, EURAF, has also promoted agroforestry within selected Civil Dialogue Groups of the European Commission.

Within AGFORWARD, dissemination is not an activity left to the end of the project, but has probably been a key focus of activity in the first 12 months. An internal dissemination and stakeholder engagement protocol (Milestone 38) was circulated on 2 April 2014. The AGFORWARD project website (www.agforward.eu) (Deliverable 9.25) was launched in March 2014. The webpage hosts an individual web-page for each of the 42 stakeholder groups, and includes two European agroforestry videos which have been subtitled in a range of languages. The news page of the website has been updated monthly. In February 2015, the resource page was expanded to include an interactive on-line European map (Deliverable 9.26) including each agroforestry stakeholder group (Figure A.3).

Task 9.6 is to co-ordinate regional conferences and workshops. Although it was not specified as a specific deliverable, AGFORWARD members led the organisation and delivery of the Second European Agroforestry Conference at Brandenburg University of Technology (BTU) in Cottbus, Germany on 4-6 June 2014 (Figure A.4). The Conference attracted 150 delegates, and the

proceedings have been published. The conference occurred immediately after the General Assembly Meeting of AGFORWARD (2-4 June 2014) to maximise the synergies. AGFORWARD staff have also made presentations describing the project to a wider scientific audience, including the World Agroforestry Congress, which took place in New Delhi on 10-14 February 2014.

In October 2014, we also released the AGFORWARD project Facebook page (<https://www.facebook.com/AgforwardProject>), where we have been posting an average of 3-4 items per week. Three electronic newsletters ([Milestone 40](#)) have also been circulated to 500 people across Europe with a demonstrated interest in agroforestry.

Within this report (Table 9.4) we also list the key dissemination activities of the project. This includes our social media activities, the second European Agroforestry Conference, TV and radio interviews, 25 oral presentations, 22 poster presentations, 16 newsletter articles, four policy activities, 19 workshop activities (in addition to the stakeholder groups), and eight training activities.

Project management

The last work-package relates to the management of the project, which is led by the Co-ordinator, Dr Paul Burgess, from Cranfield University. Dr Kenisha Garnett, also of Cranfield University, is the Project Administrator. A successful launch meeting was held at Cranfield University in the UK on 21-23 January 2014, which was attended by 44 participants (Figure A.5). The General Assembly meeting was held on 2-4 June 2014 at Cottbus in Germany, and was attended by 50 delegates (Figure A.6). The day-to-day running of the project by the Co-ordinator is overseen by an Executive Committee which meets monthly via Skype, and the External Expert Panel is scheduled to meet in March 2015. A Sharepoint site has been established to manage the documentation associated with the project. Communication within the project is also supported using the e-mail discussion forum provided by jiscmail.ac.uk.

Socio-economic impact and wider societal implications of the project

Within the first 12 months, we believe that the project has created real regional synergies between many farmers, landowners, researchers, and extension advisors (through the creation of the 42 stakeholder groups). As the project develops, we anticipate that the opportunities for trans-national collaboration of these groups will increase. The project has also created an exciting and stimulating forum for European researchers engaged at the interface of agriculture and forestry. We also believe that the project provides a strengthening resource for policy makers to ascertain how they can identify, encourage and promote the use of agroforestry in those areas where it provides agricultural, environmental and societal benefits. Lastly the project is raising the profile of European agroforestry on the international stage, for example at the World Agroforestry Congress.

Address of website

The research and promotional activities of the AGFORWARD website can be viewed at the following internet address: www.agforward.eu



Figure A.3. The stakeholder groups range from Central Sweden in the North-East, Northern Ireland in the North-West, Portugal in the South-West and Crete in the South-East (Note the circles represent the mid-point of multiple sites)



Figure A.4. Section of the front page of the proceedings of the Second European Agroforestry Conference



Figure A.5. The launch meeting at Cranfield University in the UK (21-23 January 2014) was attended by 44 participants



Figure A.6. The 2014 General Assembly was held at Cottbus in Germany (2-4 June 2014) and included 50 participants

SECTION B Project objectives, work progress and achievements, and management

Work progress and achievements during the period

This section provides an overview of the progress of the work in line with the structure of the Grant Agreement. For each of the first nine work-packages, we provide a summary of progress towards the objectives and details of each task, highlighting significant results where appropriate. During the first months, there were no significant deviations from the plan, and where there are small deviations these are explained.

1 Work package number 1

Work-package number	1
Work-package name	Existing Agroforestry Systems in Europe
Leader	Michael den Herder
Organisation	European Forest Institute (EFI)
Report period	1 January to 31 December 2014

Objectives and tasks within work package 1

Michael den Herder, who took over from Marcus Lindner, is leading this work package which sets the context for the project. The work-package comprises four objectives and associated tasks which are covered in turn (Table 1.1). The work-package has completed the two milestone and deliverables planned in the first year (Table 1.2).

Table 1.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 1 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
WP1 Context																								
T1.1 Inventory of AF in EU (D1.2)																								
T1.2 External AF innovations (D1.1)																								
T1.2 Stratification of agroforestry (MS1)																								
T1.4 Framing AF development (D1.3)																								
T1.5 Co-ordination of WP1																								

Table 1.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Due date	Status
MS1 Preliminary stratification and quantification of agroforestry use	Dec 2014	Completed
D1.1 Report on possible technology transfer from Mediterranean Partner countries to European countries	Dec 2014	Completed

1.1 Extent of and recent changes of agroforestry systems in Europe (on-going)

Objective 1.1 is to provide an inventory and explain the extent and recent changes of agroforestry systems in Europe. This objective is being achieved by **Task 1.1**, which is to provide an inventory of

agroforestry by using existing EU28 land use classifications and surveys including an assessment of the location and quantification of agroforestry systems of high nature value.

EFI, which is leading this work, has produced a first outline of the report on the current extent and trends of agroforestry use in the EU28 ([Deliverable 1.2](#)), which is planned for June 2015. This includes a literature review and examination of databases. The methodology for the mapping has been developed and a first outline of the deliverable has been produced. Gerardo Moreno has carried out an initial analysis of CORINE and LUCAS data. UEX has also drafted a first map based on LUCAS data, which is available on the internal AGFORWARD intranet site. AFAF has also produced a map of farms and plots where agroforestry systems are used in France. A lecturer in landscape ecology at Cranfield University also spent 0.27 person months investigating how the level of resolution for different levels of tree cover affects the calculated proportion of land with a certain level of tree cover, and the intention is write this up as a research paper.

EFI was also instrumental in creating a photographic database for the AGFORWARD project using the FLICKR website facility (<https://www.flickr.com/photos/agforward/>). At the time of this report, 288 photographs had been uploaded.

1.2 Agroforestry practices bordering Europe (completed)

[Objective 1.2](#) is to identify and describe successful agroforestry practices in areas bordering Europe, which may be used to encourage European agroforestry. The review ([Task 1.2](#)), which was led by ICRAF, was internally reviewed by EFI and CRAN, and is available to the public on the AGFORWARD website (Table 1.3).

Table 1.3. Reference for [Deliverable 1.2](#)

Pagella, T., Kmoch, L., Leudeling, E., Mulia, R., Sinclair, F. (2014). Agroforestry from Mediterranean Partner Countries: Report on possible technology transfer from Mediterranean Partner countries to European countries. (Eds. M den Herder and P.J. Burgess). Deliverable for EU FP7 Research Project: AGFORWARD 613520. 35 pp. Available online: <http://agforward.eu/index.php/en/agroforestry-in-north-africa.html>

The report comprised four key areas of work which are briefly summarised below.

- *Review of agroforestry practices*: the report highlights some of the agroforestry practices in the Mediterranean areas of North Africa and Western Asia, as described in 18 peer-reviewed documents. The key systems comprise olive, argan, and cork oak agroforestry systems (Morocco, Tunisia and Algeria) and alley cropping with saltbush (Morocco).
- *Climate analogues*: a climate analogue approach was used to look at potential climates for four existing dehesa sites in Spain. The predicted climate in 2050 and 2080 for some of the dehesa sites was predicted to resemble the current climate in some areas in Morocco.
- *Case study in northern Morocco*: a participatory investigation was undertaken by Laura Kmoch on options to increase tree cover and tree diversification along an altitudinal transect in the Zerhoun region of Morocco in collaboration with International Centre for Agricultural Research in the Dry Areas (ICARDA). The mean annual rainfall is about 580 mm and 90% of the rainfall occurs between November and April. The common agroforestry practices include: boundary

plantings with olives on cropland and the use of prickly pear, agave or cape gum around homesteads and fields. There were also examples of intercropping vegetables, legumes and forages in fruit and olive orchards and livestock grazing under mature olive and carob trees. The farmers could be grouped into five “strata”. Although each group expressed an interest to increase and diversify the tree cover, the mechanisms to support increased use of trees varied between the groups.

- *Modelling agroforestry parkland systems*: the fourth activity describes the use of field data and the WaNuLCAS (Water, Nutrient and Light Capture in Agroforestry Systems) model to understand how trees and annual crops adapt to climate variability across three sites in the Sahel where the mean annual rainfall is between 550 and 1070 mm. The model was used to examine how the sensitivity of the tree canopy to water stress can affect subsequent crop yields. The findings are relevant to coping with increasing climate variability in Europe with the take home message that agroforestry trees may be net contributors or competitors with crops for water depending on rainfall distribution in any particular season.

The conclusions to the report focus on the contribution agroforestry can make to improve the resilience of farming systems, the need to account for fine-scale variation, and the importance of institutional capacity.

1.3 Stratification of the EU28 into regions

Objective 1.3 is to stratify the EU28 into regions with different combinations of high nature (associated with work-package 2), fruit tree and olive orchards (associated with work-package 3), arable (associated with work-package 4), and livestock (associated with work-package 5) systems. This is being completed through **Task 1.3**, with the objective that this stratification will help inform where particular agroforestry systems are most appropriate.

EFI provided the lead on the report (**MS1**) which was completed in November 2014. In December, the report was reviewed and uploaded onto the internal AGFORWARD intranet site. Once some additional checks have been made, the aim is that this milestone will be made publicly available during March 2015.

Table 1.4. Reference for **Milestone 1**

den Herder M, Burgess PJ, Herzog F, Viholainen I (2014) Preliminary stratification and quantification of agroforestry according to systems studied in WP2-WP5. Milestone for EU FP7 Research Project: AGFORWARD 613529. Available on AGFORWARD intranet site.

1.4 Framework conditions under which agroforestry operates and develops

Objective 1.4 is to analyse the framework conditions under which agroforestry operates and develops. This is being achieved by **Task 1.1**, and EFI is working on a review of literature and databases containing indicators which may explain the success or failure of agroforestry. A poster presentation on agroforestry indicators was presented at the 2nd European Agroforestry Conference in Cottbus, Germany on 4-6 June 2014 (Rois Díaz et al., 2014). A survey form to explore the opinions and experiences of farmers (which will feed into this deliverable and also a deliverable in work-package 8) has been developed, and the plan is that the survey will be completed during the spring of 2015. The research will result in a report (**Deliverable 1.3**) in March 2016.

1.5 Co-ordination and synthesis of work

The fifth task ([Task 1.5](#)) in this work-package, led by Michael den Herder, has been to co-ordinate and synthesise the research across the work-package. He has also attended the monthly Executive Board meetings held via Skype.

Staff from EFI, and other work-package 1 partners, attended the AGFORWARD launch meeting at Cranfield University in the UK on 21-22 January 2014. The WP leader, and at least partner from each work-package 1 partner, attended the General Assembly meeting and a work-package 1 workshop at Cottbus in Germany on 2-3 June 2014. Michael (EFI) and Gerardo Moreno (UEX) also attended the Executive Committee meeting in Beauvais, France on 5 December 2014. At this meeting Gerardo presented the CORINE and LUCAS data to be analysed in [Deliverable 1.2](#) and Michael presented [Milestone 1](#), and highlighted the key findings from [Deliverable 1.1](#) on the technology transfer options from Mediterranean partner countries.

1.6 Use of resources in work-package 1

At the end of December 2014, 20.18 person months had been allocated to work-package 1, equivalent to 48% of the total. Although EFI has used a relatively large share of its person-months (75%), it has made good progress on delivering [Milestone 1](#), and good progress has been made on [Deliverables 1.2](#) and [1.3](#). As planned, ICRAF has fully utilised its person-day allocation through the completion of [Deliverable 1.1](#). Time allocation of the other partners is as planned and they will divide their remaining time working on [Deliverables 1.2](#) and [1.3](#).

Table 1.5. Person-month inputs to work-package 1

Organisation	Indicated (Jan-Dec 2014)	WP1 total
EFI	11.46	15
ICRAF	6.00	6
UEX	1.00	3
EURAF	0.35	3
CRAN	0.27	1
AFAF	0.27	2
TEI	0.26	2
ISA	0.25	1
USC	0.20	4
CRA	0.12	1
UPCH	0.00	3
FDEA	0.00	1
Total	20.18	42

1.7 Issues/actions

No issues or actions are reported.

2 Work package number 2

Work-package number	2
Work-package name	High Nature and Cultural Value Agroforestry
Leader	Gerardo Moreno
Organisation	Universidad de Extremadura (UEX)
Report period	1 January to 31 December 2014

Objectives and tasks within work package 2

Gerardo Moreno is leading this work package which is focused on established agroforestry systems that are recognised as having high nature and cultural value (HNCV); most of the systems are a form of wood pasture. The key objective during the first year has been the establishment of a participatory research and development (PRD) network and to identify testable innovations (Table 2.1). During this first reporting period, 10 stakeholder groups were established and a report on testable innovations has been produced (Table 2.2).

Table 2.1. Work-plan of activities, milestones (MS), and deliverables (D) for work-package 2 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
WP2 HNCV agroforestry																								
T2.1 Establish PRD network (MS2)								M																
T2.2 Characterise system (D2.4)																								D
T2.3 Identify testable innovations (MS3) and establish protocols (MS4)													M	M										
T2.4 Test, analyse, interpret and cost innovation (MS5; D2.5)																								
T2.5 Evaluate innovations on-farm to produce guidelines (MS6; D2.6)																								
T2.6 Dissemination of results (MS7)																								
T2.7 Co-ordination of WP2																								

Table 2.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Due date	Status
MS2 Establishment of PRD network	Aug 2014	Completed and on website
MS3 Identification of innovations to be tested	Dec 2014	Completed and on website

2.1 Establish a participatory research and development network (completed)

Objective 2.1 was to identify examples of existing best practice, the key challenges, and possible innovations to improve the resilience and reinforce the ecosystem services of HNCV agroforestry systems across Europe. This objective was achieved by establishing the network and to hold stakeholder workshops in selected countries ([Task 2.1](#)). In combination with work-packages 3, 4, and 5, Louis Bolk Institute (LBI) led the development of a stakeholder protocol (Bestman et al., 2014), which was circulated to all project partners on 25 April 2014 (Table 2.3).

Table 2.3. Reference for the stakeholder protocol

Bestman M, Burgess PJ, Graves A, Delobel V, Vieweger A, Smith J, Pisanelli A, Rois M Paulo JA, Moreno G, Pantera, A (2014) Participatory Research and Development Network Protocol.

The first objective has been achieved and the partners have established ten stakeholder groups (Table 2.4) and an associated report which has been used to prioritise innovations (Table 2.6). Each stakeholder group held at least one meeting with an open discussion on the main concerns and challenges for the respective agroforestry system. In total about 227 stakeholders were involved. Some of the work has also involved detailed discussions with policy advisors. For example Tibor Hartel (UBB) met the the Environment Minister of Romania and the Head of the Environmental Protection Agency of Romania on 5 June 2014 to discuss formal protection of wood-pastures in Romania. He also met with the WWF office at Brasov in Romania on 26-27 June and 7-8 July to discuss the sustainability of the wood-pastures from Southern Transylvania.

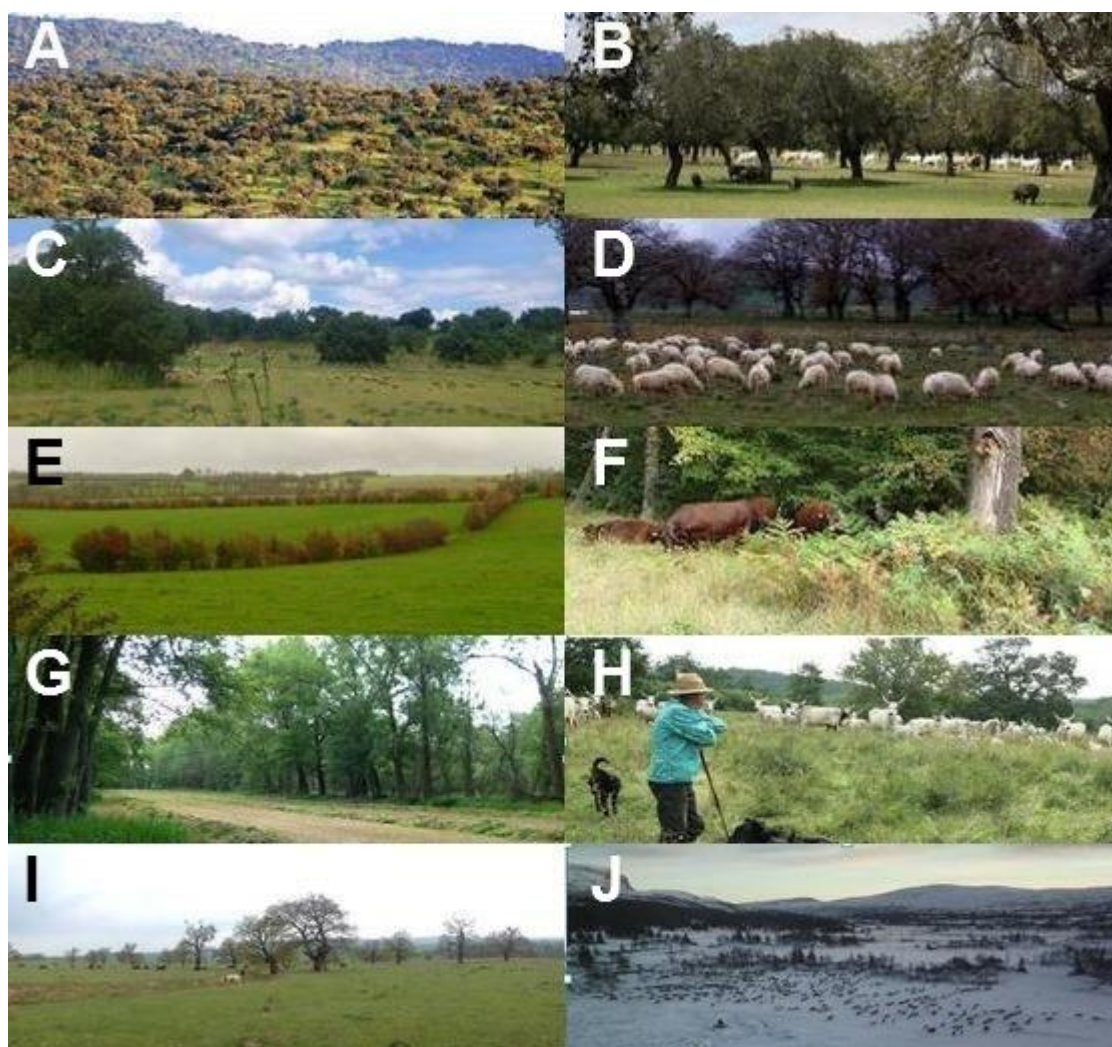


Figure 2.1. Agroforestry systems of high nature and cultural value across Europe; in A) Spain, B) Portugal, C) Greece, D) Sardinia, Italy, E) Brittany, France, F) UK, G) Germany, H) Hungary, I) Romania and J) Sweden

Table 2.4. Acronym of the organisation and country, the name of the group and number of stakeholders for the groups on agroforestry of high nature and cultural value in 2014

Acronym	Name of group	Date of meeting	Number of stakeholders
ISA, Portugal	Montado (grazed oak pastures)	24 July 2014	22
UEX, Spain	Dehesa (grazed oak pastures)	30 May 2014	80
CNR, Italy	Grazed oak woodlands in Sardinia	9 July 2014	15
TEI, Greece	Valonia oak silvopastoral systems	29 July 2014	25
BTU, Germany	Spreewald flood plain	16 Oct 2014	5
NYME, Hungary	Wood pasture	29-30 Aug 2014	17
UBB, Romania	Wood pastures in Southern Transylvania	12 June 2014	5
INRA, France	Bocage agroforestry in Brittany	26 Nov 2014	42
CRAN, UK	Wood pasture and parkland	23 Sept 2014	10
EFI and SLU, Sweden	Wood pastures and reindeer	1-2 Oct 2014	6
Total			227

Reports, comprising [Milestone 2](#), confirm the stakeholder working groups have been established and the first meetings held, where outputs have been placed on individual web-pages describing key aspects of each stakeholder group (Table 2.5). The challenges identified by the ten groups can be grouped under nine topics: low farm profitability, a need for new system design and management, reduction of the costs of tree protection and regeneration, improvement of pasture quality, adaptation of grazing schemes and cost-efficient herding, increased animal production, measures for nature conservation, more efficient mechanisms for knowledge dissemination among stakeholders, and policy and governance.

