

# INTERREG IVC's “*Good Practice Fair 2011*”

## Workshop on Energy Efficiency

Krakow, 24 November 2011

Carlos Serra (Andalusia, ES), on behalf of RENREN LP (Schleswig-Holstein, DE)



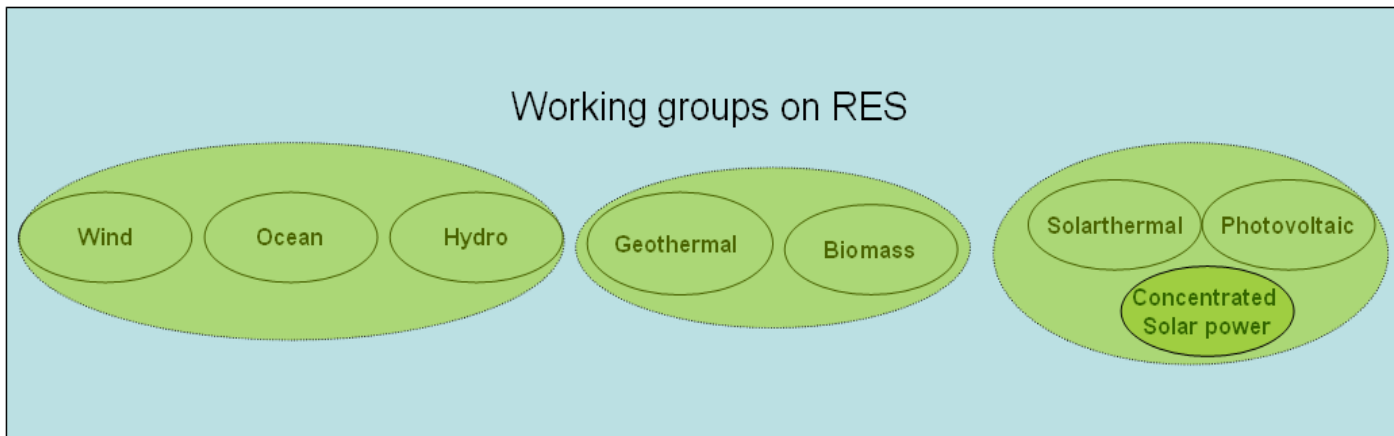


# RENREN Network



Identification and analysis of good practices in (Component 3):

- Topic 1: Strategic planning at regional level
- Topic 2: Permits & compliance
- Topic 3: Fostering job market development, RTD & innovation
- Topic 4: Finance and incentives



*Working groups  
on Renewable  
Energie Source  
(workshops)  
+  
On-site visits*

network of experts, policy recommendations

**15 good practices to be transferred!**

# Example of Good Practice: SAVB

-The Andalusian Company for Biomass Valorisation S.A , SAVB, was created in 2006 in Andalusia as a regional private-public joint initiative on biomass development, converging the efforts of the Andalusian Regional Administration and major private sector players all together.

## **GOAL: Fostering the use of biomass as a major source of energy**

-Main objectives of the company:

1\* Development of new technologies for the production, transportation, storage and processing of biomass.

2\* Promotion of energy crops → research on suitability of new crops.

# SAVB Partnership



Agencia Andaluza de la Energía  
CONSEJERÍA DE ECONOMÍA, INNOVACIÓN Y CIENCIA



Agencia de Medio Ambiente y Agua  
CONSEJERÍA DE MEDIO AMBIENTE



Agencia de Gestión Agraria y Pesquera de Andalucía  
CONSEJERÍA DE AGRICULTURA Y PESCA



Instituto de Investigación y Formación Agraria y Pesquera  
CONSEJERÍA DE AGRICULTURA Y PESCA

**Public regional** entities from the energy, environment and agrofood sectors must work together.



The **National** energy entity



ABENGOA BIOENERGIA  
NUEVAS TECNOLOGIAS

INERCO 

 **CGC Biomasa**

**Gamesa** 

Six **private companies** (bioenergy, forestry and pulp, water, engineering and biomass)

➤ Putting all together is much better! Some necessary biomass research activities will never be developed by a private company alone, but they know deeply the market.

# SAVB – Main Activities



Current activities focused on improving the biomass availability

## 1. Valorisation of agro wastes from olive tree pruning

### *Why olive trees to start up?*

- Andalusia region: Main world producer of olive oil (35%-40%). 1.5 Mio. hectare dedicated to olive production in Andalusia, needed of biannual pruning.
- Up to 20% of Andalusia biomass potential (+800 ktep) that mainly is going to waste.

