

Triggering the creation of biomass logistic centres by the agro-industry

SUCELLOG: IEE/13/638/SI2.675535

# D3.1 Report on biomass engagement actions

## 15th December 2014







#### **About SUCELLOG project**

The SUCELLOG project - Triggering the creation of biomass logistic centres by the agro-industry - aims to widespread the participation of the agrarian sector in the sustainable supply of solid biofuels in Europe. SUCELLOG action focuses in an almost unexploited logistic concept: the implementation of agro-industry logistic centres in the agro-industry as a complement to their usual activity evidencing the large synergy existing between the agro-economy and the bio-economy. Further information about the project and the partners involved are available under www.sucellog.eu.

#### **Project coordinator**



#### Project partners















#### **About this document**

This report corresponds to D3.1 of the SUCELLOG project – Report on engagement actions. It has been prepared by:

Fundación CIRCE C/Mariano Esquillor Gómez 15, 50018, Zaragoza

E-mail: sucellog@fcirce.es

Tel: +34876555511

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#### 1. Introduction

In order to establish the basis for SUCELLOG activities in the promotion of the participation of the agrarian sector in biomass production a series of engagement actions were carried out. These activities (workshop and others) were celebrated in SUCELLOG target regions within WP3-"Regional framework and stakeholders' engagement".

SUCELLOG workshops gathered more than 475 participants. The workshop aimed three goals:

- Gather information about the real situation of the region in order to complete the
  framework that was built in previous tasks. Therefore, during the meetings, it
  was discussed the availability of agrarian residues (coming both from the
  agrarian practice and from the agro-industrial processes) and the
  barriers/opportunities that agro-industries would face when starting a new
  activity as biomass logistic centres.
- Engage agro-industries and other stakeholders (like farmers and boiler manufacturers) to the project. In the case of the agro-industries, the different services of the project (technical support for the construction of the biomass logistic centre and decision-making support through an audit exam) were presented.
- Identify potential beneficiaries of the project services through questionnaires (171 filled in).

Additional events like bilateral meetings and technical interviews were performed in order to complete the information gathered in the workshop. All technical results coming from all these actions are included in D3.2 whereas in this report the main general conclusions are included.



#### 2. Engagement actions in Spain

The 5 workshops celebrated in Spain gathered a total of 118 participants. All of them where developed following the same strategy: invite agro-industries belonging to the sectors compatible with the project concept or large residue producers, of full confidence, representative of the region industries in terms of facilities and production turn-over, active and characterised by being very entrepreneurial. With this strategy, Spanish Cooperatives ensured that the workshop was fruitfully reaching the objectives and avoiding confidentiality issues.

All workshops were structure as follows:

- Presentation of the project and the services provided to agro-industries.
- Review the project data about the availability of the local biomass in the region.
- Review of information about the agrarian residues market in the region.
- Selection of priority areas in the region.
- Request of interest to become beneficiary of the project.

Apart from celebrating the workshops, the regional associations of Spain made a series of contacts to engage more agro-industries to the project as potential beneficiaries and to complete the information obtained in the workshop. These activities are included in section 2.5.



#### 2.1. Workshop in Aragón

Place and date: Headquarter of Regional Federation of Aragón, Zaragoza, 23<sup>th</sup> of September 2014.

Number of attendants: 12

Target groups: Agro-industry cooperatives associated to the Regional Federation of Aragon.

The participants were representing the main sectors in Aragón compatible with the project: grain and fodder dehydration, oil extraction, distillery and extensive crops sectors. They all showed an important interest in the project and in the new activity as solid biomass providers. Additionally, most of them are consumers of solid biomass in their facilities to cover their heat demands, and have potential access to biomass from the crop residues of their own farmers. They showed a great interest in the use of the corn stalk and cob residues because they are convinced that the current total incorporation into the soil is not a good agricultural practice (participants pointed out the limit of 30% of the residue to be left as organic amendment).

A couple of cooperatives present in the workshop had already done certain activities regarding the production of solid biomass, but more focused on woody biomass, not in agrarian biomass. Agro-industries expressed there are no legal or administrative restrictions, so far, to share the new activity with the current one. They think that there are aids and financing for this kind of investment and diversification activities.

#### 2.2. Workshop in Galicia

Place and date: Headquarter of Regional Federation of Galicia, Santiago de Compostela, 16<sup>th</sup> of July 2014 and 10<sup>th</sup> of September 2014.

Number of attendants: 50

Target groups: Agro-industry cooperatives associated to the Regional Federation of Galicia.

The overall impression from the couple of meetings celebrated with the cooperatives in Galicia is that they showed their interested in participating in a project as a way to diversify their businesses but the project in Galicia will face some difficulties.

The main problem is the existence of very important woody biomass sources in the Cantabric area because of the large forest surface. Moreover Galicia is one of the largest producer of woody pellets. There are not important herbaceous crops areas, expect maize that is fully used (including grain, cob and stalk) for cattle feeding. During the meeting, the wine sector (both cellar and distillery) appear to be the most interesting sector in the region because of the prunings and distillery residues with no current market. A non-considered raw material so far was identified in the meetings



and interviews. The residues produced during the feed stuff elaboration, which are products that not achieve the quality standards for the market. They could be in a range between the 5% to the 10% of the total production. It should be, however, studied since in some occasions are medicated feed and their combustion could create emission problems.

#### 2.3. Workshop in Extremadura

Place and date: Headquarter of Regional Federation of Extremadura, Mérida, 24<sup>th</sup> of September 2014.

Number of attendants: 10

Target groups: Agro-industry cooperatives associated to the Regional Federation of Extremadura, solid biomass supplier.

The meeting was very useful for the project aims, since it brought together cooperatives within the most important industrial sectors in the region. Due to the seeding season, cereal drying and rice sectors where not present in the workshop. In addition, a biomass supplier company was invited and contributed to draw out the framework of the market in this region.

Most sectors showed their interest in being participants of the project. According to the discussion during the workshop, the most interesting opportunities seemed to be the ones linked to the synergies with the current residues producers (olive oil and distilleries residues as well as prunings) and big biomass consumers, such us tobacco cured leaves producers. In the case of the latter sector, it was pointed out that during the agrarian phase, the tobacco crop produces important quantities of residues (fallen leaves and trunks.) There is possibility of storing them in the fields in case these residues might be processed for biomass but previous initiatives to valorize these residues as possible biomass source (pellets or chips) have failed.

The attendants were also interested in high value markets for agro-biomass such us combustible for barbeques and so on. It exists already an interesting demand for holm oak (*Quercus Ilex*) prunings for this purpose and could be extensible for other prunings from olive orchards and vineyards.

#### 2.4. Workshop in Cataluña

Place and date: *Unió Corporació Alimentaria, Reus, 2<sup>nd</sup> of October 2014 and Headquarter of Regional Federation of Cataluña, Lleida, 3<sup>rd</sup> October 2014.* 

Number of attendants: 26

Target groups: Agro-industry cooperatives associated to the Regional Federation of Cataluña, biomass supplier.



The workshops in Catalonia were set in two different agricultural areas. The first of them was focused on the Tarragona Area where the participants represented the main sector of the area: wine, olive oil and nuts production and commercialization. The second one was settled in Lleida, and it brought together cooperatives dedicated to herbaceous crops processing (mainly barley, fodder and maize).

In both meetings participants were interested in becoming a beneficiary of the project. In the Reus meeting, the cooperatives work with farmers with permanent crops, whose pruning are potentially biomass resources, and in addition, those cooperatives are also consumers of biomass. In the Lleida meeting, large synergies with the dryers and dehydration facilities were found. The cooperatives attending the workshop expressed their interest in playing a role as logistic centres from agricultural residues such us straw, corn stalk and corn cob.