2.2 Characterising the systems (started)

[Objective 2.2](#) is to describe the key inputs, outputs and ecosystem service flows for case study systems in the selected countries. This is a key focus of work ([Task 2.2](#)) during the next twelve months, culminating in a report ([Deliverable D2.4](#)) describing the components, structure and outputs of the systems in December 2015. A first round of the descriptive parameters was circulated among the work-package partners in December 2014. Examples of some of the initial research include the compilation of data on carbon pools and biodiversity for Iberian dehesas by UEX, and CRAN is progressing with soil and aboveground carbon measurements at a parkland site at Clapham in the UK.

Table 2.5. References for the ten stakeholder reports comprising [Milestone 2](#)

<p>Moreno G (2014). Initial Stakeholder Meeting Report: Dehesa farms in Spain. 17 September 2014. 19 pp. Available online: http://www.agforward.eu/index.php/en/dehesa-farms-in-spain.html</p> <p>Crous-Duran J, Amaral Paulo J, Palma J (2014). Initial Stakeholder Meeting Report: Montado in Portugal. 4 September 2014. 12 pp. Available online: http://www.agforward.eu/index.php/en/montado-in-portugal.html</p> <p>Pantera A (2014). Initial Stakeholder Meeting Report: Valonia oak silvopastoral systems in Greece. 17 September 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/valonia-oak-silvopastoral-systems-in-greece.html</p> <p>Pisanelli A, Camilli F, Seddaiu G, Franca A (2014). Initial Stakeholder Meeting Report: Grazed oak woodlands in Sardinia. 15 October 2014. 9 pp. Accessed online: http://www.agforward.eu/index.php/en/grazed-oak-woodlands-in-sardinia.html</p> <p>Thenail C, Viaud V, Hao H (2014). Initial Stakeholder Meeting Report: Bocage agroforestry in Brittany, France. 2 December 2014. 10 pp. Available online: http://www.agforward.eu/index.php/en/bocage-agroforestry-in-brittany-france.html</p> <p>Upton M, Burgess PJ (2014). Initial Stakeholder Meeting Report: Wood pasture and parkland in the UK. 2 October 2014. 10 pp. Available online: http://www.agforward.eu/index.php/en/wood-pasture-and-parkland-in-the-uk.html</p> <p>Tsonkova P, Mirck J (2014). Initial Stakeholder Meeting Report: Agroforestry in the Spreewald Flood Plain, Germany. 20 October 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-in-the-spreewald-flood-plain-germany.html</p> <p>Vityi A, Varga A (2014). Initial Stakeholder Meeting Report: Wood pasture in Hungary. 13 pp. 18 October 2014. Available online: http://www.agforward.eu/index.php/en/wood-pasture-in-hungary.html</p> <p>Hartel T (2014). Initial Stakeholder Meeting Report: Wood Pastures in Romania. (Ed. PJ Burgess). 16 November 2014. 8 pp. http://www.agforward.eu/index.php/en/wood-pastures-in-southern-transylvania-romania.html</p> <p>Berg S, Lind T (2014). Initial Stakeholder Meeting Report: Wood pasture and reindeer in Sweden. 27 October 2014. 13 pp. Available online: http://www.agforward.eu/index.php/en/wood-pastures-and-reindeer-in-sweden.html</p>

2.3 Identify testable innovations and establish protocols (nearing completion)

[Objective 2.3](#) is to agree, within the PDRN, the key innovations or improvements in quantification that could promote the uptake of high nature and cultural value agroforestry. This was addressed by [Task 2.3](#), which was to agree the innovations to be tested by each stakeholder group either at experimental sites or on-farm in December 2014.

Gerardo Moreno presented the initial innovations at the Executive Committee Meeting at Beauvais, France on 5 December 2014. This was followed by review meetings via Skype and e-mail correspondence, and the release of a report ([Milestone 3](#)) on the AGFORWARD website in January 2015. This report highlights that research is needed both to close the knowledge gap and to undertake new experimental and field-trials work (Table 2.6).

One aspect of closing the knowledge gap is for each stakeholder group to provide a detailed description of the system. This will be undertaken during 2015, with the objective to collate and

collect information on the components of the system, estimates of the effect of the tree canopies on pasture production and carbon storage, and key sources of revenue and costs.

Table 2.6. Reference for the reports describing innovations for high nature and cultural value agroforestry (Milestone 3)

Moreno G, Berg S, Burgess PJ, Camilli F, Crous-Duran J, Franca A, Hao H, Hartel T, Lind T, Mirck J, Palma J, Amaral Paulo J, Pisanelli A, Seddaiu G, Thenail C, Tsonkova P, Upson M, Valinger E, Varga A, Viaud V, Vityi, A (2015). Innovations to be examined for High Nature and Cultural value Agroforestry. Milestone 2.2 (MS 3) for EU FP7 Research Project: AGFORWARD 613520. 20 pp. <http://www.agforward.eu/index.php/en/innovations-to-be-examined-for-high-nature-and-cultural-value-agroforestry.html>

A number of experiments and field trials are also planned, which are considered within seven headings. Some examples are given below, but a fuller description of the planned experiments and field trials can be found in the report (Moreno et al, 2015) (Table 2.6):

- *System design and management*: in France, the interest is on “bocage” agroforestry and research will focus on developing modular models of hedgerow systems, and the role of hedgerows in preventing soil erosion.
- *Tree regeneration*: in Spain, there is an interest in promoting tree regeneration through the use of seeding and the use of dead branch and wood mulches for protection.
- *Livestock management*: in the UK and Sweden, there is an interest in the use of GPS collars for cattle and/or the use of “invisible fencing”. Invisible fencing involves the use of an underground electric wire and a sensor on a collar in areas of high public use. In Italy there is interest in the effects of grazing exclusion.
- *Fodder resources*: selection of legume pastures and winter forages is of interest in Spain, Italy, and Greece.
- *New products*: surveys to assess the willingness to pay a premium price for agroforestry products are a focus of work in Spain, Portugal, and Greece.
- *Conservation*: the choice of livestock species and breed is of interest in Romania and Hungary.
- *Governance*: new co-operative models for developing agroforestry are of interest in France.

The next step on the project is to develop research and development protocols for each stakeholder group and this is a current focus of work.

- SLU (EFI) has developed a protocol for testing the GPS-based innovation to assist reindeer herding.
- CNR, UEX, and TEI have elaborated a protocol for the examination of shading tolerance of fodder species (legumes and grasses) in Mediterranean silvopastoral systems.
- UEX has prepared a protocol for the evaluation of alternative procedures to reinforce the natural tree regeneration in wood-pastures.
- CRAN is working on a protocol for the technical suitability and profitability of the invisible fencing system.
- TEI is preparing a protocol to examine the effect of tree protection on regeneration.
- UEX has prepared a protocol for the evaluation of consumer willingness to purchase or consume HNCV agroforestry products and explore best branding strategies.

2.4-2.5 Test and analyse innovations to provide guidelines (started)

Now that the key innovations have been established, the participants of the work-package will start to address [Objective 2.4](#) which is to implement the protocols to develop and test the proposed innovations, and to then analyse and interpret the results. This will be achieved through [Task 2.4](#) involving testing experimentally with replicates, and [Task 2.5](#) involving the use of on-farm experiments. This will lead to a report ([MS5](#)) describing the preliminary results of the innovations and wider perspectives in August 2016.

As of December 2014, some field tests have been initiated by UEX, CNR and TEI. For example CNR have started a field experiment on shading tolerance of legumes and grasses in a silvopastoral context. UEX has started an evaluation of the response of different varieties of Triticale (double-cropping fodder crop) intercropped among oak trees. UEX is also evaluating new models of natural and artificial protector for oak regeneration in Iberian dehesas. Lastly UEX is developing a prototype of GPS collar to help automate livestock management in extensive wood-pastures.

2.6 Dissemination of results (on-going)

An on-going objective of the work-package ([Objective 3.5](#)) is to provide and promote guidelines for farmers on how to establish economically viable agroforestry practices to improve the resilience of wood-pasture and other agroforestry systems of high nature value. Some of the principal dissemination activities are described in Table 9.4.

2.7 Co-ordination of the work in work-package 2

The work-package leader (Gerardo Moreno) has participated in Executive Board meetings and WP 2 Skype meetings, which aided the clarification of responsibilities across countries. All of the partners attended the launch meeting at Cranfield University in the UK on 21-22 January 2014. This was followed by a field visit (23 January 2014) to a parkland agroforestry site that has been the focus of detailed carbon measurements by Cranfield University.

Between 2 and 4 June 2014, there was also an AGFORWARD project meeting in Cottbus, Germany, including a dedicated WP 2 workshop. This included a field visit to the WP2 Spreewald agroforestry system (led by BTU) which is the focus of a stakeholder group in this work-package.

One key area of co-ordination is the links between work-package 2 and the landscape analysis in work-package 7. Gerardo Moreno has played a key role in establishing these links, and at meetings in Cottbus (2-4 June 2014) and in Copenhagen (10-11 November 2014). UEX, ISA, BBU, EFI and INRA have identified HNCV landscapes for joint WP2 and WP7 research to evaluate ecosystem services. Gerardo Moreno also attended the Executive Committee meeting held at Beauvais in France on 5 December.

2.8 Use of resources in work-package 2

At the end of December 2014, 29.09 person months had been allocated to work-package 3, equivalent to 27% of the total (Table 2.7).

Table 2.7. Person-month inputs to work-package 2

	Indicated (Jan-Dec 2014)	Project total
UEX	6.10	28
INRA	5.34	11
BTU	3.14	8
CRAN	2.93	8
ISA	2.50	10
CNR	2.25	9
NYME	1.64	9
EFI	1.47	6
EFI (SLU)	1.24	
TEI	1.21	9
UBB	1.07	9
EURAF	0.20	2
Total	29.09	109

2.9 Issues and actions

Now that the stakeholder groups have identified key innovations, the next task is to create and publish the associated research and development protocols, explaining the systems, the objectives, the trial or experimental design, and the planned measurements and analysis. In general, the use of resources and personnel months is in line with expectations. Both the work-package leader and the Co-ordinator have discussed the high input from INRA-Rennes at this stage of the project. INRA has confirmed that the current rate of allocating person-months will not affect their ability to fully contribute to the milestones and deliverables of work-package 2.

3 Work package number 3

Work-package number	3
Work-package name	Agroforestry for High Value Tree Systems
Leader	Anastasia Pantera
Organisation	TEI Stereas Elladas (TEI)
Report period	1 January to 31 December 2014

Objectives and tasks within work package 3

Anastasia Pantera is leading this work package that focuses on intercropping or grazing in high value tree systems such as apple orchards, olive groves or walnut and chestnut trees. The key objective during the first year has been the establishment of the participatory research and development networks and to identify testable innovations (Table 3.1). During the reporting period, 10 stakeholder groups were established and some key researchable innovations were identified (Table 3.2).

Table 3.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 3 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
WP3 High value tree agroforestry																								
T3.1 Establish PRD network (MS8)								M																
T3.2 Characterise system (D3.7)																								D
T3.3 Identify testable innovations (MS9) and establish protocols MS10)												M	M											
T3.4 Test, analyse, interpret and cost innovation (MS11; D3.8)																								
T3.5 Evaluate innovations on-farm to produce guidelines (MS12; D3.9)																								
T3.6 Dissemination of results (MS13)																								
T3.7 Co-ordination of WP3																								

Table 3.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Date	Status
MS8 Establishment of PRD network	Aug 2014	Completed and on website
MS9 Identification of innovations to be tested	Dec 2014	Completed and on website

3.1 Establish a participatory research and development network (completed)

Objective 3.1 was to identify examples of existing best practice, the key challenges, and possible innovations to address those challenges, within stakeholder working groups within this Participatory Research and Development Network (PDRN). This was to be achieved by establishing 10 relevant stakeholder groups (**Task 3.1**). At the initial meeting of each stakeholder group, the plan was to i) identify the most prominent issues and challenges, ii) identify best practice examples, iii) identify stakeholder-led innovations, and iv) identify producers willing to participate in the innovation research.

All of the initial meetings were held between April and August 2014, with the exception of the December meeting held by AFBI in Northern Ireland. The meetings across the PDRN for high value trees have involved about 145 stakeholders (Table 3.3). ORC played a key role in developing the templates for the initial stakeholder reports distributed across the project on 25 April 2014. In addition ISA has had input in order to ensure that the data collected will feed into work-package 6. UEX has also followed up their initial meeting with farm visits and EURAF has started to collate a list of people outside of the countries represented by the stakeholder groups.

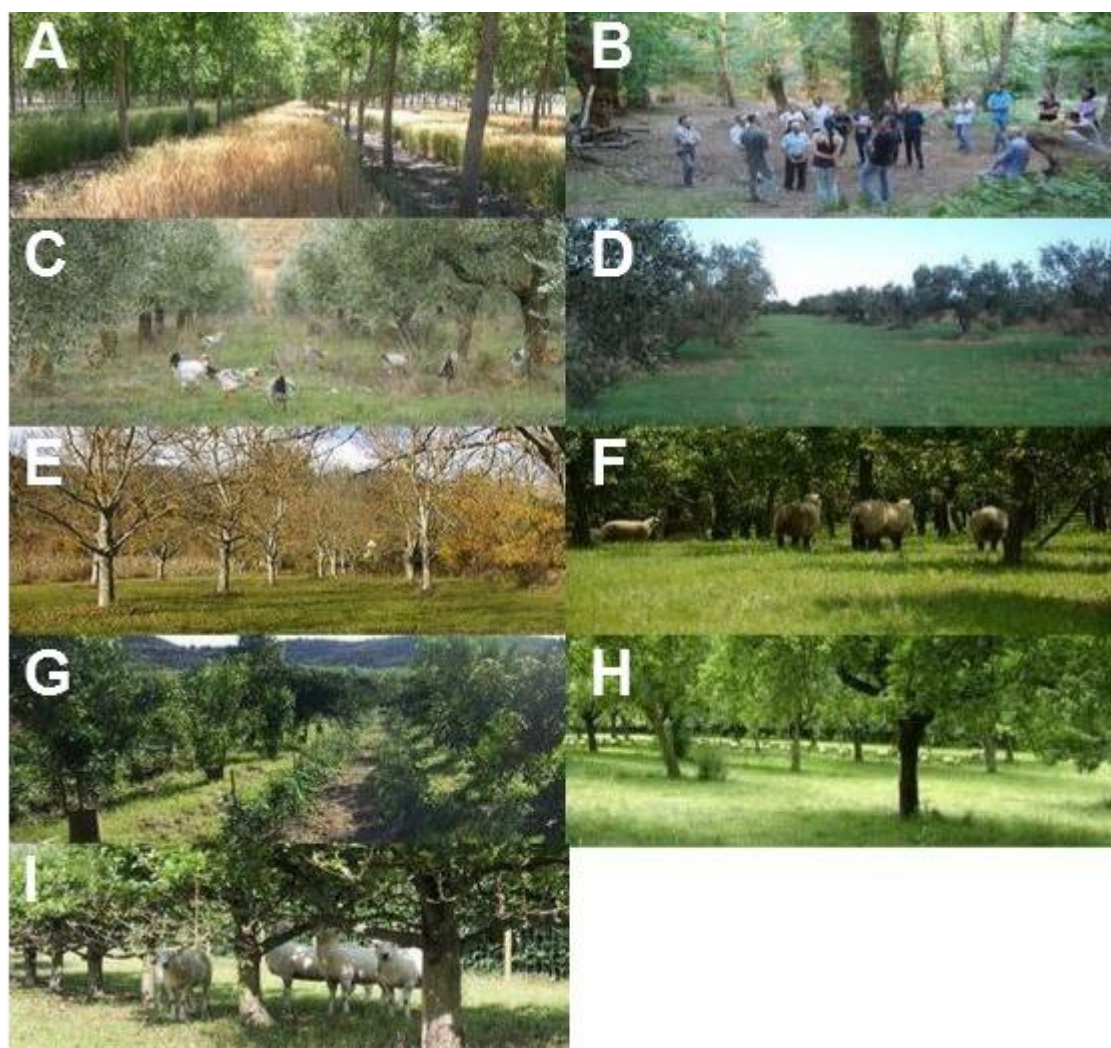


Figure 3.1. Agroforestry systems of high nature and cultural value across Europe; in A) Western Spain, B) Galicia, Spain, C) Italy, D) Greece, E) Greece, F) Normandy, France, G) Crete, Greece, H) England, UK and I) Northern Ireland, UK

FDEA in Switzerland has also been involved in setting up a stakeholder group that includes the combination of apple trees into arable systems. This has been done in collaboration with a Swiss agroforestry extension project run by AGRIDEA, which is working with about 15 farms. ORC in the UK is also working on the integration of apple trees within arable systems. In both these cases, although the research and development contributes to the outputs of work-package 3, the stakeholder group and the meetings are reported (in both cases) in work-package 4.

Table 3.3. The livestock type, acronym and country, the name of the group and number of stakeholders for the stakeholder meetings focused on agroforestry for high value tree systems in 2014.

Acronym	Name of group	Dates of workshops	Number of stakeholders
CRAN, UK	Grazed orchard in England and Wales	9 June 2014	14
AFBI, UK	Grazed orchard in Northern Ireland	3 Dec 2014	9
APCA, France	Grazed orchards	31 July 2014	25
TEI, Greece	Intercropping of olive groves, Molos	25 June 2014	18
TEI, Greece	Intercropping of olive groves, Kassandreia	27 June 2014	14
CRA, Italy	Intercropping and grazing of olive orchards	27 June 2014	21
UEX, Spain	Grazing and intercropping of plantation trees	30 May 2014	27
TEI, Greece	Intercropping of walnut trees	29 May 2014	19
USC, Spain	Chestnut agroforestry in Galicia	25 Aug 2014	26
TEI, Greece	Intercropping of orange groves	2 and 4 Aug 2014	5
Total			178

As detailed under work-package 4, AFAF and ACTA-IDF have also organised a stakeholder group in France focused on “bordure” or hedgerow trees, which covers some of the themes covered in this work-package. AFAF also supported APCA orchard grazing workshop in Normandy in Northern France on 31 July 2014. Philippe van Lerberghe at IDF (Third Party to ACTA) has also been working with a farmer in the French Department of Lot to establish an agroforestry system with oak and walnut in an area currently grazed by sheep; a system that intersects work-package 3 and 5 (van Lerberghe, 2014). This work will be useful when producing farmer-applicable booklets.

Reports, comprising [Milestone 8](#), confirm the stakeholder working groups have been established and the first meetings held, where outputs have been placed on individual web-pages describing key aspects of each stakeholder group (Table 3.4).

3.2 Characterising the systems (started)

[Objective 3.2](#) is to describe the key inputs, outputs and ecosystem service flows for the selected systems. This is a key focus of work ([Task 3.2](#)) during the next twelve months, culminating in a report ([Deliverable 3.7](#)) describing the components, structure and outputs of the systems in December 2015. A first round of the descriptive parameters was circulated among the work-package partners in December 2014. Cranfield has started to collect data at its trial site with grazed orchards in Herefordshire in the UK. AFBI in Northern Ireland, UK, has also started to characterise its orchard system within and without sheep at Loughgall in pre- and post-harvest situations. CRA in Italy has started to characterise the traditional and high-density olive orchards that it is investigating with asparagus.

