



Agentschap NL
*Ministerie van Economische Zaken,
Landbouw en Innovatie*

SAHYOG WP2

Inventories in Europa

- Programmes
- Projects

May 10, 2012, Bruges

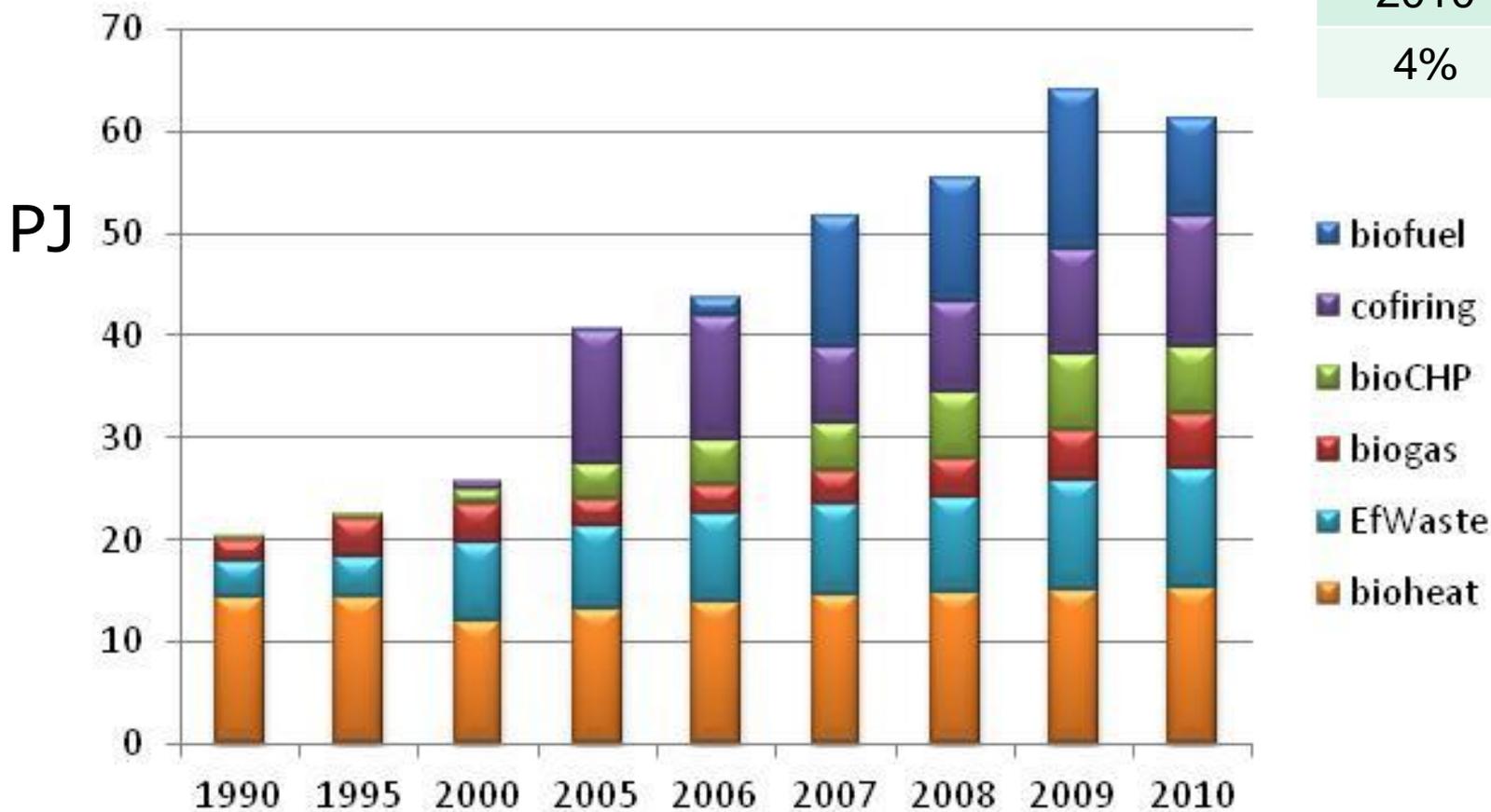
Ir. Kees W.Kwant

11 mei 2012

» *Focus on sustainability,
innovation and international*



Bioenergy end use in the Netherlands



Renewable Energy

2010

2020

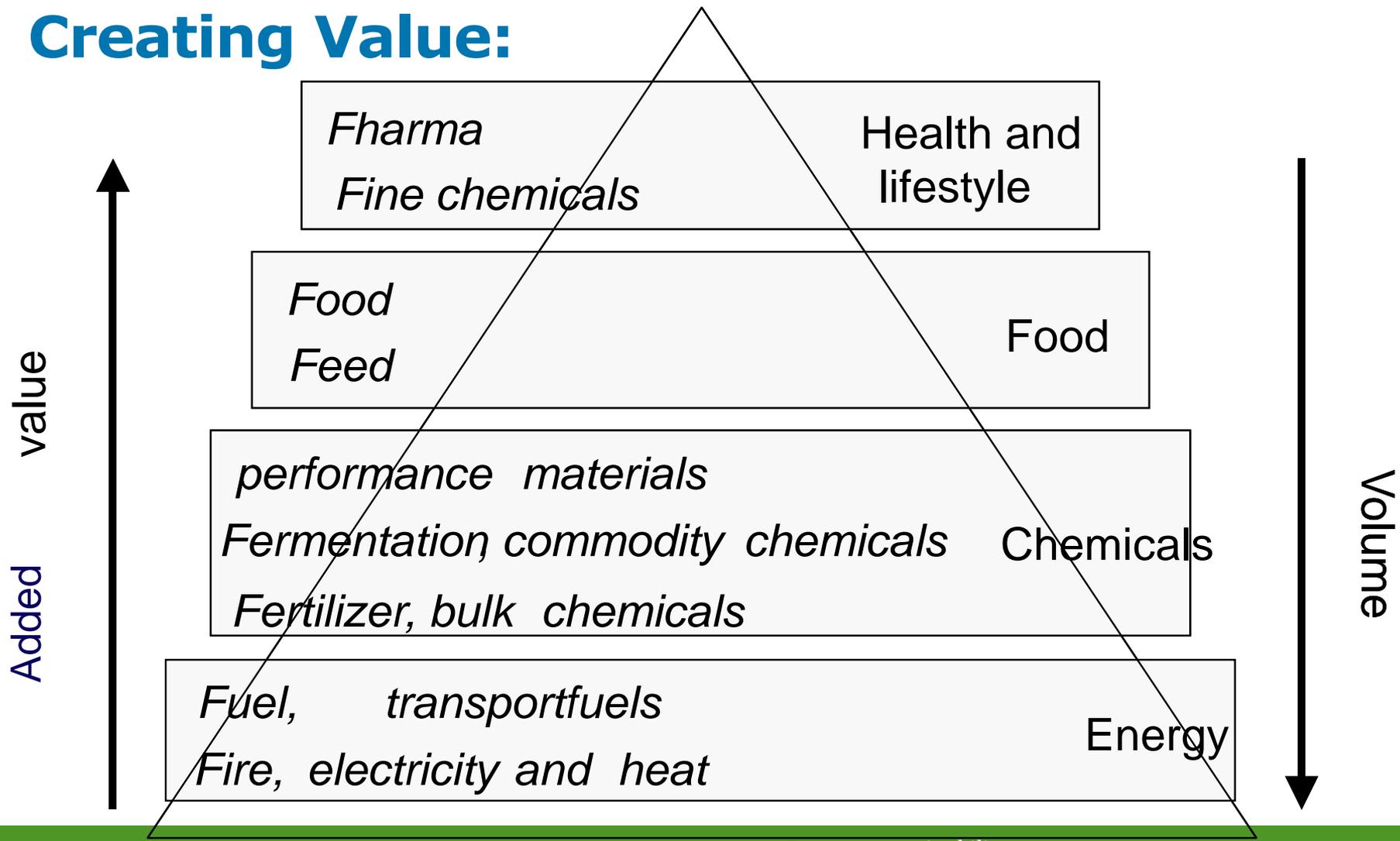
4%

14%

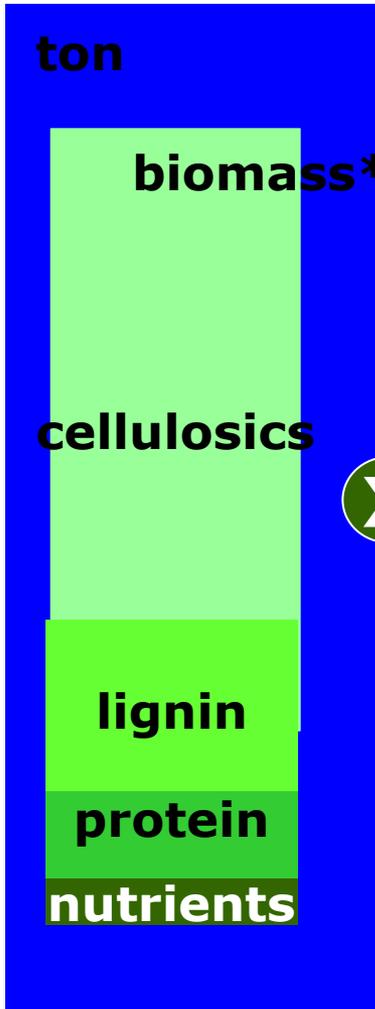
- biofuel
- cofiring
- bioCHP
- biogas
- EfWaste
- bioheat



Creating Value:



Netherlands: Topsector approach for industries



X

added € /ton biomass

	(eq)*	250 - 1000
chemicals	100 - 250	↑ 10X larger volume
materials	100 - 250	
feed/food	100 - 250	
fuels	50 - 100	
power	50 - 100	
heat	5 - 20	
