

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

SUCELLOG: IEE/13/638/SI2.675535

D8.7 Report of workshops at regional and national level

29 March 2017







About SUCELLOG project

The SUCELLOG project - Triggering the creation of biomass logistic centres by the agroindustry - 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 agroeconomy 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 D8.7 of the SUCELLOG project - (Reports of workshops at regional and national level). It has been prepared by:

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For each workshop, the input was given by the corresponding organiser and project partners which are mentioned in each section.

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1. Introduction

In order to ensure the better multiplication of the initiatives and the exploitation of synergies through the project, dissemination workshops have been celebrated at regional, national and European scale. The target group for these events is the agrarian sector (agro-industries and biomass producers) and biomass consumers.

In these workshops the project has been explained, handbooks and guidelines elaborated have been promoted as a way to transfer the generated knowledge and experience. Moreover, the workshops have served to further discuss the barriers and opportunities from the technical and economical point of view, the available resources and the agrarian sectors which are interesting for the implementation of the project idea in other regions.

This report shows the summary of the different events carried out at national and regional level. The European dissemination activities are reported in D8.8.

2. National dissemination workshops

The main objective of national dissemination workshops is to promote the project idea in the non-target regions of the country among agro-industries and stakeholders and to motivate agrarian associations to receive training to become auditors.

Workshops were organised in the four participating countries of the project (Austria, Spain, Italy and France), 2 per country along the project lifetime (except in Italy where only one national workshop has been organized). They were carried out by the corresponding national agrarian associations.

2.1. National workshops in Austria

2.1.1. First national dissemination workshop in Austria, 18/06/2015

The first national workshop in Austria was organised in **Vienna** on **18 June 2015** on the occasion of an existing event by:

Lk-Stmk, Styrian Chamber of Agriculture and Forestry

Thomas Loibnegger, Tanja Solar, Alfred Kindler

E-mail: tanja.solar@lk-stmk.at, thomas.loibnegger@lk-stmk.at, alfred.kindler@lk-stmk.at

Tel: +43 316 8050 1407

2.1.1.1. Agenda

An invitation was sent to biomass experts from all regions of Austria. The invitation included the Agenda presented in Figure 1.



Einladung

Wien. 10. Juni 2015

zum Ausschuss für Energie und Klima 1/2015 und zum Sucellog-Workshop

am Donnerstag, 18. Juni 2015, 10:00 bis 15:00 Uhr in der Landwirtschaftskammer Österreich, Sitzungssaal Erdgeschoss, Schauflergasse 6, 1014 Wien.

Tagesordnung:

- 1. Aktuelle Entwicklungen der Klimapolitik auf nationaler und internationaler Ebene
- 2. Energieeffizienzberatung für land- und forstwirtschaftliche Betriebe
- 3. Energieeffizienzgesetz: Monitoringverordnung und Methodendokument
- 4. Energieinfrastrukturgesetz
- 5. Kommunikationsstrategien zur energetischen Holznutzung
- 6. Berichte der Bundesländer (Lk Stmk Projektpräsentation Sucellog) und des BMLFUW
- 7. Allfälliges

Mit freundlichen Grüßen







Figure 1: Agenda of the first national workshop in Austria

2.1.1.2. Participants

19 participants attended the workshop.

2.1.1.3. Summary of the event

Within the workshop Lk-Steiermark provided information about the most important barriers and opportunities for the development of the agro-industry logistic centre from the technical and economical point of view. Another main discussing point was the availability of the agrarian biomass in the priority areas in Austria. In that scope the participants discussed very intensively the most important questions like the timing of harvesting, the costs for logistic and manipulation, different kind of drying technologies and administrative issues.

The participants of the workshop are the leading energy and biomass experts of the 9 federal regions in Austria. These experts are representatives of the regional chambers for forestry and agriculture and therefore deeply involved in the regional biomass and agricultural sector. Together with their teams, the energy experts give advice and consulting to agricultural decision makers and investors. Through their network their team are well informed about activities also on municipal level. This network is unique and one of the main success factors of the agricultural chamber. No other company is deeper involved in market activities and informed about ongoing campaigns and investments. The chamber - as a no profit company - has another approach to the market actors.



Within the meeting Mr. Loibnegger discussed the possibilities for further SUCELLOG activities also in regions so far not involved in the project area, like Tirol, Salzburg or Burgenland. After this deep discussion the feedback from the experts was that regions with potential are already involved in the project, like Carinthia, Upper Austria and Lower Austria. In the other regions, due to the different agrarian conditions, it seems really hard to implement the project idea except in the region of Burgenland.

Once the workshop finished Lk-Stmk has worked to engage stakeholders to the trainings:

- Energy expert representing Burgenland region who works in close cooperation with the companies and agrarian associations in that region.
- A consultant from Slovenia with good contacts to the agrarian associations and companies in the area.
- A professor from the region of Novi Sad in Serbia with a lot of contacts in the agrarian field.

2.1.2. Second national dissemination workshop in Austria, 18-19/01/2017

The second national workshop in Austria was organised in **Graz** on **18-19 January 2017** on the occasion of Central European Biomass Conference (CEBC 2017) by:

Lk-Stmk, Styrian Chamber of Agriculture and Forestry

Tanja Solar and Alfred Kindler

E-mail: tanja.solar@lk-stmk.at and alfred.kindler@lk-stmk.at

Tel: +43 316 8050 1407

The workshop consisted of two parts – study tour and presentation in Halbenrain and SUCELLOG project presentation – in Graz on the day after.

2.1.2.1. Agenda

Agenda of the study tour is presented in Figure 2.

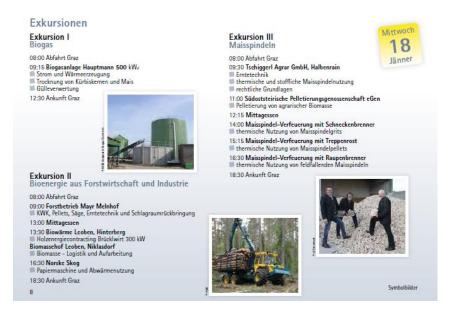


Figure 2: Agenda of the study tour during second national workshop in Austria



2.1.2.2. Participants

11 participants attended the study tour and about 35 people attended the SUCELLOG presentation during the conference.

2.1.2.3. Summary of the event

The workshop was organized as a two days event: on the 18th and 19th of January 2017.

On the first day a study tour and a presentation of SUCELLOG project was held in Halbenrain in the Chamber building in Bad Radkersburg. The study tour was organized as part of the official program of the CEBC 2017: "Maisspindeln - "Corncobs" (Erntetechnik, Aufbereitung, Verbrennung)". Mr. Kindler guided through the whole day and showed the interested audience the biomass logistic centre of Tschiggerl Agrar, explaining also the different kind of agrarian fuels produced, the issues related to their combustion and the SUCELLOG concept behind it.





Figure 3: Participants of the study tour and demonstration of the types of fuels

On 19th of January 2017 Mr. Kindler gave presentation during one of the parallel sessions of the CEBC 2017 (New Resources, Potentials and Risk Management within Supply Chains). The presentation addressed the mobilisation and supply of agrarian residues based on the example in Styria. Among participants there were also some policy makers and participants from the lobbying organisations.



Participants were much interested in the project concept and provided good feedback about the SUCELLOG video produced in Austria. The presentation was concluded with discussions and questions to Mr. Kindler after the session and during the coffee breaks afterwards.

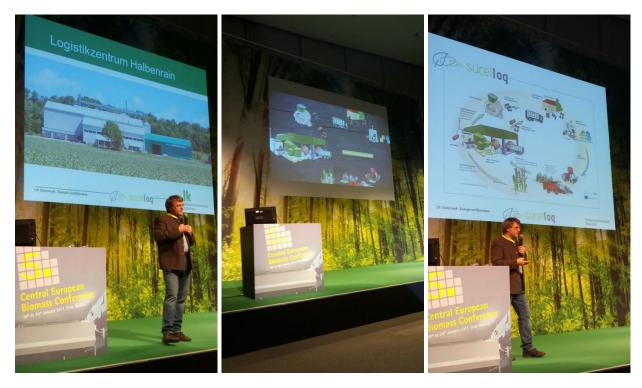


Figure 4: SUCELLOG presentation of the 2nd day



2.2. National workshops in Spain

2.2.1. First national dissemination workshop in Spain, 25/06/2015

The first national workshop in Spain was organised on 25 June 2015 in Madrid by:

SPANISH COOPERATIVES

Juan Sagarna and Susana Rivera

Email: sagarna@agro-alimentarias.coop, rivera@agro-alimentarias.coop

Phone: +34 91 535 10 35

2.2.1.1. Agenda

The Agenda which was included in the invitation letter is shown in Figure 5.



Figure 5: Agenda of the first national workshop in Spain



2.2.1.2. Participants

Around 40 participants, including cooperatives, agrarian associations, policy makers and energy efficiency technical providers attended the workshop.

2.2.1.3. Summary of the event

Spanish Cooperatives held in Madrid a workshop on "Energy Efficiency and Bioenergy cooperatives" in which they have gathered around 40 participants, including cooperatives, agrarian associations, policy makers and energy efficiency technical providers who want to go a step further in the use of bioenergy and in energy efficiency through implementing more sustainable and lower cost measures in the agro-industries.

Energy efficiency is one of the challenges of competitiveness of European industry, so Spanish Cooperatives has actively worked on this issue in recent years. In this sense, this institution presented European projects in which it is currently involved in. Since 2013 Spanish Cooperatives is leading the TESLA project, which aims to achieve energy savings in the food industry. The meeting was especially dedicated to this project.



Figure 6: Participants of the first national workshop in Spain

However, Spanish Cooperatives took the opportunity to present SUCELLOG goals and the results achieved so far in cooperatives such us San Miguel de Tauste. Apart from that, Susana Rivera offered to the attendants the opportunity to participate in the training activities of the project in order to acquire the skills to become an auditor in building an agro-industry logistic centre. Representatives from three Cooperative Regional Federations participated in the workshops, two of them from non-targeted regions of the project (Andalucía and Comunidad Valenciana). Technical experts of these two federations showed interest in



taking part in the training sessions. The third federation, even being from a targeted region, was also interested in offering this training to their associate cooperatives. Additionally, a technical experts of other organizations, such as from the Coordinator of Farmer and Livestock Breeder Organisations (COAG), asked for additional information about the project and for the possibility of participating in the training sessions.

In the up-coming months, in order to reach the involvement of more agrarian associations in the training sessions, bilateral meetings will be carried out.

Apart from the explanation of these projects, policy makers took part in this workshop speaking about issues connected to energy. For instance, a person from Spanish Climate Change Office of the Ministry of Agriculture, Food and Environment (MAGRAMA) explained about the logo that guarantees access to companies with projects quantifying and reducing their carbon footprint. Moreover a representative from the Institute for Energy Diversification and Savings exposed the National Energy Efficiency Fund and support measures for industrial facilities. He noted that they have a budget of 49 million euros for SMEs and Large Enterprises in the industrial sector until May 2016.

From the workshop and further personal contacts, the following associations and stakeholders have shown their interest in participating in the training sessions:

- Cooperativas Agroalimentarias de la Comunidad Valenciana (5 people)
- Cooperativas Agroalimentarias de Castilla La Mancha (1 person)
- Cooperativas Agroalimentarias de Andalucía (1 person)
- Cooperativas Agroalimentarias de Navarra (2 people)
- Federación de cooperativas del País Vasco (1 person)
- National Association of Farmers COAG (1 person)
- Moises Falo from ALCORECO Energy Services (1 person)

2.2.2. Second national dissemination workshop in Spain, 17/06/2016

The second national workshop in Spain has been organised on 17th of June, 2016 on the occasion of two events held at the Fair Centre of Madrid (IFEMA) in Spain:

- Envifood meeting point the meeting point in the environmental sector and food industry held as part of the Sustainable Environmental Solutions Forum (FSMS) and
- GENERA International Fair of Energy and Environment.

The second national workshop of SUCELLOG project was a part of GENERA. It has been organized by the Spanish Association of Renewable Energy Companies (APPA) and UNION for BIOMASs (of which Spanish Cooperatives is a founder member). Regarding SUCELLOG project the organization has been supported by:

SPANISH COOPERATIVES

Juan Sagarna and Susana Rivera

Email: sagarna@agro-alimentarias.coop, rivera@agro-alimentarias.coop

Phone: +34 91 535 10 35



2.2.2.1. Agenda

During the organization of the workshop and setting up agenda, Spanish Cooperatives had several discussions with the APPA to coordinate the contents of the workshop and to foster the debate among participants. These discussions resulted in a decision to address the use of biomass from two different angles: biomass use for power and for heat generation and mobilisation of biomass from the forestry and the agrarian sectors. It has been decided that SUCELLOG project will contribute with the explanation of the vision of the agro-industrial sector for mobilisation of agricultural biomass resources through a practical case study example.



Figure 7: Agenda of the second national workshop in Spain



Based on the organisational discussions, finally the workshop has been structured in two parts: the first part addressed the use of biomass for power and heat generation, the second part – focused on practical experiences for biomass resource mobilisation, including the presentation of SUCELLOG project. The Agenda of the workshop is provided in Figure 7.

2.2.2.1. Participants

Around 33 people participated in this event. Workshop participants represented agrarian sector, agro-industries and potential biomass users, energy companies, policy makers, Agricultural trade Union, academics, international representatives, and other people from several engineering and energy consulting companies.

