This project is supported by the European Commission under call FP7-REGIONS-2012-2013-1 "Regions of Knowledge" of the 7th Framework Programme for Research and Technological Development under grant agreement n° 319956.

Table of contents

Contact Details

General Coordinator:

Mr. Mirko Hänel

ttz Bremerhaven
Fischkai 1,
27572 Bremerhaven (Germany)
Web: www.ttz-bremerhaven.de

Administrative Coordinator:

Ms. Pilar Zapata Aranda

BIOAZUL S.L.
Avda. Manuel Agustín Heredia nº18 1º4
29001 Málaga (Spain)
Web: www.bioazul.com

Contact Person, Insitut :

Christoph Knauer, TTZ
Benjamin Küther, TTZ
Mirko Hänel, TTZ
Ralf Winterberg, RPAA
Hans-Georg von Engelbrechten, AGRA
Wojciech Rzewuski, MODR
Lukasz Cwikla, MODR
Maria Janicka, MODR
Romuald Wozniak, GZ
Ilona Szulborska, GZ
Lukas Drzewaszewski, GZ
Teresa Janik, EKSPERT
Jarosław Gopek, EKSPERT
Magdalena Kiner, EKSPERT
Victor Hugo Duran Zuazo, IFAPA
Carlos Parra Lopez, IFAPA
Samir Sayadi Gmada, IFAPA
Gonzalo Esteban López, AAPE
Antonia Lorenzo Lopez, BIOZ
Angela Magno, BIOZ
Pilar Zapata Aranda, BIOZ
Javier Morales Luque, ASAJA
Martin Holley, CSE
Annette Lamley, CSE
Pete West, DCC
Kate Hall, DCC
Kevin Lindegaard, C4E
Sheena Lindegaard, C4E
Susanne Paulrud, SP
Anna Sager, SP
Anders Nylander, SEA
Annika Henriksson, SEE
Aidan Duffy, DIT
Patrick Daly, DIT
Ian Brannigan, WDC
Pauline Leonard, WDC
Briain Smyth, BL
Declan Kennedy, BL
Valeria Magnolfi, EUBIA
Andrea Salimbeni, EUBIA

Websites :

www.ttz-bremerhaven.de
www.rpg-altmark.de
www.agraligna.com
www.modr.mazowsze.pl
www.zaluski.pl
www.ekspert-sitr.pl
www.juntadeandalucia.es/agriculturaypesca/ifapa/web
www.apegr.org
www.bioazul.com
www.asaja.com.es
www.cse.org.uk
www.dorsetforyou.com
www.crops4energy.co.uk
www.sp.se
www.energikontoretskane.se
www.salixenergi.se
www.dit.ie
www.wdc.ie
www.bio-tricity.com
www.eubia.org

Follow us:

Further information at : www.rokwood.eu

Rokwood Participants

Germany: ttz Bremerhaven - Regional Planning Authority Altmark - Agraligna

United Kingdom: Dorset County Council - Crops for Energy - Centre for Sustainable Energy

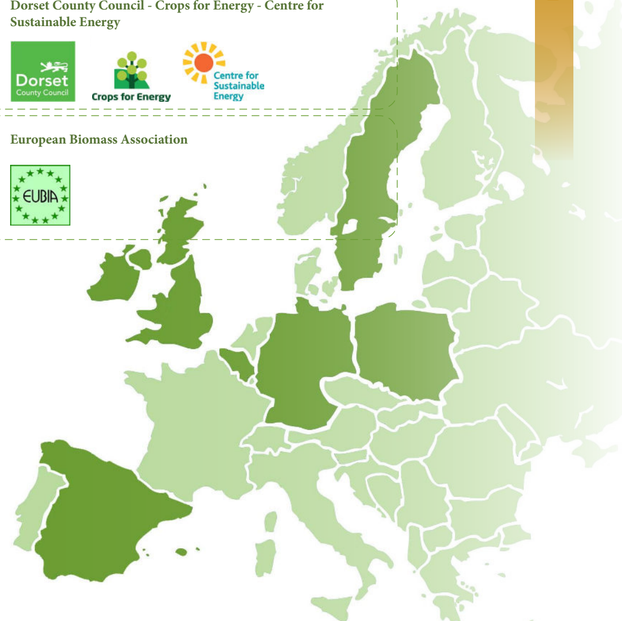
Poland: Gmina Zaluski - EKSPERT-SITR - Mazovian Agricultural Advisory Centre

Belgium: European Biomass Association

Sweden: SP Technical Research Institute of Sweden - Scania's Association of Local Authorities - SalixEnergi Europa

Ireland: Dublin Institute of Technology - Western Development Commission - Bio-tricity

Spain: Institute of Agricultural and Fishery Research and Training - BIOAZUL - Granada Energy Agency - ASAJA Granada



Executive Summary

Biomass is increasingly being seen as an important energy source for Europe. In 2009, the European Commission (EC) set the binding target for renewable energy. **20 % share of renewable energy in the EU overall energy mix by 2020 shall be reached.** In order to achieve this, **a possible strategy suggested by the EC is to triple the use of biomass energy** compared with 1997, being the greatest bioenergy potential for growth (up to 50 %) in wood chips and agri biomass.

For this reason, biomass production and trade have proven to be a flourishing sector that requires adapted solutions to meet the current international demand. Compared to the conventional energy sector, the structure of the **European biomass sector is characterised by SMEs.** The industry of renewable energy currently employs over 1.5 million people. Latest studies predict that, by 2020, nearly 3 million more jobs could be created, with a great potential for energy farmers, equipment manufacturers, installers, technicians, builders and engineers.

The ROKWOOD project will support the transnational cooperation between six European research-driven clusters.

Thus, the **ROKWOOD project will support the transnational cooperation between six European research-driven clusters** in order to **improve research and technological development, market uptake and to increase investments in woody biomass production and utilisation schemes at a regional level.** The six participating regional clusters will be coordinated in order to develop a Joint Action Plan (JAP) at the European level to drive economic development through research and technological development activities in the selected topics of sustainable production and efficient use of woody biomass.

Each cluster is represented in the ROKWOOD project by three partners respecting the triple-helix concept (business entity, research entity and local/regional authority). Apart from these partners, the European Biomass Industry Association (EUBIA) has joined the consortium in order to assure a broad dissemination of project results to a broad range of stakeholders (e.g. industry, biomass producer, research organisations).

The six project clusters, **in spite of their structural differences, face similar challenges** in terms of the production of woody biomass from short rotation plantations (SRPs). ROKWOOD will enforce the coordination between the countries through a collective JAP. Furthermore, the integration of regional SMEs and research institutions into regional policy development through the cooperation with local and regional authorities will help to foster innovative research in the area of woody biomass. The regions selected in ROKWOOD have similar problems but they achieved different degrees of success in the creation of woody biomass related clusters with sufficient economic weight.

