



Agroforestry of high nature and cultural value: dissemination of results and recommendations

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1 Context

The AGFORWARD research project (January 2014 - December 2017), funded by the European Commission, promoted agroforestry practices in Europe that will advance sustainable rural development. The project had four objectives:

1. to understand the context and extent of agroforestry in Europe,
2. to identify, develop and field-test innovations (through participatory research) to improve the benefits and viability of agroforestry systems in Europe,
3. to evaluate innovative agroforestry designs and practices at a field-, farm- and landscape scale, and
4. to promote the wider adoption of appropriate agroforestry systems in Europe through policy development and dissemination.

This report contributes to Objective 2. It provides evidence of the dissemination of the results and recommendations arising from the agroforestry of high nature and cultural value participative research and development network.

2 Dissemination of results

Results from the agroforestry of high nature and cultural value stakeholder groups have been presented at a large variety and numerous events in Table A.1 in the Annex. Some of the major dissemination activities are also highlighted within the main body of the report.

2.1 Spanish dehesa group

During the final part of the AGFORWARD project, the team at the University of Extremadura (UEX) organised a number of activities to promote and disseminate among stakeholders the results of different agroforestry schemes that have been proved to be of interest for Mediterranean countries. Some of these activities are result of the joint effort of AGFORWARD and MOSAICO projects, both lead by UNEX team. These activities are listed in full in Table A.1 and some of the highlights are also described below.

On 10 March 2017, a workshop on grazing and fire prevention was held at Hernán Pérez (Sierra de Gata, northern Extremadura), with about 50 attendees which included the participation of technicians from the regional government of Andalusia, with a 20 year experience on fire prevention and pastoralism through payment of grazing services (Figure 1a).

On 12 August 2017, UNEX and people from the municipality of Descargamaría (northern Extremadura) launched the Association of Forest Owners, with 60 attendees. The Association will propose the regional government to create a forest reserve including infrastructures for fire prevention and allowing a more diversified mosaic landscape to reduce fire risk through agroforestry (Figure 1b).

On 26 October 2017, UEX organised a workshop to establish technical criteria for the selection of 10 experimental agropastoral farms in Sierra de Gata, with additional funding from the regional R+D plan (Figure 1c). Twenty candidate herders attended to take part in a competitive process that resulted in a final selection of ten (most of them based on grazed olive and chestnut plantations).



Figure 1. Posters for a) a workshop on grazing and fire prevention on 10 March 2017, b) the Association of Forest Owners Meeting on 12 August 2017, and c) a meeting to help fund 10 agrosilvopastoral farms.

2.2 Portuguese *montado* group

The innovation results were presented to the Portuguese *montado* stakeholder group at a workshop on 23 November 2017, organized in Grândola (117 km South from Lisbon) in collaboration with ANSUB farmers association. The workshop was intituled “[The Role of Agroforest Management Practices in the Prevention and Recovery after Fire in Montado](#)” (O papel da gestão agroflorestal na prevenção e recuperação pós-fogo em montados) (Figure 2). More than 50 farmers attended the event (Figure 3). See a [short film here](#) (in Portuguese).



Figure 2. Poster for the “The Role of agroforest management practices in prevention and recovery after fire in montados”



Figure 3. Attendance at the “Role of agroforest management practices in prevention and recovery after fire in Montados”

The presentation, in Portuguese, is already available online [here](#). It is being disseminated in social media (Facebook, twitter, google+ and YouTube) from ISA, CEF, and regional agroforestry innovation network in collaboration to the AFINET project (Figure 4).

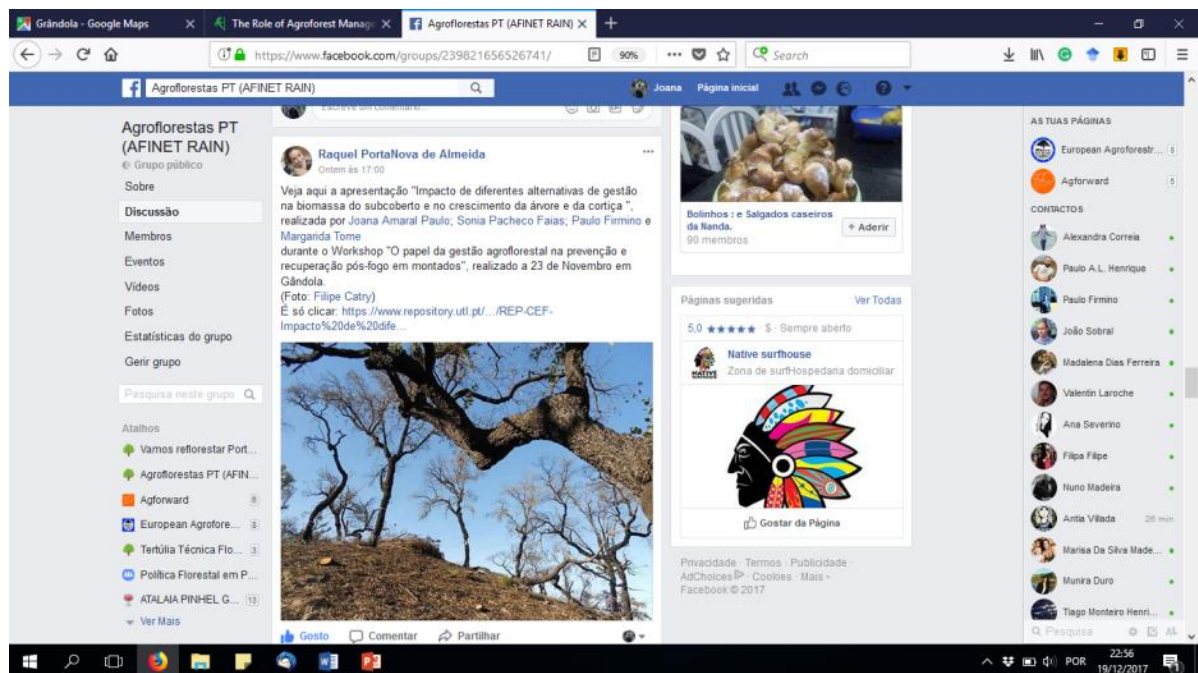


Figure 4. Dissemination of the results using Facebook

2.3 UK wood pasture and parklands group

Paul Burgess and Silvestre Garcia de Jalon visited Dr Jeremy Dagley and John Phillips at Epping Forest on 22 February 2017 to initiate an intensive period of research on invisible fencing. The work involved four graduate students from Cranfield University who worked on the project full-time for 10 weeks, with guidance from Paul and Silvestre. A poster and a presentation regarding the work was presented to an audience of about 20 people at Cranfield University on 4 May 2017.