2.2.2.2. Summary of the event

From the policy point of view, the following key issues that the sector from UNION FOR BIOMASS has proposed to the main political parties were exposed and discussed:

- Creation of a permanent Inter-ministerial Commission:
 - In which there was representation of the autonomous regions and the sector.
 - Which addresses the development of the sector as a whole, not only from an energy point of view, but also considering the agricultural, forestry, livestock, industrial, rural areas; and always in accordance with regional policies
 - Establishment of a specific regulatory framework that recognizes the socioeconomic contribution, primarily job creation, savings in purchasing emissions greenhouse gas and forest fire prevention.
- Commitment on the achievement of the 2020 goals through sustained support to the sector:
 - The Promotion of biomass should be a priority of public policy. It contributes to achieving the goals of many of them: rural development, circular economy, climate change, etc.
- Compatibility between development of thermal sector and the electricity sector should be optimal.
- Potential contribution to the re-industrialization of Spain:
 - The absence of an enabling framework for the sector is hindering significant job creation and economic activity that is induced linked to it, a reality at local, regional and regional level.
- o Coherence between policies that are implemented in energy, environmental and tax
- Promotion of a national biomass market, bringing together today existing micromarkets.

As complement of this wide debate, the results of three outstanding European initiatives participated by Spanish entities were also presented. The project 'Biogas3', as a reference in the production of small-scale biogas for own consumption; the project 'Agriforvalor', about references in the use of agricultural and forestry biomass and 'Sucellog' project as reference of the participation of the agricultural sector in the sustainable supply of solid biofuels.



SUCELLOG project presentation has been divided into two parts. In a first part the main concept and goals of the project were presented. The second part of the presentation was focused on case studies. They included the case of the SUCELLOG cooperation partner (category 1) and most important findings from the audits made by the project. SUCELLOG project website has been demonstrated and availability of useful public documents and reports (handbooks, guidelines) has been emphasized.

An important part of the workshop has been devoted to discussions. Participants were actively involved in debate sessions focusing on the needs of the biomass sector and how to address them in policy making. The event was scheduled to last about 3 hours but was extended to 4 hours due to active debate.



Figure 8: Participants of the second national workshop in Spain



2.3. National workshop in Italy

2.3.1. National dissemination workshop in Italy, 23/09/2015

Only one national workshop in Italy has been organized during the project lifetime. National workshop in Italy was organised on 23 September 2015 in Pratovecchio (AR)/Pistoia (PT) by:

D.R.E.Am

Enrico Pietrantonio

Email: pietrantonio@dream-italia.net

Phone: +39 573 36 59 67

2.3.1.1. Participants

32 participants including agrarian associations and agrarian experts, employees of RAAs in the different Italian regions (target and non-target) attended the workshop.

2.3.1.2. Summary of the event

The dissemination event took advantage of one of the annual meetings of the members, employees and co-workers of DREAm Italia, which was also followed by a videoconference, in order to make it possible to engage the highest number of people, potentially interested in the goals of the project.

During the meeting, an overview about the project was given, focusing on the possibilities for the potential beneficiary cooperatives and companies. It was decided not to focus on specific technical issues since they could be the topics of next training steps.

A general good feedback about the project was received but also many attendants explain some doubts about the possibility to involve cooperatives and companies in a medium-short period. The arguments of the project (increase the production during idle periods) generally need a long "decision – time", moreover when the agrarian sector is still waiting for the new PSR (European funds for rural development).

An important doubt came out about the involvement of the cooperatives in the target regions (in particular in Puglia), because there is a long gap between the past engagement actions and the next ones. Therefore strong efforts should be done in that sense.





Figure 9: Participants of the first national workshop in Italy

From the workshop and further personal contacts, the following associations have shown their interest in participating in the training sessions:

- Dream Sicilia (1 person)
- Dream Lazio (1 person)
- Dream Abruzzo (1 person)
- Dream Calabria (1 person)



2.4. National workshops in France

2.4.1. First national dissemination workshop in France, 09/09/2015

The first national workshop in France was organised on 9 September 2015 in Paris by:

Services COOP de France

Camille Poutrin

Email: camille.poutrin@servicescoopdefrance.coop

Phone: +33 1 44 17 58 40

2.4.1.1. Agenda

The Agenda which was included in the invitation letter is shown in Figure 10.



Figure 10: Agenda of the first national workshop in France



2.4.1.2. Participants

15 participants including regional associations of Services COOP de France attended the workshop.

2.4.1.3. Summary of the event

The event took place on the occasion of the Coop de France regional committee, where several topics were discussed including regional representation, French policy with new regional division etc.

Concerning the SUCELLOG project, some regions were already informed about it. They all agree on the same statement concerning the market: this kind of projects is really hard to develop without any support (implementation of boilers in municipalities for example). It should develop in all the territory with strong and sustainable partnerships. They also highlighted the fact that regional evaluation of sources is usually not realistic and are interested in knowing our methodology.

Regional associations are very interested in biomass but as it is not a tendency in France at this moment, they are not really working on it. They all have some projects and were interested by the training session to realize a watch on that subject and lean new information / way to help their members.

They highlighted that the general context (price of oil etc.) is not convenient for the development of projects and administrative positions in France dissuade people to begin new projects (too long and very complicated).

The main impression is that they are interested in having debate on biomass, exchanging their projects and learning new solutions. They will not hire a new person to do audit but they are looking for answers to guide their members after a specific solicitation. They were really interested in having this training to discover the SUCELLOG methodology.

From the workshop and further personal contacts, the following associations have shown their interest in participating in the training sessions:

- Coop de France Poitou Charente (1 person)
- Coop de France centre (2 people)
- Coop de France Midi-Pyrénées (1 or 2 people)
- Coop de France Ouest (1 person)

2.4.2. Second national dissemination workshop in France, 16/12/2016

The second national workshop in France was organised on 16 December 2016 in Paris by:

Services COOP de France

Camille Poutrin

Email: camille.poutrin@servicescoopdefrance.coop

Phone: +33 1 44 17 58 40



2.4.2.1. Agenda

This national SUCELLOG event was organized jointly with the third project steering committee meeting. It was organized by Services Coop de France and was focused on the biomass logistic issues. During the first part of the morning, the steering committee discussed about the SUCELLOG project. During the last hour, the SUCELLOG project (results and barriers) was presented by Camille Poutrin.

2.4.2.2. Participants

12 participants from agrarian associations, decision makers and cooperatives attended the workshop.

2.4.2.3. Summary of the event

Camille Poutrin (SCDF) presented the SUCELLOG project addressing the following points:

- Why the project was created (link with H2020 objectives and need of diversification by the agricultural sector)?
- Organization of the project: partners, main objectives and state of art in each country.
- So far achieved results and outcomes of the project and availability of the project publications on the website.

In a second part, SCDF presented all the logistic issues from the project:

- Logistics from an agro-industrial point of view
- A general overview of the project and how the work with stakeholders have been implemented
- At the resources level: quality issues, available tonnage and biomass collection
- On the industrial site: optimization of facilities and partnership; the use of idle period to reduce investments
- At the consumer level: show that agricultural biomass can complete wood supply and be competitive with fossil fuels and diversity of products
- At the end the barriers stated during regional workshops gave been presented

The workshop was concluded with discussions, addressing the following points:

- Since each project is different, it is not easy to homogenize the economic analysis.
 Investment costs for equipment can be stated, but actual costs will depend on the organization of the overall logistic chain.
- In France there is a lack of information regarding economic indicators for logistic chains to evaluate the costs.
- It is important to find a good compromise between using "not well adapted" existing equipment and buying a new one.
- Project developer should find the minimum tonnage to optimize the process. In the same way, he/she has to be careful to not oversize the project.
- Project developer should pay attention to the price of residues. It often tends to increase.
- Competitive uses or raw materials should be taken into account.



• It could be interesting to analyse a greenhouse gas emission rates for agricultural biomass.

2.4.3. Third national dissemination workshop in France, 17/01/2017

The third national workshop in France was organised on 17 January 2017 in Paris by:

Services COOP de France

Camille Poutrin

Email: camille.poutrin@servicescoopdefrance.coop

Phone: +33 1 44 17 58 40

2.4.3.1. Agenda

The third national workshop of SUCELLOG in France was organized on occasion of the final conference of a project lead by Services Coop de France about the state of art of agricultural biomass logistics. The aim of this project was to propose solutions for logistic issues in implementation agricultural biomass value chains.

The Agenda is given in Figure 11.

The first part of the day (the morning session) was dedicated to the logistics of agricultural biomass for anaerobic digestion and combustion. The morning session was divided in two parts: the first hour discussed results of the agricultural biomass logistics project realized during the last 12 months in France; the second part was a round table discussion. SUCELLOG was presented during this round table along with two biogas projects (one focusing on corn stalk and the other one - investigating the feasibility of biogas transportation through the gas grid) and a wood logistic project implemented by the National Forest office for wood chips. Each project had 20 minutes presentation followed by one hour dedicated to questions and discussions.

The second part of the day was dedicated to analysis of perspectives and opportunities in working with other sectors and developing new tools. New modelling project, biomass harvesting equipment, short circuit logistic for food and alfalfa sector in this session was presented by 4 different experts.

The ADEME (national energy agency) opened the meeting. FranceAgriMer (the national statistical agency for agriculture and forest) introduced the afternoon and the head of the bioeconomy office of the agricultural ministry made the closing speech.



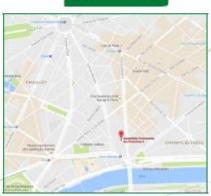


Colloque Optimiser les filières biomasse agricole

«Quels outils pour réduire les charges logistiques?»

Face aux différentes crises qu'il a connues ces dernières années, le secteur agricole doit continuer à innover. La valorisation des coproduits et de la biomasse est un atout majeur pour les filières, apportant un revenu complémentaire aux activités de collecte et de transformation. Toutefois, face à la concurrence des énergies fossiles, la filière biomasse doit continuer à optimiser ses processus. Quel état des lieux sur la logistique biomasse ? Comment réduire ses charges et augmenter ses revenus ? Quelles innovations technologiques disponibles ? Le RMT biomasse et territoires, le pôle IAR, le réseau des chambres d'agriculture, la coopération agricole, Arvalis, Institut du végétal et Trame vous proposent un séminaire d'échanges autour de l'optimisation logistique des filières biomasse.

Plan de situation



Auditorium Olivier de Serres Assemblée Permanente des Chambres d'Agriculture 9 Avenue George V 75008 Paris

Contact pour le Réseau Mixte Technologique Biomasse & territoires : <u>Camille Poutrin</u> - coordinatrice de l'étude et animatrice de la commission logistique du RMT

Contact pour le pôle de compétitivité Industries Agro-Ressources : <u>Marie Loyaux</u> - animatrice de la commission ressource du pôle IAR

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- Vous pouvez vous inscrire:
 Via le lien suivant: http://www.iar-pole.com/agenda/seminaire-optimiser-les-filieres-biomasse
- Ou par email auprès de Camille Poutrin Services Coop de France camille.poutrin@servicescoopdefrance.coop – Tel: 01 44 17 58 40





Figure 11: Invitation and agenda of the third national workshop in France



2.4.3.2. Participants

56 participants attended the workshop. They represented the following groups:

- Agrarian associations: Coop de France, Agricultural chamber and other agricultural unions;
- **Agro-industrial sector:** cooperatives, farmers, biogas project developers, composting project developers;
- **Decision makers:** ADEME (national energy agency), agricultural ministry, FranceAgriMer (national agency for agriculture and forest statistics);
- Other: journalists, biomass equipment providers and researchers.



Figure 12: Participants of the third national workshop in France

2.4.3.3. Summary of the event

The SUCELLOG presentation was similar to the one given during the second national workshop in December, 2016. The presentation was given by Camille Poutrin from Services Coop de France. The aim of the presentation was to provide information for a discussion basis during the round table discussion. The presentation of SUCELLOG was thus focused on logistic issues and did not include exhaustive details on all the technical aspects and results.

Instead of presenting the project, the SUCELLOG project video in French was demonstrated (see Figure 12).

After the video presentation Camille Poutrin introduced to the context of the project and the different partners (countries, regions). She informed about the main objectives of the project: to use the idle period of activities for production of solid biomass and thus to reduce logistic costs from pre-treatment operations.

Opportunities that agro-industries have to produce solid biomass were presented. As they know how to work with biomass and can have access to resources and equipment, they are in a perfect position to implement the SUCELLOG concept.



Camille Poutrin presented 3 main steps of the project: territorial analysis, work developed with Luzéal and gave some examples of audited cases (see Figure 13). She also informed about the deliverables of the project and that they can be found on the project website.



Figure 13: SUCELLOG presentation given by Camille Poutrin

The presentation was concluded with an overview of logistic issues:

- From agro-industrial point of view: biomass collection, use of available equipment during idle periods and solid fuel market.
- Keeping an overview of the project: appreciate the opportunity to use existing equipment, facilities, knowledge, territorial partners etc. (Luzéal example).
 Considering the quality, quantity and seasonality issues and investigating opportunities to work as a circular economy project (la Cavale example).
- At the resources level: need to identify the unused resources such as prunings or corn cobs (Austrian example for corn cobs harvester). It is also essential to analyse biomass properties in a specialized laboratory before business plan development (Spanish example).
- On the industrial site: optimization of facilities and partnership; the use of idle period to reduce investments.
- At the consumer level: use the diversity of formats to answer the consumer demand and analyse the possibility to work as ESCO.

The 3 main conclusion points were:

- Analyse precisely the customer demands;
- Work on the whole logistic chain to reduce costs and to stay competitive;
- Analyse the quality during each step of the logistic chain.