By networking them, ROKWOOD expects **to promote the exchange of best practices in the support of innovation and involvement of private companies** (in particular SMEs), thus improving economic growth in this sector. Special efforts will be developed **to promote socio-economic convergence through R&D and innovation in rural areas suffering a conversion process.** Knowledge transfer within and beyond the clusters can provide sufficient solutions to these problems. Through the integration between research bodies, business entities and regional authorities the desired benefits for the different regional economies will be achieved. ■

ROKWOOD expects to promote the exchange of best practices in the support of innovation and involvement of private companies.

1

Introduction

The strategy for the participating clusters to drive economic development through joint R&D activities in the production and utilisation of woody biomass.

The Joint Action Plan is a catalogue of future joint activities, research areas and project ideas aimed at increasing research and technology development (RTD), market uptake and investments in woody biomass production from short rotation plantations (SRP) and utilisation schemes. It is one of the main outputs of the ROKWOOD project, as it will express the strategy for the participating clusters to drive economic development through joint R&D activities in the production and utilisation of woody biomass.

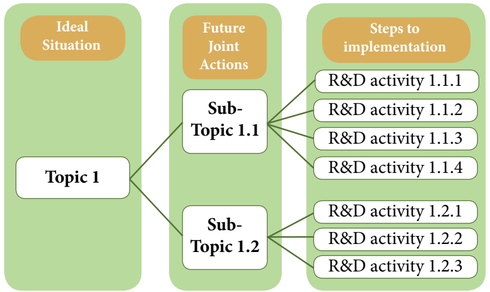
In order to take into account the particular conditions of each cluster, they were set a list of actions which address their regional obstacles and research gaps as identified in the relevant RTD issues in participating regions (task 1.2), the weaknesses and threats determined by the SWOT Analysis (task 1.3) and also the research areas identified in the agenda created within task 2.1 (chapter 2) that could be further implemented.

For this purpose, each cluster summarised their obstacles, interests, offers and needs according to the relevant order in their region, and transformed into the ideal situation towards which they would like the woody biomass sector to be driven. These were named as "ideal situations" or "Topics.

These JAP topics were defined by "Sub-topics", also called "Future Joint Actions", which represented the priority measures to take into consideration. These actions were the basis for defining the "R&D Activities" or "Steps to implementation".

Each cluster was asked to elaborate concrete future joint activities which could drive the economic development in the production and utilisation of woody biomass in their areas, being always based on the regional problems of each cluster, already identified in the previous exercises. The way of organising and harmonising this information was the utilisation of a mind-map in which Topics, Sub-topics and the R&D Activities were visualised according to the diagram shown below.

Figure1: ROKWOOD JAP mind map



It was expected that all partners discussed about their proposed topics or ideal situations, prioritised them and chose those to be finally worked on the JAP. The methodology used for such discussions was the one known as "World Café". The idea behind the Word Cafe method is to bring a large group of people to communicate with each other about subjects which are of importance to the participants. The World Cafe should lead to discourse in small groups as in street cafes. The participants during the exercise change tables to bring their know-how and interests. At the end of the session the plenum discusses the results in a whole.

After these discussions, six topics were chosen to be implemented in the JAP, and many R&D activities were proposed within each of them. The topics chosen were the following:

I. Development of pilot or demonstration projects and development of regional SRP clusters.
II. Develop lobbying at an EU task group level.
III. Develop regional species guidelines & transnational agronomy development.
IV. Cultivation / logistics / end-use knowledge transference.
V. Multi-function / added value research .
VI. Develop education and training programs for sector stakeholders.

Moreover, although the previous R&D activities are the core part of this task, there are some other actions that can support the work previously proposed. Within this task, we are writing the roadmap for the future development of the SRP industry at the European level. In addition, dissemination activities, clustering activities and lobbying activities will be carried out by individual clusters in order to progress the sector in their regions and at a national level.

We are writing the roadmap for the future development of the SRP industry at the European level.

2

Target Region Portrait

Innovative measures to break the cycle of failure and help the woody energy crops industry gain momentum.

The first year of the ROKWOOD project involved a complete and cross-sectional diagnosis of the state of play of the clusters. The remainder of the project involves coming up with innovative measures to break the cycle of failure and help the woody energy crops industry gain momentum.

Despite the geographic diversity of the clusters and the different roles that SRPs play in these regions, there is a good basis for closer co-operation. Throughout the project there are opportunities for clusters to learn from each other. The consortium is made up of partners at different stages of advancement. For instance Sweden has been a leader in SRC for nearly 30 years whilst in the Midlands and Western region of Ireland and the SW of England there has been limited activity so far but there is massive potential.

Each cluster performed a PESTLE and SWOT analysis to understand the factors currently affecting the production and use of SRPs from several different perspectives, namely: Political, Economic, Social, Technological, Legal and Environmental.

The SWOT proved a useful exercise for countries to clarify their own specific situation and that of other participants. The rich information contained in the SWOTs provided the opportunity to identify key similarities and differences between countries in order to best develop a coherent approach for progressing the sector in a mutually beneficial way. The resulting ROKWOOD Joint Action Plan includes fundamental activities that are required to improve research and technological development (RTD), market uptake and to increase investments in woody biomass production.

The following table outlines a general overview of the regions involved in the Rokwood project:

Table 1: Characterisation of the ROKWOOD regions

Region	North Germany	Andalusia, Spain	Mazovia, Poland	Midlands and Western Ireland	South West England	Skäne, Sweden
Population	19.5 million	8.4 millions	5.3 millions	1.1 million	5.3 million	1.25 million
Area (ha)	13,766,200	8,759,700	3,555,847	3,253,900	2,382,900	1,093,900
Area of short rotation plantations today (ha)	2,500	150 - 170 (experimental plots)	1,100*	117	150	2,042
Forest cover (ha)	2,369,830 (17.2%)	2,540,313 (29%)	846,292 (23.8%)	340,332 (10.5 %)	250,000 (10.5%)	391,000 (35.7%)
Installed capacity of biomass (MWth)	approx. 500	1,555	2,480*	94	119,2	1,313
Number of biomass heating & CHP installations	7,500	23,431 heating and 18 (with 5 CHP) electricity installations	32,2626*	951	1,259	33 (>5MW)
Area of agricultural land (ha)	6,908,900 (50.2%)	3,849,120 (44%)	2,311,301 (65%)	2,053,202 (63.1 %)	1,914,811 (80.4%)	506,012 (46%)
Predominant agricultural land use	Grain farming, cultivated pasture, dairy/pig farming, forestry (in that order)	Olive plantations with 1,550,200 ha (40 %)	Fruits, vegetables, potatoes, cereals, canola, berries	Predominantly pasture/grassland for livestock (mainly beef and dairy, some sheep)	Livestock farming particularly dairy cows and sheep (75 % of the land is grass or rough grazing)	Livestock farming (cows, pigs, chicken) and arable crops cultivation