On 22 June 2017, Cranfield University also hosted the UK Agroforestry 2017 Conference. This was arranged with the Royal Forestry Society, the Soil Association, and the Woodland Trust. The conference was attended by 250 participants of whom about 100 were farmers and foresters. The conference included discussions and presentations on a range of themes. Although there was not a specific presentation on wood-pasture, the conference did focus on the benefits of trees for livestock.

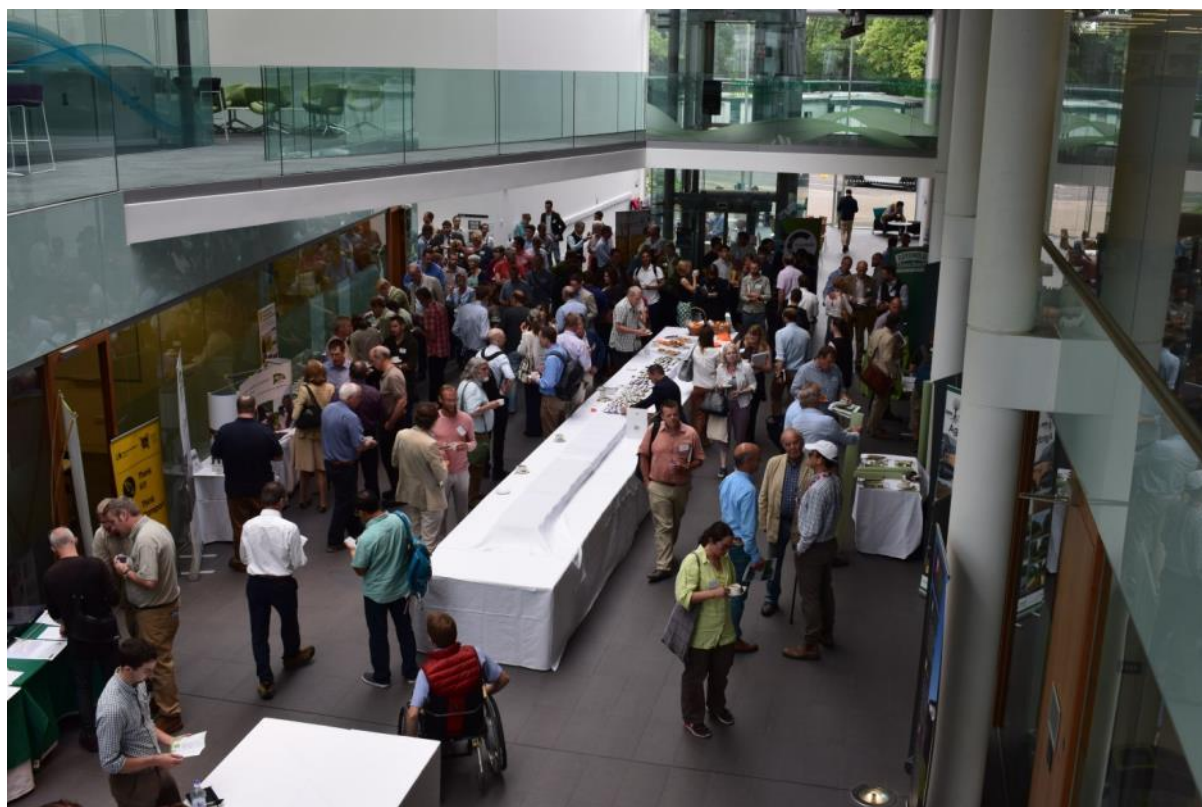


Figure 5. Over 100 farmers and foresters were among the 250 people who attended the UK Agroforestry 2017 Conference at Cranfield University on 22 June 2017

On 4 January 2018, Paul presented the results of the work to a larger audience in the “Trees: improving the lives of livestock” workshop at the Oxford Real Farming Conference.

2.4 German Spreewald group

On 21 September 2017 an introductory workshop on agroforestry and its benefits to soil, water and biodiversity was held in Peickwitz, Germany. It was attended by 50 students from local schools in southern Brandenburg. The students learned about modern alley cropping (for example, alley cropping in Peickwitz) and traditional systems (for example, agroforestry in the Spreewald Biosphere Reserve) and practiced recognizing tree species by their leaves. They also learned more about soil and conducted practical experiments on site.



Figure 6. Workshop on 21 September 2017 with students from schools in southern Brandenburg

Michael Kanzler presented the results of the Spreewald Floodplain Stakeholder Group in Germany at a national workshop in Witzenhausen, Germany between 24 and 26 November 2017. The event, organised by the German association Agforstkampagne, was attended by 27 participants with different backgrounds. Michael explained that an important issue related with the management of traditional hedgerow systems was the utilisation of their biomass. Among the challenges were the low profitability of biomass and the uncertainties regarding the legal status of trees. Michael explained that the team at BTU is developing a strategy that combines the use of tree biomass and the provision of ecosystem functions such as habitat provision and landscape aesthetics.

2.5 Romanian wood pasture group

This Romanian wood pasture group has held many events between July 2016 and December 2017 (Table A.1), and two events from the second part of June (2016) that were not previously reported.

On 27 June 2016, Tibor Hartel was invited by the forester engineer Kádár Sándor Tibor to co-lead a wood-pasture workshop within the Conference of Foresters from the Carpathian Basin. 85 foresters were present (Figure 7).



Figure 7. Field seminar with foresters in ancient oak wood-pasture

On 2 October 2017, Tibi Hartel co-organised a meeting with representatives of the community of Saschiz (e.g. the mayor, local councillor, and NGO, forestry, and cultural initiative representatives) to share knowledge and to identify further needs of interventions for the sustainability of wood-pastures (Figure 8). Based on this meeting, a conservation grant was submitted to Whitley Fund for Nature entitled: '*Ancient wood-pastures of Transylvania: restoring habitat of global concern*'. The project proposal was developed by Tibi Hartel and it is currently under review.