3. Regional dissemination workshops

The objective of the regional workshops is to promote the project concept to other agro-industries in the region. Besides agro-industries, other regional stakeholders (solid biomass producers, boiler manufacturers and policy makers) were also invited in order to share experiences and to discuss potential technical, economic and non-technical barriers.

The selected agro-industries, who have implemented the biomass logistic centre with the support of SUCELLOG project, were invited to the workshops to demonstrate the feasibility of the concept and to encourage other agro-industries to follow their example. Thus the replication of the project concept has been facilitated.

At least one dissemination workshop was supposed to be organised in each target region during the lifetime of the SUCELLOG project. Mostly it has been achieved, except in Italy where due to justified reasons two regional workshops did not take place. Regional dissemination workshops have been organised by the corresponding regional associations.

3.1. Regional workshops in Austria

3.1.1. Regional dissemination workshop in Lower Austria, 26/02/2016

The first regional workshop in Austria was organised on **26 February**, **2016** in **St. Pölten**, **Lower Austria** by:

AGRAR Plus Manfred Kirtz

E-mail: manfred.kirtz@agrarplus.at

Tel: +43 664 4357940

The workshop has been organised in cooperation with the Biowärmeverband Niederösterreich and was targeted to agrarian associations, biomass producers, biomass-users, national administration and planners.

3.1.1.1. Agenda

The workshop took place in the Chamber of agriculture in Lower Austria on the occasion of the General Assembly of the Biowärmeverband Niederösterreich. The assembly included following topics:

- SUCCELOG: Use of agricultural by-products for the production of heat, benefits and barriers
- Electrostatic precipitators use in biomass heating plants, new emissions regulations make this necessary!
- Properly insured, but in case of damage no help, what are the reasons?
- Self-check of the biomass district heating system, what and how is to consider

The agenda of the workshop is provided in Figure 14.



BIO-WÄRME-VERBAND Niederösterreich



Einladung

ZUF



BIOWÄRMEVERBAND NÖ

inkl. SUCELLOG Workshop NÖ

am Freitag, den 26. Februar 2016



Beginn: 17.00 Uhr

Ort: Landes-Landwirtschaftskammer NÖ, Wiener Straße 64

3100 St. Pölten

Ab 13:00 Uhr laden wir zu einem Workshop zu folgenden Themen ein:

SUCELLOG

Nutzung agrarischer Nebenprodukte zur thermischen Verwertung. Aufbringung, Vermarktung, Einsatz

Elektrofiltereinsatz im Biomasseheizwerken:

Warum müssen wir uns mit dem auseinandersetzen, wird es in Zukunft auch für kleine Anlagenbetreiber notwendig sein die Staubemissionen zu reduzieren.

Gut Versichert und dann Probleme mit der Versicherung beim Schadensfall:

Auf was ist beim Abschluss einer Versicherung zu achten und wie erfolgt eine Schadensmeldung.

Die wiederkehrende Prüfung von Betriebsanlagen (nach § 82 b GewO 1994):

Wer ist verpflichtet was ist zu tun. Eine kurze Darstellung wie eine Überprüfung für Biomassewärmeversorgungsanlagen erfolgen kann.

Für die Teilnahme am Workshop ist es unbedingt erforderlich sich Anzumelden, da die Teilnehmerzahl für diesen Workshop begrenzt ist. Für Speis und Trank ist während der Veranstaltung gesorgt.

Co-funded by the Intelligent Energy Europe Programme of the European Union



BIO-WÄRME-VERBAND Niederösterreich Grenzgesse 12, 3100 St. Pdten, ZVR-Zehl 562468641, Tel.: 02742/352234, Fex: 02742352234-4

Figure 14: Agenda of regional workshop in Lower Austria

3.1.1.2. Participants

In total 35 people attended the workshop.



3.1.1.3. Summary of the event

In Lower Austria there are many agricultural by-products such as corn stover and spindles as well as cereal and rape straw. By summer drought not all residual biomass can be incorporated into the soil, therefore alternatives for these residual materials are needed.

The wood distribution is not uniform in Lower Austria. The south and southeast and the northwest parts are covered with forests, but east and northeast is more influenced by agriculture. Alternative biofuels could be a good alternative in particular for less forested regions. From today's perspective biogenic by-products will become more important to achieve the CO₂ targets. As an alternative to fossil fuels, they can help to save CO₂ emissions. The following benefits were identified when using agricultural by-products for biofuel production:

- Nutrients can be recycled since ash can be used on the fields as fertilizer
- Production of biofuels gives additional income opportunity for farmers

It has been noted that in the region there are existing legal regulations for the use of biogenic by-products in combustion. Moreover also technical solutions to reduce emissions of NOx, SO_2 and particulate matter are present.

After the presentation of SUCELLOG concept the main barriers have been discussed.

In the region there are only few small biomass boilers which are appropriate for the combustion of agricultural biomass by-products. If agro-fuels are used in industrial biomass boilers, a special official approval is required.

For agricultural biomass the main competition will be wood pellets. Using wood pellets do not impose any difficulties during the operation and maintenance of the boiler. In contrary, when using agricultural by-products in the same boilers, ash slagging and elevated emission levels might be expected. Combustion technology is problematic due to the lower ash melting point. Agriculture by-products are almost CO₂ neutral during combustion, but problematic in NOx, particulate matter and SO₂ emissions. New EU Rules for emissions makes it very expensive to use agricultural by-products for combustion. The regulation requires installation of flue gas treatment systems for particulate matter, NOx and SO₂.





Figure 15: Participants of the regional workshop in Lower Austria



Agricultural feedstocks need to be pre-treated, for example, pelletized. Without pelletizing economically feasible transportation distances are very limited due to the low energy density. From the other side, pelletizing is very expensive (1t around 100€). If the intention is to use already existing pelletizing plants in the food/feed production facilities, there is a need to clean and decontaminate the production line after each time of using it for biofuels production. This is very expensive.

For larger combustion facilities agricultural by-products are competing with wood chips in the market. In the future it is planned to close several biomass power generation plants and therefore large surplus amounts of wood chips can be expected in the region in the coming years. Furthermore, there is large amount of fallen timber which further reduces the cost of wood chips on the market. Therefore, it is hardly possible to establish agricultural by-products on the market in the next few years. Cost of wood chips is between 80 and 100 €/t (including transportation to the boiler).

3.1.2. Regional dissemination workshop in Styria, 03/05/2016

The second regional workshop in Austria was organised on 3 May, 2016 in Ragnitz, Styria by:

Lk-Stmk, Styrian Chamber of Agriculture and Forestry Tanja Solar, Alfred Kindler

E-mail: tanja.solar@lk-stmk.at, alfred.kindler@lk-stmk.at

Tel: +43 316 8050 1407

The organisation of the event was supported by Styrian Association of pumpkinseeds and oil. The workshop was targeted to agrarian associations and biomass producers in south-east and south Styria.

3.1.2.1. Agenda

The agenda of the workshop is provided below:

- Bericht des Obmanns
- Kürbisjahr 2016
- Zukaufskernregelung f
 ür Landwirte
- Stand Gerichtsverfahren SGS Austria
- Stand ggA/gU- Cluster / Gründung einer österreichweiten Plattform
- Schwerpunkte in der Qualitätssicherung 2016
- Vorstellung Sommerpromotion 2016
- Projekt Sucellog
- Allgemeines

3.1.2.2. Participants

In total 10 people attended the workshop.



3.1.2.3. Summary of the event

The concept of the SUCELLOG project and ongoing activities were presented by Alfred Kindler (Lk-Stmk). The participants of the workshop are deeply involved in the agrarian biomass topic and are interested in finding new solutions for the development of the region.

After the presentation of general concept, the barriers and problems identified in previous SUCELLOG project events were discussed with workshop participants. Regarding the question, if there is any regulation that forbids the use of solid biomass, it was discussed that until now in Styria it was only allowed to use agrarian residues for heating in industrial size of boilers. However, from 1st of June, 2016 it will be possible to use agro-fuels also for private households. There was a big barrier regarding the use of corn cobs pellets in Styria, but from 01st of June this is not the case anymore. Corn cobs pellets and all other agrarian residues are recognised as solid biomass.

Since the adoption of new regulation, the following standardised solid biomass types are recognized: all kinds of pellets, corn cobs, straw, Miscanthus and energy corn.

A situation in Italy where olive pomace is classified as waste has been discussed. In case of Austria these types of products are not classified as waste and can be used for energy purposes without limitations.

Regarding concerns that biomass processing in existing equipment at the facility could contaminate the production lines used for main business activities, in Styria it is not considered as a relevant concern. Styrian Example of Mr. Tschiggerl has been presented where feedstuff, bedding and fuels are made from the same raw materials (straw, corn cobs and hey). In this case the potential contamination issue is not relevant.

In order to promote the use of alternative feedstocks for bio-energy production, the association is planning to become a member of Austrian Biomass Association. Currently the problem is that straw pellets used for bedding and animal feeding have much higher price on the market than wood pellets for heating. Therefore the main bioenergy production line in the case of Mr. Tschiggerl company is the production of grits from corn cobs. Currently used harvesting technology makes availability of raw material high.

One problem that has been identified as relevant for Austria is that some farmers are using fertilizers with high chlorine content. The Chamber recommended for these farmers to use chlorine free fertilizers if they intend to deliver corn cobs and straw for bioenergy production. Alternatively liquid manure of digestate can be used for fertilization purposes.

3.1.3. Regional dissemination workshop in Upper Austria, 08/06/2016

The third regional workshop in Austria was organised on **8 June**, **2016** in **Linz**, **Upper Austria** by:

Biomass Association of Upper Austria

Mr. Matthias Raschka

E-mail: matthias.raschka@lk-ooe.at

Tel: +43 050 6902 1630



3.1.3.1. Agenda

The regional workshop dedicated to SUCELLOG project included the following topics:

- Presentation and description of the project
- Current status of the project
- Discussion of opportunities and problems

3.1.3.2. Participants

23 participants – agrarian experts, farmers, biogas plant operators, CHP-operators, district heating plants operators – attended the workshop.

3.1.3.3. Summary of the event

The event has been opened with the presentation of the SUCELLOG project and the current status of the project activities in the region. The presentation has been followed by discussions. Summary of questions and answers in the discussion part is provided below:

What are the barriers for the combustion of corn cobs? Are there any problems?

Combustion of fuels originating from agricultural biomass represents several challenges. It also relates to combustion of corn cobs. Combustion of the corn cob spindles is done in the specialised boilers – designed for combustion of agri-fuels, or at least an adjustment of the control of the combustion system is as minimum required. If not used properly, it often comes to ash slagging. But the combustion in specialised boilers equipped with a three-part, water-cooled grate usually works without problems.

Why using agri-fuels is not as straightforward as for example the use of wood chips?

Agri-fuels such as corn cobs, straw or miscanthus have different properties compared to wood chips. For example, when using corn cobs the remaining corn kernels can cause slagging. However, the main difference and challenge is high concentration of chlorine in the agricultural feedstock (high chlorine content) compared to wood fuels.

Why is the concentration of chlorine so important?

The content of chlorine in the agricultural raw material is determined by the properties of the soil and the rate of fertilization. Especially an intensive potash-chloride fertilization of maize in combination with low caution of sulphur causes elevated chlorine content in the biomass. High chlorine content in the fuel imposes corrosion of the boiler. Therefore boilers which are designed for agri-fuels combustion usually are accordingly protected.

What is the potential for combustion of sustainable solid biofuels, for example, corn cobs, in the future?

In Austria, more than 200,000 ha of maize are grown. This results in a theoretical potential of 200,000 tons of corn cobs. However, part of the cultivated maize is chopped on the whole to silage. Still the potential would be certainly large.

Why the use of agri-fuels for heating at the moment is not so well promoted in the region?



In regions with dry harvesting conditions (e.g. in south-east Styria) the harvested corn cobs have a moisture content of around 30% and are thus stored. In Upper Austria harvesting conditions are different giving corn cobs with moisture content of around 50%. At these conditions without drying the corn cobs will foul and get spoiled shortly. Therefore in Upper Austria drying of corn cobs is necessary. Good opportunity for drying would be to use surplus heat from biogas CHP plants in the region.

Is there a potential to use cereal cultivation residues for the production of agri-fuels?

About 4.5 million tons of grain was harvested in Austria in 2013. If one assumes that ~2% of the harvested amount is residues (husks), then theoretical potential is 90,000 tons of husks per year. That would be an equivalent to about 1 PJ of energy per year.

Are there any disadvantages of using husks?

Husks usually have relatively high ash content. The ash melting behaviour is similar critical as in the case of corn cobs.

Can all types of solid biomass be consumed according to the law? Is there any regulation that forbids the use of any solid biomass?

By law biogenic residues are usually called "waste". Before one is allowed to use such "waste" in a normal combustion (without additional specific requirements for gas treatment etc.), so-called "end of waste" criteria shall be defined. If these criteria are fulfilled the raw material is a "normal" fuel again. It took many years until in the wood waste derived from tree and shrub-cuttings have been accepted by the "Waste Incineration Ordinance".

What are the main conclusions?

Alternative biomass fuels, such as energy crops, agricultural by-products or dry waste in Austria have great potential. It would be very important that these by-products are used for energy in the future. Especially for small and medium sized individual farms/companies, these fuels can play an important role for the energy supply and energy services.



Figure 16: Participants of the regional workshop in Upper Austria



3.1.4. Regional dissemination workshop in Carinthia, 09/06/2016

The forth regional workshop in Austria was organised on **9 June**, **2016** in **Ratschitschach**, **Carinthia** by:

Chamber of Agriculture and Forestry in Carinthia

Mr. Markus Tschischej

E-mail: pflanzenbau@lk-kaernten.at

Tel: +43 0463/5850-1420

Invitation to the event is provided in Figure 17.