* Based on information from Aebiom Statistical Report 2013. http://www.aebiom.org/blog/category/publications/statistics/

Table 2: Opportunities for developing the SRP sector in ROKWOOD regions

Region	Opportunities
North Germany	• Floodplain forest management to avoid intensifying the impact of flooding • Planned nuclear power phase out in Germany • Increasing demand for alternatives such as sustainable biomass production
Andalusia, Spain	• Sustainable biomass production from SRPs can help achieve the regional targets for renewable heat and electricity • Biomass heating is a high growth area as it is more competitive compared to fossil fuel alternatives • There is a large land resource that could be exploited, especially marginal and abandoned agricultural lands
Mazovia, Poland	• The potential for increasing woodfuel supplies from forestry resources is limited • SRPs can be planted close to district heating plants reducing transport costs and making fuel more competitive in price • Climate and soil conditions are very suitable for SRPs. There is a large potential resource of 280,000 hectares of uncultivated and fallow land
Midlands and Western Ireland	• The Irish Government is drafting a Bioenergy Action Plan which will include stimulus measures such as a Renewable Heat Incentive for large commercial users • There is significant demand in the region for co-firing 30 % biomass in peat burning power plants. A number of project developers including Biotricity are seeking to establish biomass CHP power plants which if built will increase demand still further • Large extent of properties in rural areas are off the gas grid and rely on expensive oil heating • The region has a low level of forest cover so SRPs could provide a rapid growing, local source of sustainable biomass
South West England	• 16 % of all properties in the SW are off the mains gas grid. In many rural areas the figure is much higher (up to 60 %) • 211,024 households in the SW are in fuel poverty as a result of high fossil fuel heating costs. Locally grown SRPs could provide a cheaper alternative • It is estimated that planting 66,000 hectares of energy corps in the SW could create 3,745 jobs
Skäne, Sweden	• Sweden has 51 % renewables in its energy system as a whole, and more than 12 % renewable in its transport • SRPs could be used as second generation biofuels helping to reduce demand on imported petrol and diesel • Climate and soil conditions are very suitable for SRPs

3

Transnational Research Topics

Agenda of research needs development and conclusions (task 2.1)

Each region has analysed the research needs required to help move the industry forward in their cluster area.

During the ROKWOOD project, each region has analysed the research needs required to help move the industry forward in their cluster area.The research activities identified by individual clusters were analysed and six transnational research groups were suggested (Table 3). These cover common themes that are of interest to several of the Rokwood cluster regions.

Particular hot topics that included most of the ROKWOOD consortium partners included:

- How can we incentivise more growers to plant SRPs?
- How can we incentivise more end users to offer SRP contracts?
- What is the role of SRPs as a substitute to fossil fuel in European climate perspective?
- What is the gap between the national targets for renewable heat in 2020 and the current position?
- How can the quality of SRP fuel be improved?
- How does the Life Cycle Analysis (LCA) of SRPs compare to other bioenergy pathways?
- What are the economic, environmental and social benefits of deploying SRPs?
- How can the economics of producing SRPs be improved?

An agenda of research areas to be addressed was produced. Some of these will be taken forward in Task 4.1 (Identification and definition of research related projects) in which 15 project ideas involving R & D and innovation opportunities will be developed.

Table 3: Transnational research topics

Transnational Research Group	Research topic
1	Resource mapping
2	Adaptation & agronomy
3	Quality & Standards
4	Economic benefits to society / Multifunctional uses
5	Production economics
6	Technological advancements /Refining supply chains

4

Joint Action Plan

The strategy of the participating clusters to drive economic development through joint R&D activities in the six aforementioned regions.

The Joint Action Plan expresses the strategy of the participating clusters to drive economic development through joint R&D activities in the six aforementioned regions. The joint actions and international cooperation aim at supporting the Transnational Research Agenda implementation and giving further momentum for the regional cluster work.

The starting point is that international cooperation across Europe supports and motivates the implementation of the Research Action Plan in the ROKWOOD Regions and can further enhance the regional cluster work.

The Joint Action Plan is structured in accordance with common challenges for the participating regions. There are in total six overarching themes across the participating regions:

- 4.1 **Development of pilot or demonstration projects and development of regional SRP clusters.**
- 4.2 **Develop lobbying at an EU task group level .**
- 4.3 **Develop regional species guidelines & transnational agronomy development.**
- 4.4 **Cultivation / logistics / end-use knowledge transference.**
- 4.5 **Multi-function / added value research.**
- 4.6 **Develop education and training programs for sector stakeholders.**

The consortium has cooperated fully on the development of these topics and proposed activities, and the results will be presented according to the following structure:

Objectives and chosen scopes

Priority Activities

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source

Expected impact

4.1 Development of pilot or demonstration projects and development of regional SRP clusters

Objectives and chosen scopes

Short rotation plantations (SRPs) are a promising way for European farmers to generate an additional income, either on marginal agricultural lands that are not suitable for traditional agriculture, or in large scale industrial projects, but many farmers hesitate to establish SRPs on their lands for several reasons.

One of these reasons is the lack of experience with this comparably new energy production technology in large parts of Europe. Most farmers are not willing to take the risk, especially as SRPs require comparably high investments.

For this reason it is important to develop pilot or demonstration projects in regions with good potential for SRPs. These projects will demonstrate the suitability of SRPs for the region, demonstrate the economic potential of SRPs and provide information on how to establish and manage SRPs in order to encourage farmers to enter the SRP business.

Another reason for the hesitation of many farmers to enter into the SRP sector is the lack of regional SRP clusters and SRP infrastructure in large parts of Europe. SRPs produce large amounts of biomass with high moisture contents which cannot be transported economically over long distances. Therefore, it is important that consumers of the biomass produced can be found within short distances from the plantations. Another possibility is to identify areas where industrial projects are suitable/economic.

Moreover the technical equipment which is required for the establishment and management of SRPs is very expensive and cannot often be purchased by a single farmer. For this reason it is important that there are a certain number of SRP farmers in a region so the technical equipment can either be shared among the farmers or hired from agricultural wage enterprises which require a certain number of SRP farmers to be able to work economically and sustainably.

