



# SAHYOG



**Strengthening networking on biomAss research and biowaste conversion – biotechnologY for EurOpe India inteGration**

**Neeta Sharma, Coordinator SAHYOG**



**The First Experts Meeting SAHYOG,  
Bruges, Belgium  
10 May, 2012**

# ABOUT ENEA



**ENEA** is the Italian National Agency for New Technologies, Energy and Sustainable Economic Development

**ENEA's activities** are targeted to "research, innovation technology and advanced services in the fields of energy and sustainable economic development".

# ENEA - RESEARCH CENTRES



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# INTERNATIONAL ACTIVITIES



ENEA promotes collaboration with the organisations and institutions of other countries in the scientific and technological spheres, providing specific expertise on request. The Agency's main initiatives are undertaken in the following fields:

**EUROPEAN UNION ACTIVITIES:** EURATOM; Projects financed by EU Programmes; European Technological Platforms; Committees and Groups; Associations and networks; ENEA Liaison Office in Brussels.

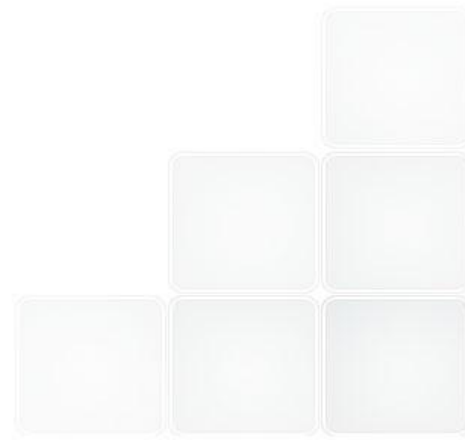
**BILATERAL COOPERATION:** 27 bilateral agreements at present

**MULTILATERAL COOPERATION:** 14 in place, IEA; IAEA; OECD; NEA

**INTERNATIONAL INITIATIVES:** EUREKA; ITER; ITPA; CSLF; GIF; IPHE; VAMAS



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# FACT SHEET SAHYOG



- Type of funding scheme: **Coordination Action**
- Topic Code: FP7-KBBE. 2011.4-05: **EU - India Partnering Initiative** on biomass production and biowaste conversion through biotechnological approaches - Mandatory India - Call: FP7-KBBE-2011-5
- Project duration: **3 years** (December 2011–November 2014)
- **13 partners** in the SAHYOG consortium

**Website:** <http://www.sahyog-europa-india.eu/>

# PROJECT CONSORTIUM



1. Italian National Agency for New Technologies, Energy and sustainable Economic Development (ENEA), Italy
2. Ministry of Economic Affairs, Agriculture and Innovation (NL Agency), Holland
3. Deutsches Zentrum Fuer Luft - Und Raumfahrt Ev (DLR), Germany
4. Wageningen University & Research Centre Food & Biobased Research (WUR)
5. Vlaamse Instelling voor Technologisch Onderzoek (VITO), Belgium
6. Wirtschaft Und Infrastruktur GMBH & Co Planungs KG (WIP), Germany
7. National Technical University of Athens (NTUA), Greece
8. The Energy and Resources Institute (TERI)
9. Council for Scientific & Industrial Research (CSIR/IICT)
10. GB Pant University of Agriculture & Technology (GBPUAT), Pantnagar,
11. Tezpur University (TU), Assam
12. Appropriate Rural Technology Institute (ARTI), Pune
13. Jawaharlal Nehru University (JNU), New Delhi



Sub-contractor EPSO - European Plant Science Organisation

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# OBJECTIVES



**The main aim of India Partnering Initiative on biomass production and biowaste conversion through biotechnological approaches is to map out what the European Union and its Member States could do together with India to find solutions to challenges/needs**

# MAIN FEATURES

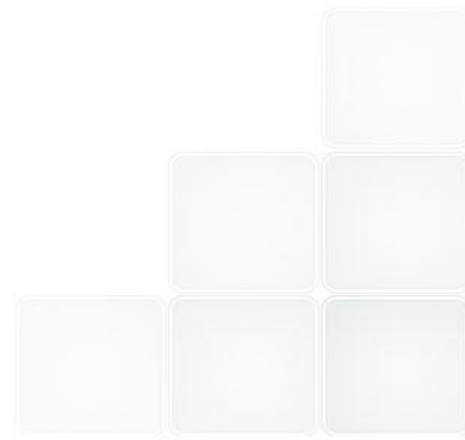


The project will provide:

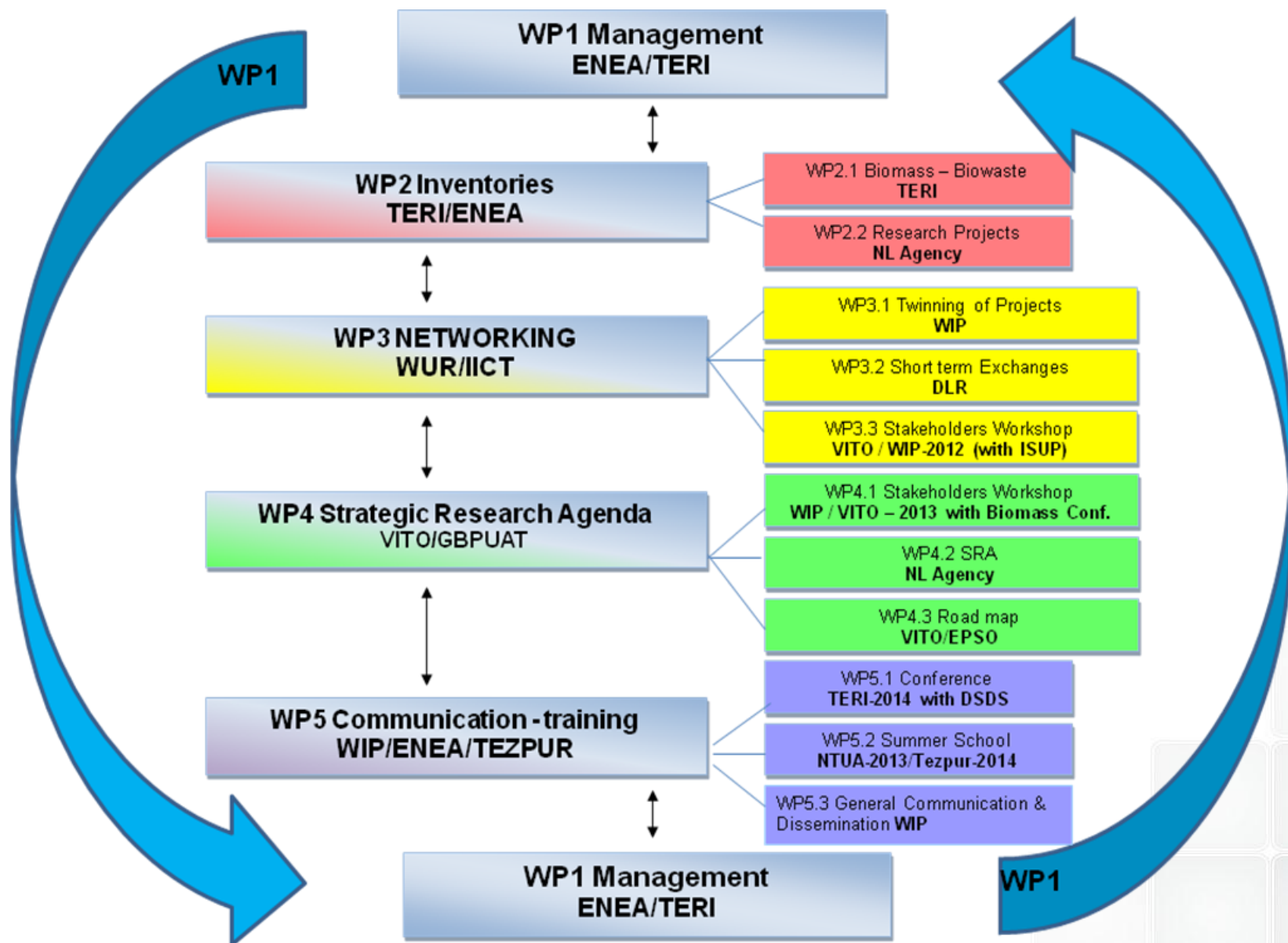
- A **full inventory of biomass** production and biowaste availability and future potentials and limitations (in EU and India)
- A **strategy toward new trends** in agriculture in the EU and India towards high biomass yields and qualities in a multipurpose approach (Agriculture policy)
- An **inventory of research projects and programs** towards a strategy for optimal use of the ongoing research
- A **strong interaction with all kinds of stakeholders** in EU and India
- A **Strategic Research Agenda** that will indicate the needs and the gaps in research that must be solved in order to implement the road map
- A **road map** that describes the way of an integrated biomass management towards 2050
- A **strong communication** (including training) to improve the societal, political, scientific and industrial vision toward the new sustainable strategy

# Main Activities

The SAHYOG plans a major coordination approach, **split into 5 work packages**. Each WP have one leader from both the EU and India (to enhance India's participation and integration).