fertiliser	??	

* eq: domestic, imports, derivatives services

by





Sahyog WP 2

Task 2.2 Inventories Programmes

» *Focus on sustainability,
innovation and international*



Task 2.2: **Inventories on Research Programs and Projects**

create an overview of:

- existing programs and
- research projects in the EU and India
- such programs and projects exist on a state level and on the Indian or European level
- understand the relevance and expected output of the programs



Analysis

1. Intensive consultation of existing databases in Europe and India
2. The research trajectories will be categorized
 - Drivers
 - Objectives
 - Proposed markets
3. Classification of research programs and projects



Sources of information

- Becoteps (KBBE Technology Platforms)
- Star Colibri: Bio refinery projects
(380 projects)
- PLATFORM (15 KBBE ERANETS)
- Cordis FP7: EU funded projects with selection criteria for Industrial Biotechnology, Biofuels (total 377 RTD)

NO information on budget
- Cordis FP6/FP7: (15.000 projects WITH information on budgets and duration of projects)
- National



FP7 vs. FP6/FP7

FP7

Project Number
Project Acronym
Project Title
Project Abstract
Project Funding Scheme
Project Research Thema
Project Internet Address
Participant Role
Organisation Legal Name
Organisation Country
Contact Name, Email

FP6/FP7

Contract Reference Number
Project Acronym
Project Title
Objectives
Project Call
Framework Programme
Project Website
Start Date
End Date
Total Cost
Total Funding
etc.