As a consequence regional SRP clusters comprising the complete production chain need to be developed. These clusters will provide the knowledge and technical equipment required for the successful operation of SRPs.

The aim of this working group is to develop ideas for joint actions of the ROKWOOD participants for the encouragement of pilot or demonstration projects and regional SRP clusters, based on successful projects conducted in Sweden and Germany.

To develop ideas for joint actions of the ROKWOOD participants for the encouragement of pilot or demonstration projects and regional SRP clusters.

Priority Activities

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
1. **Installation of a combined heat and power (CHP) plant in cluster regions where SRP experience is limited** • Identification of a potential location considering the availability of land, infrastructure, heat demand, etc • Engagement with local stakeholders (local authorities, farmers, potential CHP plant operator, etc.) to investigate possibilities and develop a first draft concept • Review of best practice examples of similar projects across Europe and investigation of possibilities for a mentoring programme, e.g. with the Swedish and German clusters • Investigation of possibilities for financial support • Development of a business plan and assessment of its economic and technical feasibility • Conclusion of long-term contracts with SRP operators, biomass carriers and further participants • Implementation of the project (establishment of SRPs, construction of CHP plant, etc.)	Medium	All partners, especially SMEs and local authorities Sweden and Germany can provide knowledge	Funding through ongoing project activities Regional funding National funding EU funding

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
2. **Development of SRP based district heating projects in cluster regions where SRP experience is limited** • Identification of a potential location considering the number and arrangement of properties, the current heat supply, the availability of farmers and land for SRPs, etc. • Engagement with local stakeholders (local authorities, heat consumers, potential SRP operators, potential operator of the district heating system, etc.) to investigate possibilities and develop a first draft concept • Review of best practice examples of similar projects across Europe and investigation of possibilities for a mentoring programme, e.g. with the German cluster (bioenergy village Beuchte) • Determination of the number of households that are willing to take part in the district heating project and subsequent calculation of the required area for SRPs • Investigation of possibilities for financial support • Development of a business plan and assessment of its economic and technical feasibility • Detailed planning of the district heating system (layout of the heat pipe lines, size of the boiler, etc.) • Clarification of all issues of laws and permissions of local authorities • Conclusion of long-term contracts with heat consumers, wood-producing SRP operators and the operator of the district heating system • Installation and operation of the district heating system	Medium	All partners, especially SMEs and local authorities Germany can provide knowledge	Funding through ongoing project activities Regional funding National funding EU funding

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
3. Establishment of local biomass trade centre pilot projects involving SRPs • Identification of a potential location considering regional SRP area and further producers of biomass, transportation infrastructure, biomass consumers, etc. • Engagement with local stakeholders (local authorities, producers, carriers and consumers of biomass) • Review of best practice examples of similar projects across Europe and investigation of possibilities for a mentoring programme, e.g. with the German cluster (e.g. biomass trade centre Borlinghausen) • Investigation of possibilities for financial support • Development of a business plan and assessment of its economic and technical feasibility • Information distributed to all potential biomass producers and consumers on the possibilities and benefits of biomass trading at the biomass trade centre and, if possible, conclusion of long-term contracts • Construction of the facilities and operation of the biomass trade centre	Short-medium	All partners, especially SMEs and local authorities Germany can provide knowledge	Funding through ongoing project activities Regional funding National funding EU funding
4. Create links with existing CHP plants, district heating systems and biomass trade centres • Contact existing biomass based CHP plants and district heating systems, inform them about SRPs and introduce the combustion of SRP biomass in these plants (co-firing) • Contact existing biomass trade centres, inform them about SRPs and aim to integrate the trade of SRP biomass to their woodfuel portfolio • Investigate opportunities for using waste heat from existing anaerobic digestion plants to dry woodchips	Short-medium	All partners	Funding through ongoing project activities

Expected impact

The envisaged pilot and demonstration projects will support the introduction of SRPs into regions where there is currently very limited experience with SRPs.

The projects will prove the suitability of the SRP concept for these regions and demonstrate the high biomass production and economic potential. They will provide the necessary knowledge on the establishment and management of SRPs as well as on the processing and utilisation of the produced biomass to the relevant stakeholders. They will moreover make the required infrastructure, machinery and supply chains available.

All these benefits will encourage further stakeholders to enter the SRP business and thus act as a nucleus for the development of the SRP sector, not only in the project regions but also beyond.

4.2 Develop lobbying at an EU task group level

Thanks to their unique set of attributes, SRPs are considered to be one of the most sustainable and environmental friendly ways to satisfy the woody biomass demand and the CO2 emissions reduction targets in the EU28. Nevertheless, SRP lacks concrete policy support at both EU and national levels. For this reason, it is urgent and necessary to act on the policy side in order to present the many reasons why SRP should be supported by EU and national regulatory systems.

Among other EU policy measures, the Common Agricultural Policy (CAP) of the European Union has the biggest impact on support schemes and subsidies for SRPs. The most recent reform was made in 2013 and applies for the period 2014 to 2020. One of the new concepts introduced is the "greening" of the direct payment. To strengthen the environmental sustainability of agriculture and enhance the efforts of farmers, the Commission is proposing to spend 30% of direct payments specifically for the improved use of natural resources. Farmers would be obliged to fulfil certain criteria such as crop diversification, maintenance of permanent pasture and the preservation of environmental reservoirs and landscapes. In particular, as of 1 January 2015, at least 5% of the arable area of the holding for farms with an area larger than 15 hectares (excluding permanent grassland) will be dedicated to Ecological Focus Areas (EFA).

In other words, respecting Member States (MS) approval or equivalent regulations, these lands could be used for different purposes:

- Land lying fallow.
- Terraces, Landscape features, Buffer strips.
- Agro-forestry areas, Forest edges, Short rotation coppice (with limitations on mineral fertilisation and/or plant protection), Afforested areas.
- Catch crops, winter green cover, N fixing crops.

There is ongoing debate focused on which features should be included as EFA and under which conditions. Some MS claimed very strict conditions to be respected (only native species admitted, no chemicals usage allowed, etc.) thus excluding SRP as an EFA option in their Rural Development Programmes.