Figure 17: Invitation to the regional workshop in Carinthia, Austria



3.1.4.1. Agenda

The agenda of the event included following topics:

- Information about the current situation of plant production in Carinthia
- Information about the most important plant diseases and pests
- Information about the project activities of "Sucellog Triggering the creation of biomass logistic centers by the agro-industry"
- Discussion about opportunities and barriers of using plant residues as solid biofuel

3.1.4.2. Participants

31 participants – members of agrarian associations and agrarian experts attended the workshop.

3.1.4.1. Summary of the event

The participants have been informed about the activities of the SUCELLOG project. Some of the participants have been very interested in receiving additional information, especially with respect to the possible use of agro-fuels in existing biomass heating systems. Presenters stressed the particular characteristics of plant residues regarding the ash content and the residues of chlorine. Participants also noted that with using wood heating systems in the case of use of crop residues issues related to the guarantee shall be observed. Participants have seen some opportunities especially when investing in new equipment. In that case a boiler which is capable to use crop residues shall be selected. Participants were partially informed about new developments in this area.

Some farmers who have no livestock opposed a use of crop residues. The main reason is the risk of soil degradation due to the lack of humus. Representatives from animal breeding farms were more supporting to the use of crop residues.

Big part of the discussion has been devoted to the competition with wood chips market. Wood chips are available in Carinthia in sufficient quantity, high quality and relative low prices at any time. In Carinthia the forested area covers 60% of the total land area and there is a strong sawmills industry brunch providing large quantities of wood residues in the market. In summary it can be stated that in principle there is an interest in SUCELLOG project concept, however, the present opinion was that better future for alternative uses of crop residues would be in areas with less forest coverage. Also a technical advance in the heating systems will have an impact on the future development of the use of crop residues.

3.1.5. Additional dissemination workshop in Vienna, 13/10/2016

Additional dissemination workshop in Austria was organised on **13 October**, **2016** in **Vienna** in the Austrian Chamber of Agriculture and Forestry. Together 13 Energy experts from all regions of Austria took part at the workshop. In this event all relevant new topics in the field of energy were discussed as well, as the ongoing activities within the SUCELLOG project. Klaus Engelmann (Lk-Stmk) presented the results of the feasibility studies and of the audits carried out during SUCELLOG project activities in Austria.



3.1.5.1. Agenda

Agenda of the event is provided below:

08.30 bis 12.30 Uhr:

- Poolprojekt "Energieeffizienter Bauernhof A++" | Nachlese Workshops | To Dos
- klimaaktiv Heizungs-Check | Schulung
- Webauftritt Energie Contentmanagement (Ilse Wandl; 9.00 Uhr)
- Energie- & Klimastrategie Österreichs | Klima- & Energiepaket der EU
- Ökostromgesetz-Novelle aktueller Stand
- Elektrifizierung Feldbrunnen (Mag. Johann Zimmermann)
- Stellungnahmeverfahren

12.30 bis 13.30 Uhr Mittagspause

13.30 bis 16.30 Uhr

- "Aktuelle Aktivitäten in den Bundesländern"
 - Präsentation und Diskussion der aktuellen Energiethemen in den einzelnen Bundesländern
 - Präsentation Projekt Sucellog und Diskussion über Barrieren bei Agroreststoffen
 - Aktuelle Erfolge und Probleme, Schwerpunkte und Zielsetzungen im jeweiligen Bundesland
- Bioenergie und Öffentlichkeitsarbeit | Kommunikationsstrategien
- "Energie-Schwerpunkte der LK für 2016/17"
 - Zusammenfassung der LK-Schwerpunkte im Energiebereich für 2016/17
 - Festlegung von Themen und Terminen für konkrete Aktivitäten

3.1.5.2. Participants

13 participants – energy experts from different regions of Austria participated on the event.

3.1.5.3. Summary of the event

The Austrian energy experts had positive feedback on the SUCELLOG project and activities. According to the participants it is really necessary to make efforts in the field of developing and offering solid agro-fuels, to reach the European targets regarding climate change and decarbonisation. Most of the participants were impressed of the logistic centre of Tschiggerl Agrar. Some experts also knew some of the audited companies.

Although the general feedback was positive and they think the work of this project is very important, they also see some barriers:

Barrier 1: The most potential consumers have a lack of experience with the new agro-fuel or sometimes had bad experience with other types of agro-fuels. This missing knowledge from the customers is seen as a great barrier.



Barrier 2: Just a few potential customers already have boilers where they can use the agrofuels legally and without having the fear of losing warranty. New boilers, just for agro-fuels will rarely be bought. Furthermore just few boiler manufacturers put effort in the development in such boilers.





Figure 18: Participants of the workshop in Vienna, Austria

Barrier 3: Current energy wood prices. In the last few month the prices of wood chips and wood logs strongly decreased in Austria. There are currently huge amounts of unused energy wood in market. From 2017 the subsidies for wood fired CHP plants will be no longer provided. It will bring even more amounts of wood to the market.



3.2. Regional workshops in Spain

3.2.1. Regional dissemination workshop in Santiago, Galicia, 30/06/2016

The first regional workshop in Spain was organised on **30 June**, **2016** in **Santiago**, **Galicia** by:

AGACA - Asociación Galega de Cooperativas Agroalimentarias

Mario Fernández Redondo

Email: mfernandez@agaca.coop

Phone: +34 981 58 47 83

3.2.1.1. Agenda

The event was organised in two parts – first the SUCELLOG project has been presented, providing an overview of the concept, main goals and results of the regional potential study. The second part included roundtable discussion with policy makers, addressing the non-technical barriers for the implementation of SUCELLOG concept in Galicia region.

3.2.1.2. Participants

24 participants representing agricultural cooperatives in Galicia (wineries, animal feed factories, suppliers (seeds, fuels, etc.)), technical biomass experts (boiler manufacturers, biomass suppliers, etc.) and regional government attended the workshop.

3.2.1.1. Summary of the event

On the 30th of June 2016, AGACA organised the first regional workshop of the SUCELLOG project in Spain. The aim of the workshop was to disseminate project results and offer the services to more agro-industries and to detect non-technical barriers and discuss with policy makers about possible solutions.

The IEE-SUCELLOG project is aimed at the implementation of Biomass Logistic Centers in agro-industries, to complement its core business. Using their facilities in the idle periods to manage and pre-treat agricultural residues transforming them into solid biomass.

First, Mario Fernandez (AGACA (Asociación Galega de Cooperativas Agroalimentarias)) made a presentation explaining the concept, objectives, geographical scope and European partners, scope and progress of the project. Then, a map with the distribution of the sources and amounts of exploitable biomass in Galicia obtained with the data of agricultural inventories and direct surveys was presented, commenting the agro-industrial sectors and determining the most suitable agro-industries to enable a Biomass Logistic Center.

According to the results of these analyzes and evaluations, in Galicia can be exploited cereal straw, residues of vine pruning, and grapes processing, waste of the first handling of vegetables, poorly formulated feed and other waste of local character.

The presentation ended with a reference to the third phase of the project, which carried out a study of technical and economic feasibility of two agribusinesses of feed manufacturing located one in the center of the region and the second in the Mariña.







Figure 19: Participants of the regional workshop in Galicia, Spain

Followed by a discussion among the participants, which was evident the need to analyze and quantify the consumption of thermal energy, study the possibilities (advantages and disadvantages) of introducing biomass as an alternative fuel, quantify the cost savings that would imply the replacement of equipment to facilitate biomass consumption, and the possibility of using chip instead of pellet.

As challenges to overcome for agribusinesses to be Biomass Logistic Centers arose the great variability of production processes using different energy sources, diversity of activities and services that cooperatives provide farmers / growers partners and the difficulty of opening a line of business in a "unexplored world" in an unknown activity, bearing in mind the current high volatility and future developments in energy prices.

It was also discussed the environmental advantages of biomass (low carbon activity), the need for adaptation of equipment and facilities, lack of knowledge about technology, the need for training, installation problems arising from the planning legislation, the cost of the investment required for a Biomass Logistic Centers and the possibilities of public support.

3.2.2. Regional dissemination workshop in Lleida, Catalonia, 29/09/2016

The second regional workshop in Spain was organised on **29 September**, **2016** in **Catalonia** by:

Federation of Agricultural Cooperatives of Catalonia

Gema Medina

Email: gema.medina@fcac.coop

Phone: 932 292 016

3.2.2.1. Agenda

The agenda of the workshop is given in Figure 20.





Figure 20: Agenda of the regional workshop in Catalonia, Spain

3.2.2.2. Participants

22 participants representing fodder dryers, cereal drying, partners of cereal and other cooperatives in productive sectors, livestock farmers and other stakeholders from the biomass sector.



3.2.2.3. Summary of the event

On 29th of September, 2016 in a frame of the 62nd Agricultural Fair of San Miguel, the conference "Energy use of biomass by agricultural cooperatives" was held. The event took place in Lleida, Catalonia and it has been organized by the Federation of Agricultural Cooperatives of Catalonia. Spanish Cooperatives participated with a presentation of the SUCELLOG project. Agricultural Cooperatives of Catalonia are regional partners of the project.

The conference was focused on the analysis of the status of the use of biomass and particularly agricultural or agroindustrial biomass, which could be presented as a potential market niche for agri-food cooperatives. It showed that in recent years biomass use for energy generation has experienced an interesting growth in different areas and sectors. However, certain challenges and difficulties must be overcome to take advantage of the full potential of it.

The regional workshop was used to disseminate the initial results of the project and to offer SUCELLOG services to more agro-industries. The direct beneficiaries of the project were invited (cooperatives that have been participating in SUCELLOG activities and other associated cooperatives). The invitation was widely disseminated among biomass producers and consumers, boiler manufacturers, especially through the promotional channels of Fira from Lleida, the website RURALCAT of the Agricultural Department, and by the FCAC network, which has developed different publicity actions of the workshop to its member cooperatives. The Agricultural Department of the Generalitat was invited to attend but at the last moment cancelled their participation due to schedule incompatibilities.

In the first presentation, Susana Rivera (technician from the Agri-Food Cooperatives), presented SUCELLOG project, its objectives, activities and so far achieved results. Specifically, the opportunity for the cooperatives to use synergies regarding exploitation of the residues and by-products for solid biomass and taking advantage from the utilization of the equipment in idle periods has been emphasized.

Results from the identification of the regional resources and diagnosis and auditing studies were explained. The Spanish case study of Tauste cooperative was presented along with the case studies from Austria, France and Italy. Existing challenges and barriers - both technical and non-technical – were stressed.

Exploitation of agricultural biomass from the technological, equipment and market perspectives was addressed in the panel discussion. Experiences and expectations from member cooperatives and from the potential consumers, especially from agro-industries themselves, farms, public buildings, schools, residences, etc. were discussed. Researchers from Lleida University informed about new, energy efficient technologies and about the importance of this issue on the European policy agenda. Rural development, innovations in energy, energy efficiency and sustainability has a high priority on the European level. Members of cooperatives (Transalfals, ACTEL group) shared their previous experiences in biomass self-consumption and pelletizing activities for producing commercial agro-pellets for the market. It was evidenced that nowadays the market is strongly affected by the decrease of the fossil fuels price. Equipment manufacturers (boilers, stoves) Natefi, SL provided information about the current facilities and the anticipated upcoming technological trends.



The availability of financial tools for the new investments in cooperatives and agro-industries was stressed by the Catalonian Federation of Cooperatives. Most promising projects in future are expected to be based on almond shells and olive pits. Pruning residues from the vineyards and fruit trees are also expected to be used more often. However, exploitation of corn cobs, straw and other herbaceous by-products will need more time, since these resources require higher changes of machinery and adaptation of facilities representing an important technological challenge.

The panel discussion received lots of questions and shared a real life experiences. It came to the main conclusion that biomass of agricultural origin seems to be under the shadow of wood biomass, at least in Catalonia, but the agricultural sector should try to use this product in the best possible way. The quantities, equipment and knowledge that exist in the cooperatives make the future of agricultural biomass promising.





Figure 21: Participants of the regional workshop in Catalonia, Spain

Members of the panel discussion:

- Equipment manufacturers: Natefi, SL, D. Julián Sánchez
- Research: UdL. Dra. Luisa Cabeza
- Cooperatives: Transalfals & La Vispesa, gerente. Sr. Mario Sánchez
- SUCELLOG project: Sra. Susana Rivera (CCAE)
- FCAC, Moderator: Sr. Màrius Simon

Participants were generally interested in the project results. Most of them were either biomass producers or consumers. During the workshop there were no negative or pessimistic comment regarding the growth and the potential of agricultural biomass and its role in the total renewable energy mix.

3.2.3. Regional dissemination workshop in Valladolid, Castilla León, 03/11/2016

The third regional workshop in Spain was organised on **03 November**, **2016** in **Castilla León** by:

URCACYL (Regional Union of Agricultural Cooperatives of Castile and Leon)

Ana de Coca and José Santos

Email: adecoca@urcacyl.es; jsantos@urcacyl.es

Phone: 983 23 95 15



3.2.3.1. Agenda

The workshop has been organized by URCACYL and took place in Valladolid, in the facilities of Juan de Austria Hotel. Concerning SUCELLOG project, the workshop had three main targets:

- 1. To disseminate project results achieved in Spain and other partner countries;
- 2. To offer expert consultation services provided by SUCELLOG project to cooperatives, biomass suppliers and other potential customers;
- 3. To detect non-technical barriers and to discuss potential solutions with policy makers.