Table 3.4. References for the ten stakeholder reports ([Milestone 8](#)) produced in work-package 3

<p>Moreno G (2014). Initial Stakeholder Meeting Report Grazing and intercropping of plantation trees in Spain. 17 September 2014. 12 pp. Available online: http://www.agforward.eu/index.php/en/grazing-and-intercropping-of-plantation-trees-in-spain.html</p> <p>Mosquera Losada R, Ferreiro-Domínguez N, Fernández Lorenzo JL, González-Hernández P, Rigueiro Rodríguez A (2014). Initial Stakeholder Meeting Report: Chestnut agroforestry in Galicia, Spain. 23 September 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/chestnut-agroforestry-in-galicia-spain.html</p> <p>Rosati A (2014). Initial Stakeholder Meeting Report Intercropping and grazing of olive orchards in Italy. 6 August 2014. 7 pp. Available online: http://www.agforward.eu/index.php/en/intercropping-and-grazing-of-olive-orchards-in-italy.html</p> <p>Pantera A (2014). Initial Stakeholder Meeting Report: Intercropping of olive groves in Greece (Kassandreia). 20 October 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/intercropping-of-olive-groves-in-greece.html</p> <p>Pantera A (2014). Initial Stakeholder Meeting Report: Intercropping of olive groves in Greece (Molos). 20 October 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/intercropping-of-olive-groves-in-greece.html</p> <p>Pantera A (2014). Initial Stakeholder Meeting Report: Intercropping of Walnut Trees in Greece. 20 October 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/intercropping-of-walnut-trees-in-greece.html</p> <p>Pantera A (2014). Initial Stakeholder Meeting Report Intercropping of Orange Groves in Greece. 18 November 2014. 7 pp. Available online: http://www.agforward.eu/index.php/en/intercropping-of-orange-groves-in-greece.html</p> <p>Corroyer N (2014). Initial Stakeholder Meeting Report: Grazed Orchards in France. 1 December 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/grazed-orchards-in-france.html</p> <p>Burgess PJ (2014). Initial Stakeholder Meeting Report: Grazed Orchards in the UK. 18 July 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/Grazed_Orchards.html</p> <p>McAdam J (2014). Initial Stakeholder Meeting Report: Grazed orchards in Northern Ireland, UK. 4 December 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/grazed-orchards-in-northern-ireland-uk.html</p>

3.3 Identify testable innovations and establish protocols (nearing completion)

[Objective 3.3](#) is to agree, within the PDRN, the key innovations or improvements in quantification that could promote the uptake of agroforestry involving high value tree systems. The agreement on the innovations to be tested ([Task 3.3](#)) started in December 2014 and Anastasia Pantera presented the initial innovations at an Executive Committee Meeting at Beauvais, France on 5 December 2014. This was followed by a review meeting via Skype and the release of a report describing the innovations ([Milestone 9](#)) on the AGFORWARD website in January 2015 (Table 3.5).

Table 3.5. Reference for the report describing agroforestry innovations for high value tree systems

<p>Pantera A, Burgess PJ, Corroyer N, Ferreiro-Domínguez N, Fernández Lorenzo JL, González-Hernández P, Graves AR, McAdam J, Moreno G, Mosquera Losada MR, Rigueiro Rodríguez A, Rosati A, Upson M (2015). Innovations to be examined for Agroforestry for High Value Tree Systems. Milestone 3.2 (MS 9) for EU FP7 Research Project: AGFORWARD 613520. 14 pp. http://www.agforward.eu/index.php/en/agroforestry-innovations-to-be-examined-for-high-value-tree-systems.html</p>
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Three of the stakeholder groups (CRAN, AFBI, and APCA) will be focusing on sheep grazing in apple orchards in France and the UK. Identified research topics include the creation of grazing management guidelines, the effect of grazing of the lower leaves on apple production, the development of a bio-economic model, and the impact of reduced leaf litter on apple scab infection. AFBI research will include replicated experiments on sheep grazing (mixed breed) in dessert and cider orchards in comparison to normal management and mechanical mowing. CRAN is focusing on the effect of Shropshire sheep on the productivity of bush apple orchards and the initial protocol has been agreed.

Four of the stakeholder groups (TEI and CRA) are focusing on the intercropping and grazing of olive or citrus groves in Greece and Italy. Identified research topics include the interactions between olive trees and wheat compared to non-intercropped olives, best practices for growing wild asparagus and rearing poultry within olive groves, and the use of aromatic or leguminous intercrops.

Three of the stakeholder groups (UEX, USC, and TEI) are working with walnut or chestnut, either in Greece or Spain. Identified innovations include the use of legumes or aromatic species, and the use of sheep with walnut in Spain. The use of grafted plants of selected varieties of chestnut and techniques to increase mushroom production are also of interest in Spain.

3.4-3.5 Test and analyse innovations to provide guidelines (started)

Now that the key innovations have been established, the participants of the work-package will start [Objective 3.4](#) to implement the protocols, to develop and test the proposed innovations, and to analyse and interpret the results. This will be achieved through [Task 3.4](#) of testing experimentally with replicates, and [Task 3.5](#) the use of on-farm experiments. This will lead to a report ([Milestone 11](#)) describing the preliminary results of the innovations and wider perspectives in August 2016. As of December 2014, some field tests have been initiated by UEX, TEI, CRAN and CRA. ACTA has also worked with IDF to assess wood biomass production in an agroforestry system.

3.5 Dissemination of results (on-going)

An on-going objective of the work-package ([Objective 3.5](#)) is to provide and promote guidelines for farmers on how to establish economically viable agroforestry practices within high value trees. Some of the dissemination activities are described in Table 9.4.

3.6 Co-ordination of the work in work-package 3

The work-package leader (Anastasia Pantera) has participated in Executive Board meetings and WP3 Skype meetings. All of the partners attended the launch meeting at Cranfield University in the UK on 21-22 January 2014, and Anastasia Pantera (TEI) and Jo Smith (ORC) made platform presentations. Representatives from each group also attended the AGFORWARD project meeting in Cottbus, Germany (2-3 June 2014), including a dedicated WP3 workshop. Anastasia also attended the Executive Committee Meeting in Beauvais on 5 December 2014. There have also been a number of satellite meetings. For example in France, staff from ACTA, AGROOF, APCA and AFAF attended a French AGFORWARD coordination meeting in Paris on 31 March 2014.

3.7 Use of resources in work-package 3

At the end of December 2014, 21.31 person months had been allocated to work-package 3, equivalent to 19% of the total (Table 3.6). There are no significant deviations from the planned schedule. Those organisations allocated the most person months have established stakeholder groups as described. ORC is also closely working with apple trees (their report can be found in work-package 4), and they helped to develop the templates for the initial stakeholder reports. AFAF and ACTA have established a stakeholder group focused on “bordure” trees, which cross-links with work-package 4.

Table 3.6. Person-month inputs to work-package 3

Organisation	Indicated (Jan-Dec 2014)	Project total
CRA	5.25	28
TEI	3.92	23
CRAN	2.70	12
AFBI	2.09	5.5
UEX	2.05	8
USC	1.80	12
ORC	1.34	6
APCA	0.68	3
ACTA	0.44	1
AFAF	0.41	3.5
ISA	0.25	3
EURAF	0.20	2
FDEA	0.18	6
Total	21.31	113

3.8 Issues and actions

The only significant change within the work-package relates to some planned subcontracting by ACTA. The original plan involved a 10K€ sub-contracting budget for ACTA to use the experimental work at Laxou within work-package 3. Unfortunately since the project inception, a change in priorities for the new management team at Laxou has meant that this site is not available. Following discussion with the Co-ordinator, ACTA now proposes to use this budget to sub-contract research on the evaluation of the total biomass production of pollarded trees compared to non-pollarded trees. It is proposed to use the services of a forest contractor, and the statistical analysis and modelling services of the Catholic University of Louvain. A proposal for this change will be submitted to the EU, via the Co-ordinator, prior to commencing the work.

4 Work package number 4

Work-package number	4
Work-package name	Agroforestry for Arable Farmers
Leader	Jaconette Mirck (and Dirk Freese)
Organisation	Brandenburg University of Technology Cottbus-Senftenberg
Report period	1 January to 31 December 2014

Objectives and tasks within work package 4

The focus of this work-package, led by BTU, is to develop innovations that will promote agroforestry for arable farmers. As Dirk Freese was ill for part of 2014, Jaconette Mirck (also of BTU) has led this work-package. The key objective during the first year has been the establishment of the participatory research and development network and the identification of testable innovations (Table 4.1). By the end of the year, the first two milestones had been achieved (Table 4.2).

Table 4.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 4 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
WP4																								
T4.1 Establish PRD network (MS14)								M																
T4.2 Characterise system (D4.10)																								D
T4.3 Identify innovations (MS15) and establish protocols MS16)												M	M											
T4.4 Test, analyse, interpret and cost innovation (MS17; D4.11)																								
T4.5 Evaluate innovations to produce guidelines (MS18; D4.12)																								
T4.6 Disseminate results (MS19)																								
T4.7 Co-ordination of WP4																								

Table 4.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Date	Status
MS14 Establishment of PRD network	Aug 2014	Completed
MS15 Identification of innovations to be tested	Dec 2014	Completed

4.1 Establish a participatory research and development network (completed)

Objective 4.1 was to identify examples of existing best practice, the key challenges, and possible innovations to address those challenges, within stakeholder working groups within a Participatory Research and Development Network (PRDN). This was achieved by establishing ([Task 4.1](#)) 13 stakeholder groups focused on agroforestry in arable systems. Each meeting sought to i) identify the most prominent issues and challenges, ii) identify best practice examples, iii) identify stakeholder-led innovations, and iv) identify producers willing to participate in the innovation research. The original plan was to hold the first meetings between April and August 2014. However to maximise the number of arable farmers who could attend, a number of meetings were held between September

and December. During 2014, the PDRN for agroforestry for arable systems involved 13 stakeholder groups about 283 stakeholders (Table 4.3) (Figure 4.1).

Table 4.3. The acronym and country, the name of the group and number of stakeholders for the meetings focused on agroforestry for arable systems during 2014.

Acronym and Country	Name of group	Date of workshop	Number of stakeholders
USC, Spain	Silvoarable systems in Spain	21 Oct 2014	14
TEI, Greece	Trees with arable crops and grassland in Greece	11 Jul 2014	14
INRA, France	Mediterranean silvoarable systems in France	2 Oct 2014	11
ORC, UK	Silvoarable agroforestry in the UK	18 Nov 2014	12
BTU, Germany	Alley cropping systems in Germany	28 Aug 2014	18
UEX, Spain	Grazing and intercropping of plantation trees in Spain	30 May 2014	20
FDEA Switzerland	Silvoarable systems with fruit and high value timber trees in Switzerland	25 May 2014	22
CNR/VEN Italy	Trees for timber intercropped with cereals in Italy	24 June 2014	6
NYME, Hungary	Alley cropping systems in Hungary	29 Aug 2014	30
APCA, France	Agroforestry for arable farmers in western France	30 June 2014	87
APCA, France	Agroforestry for arable farmers in northern France	15 Sept 2014	15
AFAF and IDF, France	“Bordure” trees in France	29 Sept 2014 & 17 Dec 2014	23
AFAF and IDF, France	Agroforestry for arable farmers in south-west France	12 Dec 2014	11
Total			283

4.2 Characterising the systems (started)

Objective 4.2 is to describe the key inputs, outputs and ecosystem service flows for the selected systems. This is a key focus of work (**Task 4.2**) during the next twelve months, culminating in a report (**Deliverable 4.10**) describing the components, structure and outputs of the systems in December 2015. A first round of the descriptive parameters was circulated among the work-package partners in December 2014. Some organisations have started to characterise their systems; for example NYME in Hungary has set up a weather station at their alley-cropping experimental site at Fajsz.



Figure 4.1. Silvoarable systems across Europe; in A) Spain, B) Italy, C) Western France, D) UK, E) Switzerland, F) Southern France, G) Greece, H) Western France, I) Germany and J) Hungary

Table 4.4. References for the 13 stakeholder reports comprising **Milestone 14**

<p>Cirou E, Hannachi Y (2014). Initial Stakeholder Meeting Report Agroforestry for Arable Farmers in Western France. (Ed. PJ Burgess). 14 November 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-for-arable-farmers-in-western-france.html</p> <p>Gosme M (2014). Initial Stakeholder Meeting Report: Mediterranean Silvoarable Systems in France. 8 October 2014. 12 pp. Available online: http://www.agforward.eu/index.php/en/mediterranean-silvoarable-systems-in-france.html</p> <p>Jäger M, Herzog F (2014). Initial Stakeholder Meeting Report Silvoarable systems with fruit and high value timber trees in Switzerland. 11 November 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/integrating-trees-with-arable-crops-switzerland.html</p> <p>Malignier N, Canet A, van Lerberghe P (2014a). Initial Stakeholder Meeting Report Agroforestry for Arable Farmers in the South-West of France. 23 December 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-for-arable-farmers-in-south-west-france.html</p> <p>Malignier N, Canet A, van Lerberghe P (2014b). Initial Stakeholder Meeting Report “Bordure” Trees in France. 28 December 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/bordure-trees-in-france.html</p> <p>Mosquera Losada MR, Ferreiro-Domínguez N, Fernández Lorenzo JL, González-Hernández P, Rigueiro Rodríguez A (2014). Initial Stakeholder Meeting Report Silvoarable Systems in Spain. 29 October 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/silvoarable-systems-in-spain.html</p> <p>Moreno G (2014). Initial Stakeholder Meeting Report Grazing and intercropping of plantation trees in Spain. 17 September 2014. 12 pp. Available online: http://www.agforward.eu/index.php/en/grazing-and-intercropping-of-plantation-trees-in-spain.html</p> <p>Pantera A (2014). Initial Stakeholder Meeting Report: Trees with arable crops and grassland in Greece. 20 October 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/trees-with-arable-crops-and-grassland-in-greece.html</p> <p>Pisanelli A, Camilli F, Dalla Valle C, Paris P (2014). Initial Stakeholder Meeting Report: Trees for timber intercropped with cereals in Italy. 7 October 2014. 6 pp. Available online: http://www.agforward.eu/index.php/en/trees-for-timber-intercropped-with-cereals-445.html</p> <p>Smith J, Wolfe M, Crossland M, Howlett S (2014). Initial Stakeholder Meeting Report: Silvoarable Agroforestry in the UK. 21 November 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/silvoarable-agroforestry-in-the-uk.html</p> <p>Tsonkova P, Mirck J (2014). Initial Stakeholder Report: Alley Cropping Systems in Germany. 19 September 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/alley-cropping-systems-in-germany.html</p> <p>Vityi, A (2014). Initial Stakeholder Meeting Report: Alley Cropping Systems in Hungary. 23 October 2014. 11 pp. Available online: http://www.agforward.eu/index.php/en/alley-cropping-systems-in-hungary.html</p> <p>Wartelle R (2014). Initial Stakeholder Meeting Report Agroforestry for Arable Farmers in Northern France. (Ed PJ Burgess). 16 December 2014. 10 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-for-arable-farmers-in-northern-france.html</p>
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4.3 Identify testable innovations and establish protocols (nearing completion)

Objective 4.3 is to agree, within the PDRN, the key innovations or improvements in quantification that could promote the uptake of agroforestry involving high value tree systems. Agreement on the innovations to be tested (**Task 4.3**) started in December 2014 when Jaconette Mirck presented the initial innovations at an Executive Committee Meeting at Beauvais, France. This was followed by Skype and e-mail correspondence, and a report (**Milestone 15**) confirming the innovations to be tested was reviewed and placed on the AGFORWARD website in January 2015 (Table 4.5).

Table 4.5. Report (**Milestone 15**) describing innovations for agroforestry for arable farmers

Mirck J, Cirou E, Camilli F, Crossland M, Dalla Valle C, Fernandez Lorenzo JL, Ferreiro-Dominguez Lorenzo N, Gonzalez-Hernandez P, Gosme M, Hannachi Y, Herzog F, Howlett S, Jäger M, Mosquera Losada MR, Moreno G, Pantera A, Paris P, Pisanelli A, Rigueiro Rodriguez A, Smith J, Tsonkova P, Vityi A, Wartelle R, Wolfe M, Burgess PJ (2014). Agroforestry Innovations to be evaluated for Arable Farmers. Milestone 4.2 (MS15) for EU FP7 Research Project: AGFORWARD 613520. 11 pp.
<http://www.agforward.eu/index.php/en/agroforestry-innovations-to-be-evaluated-for-arable-farmers.html>

Amongst the key researchable topics were issues related to agroforestry design, tree protection and weed disease management, regulation and policies, and socio-economic effects.

- *Design*: for many regions we know little about how to establish a profitable agroforestry system for arable farmers. Knowledge gaps exist for key design components such as crop tree combinations, spacing, crop tree competition, shade tolerant crops and harvesting. In many situations, the establishment of an agroforestry system itself can be considered an innovation. A decision support tool that reflects the conditions of the different regions was thought to be of great use to farmers.
- *Management of tree protection*: another common challenge is the protection of trees against wildlife and domestic animals, particularly during the establishment period. Adequate tree protection methods were needed.
- *Management of weeds and diseases*: a third overarching challenge is weed and disease management and how the trees affect the presence of weeds and disease.
- *Regulation and policies*: many partners mentioned the administrative burden and the lack of long-term funding for agroforestry system establishment. An online portal or information sessions through farmers unions may simplify the grant application process.
- *Socio-economic and environmental effects*: stakeholders were also interested in the role of marketing in persuading people to pay a premium price for agroforestry products.

Now the innovations have been identified, the next focus is to create a research and development protocol for each group. For example INRA has prepared a draft protocol for the first trial of shade tolerant cereal varieties with partners, and the protocol for climate change adaptation assessment is under preparation.

4.4-4.5 Test and analyse innovations to provide guidelines (started)

Now that the key innovations have been established, the participants of the work-package will start [Objective 4.4](#) which is to implement the protocols, to develop and test the proposed innovations, and to analyse and interpret the results. This will be achieved through experiments ([Task 4.4](#)) and on-farm trials ([Task 4.5](#)). This will lead to a report ([Milestone 17](#)) describing the preliminary results of the innovations and wider perspectives in August 2016.

At INRA in southern France, the innovations that are being studied includes the selection of durum wheat varieties adapted to agroforestry, the management of pollarded trees, and the smart management of trees and crops to face climate change. A pot-based experiment on the selection of durum wheat varieties includes 30 cultivars, two replicates and two treatments (un-shaded and shaded). A wide range of yield parameters (e.g. height, tillering, and grain and stem dry matter) are being measured. The main objectives are (i) to assess the genetic variation of durum wheat responses to (tree) shade, and (ii) to identify durum wheat genotypes that could be used for intercropping with trees. The cultivars selected from the initial pot experiment are then tested during field trials at the experimental farm of INRA (UE DiaScope) and in two farmer trials (Restinclières and Caizergues).

INRA has also established a blog to keep participants posted on the advance of the work:

<https://selectionparticipativebleduragroforesterie.wordpress.com/>.

The report was also translated in English and a short news item was produced to be put on AGFORWARD website

(<http://www.agforward.eu/index.php/fr/news-reader/id-2-october-2014.html>)

Experimental and trial work has also started at other sites. For examples ORC in the UK are collecting weather data at an experimental site at “Wakelyns” and have collected the yields of short rotation coppice willow and hazel. VEN in Italy is working with a farmer who has implemented an agroforestry system, with support from the Regional Rural Developing Programme (Veneto RDP, 2007-13, measure n. 222), and TEI has already established an experiment at Chalkidiki in Greece.

In Germany, BTU is collecting weather and stratified crop data at an experimental site close to Forst, where tree and crop yields have been measured for the four years. Detailed investigations of crop and tree competition will take place in 2015 and 2016. The objectives to be addressed are: (i) to assess root distribution of trees and crops within the alley cropping system; (ii) to study moisture availability to the crop in a transect at different distance from the hedgerows; (iii) to estimate yield differences between yields in agroforestry and conventional agricultural systems, and (iv) to assess how agroforestry systems influence soil fertility.

4.6 Dissemination of results (on-going)

An on-going objective of the work-package ([Objective 4.5](#)) is to provide and promote guidelines for farmers on how to establish economically viable agroforestry practices in arable systems (with work-package 9). IDF (third-party to ACTA) working with AFAF has started to collate some of the best technical practices for agroforestry in arable systems in preparation for the technical guidelines. VEN has also established a database of regional and national stakeholders interested in agroforestry.

4.7 Use of resources in work-package 4 (1 January to 31 December 2014)

At the end of December 2014, 30.81 person months had been allocated to work-package 4, equivalent to 24% of the total. Each of the first 14 organisations listed in Table 4.6, with the exception of ISA, is directly involved with a stakeholder group. ISA has provided support for the development of the protocols and EURAF has started to compile a stakeholder list of people interested in agroforestry for arable farmers, who operate in other countries.