#### 2.5. Workshop in Castilla y León

Place and date: Headquarter of Regional Federation of Castilla y León, Valladolid, 30<sup>th</sup> of September 2014.

Number of attendants: 20

Target groups: Agro-industry cooperatives associated to the Regional Federation of Castilla y León.

Cooperatives representing most important sectors in the region were brought together to the federation headquarter, mainly cereal drier and forage dehydration facilities. In addition one cooperative producing pinions was interested since the shell of this fruit could be used like biomass. A sugar cooperative was also present in the workshop. Winery sectors were missing since at that moment they were busy with the reception of the grape in the cellar.

One cooperative explained that they are already running a preliminary activity linked to the production agro-pellets (from straw and corn stalk) which attracted the interest of the rest of cooperatives. The workshop was very useful to gather new information about the potentiality of cereal straw, the availability of leguminous residues and new information about agro-industry location that had not been considered.



#### 2.6. Other engagement actions in Spain

The RAA conducted a series of consultations to the sector through:

- Interviews (18) made by phone to understand the way that agro-industries work.
- Personal bilateral meetings (19), to complete and check the conclusions of the interview.
- Questionnaires (52), to evaluate their interest in becoming a beneficiary of the project.

The tables below show the type of consultation performed to each actor.

As result of these other engagement actions in Spain, it was possible to extract a number of interesting conclusions. In this sense, in the North of Spain, in Galicia, it was highlighted the interest of the cooperatives in that area about the null possibility of using their facilities as agrarian biomass logistic centers because the available resources (maize stalks) that could be used for this purpose, however, the big amount of available forestry biomass could slow down this new activity with agrarian biomass.

At a general level, the interviewed agro-industries are familiarized with the consumption of agrarian biomass, such as olive pit, almond shell and forestry chips but not so much with the production and commercialization of such products.

They did not identify social problems of acceptance of this issue but they showed the necessity of reinforcing the information and awareness actions about the use of agrarian biomass and the importance of the bio-energy development.

From the practical point of view, any problem was pointed out, only a simple cleaning of the equipment previous to the biomass production.

The necessity of public funds for promoting these activities using their own agrarian resources to produce solid biomass was also pointed out.

The conclusions about the interviews to other stakeholders showed the importance of previously assessing the demands of the potential consumers in order to have information about the organization of the biomass supply in terms of quality and quantity.

Additionally, they also considered very important to reinforce the information to, both the agrarian sector, for being this very conservative, and the society in general.

Finally, cooperatives and stakeholders saw this issue as an opportunity for the employment generation and like a contribution for the rural development.



#### 3. Engagement actions in France

A total of 5 meetings were celebrated in France, accounting more than 135 participants (mainly agro-industries). The strategy followed to engage stakeholders was to take advantage of important meetings of the agrarian sector in some cases, to prepare meetings where interesting companies working with agro-fuels were invited in other cases or to celebrate a specific event for the project. In all workshops, a presentation of the project services and a discussion about the regional framework were performed. Participants were engaged via e-mail and phone calls.

Apart from celebrating the workshops, the regional associations of France made a series of contacts to engage more agro-industries to the project as potential beneficiaries and to complete the information obtained in the workshop. These activities are included in section 3.6.

#### 3.1. Engagement actions in Picardie

Place and date: Headquarter of NORIAP, BOVES, 27th of May 2014

Number of attendants: 43

Target groups: agro-industries, personnel from administration and technical centers.

The workshop was celebrated taking advantage of the organization of the General Assembly of the FRCA (Fédération Régionale Coopératives Agricoles) Picardie, which included most agricultural cooperatives in the region. Coopénergie presented the SUCELLOG project and collected impressions about the regional framework opportunities and barriers.

Participants commented about the situation in the region where the consumption of solid biomass is expected to reach more than 620.000 t/year by 2016. Consumption in boilers of the tertiary sector has risen sharply since 2008, due to the development of many facilities dedicated boiler and heating systems from a territorial approach, favoring short supply chains.

Regarding availability of biomass resources the situation in the region seems optimum for the development of SUCELLOG project. Some figures were presented: about 625.000 tons of cereal straw and 200.000 tons of rape straw are potentially sustainably mobilised every year on the region. However, the quantities able to be mobilised depend on the acceptance of the project by farmers. A survey of an area around Chateau Thierry (south of the Aisne) showed that 50-60% of the volumes were really mobilised, subject to ensure a motivating remuneration, maintenance of soil organic matter and propose an appropriate logistics. About 21.814 t of dust from silos are produced in Picardy but there is currently a high demand for biogas and animal feed. Co-products from the sugar industry (an important sector in the region), are already widely used for cattle feed, for chemistry and for biogas production.



Picardie is an important region of arable crops with lots of cereal industries. During the workshop, some of them presented a great interest for the project to know how they can use their by-products and develop a new activity. They pointed out that the dryers are specially calibrated for one kind of seeds, but could invest in a new chain or densify biomass to sell it for energy.

Some attendants talked about the Champagne industry in south of Aisne and the possibility to use some biomass from this sector.

The sugar industry sector is quite important in the region with 6 sugar factories, 3 distilleries and 6 installations of dehydration pulps. The idle period is convenient with the project, between January and August. Nevertheless, the by-products are already sold for animal feeding.

#### 3.2. Engagement actions in Champagne-Ardenne

Place and date: Maison de l'Agriculture de l'Aube, Troyes, 9th of October 2014

Number of attendants: 19

Target groups: agro-industries (cereals, dehydration, hemp), enterprises working in the sector of renewable energies: design, installation, maintenance and repair of the boiler and supply agro-pellets, energy section of the chamber of agriculture of Champagne-Ardenne, forest cooperatives, vegetables producers, miscanthus producers and consumers of biomass (mainly wood chips, but also experimenting with straw bales)

The event was conducted by UCFF (Union de la Coopération Forestière Française), who firstly presented SUCELLOG goals. After the presentation of the project, it was the turn of a pioneer forest cooperative who showed the barriers faced and the strategies they applied to overcome them and to fulfill a new sector which is working for over 15 years (woodchip market) and that has become the first source of renewable energy in France. The meeting finished with a roundtable to discuss about: biomass resources, barriers and opportunities and priority areas in Champagne-Ardenne for the project.

During the workshop, it was pointed out that Champagne-Ardenne is one of the most productive regions in Europe: agricultural cooperatives and agro-industries are very well organized and their installations are highly optimised. This fact made that SUCELLOG concept does not make too much sense in a region like this one, because facilities, in general, do not have inactivity periods and if they do, they have found synergies to produce other products in these periods. Some of the participants spoke about the possibility of a higher feasibility for the project in other French regions with a lower level of organization.

The main agricultural model in this region is based on intensive agriculture. So that the market, especially the cereals one, is strongly influenced and follows the international



rules of cereal market. This fact could influence strongly the implication of agricultural actors, because they are not used to think about smaller models with a scheme of proximity consumers and which is the model that SUCELLOG promotes.

The consequence of the written above, regarding the goals of the meeting, was the scarce interest that SUCELLOG concept had in active agro-industries.

Participants agreed that the types de biomass in this region that could be more suitable to be used in the project are straw of rape and cereals as well as hemp (although the competence for animal feeding and biogas production should be carefully taken into account).

A picture of the programme is shown in Figure 1.