The new CAP legislative requirements will come into force on 1 January 2015. Member States had to notify the Commission of their implementing decisions before 1 August. Therefore, Member States have already started to firm up their plans for Pillar 1 and they are also submitting their draft Rural Development Programmes to the Commission for approval. As a matter of fact, several Partnership Agreements (the strategic plans which set up the investment priorities for the structural funds), among which the European Agricultural Fund for Rural Development (EAFRD), have been adopted during the second trimester of the year. Rural Development Programmes have already been submitted and are expected to be adopted during autumn-winter. Still, this process may take longer than expected since the managing authorities are in several decentralised Member States' regional governments. Moreover, the Commission could in the medium term (3-4 years) check the implementation process of the new CAP and review some details of the regulations. Equally, Member States might revise their Rural Development Programmes during the 2014-2020 period. Any possible revision should be a good opportunity to convince the managing authorities to consider the addition of SRPs as a greening measure (if they have not already done so) since they have the final decision in choosing the greening measures.

To to be one of the most sustainable and environmental friendly ways to satisfy the woody biomass demand and the CO2 emissions reduction targets in the EU28.

Objectives and chosen scopes

The main goal of the lobbying activity is to clarify the key role of SRPs as a fundamental greening measure to be compliant with the 2020 emissions reduction targets. We'd like to increase the EU policy makers' awareness on the potential benefits of SRPs in order to get concrete policy support.

To this purpose we have identified the CAP as a very good opportunity to showcase the potential of SRPs to a wider audience. The lobbying activity would be aimed to avoid SRPs having a marginal role in the current CAP reforms, and supporting the specific inclusion of SRC in the EFA by Rural Development Programmes.

Working Group 2 will try to:

1. Make contact with EC officials[1] in order to receive more information on the measures taken by the Member States regarding the delegated act on the EFAs, the process of discussion and adoption of the Rural Development Programmes, etc.
2. Present relevant reasons to consider SRPs as a fundamental greening measure. The reasons why CAP should support SRP will be framed in a shared document to be presented to selected policy makers, especially in the national level which is where the policy action might have more impact.

This action will provide an opportunity to involve several stakeholders in an SRP orientated policy action. This action won't be limited to influence the CAP but it will address any other opportunities to impact the adoption of SRP support schemes.

We have identified the CAP as a very good opportunity to showcase the potential of SRPs to a wider audience.

[1]The organisation chart of DG AGRI is available in the following links: http://ec.europa.eu/dgs/agriculture/who-is-who/org_en.pdf and http://ec.europa.eu/dgs/agriculture/who-is-who/who-is-who.pdf

Priority Activities

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
1. Elaborate a document focused on the need to include SRPs as EFA option Realisation of a shared document supporting the inclusion of SRC as an EFA option in the national plans We could elaborate the document developed by Crops for Energy and make it less UK focused so that it could represent several European countries	October 2014	EUBIA, Bioazul, ASAJA, WDC, C4E	None
2. Find out representatives for policy-session to be organised in Brussels The involved partners should identify representatives of agriculture department or rural development bodies, Members of the European Parliament or other authorities which could some way influence the Rural Development Programmes	October 2014	EUBIA, Bioazul, ASAJA, WDC	None
3. Find other countries /stakeholders (more than just ROKWOOD Enlarge the number of organisation which could sign the document to be presented to the policy makers. (e.g. the main actors identified for each country in Task 3.2)	October/ November 2014	EUBIA, Bioazul, ASAJA, WDC	None
4. Policy session to be organised in Brussels EUBIA will organise a policy session in Brussels involving some key policy makers among the ones selected in action 2	November/ December 2014	EUBIA	None
Open question: Would it be possible to have an own SRP-Trade-Association?	Ongoing	EUBIA, Bioazul, ASAJA, WDC	None

Expected impact

The over mentioned actions will impact the inclusion of SRP as practical EFA option in the largest number of European countries.

4.3 Develop regional species guidelines & transnational agronomy development

Objectives and chosen scopes

Research and trials on SRPs have been carried out across Europe for around 40 years and many crop options (such as SRC willow) have been developed commercially for around 25 years. As a result of this, there is a great deal of information that has been accrued from research and implementation. It is time for the available information and the experiences of SRP practitioners in different countries to be gathered and harmonised into trans-national best practice guidelines. A consistent approach is required so that similar publications are produced for each of the SRP options (e.g. SRC willow and poplar and SRF eucalyptus, poplar, paulownia etc.).

In addition to agronomy research, breeding programmes designed to produce higher yielding and disease resistant SRP varieties have been established in Sweden since the early 1980's and the UK from 1996. Breeding programmes are expensive and time consuming so it makes sense for existing varieties and new market genotypes to be exchanged between research bodies in different EU countries to test this material for its suitability and adaptability to different climates. Databases of commercially available material and historic trial data will assist researchers and farmers to make initial decisions on the most suitable SRP for their region. Ultimately, these activities will lead to regional species guidelines being developed.

A number of joint activities are described below.

There is a great deal of information that has been accrued from research and implementation

Priority Activities

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
1. Collate information from producers, farmers and contractors on their experiences of SRP propagation and agronomy. This will: a. Enable best practice procedures and protocols to be refined e.g. - Planting material production methods and storage requirements - Plantation design for different harvesting systems - Weed control methods (chemical and mechanical) - Fertiliser application and irrigation methods - Integrated pest and disease management methods b. Inform about machinery modifications or lead to improved designs c. Improve health and safety features d. Reduce environmental impact of technologies and techniques	Short-medium term	All partners	Funding through ongoing project activities National funding EU funding
2. Produce a database of SRP varieties bred in the EU and make this available on the ROKWOOD website. Information will include general information on the different varieties and contact details of suppliers	Short term (permanent task)	C4E, SEE, AGRA, IFAPA, EKSPERT	Funding through ongoing project activities
3. Produce a database of SRP trials to provide information on yield production and disease, pest, frost and drought susceptibility. This is linked to activity 2 but is longer term in scope. Initially a link database will be constructed on the ROKWOOD website. In the longer term a more elaborate database is envisaged including downloadable reports and translations into English	Medium-Long term (permanent task)	UK, GER, IRL, PL (GZ), SP, SW	Funding through ongoing project activities EU funding
4. Exchange of SRP material between research organisations in different countries **The ultimate aim of this activity is to produce regional species guidelines for different countries**	Medium term	GER, IRL, PL, SP, SW, UK	Funding through ongoing project activities National funding EU funding

Expected impact

Implementation of these tasks will have the following impact:

- Increased efficiency, time and cost saving and higher yields. Also, by reducing the environmental impact of SRP production methods will help establish a platform of understanding and mutual co-operation with conservation groups (Activity 1);
- The increase in knowledge and better understanding of the possibilities given by SRPs (Activity 2, 3);
- Greater transparency of existing research, dissemination of results, better prepared producers due to easily available scientific data (Activity 2, 3);
- Assist breeders/producers to find markets for their existing varieties (Activity 4);
- Test near market genotypes (i.e. advanced breeding lines) in different countries to see if they adapted to specific environments (Activity 4).