Table 4.6. Person-month inputs to work-package 4

Organisation	Indicated (Jan-Dec 2014)	Project total
INRA	8.19	25
BTU	6.69	32
ORC	3.90	12
NYME	2.13	9
USC	1.80	9
UEX	1.65	9
CNR	1.50	6
TEI	1.48	6
APCA	1.29	6
VEN	0.66	2
FDEA	0.49	4
ACTA (IDF)	0.34	1
ISA	0.25	3
AFAF	0.24	3.5
EURAF	0.20	2
CRAN	0.00	1
Total	30.81	130.50

4.8 Issues and actions

No issues or actions were identified for this work-package.

5 Work package number 5

Work package number	5
Work package name	Agroforestry for Livestock Farmers
Leader	John E Hermansen
Organisation	Aarhus University
Report period	1 January to 31 December 2014

Objectives and tasks within work package 5

The focus of this work-package is agroforestry practices appropriate for livestock farmers. During the first year, the key objective was the establishment of a participatory research and development network and the identification of testable innovations (Table 5.1). By the end of the period, ten stakeholder meetings had been held and a report on innovations has been produced (Table 5.2).

Table 5.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 5 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
WP5 Agroforestry for livestock																													
T5.1 Establish PRD network (MS20)								M																					
T5.2 Characterise system (D5.13)																													D
T5.3 Identify innovations (MS21) and establish protocols MS22)													M	M															
T5.4 Test, analyse, interpret and cost innovation (MS23; D5.14)																													
T5.5 Evaluate innovations to produce guidelines (MS24; D5.15)																													
T5.6 Disseminate results (MS25)																													
T5.7 Co-ordination of WP5																													

Table 5.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Date due	Status
MS20 Establishment of PRD network	Aug 2014	Completed
MS21 Identification of innovations to be tested	Dec 2014	Completed January 2015

5.1 Establish a participatory research and development network (completed)

Objective 5.1 was to identify examples of existing best practice, the key challenges, and possible innovations within stakeholder working groups. This objective was achieved by establishing a network (**Task 5.1**) comprising groups related to the use of agroforestry for i) poultry (UK, Netherlands, Denmark), ii) ruminants (UK, France, Netherland), and iii) pigs (Denmark, Italy and Spain). Each meeting sought to i) identify the most prominent issues and challenges, ii) identify best practice examples, iii) identify stakeholder-led innovations, and iv) identify producers willing to participate in the innovation research.

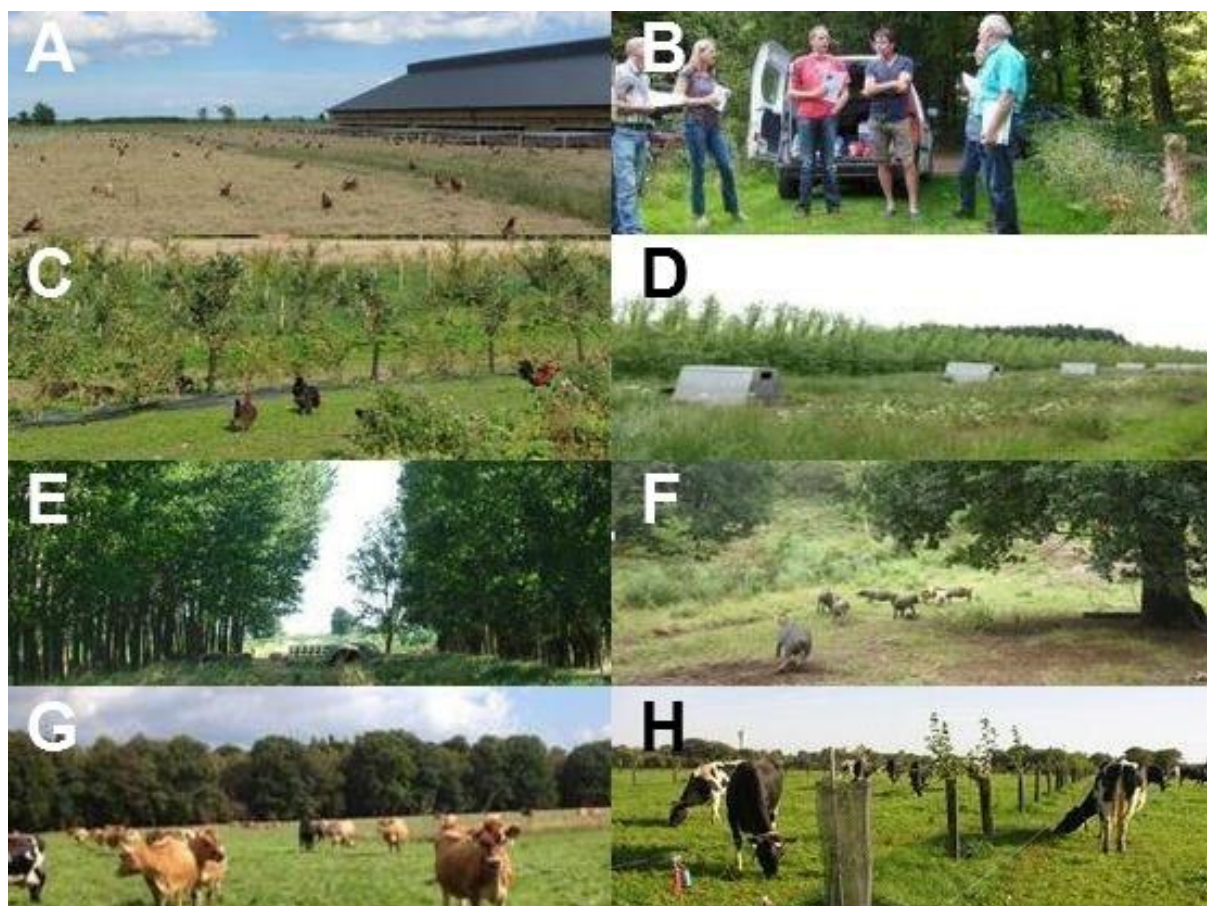


Figure 5.1. Agroforestry for poultry systems in A) the UK, B) the Netherlands and C) Italy, and agroforestry systems for pigs in D) Denmark, E) Italy, and F) Spain, and livestock systems in G) the Netherlands, and H) France

Table 5.3. Livestock type, acronym and country, the name of the group and number of stakeholders for the stakeholder meetings focused on agroforestry for livestock farmers in 2014

Livestock	Acronym	Name of group	Dates of workshop	Number of stakeholders
Pigs	USC, Spain	Agroforestry with pigs, Galicia, Spain	27 Aug 2014	24
	Ven, Italy	Free-range pigs with energy crops in Italy	30 Sept 2014	22
	AU, Denmark	Free-range pigs with energy crops in Denmark	30 June and 4 July 2014	2
Poultry	ORC, UK	Woodland eggs and woodland poultry in the UK	6 May and 10 June 2014	38
	LBI, NL	Poultry systems in the Netherlands	9 July and 18 Sept 2014	14
	AU, Denmark	Organic pig and poultry production in Denmark	18 Sept 2014	5
Ruminants	IDELE/INRA, France	Agroforestry with ruminants in France	1 July and 28 Aug 2014	27
	LBI, NL	Fodder trees for cattle and goats in the Netherlands	11 Sept 2014	4
	AFBI, UK	Grazed orchards, Northern Ireland	3 Dec 2014 ^a	9
Total				136 ^a

Note: ^a: initial report also reported under work-package 3

The original plan was to hold the first meetings between April and August 2014. In practice, the meetings were held between May and December 2014. The meetings across this PDRN involved about 136 stakeholders (Table 5.3). Reports ([Milestone 20](#)) have been created for each stakeholder group meeting as described in Table 5.4.

Table 5.4. Ten stakeholder reports comprise [Milestone 20](#)

Bestman, M. (2014). Initial Stakeholder Meeting Report: Agroforestry for poultry systems in the Netherlands (9 July meeting). 25 September 2014. 5 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-for-poultry-systems-in-the-netherlands.html
Bestman, M. (2014). Initial Stakeholder Meeting Report: Agroforestry for poultry systems in the Netherlands (18 September meeting). 25 September 2014. 7 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-for-poultry-systems-in-the-netherlands.html
Smith J, Vieweger A, Zaralis K (2014). Initial Stakeholder Meeting Report: Woodland Eggs in the UK. 3 July 2014. 6 pp. Available online: http://www.agforward.eu/index.php/en/Poultry-systemUK.html
Smith J, Vieweger A, Zaralis K (2014). Initial Stakeholder Meeting Report: Woodland Poultry in the UK. 16 May 2014. 5 pp. Available online: http://www.agforward.eu/index.php/en/Poultry-systemUK.html
Kongsted AG (2014). Initial Stakeholder Meeting Report: Agroforestry for organic poultry and pig production in Denmark. 29 October 2014. 7 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-for-organic-poultry-and-pig-production-in-denmark-583.html
Kongsted AG (2014). Initial Stakeholder Meeting Report Free-range pigs integrated with energy crops in Denmark. 4 September 2014. 7 pp. Available online: http://www.agforward.eu/index.php/en/free-range-pigs-integrated-with-energy-crops.html
Bondesan V (2014). Initial Stakeholder Meeting Report: Free-range Pigs with Energy Crops in Veneto, Italy. (Ed. P Burgess). 21 November 2014. 8 pp. Available online: http://www.agforward.eu/index.php/en/free-range-pigs-with-energy-crops-italy.html
Mosquera-Losada MR, Ferreiro-Domínguez N, Fernández Lorenzo JL, González-Hernández P, Rigueiro Rodríguez A (2014). Initial Stakeholder Meeting Report: Agroforestry with Pigs, Galicia, Spain. 25 September 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-with-pigs-in-galicia-spain.html
Pottier E (2014). Initial Stakeholder Meeting Report: Agroforestry with Ruminants in France. (Ed PJ Burgess). 10 November 2014. 9 pp. Available online: http://www.agforward.eu/index.php/en/agroforestry-with-ruminants-in-france.html
Luske B (2014). Initial Stakeholder Meeting Report: Fodder trees for cattle and goats in the Netherlands. 6 October 2014. 6 pp. Available online: http://www.agforward.eu/index.php/en/fodder-trees-for-cattle-and-goats-in-the-netherlands.html

5.2 Characterising the systems (started)

[Objective 5.2](#) is to describe the key inputs, outputs and ecosystem service flows for the selected systems. This is a key focus of work ([Task 5.2](#)) during the next twelve months, culminating in a report ([Deliverable 5.13](#)) describing the components, structure and outputs of the systems in December 2015. A first round of the descriptive parameters was circulated among the work-package partners in December 2014.

5.3 Identify testable innovations and establish protocols (nearing completion)

Objective 5.3 is to agree, within the PDRN, the key innovations or improvements in quantification that could promote the uptake of agroforestry by livestock farmers. This has been achieved (**Task 5.3**) by agreeing the innovations to be tested by each group either at experimental sites or on-farm. An initial presentation of the innovations was made at an Executive Committee Meeting at Beauvais, France on 5 December 2014. This was followed by Skype and e-mail correspondence. **Milestone 21** comprising a report of the innovations to be tested was due in December 2014, and was placed on the AGFORWARD website in January 2015.

Table 5.5. Reference for the reports describing innovations for agroforestry for livestock farmers (**Milestone 21**)

Hermansen JE, Kongsted AG, Bestman M, Bondesan V, Gonzalez P, Luske B, McAdam J, Mosquera-Losada MR, Novak S, Pottier E, Smith J, van Eekeren N, Vonk M, Burgess PJ (2015). Agroforestry Innovations to be evaluated for Livestock Farmers. Milestone 5.2 (MS 21) for EU FP7 Research Project: AGFORWARD 613520. 10 pp. Available online: <http://www.agforward.eu/index.php/en/agroforestry-innovations-to-be-evaluated-for-livestock-farmers.html>

A first area of focus is to close the knowledge gap between researchers and practitioners. A 'best practice guide' (based on the experience of practitioners and the theoretical knowledge of researchers) will be developed. Further, knowledge of the nutritional value of the components of the shrubs and trees being used in agroforestry systems will be collated.

A second area of focus is the need for new experimental work. The following experiments are planned: 1) the nutritional value of woody vegetation for livestock (France and Spain), 2) the effect of trees on minimising nitrate leaching with free-range pigs (Denmark), 3) the identification of shade-tolerant swards in poultry systems (UK), and 4) the productivity of sheep silvopastoral systems (UK and France).

The third area of focus is the development of demonstration activities. The following trials and demonstrations were planned: 1) Cattle preference for the leaves of different tree species (Netherlands and the UK), 2) The protection of young trees from sheep, cattle or pigs (France, Netherlands, Italy, and Denmark), 3) Interactions between trees and the behaviour and welfare of pigs (Italy and Denmark), 4) Effect of tree layout and management on use of the range by poultry (UK and Netherlands). 5) Effect of tree layout on animal welfare, forage production, and labour use in dairy systems (planned in France). 6) the effect of different tree cultivars (UK), and 7) the effect of system designs on an agroforestry system for goats and poultry (Netherlands).

Work has also progressed on the next output (**Milestone 22**) to deliver an experimental protocol describing the tests of innovations which falls within the next reporting period.

5.4-5.5 Test and analyse innovations to provide guidelines (started)

Now that the key innovations have been established, the participants of the work-package have started to address **Objective 5.4**: to implement the protocols, to develop and test the proposed innovations, and to analyse and interpret the results. This will be achieved through experiments

(Task 5.4) and on-farm testing (Task 5.5). This will lead to a report (Milestone 23) describing the preliminary results of the innovations and wider perspectives in August 2016.

5.6 Dissemination of results (on-going)

An on-going objective of the work-package (Objective 5.5) is to provide and promote guidelines for farmers on how to establish economically viable agroforestry practices within poultry, ruminant and pig production systems (with work-package 9). The reports outlined in Table 9.4 provide a summary of key dissemination activities in 2014.

5.7 Co-ordination of the work in work-package 5

The work-package leader (John Hermansen) has participated in Executive Board meetings and WP5 Skype meetings. Each partner also attended the launch meeting at Cranfield University in the UK on 21-22 January 2014, and the AGFORWARD project meeting in Cottbus, Germany, including a work-package 5 workshop. In addition a number of Skype meetings focused on work-package 5 have been held.

5.8 Use of resources in work-package 5 (1 January to 31 December 2014)

At the end of December 2014, 16.89 person months had been allocated to work-package 5, equivalent to 18% of the total. This is in line with expectations.

Table 5.6. Person-month inputs to work-package 5

	Indicated (Jan-Dec 2014)	Project total
ORC	4.49	14
INRA	3.54	14
LBI	1.94	13
USC	1.80	7
ACTA (IDELE)	1.60	5
VEN	1.57	9
AU	1.50	17
ISA	0.25	3
EURAF	0.20	2
AFBI	0.00	8
Total	16.89	92

5.9 Issues and actions

There are no major issues with this work-package and progress is proceeding to plan.

6 Work package number 6

Work-package number	6
Work-package name	Field- and farm-scale evaluation of innovations
Leader	João HN Palma
Organisation	Instituto Superior de Agronomia, Universidade de Lisboa
Report period	1 January to 31 December 2014

Objectives and tasks within work package 6

João Palma is leading this work package which is evaluating agroforestry innovations at a field- and farm-scale. The main milestones and deliverables occur during the remaining three years (Table 6.1), although there was one early milestone (Table 6.2).

Table 6.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 6 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
WP6 Field and Farm Evaluation																													
T6.1 Collate climate database (MS26)						M																							
T6.2 Identify practices to model (MS27)																		M											
T6.3 Collate market-values (MS28)																													
T6.4 Collate non-market data (MS29)																													
T6.5 Improve models (MS29; MS30)																													
T6.6 Collect biophysical data (MS28)																													
T6.7 Collect data for WP7 (MS28)																													
T6.8 Model innovations (D6.16; D6.17; D6.18)																													
T6.9 Co-ordinate WP6																													

Table 6.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Due date	Status
MS26 Project database of climate data for model use Palma, JHN (2014). Project database of pan-European simulated climate data for default model use. Milestone 6.1.	June 2014	Completed and on intranet

6.1 Establish a participatory research and development network (completed)

The first activity ([Task 6.1](#)) was to develop a pan-European database of current and future climate data for biophysical model use. ISA led the development of this database which was delivered on time. The report is available on the internal AGFORWARD intranet site (Table 6.2) and online at the following site: <http://home.isa.utl.pt/~joaopalma/projects/agforward/clipick/>

6.2 Identify innovation practices to model (started)

The second task ([Task 6.2](#)) is to identify the agroforestry systems and practices to model. This will result in a report ([Milestone 27](#)), confirming the agroforestry systems and innovations to be modelled at a field- and a farm-scale. The choice will depend, in part, on data availability, and the feasibility of modelling the innovations described in [Milestones 3, 9, 15, and 21](#).

6.3 Database for physical parameters for the agroforestry systems (started)

The third activity ([Task 6.3](#)) is to develop a database for the consistent description of the agroforestry systems. This will include site, tree component, crop component, livestock component, technical, and economic data. João Palma and Josep Crous-Duran (ISA) and Paul Burgess and Anil Graves (CRAN) have distributed a template for the description of agroforestry systems in Yield-SAFE. These key parameters are being described in the experimental protocols which are now being produced for each stakeholder group. For example CRAN is collecting data to inform the biophysical Yield-SAFE model and the bio-economic Farm-SAFE model to describe the interactions between apple orchards and grazing sheep. AFBI has also provided details of orchards, husbandry techniques and parameters recorded at Loughgall in Northern Ireland, UK.

The analysis will also include an assessment on the premium that stakeholders are willing to pay for agroforestry products. Paul Burgess (CRAN) has completed an initial research study on the premiums that are currently achieved in the UK for woodland or “tree-sheltered” eggs (Burgess et al., 2014).

6.4 Database for non-market ecosystem values (started)

The fourth task ([Task 6.4](#)) is to determine the impact of the systems on ecosystem services, and many of these do not have a readily-available market value. This is needed to achieve [Objective 6.4](#) which is to evaluate the “supporting” and “regulating” services of agroforestry systems, and [Objective 6.5](#) which is to evaluate the cultural service provided by agroforestry systems. ISA have started to collate information on existing models and data to assess ecosystem services of agroforestry. During 2014, Anil Graves (CRAN) also supervised two Masters’ theses: one focused on the comparison of the value of market and non-market ecosystem services on the inclusion of selected cultural ecosystem services for a case study arable and silvoarable system in the UK (Andreola, 2014). The second undertook an economic evaluation of an innovative agroforestry system combining short rotation coppice with high value trees (Erdenebat, 2014). Both used the Yield-SAFE and Farm-SAFE agroforestry models in a combined bio-economic modelling approach.

6.5 Improving the Yield-SAFE and Hi-SAFE models (started)

The fifth task ([Task 6.5](#)) is to improve two existing biophysical models (Yield-SAFE and Hi-sAFe) which describe the interactions between trees and crops, in the context of different climatic, soil, and management conditions.

Paul Burgess and Matt Upson (CRAN) have produced a new version of Yield-SAFE in Excel that includes a root/water function which allows young trees to be more sensitive to drought. The updated model has been used to update the description of the silvoarable experiment at Silsoe in the UK for 19 years of tree growth. The updated model is available on the internal AGFORWARD intranet site.

At ISA, João Palma has partially translated Yield-SAFE into the Python programming language and an automatic calibration procedure has been implemented that optimizes parameter value findings. This will also be used for [Deliverable 9.27](#). CRAN and ISA have also developed a change log to describe improvements that have been made to the Yield-SAFE model since 2006. AGROOF has also

adapted the Farm-SAFE model (a combination of Yield-SAFE with an economic model) for the project, focusing on the removal of some errors and the inclusion of a livestock component.

6.6 Collecting the biophysical data for model validation and calibration (started)

In [Task 6.6](#), ISA, INRA, and CRAN are working with the other project partners to collect the biophysical information that is needed to validate and calibrate the use of the Yield-SAFE and Hi-SAFE models to evaluate the efficacy and cost-effectiveness of the innovations identified by work-packages 2, 3, 4 and 5. ISA has already circulated templates for gathering the basic information of the agroforestry systems to be modelled. After the identification of the systems to model, a second phase will be initiated for gathering the biophysical data need for modelling purposes.

At CRAN, Matt Upson and Paul Burgess have used new poplar agroforestry data to update the parameters for poplar and arable crops in Yield-SAFE. In Spain, USC has also started to use the Yield-SAFE model. Numerous partners are starting to collect data. For example, ORC in the UK is collecting data on the productivity of short rotation coppice, FDEA in Switzerland is collecting data from three sites, and CRA in Italy is collecting data on an intercropped olive system.