#### INVITATION

#### Jeudi 9 octobre 2014

Maison de l'Agriculture de l'Aube (Salle Clyti)

2bis Rue Jeanne d'Arc, 10000 Troyes

14h-17h

#### PRESENTATION DU PROJET EUROPEEN SUCELLOG

Favoriser la participation des entreprises agricoles et agroalimentaires aux activités d'approvisionnement durable des biocombustibles solides.

- 14:00 Présentation du projet SUCELLOG (Pilar FUENTE TOMAI, UCFF)
- ▶ 14 :30 Intervention : Le bois-énergie, une filière en route et réussie: le cas de Forêts et Bois de l'Est (Damien François, F&BE).
- > 15:00 Table ronde:

La disponibilité de biomasse en Champagne-Ardenne

- Quels résidus-coproduits restent encore sans débouchés.
- Facilité de trouver/acheter de la biomasse agricole en région
- « Prix des résidus-coproduits »

Les opportunités et les limites pour ce type de projets

- Situation du secteur (pour les différents types de résidus)
- Limites pour ce projet : légales, techniques, sociales.
- Opportunités: mesures pour promouvoir la diversification du secteur agricole/ mesures pour la promotion de la production/ de la consommation des biocombustibles etc.

Les zones prioritaires en région pour ce type de projets

- Quelle zone serait la plus adaptée dans le cadre du projet, en termes de :
  - Production de résidus agricoles/autres (forestiers)
  - Existence des agroindustries/coopératives agricoles
  - Marchés potentiels

Attention : nombre de places limité.

Pour confirmer votre présence, merci de contacter Pilar FUENTE TOMAI

Figure 1: Invitation and programme of the workshop in Champagne-Ardenne.



#### 3.3. Engagement actions in Centre

Place and date: Centre National de la Recherche Scientifique, Orléans La source,

19th of June 2014

Number of attendants: 51

Target groups: agro-industries, local authorities, economic organizations, energy suppliers, biomass suppliers

Coopénergie presented SUCELLOG project services taking advantage of the organization of the BIOMASS INNOV meeting by the association VALBIOM CENTRE. The aim of this meeting was to provide a comprehensive overview of energy valuations of biomass through several rounds of experts representing the agricultural and research and site visits, industrial tables. The barriers and opportunities for the development of SUCELLOG concept in the region were evaluated.

About the current demand of solid biomass, in 2014 more than 140 biomass boilers are in operation. In total, the annual consumption of these facilities is approximately 582.785 t/ year. Additionally, a new cogeneration biomass plant has just been inaugurated in September in St Pierre des Corps, consuming about 90 000 tons of wood chips. About the type of solid biomasss demanded, the community and industries have confined themselves to the use of wood, no agro-fuels are used. One potential actor for agro-fuels could be the energy suppliers involved in cogeneration projects, which may be interested in this type of material to diversify their supplies.

Regarding the availability of agrarian residues, it seems that SUCELLOG should focus on two main sources in this region: cereal straw (500.000 t/year) and rape straw (380.000 t/year). The rest of residues produced in the agro-industries do have a market.

During the workshop, participants talked about the barriers and opportunities per sector. The best sector for the region is cereal industry. That was a consensus between attendants: cereals agro-industries already have some equipment (storage area; dryers cannot be used for other biomass than seeds) and some biomass. They are also consumer of biomass, which can be important for the project. Moreover, this group is the most important group of cooperatives in Centre with some big cooperatives. The other sector can be sugar industry. The end of quota is forecasted in 2017, they will be able to raise the surface and volume of sugar beet and could be a good moment for diversifying their activities: some installations are not fully use, SUCELLOG can be an opportunity for them.



#### 3.4. Engagement actions in Rhône-Alpes and Auvergne

Place and date: Headquarter of Coop de France Rhône-Alpes Auvergne, Lyon, 19th

of September 2014

Number of attendants: 24

Target groups: agro-industries, energy suppliers, personnel from institutions

Coop de France Rhône-Alpes Auvergne organised a workshop for the stakeholders of the two regions to present the project and discuss about the regional framework. The meeting count with a presentation about the potential of agro-fuels made by the company RAGT Energie and AgroNergy (a company using agro-pellet to sell heating) who work with this type of solid biomass. Finally, a debate around the availability of biomass resources in the two regions and the weakness and strengths of the project was carried out.

According to the discussion, Rhône-Alpes seems to be a suitable region for the project with biomass potential, lots of important agro-industries which can be interesting in the project and a large consumption market in Lyon area. There is already one agro-pellet boiler from AgroNergy in the region (in a greenhouse) and the market of agro-fuels is likely to be develop in the next years Regarding the availability of residues, silos dust, prunings from vineyards and nuts shells seem to be the ones with highest potential while straw is mainly used for cattle feeding. The main agro-industry sector to implement SUCELLOG concept seems to be the cereal drying sector with an advantageous economic situation and a high professionalization. Forage dehydration industry is not anymore in Rhône-Alpes and tobacco dryers seem to be not the best sector to participate in the project since they are small industries with reduced capacity to make investments for the moment.

Concerning the region of Auvergne, according to the participants, the most promising sectors to implement SUCELLOG concept are the sugar and feedstuff industry. Corn and sunflower straw and husks are the main available residues since for the rest there is an important concurrence for animal feeding and biogas production. There is already an agro-industry supplying their heating demands with corn cobs in the region. Participants pointed out that, although the communication network is organised and well structured, there can be problems to absorb more solid biomass in the market since there are no big consumption centres in the region, being the Clermont-Ferrand the most interesting area in this sense.



#### 3.5. Engagement actions in Ile-de-France

Place and date: Headquarter of UCFF (Union de la Coopération Forestière Française),

Paris, 28th of October 2014

Number of attendants: 19

Target groups: agro-industries, farmers, agricultural chambers, boiler makers, machinery cooperatives, renewable energies consulting firm, institutions.

The workshops started with a presentation of SUCELLOG project by UCFF. Afterwards, Nicolas Audignane, from the Renewable Energies Syndicate, made a speech about the wood pellet market and the wood for energy in France. The workshop finished with a discussion about the project opportunities and barriers.

Regarding the regional framework, participants agreed that Ile-de-France seems to be not the best region for the project. There are quite no agrarian residues available and no agro-industries to transform it. In Ile-de-France, there are quite no agro-industries. The urban pressure is a problem for the agricultural sector in the region. Nevertheless, the potential of the biomass market is very interesting.

Attendants discussed about the possibility of make an adaptation of the project for the French context. This adaptation would consist on developing the logistic center in several facilities, according to their know-how. The scheme could be based on the association of facilities that could produce the agro-fuels with some others that could make the storage and distribution creating a network. This type of synergy, where the same facility does not make all operations: harvesting, collected, production distribution and sales could be an option for this type of project.

#### 3.6. Other engagement actions in France

The RAA conducted a series of consultations to the sector through:

- Interviews (14) made by phone to understand the way that agro-industries work.
- Personal bilateral meetings (28), to complete and check the conclusions of the interview.
- Questionnaires (55), to evaluate their interest in becoming a beneficiary of the project.
- Some agro-industries are well-known partners from Services Coop de France
  or from Regional associations. They were thus informed of the project during
  other meetings, explaining some details about its aims, organisation, content,
  etc. Some of these companies were interested in being in the project or at least
  having more information but without being involved in a specific task of WP3.

The tables below show the type of consultation performed to each actor. Other regions (non-target) were also involved in the consultation.



This first step was really important to understand the needs and expectations of the different cooperatives. Different feedbacks were notice along this step, mainly the fact that the solid biomass sector is really heterogeneous.