Agenda:

Campaign Report of the Soils Situation by potential pollutant activities

- Elena Junco Ruiz, Service Head of the Waste Management Control of the Ministry of Environment
- Óscar Cillero y Marta Alonso, Mediotec

European project **SUCELLOG**. Energy saving possibilities by substitution of fuels with residual herbaceous biomass (straw, prunings, etc)

- o Susana Rivera, SUCELLOG representative in Agri-food Cooperatives of Spain
- o Detlef Max Hoffmann, Greenfuture
- Rubén García, Somacyl

Situation of the unattended service stations

o Pepe Cardona, Legal Department of Agri-food Cooperatives of Spain

Various:

- Phytosanitary
- Advise to agro-industries in the PDR, field notebooks
- Fertilizers, seeds

3.2.3.2. Participants

28 participants representing cooperatives working with supply and processing of herbaceous biomass, as well as boiler manufacturers and representatives from the regional administration attended the workshop.

3.2.3.3. Summary of the event

The SUCELLOG project presentation contained different aspects of great relevance both for the current active participants as for all those interested in the results that are being produced during the project lifetime. Susana Rivera, technician from Agri-food cooperatives of Spain (collaborating partner of the project in Spain, with dissemination and coordination's tasks of the regional federations and their cooperatives) presented the current state in which the project is found, the progress achieved as well as the remaining tasks.

She reminded once again the general and specific targets of the project in order to open further discussions regarding challenges like convenience and ease of using agricultural residues (without any competitive use), their valorisation as biomass for energy, as well as the use of the facilities of the cooperatives in idle periods for the pre-treatment of such



residues. Current situation of the project in Spain and in other European countries was presented.

At the end of the presentation Susana Rivera summarized remaining tasks and expected impacts and results until the end of the project.

The next presentation was given by the boiler installation company. The company presented some of their products and solutions for using agricultural biomass for energy production. Suggestions of how to solve typical problems when using straw as fuel have been presented.

The workshop was continued with a presentation given by a representative of regional administration. He shared experiences using forest biomass for heat production in Castilla y León. His experience show positive results in economic terms. Until now the municipality have not considered using agricultural residues. However, they understand that it might be a realistic alternative to replace the use of fossil fuels, despite the different barriers that have been identified:

- On technical level: compatibility between raw materials and boilers
- On legislative level: proper definition of biomass
- On social level: social awareness
- On market level: inexistence of a mature market with experience
- On financial level: lack of aid and financial support





Figure 22: Participants of the regional workshop in Castilla León, Spain

In any case, the use of biomass from residual material is always positive, it is only needed to achieve that, having a raw material supply assured for the own necessities of each region, a proper technology is obtained both to reduce logistic efforts as for being economic and technically feasible, it complies with the emission thresholds established by the legislation.

3.2.4. Regional dissemination workshop in Zaragoza, Aragon, 20/01/2017

The forth regional workshop in Spain was organised on **20 January**, **2017** in **Zaragoza**, **Aragon** by:

Agro-food Cooperatives of Aragon

Jesús Abadías Ullod Email: <u>jabadias@faca.es</u> Phone: 662 156 214



3.2.4.1. Agenda

The workshop has been organized by Agro-food Cooperatives of Aragon and took place in Sala Grande Covián, Edificio Centrorigen, Mercazaragoza in Zaragoza. The aim of the workshop was:

- To disseminate SUCELLOG project results at regional level; and
- To detect non-technical barriers to launch initiatives for producing and consuming biomass of agrarian origin and to discuss the possible solutions for the detected nontechnical barriers.

Agenda:

12:00	Welcome of attendees and introduction to the event
12:10	Experiences of SUCELLOG project in Aragón: Jesús Abadías Ullod, Cooperativas Agro-alimentarias de Aragón
12:30	Unknown potential of residual biomass in the agro-industrial sector: <i>Detlef Max Hoffmann, CEO Green Future Consulting S.L.</i>
12:45	Technology and Engineering for an efficient combustion of diverse biomasses: Alberto Martinez Arribas, Technical Manager Ensaco Eficiencia Energética S.L. (Distribuidor Oficial Hargassner Aragón)
13:00	Use of agricultural biomass in agro-industrial drying facilities: Carlos Ayerbe Gracia, Industrial Engineer APISA S.L.
13:15	Funding and grant opportunities to promote biomass from agrarian origin through the Rural Development Program of Aragón: Ramón Iglesias Castellarnau, Head of Service of Innovation and Agrifood Transfer. Government of Aragon
13:30	Debate session

The initial schedule for the day was from 12 a.m. to 2:00 p.m., but presentations took longer than expected, as did the debate session, and the workshop ended around 3 p.m.

3.2.4.2. Participants

20 participants representing agro-food Cooperatives of Aragón region, agro-food sector, boiler and burner manufacturers, potential biomass consumers, researchers, energy sector experts and policy makers attended the workshop.

Initially, it was thought that about 30 people would attend the event, but some of the attendees who confirmed their presence could not reach the venue due to bad weather conditions that occurred on the day of the event.

Invitation to the event has been sent repeatedly during the two weeks prior to the workshop. In addition an announcement and dissemination of the event in the regional newspaper of Aragon - Heraldo de Aragón - specifically in the Heraldo del Campo supplement was published (see Figure 23).



3.2.4.1. Summary of the event

The event was opened by Jesus Abadías, a technician of Agro-food Cooperatives of Aragon and started with thanks to the speakers for accepting the invitation of the organizer, and also by acknowledging the presence of Eva López (CIRCE) – the coordinator of the SUCELLOG Project. Jesús Abadías presented the objective, geographic scope and the partners of SUCELLOG project. Then the video about the project development in Spain was demonstrated to provide more insight about the project as an introduction of the event.

Once the video was finished, Jesús Abadías, from Agro-food Cooperatives of Aragón, started his presentation "Experiences of the SUCELLOG Project in Aragón", firstly presenting the case study of the Agrarian Cooperative San Miguel de Tauste: its analysis of potentiality in terms of raw materials and compatibility of facilities, and the development of the proposed business model. In addition, the results of production and combustion tests that were carried out in relation to this study were presented and photos were shown. It was also explained that regional funding has been requested to continue this case of study, aimed at detecting the areas in the vicinity of the Agrarian Cooperative San Miguel of Tauste that could have a higher quality raw material. The presentation was concluded with case studies of Cooperativa San Miguel de Fuentes de Ebro and San Valero Distilleries Cooperative. In this part of the presentation feasibility studies developed within the framework of the SUCELLOG project were presented for each of the cooperatives.

6

Sábado 24 de diciembre de 2016 | Heraldo de Aragón

AL GRANO

FORMACIÓN

Curso sobre bienestar animal en Ejea

Desde el día 12 y hasta el 16 de enero, se celebrará, en Fjea de los Caballeros, el curso "Bienestar animal en explotación", organizado por UAGA y dirigido preferentemente a trabajadores o desempleados del sector ganadero, así como a todas aquellas personas que quieran incorporarse a la actividad ganadera. Los interesados en participar en esta actividad deberás enviar sus solicitudes a UAGA, paseo del Muro, 32. Ejea de los Caballeros (Zaragoza). El máximo de alumnos que pueden acudir será de 35. El curso tendrá una duración total de 20 horas lectrios.

Utilización de productos fitosanitarios

Asaja Huesca va a organizar en Fraga la actividad "Curso para la utilización de productos fitosanitarios-nivel básico", que tendrá lugar durante los días 30, 31 de enero, 1, 2, 3, 4 y 6 de febrero de 2017. El objetivo de esta iniciativa es la obtención del camé para la utilización de productos fitosanitarios. La fecha limite de presentación de solicitudes será el día anterior al inicio del curso. El lugar de celebración de las horas teóricas será el salón de Asaja, ubicado en la calle de Santa Catalina, 1, bajos, de Fraga. Las prácticas se celebrarán en las instalaciones de Talleres Sagarra, avenida de Aragón, 207, en la misma localidad.

JORNADA

Oportunidades de la biomasa agrícola

Cooperativas Agro-alimentarias de Aragón organizará, el próximo 20 de enero, una jornada de trabajo que lleva por título Proyecto Scellog. Oportunidades de la biomasa agrácola para la agroindustria en Aragón. La actividad se desarrollaria, de 12.00 a 14.00, en Mercazaragoza y está dirigida a agentes del sector agroalimentario y del sector de la biocsergia. Más información sobre esta jornada en el correo electrónico; jabadias@faca.es.



AGA hace balance de un año marcado por los contrastes

AGA ha presentado esta semana el balance agrario de 2016. Un año en el que han destacado la buecosocha de cereal, con un aumento del 30%, y el hundimiento de precios en herbáceos y en ganría. Estos son los puntos más destacables de este informe, en el que el sindicato agrario UAGA descó que la producción de cereales de invierno en secamo y regadio ascendió a 2.6 millones de tonedas. La de forrajes superó el millón en 88.000 hectáreas, Aragón copa la mitad de la producción esfola y el 25% de la europea. El sindicato también aseguró que le parece «preocupante» que no se ya podido exportar a China, por lo que pidió a la industria un mayor esfuerzo en la calidad.

Figure 23: Publication about the workshop in Aragon in newspaper

In addition, a number of actors working in the energy sector and who are closely linked to the agricultural and agro-industrial sector were invited as speakers. The first one was Detlef Max



Hoffmann, Director of Green Future Consulting S.L., who has actively collaborated with Agrofood Cooperatives of Aragon in the project, and presented "The unknown potential of residual biomass in the agro-industrial sector". In the presentation he discussed the technologies for the consumption and processing of agricultural biomass and also presented success cases in the implementation of agrarian biomass utilization, and finally feasibility studies of the cooperatives that participated in the SUCELLOG project.

Alberto Martinez Arribas, Technical Director of Ensaco Energy Efficiency S.L. presented "Technology and Engineering for an efficient combustion of diverse biomasses". This presentation included results of tests of combustion of diverse agro-biomass in boilers Hargassner. The development of this presentation was largely oriented to the combustion tests carried out in Asturias, in particular in pilot boilers that has the company Hargassner to test, with the straw-wood mixture pellets manufactured in the Cooperativa Agraria San Miguel of Tauste within the framework of the SUCELLOG project.

The last speaker of energy sector companies was Carlos Ayerbe Gracia, Industrial Engineer of APISA S.L. He presented the "Use of agricultural biomass in agro-industrial drying facilities". The presentation addressed different drying technologies that APISA is offering in the market and their uses, and which are able to use agro-biomass as an energy source. He commented on several experiences of the use of agricultural biomass in drying process in industries of the agricultural sector, and its evolution since 1983.

Finally, Ramon Iglesias Castellarnau, Head of the Agri-Food Innovation and Transfer Service of the Government of Aragon was invited to participate. He presented "Funding and grant opportunities to promote biomass from agrarian origin through the Rural Development Program of Aragón". In the presentation, the importance of agro-biomass and waste utilization actions in agribusinesses and in the agricultural sector in general has been emphasized, and linked with the innovation support funds managed by his Head of Service. Specifically, the support for cooperation projects by agents in the agricultural sector and operational groups, which are two lines of financing to undertake innovation projects, and the inclusion of activities for the use of agricultural waste as biomass, were discussed.

After the presentations a discussion session was opened among the participants to discuss the possible barriers that exist in relation to the use of agro-biomass as a source of energy for the production of heat. Following the main barriers were described:

- **Market Barriers**: The price volatility of both agricultural biomass and fossil fuels means that agro-industries and other potential producers and consumers of biomass of agricultural origin do not take the step to get involved in this sector.
- Technical Barriers: Regarding barriers in terms of technology development, the great diversity of technologies that are now being used with solid agricultural wastes was commented on, but it was influenced in many of the contributions of the assistants, that each type of technology and installation should only be oriented to consume raw materials that adequately work in it and this can produce in the long term doubt in the economic profitability due to the price volatility of the raw materials. There was a great deal of incidence in that the misuse of a combination of technology with a not adequate raw material causes corrosion in the boilers and creation of "crusts" and "cakes" in them. In addition, it was also commented that at present most of the technologies already



installed are not designed to consume agro-biomass, such as cereal straw, and this fact makes necessary the investment, which in many cases the society is not ready to assume. It was also commented as a barrier, that in the processes of direct drying with air one must be careful with the sparks that can produce some of the solid fuels of agricultural origin, and it's problematic with the fires of the product to dry.

Another technical barrier that is said is that the storage of agro-biomass for self-consumption may be a problem, which is not produced for example with fossil fuels such as natural gas. In relation to this last one, the easy handling of fossil fuels, and the cleanness in its use, as it can be the natural gas, makes difficult to opt by agro-biomass.





Figure 24: Participants of the regional workshop in Aragon, Spain

Environmental and Sanitary Barriers: Possible problems of product contamination were commented when drying with direct air from the combustion of some type of agrobiomass that could carry high contents in chlorine for example, but this fact was denied by APISA SL, since at the drying operation temperatures it is impossible for the chlorine to condense and mix with the product to be dried. Also discussed were possible long-



term problems in the emission of particles into the atmosphere, and that even in some facility are having to install auxiliary equipment, such as bag filters, to control emissions.

- Cultural and Social Barriers: the discussion to comment that in the rural and agrarian sector, new initiatives are sometimes restrained by the fear of not correct, and some investments are post-put until some another stakeholder takes the initiative and demonstrates its functionality was also part of the discussion. On the other hand, the comfort of natural gas or diesel is perceived as irreplaceable. In order to be replaced they really need the biomass to be much more convenient in price.
- Economic barriers: Agribusinesses are reluctant to invest because the volatility of fuel prices, both solid agricultural biofuels and fossil fuels, calls into question the investment recoveries raised in the studies.