Figure 8. Stakeholder meeting in early October 2017 for discussing about priority needs for management interventions in an ancient wood-pasture near the village of Saschiz

Between July and September 2017, Tibi Hartel also developed detailed documents about the status of ancient wood-pastures for nine ancient wood-pastures belonging to eight communes from South-Eastern Transylvania: *Apold*, *Mercheasa*, *Rupea*, *Ticusu*, *Daisoara*, *Breite*, *Saschiz*, *Viscri*. Each document was developed in Romanian language and contained information as presented in Table 1.

Each of these documents was personally handed to key actors at local community level, from each town by T. Hartel and A. Szapanyos. These actors included representatives of NGO and touristic associations, farmer associations, and local councillors, and a local teacher and a local priest. The documents are available by request at hartel.tibor@gmail.com. The information from these leaflets is structured in a way to publish a booklet when funds are available.

Table 1. Information contained by the documents provided to local communities

Information	Description
Title	'A chance for ancient wood-pastures from xx village' where 'xx' was the name of the village.
General aspects	One page of information about ancient wood-pastures and their socio-economic and environmental potential.
Ancient trees on pastures and the formal regulations	Half a page (A4) of the current legal situation of ancient wood-pastures and their old trees according to the Romanian and EU legislation.
The goal of this initiative	Half a page on the goal of creating these documents
Ancient wood-pastures from Southern Transylvania	Half a page presenting the overall situation of ancient wood-pastures in Southern Transylvania, including the number of ancient trees on them and some comparative information with other European countries.
Ancient wood-pasture from Village xx (where xx is the village name).	<p>These information were specific to every village and contained the following details:</p> <ul style="list-style-type: none"> - Size of the wood-pasture (including a map). - Number and species of ancient trees (map). - Size of the ancient trees with size distribution plots. - Representative pictures. - Local stories about large old trees is available. <p>Extent: up to 3 pages, depending on the size of the wood-pasture, number of large old trees.</p>
The potential of ancient wood-pasture for the socioeconomic development and nature conservation of village xx.	<p>The following information were considered:</p> <ul style="list-style-type: none"> - Tourism - Local products - Landscape identity - Genetic resources for forestry - Educational - Nature conservation - Soil fertility
Box 1. Threats to ancient wood-pastures from Southern Transylvania	<p>In this box we provided region inspired and identified threats to ancient wood-pastures:</p> <ul style="list-style-type: none"> - Removal by cutting - Burning - Forest overgrown due to grazing abandonment - Plantations
Contact persons	E-mail and phone of T. Hartel and A. Szapanyos.
Overall number of local persons who received these documents:	25

2.6 French bocage group

This group focused on recent hedgerow networks planted in the 2000s in Brittany (France), promoted by the farmers of the "Terres & Bocages" association, and designed and managed with an adaptive strategy to allow multiple ecosystem services.

The first stakeholders' meeting was organized in November 2014 with the "Terres & Bocages" group. At that meeting, the proposed objectives of the research was to quantify the ecosystem services provided by such bocage agroforestry systems in three domains: i) support and regulation services associated to biodiversity, ii) support and regulation services associated to soil and water, and iii) provisioning services fulfilled by hedgerows and adjacent fields. Three research questions were identified:

- What is the ecological added value of these recent hedgerows?
- What is the contribution of management practices to the added value of recent hedgerows?
- How do farmers perceive hedgerows and how does this perception impact their strategy of management of fields and hedgerows?

The results were presented and discussed during a meeting on 15 November 2017 at Plouguenast with farmers of Terres et Bocages Association, and a "lesson learnt" report has been written from the results after the meeting (Figure 9). The objective of the last meeting was double: it was first to get feedbacks from the farmers, and second to identify with them some perspectives of follow-up to support their action. Main conclusions of this meeting are summarized in Annex B.



Figure 9. The participants receiving the results of AgForward study in the farms and landscapes of their region.

The meeting was attended by 24 people plus the two facilitators and the three researchers working for AGFORWARD project. The meeting involved 21 agricultural stakeholders: 14 active farmers, one active farm worker, two retired farmers, one potential farmer and three agricultural land owners. All active and retired farmers plus one land owner were members of the Terres & Bocage association. Three other stakeholders were also present: two technicians from environmental services group from the local authority and one representative from decentralized state services in agriculture. The stakeholders comprised four women and 20 men.

The morning session comprised a series of presentations of information and results, followed by discussion so that farmers could react to the results. The afternoon session was a workshop of discussion between stakeholders and researchers. The objective was to identify emergent relevant topics from farmers' perspective which could guide future action aiming at redeveloping multifunctional bocage agroforestry.

There were two background presentations. The first one, given by facilitators of the Terres & Bocage Association, emphasized the main features of the past and current evolution of bocage landscape and bocage agroforestry, and the purpose of the association in this context. In particular this presentation emphasized that just planting hedgerows does not guarantee their sustainability; the keys to favor sustainable bocage agroforestry are: i) to integrate hedgerows into the farm management of crops and grassland and ii) to develop and mobilize hedgerows multifunctionality so that they remain adapted to changing farming systems. The second background presentation, given by researchers, recalled the objectives of the AGFORWARD project, and the reasons for the partnership with the farmers' group dealing with "agroforestry in high natural and cultural value agroforestry systems". The presentation also gave opportunity to show the diversity of topics tackled by the other groups of stakeholders and researchers in the AGFORWARD project over Europe. This was followed by the presentation of the results of AGFORWARD for the bocage in three parts: biodiversity, soil and water issues, and the third one about farming practices.

3 Acknowledgements

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 views and opinions expressed in this report are purely those of the writers and may not in any circumstances be regarded as stating an official position of the European Commission.

Annex A: Tabular summary of some dissemination activities

Table A.1. List of the key dissemination activities linked to the agroforestry of high nature and cultural value participatory research and development network during the period July 2016 to December 2017.