- In Champagne, some cooperatives explained us that they are already working following the same concept than the SUCELLOG one whereas, in other areas, it was something really innovative.
- Some cooperatives, generally the dehydration units, tried, some years ago, to develop solid biomass projects, producing agropellets. They did not succeed in developing a market and are very skeptical in the possibility to develop the SUCELLOG concept in France whereas, others are really interested in developing a new activity and confident in the possibility to develop a market.

Generally, agro-industries were interested in having more information about the project, the concept, its future results and deliverables. Few were really negative but also few were really confident. The main barriers for them was the development of the market, as agricultural biomass is not really used for combustion but also the competitive uses. Some cooperatives already use their residues in methanation or animal feeding and do not want to develop new markets for them. In contrast, they did not highlight real technical issues: they were interested in having technical advises but did not notice specific barriers able to block this new kind of activity.

Cooperatives were also curious in developing new logistic chains, as, for example, to mobilise pruning for energy, mainly in Bourgogne and Aquitaine.



#### 4. Engagement actions in Italy

SUCELLOG celebrated 5 workshops in Italy, one per target region (Emilia-Romagna, Marche, Puglia, Sardegna and Toscana), gathering a total of 91 participants. Participants include agro-industries, biomass producers and other stakeholders.

Invitations to the workshops were made both via email and by phone conversations in order to engage as many participants as possible. In some cases, Legacoop (The National Association of Italian Cooperatives) supported this action. Despite the important amount of invitations that were sent (for example, 236 invitations only for the workshop in Emilia Romagna), the number of attendants was in some cases shorter than expected even if they had previously shown their interest in the project. The cause of the reduced number of attendants was due to the season where the workshops took place, a difficult period for agro-industries and farmers to attend (harvesting/seeding season).

The general structure of the workshops consisted in:

- Presentation of the project and the services provided to agro-industries.
- Review the project data about the availability of the local biomass in the region.
- Review of information about the agrarian residues market in the region.
- Selection of priority areas in the region.
- Request of interest to become beneficiary of the project.

After the first part of the workshops, it was the turn of specific interviews and bilateral meetings with most interested stakeholders.

Apart from celebrating the workshops, the regional associations of Italy made a series of contacts to engage more agro-industries to the project as potential beneficiaries and to complete the information obtained in the workshop. These activities are included in section 4.5.

#### 4.1. Engagement actions in Emilia-Romagna

Place and date: Ecomondo International Fair, Rimini, 7th of November 2014

Number of attendants: 13

Target groups: Agro-industry cooperatives associated to the Regional Agrarian Association and biomass suppliers

The workshop in Emilia Romagna was celebrated taking the opportunity to place the workshop during the International Fair of Ecomondo in Rimini. The workshop was part of the events advertised by the fair organization, having the chance to explain the project services to different people related to the agrarian sector. Not all the public that



showed from the beginning their interest in the project was able to attend during the workshop.

During the workshop, the main sectors for the region came out: cereal driers and forage dehydration, being both deeply interested in the project. One of the most important cereal cooperative of Emilia Romagna attended the workshop and showed their interest in the project. In particular, during the bilateral meeting, a good new opportunity came out from cereal cooperatives (agro-industries) that process and select seeds to sell them for the new seeding: the problem of residuals. Residuals can include large quantities of bad seeds, and they are property of the cooperative for which they represent a big cost. These agro-industries would like to study the possibility to use residuals as biomass, also for their own use in their heating demands.

At the end of the meeting it was highlighted a general barrier for the project development in this region to be considered: the advanced agrarian conditions of the local market which makes difficult to find available residues. In the region, the most part of possible suppliers of raw materials already have a consolidated market for the residuals. The programme of the workshop together with the poster showed in the fair and some picture can be seen below.





Il giorno venerdi 7 novembre alle ore 9,30 presso l'area COOPERAMBIENTE all'interno della fiera di ECOMONDO (Rimini) nel padiglione B5, si terrà un incontro tecnico per illustrare alcune attività finanziate dalla Comunità Europea a vantaggio delle imprese agro-alimentari.

Legacoop Agroalimentare, con l'appoggio tecnico della coop. D.R.E.Am. Italia, nell'ambito delle initiative europee per la riduzione dei consumi energetici e di sviluppo delle energie rinnovabili, sta svolgendo importanti iniziative a favore delle COOPERATIVE associate per promuovere l'efficientamento energetico e l'utilizzo delle biomasse di origine agricola.

A tal fine sono già in corso i Progetti Europei TESLA e SUCELLOG che vedono interessate in Italia numerose regioni, e sono rivolti principalmente alle cooperative dei settori agro-alimentari. I temi trattati sono l'efficienza energetica dei processi produttivi e la possibilità di avviare, al fianco delle attività ordinarie, attività di lavorazione e commercializzazione delle biomasse di origine agricola.

Le Cooperative SENZA ALCUN COSTO possono usufruire delle consulenze tecniche offerte dai progetti, per valutare la fattibilità di queste possibili nuove attività imprenditoriale o per orientare, ad esempio, nuovi investimenti sugli impianti con il supporto di precise analisi energetiche.

Al termine della presentazione, e comunque sempre nel periodo di fiera, ci sarà la possibilità di incontrare singolarmente le aziende interessate ad approfondire tecnicamente le temptiche.

Certi dell'interesse che i temi proposti rivestono per le vostre attività, contiamo di potervi incontrare al work-shop proposto.

#### PROGRAMMA

- 09.30 Introduzione del Direttore Legacoop Agro-alimentare Dott. Giuseppe Piscopo
- 09.45 Il progetto Europeo TESIA: l'analisi dei consumi nelle imprese agro-alimentari Ing. Enrico Pietrantonio, DREAM coop.
- 10.15 Il progetto Europeo SUCELLOG: la catena delle biomasse agricole per incrementare il reddito d'impresa – Dott.ssa Fiamma Rocchi, DREAM coop.
- 10.45 Spazio per le domande e per incontrare le imprese





Figure 2: Programme for the workshop in Emilia-Romagna.



# Progetto IEE/13/638 "SUCELLOG" TRIGGERING THE CREATION OF BIOMASS LOGISTIC CENTRES BY THE AGROINDUSTRY



Il Progetto SUCELLOG fornisce tutto il supporto tecnico necessario alle agro-industrie per avviare un'attività di rasformazione e vendita di biomasse derivanti da residui

trasformazione e vendita di biomasse derivanti da residui agricoli, utilizzando gli impianti già in possesso durante i periodi stagionali di non lavorazione.

> Budget del progetto 1.826.043 Euro, Contributo EU 1.369.532 Euro Inizio 01/04/2014 Terminato 31/03/2017

Beneficiari del progetto: Industrie Agroalimentari già in possesso di impianti idonei alla potenziale lavorazione delle biomasse, in quattro paesi europei (Italia, Francia, Spagna, Austria)



#### Contatti

Enrico Pietrantonio

mail. pietrantonio@dream-italia.net

mobile. +39 349 29 03 662

www.sucellog.eu/it



Figure 3: Poster for advertising the workshop at Ecomondo Fair.



#### 4.2. Engagement actions in Marche

Place and date: Headquarter of the Regional Agrarian Association (Legacoop), Ancona, 20th of October 2014

Number of attendants: 20

Target groups: Agro-industry cooperatives associated to the Regional Agrarian Association and biomass suppliers

The main agrarian sectors in Marche are cereals, wineries and olive oil but only biomass producers were able to attend the workshop in Marche, as we said before, because of the season when the workshop took place. After the workshops, two more agro-industries, which could not participate, were contacted in order to gather more information about the region.