A fundamental factor to ensure the operation of agro-biomass self-consumption facility is the maintenance of supply, price and quality, and achieve a technology that suits with it for the cost-effective operation of the facility, but also the maintenance of technology, social consolidation of the cooperative operating the entire management, and compliance with environmental regulations related to the new combustion process installed.

3.2.5. Regional dissemination workshop in Extremadura, 20/01/2017

The fifth regional workshop in Spain was organised on **20 January**, **2017** in **Mérida** (**Badajoz**), **Extremadura** by:

Extremadura Agro-food Cooperatives

Jose Antonio Paz

Email: jpaz@cooperativasextremadura.es

Phone: 924 388 688

3.2.5.1. Agenda

The workshop has been organized by Agro-food Cooperatives of Extremadura and took place in the facilities of the Agro-food Cooperatives. The aim of the workshop was:

- To disseminate SUCELLOG project results at regional level; and
- To detect non-technical barriers to launch initiatives for producing and consuming biomass of agrarian origin and to discuss the possible solutions for the detected nontechnical barriers.

Agenda:

- Presentation of the SUCELLOG project, indicating participants, targets, strategies, national examples and possible valuated working paths. Performed by the Extremadura Agri-food Cooperatives technician
- Presentation of the results of the work carried out in Extremadura. Performed by the Extremadura Agri-food Cooperatives technician
- Participation of collaborators of the participant cooperatives



o Questions and proposals

3.2.5.2. Participants

18 participants representing olive and oil olive sector attended the workshop.

3.2.5.1. Summary of the event

In the first part of the workshop it was explained that the IEE-SUCELLOG Project is orientated to the implantation of Biomass Logistic Centers (BLC) in the agro-industries, as complement of their main activity. It is about using the facilities in the idle periods to manage and pre-treat the agricultural residues and transform it in non woody biomass fuel.

During the presentation the work performed for the estimation of biomass resources of the affected areas was highlighted, in particular in the influence zones of the implicated agroindustries in the project.

Taking into account that the agroindustry directly affected by the project was Troil Vegas Altas, Soc. Coop. of second degree, these evaluations were mainly made based in the area of the olive groves surface next to the agroindustry.

Later, the performed works and the results of the Extremadura audit and the technical-economic feasibility study of Troil Vegas Altas were presented. The main line followed in the audit, focusing the work to the production improvement, increasing of the working capacity and optimization of the energetic costs for the generation of the needed heat in the productive process of the agroindustry was explained.

The priority initiative within this analysis, which consists of the implementation around the agroindustry and the implicated farmers, of a logistic system of collection of the olive pruning remnants which would serve, once chopped and storage in the Troil Vegas Altas facilities, to supply the production system of the industry was presented. An environmental benefit has been looked for, avoiding the burn of the same as well as a possible benefit of all the implicated in the logistic, since they are energy producers.

In the subsequent round of questions and opinions, it was positively valued the project as well as its targets and results.

Regarding the production capacity improvement and increasing of Troil Vegas Altas, it was very positively valued the provided solutions by the audit.

Concerning the pruning olive logistic system, a great interest was expressed both by part of the associated cooperatives of Troil Vegas Altas as well as by the present agro-industries for studying the different possibilities that this could offer to their partners and it surroundings.



3.3. Regional workshops in Italy

3.3.1. Regional dissemination workshop in Fasano, Puglia, 13/11/2015

The first regional workshop in Italy was organised on 13 November 2015 in Fasano, Puglia by:

D.R.E.Am

Enrico Pietrantonio

Email: pietrantonio@dream-italia.net

Phone: +39 573 36 59 67

The organisation of the event was supported by Legacoop Puglia.

3.3.1.1. Agenda

The invitation letter and agenda of the event is given in Figure 25.



Figure 25: Invitation and agenda of the regional workshop in Puglia, Italy

3.3.1.2. Participants

12 participants representing agrarian associations and biomass, and agricultural commodity producers attended the workshop.



3.3.1.3. Summary of the event

On the 13th of November 2015, the Coop. Progresso Agricolo (Contrada Sant'Angelo 38, Fasano (BR)) hosted a regional workshop of the SUCELLOG project.

The event organized by Dream Italy, together with Legacoop Puglia, focused on the experiences of cooperation in European projects and on investment opportunities for interventions of energy savings and for the production of energy from biomass. The aim of the workshop was to engage possible beneficiaries for the auditing activities inside the project.

The Eng. Chiara Chiostrini presented the results of the SUCELLOG project in Puglia Region.



Figure 26: Participants of the regional workshop in Fasano, Puglia

The current opportunities of financing and business support were discussed. These included measures 4 and 16 of the new Regional Development Plan of Puglia 2014-2020 and the funding of the Ministry of Economic Development for the use of energy in 4 Italian regions, including Puglia.

6 workshop participants expressed further interest to receive support from SUCELLOG project for the assessment of opportunities to develop biomass logistic centre in their agricultural facilities and to get involved in auditing activities.

3.3.2. Regional dissemination workshop in Oristano, Sardinia, 10/12/2015

The second regional workshop in Italy was organised on **10 December 2015** in **Oristano, Sardinia** by:

D.R.E.Am

Enrico Pietrantonio

Email: pietrantonio@dream-italia.net

Phone: +39 573 36 59 67

3.3.2.1. Agenda

The invitation letter and agenda of the event is given in Figure 27.





Figure 27: Invitation and agenda of the regional workshop in Sardinia

3.3.2.2. Participants

The workshop gathered 18 participants from agrarian associations and from different agricultural production branches.

3.3.2.3. Summary of the event

On 10th of December 2015, in Oristano (Sardinia), a second regional workshop of the SUCELLOG project was carried out. The workshop was organized during a meeting of Sardinian cooperatives of Legacoop. During the event the project and its activities were presented. In particular, the interest of agricultural and agri-food cooperatives for receiving diagnosis and auditing services and for becoming biomass logistics centres was evaluated.

5 workshop participants expressed further interest to receive support from SUCELLOG project or suggested someone who would be interested in the assessment of opportunities to develop biomass logistic centre in their agricultural facilities and to get involved in auditing activities.

3.3.3. Regional dissemination workshop in Empoli, Toscana, 05/04/2016

The third regional workshop in Italy was organised on 5 April 2016 in Empoli, Toscana by:

D.R.E.Am

Enrico Pietrantonio

Email: pietrantonio@dream-italia.net



Phone: +39 573 36 59 67

3.3.3.1. Agenda

The invitation to the event, including list of speakers is given in Figure 28.





Martedì 5 aprile ore 17,30 – Via delle Fiascaie, 12, 50053 Empoli (FI)

c/o Agenzia per lo Sviluppo dell'Empolese-Valdelsa (ASEV) (http://www.asev.it/)

Incontro con le Aziende Agricole per la promozione di progetti di filiera e rete di impresa nell'Empolese Valdelsa

LE OPPORTUNITA' DEI PIANI DI SVILUPPO RURALE E DEL PROGETTO SUCELLOG

PER LA CREAZIONE DI FILIERE INTEGRATE e PROGETTI INTEGRATI TERRITORIALI

Saluto e apertura lavori: Antonio Ponzo Pellegrini per il Comune di Empoli

Intervengono:

Dott. Agr. Andrea Triossi di D.R.E.Am. Italia su "Le opportunità del PSR in Toscana"

Dott. Geol. Roberto Giannini di D.R.E.Am. Italia su "La Progettazione Integrata Territoriale"

Dott. Ing. Chiara Chiostrini di D.R.E.Am. Italia su "Il progetto SUCELLOG"

Domande e dibattito

Figure 28: Invitation to the regional workshop in Toscana

3.3.3.2. Participants

20 people representing agrarian experts, policy makers, farms and agro-industries participated on the workshop.

3.3.3.3. Summary of the event

Agenzia per lo Sviluppo Empolese Valdelsa Spa is an organization born thanks to an agreement among founders with a mixed public private capital with the purposes of organizing professional training and planning new strategies for economic, cultural, social and tourist local development. They carried out this event in order to give to farms, agroindustries, local producers and tourist operators the possibility to start a path together for the



territory growth. In particular, ASEV asked to D.R.E.Am Italia for presentations on the opportunities for SMEs/Cooperatives to participate in European funding programmes.

The event focused on Integrated Supply chain Projects and Integrated Territorial Designing, both funded by the RDP. The purpose of creating biomass logistic centres into agroindustries by SUCELLOG project represents, in effect, the aim of achieving Integrated Projects for supply chain and the involvement of policy makers that it provides, draws a Territorial Integrated Design.

In this framework, the structure of the European funding program Horizon 2020 for the benefit of SMEs/Cooperatives on specific topics, then the concept and the scope of the project SUCELLOG have been explained.





Figure 29: Participants of the regional workshop in Empoli, Toscana

Afterwards, the results of recently completed diagnosis on 20 farms or agro-industries throughout Italy have been presented. Detailed discussion on the issues to be considered in order to build a logistics centre for biomass has been implemented. As outcome of the discussion the following highlights of the difficulties and the technical, economic and non-technical barriers have been summarized:

- To be considered for the purpose of biomass, no residue may have had chemical treatments;
- Issue of social acceptance: in Italy, dark pellets are considered as a bad quality product and cannot find a market. Pellets must be white (light colours);
- Although there are already multi-fuel boilers, often the manufacturer reserves the right to validate the fuel and to cancel the guarantee;
- There is a high risk of contamination for example by using pelletizer for animal feed or dryers in distilleries for bioenergy logistics centre operation;
- Lack of funding for investments in the farm/agro-industry by the SUCELLOG project.
- Difficulties in recruiting commitments signed for the purchase or supply, in terms of
 quantity and price of materials, due to the period of economic crisis and due to the
 uncertainty that characterizes the agricultural sector in its production. The integrated
 supply chain agreements between farms often require more time than the duration for
 funding, or in this particular case, of the SUCELLOG project.



3.3.4. Regional dissemination workshop in Orsara, Puglia, 16/04/2016

The forth regional dissemination workshop in Italy took place at *Agriturismo Masseria Monte Preisi*, *Orsara di Puglia* (FG) on 16th of April, 2016.

The workshop was organized by D.R.E.Am Italia and Legacoop Agroalimentare in collaboration with ING.FOR.ECO, in the occasion of their headquarters inauguration in Orsara di Puglia (FG).

3.3.4.1. Agenda

The agenda of the workshop is given in Figure 30.



PUGLIA - CAMPANIA - BASILICATA - MOLISE

Sabato 16 aprile ore 9,30 - ORSARA DI PUGLIA (FG)

c/o AGRITURISMO MASSERIA MONTE PREISI (http://www.agriturismomonte.preisi.it/)

Incontro con le Cooperative agricole e forestali e i tecnici forestali delle Regioni Puglia, Basilicata, Molise, Campania

LE OPPORTUNITA' DEI PIANI DI SVILUPPO RURALE E DEL PROGETTO SUCELLOG

PER GLI INTERVENTI AGRO-FORESTALI E DI GESTIONE AMBIENTALE

Saluto e apertura lavori: Ugo Fragassi Presidente Coop. ATS Montemaggiore

Relazione tecnica introduttiva: illustrazione dei PSR regionali; a cura della coop. ING.FOR.ECO.

I progetti per l'innovazione – la pianificazione forestale e ambientale - le reti di impresa e le filiere produttive; a cura della coop D.R.E.Am. ITALIA

Intervengono:

Giuseppe Piscopo Direttore nazionale Legacoop Agroalimentare

Leonardo Bottai Resp. Nazionale Legacoop Agroalimentare settore forestazione

Stefania Serafini Commissaria Legacoop Molise

Angelo Petruzzella Resp. Legacoop Agroalimentare Puglia

Maria Grazia Gargiulo Resp. Legacoop Agroalimentare Campania

Caterina Salvia Resp. Legacoop Agroalimentare Basilicata

Organizzazione: soc. coop. agr. "A.T.S. MONTE MAGGIORE" Tel. 0881/964626; <u>info@atsmontemaggiore.it</u>; www.atsmontemaggiore.it

Figure 30: Invitation to the regional workshop in Puglia



3.3.4.2. Participants

In total 28 people participated in the event. It was targeted to agrarian associations, agrarian experts, policy makers, biomass consumer, biomass suppliers, agro-industries.

3.3.4.3. Summary of the event

The event focused on forestry and environmental planning, projects for innovation, business networks and supply chains, issues addressed to farms and forestry cooperatives of Puglia region, beyond that of Campania, Molise and Basilicata regions, due to the office location.

In particular, presentations showed the opportunities for SMEs/Cooperatives to participate in European funding programmes, such as RDP and Horizon 2020, increasing the interest of the audience especially on energy production chains by biomass.

SUCELLOG was presented as project example supported by European funding on agrobiomass logistics centre. At that point, the results of the project activities carried out in Puglia up to the step of diagnosis were presented, highlighting the theoretical availability of olive tree prunings and olive pomace, often separated from oil and/or without pits; the reuse by many oil mills of olive pits for self-consumption; and the scarcity of forest wood, except in the north of the region.



Figure 31: Participants of the regional workshop in Puglia

The farms benefiting of diagnosis offered by the project in Puglia region were oil mills, wineries, fruit processing firms and an agro-forestry cooperative.