Selection of projects

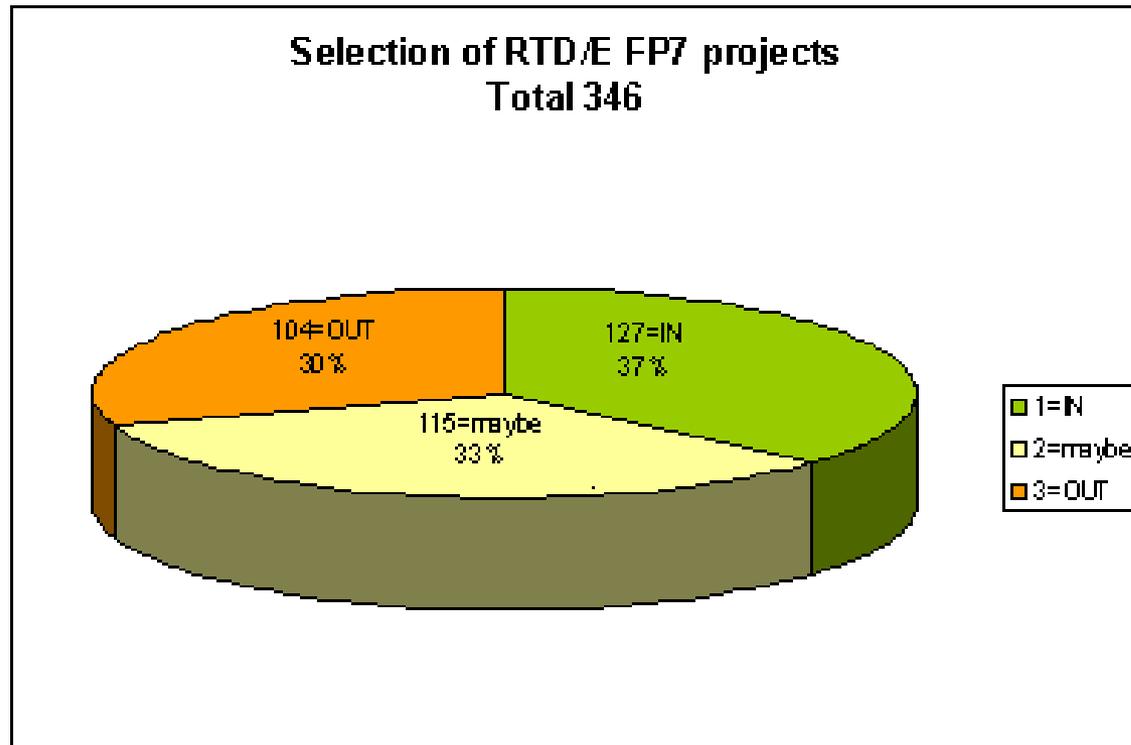
Criteria project selection

Focus: on biomass production and bio-waste conversion through biotechnological approaches.

<u>IN</u>	<u>OUT</u>
<ol style="list-style-type: none">1. Project timeline: end date > Jan 1, 20082. Project budget: more than €500.0003. Framework funding: FP6, FP7; National programmes4. <u>Research fields:</u><ol style="list-style-type: none">a. Foodb. Agriculturec. Fisheriesd. Biotechnology5. Focus description: A focus on<ul style="list-style-type: none">- biomass resource (agriculture, forestry, aquatic, waste and residues, etc.)- conversion technology (gasification, combustion, pyrolysis, anaerobic digestion, fermentation, etc.)- outgoing product (electricity, heat, bio fuels, gas, chemicals, etc.)	<p><u>Research fields:</u></p> <ol style="list-style-type: none">a. Medicine developmentb. Food improvementc. Healthcared. Environmental protectione. Other forms of renewable energy (Wind power, Hydropower, Solar energy, Geothermal energy)