4.4 Cultivation / logistics / end-use knowledge transference

Objectives and chosen scopes

The SRP industry is not particularly well developed in many countries across Europe. As a result the infrastructure to plant, harvest, store and process SRP biomass is not widely available.

If SRPs are to be competitive with traditional fuels then efficient and sustainable fuel supply chains need to be developed that are profitable for the grower and processor and provide the quality and affordability required by the end user.

The capital costs of establishing SRP plantations needs to be reduced by 25-50% in order to make this an easier decision for farmers. Research is required to see where the establishment process can be streamlined and where costs can be reduced.

There are relatively few dedicated planting and harvesting machines in service and it is uneconomic to move these large distances unless there is a large demand. New machines can be built to order but are expensive. Machinery that is small, manoeuvrable and inexpensive needs to be developed and become widely available. More experienced partners in strong SRP regions should be utilised to guide less experienced partners in weaker SRP regions.

If SRPs are to be competitive with traditional fuels then efficient and sustainable fuel supply chains need to be developed

Priority Activities

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
1. Create a database and map of existing: • **machines** • **other SRP technology** across Europe and publish this on the ROKWOOD web site. Include a short description, images and contact details as well as links to films and more detailed description (including trial information and results)	Short term: Oct – Dec 2014	All partners	Funding through ongoing project activities
2. Adapt, develop and optimise planting and harvesting systems for SRP for different conditions and requirements, based on existing agricultural and forestry technology: • Improve existing planting machines and harvesters and bring these to market • Develop machines adapted for marginal land and for harvesting thicker stemmed SRPs and bring these to market	Short term	Swe, Ger, UK	Funding through ongoing project activities Regional funding National funding EU funding
3. Develop best practice protocols for harvesting logistics (inc. harvest, storage, drying, re-chipping and transport methods) in order to achieve the fuel quality required by the end user: • Demonstrate the impact of different production methods on combustion efficiency and emissions • Develop a decision tree for the choice of most suitable SRP harvesting system and logistics for different production conditions and end use	Short term	Swe, Ger, UK, Ire	Funding through ongoing project activities National funding EU funding
4. Develop a network for SRP self suppliers to: • Share their experience through workshops and visits • Developbest practice guidance for SRP self suppliers	Short term	Swe, Ger, UK	Funding through ongoing project activities National funding EU funding

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
5. Organise demonstration days for potential growers and end users to increase interest in SRP as crop/fuel	Short – long term	All partners	Funding through ongoing project activities Regional funding National funding EU funding
6. Sharing of best practice among SRP service suppliers of planting, harvesting and other production technology: • SMEs to take their machinery and know-how to regions where there are no facilities ("road shows") • Study tours for interested parties from areas where machinery and processing facilities do not exist to regions that have a more developed SRP industry	Short term	All partners	Funding through ongoing project activities National funding EU funding
7. 1-2 week staff exchanges to raise awareness and initiate new SRP businesses (offering services from cultivation to end-use) in each participating country	Short term	All partners	Funding through ongoing project activities Regional funding National funding EU funding

Expected impact

A database of SRP machinery will enable growers to contact contractors that are located close to them. It will also showcase areas where there is no machinery available and funding for this provision is required.

The development of cheaper, well adapted and more widely available machinery will provide confidence to growers and end users and enable more SRP start-up businesses to invest in the industry.

Best practice guidance will enable lessons to be learned from pioneering SMEs. This will ensure that new entrants will be able to provide exemplary services and produce high quality biomass feed stocks.

Roadshows and demonstrations will help promote the industry and generate interest amongst farmers and end users.

The active involvement of experienced SRP SMEs in the development and improvement will lead to practical approaches and solutions as well as better SRP systems.

4.5 Multi-function / added value research

Objectives and chosen scopes

SRPs are widely recognised for their many applications. The view of the ROKWOOD consortium is that growing SRPs for multi-functional uses will enable numerous socio-economic and environmental benefits to society whilst also ensuring maximum land use resource efficiency. SRP applications include:

- Tackling climate change and promoting energy security
- Increase in farm biodiversity
- Improvements in water quality
- Flood mitigation measures
- Carbon sequestration
- Rebuilding bee and other pollinator populations
- Improvement in local air quality
- Rehabilitation of contaminated land
- Control of soil erosion
- Creation of biosecurity barriers between farms to reduce the spread of livestock infections).
- Rapid growing shelterbelts and wind breaks
- Nutritious fodder supplements for cattle and sheep during droughts.

The multiple functions of SRPs (economic, environmental and and social) have a direct impact in the welfare of society. Therefore, determining and quantifying social benefits/utilities/demands is required in order to design efficient and fair policies that will facilitate of greater sustainable production of SRPs.

Many of these multi-functional benefits and ecosystem services are not well known and there are only a few practical examples. As a result many of these potential applications are missed by policy makers and organisations responsible for implementing support schemes. Many of these benefits are hard to quantify and until now there has been little research carried out on the potential economic value of SRP multi-functionality to society.

A number of joint activities are described below.

Growing SRPs for multifunctional uses will enable numerous socio-economic and environmental benefits to society

Priority Activities

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
1. **A full evidence base review and cost/benefit analysis of SRP production and use should be undertaken that demonstrates the multifunctional environmental and socio-economic benefits.** This should focus on the potential added value impact of planting SRPs in terms of: • Job opportunities in rural areas • Revenue creation and retention in local economies • Ecosystem services provided such as: - Water quality improvements - Flood defence - Increase in pollinator populations - Soil erosion control - Carbon sequestration - Biodiversity improvement • Health benefits of reducing fuel poverty This would need support from national Governments and the EC and employ a robust methodology so it can form part of a nationally/internationally accepted evidence base for SRP development	Short term	All partners	Regional funding National funding EU funding
2. **Mapping of areas where SRPs could have the biggest multi-functional impact e.g.:** • Regions with high heat loads and low forest cover • Regions which have high degree of flood risk • Regions where water quality is affected by non-point sources of pollution • Regions with large areas of insect pollinated crops (i.e. require pollinators) This will inform local authorities and regional bodies of the benefits that SRPs could bring to their locality	Short term	UK, GER, IRE, PL	Funding through ongoing project activities Regional funding National funding EU funding