As for the farms, they generally do not own equipment such as chippers, pelletizers or dryers, but they have seasonal production, and therefore periods of plant downtime, and a good (theoretical) availability of agrarian prunings from olive trees, vineyards and trees orchards. For this reason, one of the companies to be audited is an oil mill involved in a Producers Organization, which transforms the olives of its 500 members, small and medium olive growers in the area. They have also an expertise in bioenergy due to their production of olive pits, mainly for self-consumption.

The other company to be audited is, rather, a cooperative in north of the Region which makes agrarian and forestry work, which has access to woody biomass and who works in the energy production chain from forestry wood, having chippers and a widespread business network in the area.



Finally, a debate around the main barriers of the project was developed, specifically related to that region. Among the non-technical barriers were mentioned:

- the lack of cold winters in the last two years;
- the trend to use mainly wind and solar energy as renewable sources;
- the lack of woody biomass in the Region that has not allowed the knowledge and confidence in biomass as energy source;
- the difficulty of abandoning farming practices rooted in the territories, such as burning or chopping and leaving agro-prunings in the fields.



3.4. Regional workshops in France

3.4.1. Regional dissemination workshop in Auvergne Rhône Alpes, 10/06/2016

The first regional workshop in France was organised on **10 June**, **2016** in **Auvergne Rhône Alpes** by:

Coop de France Rhône-Alpes Auvergne Benoit Dancert and Sybille Mejia Contact: smejia@cdf-raa.coop, T. 04 72 69 91 91

3.4.1.1. Agenda

The agenda of the event is given in Figure 32.



Ordre du jour détaillé

Journée Responsabilité Sociétale des Entreprises le 10 juin 2016

9h00 - 12h00 - Atelier 1 : Valorisation de la biomasse « Structuration de la filière agropellets » Quelles perspectives pour les acteurs économiques ? Résultats du projet européen SUCELLOG

Contexte:

Les coopératives agricoles génèrent d'importantes quantités de biomasse qui peuvent être valorisées de différentes manières méthanisation, fabrication d'aliments pour animaux, compostage,... mais qui ne sont pas forcément compatibles avec la biomasse générée ou présentes à proximité. Les coopératives sont donc à la recherchent de nouvelles voies de valorisation. Parmi elle, la filière agropellets qui sont des granulés similaires aux granulés de bois mais fabriqués en tout ou partie avec de la biomasse agricole, permettrait aux coopératives de développer une nouvelle activité voir de faire un pas vers l'autonomie énergétique.

Dans ce cadre-là, Coop de France Rhône Alpes Auvergne s'est inscrit au projet européen SUCELLOG afin d'accompagner les coopératives dans le développement de cette nouvelle filière.

Public visé:

- Coopératives et industries agroalimentaires
- Communes labellisées TEPOS et TEPCV
- Institutionnels (État, Région,...)
- Donneurs d'ordre (EDF, Engie,...)
- Fabricants de chaudières

Objectifs:

- · Sensibiliser les personnes présentes à la filière agropellet
- Montrer que le démarrage de cette nouvelle filière a été réfléchi en amont

Figure 32: Invitation to the regional workshop in Auvergne



3.4.1.2. Participants

27 people representing SUCELLOG cooperation partners, cooperatives and community of municipalities of Auvergne Rhône Alpes, national and regional institutions, boiler manufacturers and professional unions participated on the workshop.

3.4.1.3. Summary of the event

The workshop for the Auvergne Rhône Alpes region has been organized during the second agricultural cooperation week on the 10th of June. The day was split in two parts, SUCELLOG project in the morning and societal responsibility in food industries in the afternoon.

Jean de BALATHIER, Director of Coop de France Rhône Alpes Auvergne opened the day organized during the second agricultural cooperation week and under the theme of societal responsibility. He recalled commitments of Coop de France Rhône Alpes Auvergne in energy, as part of the challenge of the food chain contract reinforced by the context of the law on the energetic transition and green growth. Coop de France Auvergne Rhône Alpes take part in many energy related projects like SUCELLOG.

Benoît DANCERT responsible for energy mission in Coop de France Rhône Alpes Auvergne has made a presentation of SUCELLOG results and the 5 feasibility studies. Although agropellets that could be produced by cooperatives have a theoretically lower selling price than other fuels of the territory, the agropellets market is for now a niche market.



Figure 33: Participants of the regional workshop in Auvergne Rhône Alpes

David Bremond, from ADEME Auvergne Rhône Alpes, presented the positioning of regional and national ADEME on agropellets sector and more generally by type of biomass. He explained that energy recovery must be the last way to recover biomass. Indeed, some agricultural co-products such as corncobs are subject to strong competitive uses and



recovery through combustion could destabilize existing channels (feed, biogas, green chemistry ...).

Bertrand SOVICHE, director of SOFRAGRAIN, a subsidiary of the cooperative Terre d'Alliances, came to present his project of agropellets production. From a further reflection taking into account economic, sociological, technological and environmental factors, SOFRAGRAIN project, with 200 t of agropellets sold this year, shows that the agropellets market exist and need to be developed.

Cécile PHILIBERT, from DRAAF Auvergne Rhône Alpes, concluded this morning with the presentation of the regional schema of biomass mobilization (SRB) which is a variation of the national scheme (SNMB). Its goal is to identity the quantities of biomass currently present in the territories while differentiating volumes recovered from those who are not.

Finally, the morning ended with a debate moderated by Jean de BALATHIER on the following topic: What economic model should be developed to support sustainable and profitable agropellets industry? The floor was given to the assembly in which several actors of the sector (professional unions or inter-forest cooperatives, boiler manufacturers, cooperatives participating in the SUCELLOG project and others) have been included.

3.4.2. Regional dissemination workshop in Auvergne, 06/09/2016

The second regional workshop in France was organised on 6 of September 2016 in Auvergne by:

Coop de France Rhône-Alpes Auvergne Sybille Mejia E-mail: smejia@cdf-raa.coop, T. 04 72 69 91 91

3.4.2.1. Agenda

The agenda of the event is given in Figure 34.

3.4.2.2. Participants

13 people representing SUCELLOG cooperation partners and agrarian cooperatives attended the workshop.

3.4.2.3. Summary of the event

The workshop for the Auvergne region has been organized during the methanation (anaerobic digestion) workshop, periodically organised by Coop de France Rhône-Alpes Auvergne. The session was split in three parts: presentation and feedback about biomass from each participant, debate about the added value of methanation and then debate on the use of solid biomass for energy, developing mainly the competitive uses between solid biomass for combustion or for methanation.

The position of Coop de France was firstly explained:

 Coop de France has access to an important amount of information, on technical and regulation aspects via the network of national and regional associations. It can thus help the cooperatives to develop their project.



- They have access to political network: national and regional ADEME, ministry, agricultural chamber etc.
- Workshop with several cooperatives is included in the mission of Coop de France which can organize a specific network about this new topic.

Coop de France stated the dissemination of information about biomass, particularly about the National strategy on biomass mobilization (on going in France).



Commission methanisation



Mardi 6 septembre 2016 9 h à 12 h 30

Chambre d'agriculture du Rhône (salle 7) 18 avenue des Monts d'Or 69890 La Tour de Salvagny,



1. Etat des lieux

- Tour de table des participants
 Présentation du niveau d'information, de connaissance des projets et de la stratégie sur la méthanisation au sein des coopératives
- Retour d'expérience de la coopérative EUREA, Christophe CHAVOT, Président d'EUREA
- Développement de la méthanisation au sein de la coopérative TERRENA,
 Maïwenn LOFFET, chargée de projet méthanisation
- Intérêt de la méthanisation vis-à-vis des normes agroenvironnementales,
 Julien DEVILLE, administrateur Val Limagne
- 2. Eléments de contexte (Sybille MEJIA, CDF RAA)
 - Présentation des schémas régionaux méthanisation et biomasse (en cours)
 - Le Pôle Biomasse Energie (POBE)
 - Futur accord cadre ADEME Coop de France
 - Le projet SUCELLOG
- Vers une stratégie de la coopération agricole en Auvergne-Rhône-Alpes qui permettrait de réintégrer la valeur ajoutée de la filière au sein des coopératives
 - Quel modèle souhaite-t-on ? Comment le porter au niveau du POBE?
 - A quelles étapes des projets peuvent se positionner les coopératives ?
 - Intérêt de positionner CDF RAA comme centre de ressources qui pourrait mettre à disposition :
 - ✓ un listing à jour des projets collectifs et territoriaux
 - ✓ une veille technique et règlementaire
 - ✓ un accompagnement individuel pour la réalisation d'un état des lieux de la méthanisation sur le territoire de chaque coopérative

Figure 34: Invitation to the regional workshop in Auvergne



Sybille Meija presented the SUCELLOG project concept and the results in Rhône-Alpes Auvergne.

It was noted that for the moment the added value of this kind of project is not evident for the agrarian cooperatives. For biomass in general, cooperatives are not involved during the construction of the project and regret this point. In France, it is generally a problem. They thus cannot be real actors because of the lack of global information from Institution.

It was stated that cooperatives should be important local actors, major actors in the territory. They have to be the main owners and organizers of biomass resources (agricultural or industrial biomass) and not let other big private actors manage this resource.

3.4.3. Regional dissemination workshop in Normandy, 29/09/2016

The regional workshop in Normandy was organised on **29 of September, 2016** in **Saint Etienne du Rouvray** by:

COOPENERGIE

Cyril FLAMIN

Contact: cyril.flamin@coopenergie.com, T. +33 (0) 323 800 696

3.4.3.1. Agenda

The agenda of the event is given in Figure 35.

3.4.3.2. Participants

8 people representing technical centre, engineering, regional association for biomass uses and for energy saving companies participated on the workshop.

3.4.3.3. Summary of the event

The workshop for Normandie region has been organized during the third "Journée des Ecotechnologies", at INSA of Rouen in St Etienne du Rouvray. This event, organized by Rouen Normandy Invest, aimed to present actors which develop different eco-solutions for transportation, housing, energy producing, etc.

After Cyril FLAMIN from COOPENERGIE has made a presentation of SUCELLOG main results, participants presented their views:

Cyril Flamin did the presentation of the SUCELLOG project. He presented the concept of SUCELLOG, and how it contributed to develop the use of agricultural biomass in France.

He thus presented:

- The state of art of the project and the existing biomass network in 2013
- Then the different documents and actions done by the project: deliverables, logistic centres and audits
- To finish, he presented the main consequences of the project and the development of the sector thanks to SUCELLOG.







REUNION DE TRAVAIL POUR LA MOBILISATION DE LA BIOMASSE AGRICOLE

PROJET SUCELLOG, CONDITIONS DE FAISABILITE D'UNE FILIERE AGROPELLET EN NORMANDIE ?

Jeudi 29 septembre 2016, St Etienne du Rouvray

10:00 - 12:00

A l'occasion de la 3eme édition de la journée des Ecotechnologies, organisée par Rouen Normandy. Invest le 29 septembre 2016 à l'INSA de Rouen, sur le Technopôle du Madrillet. COOPENERGIE organise une réunion d'échange autour des conditions de faisabilité d'une filière agropellet.

ORDRE DU JOUR :

10:00 - Présentation du projet SUCELLOG, les réalisation et ses attentes, par Cyril FLAMIN COOPENERGIE

10 :15 11:45 —Discussion : quels leviers à actionner pour développer une filière agroppilets pérenne et rentable en Normandie ?

11:45 - 12:00 Conclusions de la matinée

PUBLICS VISES:

Agriculteurs, collectivités, chaudiéristes, énergéticiens, industriels, coopératives agricoles, représentants de l'Etat, fédérations régionales.

SUCELLOG est un projet européen visant à favoriser la participation du secteur agricole et agroindustriel à l'approvisionnement durable en biocombustibles solides.

LES ENJEUX DE SUCELLOG

- Positionner le secteur agricole sur le marché des biocombustibles solides ;
- Optimiser des équipements déjà disponibles (séchoirs, granulateurs) pour la valorisation de la biomasse en énergie durant les périodes creuses d'activités;
- Utiliser les résidus agricoles considérés à l'heure actuelle comme des déchets.

Figure 35: Invitation to the regional workshop in Normandy

Afterwards a discussion about agricultural biomass in Normandy was organized.

To summarise the discussion, Normandy is a region using mainly wood for energy. This sector is well structured whereas agricultural residues are mainly used for methanation and breeding. The development of the wood energy sector in Normandie is really important with 2 mains actors: Biocombustibles SA and the energy biomass association.

The use of agricultural biomass is unknown by territory stakeholders (municipalities, industrial stakeholders, research and advise office).

Some more studies have to be targeted to improve the formulation of solid biomass to limit NO_X , SO_X , HCI and NH_4 emissions, such as fine emissions and to propose an appropriate energy quantity to acceptable costs. Some liquid additives exist moreover.

The sector needs to be structured at the national level to be more visible and gain in quality (standards, cost reduction).



The use of local biomass products could be a good solution to complement the wood supply. It is also a good thing for rural development.

Attendants spoke about the problems of storage (need of more place for wood biomass).

3.4.4. Regional dissemination workshop in Picardy, 17/11/2016

The forth regional workshop in France was organised on 17 of November, 2016 in Royes, Picardy by:

Coopénergie Cyril FLAMIN

Contact: Tel: 03 23 79 22 38 - cyril.flamin@coopenergie.com

3.4.4.1. Agenda

The agenda of the event is given in Figure 36.

3.4.4.2. Participants

12 people representing SUCELLOG cooperation partners and agrarian cooperatives attended the workshop.

3.4.4.3. Summary of the event

The workshop for the Picardie region has been organized in Roye.