Types of audience: SC: scientific community (higher education, research), I: Industry; CivS: Civil society; Pol: Policy makers; M: Media, Ed: students and teachers; Assoc: associations of farmers, GA: General Audience

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
Website/social media								
2	Facebook	SoE KKK	Continuation of Fás-Legelő-Erdő / Wood pastures in Hungary site: https://www.facebook.com/faslegeloerdo/posts/662827960556723	Ongoing	HU	I, CivS, PM, M	> 300	Hungary
2	Facebook	ISA	https://www.facebook.com/groups/239821656526741/	Ongoing	PT	GA	237 (Jan '18)	Portugal
2	Website, training toolkit	BTU	Agroforestry in the Spreewald Floodplain, Germany, developed by Tsonkova P, Mirck J http://train.agforward.eu/language/en/agroforestry-in-the-spreewald-floodplain-germany/	Apr 2017	Worldwide web	I, CivS, Ed	ongoing	International
Television and radio								
2	Radio program	BBU	Presentation about the value of large old trees by Tibor Hartel http://kolozsvariradio.ro/2016/06/12/mit-tudnak-az-erdelyi-oreg-fak/	16 June 2016	Radio Cluj in	GA		Hungary
2	TV program	BBU	Presentation of ancient wood-pastures by Tibor Hartel http://www.vaidasag.eu/erdelyi-termeszetvedok-a-kozmediaban	6 Aug 2016	DUNA TV	GA		Hungary
2	TV program	SoE KKK	Anna Varga: Hungarian wood pastures https://www.youtube.com/watch?v=OVeBEYc3tdk	12 Nov 2016	Duna TV	GA	> 500 000	Hungary
2	TV program	UEX	El papel de la dehesa en la lucha contra el cambio climático. Canal Extremadura "Fuera de tiempo". http://www.canalextremadura.es/alacarta/tv/videos/fuera-de-tiempo-170217	14 Feb 2017	Canal Extremadura	General Audience	~ 100000	Spain
2	Radio program	SoE KKK	A Hely: A Kasztói őstölgyes (Ancient oaks at Kasztó)	21 Jun 2017	Kossuth Rádió	GA	> 500 000	Hungary

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
2	TV program	BBU	Presentation of wood-pastures by Tibor Hartel, including the results of the AGFORWARD project regarding the importance of scattered trees for spider communities	3 Nov 2017	Duna TV	GA		Hungary
Conference organisation								
2	EGF 2017	CNR	EGF2017 - 19th Symposium of the European Grassland Federation "Grassland resources for extensive farming systems in marginal lands: major drivers and future scenarios". Key notes and oral presentations on AF and AGFORWARD	8-10 May 2017	Alghero (Italy)	SC, Ed, Pol	200	World
2	National agroforestry conference	CRAN	Agroforestry 2017	22 June 2017	Cranfield UK	I, SC, CivS, Pol, Mm, Ed	250	UK, Ireland
2	2 ^o Magyar Agrár-erdészeti Fórum (2nd National Agroforestry Forum) (in Co-Organisation with NAIK)	SoE KKK	Organisation of the forum and oral presentation - Vityi A: Hazai és nemzetközi agroerdészeti kutatások eredményei az AGFORWARD projektben (National and international research results in AGFORWARD project)	6 Jul 2017	Püspökladány, Hungary	Farmers (I) but also CivS, PM, M, SC	150	Hungary
Oral presentations								
2	Oral presentation at scientific event	BBU	T. Hartel presents the conference 'Farming landscapes of Transylvania: perspectives and challenges'. Slides are accessible here: https://www.slideshare.net/harteltibor/peisaje-agrare-abordare-socialecologica	2 Aug 2016	Galeria Posibila, Bucharest		50 (plus 2000 via facebook)	Hungary
2	Oral presentation at Scientific Congress	UEX	Persistence of legumes in dehesa system influence on productivity and pasture quality, by Ana Hernández-Esteban in the World Congress Silvo-Pastoral Systems	27-30 Sept 2016	Evora, Portugal	SC	300	World
2	Oral presentation at Scientific Congress	UEX	Potential changes on pasture productivity and grazing intensity in iberian dehesas driven by atmospheric nitrogen deposition, by Gerardo Moreno in the World Congress Silvo-Pastoral Systems	27-30 Sept 2016	Evora, Portugal	SC	300	World

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
2	Oral presentation at Scientific Congress	UEX	Challenges and potential innovations to improve the resilience European wood-pastures, by Gerardo Moreno in the World Congress Silvo-Pastoral Systems	27-30 Sept 2016	Evora, Portugal	SC	300	World
2	Oral presentation at scientific event	TEI	Valonia oak of Xeromero – Aetolakarnania, the largest silvopastoral system of the species in Greece and in the Mediterranean basin: ecological and socioeconomical aspects by Papadopoulos	24-29 Oct 2016	Marseille, France	Scientific	~1000	European, French mostly
2	Oral presentation	SoE KKK	Kiss-Szigeti Nóra (2017): Az Agrárerdészetről-alapjai, eredete, hazai helyzete, kilátások és kihívások (Agroforestry – history, state-of-the-art, and challenges) University of Sopron at: Zöld Forgatag (Forum of The future of sustainable agriculture in Hungary)	21-22 Mar 2017	Gödöllő, Hungary	farmers, CivS, SC, Ed	250	Hungary
2	Oral presentation at public event	UEX	"Challenges for the dehesas" presented by Gerardo Moreno and Fernando Pulido in the Seminar "Green Week for the Dehesa" organized by the government of Badajoz province	18 Apr 2017	La Cocosa farm, Badajoz	General audience	100	Spain
2	Oral presentation at scientific event	UEX	Tree effects on the production and quality of forage by different cultivars of Triticale in dehesas, presented by Óscar Santamaría in the 56th Scientific meeting of the Spanish Grasslands Society	25-28 April 2017	Barcelona	SC	150	Spain
2	Oral presentation at scientific event	SoEKKK	Gastronomy and conservation: using foodism to change the discourse. Anna Varga's talk at Conservation Summit in London https://www.conservationoptimism.org/	May 2017	London	GA		UK
2	Oral presentation at scientific event	CRAN	"Cost-benefit analyses of two silvopastoral agroforestry practices" poster and presentation at the Cranfield Group Project Exhibition	4 May 2017	Cranfield, UK	SC, Ed, I	50	UK
2	Oral presentation to industrial audience	UEX	"The eligibility of wood pastures for CAP payments" presented by Gerardo Moreno in the Presentation of the Spanish Association of Extensive Cattle Breeders	4 May 2017	Salamanca	Farmers, Pol	100	Spain
2	Oral presentation at	UEX	Sown permanent pastures rich in legumes in	8-10 May	Alghero,	SC	>200	Europe