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
3. **Work is needed to identify what incentives are required in order to encourage farmers to plant SRPs where they could have the largest multi-functional impact** This should enable the design of appropriate schemes/remuneration packages for growers with similar benefits to those promoting traditional woodland planting (e.g. uplifts for flood defence, carbon abatement etc)	Short term	UK, SP, PL, IRE	Funding through ongoing project activities Regional funding National funding EU funding
4. **Basic research is required that looks at the application of existing and near market SRP varieties for multiple uses e.g. screening and identification of varieties that:** • Are particularly suited to flood defence • Produce abundant, high quality pollen for bees and other pollinators • Accumulate heavy metals and/or tolerate soil and water pollutants • Have potential for conversion into second generation biofuels and biorefinery products • Contain high value medicinal products and nutritive chemicals for animal fodder • Have diverse wood characteristics for different uses	Short – medium term	UK, SW, GER	National funding EU funding

Steps to implementation (Activities)	Timeframe	Which partners can contribute?	Possible Funding Source
5. **Networks of long term trials/demonstration plots demonstrating multifunctional benefits need to be establsihed. These would be used to test and monitor the effectiveness of SRPs in a variety of multifunctional applications. E.g:** • Flood defence • Biofiltration and water quality improvement • Biosecurity barriers • Remediation of contaminated land • Agroforestry applications This will require support from national/local funding sources	Long term (need to be planted as soon as possible but will be in the ground for a long period.)	All partners	Regional funding National funding EU funding
6. **Research into the societal demands towards economic, environmental and social functions of SRPs. It is necessary to investigate:** • Current understanding about SRPs in society • Intensity of preferences towards themultifunctional features of SRPs • Trade-off between multifunctional attributes	Short term	SP, UK, GER	National funding EU funding

Expected impact

Information obtained on this topic 5 can be useful at different levels:

- At policy and institutional level, because it will provide political decision makers with information about SRPs multifunctional potential and social preferences for its multiple functions. This would allow the design of efficient public and private strategies to take full advantage of this potential and optimally satisfy all the stakeholders' demands to achieve more sustainable economic, environmental and social energy farming. This approach could clearly be useful to develop more effective rural development policy.
- The information obtained about the multifunctionality of SRP and social preferences can help a variety of stakeholders (producers, manufacturers, traders, agents, etc.) in making decisions regarding the adoption of more sustainable and profitable production and management practices.
- At a social level, because, firstly, it will increase social knowledge and understanding of SRP and its multifunctional role, and, secondly, the consideration of their demands in the political planning will improve its legitimacy and efficiency.
- At research, training and dissemination levels, helping the design of research projects and training activities that enhance SRP multifunctionality and transfer knowledge about more sustainable production and use practices.

4.6 Develop education and training programs for sector stakeholders

Objectives and chosen scopes

The main objective of this topic is to raise awareness of the multifunctional benefits of SRP across the agricultural, environmental and sustainable energy sectors of the EU in order to stimulate the industry and kick-start SRP practices where there are opportunities to do so. Awareness-raising can be achieved in many ways from online tools and guidance to specialist training courses targeting potential SRP growers.

There are a number of opportunities for ROKWOOD partners to work together on a range of activities and these should be identified by first considering the experience and interest of each partner in the area of training and awareness-raising, and by reviewing the tools, materials and data that is already published. Although detailed knowledge on SRP practices and benefits exists, it is held by relatively few practitioners and where documented is somewhat dispersed. Information therefore needs to be collated, elaborated and shared via a variety of dissemination media.

Although detailed knowledge on SRP practices and benefits exists, it is held by relatively few practitioners

The scope of potential activities chosen under this Joint Action Plan work topic is as follows:

- **International study tours** – similar to the one-day tours held in conjunction with the ROKWOOD six-monthly consortium meetings, but possibly extended over a 2-3 day itinerary and offered to participants drawn from international stakeholder groups. May include visits to SRP plantations and research facilities, woodfuel processing depots, heating installations and agricultural fairs/shows.
- **International demonstration days** – could potentially be part of an agricultural fair/show where SRP equipment and techniques are demonstrated in a host 'learner' country, having been loaned by a donor 'teacher' country.
- **Local training courses** – a series of short regionally-focused seminars or courses dealing with specific topics to give detailed training on different aspects of SRP and targeting local stakeholders.
- **Online tools and materials** – a range of online resources to consolidate and compliment existing data and introduce new materials which are comprehensive, up-to-date, user-friendly and relevant to a defined set of stakeholder categories.
- **General awareness-raising** – a range of other more general communication and awareness-raising activities such as stakeholder identification and 'mapping', publicity via press/journal articles, presentation at seminars/conferences and formation of national/international energy crops trade bodies.

Priority Activities

Steps to implementation (Activities)	Time-frame	Which partners can contribute?	Possible Funding Source
1. Organise international study tours • Compilation of list of all site visits/tours undertaken as part of the ROKWOOD project, plus additional potential sites for visits in ROKWOOD regions/countries. These should be categorised by both topic and specialism. Tours of particular interest may include trips to Sweden / Germany for project developers to see CHP plants using SRPs, or to Germany / Northern Ireland / France to see local heat supply chain and biomass trade centres • Selection of several study tour routes to encompass a range of locations, projects, technologies and practices • Contact site hosts to confirm agreement in principle • Identification of possible stakeholders/participants, for example policymakers, public estate managers, funding bodies (regional grant programme operators and distributors of Rural Development funds) Investigation of suitable funding resources • Investigation of suitable funding resources	Short & medium term	**SEE, WDC, GZ, SEA, C4E, RPAA, CSE, AAPE** **Specific comments from partners:** **WDC** - under previous Interreg projects WDC brought stakeholders on study tours to Austria & Finland. They used application forms, competitions, invitations etc. targeted at different sectors to get participants **AAPE** – interested in organising R&D delegations to go to Sweden, Germany, England, and any other possible interesting tour proposed by other partners. **CSE** – could potentially assist in marketing study tours to UK stakeholders	COST EU project Action
2. Orgrepare international demonstration days • Review of ROKWOOD cluster 'offers' and 'wants' as identified under Task 4.4, and matching up of these • 'Matched' partners to identify host site or event for demonstration activity (e.g. agricultural trade fairs).Such activities may include the physical demonstration of SRP techniques and equipment, or just the loan of technology for demonstration purposes. They may cover topics such as small or large scale production, processing and utilisation methods involving SRPs, or demonstration of fuel types and quality issues • Identification of potential stakeholders/participants (demonstration days could also be combined with study tours and/or pre-planned mentoring activities) • Investigation of suitable funding sources	Short & medium term	**SEE, TTZ, WDC, GZ, SEA, C4E, RPAA, CSE, AAPE** **Specific comments from partners:** **WDC** – wouldn't have anything to 'demonstrate', and therefore would be the 'learning' organisation **AAPE** – could organise an event in Spain in conjunction with Task 4.4 Staff Exchange, inviting the experiences of Sweden or Germany **CSE** – could potentially assist in marketing demonstration days to UK stakeholders	Funding from Task 4.4 (Staff Exchange)