6.7 Collecting management and economic data for model validation and calibration (started)

[Task 6.7](#), effectively is similar to [Task 6.6](#) except that the focus is on management and economic parameters. Paul Burgess (CRAN) has collected some of the economic and management parameters for woodland egg systems which were reported in a paper presented at the European Agroforestry Conference on 4-6 June 2014 (Burgess et al., 2014).

6.8 Modelling of agroforestry management options

[Objective 6.7](#) is to compare the long-term financial impact of the proposed agroforestry systems relative to a base-line, which are often monoculture systems. [Objective 6.8](#) focuses on the long-term ecosystem services impact, [Objective 6.9](#) focuses on risk and uncertainty, and [Objective 6.10](#) is to use such evaluations to identify how and when agroforestry can offer benefits. Each of these objectives is addressed by [Task 6.8](#) which comprises the modelling of a range of stakeholder-defined management options. These objectives are to be addressed in the next reporting period.

6.9 Co-ordination of the work-package

The last task ([Task 6.9](#)) of this work-package is to co-ordinate and synthesise the work. João Palma (ISA) and each partner attended the launch meeting at Cranfield on 21-22 January 2014. João also gave a presentation outlining work-package 6. João Palma and Josep Crous-Duran (ISA) also presented an update on WP6 at the General Assembly Meeting at Cottbus, Germany (2-4 June 2014).

In addition, João Palma (ISA) and Christian Dupraz (INRA) also participated in the monthly Executive Board meetings held by Skype. Anil Graves, Joao Palma, and Josep Crous Duran also attended the WP7 workshop in Copenhagen (Nov 2014) to ensure good links between work-package 6 and 7.

6.10 Use of resources in work-package 6

At the end of December 2014, 17.36 person months had been allocated to work-package 6, equivalent to 9.5% of the total (Table 6.3). This is in line with expectations as the key tasks take place

during the final three-quarters of the project. Note that the inputs to the project from INRA have been less than expected due to a delay in recruiting a post-doctoral fellow.

Table 6.3. Person-month inputs to work-package 6

Organisation	Indicated (Jan-Dec 2014)	Project total
ISA	11.64	53.5
CRAN	2.13	44
BTU	1.78	6
TEI	0.56	3
EFI	0.37	3
CNR	0.20	1
AGROOF	0.20	5
CRA	0.13	1
ORC	0.11	3
USC	0.10	2
UEX	0.10	6
FDEA	0.04	1
ACTA	0	3
INRA	0	41
UPCH	0	2
AGBI	0	2
AU	0	4
LBI	0	1
ICRAF	0	2
Total	17.36	183.5

6.11 Issues and actions

In general this work-package is progressing well. However, it is currently anticipated that the next milestone ([Milestone 27](#)) to confirm the systems and innovations to model will be delayed by two months to April 2015, because of the need to collate the protocol summaries from work-package 2 to work-package 5. Due to the delay in the recruitment of a post-doctoral fellow at INRA-SYSTEM, we recommend that [Milestone 30](#) on improving the existing Hi-sAFe model will also be delayed from August 2015 to February 2016. We anticipate that this will not adversely affect the timely submission of deliverables.

7 Work package number 7

Work-package number	7
Work-package name	Landscape-scale evaluation of innovative agroforestry
Leader	Tobias Plieninger, with support of Nora Fagerholm
Organisation	University of Copenhagen
Report period	1 January to 31 December 2014

Objectives and tasks within work package 7

The University of Copenhagen (UCPH) is leading this work package to evaluate agroforestry at a landscape-scale. The key objective during the first year has been the creation of a protocol for assessing biodiversity, ecosystem services and farm profitability related to agroforestry at landscape scale and the selection of 12 sample sites for landscape analysis (Table 7.1). The two planned milestones for the period have been completed (Table 7.2).

Table 7.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 7 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
WP7 Landscape-scale evaluation																									
T7.1 Synthesise existing knowledge; create protocols (MS31; D7.19)												M													D
T7.2 Select and characterise systems/landscapes (MS32; MS33)												M													M
T7.3 Assess biodiversity and ecosystem systems under scenarios (MS34; D7.20)																									M
T7.4 Economic analysis (MS35)																									
T7.5 Identify synergies/trade-offs (D7.21)																									
T7.6 Upscale and map results (D7.22)																									
T7.7 Co-ordinate WP7																									

Table 7.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Due date	Status
MS31 Standardised protocol for biodiversity, ecosystem services and farm profitability	Dec 2014	Completed
MS32 Selection of key agroforestry systems and 12 sample landscapes for landscape evaluation	Dec 2014	Completed in January 2015

7.1 Biodiversity, ecosystem services and profitability of agroforestry (started)

Objective 7.1 is to systematise existing knowledge of the outcomes of European agroforestry systems in terms of biodiversity, ecosystem services and farm profitability. This is being achieved (**Task 7.2**) by a synthesis primarily using systematic review and meta-analysis resulting in a report in December 2015 (**Deliverable 7.19**). Supporting this, the partners in this work-package, led by UCPH, have developed a standardised protocol for describing biodiversity, ecosystem services, and profitability (**MS31**) (Table 7.3).

Table 7.3. References for [Milestones 31](#) and [32](#)

Fagerholm N, Plieninger T, Bailey D, Burgess PJ, Graves AR, Herzog F, Junquera V, Moreno G, Szerencsits E (2014). Standardised protocol for biodiversity, ecosystem services and farm profitability. Milestone 7.1 (MS31) for EU FP7 Research Project: AGFORWARD 613520. 97 pp.
Moreno G, Aviron S, Crous-Duran J, Fagerholm N, Ferreiro-Domínguez N, Hartel T, Palma J, Plieninger T, Szerencsits E, Thenail C, Torralba M, Viaud V. (2015). Selection of key agroforestry systems and 12 sample landscapes for landscape evaluation, Milestone 7.2 (MS32) for EU FRP7 research project: AGFORWARD 613520. 10 January 2015 91 pp,

7.2 Selection of sample landscapes

Objective 7.2 is to select 12 sample landscapes in Mediterranean, Continental, Atlantic and Northern Europe for a landscape-scale analysis of agroforestry systems. During 2014, this has been achieved through a series of meetings (**Task 7.2**) to identify the sites involving a range of partners. The identified sites are described in [Milestone 32](#) and summarised in Table 7.4.

Table 7.4. Description of the sample sites identified for the landscape analysis and the link partner

Agroforestry system	Agro-ecological zone			
	Mediterranean	Continental	Atlantic	Others
Agroforestry systems of high nature and cultural value (WP2)	Cork Oak Montado, Portugal (ISA)	Wood pasture Romania (UBB)	Bocage France (INRA)	Fennoscandian wood pastures (UCPH)
Agroforestry systems with high value tree (WP3)	Olive tree system Greece (TEI)	Fruit orchards (FDEA)	Chesnut soutos Spain (USC)	
Agroforestry systems for arable lands (WP4)	Intercrop oaks Spain (UEX)	Intensive arable system with trees/ woodlands Germany (UCPH)	Silvoarable landscapes at Gers, France (INRA)	
Agroforestry systems for livestock (WP5)	Holm Oak Montado Spain (UEX) (Cattle, sheep and pig)	Wood pastures Switzerland (FDEA) (Horses and cattle)	Pre-vergers or wood pastures in France (ACTA)	

7.3 Assessment of biodiversity and ecosystem services (started)

Objective 7.3 is to assess the biodiversity and ecosystem services provided by agroforestry in the sample landscapes (Table 7.4). Following the procedures described in the protocol ([Milestone 31](#)), the assessment will start in two pilot areas during 2015. The protocol will be reviewed before extending it to the remaining sites in 2016.

7.4 Cost-benefit analysis at farm- and landscape-scales (started)

Objective 7.4 is to perform a financial and economic cost-benefit analysis at farm and landscape scales. CRAN has developed the protocol for this and is leading the related activities ([Task 7.4](#))

primarily based on the FARM-SAFE bio-economic model. The process is being tested on two pilot sites in 2015, and will be reviewed before being rolled-out to the other sample sites.

7.5 Synergies and trade-offs (not started)

Objective 7.5, which is to identify synergies and trade-offs between economic and environmental outputs at a landscape-scale, depends on the preceding tasks described above, and is due to start in June 2016.

7.6 Upscaling the landscape results (not started)

Objective 7.6 is to upscale the findings to assess the potential of agroforestry at national and European scales, and to provide guidance for agroforestry policy development. This activity (**Task 7.6**), which is due to start in June 2016, will build on the work being undertaken by EFI in work-package 1.

7.7 Co-ordination of the work-package (on-going)

Tobias Plieninger has led **Task 7.7**, which is to co-ordinate and the synthesise work-package 7. He has participated in the launch meeting (21-22 January 2014) and has participated in the monthly Executive Board meetings. Tobias also organised a one-day workshop on WP7 in Cottbus on 4 June 2014. This was attended by three staff from UCPH, four staff from USC, four staff from UEX, three staff from INRA, two staff from CRAN, two staff from EFI, and representatives of ICRAF and ACTA. On 11-12 November 2014, a further two day workshop was held in Copenhagen. This was attended by five staff from UCPH, three staff from FDEA, and representatives from USC, UEX, UBB, ISA and CRAN. Jan Skalos from the Czech University of Life Sciences was an invited guest. One representative from EFI and three staff from INRA joined through Skype.

7.8 Use of resources in work-package 7

At the end of December 2014, 32.14 person months had been allocated to work-package 7, equivalent to 26% of the total (Table 7.5).

Table 7.5. Person-month inputs to work-package 7

	Indicated (Jan-Dec 2014)	WP 7 total
UCPH	15.00	35
INRA	8.18	11
FDEA	2.95	28
UEX	1.50	10
ACTA	1.26	5
ISA	1.00	6
UBB	0.71	10
CRAN	0.71	6
USC	0.50	3
EFI	0.33	9
ICRAF	0.00	1
Total	32.14	124

7.9 Issues and actions

In broad terms, the work-package is progressing well. However the work-package leader and the Co-ordinator have expressed concern that the 8.18 person-months by the INRA team at Rennes (out of a total of 11) is at a much higher rate than expected. This was associated with the recruitment of a post-doctoral research in April 2014, and some initial work on Task 7.1, and who is now working on Task 7.2. The Co-ordinator has discussed the issue with the INRA-Rennes team, who have confirmed that the current rate of allocating person-months will not affect their ability to fully contribute to the milestones and deliverables of work-package 7.

8 Work package number 8

Work-package number	8
Work-package name	Policy
Leader	Rosa Mosquera-Losada
Organisation	University of Santiago de Compostela
Report period	1 January to 31 December 2014

Objectives and tasks within work package 8

Professor Rosa Mosquera-Losada is leading work-package 8 which focuses on policy. Since June 2014, Rosa has also been the President of the European Agroforestry Federation, which also plays a key role in this work-package. The key activity during the first year has been the analysis of policy measures (Table 8.1). There were no milestones or deliverables due in the first reporting period, but these are due soon.

Table 8.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 8 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
WP8 Agroforestry policy development																													
T8.1 Recent policy measures (D8.23)																													
T8.2 Policy scenarios for WP7 (MS37)																													
T8.3 Analyse policies to produce map (MS36) and recommendations (D8.24)																													
T8.4 Co-ordinate WP8																													

8.1 Current extent of agroforestry policy measures (started)

Objective 8.1 is to describe the current extent of agroforestry measures across the EU. To achieve this (**Task 8.1**), the project partners have identified the key agroforestry policy measures in their own countries. This is scheduled to lead to a report (**Deliverable 8.23**) on the extent and success of current policy measures to promote agroforestry across EU in April 2015.

USC has met and corresponded with representatives of the European Commission, and regional and national policy makers. They have also completed a literature review of the main Pillar I and Pillar II documents between 2003 and the last delegate acts which appeared in April 2014. Policies in the USA have also been evaluated. The work-package has also developed some maps of the implementation of current and recent agroforestry policies. In addition to the rural development regulations (1305/2013), staff from EURAF and EFI have also reviewed directives 1306/2013 (dealing with financing and monitoring) and 1307/2013 (dealing with the rules for direct payments).

In Spain, UEX has worked with stakeholders to follow the implementation of new CAP at regional and national level, with special focus on the implementation of measure 8 (article 23 of the EU Regulation No 1305/2013) and on the eligibility of wood pastures.

In Italy, CNR has carried out an assessment of the implementation of the Measure 222 across the Rural Development Programmes of the EU27 between 2007 and 2013. CRA has also worked with EURAF and local Italian organisations to describe recent policy in Italy.

In Hungary, NYME met with the representatives of the Ministry of Rural Development on 24 June 2014 to discuss the role of agroforestry and the implementation of Article 23 Reg. 1305/2013 in the Hungarian rural development programme.

In the UK, ORC has undertaken a UK policy review, and AFBI has conducted a survey of farmer attitudes to tree planting (including their views on tree-pasture options) to be built into forestry support policy in Northern Ireland.

In Portugal, ISA has translated the guidelines related to the implementation of agroforestry systems (8.1.2) of the new Portuguese rural development programme into English, and this was published in the EURAF Newsletter.

EFI and USC staff have also worked together to develop a draft survey and policy questionnaire. Marko Lovric and Mercedes Rois (EFI) have also surveyed experts on the effectiveness of policy measures and factors framing agroforestry development (which will also inform [Deliverable 1.3](#)).

In her role as EURAF president, Rosa Mosquera has had the opportunity to take part in the civil dialogue groups on “Arable crops”, “Direct payments and greening”, and “Forestry and cork”; promoting, where appropriate, the inclusion of agroforestry science in their strategies. Rosa also assisted in the “think forest” meeting at the European Parliament organized by EFI, and the European Commission meeting of the European Structural and Investment Fund (ESIF). Rosa also presented amendments to the draft report of the European Parliament for the inclusion of the agroforestry concept within the modification of the “European Forestry Strategy”.

8.2 Policy scenarios (not started)

[Task 8.2](#) is to recommend policy scenarios for the scaling-up exercise in work-package 7. This work is due to start in June 2015 for completion in December 2015. This will be informed by the current rural development programmes, and will help address [Objective 8.3](#) which is to provide guidance on how future policy development.

8.3 Analysis of the success of policies (started)

The rural development proposals for 2007-2013 included options for agroforestry, but there was substantial variation in implementation. To aid this process, EFI and EURAF are creating a series of maps and indicators are being developed to illustrate agroforestry policies across Europe ([Milestone 37](#)). Working with [Deliverable 8.23](#), the work-package will produce a report ([Deliverable 8.24](#)) on how policy can promote the appropriate use of agroforestry across Europe in June 2017.

8.4 Co-ordination of the work-package (on-going)

Rosa made a presentation at the launch meeting (21-22 January 2014) and at the General Assembly (2-4 June 2014). She has also played an active role in the monthly Executive Committee Meetings.

8.5 Use of resources in work-package 8

At the end of December 2014, 7.09 person months had been allocated to work-package 8, equivalent to 12% of the total. This is in line with expectations as the key tasks take place during the final three-quarters of the project.

Table 8.2. Person-month inputs to work-package 8

	Indicated (Jan to Dec 2014)	Project total
EURAF	2.60	12
USC	1.70	16
EFI	0.76	2
ISA	0.50	2
CNR	0.50	2
TEI	0.26	2
CRA	0.25	2
ORC	0.15	6
AFAF	0.12	5
UEX	0.10	1
NYME	0.08	1
Wervel	0.07	1
AFBI	0	0.5
BTU	0	2
UCPH	0	2
LBI	0	1
UBB	0	1
ICRAF	0	1
Total	7.09	59.5

8.6 Issues and actions

It is proposed that the submission to the EC Portal of [Deliverable 8.23](#) on current policies should be delayed from month 16 (April 2015) to month 22 (October 2015). Whilst a report on the 2007-2013 policies will still be available for placing on the AGFORWARD website in April 2015, it is recommended that this should be a milestone and that the deliverable to be submitted to the EC also include the policies in the current round of the common agricultural policy (2014-2020). Hence the Co-ordinator and the Project Management team recommend that [Deliverable 8.23](#) (currently due in April 2014) is delayed to October 2014, so that it can comment on the implementation of current rather than just recent agroforestry measures.

9 Work package number 9

Work-package number	9
Work-package name	Dissemination
Leader	Fabien Liagre
Organisation	AGROOF
Report period	1 January to 31 December 2014

Fabien Liagre, from AGROOF, is leading the dissemination work package, which has three objectives: **Objective 9.1**: to promote agroforestry systems; **Objective 9.2**: to raise awareness of agroforestry in training programmes, and **Objective 9.3**: to encourage effective use of knowledge through exchange. These three objectives are implemented through seven tasks (Table 9.1). This work-package has already delivered a steady stream of milestones and deliverables (Table 9.2)

Table 9.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 9 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	
WP9 Dissemination																													
T9.1 Establish engagement protocol (M38)			M																										
T9.2 Establish (D9.25) web platform and produce updates (M39)			M			D			M								M												M
T9.3 Produce material for groups including network maps (D9.26), national associations (D9.28), literature (D9.30)																													
T9.4 Communicate with stakeholders (M40)						M																							M
T9.5 Produce research (D9.27) and education tools (D9.27, D9.29)																													
T9.6 Coordinate conference (D9.31)																													
T9.7 Co-ordinate WP9																													

Table 9.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Due date	Status
M38 Dissemination protocol	Mar 2014	Completed 2 April 2014
M39 Quarterly website updates	Quarterly from June 2014	Completed according to schedule and on-going
M40 Quarterly newsletter	Quarterly from June	Completed according to schedule and on-going
D9.25 Interactive platform www.agforward.eu	June 2014	Completed, although on-going
D9.26. Map of experimental and demonstration plots	Dec 2014	Achieved Feb 2015, but still evolving.

9.1 Dissemination and stakeholder engagement protocol

The first activity ([Task 9.1](#)) of this work-package was to develop a dissemination and stakeholder protocol. At the start of the project, ISA, CRAN, TEI, AGROOF, EURAF, USC and EFI developed a dissemination protocol ([Milestone 38](#)), which included the development of a photograph library (using Flickr) and the organization of web translation. The protocol was reviewed and accepted on 2 April 2014, just after the scheduled date of March 2014.

Burgess P, den Herder M, Liagre F (2014). Milestone 9.1 (MS38) Report on Communication and Dissemination Protocol for the Project. 2 April 2014. Internally available on the AGFORWARD intranet.

9.2 Interactive internet platform

The second activity ([Task 9.2](#)) was to develop an interactive internet platform detailing how agroforestry can provide social, environmental, and economic benefits. This already includes videos, pdf documents, booklets, and links, and there is also a plan to include audio documents and special web pages for market-driven products.

The www.agforward.eu website was registered before the start of the project by Cranfield University. AGROOF developed the AGFORWARD website which went live on 21 March 2014 (Figure 9.1). The website is primarily presented in English, but the key front pages have been translated into Portuguese, Greek, Spanish, French, German and Italian. There remains the plan to also translate the key pages into Hungarian, Dutch, Danish and Romanian.

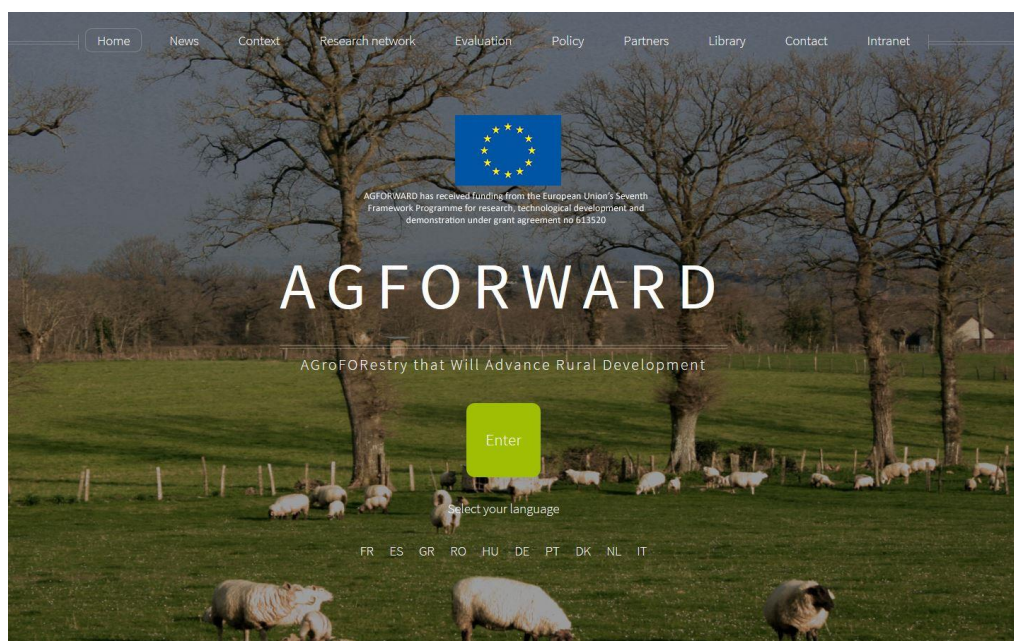


Figure 9.1. Screen shot of the AGFORWARD website: www.agforward.eu

Videos: A 17 minute video by AGROOF called “Agroforesterie: Enjeux et Perspectives” has been added to the website. The original video is in French, but EURAF and others have provided subtitles in English, Portuguese, Greek, Italian, and Spanish. The video has also been distributed to European

social networks for rural development on Twitter and Facebook. In addition a pre-existing four minute video called “On the ground” and focusing on the Montado agroforestry system has been uploaded to the AGFORWARD website.