Biomass producers showed real interest in being part of SUCELLOG project but they highlighted the necessity of building a properly chain between them in order to ensure supply.

In Figure 4, it is shown the invitation for the workshop sent to the stakeholders to foster their participation in the event (the same in the other regions). The list of participants can be observed in Figure 4.







Legacoop Agroalimentare Nazionale, con l'appoggio tecnico di D.R.E.Am. Italia, nell'ambito delle iniziative europee per la riduzione dei consumi energetici e di sviluppo delle energie rinnovabili, sta portando avanti importanti iniziative a favore delle proprie associate per promuovere la destagionalizzazione delle produzioni delle agro-industrie e migliorare la loro capacità di impresa nell'ambito delle biomasse di origine agricola.

Le iniziative promosse sono volte a fornire servizi a "costo 0" alle associate, utilizzando fonti finanziarie della Comunità Europea, per dare supporto tecnico alla loro capacità di sviluppo di business in settori innovativi e fortemente incentivati dalle politiche comunitarie.

Il Progetto Europeo SUCELLOG vede interessate in Italia 5 regioni, <u>fra cui le Marche</u>, e si rivolge a quei settori dell'agro-industria che, per le loro attività ordinarie, sono già dotati di quelle attrezzature ed impianti - in particolare essiccatori e pellettizzatori, ma anche altre - facilmente utilizzabili per la lavorazione delle biomasse agricole, senza che sia necessario predisporre adeguamenti funzionali. Il progetto si rivolge anche a tutte quelle aziende agricole produttrici di scarti - es. paglie, gusci, noccioli, stocchi, ecc. - con potenzialità di valorizzazione economica come biomassa.

Il cuore del progetto è la valorizzazione delle sinergie possibili fra le diverse realtà agricole, per aumentare la capacità di impresa delle aziende coinvolte. <u>Tutte le attività di supporto tecnico previste dal progetto sono gratuite</u>, perché completamente coperte dalla Comunità Europea.

Il giorno 20 ottobre presso la sede di Legacoop Marche, Via Sandro Totti n.º 10
60131 - ANCONA, tra le 9.30 e le 12.30, si terrà un incontro al quale siete invitati per illustrare
nei dettagli le opportunità fornite dal Progetto alle Aziende, e raccogliere anche i riferimenti.
(Nominativi) delle Aziende potenzialmente interessate. L'incontro, della durata di circa 3
ore, permetterà tra l'altro di valutare insieme come poter indirizzare il progetto, per renderlo
maggiormente efficace e rispondente alle necessità delle aziende interessate.

I temi del progetto, fortemente sponsorizzati dall'Unione Europea, assumono importanza significativa anche alla luce dell'eventualità che gli stessi possano divenire oggetto di interesse del prossimo Programma di Sviluppo Rurale per la definizione di linee di investimento adequate.

E' in virtù di tali premesse e degli obiettivi prefissati che <u>è auspicabile che al workshop in programma partecipino, per ciascuna delle aziende invitate, i rispettivi Presidenti/Direttori Commerciali e Responsabili di Produzione/Direttore Tecnico.</u>

Nei prossimi giorni, i Responsabili dell'attuazione dell'iniziativa, provvederanno a contattarvi direttamente per ottenere una Vs. gradita conferma di adesione.













Figure 4: Invitation for the workshop in Marche.



#### 4.3. Engagement actions in Puglia

Place and date: Cooperativa Progresso Agricolo, Fasano, 31th of October 2014

Number of attendants: 14

Target groups: Agro-industry cooperatives associated to the Regional Agrarian

Association and biomass suppliers

The workshop took place in Progresso Agricolo, a cooperative of the National Asociation (Legacoop) from the olive oil sector.

Several cooperatives members of Legacoop attended the workshop, and also some others agro-industries that got the information through the SUCELLOG newsletter.

Two main sectors were identified in Puglia for the project concept: olive oil and cereal drying. In particular, several agro-industries of the oil sector have past experiences related to biomass, as suppliers, consumers or logistic centres. Since some of these experiences were not successful, agro-industries are willing to be involved in the project to find the right solutions to develop the new possible business.

Past experiences of the agro-industries of the olive oil sector are related to prunings. Disposal of prunings often represent a problem for the producers, and they are interested in finding alternative possibilities of use. The problem of prunings also involves the wine sector. However, in the region there are also several cooperatives that produce and commercialize forestry biomass (chips). This could represent a barrier due to the low price of the forestry biomass to be taken into consideration.

#### 4.4. Engagement actions in Sardegna

Place and date: Headquarter of Regional Rice-producers Association, Oristano, 30th of October 2014

Number of attendants: 15

Target groups: Agro-industry cooperatives associated to the Regional Agrarian Association and biomass suppliers

The workshop took place in the headquarter of the Rice Producers Association, which showed interest in the project during the first phases of the WP3.

Agro-industries from different sectors (animal feed and wineries) could not participate in the workshop because of the high load of work in the period. Several rice producers attended to the meeting (not all the ones that showed an interest in the project at the beginning). The rice production is one of the most important agrarian sectors in Sardegna. Attendants expressed that rice producers have problems to get rid of the residuals from the rice treatment (rice husks) because of the cost involved. They



generally have all the devices needed to treat these residuals as biomass (dryers, in particular). However, they have some doubts about difficulties in approaching the new business because of the logistic situation of the island and the little consumption of biomass in the region.

In general, the availability of biomass resources in Sardegna is good, usually linked to the problems of disposal of pruning. On the other hand, the inefficiently roads and the rough morphologies of the island make very difficult to create a good logistic network for the transport of this biomass. Moreover, the market of the local products can hardly overpass the regional borders, because of the high costs in logistics and transports

#### 4.5. Engagement actions in Toscana

Place and date: Headquarter of Regional Agrarian Association, Lucca, 2<sup>nd</sup> of October 2014.

Number of attendants: 23

Target groups: Agro-industry cooperatives associated to the Regional Agrarian Association and biomass suppliers

The workshop was attended by agro-industries and stakeholders from the different agrarian sectors present in the region (wineries, olive oil and cereals).

Some of the agro-industries expressed during the meeting that they had experiences in the biomass sector in the past and they are still studying the best way to reach results. For this reason, the agro-industries were particularly interested in the project services. During the event it was shown a successful example of collaboration between a cereal drying industry and an olive oil producer to treat the olive kernels as biomass. In particular, a cereal agro-industry cooperative is trying to find the lowest expensive way to dry olive kernels in their plant and sell them as biomass in the local market.

Another sector of the region that could represent a good target for the project is the tobacco sector. Tobacco producers did not attend the workshop, but during previous interviews they declared to have dryers useful to dry several kinds of biomass. They don't have so many residuals from the tobacco cultures. A barrier could be represented by agreements that tobacco producers have with buyers (multinational tobacco industries). Tobacco producers are not sure to be allowed to use devices (dryers) for different purposes than tobacco drying.



#### 4.6. Other engagement actions in Italy

The RAA conducted a series of consultations to the sector through:

- Interviews (47) made by phone to understand the way that agro-industries work.
- Personal bilateral meetings (16), to complete and check the conclusions of the interview.
- Questionnaires (17), to evaluate their interest in becoming a beneficiary of the project.

The tables below show the type of consultation performed to each actor.

The tables below show the type of consultation performed to each actor.

For many of the interviewed agro-industries, these interviews by phone call or questionnaires or bilateral meetings were their very first moment of interaction with the project. Hence, the project could meet here the technical and not-technical barriers that will be faced later on.