Steps to implementation (Activities)	Time-frame	Which partners can contribute?	Possible Funding Source
3. Run local training courses • Identification of a range of SRP-related topics for which training materials should be prepared. These could be designed to be modular (i.e. each can be delivered as a standalone session) so clusters can select the ones most relevant to their needs (e.g. 'How to prepare a business case') • Matching of partners with most relevant skills and experience to the relevant module topics • Selected partners to begin designing training materials. Modules could have two versions with varying levels of detail, e.g. 'full' and 'light' to allow flexibility in training delivery • Production of translated versions by each cluster as necessary	Short & medium term	**IFAPA, EUBIA, AAPE, TTZ, WDC, C4E, RPAA, CSE** **WDC** – the Irish cluster intend to hold three workshops on different topics for Task 4.5. The WDC one will be on 'Public Sector Heat Procurement'. We can expand this further **AAPE** – is interested in participating in this topic, but do not have sufficient skills on SRPs to produce material for a course. We could collaborate by e.g. checking the documentation and suggesting possible improvements **CSE** – could help to facilitate the designing, marketing and delivery of courses (i.e. further roll-out of events based on the workshops under Task 4.5)	
4. Create online tools and materials • Review and cataloguing of existing online SRP information sources, tools and resources • Identification of funding routes for development of online 'hub' resource • Consolidation of existing SRP information and guidance into one online hub resource that is concise, relevant, comprehensive, easily accessed and dynamic • Drafting of new materials to fill gaps in existing information. This may include, for example, the writing of easy to follow briefings and research summaries to illustrate the multifunctional applications of SRP, or of best practice booklets to demonstrate how SRP should be planted, managed and harvested to maximise multifunctional benefits and provide efficient woody biomass production. Such resources may also be distributed at workshops, site visits, seminars etc. • Establishment of partner contribution and possible shared responsibility for ongoing site management	Short, medium & long term	**SEE, TTZ, WDC, GZ, SEA, C4E, RPAA, CSE, AAPE** **Specific comments from partners:** **WDC** – wouldn't have anything to 'demonstrate', and therefore would be the 'learning' organisation **AAPE** – could organise an event in Spain in conjunction with Task 4.4 Staff Exchange, inviting the experiences of Sweden or Germany **CSE** – could potentially assist in marketing demonstration days to UK stakeholders	

Steps to implementation (Activities)	Time-frame	Which partners can contribute?	Possible Funding Source
5. Carry out other awareness-raising activities Where not already covered by the above activities, these could include: • Identification and 'mapping' of stakeholders • General awareness-raising of SRP within rural communities in relation to 'community energy' and district heating • Focus on disseminating multifunctional benefits of SRP and target conservation and/or environmental organisations (including best practice publications) • Targeting of general public via articles in press • Identification of opportunities to present at various types of conferences, seminars, fairs and workshops • Formation of national and/or international energy crops SRP-specific trade bodies	Short & medium term	**C4E, CSE, RPAA** **WDC** – this is very important for us. On NPP bioenergy projects, we did a lot of work on this, preparing dissemination strategies, building up stakeholder lists, website, social media updates, MailChimp circulations etc. on various bioenergy topics **AAPE** – can collaborate on all these tasks, which are some of the main tasks we already work on. We could improve these activities if funding was identified **CSE** – could contribute in a number of ways e.g. collating, interpreting and disseminating information on SRP's multifunctional benefits, developing standard presentations (or parts thereof) for use by all Rokwood clusters	COST EU project Action

Expected impact

A major barrier to the wide-spread implementation of SRP is a general lack of knowledge, data and awareness across policymakers, potential practitioners and the public of what SRP is and what benefits it can offer. This has resulted in little or no support being offered for SRP production by policymakers/funders and a lack of incentives for growers. Successful case studies of SRP in practice are still relatively rare across the EU and so information from such projects needs to be effectively disseminated to help kick start the industry in those areas where little is happening. Through effective dissemination, training and awareness-raising, local landowners may then gain the knowledge and confidence to implement SRP and at the same time policymakers may recognise the potential benefits and role SRP has to offer and so provide due support to encourage its practice. The public will also be better educated on local sustainable energy options and their relative benefits when comparing wind power, forestry biomass, solar PV etc.

In particular, existing and future research which demonstrates SRP's multifunctional benefits needs to be disseminated, so that the most appropriate departments in local/national government can take 'ownership' of the SRP remit and coordinate the right support structures. Without this, there is a risk that SRP will 'fall between two stools' in terms of political responsibilities, due to its cross-cutting benefits e.g. as a source of renewable woodfuel (sustainable energy remit), as a way to help stimulate the rural economy (rural development remit) and as a way to help mitigate flooding risk (environmental protection remit).

SRP's multifunctional benefits needs to be disseminated, so that the most appropriate departments can take 'ownership' and coordinate the right support structures

5

Implementation of the Joint Action Plan

The aim of the JAP is to encourage International co-operation so that SRP development takes place in a strategic and coordinated way

The Joint Action Plan will provide a focus for the public sector, industry and individuals to maximise the opportunities for growth, jobs and sustainability by the expansion of a woody biomass sector in the six participating regions under the ROKWOOD project.

The preparation of the Joint Action Plan has been based on a participatory and interactive approach. The same will be required in the implementation of the plan. The aim of this Joint Action Plan is to ensure development takes place in a strategic andcoordinated way. It describes the activities and project consortium's commitments to initiate joint research, capacity building, knowledge transfer and other activities beyond the project's remaining duration.

The starting point is that the international cooperation across Europe supports and motivates the Regional Research Agenda implementation in the ROKWOOD regions and gives a further push also for the regional cluster work.

It is within the scope of ROKWOOD to facilitate the implementation of the JAP both by improving the capacities of the actors involved as well as gaining the support of the relevant authorities and decision makers.These objectives go one step further in the sense that they allow for the possible improvement of the JAP and the inclusion of further regions in its activities.

But the ROKWOOD partnership goes even further, since we intend to continue working together and expanding beyond the end of the project in 2015.

In this context, a series of measures are introduced by the ROKWOOD partnership to ensure a high impact for its activities and its proposed actions within and beyond the initial framework of the project.

- Exploitation of the ROKWOOD partnership joint research capacities and exploration on collaboration possibilities in future transnational cooperation projects serving to the implementation of the JAP.
- In-house and external training activities to improve concrete capacities needed for the implementation of the JAP.
- Exploration of the possibilities of consolidating a research-driven network of clusters on woody biomass.