Table 9.3. Videos that have been made available on the AGFORWARD website

“Agroforesterie: Enjeux et Perspectives”
 “On the ground: agroforestry and the Common Agricultural Policy”
<http://agforward.eu/index.php/en/resources.html#video>

News items: a team including CRAN, Agroof, TEI, ISA, INRA, and USC has provided news items for the AGFORWARD site, and as of 31 December 2014, 15 items had been posted.

<http://www.agforward.eu/index.php/en/news.html>

Photo library: EFI (Michael den Herder and Mercedes Rois) and ISA have also launched a Flickr photo library account for AGFORWARD. EFI, ISA, CRAN, AGROOF, TEI, CRA, BTU, UEX have uploaded about 280 publicly available agroforestry photos on Flickr.

9.3 Literature and guidance for specific user groups

The third task ([Task 9.3](#)) is wide-ranging focusing on developing literature and guidance for specific groups. This includes i-ii) farmers, land owners and businesses, iii) extension services, iv) researchers, v) policy makers, and vii) national agroforestry communities.

On the following pages in [Table 9.4](#), we list some of the key dissemination activities of the project. In 2014, this included radio and TV interviews, social media activities, the second European Agroforestry Conference, 25 oral presentations, 22 poster presentations, 16 newsletter articles, four policy activities, 19 workshop activities (in addition to the stakeholder groups), and eight training activities. These have also been entered onto the European Commission research portal.

Farmers, landowners and businesses. Such groups are already benefiting from the stakeholder groups and meeting reports that are available through the AGFORWARD website. The production of a series of booklets ([Deliverable 9.30](#)) by August 2017 is a key output of the project and during 2015 a working group will be established in line with the dissemination protocol ([Milestone 38](#)).

Researchers. An initial useful resource for researchers is a European map of the participative research and development networks ([Deliverable 9.26](#)) ([Figure 9.2](#)). AGROOF created the structure of the map in December, and a map of stakeholder groups was released on the website on 11 February 2015. During the coming year, the project will update the map with details of agroforestry experimental and demonstration plots both within AGFORWARD and within the wider community.

Table 9.4. List of the key dissemination activities of the AGFORWARD project by type of activity and then date order.

Types of audience: SC: scientific community (higher education, research), I: Industry; CivS: Civil society; Pol: Policy makers; M: Media.

#	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
	Website/social media							
1	Web sites/Applications	AGROOF	Launch of project website www.agforward.eu	24 Mar 2014	International	SC, I, CivS, Pol, M		International
2	Web sites/Applications	ISA	Establish AGFORWARD Facebook site https://www.facebook.com/AgforwardProject	20 Oct 2014	On-line	SC, I, CivS, PM, M	500	International
3	Web sites/Applications	CRAN	Establish AGFORWARD Twitter site https://twitter.com/agforward_eu	24 Oct 2014	On-line	I, CivS, PM, M	1000	International
4	Web sites/Applications	EFI	Launch of project flickr site: https://www.flickr.com/photos/agforward	1 March 2014	International	CivS	1000	Global
5	Web sites/Applications	Veneto	www.agroforestry.it	1 January 2014	Italy	I, CivS, M, PM	1000	Italy
6	Web sites/Applications	LBI	www.agro-forestry.nl	1 January 2014	Netherlands	I, CivS, M, PM	1000	Netherlands, Belgium
7	Web sites/Applications	CRAN	AGFORWARD news item on Cranfield website http://www.cranfield.ac.uk/about/media-centre/news-archive/news-2014/project-to-change-the-face-of-farming.html	23 Jan 2014	UK	I, CivS, M		UK
	Conference							
8	Organisation of Conference	EURAF	2 nd EURAF conference Germany, Spain, France, UK, Italy, Belgium, The Netherlands, Switzerland, Finland, Denmark, Poland, Hungary, Austria, Portugal, Ireland, Czech Republic, Croatia	4 June 2014	Cottbus, Germany	SC, I, PM	100	Europe
9	Organisation of Conference	EURAF	France National Agroforestry Conference	1 Dec 2014	Paris, France	SC, I, PM	100	France
	Media interviews							
10	Interviews	CRAN	Agroforestry interview with Paul Burgess on the UK BBC Radio 4 "Farming Today" programme	30 Jan 2014	UK	I, CivS, M	700,000	UK

11	TV clips	TEI	The olive stakeholders meeting, including a description of the project, was broadcasted by the local TV: http://webtv.lamiastar.gr/index.php?view=videos&video_id=1403847423	25 Jun 2014	Greece	CivS		Greece
12	TV clips	TEI	The trees with arable crops stakeholders meeting, with a description of the project, was broadcasted by the local TV and is on-line at: http://www.tovoion.com/news/tovoion-tv-1 (part A), http://www.tovoion.com/news/tovoion-tv-1 (part B), and on https://www.youtube.com/watch?v=pCaSqwQdT5s	11 Jul 2014	Greece	CivS		Greece
	Oral presentations							
13	Oral presentation to a scientific event	CRAN	Introducing AGFORWARD a project to advance Agroforestry in Europe (World Agroforestry Congress)	12 Feb 2014	Delhi, India	SC, PM	50	Germany, Spain, France, UK, Italy, Belgium, USA, Australia, India, Chile
14	Oral presentation to a scientific event	CRAN	Using participative stakeholder networks to promote agroforestry in the UK. Presentation at UK Farm Woodland Forum meeting, Dartington College,	14 May 2014	Dartington, UK	SC	35	UK
15	Oral presentation to a scientific event	ORC	Wakelyns Agroforestry: functional biodiversity in an organic silvoarable system	14 May 2014	Dartington, UK	SC	35	UK
16	Oral presentation to a wider public	INRA	Presentation of the collaborative approach of the AGFORWARD project to develop a Participatory Research and Development Network, in the frame of the stakeholders end meeting of "Praiface Casdar project"	7 April 2014	Bressuire, France	SC, I	50	France
17	Oral presentation to as scientific event	ORC	Presentation: <i>Delivering food production, biodiversity and other ecosystem services in UK agriculture: can agroforestry do it all? At:</i>	15 Apr 2014	Edinburgh University	SC, PM, I	200	UK

			SRUC SEPA conference “Delivering Multiple Benefits from our Land”					
18	Oral presentation to as scientific event	ISA	João Palma participated as invited speaker at the XV Week of Agrarian Sciences – Family farming in the XXI century, Bragança, Portugal with the topic Modern Agroforestry- Vision, Opportunities and Challenges	12 May 2014	Bragança, Portugal	SC	50	Portugal
19	Oral presentation to as scientific event	ISA	Projeto pegada de carbono da cortiça: das árvores aos produtos. Seminário A importância da Gestão do Montado para as Aves e para o Ambiente	31 May 2014	Coruche, Portugal	Landowners, Scientific community	20	Portugal
20	Oral presentation to a scientific event	CRAN	The Economics of Woodland Eggs in the UK	5 June 2014	Cottbus, Germany	SC, PM	100	Europe
21	Oral presentation to a scientific event	ISA	Holistic agroforestry system in practice. Just an idea or is there a living model? (European Agroforestry Conference)	4 June 2014	Cottbus, Germany	SC	50	Europe
22	Oral presentation to a scientific event	CNR	The role of Rural Development Policy in supporting agroforestry systems in EU	4 June 2014	Cottbus, Germany	SC, PM, I	50	Europe
23	Oral presentation to a scientific event	AFBI	Introducing AGFORWARD a project to advance Agroforestry in Europe Title Grazing in Orchards – Is it an Option?	26 Jun 2014	Northern Ireland	SC, PM, I	50	Germany, UK, Belgium
24	Oral presentation to a scientific event	USC	Oportunidades y retos de los pastos frente a la nueva PAC en un contexto de cambio climático. Paper download. Key-note speech in 53 Reunión científica de la SEEP. Potes	1 June 2014	Cantabria, Spain	SC, PM	Broad	Spain
25	Oral presentation to a scientific event	ISA	1 st Shareshop of the AGFORWARD project Portuguese AGFORWARD stakeholder meeting)	24 July 2014	Coruche, Portugal	I	20	Portugal
26	Oral presentation to a wider public	INRA	Talk by C. Dupraz and V. Viaud at Agroforestry event at the Marciac festival	1 Aug 2014	Marciac, France	CivS	100	France
27	Oral presentation to a scientific event	USC	Synergies between mitigation and adaptation to Climate Change in grassland-based farming systems Key-note speech in 25th European Grassland Federation EGF	1 October 2014	Aberystwyth, UK	SC, PM	500	Europe

28	Oral presentation to a scientific event	LBI	Introduction of trees on dairy and poultry farms: experiences dairy and poultry farmers' networks in The Netherlands. Oral presentation at IFOAM Organic World Congress	13 Oct 2014	Istanbul, Turkey	SC	40	International
29	Oral presentation to a scientific event	CNR	Agroforestry systems: a modern response to global challenges at AGROCOP conference	16 Oct. 2014	Porano, Italy	SC, PM, I	70	Italy, International
30	Oral presentation to scientific event	CRA	Combining olive growing and animal raising reduces the environmental impact: the olive chicken case. At Convegno nazionale dell'Olivoe e dell'olio.	1 Nov 2014	Bari, Italy	SC, PM	200	Italy
31	Oral presentation to scientific event	INRA	Talk by Marie Gosme on "Agroforestry and water management" at the French "Académie d'Agriculture"	5 Nov 2014	Paris, France	SC	100	France
32	Oral presentation to a wider public	INRA	Invited talk by C. Dupraz at the Quivira Coalition Conference, USA	14 Nov 2014	Albuquerque, NM, USA	I, SC, PM	600	Mexico, USA
33	Oral presentation to scientific event	INRA	Invited talk by C. Dupraz at the CIAG national conference (Organised by INRA)	20 Nov 2014	Angers, France	I, CivS, SC	400	France
34	Oral presentation to a scientific event	CNR	Tree farming, Agroforestry and the New Green Revolution. A necessary alliance.	26 Nov 2014	Firenze, Italy	SC, I, PM	100-200	Italy, International
35	Oral presentation to a wider public	ISA	Shareshop of the AGFORWARD project 2nd Portuguese AGFORWARD stakeholder meeting	28 Nov 2014	Vila Real, Portugal	I	20	Portugal
36	Oral presentation to a wider public	INRA	Invited Talk by C. Dupraz, French National Agroforestry day	1 Dec 2014	Paris, France	PM. CivS	200	France
37	Oral presentation to a wider public	INRA	Invited talk by C. Dupraz, Conference on Agroforestry in Belgium	3 Dec 2014	Gembloux, Belgium	SC, I	50	Belgium
	Poster presentations							
38	Posters	ISA	YieldSAFE estimation of modern cork oak silvoarable agroforestry contribution to CO ₂ sequestration in Portugal	10 Feb 2014	New Delhi, India.	SC, PM	2000	International
39	Posters	ISA	Assessment of cork production in new <i>Quercus suber</i> plantations under future climate	10 Feb 2014	New Delhi, India.	SC, PM	2000	International
40	Posters	ISA	SUBER – Tool for dynamic cork oak based agroforestry systems management in	10 Feb 2014	New Delhi, India.	SC, PM	2000	International

			Portugal,					
41	Posters	CRA	Olive, free-range chickens and wild asparagus: an agroforestry system in temperate climate. At World agroforestry congress.	10 Feb 2014	New Delhi, India	SC, PM	1000	International
42	Posters	NYME	Presentation at RENEXPO Central European Renewable Energy Expo)	12 Mar 2014	Budapest, Hungary	SC, I, PM, farmers	150	Central European Countries
43	Posters	INRA	Presentation of the forage system of INRA Lusignan (including pastures newly implemented with forage trees) at the annual congress of the Association for forage production	25 Mar 2014	Paris, France	SC, extension agents, technical institutes	170	France, Belgium, Luxembourg, Netherlands, Switzerland
44	Posters	EFI	Indicators explaining the benefits of agroforestry systems (European Agroforestry Conference).	4 June 2014	Cottbus, Germany	SC, PM	100	Europe
45	Posters	ISA	Innovating tree plantation design: Spiralographing agroforestry. (European Agroforestry Conference).	4 June 2014	Cottbus, Germany	SC	100	Europe
46	Posters	ISA	cliPick–Climate Change Web Picker. Bridging climate and biological modeling (European Agroforestry Conference).	4 June 2014	Cottbus, Germany	SC	100	Europe
47	Posters	ISA	Carbon balance estimation for Agroforestry land use alternatives in Portugal. (European Agroforestry Conference).	4 June 2014	Cottbus, Germany	SC	100	Europe
48	Posters	ISA	Calibration of the parameters of the Yield-SAFE model in silvopastoral systems under <i>Pinus radiata</i> (European Agroforestry Conference).	4 June 2014	Cottbus, Germany	SC	100	Europe
49	Posters	CNR	The role of development policy in supporting agroforestry systems in EU. At Second European AF conference.	4 Jun 2014	Cottbus, Germany	SC, I, PM	100	Europe wide
50	Posters	LBI	Goats choose to eat trees when having free choice	4 June 2014	Cottbus, Germany	SC	100	Europe
51	Posters	LBI	Feeding value of fodder trees	4 June 2014	Cottbus, Germany	SC	100	Europe

52	Posters	NYME	Presentation at European Energy, Environment and Development Conference, Prague	2 Apr 2014	Prague, Czech Republic	Scientific community	ca. 50	International
53	Posters	ISA	Preliminary use of YieldSAFE model to assess <i>Eucalyptus globulus</i> productivity in Portugal under future climate. (XXIV International Union of Forest Research Organisations World Congress)	Oct 2014	Salt Lake City, USA.	SC	About 4000 congress attendees	International
54	Posters	ISA	Forest models dissemination and knowledge transfer on cork oak based ecosystems: bridging the gap between research and practice. (XXIV International Union of Forest Research Organisations World Congress)	Oct 2014	Salt Lake City, USA.	Scientific community	About 4000 congress attendees	International
55	Posters	CNR	Innovation in agroforestry for rural development as emerged from participatory research approach: the Italian case studies in the AGFORWARD project. AT AGROCOP conference	16 Oct 2014	Porano (TR), Italy	SC, PM	50	Europe wide
56	Posters	CRA	Agroforestry systems combining free range poultry and olive orchards reduce the environmental impact of both poultry and olives. At AGROCOP conference.	16 Oct 2014	Porano (TR), Italy	SC, PM	50	Europe wide
57	Posters	CRA	Does the wild asparagus like olive trees? Spatial and temporal distribution of light in olive orchards and wild asparagus (<i>Asparagus acutifolius</i>) photosynthetic properties. At AGROCOP conference.	16 Oct 2014	Porano (TR), Italy	SC, PM	50	Europe wide
58	Posters	CRA	Innovation in agroforestry for rural development as emerged from participatory research approach: the Italian case studies in the AGFORWARD project. At AGROCOP conference.	16 Oct 2014	Porano (TR), Italy	SC, PM	50	Europe wide
59	Posters	BTU	Introducing AGFORWARD a project to advance Agroforestry in Europe (Presentation at German Agroforestry Forum)	3 Dec 2014	Dornburg, Germany	SC, PM	50	Germany
	News articles							

60	Web sites/Applications	ORC	New page developed for AGFORWARD on ORC website: http://www.organicresearchcentre.com/?go=Research and-development&page=Ecoagroforestry&i=projects.php&p_id=43	Jan 2014	UK	M, CivS		Web-based
61	Press releases	TEI	A detailed description of the project is included in the 2nd Hellenic Agroforestry Network newsletter	7 Mar 2014	Greece			Greece
62	Press releases	ORC	Article on AGFORWARD published in Spring Issue of ORC Bulletin	1 April 2014	UK			UK
63	Web sites/Applications	UEX	Presentation of AGFORWARD project, on the official portal of the Regional Government of Extremadura http://extremambiente.gobex.es/files/convocatorias/2014/mayo/ag_forward.pdf	May 2014	Spain	I, PM, SC		Extremadura región, Spain
64	Press releases	LBI	Press release concerning foundation Dutch branch of EURAF	22 May 2014	Netherlands			Netherlands
65	Press releases	ISA	Agroforestry in the new Portuguese Rural Development Plan (2014-2020) in "EURAF newsletter, June 2014"	1 June 2014	Europe	SC, I, CivS, PM	100	Europe
66	Press releases	LBI	Kongsted, AG & Hermansen, JE 2014: Agroforestry i økologisk husdyrproduktion. Økologi og Erhverv nr. 548 p. 14 (Newsletter in a Danish journal of organic production)	4 Jul 2014	Netherlands			Netherlands
67	Press releases	CRAN	AGFORWARD News: July 2014	7 Jul 2014	On-line	SC, I, CivS, PM, M	500	Europe
68	Press releases	TEI	Vasilios Papanastasis contributed with an article on olive systems in the Hellenic Agroforestry Network 3 rd News letter	1 Aug 2014	Greece			Greece
69	Press releases	NYME	Online newsletter for Forestry and Wood Industry Professionals Fatáj Online - I. Magyar Agroerdészeti Fórum	12 Aug 2014	Hungary	SC, CivS, I, PM	10000	Hungary

			http://www.fataj.hu/2014/08/121/20140812_1_Elso-Magyar-Agroerdeszeti-Forum.php					
70	Articles published in the popular press	LBI	Article in "Ekoland" magazine: "Agroforestry: hype of duurzaam perspectief" Bestman, M., Janmaat, L. (2014). Agroforestry, hype of duurzaam perspectief? Ekoland 31 augustus: 22-23.	22 Aug 2014	Netherlands	I	2200	Netherlands
71	Articles published in the popular press	AU	Brandt, I. 2014: Træerne skal ind i landbruget. Økologi og Erhverv nr. 552 p. 9. (Press coverage of the stakeholder workshop. In a Danish journal of organic production)	26 Sept 2014	Denmark	I, CivS		Denmark
72	Press releases	CRAN	AGFORWARD News: November 2014	4 Nov 2014	On-line	SC, I, CivS, PM, M	500	Europe
102	Press releases	TEI	Anastasia Pantera circulated among the Hellenic Agroforestry Network, the link to the video on agroforestry prepared by AGROOF	1 Nov 2014	Greece	I		Greece
73	Press releases	EURAF	EURAF Newsletter	1 Oct 2014	On line	SC, I, CivS, PM, M	1000	International
74	Press releases	EFI	Agroforestry and Green Economy Ambitions (article in the EFI News)	11 Nov 2014	Europe	I, SC, PM	1000	Europe
	Workshops							
75	Organisation of Workshops	ORC	Workshop: Agroforestry: A question of scale – from forest gardens to landscape scale agroforestry at ORC annual producers conference	22 Jan 2014	Aston University, Birmingham	I, SC, PM, NGOs	40	UK
98	Organisation of Workshops	FDEA	Stakeholder Workshop presentation: „Agroforstwirtschaft in der Schweiz“ at FiBL Frick	21 Feb 2014	FiBL, Frick, Switzerland	I	20	Switzerland
99	Organisation of Workshops	TEI	The project was presented in a workshop in Athens organised by the Hellenic Agroforestry Network	26 Feb 2014	Greece	SC		Greece
100	Organisation of Workshops	INRA	Partnership day – Presentation of scientific projects	27 Feb 2014	Mauguio, France	SC	40	France
76	Organisation of Workshops	CNR	Agroforestry research and practice in Europe, at the 11th European IFSA (Int. Farming	1-4 April, 2014	Berlin	SC, I, PM	200	International