Some of them were already aware about the possibilities of the solid biomass market, in particular that companies working in the forestry market or close to this sector. Some of them had already carried out in past some tests to produce biomass from agricultural residues, but without any specific success. This also due to the not-scientific approach to the matter. Further, the decreased price of the fossil fuel is considered as a disincentive to start a new activity in the sector.

Furthermore, in the case of companies that do not work with woody biomass, this activity is already experiencing the scarce know-how of the agro-industries on the subject of bioenergy but more than that on that of solid biomass for energy purposes.

In general, we can divide the total of the interviewed companies in two parts: a large group of companies (cooperatives, but not only) having their specific business, without any interest in trying new businesses and with a low investment profile, a second group of companies more proactive and interested in diversifying their own activities. These two different approaches, if there is not any specific problem, mainly depend on the capacity of the existing management.

We also want to highlight that the involved companies were mainly small or medium, as representative of the Italian general situation. This affected their capacity of finding resources, both economic and logistic, for playing a more active role into the project.



#### 5. Engagement actions in Austria

A total of 11 workshops were carried out in Austria with more than 131 participants. The strategy for the workshops was different in the 4 target regions, however all of them were celebrated together with other events or inviting experts or companies working on the field, in order to engage more stakeholders and get a wider view of the situation of the region.

Lk Stmk celebrated 7 of them in Styria, in cooperation with partners of the Chamber of Agriculture and Forestry of Austria. The first 3 had the main objective to get to know the services provided by the project among the agrarian and bioenergy sector and were celebrated inside other events. The situation of the agro-industries and of biomass residues availability was the main point of discussion in the last 4 workshops carried out.

In the other 3 target regions of the project (Upper Austria, Lower Austria and Carinthia), Lk Stmk prepared, together with the regional chambers, a workshop to engage agroindustries to the project. The event was structure in such a way that also experts or companies working on agriculture and bioenergy had an important role in the discussion to reach a wider point of view of the regional situation to develop the project.

Additionally, a workshop was celebrated in Salzburg region (non-target region of SUCELLOG project), taking the opportunity to present the project inside a meeting of bioenergy experts and get their feedback about the opportunities and barriers that this project can have in Austria.

Apart from celebrating the workshops, the regional associations of Austria made a series of contacts to engage more agro-industries to the project as potential beneficiaries and to complete the information obtained in the workshop. These activities are included in section 5.12.

#### 5.1. Engagement actions in Styria – WS1

Place and date: KWB visitors centre, St. Margarthen an der Raab, 5th of June 2014

Number of attendants: approx. 300

Target groups: agro-industries, boiler manufacturers, farmers

This workshop was organized by the Chamber of Agriculture and Forestry in Styria together with the boiler-manufacturer KWB. In the Beginning Mr. Kindler from the Chamber of Agriculture and Forestry (Lk Stmk), talked about the SUCELLOG project explaining the main goals and focusing on the necessity to start using agriculture residues, which was particularly praised by the participants. Afterwards Mr. Reicht had a presentation about the future of short rotation coppice. The "Highlight" of this Workshop was the presentation of the crawler burner from the boiler manufacturer



KWB developed specifically for agricultural biomass. In an official presentation, corn cobs, straw and olive pits were burnt.

The programme can be shown in Figure 5.



Figure 5: Poster for the invitation and programme of WS1-Styria (pictures made by Fotodesign Schiffer).



#### 5.2. Engagement actions in Styria – WS2

Place and date: Straden, 24th of September 2014

Number of attendants: approx. 100

Target groups: agro-industries, boiler manufacturers, farmers, politicians

This workshop was organized in Straden by the Chamber of Agriculture and Forestry in cooperation with the "Verein Heu und Pellets", which is an innovative group of farmers who are trying to solve the problem of crop-protection Europe meadows. This group is cultivating hay in these areas and produce mixed agro-pellets out of it for heating purposes. They mix the hay together with corn cobs to produce the pellet.

Mr. Kindler, from Lk Stmk, presented SUCELLOG project to the attendants and made a speech about the thermal utilization of landscaping biomass. Participants showed a high interest in the event discussions and moreover SUCELLOG project was highly appreciated. The legal framework was discussed with the politicians present in the event.

The programme is shown in Figure 6.





Figure 6: Poster for the invitation and programme of WS2-Styria.



#### 5.3. Engagement actions in Styria – WS3

Place and date: Halbenrain, 2<sup>nd</sup> of October 2014

Number of attendants: approx.100

Target groups: agro-industries, boiler manufacturers, farmers

This workshop was organized in Halbenrain by Lk Stmk in cooperation with the "Verein Heu und Pellets", as a follow-up to the last workshop on the 24<sup>th</sup> of September (WS2).

In this workshop the processing and drying technology of agrarian biomass was the main topic. Different drying systems were presented and discussed, especially those dedicated to corn cobs. SUCELLOG project was presented again by Mr. Kindler (from Lk Stmk), which was well-received by the participants. After all the presentations there was a fruitful discussion about the use of wood and of alternative biofuels from agrarian sources in the region.

The programme is shown in Figure 7.









Zeit: Donnerstag, 02. Oktober 2014, 10 Uhr Ort: Halbenrain 229, Trocknungsanlage Tschiggerl

#### Welt-Premiere:

# Innovative Bauerngruppe veredelt agrarischen Reststoff zu wertvollen Rohstoff und Wärme

Steirische Bauern machen aus Maisspindel Rohstoff für 32 stoffliche Anwendungsmöglichkeiten und nutzen ihn zum Heizen in gewerblichen Anlagen.

Einer innovative steirischen Bauerngruppe ist es weltweit erstmals gelungen diesen hervoragenden biogenen Rohstoff Maisspindel nahezu betriebskostenfrei zu ernten und somit für innovative Betriebe zur Verfügung zu stellen. Bisher verottete die Maisspindel nahezu nutzlos auf unseren Feldern. Jetzt veredeln die steirischen Bauern diesen Rohstoff für die Wärmeerzeugung bei der Trocknungsanlage, als Einstreu für die Geflügelproduktion und vergressen sie zu Pellets welche vielfach verwendet werden können.

Sehr geehrte Redaktion!

Wir stellen Ihnen die Projekte: "Sucellog" " Maisspindel – Rohstoff mit Zukunft" sowie den Verein MaisSpindel vor.

Gesprächspartner: Landesrat Gerhard Kurzmann

Landwirtschaftskammer-Präsident Gerhard Wlodkowski

Wir laden Sie herzlich ein und freuen uns auf Ihr Kommen.

Mit freundlichen Grüßen

Mag. Rosemarie Wilhelm



Figure 7: Poster for the invitation and programme of WS3-Styria.



#### 5.4. Engagement actions in Styria – WS4

Place and date: Deutsch Goritz, 29th of October 2014

Number of attendants: 11

Target groups: farmers

This workshop (together with WS6) were organized by the Chamber of Agriculture and Forestry of Styria in cooperation with the crop production department with the goal of, on the one hand, reaching people interested in the project and, on the other hand, of getting a better overview of the situation.

The potential for cereal straw and rape straw was raised and widely discussed. More concretely, the problems of humus management versus residual substance use were commented. The presentation of the SUCELLOG project was highly appreciated and the initiative of the project was seen as valuable.

The program are shown in Figure 8.







# Einladung

## Zur EU-Projekt Sucellog – Vorstellung und Flurbegehung zu Getreide und Raps

Datum: 29. Oktober 2014

Zeit: 9 Uhr

Ort: Gasthaus Bader, Deutsch Goritz

Zeit: 14 Uhr

Ort: Landwirtschaftliche Fachschule, Hatzendorf

Vorstellung des EU-Projektes: "Sucellog"
Besichtigung von Getreide- und Rapsbeständen (Besprechung Saatstärke,
Anbautechnik, Unkrautbekämpfung, ...)