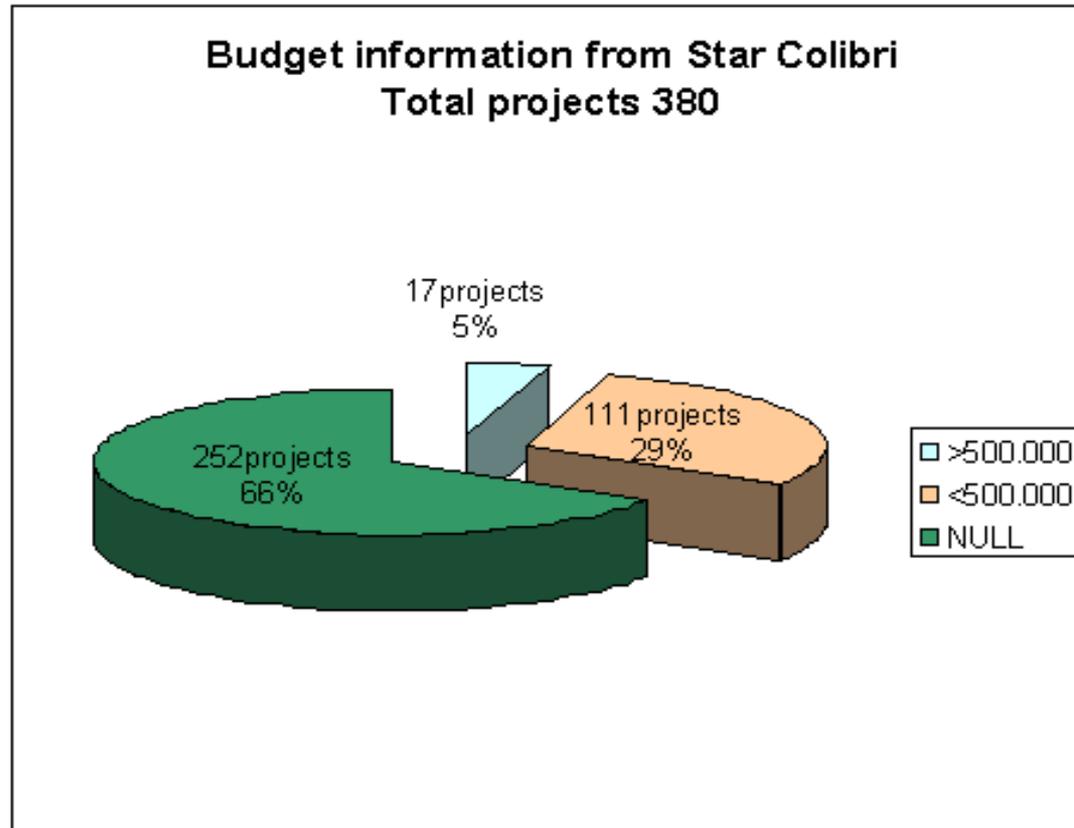


Diagram of RTD/E FP7 projects



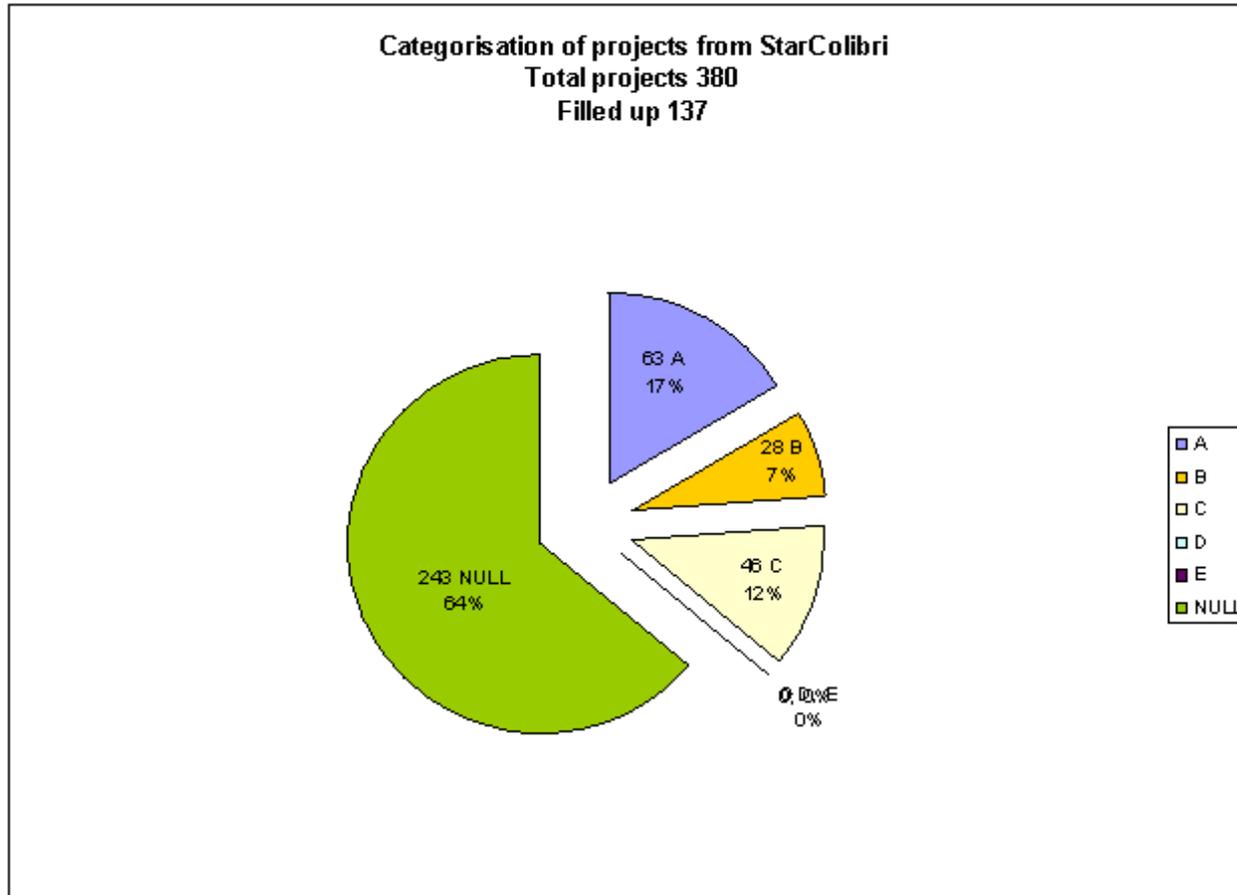


Results from StarColibri





Results from StarColibri





Duplicate projects Cordis/StarColibri

15 projects from 762:

AgroBio (Tekes)

Animpol

Aquaterre

BioCircle

Brisk

Disco

Era-Net Bioenergy

Forbioplast

Icon

Inemad

Jatropt

Namaste

Oxygreen

Solorspore

Sweetfuel



Source	Project Acronym	Full Name	Project Reference	Budget		Funding Programme/ Agency	Duration		Link Project Website	Coordinators	Organisation Country
				Governmental Support	Total Project/ Budget		Start date	End date			
ex	AgroBio	Agro biomass by-products to multifunctional ingredients, chemicals and fillers		EUR 522 000	EUR 870 000	TEKES		2010-08 to 2012-07	www.tekes.fi/programmes/EjogRefine/Projects?id=10111492	Åbo Akademi University, FI	
Biofuels	AQUAFUELS	Algae and aquatic biomass for a sustainable production of 2nd generation bio fuels		EUR 747 152	EUR 869 001	FP7-ENERGY		2010-01-01 to 2011-06-30	www.aquafuels.eu/	EUROPEAN BIODIESEL BOARD, BE	