Introduction - Cyril FLAMIN

Cyril did the first part of the workshop, presenting the project: what is the SUCELLOG concept (work with agro-industries, idle period, use of solid biomass). He explained the context of the meeting (debate about solid biomass) and the agenda. To finish, a presentation of attending people was realised.

Participation of SUCELLOG for the development of the agricultural solid biomass sector – Camille Poutrin

Camille Poutrin did a 15-min presentation of the SUCELLOG results and its contribution to the biomass sector development. She presented the context in 2014 (not so much agricultural biomass projects, low prices of fossil fuels). Then she developed the SUCELLOG concept and the work done during the three years in communication, advisement / audits and deliverables (perennial documents). The last part of the presentation was the conclusion of the project. The main ones are:

- The project did lots of communication events to aware people on agricultural biomass but this is only a "drop in an ocean" of the lack of knowledge.
- Even if few projects are operational at the end of the project, SUCELLOG created an important pool of knowledge useful for future project developers.
- The project showed that the agricultural solid biomass can be profitable and competitive with wood biomass even if people are not really interested in developing new biomass projects (lack of confidence in this resource).







REUNION DE TRAVAIL POUR LA MOBILISATION DE LA BIOMASSE AGRICOLE

COMMENT STRUCTURER LA FILIERE AGROPELLETS SUR LES HAUTS DE FRANCE?

Jeudi 17 novembre 2016, Roye

9:15 - 11:30

ORDRE DU JOUR:

9:15 - Accueil

9:30 – Les agropellets en France : comment le projet SUCELLOG a-t-il contribué à l'avancée de la filière ? / Camille POUTRIN, Services Coop de France

9:45 – Le positionnement de l'ADEME : quelles politiques régionales pour le développement de la filière Biomasse Energie ? / Christophe ROGER, ADEME

10:00 - Présentation des principales analyses menées par le projet SUCELLOG dans les Hauts de France / Cyril Flamin, COOPENERGIE®

10:15 à 11:15 - Discussion : quels leviers à actionner pour développer une filière agropellets pérenne et rentable sur les Hauts de France ?

11:15 - Conclusions de la matinée et validation des futures actions de développement

PUBLICS VISES:

Agriculteurs, collectivités, chaudiéristes, énergéticiens, industriels, coopératives agricoles, représentants de l'Etat, fédérations régionales.

SUCELLOG est un projet européen visant à favoriser la participation du secteur agricole et agroindustriel à l'approvisionnement durable en biocombustibles solides.

LES ENJEUX DE SUCELLOG

- · Positionner le secteur agricole sur le marché des biocombustibles solides ;
- Optimiser des équipements déjà disponibles (séchoirs, granulateurs) pour la valorisation de la biomasse en énergie durant les périodes creuses d'activités;
- · Utiliser les résidus agricoles considérés à l'heure actuelle comme des déchets.

Figure 36: Invitation to the regional workshop in Picardy

Then, a discussion about barriers and ESCO was implemented. The main conclusions are that it is easier for ESCO to use natural gas and they are not always interested in developing biomass projects. Then the price of biomass energy is not so interesting as the methanation or the solar one.

Intervention of the ADEME (French Environment and energy Agency) – Christophe ROGER

The regional agency of the ADEME gave presentation of the wood sector in Picardie. Christophe ROGER insisted on the fact that, if wood is generally more presented in France, it is because this sector is really more structured than the agricultural one. The wood for energy is the first use of wood in France. Nevertheless, aids proposed by the ADEME for



biomass (Heat fund) are available for both woody and agricultural biomass. This heat fund is essential for the development of news sectors.



Figure 37: Participants of the regional workshop in Picardy

He then presented the biomass context in Picardie (biogas production, combustion) and the large domination of private forest in the Picardie biomass sector. Some calls for participation exist in Picardie for biomass, for example the AMI Dynamic Bois.

He highlighted the fact that new taxes on energy (contribution climate energy) will influence the sector and compensate the difference between fossil fuel prices and biomass prices. This is important information to keep in mind for the future development of biomass sector.

In France, energy federation has much power for the development of projects. They support biomass project from technical AND economic perspectives. There are still many potential projects which may be developed using biomass in France. In general, stakeholders have to learn to work together for new project development.

To conclude, new orientation documents are ongoing on biomass in France (regional schemes, sector contracts etc.). All energy sectors are concerned.

Presentation of the SUCELLOG concept according to the TEREOS example

Cyril presented the context of the work: large idle period in the site of Tereos and available equipment. Some biomass were analysed for available biomass: cereal straw, linseed, sunflower cake, rape cake, composter residues. He worked on the link with the wood sector. He highlighted the fact that there is still no market for agropellets and the creation of an interested network may be necessary to develop the sector. Cyril presented the investment needs for the formulation of pellets. The planned pellets have a high calorific value, but also high ash content. Nevertheless, sunflower may be a problem because of production of NOx, SOx, even if it increases the NCV.

Discussion

The main conclusions of the discussion are:



- The agricultural biomass sector needs more structuration. It needs to prove that they can answer a call for application from ESCO and organise a structured logistic chain.
- There is a lack of communication about agricultural biomass: project carriers do not know the biomass resources. It may be interesting to ask for a comparison between wood and agricultural sector for each new project.
- There are adapted technologies and ESCO are really interesting in using this resource if it can be proved that a structured supply can be organized.
- There is a need of complementarity between agricultural and woody biomass sectors.

A synthesis of the discussion ended the meeting.

People attending made an interesting discussion about agricultural biomass. Stakeholders were from various sectors: some cooperatives (cereals or beets), ADEME (state agency), agricultural chamber, boilers makers, ESCO and biomass suppliers. The main conclusion is that all stakeholders are interesting in developing the sector. They just need a first big site of production or a first pioneer to innovate and develop important logistic chains. It was note that all stakeholders do not always know the point of view of others but are finally aware to work together. Some more communication is necessary to develop the sector. Finally, new regulation and biomass national and regional schemes may change the general development of the sector.

3.4.5. Regional dissemination workshop in Paris, 28/11/2016

The fifth regional workshop in France was organised on **28 of November**, **2016 in Paris**, **France** by:

Marine LEBLAND UCFF

Tel: 01 73 54 88 07

E-mail: Marine.LEBLANC@ucff.asso.fr

3.4.5.1. Agenda

The agenda of the event is given in Figure 38.

3.4.5.1. Participants

15 people representing policy makers, cooperatives, boiler manufacturers, ESCOs and laboratories attended the regional workshop.

3.4.5.2. Summary of the event

The workshop took place in Paris, 43 rue Sedaine, 75013. First, Services Coop de France presented the SUCELLOG project:

- What is the project about, what was the aim at the beginning?
- The organization (the different partners of the project)
- The work done during the 3 years and the different available deliverables
- Overview on the opportunities given by the project: what changed thanks to SUCELLOG, the unexpected results etc.











Dans le cadre du projet européen SUCELLOG financé par la Commission Européenne,

Service Coop de France et l'Union de la Coopération Forestière Française (UCFF) ont le plaisir de yous convier à la restitution des résultats obtenus suivie d'une table ronde avec les acteurs de la filière agro pellets sur la thématique suivante :

La filière agro pellets : quelles perspectives pour les acteurs économiques ?

Retour d'expérience du projet SUCELLOG en France et à l'étranger

Je 28 novembre de 9h30 à 12h30

au 43 rue Sedaine, 75011 Paris

La participation à cette réunion est gratuite.

ATTENTION: nombre de places limité. Merci de confirmer votre participation à en vous inscrivant via le lien suivant https://goo.ql/forms/lB0cvhPEqae6jDQ32

Intervenants: ADEME, Coopératives agricoles, RAGT, Service Coop de France, UCFF

Public ciblé: coopératives agricoles et forestières, énergéticiens, agro-industries, constructeurs de chaudières, instituts techniques et experts, institutionnels, représentants de fédérations de la filière agricole-biomasse-énergie, représentants des collectivités.

* Le projet européen SUCELLOG_est un projet financé par la Commission Européenne et coordonné par le CIRCE (Centre de recherche pour les ressources et la consommation d'énergie - Espagne) à l'échelle international et Service Coop de France à l'échelle nationale. L'un des enjeux principaux du projet est de favoriser l'implication des agro-industries dans le marché des biocombustibles solides au travers de la valorisation des déchets agricoles et de l'optimisation des installations pendant la période creuse.

Figure 38: Invitation to the regional workshop in Paris

After the presentation a tour around the table has been organized asking participants to share their interests and reasons for attending the workshop:

- For people from the agricultural sector, the main intention was to diversify their activities or use the residues;
- For boiler manufacturers, the intention is to develop new markets for their technology;
- For ESCO the interest is to use alternative biomass (cheaper), they would like receive more information about biomass properties and prices;



• The policy makers would like to have more information about the sector in France in general.

SCDF presented the different uses of biomass in France for the main types of residues (silo dust, chaff, rape straw, cereal straw, corn cobs, prunings). The main discussion was:

- The best scale to study biomass is the local one
- Intermediate stakeholders can be mobilized to store biomass during the year (logistic issues)
- The agricultural sector knows how to treat loose biomass (quality issues)
- Important questions about the uses of ashes.

Then the discussion focused on the reasons why the agro-pellets market is not well developed in France. The main identified reasons include:

- Because it is an unknown product and is not in a spotlight of energy stakeholders;
- It cannot be used directly in wood fuel equipment / it is different than wood pellets.

To develop the agro-pellets sector the following suggestions have been provided:

- The ADEME Ile-de-France did a referential about biomass, including agricultural biomass. Agricultural biomass is now included in the national and regional biomass mobilization schemes. We have to remember than 10 years ago, the wood sector was not organized. We are currently living the beginning of the agricultural biomass sector for energy.
- The communication has to be enforced. This product is really unknown and is compared to wood whereas it is something really different. Biomass stakeholders have to be educated about this product.

Luzéal and UCFF then presented the overview of the Luzéal case study. A video about Luzéal was presented. Yves Koch explained why he was interested in the project. Marine Leblanc presented the use of equipment, the biomass resources and the market in the area.

Then RAGT energie presented all the technical results of the project.

The ADEME was supposed to present a policy point of view but since the discussion part took very long, Lilian Carpene did not have time to do all his presentation and thus finished the meeting with a small explanation of the ADEME position.

3.4.6. Regional dissemination workshop in Pessac, Aquitaine, 24/03/2017

The sixth and final regional workshop in France was organised on **24 March**, **2017 in Pessac**, **Aquitaine** by:

Marine LEBLAND

UCFF

Tel: 01 73 54 88 07

E-mail: Marine.LEBLANC@ucff.asso.fr



3.4.6.1. Agenda

The agenda of the event is given in Figure 39.











Dans le cadre du projet européen SUCELLOG financé par la Commission Européenne, Service Coop de France et l'Union de la Coopération Forestière Française (UCFF) ont le plaisir de vous convier à la restitution des résultats obtenus suivie d'une table ronde avec les acteurs de la filière agro combustibles de Nouvelle Aquitaine sur la thématique suivante :

La filière agro pellets : quelles perspectives pour les acteurs économiques ? Retour d'expérience du projet SUCELLOG en France et à l'étranger

le 24 mars de 9h30 à 12h30

au 3 AVENUE LEONARD DE VINCI 33608 PESSAC (EUROPARC locaux Coop de France Aquitaine)

La participation à cette réunion est gratuite. ATTENTION : nombre de places limité. Merci de confirmer votre participation à en vous inscrivant via le lien suivant https://goo.gl/forms/YbiEiNAl1Oqbsm3L2

Intervenants : ADEME, Coopératives agricoles-forestières, Service Coop de France, UCFF

Figure 39: Invitation to the regional workshop in Aquitaine

3.4.6.2. Participants

10 people representing ADEME, cooperatives (agricultural and forest) and municipalities attended the regional workshop.

3.4.6.3. Summary of the event

The workshop took place in Pessac, 3 AVENUE LEONARD DE VINCI. The meeting was started with an introduction of participants and the reasons why they attended this workshop. The main reasons were:

- Need of more information in available resources
- Need of information about the solid biomass sector
- Need of information to advise their members when having questions about this sector

Then, Services Coop de France presented the SUCELLOG project, including what is the project, what was the aim at the beginning, the organization (the different partners of the project), the work done during the 3 years and the different available deliverables, and the different opportunities offered by the project: what changes thanks to SUCELLOG, the unexpected results etc. In addition the main barriers have been presented and actions to overcome them.



Then SCDF presented the different uses of biomass in France for the main residues (silo dust, chaff, rape straw, cereal straw, corn cobs, prunings). Discussion was mainly about silos dust (quite not resources available in the region), vine prunings (a lot in the region) and corn cobs.

Marine Leblanc, in a second time, presented the main results of Luzéal case study:

- Type of resources uses (wheat, wood, miscanthus)
- Type of available equipment
- Feasibility study and business model results
- Combustion tests results done with RAGT

The workshop was finished by the presentation of ADEME concerning the context for biomass and agricultural biomass in Aquitaine. The presentation included following points:

- Presentation of the heat fund of the ADEME
- Wood chips is the main used biomass
- Presentation of the Dynamic project of the ADEME to valorize un-exploitable forest land
- 250 pellets boilers are inventoried in the Nouvelle Aquitaine.





Figure 40: Participants of the regional workshop in Aquitaine

Discussions during the workshop mainly addressed the following points:

- Wood and agricultural sector can work together
- Competitive uses of biomass resources
- Development of pruning biomass sectors in Aguitaine
- Available resources in the territory
- · Standards and labels
- Position of ADEME regarding agricultural biomass and solid biomass