Referenten: Dr. Alfred Kindler Dr. Karl Mayer

Dipl.-Ing. Peter Klug bzw. Dipl.-Ing. Harald Fragner

Wir freuen uns auf Ihr Kommen!



Figure 8: Poster for the invitation and programme of WS4-Styria.



#### 5.5. Engagement actions in Styria – WS5

Place and date: Hatzendorf, 29th of October 2014

Number of attendants: 6

Target groups: interested farmers

For contents and discussion of the workshop see WS4. The programme is shown in

Figure 9.





# Einladung

# Zur EU-Projekt Sucellog – Vorstellung und Flurbegehung zu Getreide und Raps

Datum: 29. Oktober 2014

Zeit: 9 Uh

Ort: Gasthaus Bader, Deutsch Goritz

Zeit: 14 Uhr

Ort: Landwirtschaftliche Fachschule, Hatzendorf

Vorstellung des EU-Projektes: "Sucellog"

Besichtigung von Getreide- und Rapsbeständen (Besprechung Saatstärke,

Anbautechnik, Unkrautbekämpfung, ...)

Referenten: Dr. Alfred Kindler

Dr. Karl Mayer

Dipl.-Ing. Peter Klug bzw. Dipl.-Ing. Harald Fragner

Wir freuen uns auf Ihr Kommen!



Figure 9: Poster for the invitation and programme of WS5-Styria.



#### 5.6. Engagement actions in Styria – WS6

Place and date: Leibnitz, 31st of October 2014

Number of attendants: 7

Target groups: representatives of oil mills and oil mill owners

This workshop was organized by the Chamber of Agriculture and Forestry of Styria together with the representatives of oil mills in the region. Mr. Kindler presented SUCELLOG project and the services provided. After the presentation, the utilization and the potentials for the press cake from the oil industry was discussed.

The main conclusion of this discussion was that there is nearly no pressed cake available for thermal use since during the last years this residue has become popular for animal feeding. Nevertheless the content of the project was transmitted to the participants and the discussion about the recent situation in the sector "bio-resources" was largely discussed. The program is shown in Figure 10.





#### Workshop zum Thema

#### "Nutzungsmöglichkeiten agrarischer Reststoffe"

im Rahmen der Vorstandssitzung der Gemeinschaft "Steirisches <u>Kürbiskernöl</u> g.g.A"

Bezirkskammer Leibnitz, am 31.10.2014

#### Agenda

10:30	Begrüßung
11:00	Vorstellung des EU-Projektes "Sucellog" – Alternative Verwertungsmöglichkeiten für den Presskuchen? Dr. Alfred Kindler, LK Steiermark
11:45	Ernte 2014 und deren Auswirkungen auf das Anbaujahr 2015, Spezifikation neu – Kontrollstelle LACON Ing. Mag. Andreas <u>Cretnik</u> , Gemeinschaft Steirisches <u>Kürbiskernöl</u> g.g.A.
12:15	Diskussion
12:45	Abschluss der Veranstaltung

Figure 10: Poster for the invitation and programme of WS6-Styria.



#### 5.7. Engagement actions in Styria – WS7

Place and date: St. Margarethen an der Raab, 10th of December 2014

Number of attendants: 27

Target groups: agro-industries, boiler manufacturers, interested farmers

The workshop was organized by the Styrian Chamber of Agriculture and Forestry in the buildings of the boiler manufacturer KWB in St. Margarethen an der Raab. 27 people from SUCELLOG target group assisted to an event where experts from the agro-industry scene made interesting presentations.

In the beginning, Mr. Schwaiger, a researcher from an Styrian researching company, explained the effects of the climate change on the Agriculture, especially on the consequences for maize fields in whole Austria.

The second presentation was held by the Styrian representative for energy, to whom we invited to give a statement about the legal situation of burning agro-fuels in households, especially on corn cobs, as there is still no official law allowing this in the region whereas in other region is.

Mister Kindler presented afterwards SUCELLOG project explaining the concept and discussing about the barriers and the opportunities for its implementation. Following, Mr. Strasser from a researching company in Lower Austria gave a speech about the potential of Austria in the field of agro-fuels. Last presentation was carried out by Mr. Stubenschrott, the head of the boiler manufacturer KWB, who explained the necessity of reducing the emissions, and of finding new sources of biomass fuels in future.

After these presentations a fruitful discussion started, where the attendants really welcomed the idea of the SUCELLOG project, as they all agree that agro-fuels have not been considered as a potential biomass source till the moment. Nevertheless, there was the conclusion that in Austria only the use of corn cobs is making sense. The use of straw should also be considered but under special conditions in order to avoid the decrease of the humus content.

The programme of the event can be seen in Figure 11.





Figure 11: Poster for the invitation and programme of WS7-Styria.

#### 5.8. Engagement actions in Upper Austria

Place and date: Landwirtschaftskammer Oberösterreich, Linz, 30th of October 2014

Number of attendants: 23

Target groups: agro-industry, farmers, interested stakeholders

After the introduction of Mr. Kindler (from Lk Stmk), who explained the main goals of the SUCELLOG project and services offered to the agro-industry, Mr. Gerlinger from the company Biokompakt Heiztechnik GmbH talked about the economic aspect of the thermal utilization of agro-fuels. Mr. Lasselsberger from the BLT Wieselburg, which is a researching company, talked afterwards about the general conditions for the use of agro-fuels. In the afternoon the participants made a study tour to a biomass heating plant, which has also the permission for heating pellets of miscanthus and to a



biomass-contracting-heating plant, where they are heating running with agro-fuels like straw and miscanthus.

The participants were highly interested in the topic and their feedback was supported by two basic ideas:

- The participants agreed that to achieve climate goals, the use of agrarian biomass will be international of great importance in the future and that the project idea has recognized the signs of the times. In Upper Austria chances of cereal straw, corn cobs and miscanthus show the highest potential.
- 2) However, the participants expressed that currently the policy has not yet achieved the necessary conditions for a rational use of these resources, which seems to be the biggest barrier for their development as commercial solid biomass.

The programme is shown in Figure 12.





Der Biomasseverband OÖ organisiert für seine Mitglieder einen

#### Workshop zum EU-Projekt



Das Projekt "SUCELLOG" verfolgt das Ziel, den agrarischen Sektor für die nachhaltige Biomassebrennstoffproduktion zu gewinnen. Die Grundidee besteht darin, eventuell unter dem Jahr vorhandene Produktionskapazitäten (Trockner, Pelletierer) für die Herstellung von agrarischen Brennstoffen auszunutzen und diese in Form eines Biomasse-Logistik-Zentrums an Endkunden zu verkaufen. Für die Biomassebrennstoffproduktion können sowohl die eigenen Reststoffe sowie die in den vor- und nachgelagerten Sektoren anfallenden Reststoffe (z.B. Stroh) herangezogen werden.