## 2. Research and evaluation of several types of energy crops.

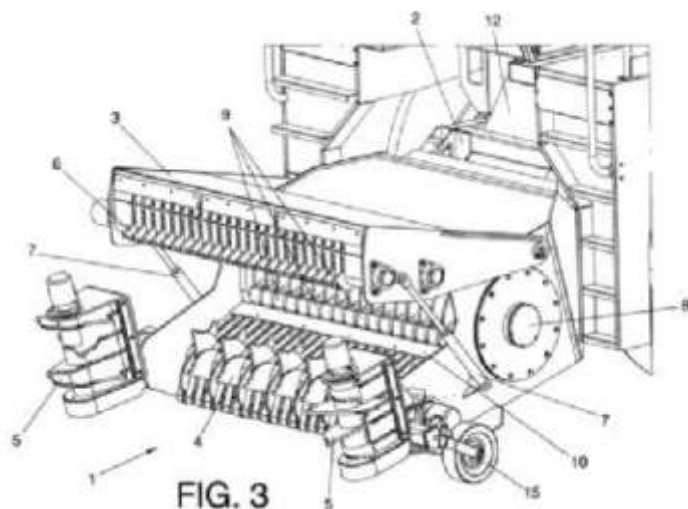
- Andalusia might be the main agro producer land in Europe.



Think in (1) typical forests from your region (olive, fruits, pines, oaks...) and (2) how much land surface is available for energy crops.

# 1\* Valorisation of olive tree pruning

→ Development of specific machinery that enables the use of cut branches from tree pruning as a source of energy: harvesting, chipping and collecting biomass **recently patented** machine to optimise the waste-to-energy chain.



ES 2399901 B2  
P 200803410 (0)  
01-12-2008  
30-05-2011  
B02C 18/22 (2006.01)  
A01G 3/00 (2006.01)  
MÁQUINA RECOGEDORA, TRITURADORA E IMPULSORA DE BIOMASA.

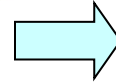
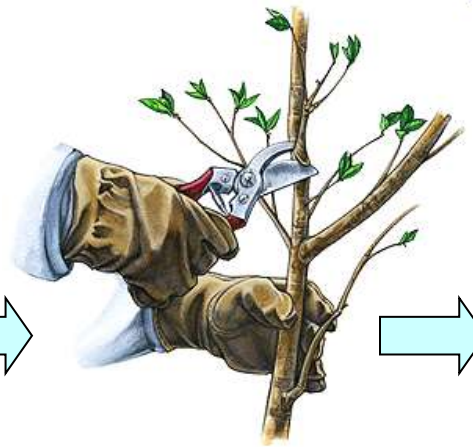
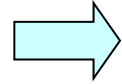
SOCIEDAD ANDALUZA DE VALORIZACION DE LA BIOMASA, S.A.  
Nacionalidad: ES  
ISAAC NEWTON N 4 PABELLON DE ITALIA  
SEVILLA, (SEVILLA) ES

Javier Ungria López  
Fecha de concesión: 24-10-2011

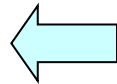
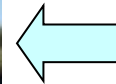
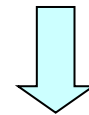
Máquina recogedora, trituradora e impulsora de biomasa.  
Consiste en un robusto cabezal vinculado a un chasis fijo a una estructura provista de ruedas para ser remolcada por un tractor, o bien, formando parte de un vehículo autopropulsado. El cabezal dispone en la parte inferior delantera, de un rodillo de recogida (4) que levanta el ramaje para introducirlo hacia el interior donde se encuentra el molino triturador, colaborando en esta acción dos rodillos superiores de alimentación (5) ubicados en una mandíbula (2) articulada en la parte superior del cabezal (1). La materia troceada es conducida a gran velocidad por una chimenea (12) de salida mezclada con el aire producido por los martillos (9) del molino triturador, cuyo rotor (8) gira en una envolvente (11) en forma de espiral que se continúa en la salida chimenea (12).

**Suitable for many other kind of trees!**





## Olive tree pruning waste-to-energy chain



# 2\* Evaluation of energy crops

- Integrated “agro, economy, environment and energy” global scope.
  - 140 ha, 5 years of research up to now.
  - Performance tests in real biomass boilers.
- 
- Expected introduction of new **high value-added alternative crops** in the framework of regional agricultural development. Important when agro business is hardly profitable.
  - Contribution to a further Energy Crops Planning Strategy - fully integrated in the next Regional Energy Planning (2013)
  - **Public dissemination** of achieved results – difficult to justify for a private company!





**Leucaena**



**Casuarina Equisetifolia**



**Thistle (Cynara Cardunculus)**



**Arundo Donax**

# Thank you!

[www.renren-project.eu](http://www.renren-project.eu)

Contact to:

Lead Partner - *Wolfgang Schulz*

*Ministerium für Wissenschaft, Wirtschaft und  
Verkehr des Landes Schleswig-Holstein*

*Düsternbrooker Weg 94, D-24105 Kiel*

*Tel. +49 431 988 4272*

*E-mail: [Wolfgang.Schulz@wimi.landsh.de](mailto:Wolfgang.Schulz@wimi.landsh.de)*