N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA
Projects/ Programmes													
Project Overview	Selection	All Countries Represented	Contact First Name	Contact Last Name	Contact Email	Categorisation						Important for collaboration	Reliability
						A	B	C	D	E	F		
<p>AgroBio is part of the Biorefine project. In the Biorefine project, technology to produce value added particle fractions from selected agro based raw materials as well as new applications for these will be developed.</p> <p>Agriculture produces, besides food, sidestreams of organic material which is costly to handle. The primary goal of the AgroBio project is, thus, to create new technology and products on how to convert some agro-organic side streams, from industry to valuable organic bio based filler materials. These filler materials can be tailored to suit different applications and they will also be environmentally friendly. The project will also contain feasibility studies so that the best available techniques could be chosen.</p> <p>More specific scientific and technological objectives of the project are to:</p> <ul style="list-style-type: none"> Acquire raw materials and to study the demand of raw material pre-processing (WP1) Develop the technology of agro side stream conversion and tailoring, by chemical and enzymatic means, and to characterize the produced filler materials (WP2, 2) 	1	FI				Agronomic	Other/ Not specified	Chemicals/ Other	Pilot project	R&D institution			3
<p>AquaFUELS intends to focus on establishing the state of the art on research, technological development and demonstration activities regarding the exploitation of various algal and other suitable non-food aquatic biomasses for 2nd generation biofuels production. In this frame an overall assessment, critical thinking and reasoning are necessary to draft the lines of future developments. This will respond to the need of understanding the place of algae and aquatic biomass in the present and future renewable energy sources portfolio in EU, with a careful eye to sustainability and social implications.</p> <p>Such action can be effective only involving major stakeholders, defining the present situation in a realistic perspective and this way providing a valuable contribution to shape future developments. AquaFUELS aims to draw the detailed, comprehensive and concrete picture of the actual status quo of EU and international initiatives on algae biofuels. Based on this work, AquaFUELS will successively elaborate an overall assessment</p>	1	BE, UK, IT, PT, IE, FR, NL, CZ, IL, ES				Aquatic	Not specified	Biofuels	Applied	Government			2



Format for programs and big projects

Columns:

Source: from Cordis (Biofuels, Industrial Biotech, RTD/E FP7), from Star Colibri

Project Acronym

Full Name

Project Reference

Budget: Governmental Support/ Total Budget

Funding Programme/Agency

Duration: Start Date/ End Date

Link Project Website

Coordinators

Organisation Country

Project Overview

Selection

All Countries Represented

Contact: First Name/ Last Name/ Email



Columns:

Categorisation A= Type of biomass involved in research

Agronomic

Forestry

Aquatic

Waste and residues

Other/Not specified

B= Biomass conversion technology

Gasification

Combustion

Pyrolysis, HTU

(Anaerobic) Digestion

Fermentation

Other/Not specified



Columns:

Categorisation C= Biomass conversion product

Power

Heat

Liquid Fuels

Gas

Chemicals

Other/Not specified

D= Type of research

Applied

Fundamental

Pilot/ demonstration project

Other/Not specified



Columns:

Categorisation E= Type of organisation carrying out the research

Industry

R&D institution

Government

NGO

Other/Not specified

F= Drivers

Additional values:

- Important for collaboration
- Reliability



F. Drivers

An overview of the drivers behind the programs will be created

These drivers can differ between the stakeholders;

- industry, R&D, policy
 - between nations and regions,
 - based on differences in climate, eco-system, culture and economic situation.
- EU:
 - Climate change
 - Resource security
 - Economic benefits



Proposal for next steps

Step 1: Selection of RTD/E FP7 projects

Step 2: Add budgets & dates from FP6/FP7 to RTD/E projects

Step 3: Categorisation

Step 4: Add FP6/FP7 projects to Excel SpreadSheet

Deliverable Month 12:

- An inventory of research projects (upstream and downstream)
- with a strategy for optimal use of the ongoing research



Thank you for your attention
MORE INFORMATION:

WWW.AGENTSCHAPNL.NL/BIOMASS

Kees.Kwant@agentschapnl.nl

QUESTIONS??