Datum: Donnerstag, 30. Oktober 2014

Beginn: 09.30 Uhr

Ort: Landwirtschaftskammer Oberösterreich,

Auf der Gugl 3, 4021 Linz, Seminarraum S18

- 09.30 Vorstellung des Projektes "Sucellog" thermische Nutzung agrarischer Brennstoffe Dr. Alfred Kindler, Landwirtschaftskammer Steiermark
- 10.15 Verwendung von alternativen agrarischen Brennstoffen wirtschaftlich machbar? Ernst Gerlinger, Biokompakt Heiztechnik GmbH
- 11.00 Biomassebrennstoffe aus dem agrarischen Bereich Rahmenbedingungen Dipl.-HLFL-Ing. Leopold Lasselsberger, BLT Wieselburg
- 12.00 Gemeinsames Mittagessen in der Landwirtschaftskammer OÖ
- 13.30 Abfahrt zur Exkursion am Parkplatz der Landwirtschaftskammer OÖ
- 14.00 Biomasseheizwerk mit Einzelgenehmigung für den Brennstoff Miscanthus Miscanthus Bioenergie Alkoven GmbH, Mag. Josef Aigner
- 16.00 Biomasse-Nahwärmeanlage mit alternativen agrarischen Brennstoffen (Stroh und Miscanthus) Ökowärme Falzberger KG, Pichl bei Wels

Aus organisatorischen Gründen bitten wir um Anmeldung bis Montag, 27. Oktober 2014 per E-Mail an biomasseverband@lk-ooe.at oder telefonisch unter 050/6902-1630.

Wir freuen uns auf Ihre Teilnahme und einen interessanten Workshop!

# 

Figure 12: Poster for the invitation and programme of the workshop in Upper Austria.



#### 5.9. Engagement actions in Lower Austria

Place and date: 27th of November 2014

Number of attendants: 28

Target groups: agro-industries, boiler manufacturers, interested farmers

This workshop was organized by the Chamber of Agriculture of Lower Austria in cooperation with Lk Stmk.

In the beginning Mr. Kindler from Lk Stmk presented the content and the main aim of the SUCELLOG project to a really interested group of people. Afterwards Mr. Miasel from an agrarian school talked about the pelletising of agrarian residues. Mr. Lasselsberger from the BLT Wieselburg, which is a researching company presented the general conditions on alternative fuels. After these presentations, two boiler producers (companies Ligno and Binder) explained the situation about the burning conditions of agro-fuels.

In the workshop, the problem of CO<sub>2</sub> reduction for the prevention of global warming was particularly discussed. A majority of the participants pointed out that it is therefore essential to increase the use of biomass for heat production. Moreover, it was agreed that for a sustainable transition from fossil fuels to biomass, the use of agrarian biomass is absolutely necessary.

In Lower Austria there is an important potential in the field of straw and corn cob use. The project initiative was well received, whereas it was particularly stressed out, that in this area it is still a lot of political persuasion necessary.

The programme is shown in Figure 13.





Figure 13: Poster for the invitation and programme of the workshop in Lower Austria.

#### 5.10. Engagement actions in Carinthia

Place and date: 24th of November 2014, LFS Goldbrunnhof, Carinthia

Number of attendants: 19

Target groups: agrarian experts

After the introduction of Mr. Kindler (from Lk Stmk), who explained the main goals of the SUCELLOG project and services offered to the agro-industry, Mr. Klingel (an agrarian expert from an German Agrarian consulting company) talked about the spring tillage and the tillage after corn.

The participants appreciated the project and the idea behind it. Nevertheless in the discussion, the topic of soil health versus straw removal was discussed intensively, which developed the following opinion: it is the decision of each farmer to use agricultural residual materials, but the development of humus content of agricultural arable land must be monitored continuously. Because of climate change, a high waterand humus content is important in order to counteract erosions.

Available resources are seen for the straw utilization in corn and cereal in this region for the project development.



The programme is shown in Figure 14.



Figure 14: Poster for the invitation and programme of the workshop in Carinthia.

#### 5.11. Engagement actions in Salzburg

Place and date: Salzburg, 15th of October 2014

Number of attendants: 11

Target groups: Bioenergy experts from all regions in Austria

This workshop was organized in the frame of the "Austrian meeting of Bioenergy-experts" on the 15<sup>th</sup> of October in Salzburg. After the presentation of the activities and the role of agrarian residuals in the future by Mr. Metschina (from Lk Stmk), Mr. Loibnegger (from Lk Stmk) presented SUCELLOG project.

After the project presentation, a fruitful discussion started and every participant explained the situation about the agro-fuels in the different Austrian regions. In Upper Austria, Lower Austria and Styria there is an interesting potential due to the nature of the landscape. However from all the other regions there was a clear message: there is no potential at all for these agro-fuels the project is looking for. In Salzburg region some



potential for short rotation were eventually identified. All in all, participants came to the conclusion that, concerning agro-fuels, the Chamber of Agriculture and Forestry of Styria is the center of knowledge. Participants mentioned that they forward all requests concerning agro-fuels made by the Chamber, as in other regions this topic presents low interest, as there is no real agro-industry existing in their regions.

The programme is shown in Figure 15.

#### **Experten Workshop zum Thema**

#### "Nutzungsmöglichkeiten agrarischer Reststoffe"

im Rahmen der Österreichischen Energiereferenten Tagung
Hefterhof, am 15.10.2014

# Agenda

14:00	Begrüßung
14:15	Bioenergieaktivitäten in der Steiermark und die Rolle der agrarischen Reststoffe im Energiemix der Zukunft Dr. Christian Metschina, LK Steiermark
15:15	Vorstellung des Projektes "Sucellog" – thermische Nutzung agrarischer Brennstoffe Mag. Thomas Loibnegger, LK Steiermark
16:15	Kurzvorstellung der jeweiligen Bundesländer Aktivitäten im Bereich Nutzung agrarischer Reststoffe Energiereferenten der jeweiligen Landwirtschaftskammern
17:30	Diskussion möglicher Kooperationen auf Bundesländerebene im Bereich der Nutzung agrarischer Reststoffe
	Moderation: DI Kasimir Nemestothy, Lk Österreich
18:30	Abschluss und gemeinsames Abendessen



Figure 15: Poster for the invitation and programme of the workshop in Salzburg.



#### 5.12. Other engagement actions in Austria

The RAA conducted a series of consultations to the sector through:

- Interviews (24) made by phone to understand the way that agro-industries work.
- Personal bilateral meetings (15), to complete and check the conclusions of the interview.
- Questionnaires (22), to evaluate their interest in becoming a beneficiary of the project.

The table below show the type of consultation performed to each actor.

Those consultations were done with agro-industries and experts from the agrarian sector. The results were similar with both groups.

Both have just little experience with the production and use of agro-fuels. The reason for that is that just few types of residues are theoretically available, most residues already are used, and just little amounts are free. One reason why they have just little experience in the utilisation of agricultural residues is that they see a lot of barriers. One big issue the experts see, is that agro-industries usually have no experience in the production of fuels and the willingness to invest in new things is currently low. But some agro-industries already have experience with solid biomass. Those are also more interested in the creation of a logistic centre. The experts also think that there is just a small market for agro-fuels in general and they think that this won't change in future. Also the legal situation is an issue for both groups, as it is not clear if the use of agro-fuels is allowed or not and how many emissions they are allowed to emit. From the technical point of view, they see the problem that the equipment of agro-industries not necessarily fits with the production of agro-fuels. Especially the dryers. Also contamination could be a problem, mainly for animal feedstuff producers. Moreover, appropriate boilers for consumers are missing.

Their expectations for the SUCELLOG project are that the potential and barriers of using agro-fuels will be detected. Also agro-industries, policy makers and potential customers and suppliers should be sensibilised for this topic. Furthermore, according to their expectations, the project should support the creation of a legal framework, which fosters the use of agro-fuels. Moreover, a good practice example should be created, where different synergies can be used for the creation of the logistic centre. In long term the agro-industries hope that they can generate an additional income through the creation of an agro-industry logistic centre.