			Systems Association) Symposium,					
77	Organisation of Workshops	INRA	Resilience Congress : field tour in Restinclières	5 May 2014	Montpellier, France	SC	60	France
101	Organisation of Workshops	FDEA	Stakeholder Workshop on: “Quelles perspectives pour l’agroforesterie en Suisse Romande?” organised by AGRIDEA at Arnex-sur-Orbe	27 May 2014	Switzerland	I		Switzerland
78	Organisation of Workshops	INRA	Visit of the AGFORWARD trials	13 Jun 2014	Mauguio, France	SC	120	France
79	Organisation of Workshops	INRA	Visit of the AGFORWARD trials	18 Jun 2014	Mauguio, France	I	25	France
80	Organisation of Workshops	ORC	Seeds to trees – the value of diversity; Open day at Wakelyns agroforestry research site	19 June 2014	Suffolk, UK	I	20	UK
81	Organisation of Workshops	INRA	Visit of the two agroforestry plots implemented in February 2014 in Lusignan	3 Jul 014	Lusignan, France	SC, I	20	France
82	Organisation of Workshops	UEX	Oral presentation at Workshop “Transferencia de conocimiento y buenas prácticas en emprendimiento sostenible en el marco de las dehesas” Available at: http://fresnedas.altekio.es/?p=267	17 July 2014	Mérida, Spain	I, PM, SC	40	Spain
83	Oral presentation to a wider public	TEI	Presentation made by Anastasia Pantera at Annual Acorn Festival, on the Island of Kea, Aegean, Greece	25 Oct 2014	Island of Kea, Aegean.	CivS	-	Greece
84	Oral presentation to a wider public	INRA	Agroforestry event at the Marciac festival Talk by C. Dupraz and V. Viaud	1 Aug 2014	Marciac, France	CivS	100	France
85	Oral presentation to a wider public	INRA	Discussion about the current research activities on agroforestry for dairy systems	2 Aug 2014	Marciac, France	SC	50	France
86	Oral presentation to a wider public	ORC	Presentation: <i>Agroforestry in the livestock sector- evidence</i> Workshop: <i>Design a farm tree-planting scheme</i> at Woodland Trust seminar ‘Improving the resilience of livestock systems,	11 Sept 2014	Harper Adams University, Shropshire, UK	I, PM	73	UK
87	Organisation of Workshops	INRA	Visit of the two agroforestry plots	8 Oct 2014	Lusignan,	PM, CivS	5	France

			implemented in February 2014 in Lusignan		France			
88	Organisation of Workshops	INRA	Visit of the two experimental plots implemented in February 2014 in Lusignan	21 Nov 2014	Lusignan, France	SC	15	France
89	Organisation of Workshops	ORC	Workshop: <i>Designing temperate agroforestry systems</i> . ORC annual producers conference	26 Nov 2014	Solihull, Birmingham, UK	I, SC, PM	30	UK
	Training							
90	Organisation of Workshops	ORC	"Agroforestry: how trees can work on your farm; training event for farmers" training event with the Woodland Trust	26 Feb 2014	Newbury, UK	I, NGO	30	UK
91	Organisation of Workshops	AFAF	Conference for farmers about "Why and how to plant agroforestry trees?" (AFAF Information and discussion day in Bézéril, Gers, France)	7 Mar 2014	France			France
92	Organisation of Workshops	ORC	"Agroforestry: how trees can work on your farm" workshop at training event for farmers with the Woodland Trust	14 Mar 2014	Screveton, Notts, UK	I, NGO	30	UK
93	Web sites/Applications	UEX	Information hold in the official portal of the Regional Government of Extremadura: http://extremambiente.gobex.es/files/convocatorias/2014/mayo/ag_forward.pdf UEX presented (fresnedas.altekio.es/?p=267).	17 July 2014	Plasencia	I, SC	> 1000	Spain
94	Organisation of Workshops	INRA	Courses on Participatory plant breeding	27 Oct 2014	Toulouse, France	SC	70	France
95	Organisation of Workshops	ICRAF	Fergus Sinclair made presentation on "Fodder shrubs and trees" on a course on forage resources in drylands: major drivers and future scenarios	29 Oct 2014	Zaragoza, Spain	PM, SC, I	30	Spain
96	Organisation of Workshops	WER	Agro-ecology: science, practice and movement, including agroforestry; lecture with students	27 Nov 2014	Leuven, Belgium	SC		Belgium
97	Organisation of Workshops	INRA	Permaculture training, exchange on agroforestry practices	28 Nov 2014	Avignon, France	SC, I	40	France, USA

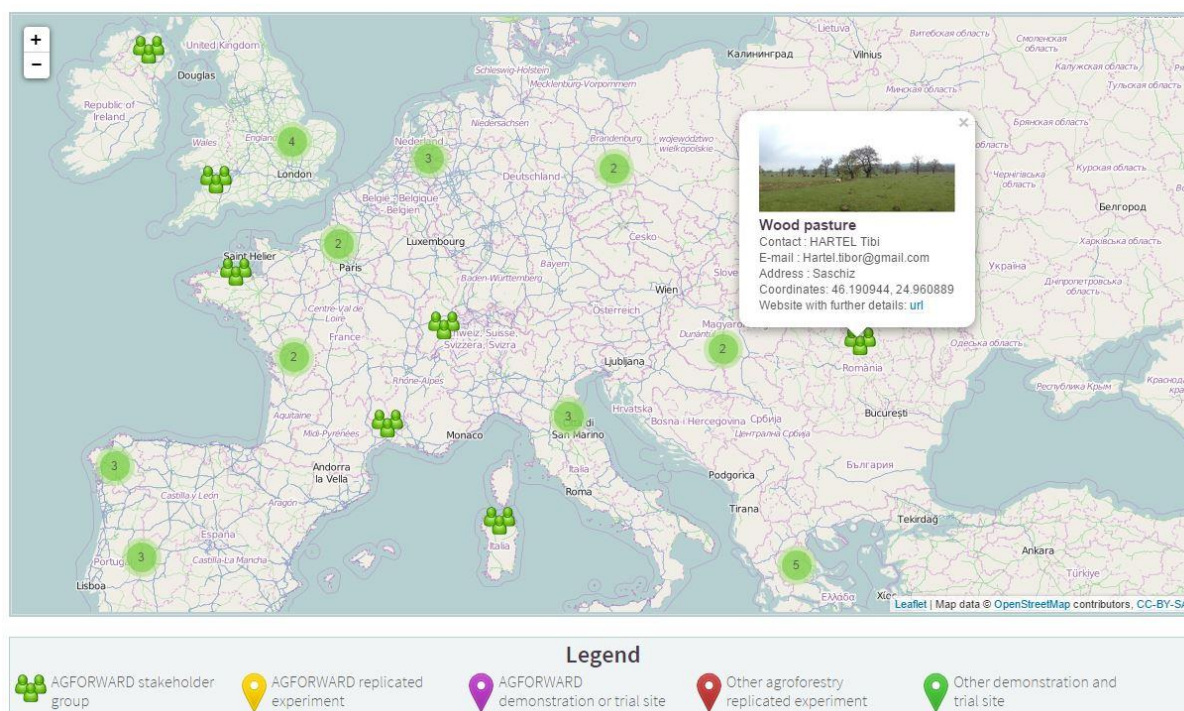


Figure 9.2. Screen shot of the on-line map showing the location of stakeholder groups and agroforestry research and demonstration sites. <http://www.agforforward.eu/index.php/ro/map-of-agroforestry-research-and-demonstration-in-europe.html>

One of the key outputs for researchers is a web-application of the Yield-SAFE and Farm-SAFE models (**Deliverable D9.27**) due in June 2015. At the Executive Committee Meeting of 3 Feb 2015, ISA confirmed that this date remains feasible.

National agroforestry communities. One of the deliverables (Deliverable D9.28), due in December 2014, is an expansion of the number of Agroforestry Associations across Europe to 12, and the development of a tool-box to help this. Part of this tool-kit will be the translation of a video from AGROOF which has been used to facilitate national and local meetings for France. As part of AGFORWARD, partners are strengthening or creating national agroforestry groups (Table 9.5). For example, combined with an AGFORWARD stakeholder meeting in Hungary, Hungary held its first National Agroforestry Forum on 29 August 2014.

Table 9.5. Development of national agroforestry initiatives

Country	Development
Spain	UEX is working actively in the creation of the “National Federation of the Dehesa Stakeholders” (FEDEHESA: www.gestoresdeladehesa.com/#lagedrex/ch8j)
Netherlands	Louis Bolk Institute launched also the national website for the Netherlands (www.agro-forestry.nl)
Italy	Veneto Agricoltura has initiated an Italian website: www.agroforestry.it
Hungary	NYME has created a special page on its website: http://kkk.nyme.hu/k-f-eredmenyek/agroerdeszet.html .

9.4 Regular communication

The next activity ([Task 9.4](#)) was to provide regular communication to key stakeholders through the use of electronic newsletter, newspaper articles and briefing. Since the start of the project, three electronic newsletters (Table 9.6; Figure 9.3) have been sent to 500 people with an interest in agroforestry. We acknowledge the support of the UK Farm Woodland Forum and the European Agroforestry Federation in providing the initial mailing list.

The newsletters have been issued through the secure UK-based Jiscmail system (Table 9.6). The newsletters have active links which directs readers to the content of the AGFORWARD website. The creation and dissemination of the newsletters has been led by CRAN working with EURAF and AGROOF. Some partners have a dedicated AGFORWARD page on their institutional websites (AGROOF, CRAN, ORC, and NYME).

Table 9.6. Dates and key content of the three newsletters

June 2014	Introducing AGFORWARD, agroforestry and the European Agroforestry Conference https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=AGROFORESTRY-NEWS;c62ff057.1407p
Nov 2014	Stakeholder reports and introducing Facebook https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=AGROFORESTRY-NEWS;1420af24.1411p
Jan 2015	Stakeholder reports and agroforestry in Africa https://www.jiscmail.ac.uk/cgi-bin/webadmin?A2=AGROFORESTRY-NEWS;d4856219.1501p

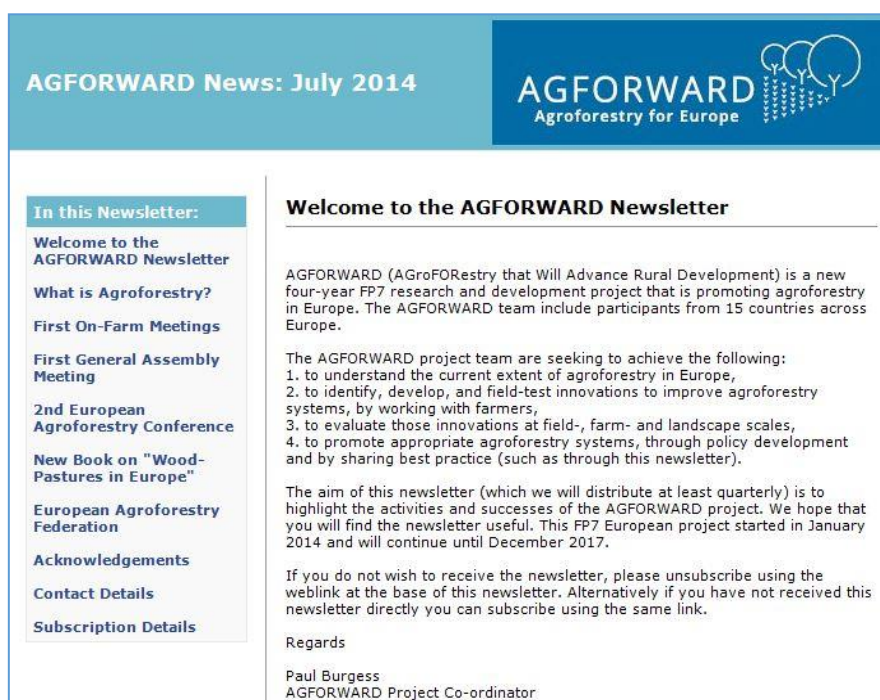


Figure 9.3. Screen shot of part of an AGFORWARD newsletter

9.5 Education tools

The fifth task of the dissemination work-package ([Task 9.5](#)) is to assess the specific needs for education tools and to produce appropriate material. This will result in a training tool-kit ([Deliverable D9.29](#)) by June 2016. To achieve this, AGROOF has started to work with the Ecole des

Mines d'Alès at the University of Nimes / Celsa Paris Sorbonne, who have training programmes focused on digital communication. During February and March 2015, a first draft of the tool will be made available and a working group will be created to start validating the tool, so that the material may be available by the end of 2015. Contacts have also been made with the European Project AGROFE (Leonardo Call) which has been developing agroforestry training tools. EURAF and AFAF are common members of both projects.

9.6 Regional conferences and workshops

The sixth activity ([Task 9.6](#)) is to co-ordinate regional conferences and workshops. It was indicated in the application that AGFORWARD would participate in the World Agroforestry Congress in February 2014.

World Agroforestry Congress: AGFORWARD partners (UEX, CRAN, INRA, ISA, and EURAF) made presentations on the AGFORWARD project and European agroforestry at the World Agroforestry Congress in February 2014 in India. Rosa Mosquera-Losada (USC) also presided over one general and one technical session.

Second European Agroforestry Conference: although not a specified milestone or deliverable, a key output during the first year, was the successful second European Agroforestry Conference in Cottbus, Germany from 4-6 June 2014. This was facilitated by EURAF and hosted by BTU.

The conference was attended by about 150 delegates from across Europe, and AGFORWARD staff played key roles. The conference included 20 platform presentations and 70 posters on agroforestry. The conference also included an interactive session with German farmers and policy makers, and included a field trip to the work-package 2 stakeholder site in the Spreewald.

The lead editor of the book of abstracts was AGFORWARD researcher Joao Palma.

Palma JHN, Chalmin A, Burgess PJ, Smith J, Strachan M, Ruiz Mirazo J, Rosati A (Eds) (2014). 2nd European Agroforestry Conference: Integrating Science and Policy to Promote Agroforestry in Practice. European Agroforestry Federation. Book of Abstracts. June 2014, Cottbus, Germany, ISBN: 978-972-97874-4-7 <http://www.agroforestry.eu/node/280>

9.7 Co-ordination

The last task ([Task 9.7](#)) is to co-ordinate and synthesise the work in work-package 9. This task is led by Fabien Liagre at AGROOF. AGROOF has contacted each of the partners to identify their planned contributions to the milestones and deliverables.

9.8 Use of resources in work-package 9

At the end of December 2014, 16.06 person months had been allocated to work-package 9, equivalent to 20% of the total. This is broadly in line with expectations. The Work-package leader and the Co-ordinator are aware that EURAF has already allocated a high proportion of person months to the activity. Much of the input was related to the European Agroforestry Conference, and EURAF are implementing responses to ensure that it can meet its obligations in the rest of the project.

Table 9.7. Person-month inputs to work-package 9

Organisation	Indicated (Jan-Dec 2014)	Project total
EURAF	5.30	12
AGROOF	3.90	18
ISA	1.80	8
CRAN	1.18	7
BTU	0.91	2.5
TEI	0.46	1
UEX	0.40	2.5
EFI	0.34	1
NYME	0.27	0.5
INRA	0.27	1
ORC	0.26	5
Wervel	0.26	4
CRA	0.25	2
USC	0.20	2
CNR	0.13	0.5
LBI	0.11	0.5
VEN	0.11	0.5
AFBI	0	0.5
AFAF	0	3
ACTA	0	3.5
UCPH	0	1
FDEA	0	0.5
AU	0	1
UBB	0	0.5
APCA	0	1
ICRAF	0	0
Total	16.15	79

9.9 Issues and actions

At this stage, no significant issues or actions are required. There remains a strong imperative to effectively involve each partner in the dissemination activities, and AGROOF has contacted each partner to determine their ideas.

10 Project management during the period

This section summarises the management of consortium activities during the period. During the first twelve months there were no significant problems, although four partners have been unable to submit their costs electronically. There have also been no major changes in the consortium although some partners have undergone name changes. The Executive Committee has met monthly using Skype and a full set of minutes is available on the intranet. There have also been a successful launch meeting and a first General Assembly meeting. There are no significant deviations in the planned milestones and deliverables, although there is a recommendation that the policy document ([Deliverable 8.23](#)) is delayed to allow incorporation of the current 2014-2020 CAP and rural development programmes. The development of the project website has been described in Section 9.2, so it is not repeated here.

Work package number	10
Work package name	Management
Leader	Paul Burgess
Organisation	Cranfield University
Report period	1 January to 31 December 2014

Objectives and tasks within work package 10

Paul Burgess from Cranfield University is the Co-ordinator of the project. Kenisha Garnett joined the project as the Project Administrator on 16 May 2014. This section summarises the management of consortium activities during the period 1 January to 31 December 2014 (Table 10.1), and highlights some of the key milestones (Table 10.2).

Table 10.1. Work-plan of activities, milestones (M), and deliverables (D) for work-package 10 for the first 12 months (indicated in orange), and plan for the second year (indicated in grey)

Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
WP10 Project management																									
T10.1 Co-ordination of the project																									
T10.2 Executive and General Assembly Meetings (MS41; MS42)	M					M						M						M							M
T10.3 Progress reports and final reports													X												
T10.4 Financial reports													X												

Table 10.2. Summary of the status of milestones and deliverables due within first 12 months

Description	Due date	Status
MS41 Completion of internal six-month reports	June 2014	Completed and on-going
MS42 Minutes of meetings	January 2014 and on-going	Completed and on-going

10.1 Co-ordination of the project

The first management task ([Task 10.1](#)) is to establish and maintain effective project management and co-ordination. This includes quality assurance and reviewing the timely execution of tasks. The management structure for the project is shown in Figure 10.1. The meetings of the Executive Committee, the General Assembly and the External Experts Advisory Board are described in Section 10.2.

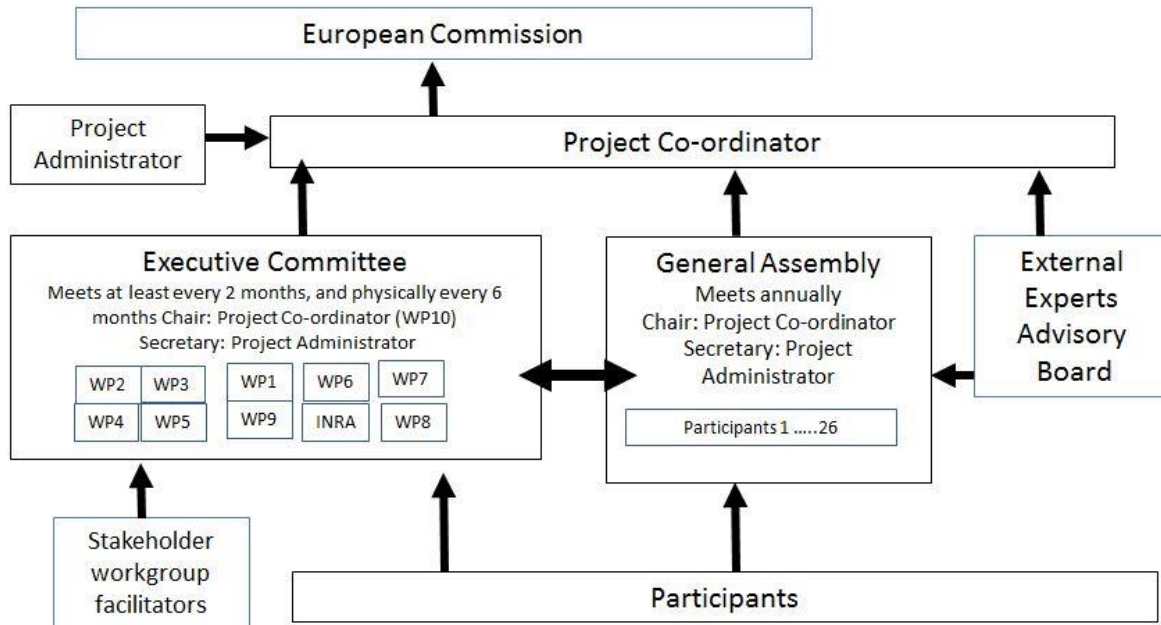


Figure 10.1. Management structure for the AGFORWARD project

A key role of the Co-ordinator is to ensure effective communication within the project. In addition to the meetings described in the next section, communication within the project is primarily achieved through e-mail communication, and through the use of an intranet “Sharepoint”.