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
	scientific event		Iberian Dehesas: influence on biodiversity and soil carbon sequestration by Ana Hernández-Esteban in the 19th Symposium of the European Grassland Federation "Grassland resources for extensive farming systems in marginal lands: major drivers and future scenarios"	2017	Sardinia (Italy)			
2	Oral presentation at scientific event	BBU	T. Hartel presents 'Wood-pastures as social-ecological systems', within the event 'New fronts in Restoration Ecology' organized at Hungarian Academy of Sciences	11 May 2017	Budapest	Scientific	50	Hungary
2	Oral presentation at scientific event	UEX	"Dehesa and Climate Change" presented by Gerardo Moreno in the 5th Seminar of the Spanish Association of Weather presenters	4 Jun 2017	Cáceres	M	40	Spain
2	Oral presentation at scientific event	BBU	T. Hartel took part as an invited speaker together with Dr. Eszter Kelemen for plenary presentation entitled 'Ecosystem services on the ground' at the International Congress of the European Society of Ecological Economics. Full movie here: https://www.youtube.com/watch?v=6S_nng3r5yY	20-22 June 2017	Budapest	Scientific	150	World
2	Oral presentation in scientific event	UEX	Selection of legume species to improve pastures as management practice for the mitigation and adaption of climate change, presented by Ana Hernández-Esteban in 7th Spanish Forestry Congress	23-30 June 2017	Plasencia, Spain	SC	~1000	Spain
2	Oral presentation in scientific event	UEX	Assisted regeneration of dehesas under different grazing schemes: evaluation of cost-efficient approaches, presented by Yonathan Cáceres in 7th Spanish Forestry Congress	23-30 June 2017	Plasencia, Spain	SC	~1000	Spain
2	Oral presentation to professional group	BBU	T. Hartel was invited by the Sona Nostra Association for a lecture on the importance of cultural landscapes, coupled with field visit	23 to 24 Aug 2017			30	
2	Oral presentation in scientific event	TEI	Land cover changes in a valonia oak silvopastoral system in W. Greece – ecological and sociological implications by A Pantera at CEST 2017	31 Aug to 2 Sept 2017	Rhodes, GR	SC	~800	European

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
2	Oral presentation to a scientific event	BTU	Agroforestry as a strategy to secure agricultural production in the context of increasing urbanization and climate change effects, by Kanzler M, Böhm C, Mirck J, Schmitt D, Veste M (in German: Agroforstliche Nutzungsstrategien zur Sicherung der landwirtschaftlichen Produktion im Kontext steigender Urbanisierung und den Folgen des Klimawandels)	Sep 2017	Witzenhausen, GER	SC	60	Germany
2	Presentation to stakeholders	TEI	Agroforestry in Greece: the case of the Xeromero forest (in Greek) by Papadopoulos & Pantera; organized by the AGROF MM ERASMUS+ project	3 Oct 2017	Skourtou-Aetoloakarnani	Stakeholders	25	Greece
2	Oral presentation to a scientific event	SoE KKK	Varga Anna, Saláta Dénes, Samu Zoltán Tamás, Bölöni János, Zlinszky András, Molnár Ábel, Babai Dániel, Biró Marianna, Vityi Andrea, Bede-Fazekas Ákos, Molnár Zsolt: Fás-erdős legeltetési rendszerek jelenlegi helyzete és természetvédelmi vonatkozásai. (State and nature conservation aspects of wood pasture systems) XI. MAGYAR TERMÉSZETVÉDELMI BIOLÓGIAI KONFERENCIA	2-5 Nov 2017	Eger, Hungary	SC, CivS, Ed	250	Hungary
2	Oral presentation to scientific meeting	BBU	Social-ecological sustainability of agrarian landscapes by T. Hartel. Link here (radio interview): http://www.mtte.hu/content/20171108-biodiverzit%C3%A1sr%C3%B3l-m%C3%A1sk%C3%A9pp-konferencia-sorozat-2-r%C3%A9sz?page=0%2C2	8 Nov 2017	Hungarian Society of Natural Sciences, Budapest	Scientific	200 plus Radio Interview	Hungary
2	Oral presentation at scientific event	UEX	"Pasture improvement and Biodiversity in Iberian Dehesas" presented by Gerardo Moreno in the 18th meeting University-Entreprise focussed to the search of solutions for the dehesa and organized by the University of Cordoba	14 Dec 2017	Córdoba	Farmers, I, SC, Ed, Pol	150	Spain
2	Oral presentation at public event	CRAN	Presentation by Paul Burgess of results within the "Trees: improving the lives of livestock" workshop at the Oxford Real Farming Conference	4 Jan 2018	Oxford, UK	SC, I, CivS, Pol, Mm Ed	150	UK
Poster								

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
2	Poster at scientific event	UEX	Evaluation of cost-efficient shelters to regenerate trees in silvo-pastoral systems. Cáceres Y., Pulido F.J., Juárez E., Moreno G. World Congress Silvo-Pastoral Systems	27-30 September 2016	Evora, Portugal	SC	300	World
2	Poster at scientific event	ISA	Is cork growth affected by different understory management options: lupine pasture versus shrubs encroachment? Faias, S. P., Paulo, J. A., Tomé, M. World Congress on Silvo-Pastoral Systems. http://www.silvopastoral2016.uevora.pt/wp-content/uploads/2016/11/WG_4_Is-cork-growth-affected-by-different-understory-management_S-Faia-et-al.pdf	27-30 September 2016	Evora, Portugal	SC	300	World
2	Poster at scientific event	BTU	A brief overview of the origin and development of woody structures in the landscape (in German: Ein kurzer Überblick über die Entstehung von Gehölzen in der Landschaft), by Tsonkova P, Böhm C	30 Nov – 01 Dec 2016	Senftenberg, GER	SC; Pol; Ed, M	>120	Germany
2	Poster at scientific event	BTU	A brief overview of the origin and development of woody structures in the landscape by Tsonkova P, Böhm C (in German: Ein kurzer Überblick über die Entstehung von Gehölzen in der Landschaft)	30 Nov – 01 Dec 2016	Senftenberg, GER	SC; Pol; Ed, M	>120	Germany
2	Poster at scientific event	TEI	Effects of grazing and understorey clearing on regeneration of valonia oak in Western Greece by Papadopoulos at CEST 2017	31 Aug – 2 Sept 2017	Rhodes, Greece	Scientific	~800	European
2	Poster at scientific event	TEI	Stand structure analysis of <i>Quercus ithaburensis</i> subsp. <i>macrolepis</i> silvopastoral systems in Greece by Papadopoulos at CEST 2017	31 Aug – 2 Sept 2017	Rhodes, Greece	Scientific	~800	European
2	Poster at scientific event	TEI	Presentation in the 18th Forestry Panhellenic conference of: Ecological, silvicultural and management characteristics of the valonia oak silvopastoral system in Xeromero Aetoloakarnania and its development potential under the framework of agroforestry (in Greek)	8-11 Oct 2017	Edessa, Greece	Scientific	~250	Greece and Balkan countries