E-mail communication

The e-mail discussion list: AGFORWARD@jiscmail.ac.uk is the principal means of communication within the AGFORWARD community. An e-mail to the above address, from any member, is automatically circulated to the whole consortium. Subscription to the list is managed by Cranfield University. There are currently 105 people registered on the list. The archive system provided by jiscmail means that there is a store of all e-mails sent.

A separate e-mail discussion list: EXEC-AGFORWARD@jiscmail.ac.uk is the principal means of communication within the Executive Committee. This allows detailed and focused discussion of specific points that are not of wider interest. Again the archive system provided by jiscmail means that there is a store of all e-mails sent.

In addition to the above, a separate mailing list has also been established for the newsletter. Some work-package groups have also established their own e-mail discussion groups.

Sharepoint

In order to prepare and store reports, presentations and minutes, an intranet “Sharepoint” site has been set up at Cranfield University in the UK, which can be accessed by the key participants on the projects (Figure 10.2). There is a link to the Sharepoint site from the AGFORWARD website. As of 31 December 2014, 66 participants have access to the Sharepoint service which is protected by usernames and passwords.

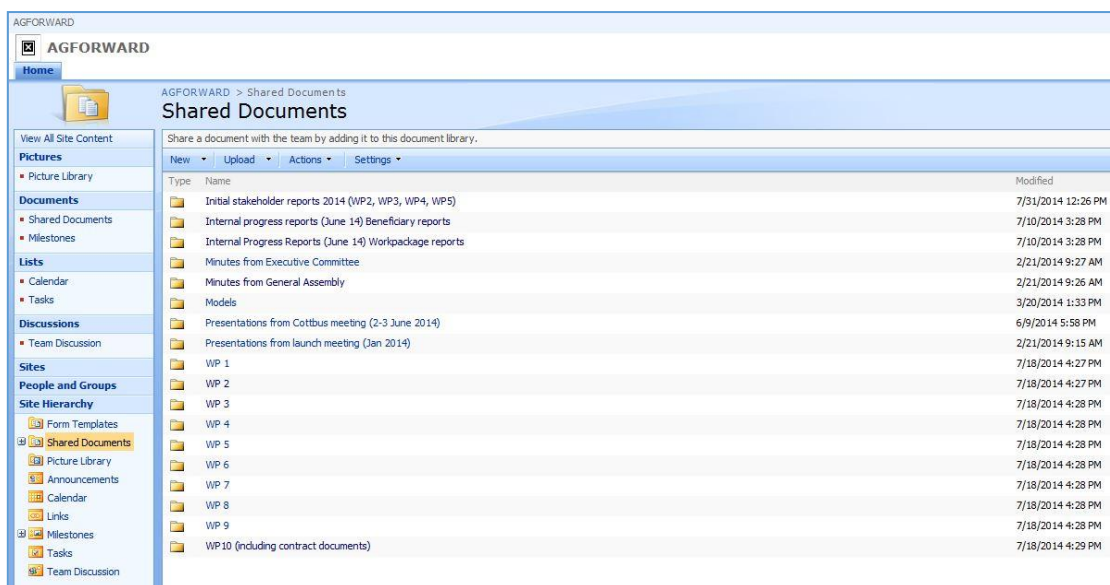


Figure 10.2. Screen shot of the AGFORWARD sharepoint or “intranet” site for file sharing and which is accessible to registered users from the AGFORWARD website.

Links with other projects

There are two other major projects that AGFORWARD has direct links with:

AGROFE is an EU Funded Leonardo project which is undertaking training and education on agroforestry in seven member states over three years. Paul Burgess attended the launch meeting of AGROFE at Warwick University on 28 October 2013. AFAF and EURAF are members of the AGROFE consortium.

Bert Reubens of the Institute for Agricultural and Fisheries Research (ILVO) is leading a project to promote agroforestry in Flanders that bears similarities to the AGFORWARD project, but operates at a national scale. The project, supported by the Belgian Government, will run from September 2014 to August 2019.

10.2 Project meetings

The second management task ([Task 10.2](#)) is to prepare, chair and report on Executive Board and General Assembly meetings.

Launch meeting

A successful Launch Meeting was held at Cranfield University on 21-23 January 2014. It was attended by a representative from each participant (AFAF was represented by ACTA) (Figure A.5). Presentations were made on each work-package and presentations on project management were by the Co-ordinator Paul Burgess (CRAN) and a university accountant Zoe Janes. Minutes of the launch meeting were circulated to members of the AGFORWARD mailing list on 6 February 2014.

First General Assembly

The First General Assembly Meeting was held at Cottbus, Germany on 2-4 June 2014. It was attended by 50 participants with each organisation represented except UBB (Figure A.6). Minutes of the meeting were circulated to members of the AGFORWARD mailing list on 23 June 2014.

Executive Board

There have also been regular monthly Executive Board Meetings. These have all been by Skype, with the exception of a physical meeting at Beauvais in France on 5 December 2014. Each meeting has been chaired by the Co-ordinator (Table 10.3). The minutes of the above Executive Board Meetings have been circulated to the Executive Committee for approval, and once approved they have been circulated to the members of the General Assembly and the AGFORWARD mailing list for information. The minutes from the launch meeting, the Executive Board meetings, and the General Assemblies comprise [Milestone 42](#), and each is available on the AGFORWARD sharepoint site.

Table 10.3. Number and dates of Executive Board Meetings completed by Skype unless indicated

1: 8 January 2014	7: 2 July 2014
2: 9 February 2014	8: 6 August 2014
3: 6 March 2014	9: 15 September 2014
4: 27 March 2014	10: 10 October 2014
5: 29 April 2014	11: 17 November 2014
6: 21 May 2014	12: 5 December 2014 (Physical meeting at Beauvais, France)

External Experts Advisory Board

Paul Burgess attended the World Agroforestry Congress in New Delhi (10-14 Feb 2014), India where he gave a presentation about the AGFORWARD project.

Burgess PJ, Graves AR, Bestman M, Bondesan V, Dupraz C, Freese D, Guichaoua A, Hartel T, Hermansen J, Herzog F, Liagre F, Lindner M, McAdam, J, Moreno G, Mosquera Losada R, Palma J, Pantera A, Paris P, Plieninger T, Rakosy L, Rosati A, Sinclair F, Smith J, Vityi A, Watté J (2014). Introducing AGFORWARD – a project to advance agroforestry in Europe. Presentation at the World Agroforestry Congress, Delhi, India. 10-14 February 2014. World Congress on Agroforestry 2014 Book of Abstracts p56.

During the Congress, Paul Burgess met with two members of External Experts Advisory Board: Prof Shibu Jose (University of Missouri) and Prof PK Nair (University of Florida). The other member is Ms

Oana Neagu, the Policy Advisor on Rural Development, Forestry and Bio-economy with COPA-COGECA. Professor Herman van Keulen, who was listed in the Description of Work, passed away in December 2013. During 2014, the Co-ordinator has been in contact with the Advisory Board on an individual basis. The first formal meeting of the Board is scheduled for 20 March 2015, and each member has been invited to the second General Assembly on 24-26 June 2015.

10.3 Progress and final reports

The third management task (Task 9.3) is to co-ordinate the preparation and delivery of progress reports and the final report to the European Commission. A six-month internal interim report was collated in June-July 2014 (Milestone 41) and is available on the AGFORWARD intranet. This document comprises the report for the first reporting period.

10.4 Administration of financial matters

The fourth management task (Task 9.4) is to administer financial matters such as the proper distribution of monies to the partners, and the co-ordination and preparation of the financial reports. The initial budget allocation was apportioned to partners as agreed. The administration of financial matters has generally progressed well, although four partners were unable to electronically submit (i.e. by 27 February 2015) their financial reports for the first project period because they had not registered a Legal Entity Appointed Representative (Table 10.4). It is our plan to report these as soon as we are able, which we understand, is at the end of the second report period.

Table 10.4. Partners who were unable to submit their first year costs electronically because they had not registered a Legal Entity Appointed Representative

Number	Name of organisation
13	Werveł vzw (WER)
19	Nyugat-Magyarországi Egyetem Kooperációs Kutatási Központ Nonprofit KFT (NYME)
24	Association Française d'AgroForesterie (AFAF)
26	European Agroforestry Federation (EURAF)

Each of these organisations have or are about to submit the paperwork to have a LEAR recognised by the European Commission. From the perspective of the Co-ordinator, each of these four organisations has successfully drafted a statement of their costs and the required financial declarations, but without a registered LEAR they have been unable to electronically approve their costs. Because the EC has requested that the costs are submitted by 28 February 2015, in the absence of any other option, the plan is that these organisations will submit their costs at the end of the next reporting period.

10.5 Use of resources for management

As of December 2014 (25% of the way into the project) 13% of the budgeted effort on management has been used. Because this has occurred before the larger management inputs required for this report, this is broadly in line with expectation.

Table 10.5. Person-month inputs to work-package 10

	Indicated (Jan-December 2014)	WP9 Project total
CRAN	4.07	31.0
Total	4.07	31.0

10.6 Summary of the use of person months across the project

Although the person months per work-package are provided in the report, Table 10.6 is included to provide an overview of the person-month inputs at the end of December 2014. In total 195 person-months have been used in the first twelve months, equivalent to 20% of the planned total for the four years. As Co-ordinator, this is in-line with expectation as the research continues to build and because, as expected, it takes time to recruit staff during the first year.

Table 10.6. Person-month inputs for each work-package and partner for the first twelve months

Beneficiary short-name	Work-package number										Total	Full total
	1	2	3	4	5	6	7	8	9	10		
CRAN	0.27	2.93	2.70			2.13	0.71		1.18	4.07	13.99	110.0
EFI	11.46	1.47				0.37	0.33	0.76	0.34		14.73	36.0
SLU		1.24									1.24	
ACTA							1.26				1.26	18.5
IDF			0.44	0.34							0.78	
IDELE					1.60						1.60	
USC	0.20		1.80	1.80	1.80	0.10	0.50	1.70	0.20		8.10	55.0
TEI	0.26	1.21	3.92	1.48		0.56		0.26	0.46		8.15	46.0
INRA		5.34		8.19	3.54		8.18		0.27		25.52	103.0
ORC			1.34	3.90	4.49	0.11		0.15	0.26		10.25	46.0
BTU		3.14		6.69		1.78			0.91		12.52	50.5
UEX	1.00	6.10	2.05	1.65		0.10	1.50	0.10	0.40		12.90	67.5
ISA	0.25	2.50	0.25	0.25	0.25	11.64	1.00	0.50	1.80		18.44	89.5
UCPH							15.00				15.00	43.0
FDEA			0.18	0.49		0.04	2.95				3.66	40.5
Wervel								0.07	0.26		0.33	5.0
AU					1.50						1.50	22.0
AGBI			2.09								2.09	16.5
CRA	0.12		5.25			0.13		0.25	0.25		6.00	34.0
LBI					1.94				0.11		2.05	15.5
CNR		2.25		1.50		0.20		0.50	0.13		4.58	18.5
NYME		1.64		2.13				0.08	0.27		4.12	19.5
UBB		1.07					0.71				1.78	20.5
VEN				0.66	1.57				0.11		2.34	11.5
AGROOF						0.20			3.90		4.10	23.0
APCA			0.68	1.29							1.97	10.0
AFAF	0.27		0.41	0.24				0.12			1.04	17.0
ICRAF	6.00										6.00	10.0
EURAF	0.35	0.20	0.20	0.20	0.20			2.60	5.30		9.05	35.0
Total	20.18	29.09	21.31	30.81	16.89	17.36	32.14	7.09	16.15	4.07	195.09	963.5

10.7 Summary of issues and actions

This final section provides a summary of the key changes in the consortium, recommendations related to any problems, and an update on gender awareness.

Changes in the consortium

As of 31 December 2014, there have been no major changes in the consortium, although three institutions have changed their name.

- Partner 10: The Instituto Superior de Agronomia of the Universidade Tecnica de Lisboa has merged to form the University of Lisbon.
- Partner 8: Brandenburg University of Technology Cottbus-Senftenberg (BTU) is registered on the AGFORWARD Project under an old PIC number: 999888223. Fortunately the Chancellor has been able to sign the forms for Period 1 on this number. However the number has recently been suspended, and for the next financial reporting period, BTU should be changed to the new PIC number: 937759529. The Legal Officer was informed on 17 February 2015.
- Partner 16: "Consiglio per la Ricerca e la sperimentazione in Agricoltura" has changed its name to "Consiglio per la Ricerca in Agricoltura e l'analisi dell'economia agraria". The Legal Officer for the project was informed on 29 January 2015.

One of the partners has also requested that it should be noted that it is an international body.

- Partner 2: EFI has noted by e-mail to the Co-ordinator that it is an international body.

Problems and recommendations

At this stage of the project, there are only three recommendations in terms of modifying the plan from the Description of Work, as outlined in the previous sections of the report and summarised in Table 10.7. There is also one proposed change in terms of the use of a sub-contracting budget (Table 10.8). We consider that these changes do not prejudice, and in fact will improve, the overall outcomes of the project.

Table 10.7. Recommended changes to two milestones and one deliverable

Milestone	Lead	Change
Milestone 27 (6.2) Confirmation of agroforestry systems to model	ISA	Proposed delay in delivery from Month 14 (February 2015) to Month 16 (April 2015) due to minor delay in synthesising stakeholder reports.
Milestone 30 (6.5) Improvement of existing Hi-sAFe model	INRA	Proposed delay in delivery from Month 20 (August 2015) to Month 26 (February 2016), because of delay in recruitment of post-doctoral fellow.
Deliverable 8.23 Report on the extent and success of current policy measures	USC	The report in Month 16 (April 2015) will focus on policy during the period 2007-2013 and will be available as on the AGFORWARD website at that date. However in order to include recently-confirmed changes in the common agricultural policy (2014-2020) we propose to delay the permanent submission of the deliverable to the EC Portal until month 22 (October 2015).

Table 10.8. Recommended changes to use of a sub-contracting budget

Work-package	Lead	Proposed change
3	ACTA	The Description of Work included a 10,200€ sub-contracting budget for ACTA for access and technical analysis of a pre-verger experimental plot. This was to access experimental work at Laxou within work-package 3. Unfortunately since the project inception, a change in priorities for the new management team at Laxou has meant that this site is not available. Following discussion with the Co-ordinator, ACTA now proposes to use this budget to sub-contract research on the evaluation of the total biomass production of pollarded trees compared to non-pollarded trees. It is proposed to use the services of a forest contractor, and the statistical analysis and modelling services of the Catholic University of Louvain.

Gender awareness

Anastasia Pantera is our Gender Awareness Officer. At the application stage, there were 46 female participants (36%) and 81 male participants. At the General Assembly on 2 June 2014, the project involved 64 female participants (42%) and 86 male participants.

SECTION C Deliverables and milestones tables

This section summarises the completion and submission of the deliverables (Table C.1) and milestones (Table C.2) during the first year.

Table C.1. Deliverables due in the first twelve months; those that have been completed are shaded.

Del no	Del. no. ¹	Deliverable name	Version	WP no.	Lead beneficiary	Nature ²	Delivery date from annex 1	Actual forecast delivery	Dissemination level ³	Status	Comments
D9.25	D9.1	EU agroforestry interactive platform highlighting project for end-users	1	9	22 (AGROOF)	O	June 14	Mar 14	PU	Completed Mar 2014	Submitted Feb 2015
D1.1	D1.1	Technology transfer options from Mediterranean Partner countries to European countries	1	1	25 (ICRAF)	Report	Dec 14	Dec 14	PU	Completed Dec 2014	Submitted Dec 2014
D9.26	D9.2	Experimental and demonstration plots map	1	9	22 (AGROOF)	Map	Dec 14	Feb 15	PU	Completed Feb 2015	Submitted Feb 2015

¹ In the original description of work, deliverables were numbered using the convention <WP number>.<number of deliverable within that WP>. For example, deliverable 4.2 would be the second deliverable from work package 4.

² Please indicate the nature of the deliverable using one of the following codes:

R = Report, **P** = Prototype, **D** = Demonstrator, **O** = Other

³ **PU** = Public; **PP** = Restricted to other programme participants (including the Commission Services); **RE** = Restricted to a group specified by the consortium (including the Commission Services); **CO** = Confidential, only for members of the consortium (including the Commission Services).

Table C.2 Milestones as specified in Annex I to the Grant Agreement during the first year. Milestones that have been completed are shaded

Milestone No.	Milestone number	Milestone name	Means of verification	Work package	Lead beneficiary	Delivery date from Annex 1	Achieved	Actual/forecast achievement date	Comment
MS42	M10.2 (1)	Launch meeting minutes	Minutes	10	1 (CRAN)	Feb 14	Yes	Feb 14	On intranet
MS38	M9.1	Dissemination protocol	Report	9	22 (AGROOF)	Mar 14	Yes	Apr 14	On intranet
MS39	M9.2 (1)	Quarterly website update	Website	9	1 (CRAN)	Mar 14	Yes	Mar 14	On website
MS26	M6.1	Project database for pan-European simulated climate data	Database	6	10 (ISA)	Jun 14	Yes	Jun 14	On intranet
MS39	M9.2 (2)	Quarterly website update	Website	9	1 (CRAN)	Jun 14	Yes	Jun 14	On website
MS40	M9.3 (1)	Quarterly newsletter	Electronic	9	26 (EURAF)	Jun 14	Yes	Jul 14	On website
MS42	M10.2 (2)	Exec Committee and General Assembly minutes	Minutes	10	1 (CRAN)	Jul 14	Yes	Jul 14	On intranet
MS41	M10.1 (1)	Internal six-monthly report	Report	10	1 (CRAN)	July 14	Yes	Aug 14	On intranet
MS2	M2.1	Agroforestry of High Natural and Cultural Value Participative Network (WP2) established and first workshops undertaken	Reports of initial workshops on web	2	9 (UEX)	Aug 14	Yes	Aug-Dec 2014	On website
MS8	M3.1	Agroforestry for high value tree systems Participative Network (WP3) established and first workshops undertaken	Reports of initial workshops on web	3	5 (TEI)	Aug 14	Yes	Aug-Dec 2014	On website
MS14	M4.1	Agroforestry for arable systems Participative Network (WP4) established and first workshops undertaken	Reports of initial workshops on web	4	8 (BTU)	Aug 14	Yes	Aug-Dec 2014	On website

Milestone No.	Milestone number	Milestone name	Means of verification	Work package	Lead beneficiary	Delivery date from Annex 1	Achieved	Actual/forecast achievement date	Comment
MS20	M5.1	Agroforestry for livestock systems Participative Network (WP5) established and first workshops undertaken	Reports of initial workshops on web	5	14 (AU)	Aug 14	Yes	Aug-Dec 2014	On website
MS39	M9.2 (3)	Quarterly website update	Website	9	1 (CRAN)	Sept 14	Yes	Sept 2014	On website
MS40	M9.3 (2)	Quarterly newsletter	Electronic	9	26 (EURAF)	Sep 14	Yes	Sept 2014	On website
MS1	M1.1	Preliminary stratification and quantification of agroforestry according to WP2-WP5 systems	Internal report	1	2 (EFI)	Dec 14	Yes	Jan 2015	On intranet
MS3	M2.2	Innovations to be examined in WP2 are agreed	Report	2	9 (UEX)	Dec 14	Yes	Jan 2015	On website
MS9	M3.2	Innovations to be examined in WP3 are agreed	Report	3	5 (TEI)	Dec 14	Yes	Jan 2015	On website
MS15	M4.2	Innovations to be examined in WP4 are agreed	Report	4	8 (BTU)	Dec 14	Yes	Jan 2015	On website
MS21	M5.2	Innovations to be examined in WP5 are agreed	Report	5	14 (AU)	Dec 14	Yes	Jan 2015	On website
MS31	M7.1	Standardised protocol for biodiversity, ecosystem services and farm profitability	Protocol	7	11 (UCPH)	Dec 14	Yes	Dec 2014	On intranet
MS32	M7.2	Selection of key agroforestry systems and 12 sample landscapes for landscape evaluation	Report	7	9 (UEX)	Dec 14	Yes	Jan 2015	On intranet
MS39	M9.2 (4)	Quarterly website update	Website	9	1 (CRAN)	Dec 14	Yes	Dec 2014	On website
MS40	M9.3 (3)	Quarterly newsletter	Electronic	9	26 (EURAF)	Dec 14	Yes	Jan 2015	On website
		First progress report							

References

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