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
2	Poster at scientific event	TEI	Effects of livestock grazing on understory vegetation in relation to animal sheds in a valonia oak silvopastoral system of western Greece by Mantzanas K. et al. at World Congress on Silvopastoral Systems	27-30 Sept 2017	Evora, Portugal	Scientific	~1000	World Congress
News articles								
2	News	SoE KKK	Bogyiszló - Kasztói fás-legelő bemutatása http://www.fataj.hu/2017/05/091/201705091_Bogyszlo-Kaszto-faslegelo.php	9 May 2017	Hungary	GA	250 000	Hungary
2	News	SoE KKK	Kasztó-nap (The Day of Kasztó wood pasture) In: Tolnai Népújság (daily newspaper of Tolna county)	11 May 2017	Tolna County, Hungary	GA	>100 000	Hungary
2	News	SoE KKK	A bogyiszlói vándorló fákról nyílik kiállítás az Ős-Dráva Látogatóközpontban (Exhibition on the migratory trees of Bogyiszló at the Old-Dráva Visitor Center) http://kadarka.net/cikkek-kat/a-bogyiszloi-vandorlo-fakrol-nyilik-kiallitas-az-os-drava-latogatokozpontban	27 Sept 2017	Hungary	GA	100 000	Hungary
2	Journal report	UEX	La dehesa encara los retos de futuro. Interview to Gerardo Moreno for the regional journal Periodico Extremadura. http://www.elperiodicoextremadura.com/noticias/economiaverde/dehesa-encara-retos-futuro_1060245.html	19 Dec 2017	Extremadura	General Audience	~ 100000	Spain
2	Specialized Journal	UEX	Gerardo Moreno. 2017. Retos e innovaciones demandadas por propietarios y gestores de dehesas. Revista Montes 128: 38-42.	June 2017	Spain	Silvicultors	10000	Spain
Field visits and workshops								
2	Stakeholder meeting presentation	NYME KKK	Varga A. Past, present and future of the wood pastures in the Bakony-Balaton region and AGFORWARD project. Event: Herder meeting of the Balaton-Bakony region	14 Nov 2015	Nemesvámos	I, CivS		
2	Stakeholder meeting presentation	NYME KKK	Vityi A. (2016). Participatory research and development in AGFORWARD project Event:	6 May 2016	Fajsz	I, SC	20	Hungary

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
			Stakeholder meeting and establishment of the Hungarian Agroforestry Civil Association					
2	Workshop	BBU	wood-pasture workshop within the Conference of Foresters from the Carpathian Basin	27 June 2016	Foresters	Carpathian Basin	85	Romania
2	Speech at cultural festival	BBU	Presentation of ancient wood-pastures of Southern Transylvania by Tibor Hartel at Week of Haferland	12 Aug 2016	Saptamana Haferland, commune Saschiz	GA	120 persons	Romania
2	Workshop	BBU	Prof. L. Rakosy and experts in game management discusses about ecosystem disservices of wild animals	8 Feb 2017				Romania
2	Workshop	UNEX	Grazing and fire prevention	10 Mar 2017	Hernán Pérez	CivS, Pol	50	Spain
2	Field visit	CNR	Post tour EGF2017 Meeting. Visit of the site of Monte Pisanu, silvopastoral system suited in the framework of AGFORWARD (WP2 HNV sites)	10 May 2017	Bono	Sc, Pol	50	World
2	Field visit	UEX	Visit to the farm of the Fertiprado company to discuss about the sown of legume-rich pastures	22 Jun 2017	Vaiamonte, Portugal	I	12	Spain
2	Field visit	UEX	Visit to the farm "Atoquedo" owned by Enrique Rodríguez-Arias to discuss about the sown of legume-rich pastures, triticale as fodder crop and the efficiency of thorny protector to regenerate trees in grazed wood pastures.	7 Sept 2017	Torrejón el Rubio	I	10	Spain
2	Workshop	BTU	Introduction to agroforestry and its benefits to soil, water and biodiversity	21 Sept. 2017	Peickwitz, Germany	Ed	50	Germany
2	Workshop	BBU	T. Hartel meets with the local community of Saschiz to share knowledge and to identify further needs of interventions for the sustainability of wood-pastures	2 Oct 2017	Saschiz, Romania	Pol		
2	Presentation to stakeholders	TEI	The opportunities of the new CAP: cases for the AGFORWARD project by K Mantzanas	3 Oct 2017	Skourtou-Aetoloakarnani	Stakeholders	25	Greece
2	Workshop	TEI	Information on the presentations that will take place under the AGROF MM ERASMUS+ project	3 Oct 2017	Skourtou-Aetoloakarn	Stakeholders	25	Greece

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
			and were results from the AGFORWARD were presented by A Pantera http://www.velanidodasos.gr/articles/one/201/		ani			
2	Workshop	UNEX	Selection of experimental silvopastoral farms	26 Oct 2017	Villanueva	CivS	20	Spain
2	Workshop	UNEX	Participation in the debate of the workshop “The dehesa: environment, conservation and heritage”	26 Oct 2017	Almodovar del Campo	CivS	50	Spain
2	Stakeholder meeting	TEI	Silvopastoral systems in Greece by A Papadopoulos	29 Oct 2017	Kato Meria – Kea island- Cyclades- Aegean	I, SC	50	Greece – Dutch – American- German
2	Workshop	BBU	Cultural ecosystem services of agrarian landscapes, at the Green Club Association	30-31 Oct 2017	Sfintu Gheorghe		25	Romania
2	Field visit	UEX	Visit to the farm “Castro Enríquez” owned by the government of the Salamanca province to discuss about the innovations of the dehesa management	9 Nov 2017	Cabeza de Diego Gómez	SC, I	10	Spain
2	Field visit	ISA	Visit to farm in Grândola county managed by ANSUB and affected by a large fire in August 2017.	13 and 23 Nov 2017	Grândola	I and Assc	15	Portugal
2	Workshop	ISA	Centro de Estudos Florestais (CEF) conference from research to practice. Subject: The Role of Agroforest Management Practices in the Prevention and Recovery After Fire in Montado. Organization: CEF and ANSUB. https://www.isa.ulisboa.pt/en/cef/highlights/meetings/cork-oak-woodlands-agroforest-management-practices	23 Nov 2017	Grândola	Farmer, Assoc, CivS and M	> 50	Portugal
2	National stakeholder meeting	BTU	Michael Kanzler presented AGFORWARD – Background and Results	25 Nov 2017	Witzenhausen, Germany	SC	60	Germany
2	Stakeholders meeting	TEI	Information on the results of AGFORWARD project by A Papadopoulos	7-8 Dec 2017	Agrino & Messologi, W. Greece	I, Pol	5	Greece
2	Field visit	UEX	Visit to the farm “La Parra” owned by Alfonso Covalada to discuss about the efficiency of thorny protector to regenerate trees in grazed wood pastures	8 Dec 2017	La Moheda de Gata- Santibañez el Alto	I	8	Spain

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
2	Stakeholder meeting	TEI	Information on the results of AGFORWARD project including wp2 by PA apadopoulos, K Mantzanas, V Papanastasis and Tsimplinas	14 Dec 2017	Sissani, Kozani, Macedonia, Greece	I	10	Greece
2	Stakeholder meeting	TEI	Information on the results of AGFORWARD project including wp2 by A Papadopoulos, K Mantzanas and Koutsoulis	15 Dec 2017	Fokaia, Chalkidiki, Greece	I	10	Greece
2	Workshop	CNR	WP2 Final Workshop. Visit to the farm “Elighes Uttiosos”, presentation of AGFORWARD results and discussion	20 Dec 2017	Santulusurgiu	Sc, Farmers, Pol	30	Italy
2	Stakeholders meeting	TEI	Information on the results of AGFORWARD project by A Papadopoulos	27 Dec 2017	Skourtou, W. Greece	I	4	Greece
Policy and Governance								
2	Training course	UEX	Training for the Public Administration School: The nature of Mediterranean wood pastures and criteria for eligibility of permanent pastures for CAP payments taught by Gerardo Moreno	24-25 Oct 2016	Mérida	Pol, I	30	Spain
2	Cooperation	UEX	Launching of the Association of Forest of Descargamaría (northern Extremadura)	12 Aug 2017	Descargamaría	CivS	60	Spain
2	Training course	UEX	Training for the Public Administration School: The nature of Mediterranean wood pastures and criteria for eligibility of permanent pastures for CAP payments taught by Gerardo Moreno	23-24 Oct 2017	Mérida	Pol, I	30	Spain
2	Open debate	BBU	Open debate of T. Hartel with the political party „Uniunea Salvati Romania” (USR) about the environmental agenda for 2018. Agroforestry systems and ancient wood-pastures were suggested for formal recognition.	15 Dec2017				Romania
Technology transfer								
2	Design of new agroforestry project	UNEX	Implantation of Woody Fodder Bank: Morus alba and Tagasaste for browsing with goats	24 Nov 2017	Torre de Don Miguel, (1.25 ha)	Farmer	5	Spain
2	Design of new	UNEX	Implantation of Woody Fodder Bank: Morus alba	28 Nov 2017	Acebo, (0.5	Farmer	3	Spain

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
	agroforestry project		for browsing with goats		ha)			
2	Design of new agroforestry project	UNEX	Implantation of Woody Fodder Bank: Tagasaste for browsing with goats	28 Nov 2017	Hoyos, (0.5 ha)	Farmer	4	Spain
2	Discussion about innovations	UNEX	Visit to the "Protector Cactus World" company to discuss about the thorny protector to regenerate trees in grazed wood pastures	7 Dec 2017	Torre de Don Miguel Sesmero	I	4	Spain
Flyers								
2	Flyers	ISA	Feria Internacional da Cortica 2015, Coruche http://www.ficor.com.pt/custompages/showpage.aspx?pageid=e67358eb-fc46-4aef-92af-126568598062&m=b1060	28 May 2015	Coruche Portugal	CivS	300	Portugal
Education								
2	Training course for teachers of technic agriculture school	UEX	The Spanish dehesa: current threats and challenges to face the complexity taught by Gerardo Moreno in the training course "The forest and the dehesas"	5 Sept 2016	Navalmoral de la Mata, Spain	Ed, I	30	Spain
2	1 st national encounter of Portuguese forestry students	ALL	Sistemas agroflorestais em Portugal: tradição e oportunidade de inovação. Joana A. Paulo DOI: 10.13140/RG.2.2.30419.78888	20 Nov 2016	Instituto Superior de Agronomia. Lisboa, PT	Master Students	30	European
2	Primary schools	SoE KKK with HASIEBT	Agroforestry Education programme: Anna Varga: Ancient trees and wood pastures are wandering to the schools...	2017	Bogyszló, Hungary	Ed	>150	Hungary
2	Field participatory activity	BBU	T. Hartel with a group of students from Sapientia University engaged in tree-related management activities in the wood-pasture of HRH Prince of Wales, which included: pruning, haloing, coppicing and fencing. The event was assisted partly by the journal Sinteza, who reported it here: http://revistasinteza.ro/remarcabili/	23-24 April 2017		Ed	25 persons	Romania
2	Training course for Chefs	UEX	Ecological bases of dehesa functioning and production of high quality foods taught by Gerardo Moreno	15 Sept 2017	Mérida	Chefs	25	Spain
2	Workshop	BTU	Introduction to agroforestry and its benefits to soil,	21 Sep 2017	Peickwitz,	Ed	50	Germany

WP	Type of activity	Main leader	Title	Date	Place	Type of audience	Size of audience	Countries addressed
			water and biodiversity for students from schools in southern Brandenburg by Tsonkova P, Böhm C		GER			
2	Exhibition and art competition	SoE-KKK	BOGYISZLÓI VÁNDORLÓ FÁK (Migratory trees in the wood pasture at Bogyiszló)	29 Sept 2017	Szaporca	GA	>1000	Hungary

Annex B: French bocage group: Feedback from farmers and emerging topics

This annex describes some of the feedback from the French bocage group.

B.1 From ancient to novel systems of bocage agroforestry: questions about viewpoints, local contexts and policies.

Farmers emphasized the following topics:

- It is relevant to consider that the system of hedgerows managed in farms is a type of agroforestry. However hedgerows shall not be considered as the only components of bocage agroforestry: fields planted with apple trees or woodlots are also part of bocage agroforestry.
- In the past the types of agroforestry were linked to the local economy, the type of agriculture and land regulation of that time. Today it is both relevant to keep elements from the past (e.g., traditional hedgerows and apple trees) and to renew bocage agroforestry to adapt it to the new context of the farms and local territories.
- Agroforestry "to make money" and "agroforestry by passion" are quite different systems of thought. They should not be opposed and are often combined in the same farm. But it is an issue to balance the two viewpoints for the sustainability of agroforestry. This is why it is important to show the agroecological and landscape values related to agroforestry.
- Policies, changes in policies (notably the Common Agricultural Policy) are keys to favor tree management in farms but they can also restrain it. It is important to have information about changes of policies.

B.2 Questions about biodiversity

Farmers underlined the interest of (further) working on:

- Issues of natural regulation services fulfilled by biodiversity: the effective contribution of natural enemies (like carabid beetles) for pest regulation needs to be assessed and quantified. There is also an interest to investigate the contribution of biodiversity to pollination services. How to favor these natural regulation fulfilled by biodiversity?
- Conservation of biodiversity more broadly. How to monitor and favor biodiversity of conservation interest in agricultural landscapes, such as birds? How to favor biodiversity of recreational interest, e.g., small wild game?
- Disservices related to biodiversity. The potential disservices from certain species (e.g. corridor wild game that cause crop damages) needs to be investigated.
- The contribution of a diversity of tree plantations to biodiversity and associated services. Taking into account not only hedgerows but also isolated trees, woodlots, fruit trees plantations like plantations of apple tree and walnuts trees.

B.3 Questions about soil, biomass production, water and microclimate

Farmers underlined the interest of (further) working on:

- The use of "co-products" from hedgerows as organic fertilizers. Measurement of the relative contribution of for example fallen leaves to organic inputs to field. Measurement of the mineralization and stabilization of organic matter from wood chips if used as fertilizer of fields: what evolution of the organic matter? What differences with different inputs of wood chips? What need for complementary N input? What differences with other high C-level fertilizers?

- The interest of fertilizing new plantations of hedgerows. Measurement of the benefits for the start of the growth.
- The microclimate related to the shape and orientation of the hedgerows. How to measure it and its consequences (e.g., on yields)? What relative consequences of, for example, the hedgerow orientation to the benefits or drawbacks related to the microclimate?
- The difference of "behavior" of the different species currently planted. For instance evaluating the difference of adaptation to climate changes, or the difference in terms of water and nutrients (N, P) consumption, and in terms of biomass production.

B.4 Issues of farmers' practices and resources

Farmers underlined the interest of (further) working on:

- The comparison of impact of the diversity of farmers' management practices on hedgerows and fields. What differences of produced cover states and related agroecological values? Building a referential of "practices and consequences" as a discussion medium between farmers.
- The sustainability of farmers' management of hedgerows: what difficulties and opportunities? Understanding the diversity of management strategies of farmers that explain their choice of practices (e.g. strategies related to their objectives, their type of production - if they have grazing cattle or not - their resources in equipment and workforce, their agronomic indicators). It shall be then possible to identify sustainable strategies, and strategies that are not anymore adapted to farming systems that have changed (e.g. in terms of working time) and are problematic in terms of environmental impacts as well. Comparing the strategies to evaluate their assets and drawbacks from different management perspectives.

B.5 Economic issues

Farmers underlined the interest of (further) working on:

- The cost/benefit evaluation of wood chips when used as mulch, fertilizer or firewood, under different configurations. For instance according to the type of wood chip, of shredding equipment, of distribution channel.

B.6 Issues of monitoring and comparison of situations

Farmers underlined the interest of:

- A long duration monitoring (e.g. 20 years) to assess the agroecological benefits of the hedgerows. For instance to determine whether and how hedgerows contribute to stabilize crop yield in time.
- The specific agroecological evaluation of the hedgerows promoted by Terres et Bocages association.
- Identifying comparable and contrasted situations to analyze. For instance crop yield comparison before and after the removal or installation of an anti-erosion bank. For instance comparison of crop yields (regarding hedgerows) between farms of similar production objectives and crop management system. For instance measurement of the difference of agroecological value between e.g., the isolated trees and the trees in hedgerows.
- Characterizing the diversity of situations. For instance the diversity of the state of the hedgerows, of their management, of their "agroecological efficiency".

- Measuring the "system effect". Measurement of relative effects of farming practices and landscape to answer questions such as "how, how much and where should we change field practices to enhance the benefits from hedgerows?"

B.6 Conclusion

This last stakeholders meeting was successful regarding the number of farmers who participated both to the morning report-back session and to the afternoon brainstorming session, and regarding the richness of the discussions (*e.g.*, share of experiences about management strategies, about hedgerows-related ecosystem services; interest for the European perspective of AGFORWARD). For the participants, this type of systemic evaluation of hedgerows was useful to perform and to make known, in order to promote the multi-functional *bocage* agroforestry system they are working at.

Farmers proposed to deepen but also to enlarge topics of evaluation *e.g.*, to patrimonial biodiversity, to mammals and birds fauna, to fertilization potential of the hedgerows co-products, or to management strategies from individual to collective level. In this perspective, farmers emphasized the usefulness of a long-term follow up, matching with the time spans of development of *bocage* agroforestry systems. They also emphasized that building a knowledge repository from the diversity of situations they encounter would help them to share their experience and to deepen initiatives or formulate new options of management.