# PROJECT WORKPLAN



# SAHYOG Expert's meeting



The meeting between SAHYOG partners and experts from Europe and India on “EU-India Cooperation on Biomass Production and Biowaste Conversion”.

## Participants:

Experts from European and Indian funding agencies, industries, agriculture producers, logistics, from other biomass projects and existing international biomass networks.

**Objective:** to bring together the available databases existing both in EU & India, leading to a detailed inventorisation of resources & scientific interventions and understanding the current bottlenecks.

Elaboration of the following two inventories:

- Biomass & Biowastes
- Existing Research Projects & Programs

To get agreement on the **templates/methodology** used for inventories and to define further possible collaboration of SAHYOG with other projects like Crops2Industry, ALCUE, Star Colibri and BIOCORE

## Meetings

- Antwerp, 20th Feb. 2012
- Copenhagen – Follow-up meeting, 26th March, 2012
- ENEA, Italy, 18-19 April, 2012
- TERI, India, 23rd April, 2012

## Conclusions (Task 2.1 Inventories on Biomass & Biowastes):

- nREAP template as a base to start with
- IPCC SRREN report on Biomass –for biomass potential  
(limited to FAO data of Agr. Crop production)
- Besides mass parameter, data on carbon and energy content  
(Formulas/parameters to decide for the conversion into different units)
- Inventories Europe and India

## Task 2.2 Inventories on a set format on Research Programs and Projects

To create an overview of existing programs and research projects in the EU & India.

### Conclusions:

- making a kind of excel sheet/format that can be introduced in the Star Colibri database (title, duration, budget, website, short descrip, coordination, etc.)
- Categorisation of projects into resources, products, conversion and research topic
- Set criteria for project selection

Interaction and integration between SAHYOG and other projects for the information exchange and to discuss approaches used in the projects with regard to inventories.

- **Crops2Industry**
- **ALCUE**
- **Star Colibri**
- **BIOCORE**

# The BIOCORE Project (7thFP)



## BIO- COmmodity REfining – BIOCORE

**Duration:** 4 years

**Coordinator:** Michael J. O'Donohue, INRA, France

**Objective:** to conceive and analyse the industrial feasibility of a biorefinery concept that will allow the conversion of **cereal by-products (straws etc)**, **forestry residues and short Rotation woody crops** into a wide spectrum of products including 2nd generation biofuels, chemical intermediates, polymers and materials.

## One of the taskforce – Data collection on biomass supply

(based on the aggregation of existing data)

- A multifeedstock concept (cereal crop residues, forest products & residues and dedicated SRC (Energy Crops) to get multiple products-chemicals, fuels, materials, specialities, Food/feed

Towards a Latin America and Caribbean Knowledge Based Bio-Economy  
in partnership with Europe

Starting Date: June, 2011; Duration: 30 months

Coordinator: GUY HENRY, CIRAD (based at CIAT, Colombia)

Consortium: 12 partners (5EU & 7LAC)

Main Obj. :To construct the basis for a **strategic alliance between the EU and LAC regions**, to facilitate collaboration and coordination of **research and innovation in the area of the Bioeconomy**

➤ EU partner, Ivan Ingelbrecht, Ugent (Belgium)

## Crops2Industry

**Title:** Non-food Crops-to-Industry schemes in EU27

**Coordinator:** Myrsini Christou, CRES, Greece

**Consortium:** 14 Partners EU

**Main Objective:** to explore the potential of **non-food crops**, which can be domestically grown in EU27 context, **for selected industrial applications**, namely oils, fibers, resins, pharmaceuticals and other specialty products **and outline and prioritise crops-to-products schemes**, suitable for the different Member States, which will support sustainable, economic viable and competitive European bio-based industry and agriculture.

**WP 6 leader Uli Schurr** IBG2: Plant Sciences FZJ – Forschungszentrum Jülich, Germany



**Coordinator:** Johan Elvnert

**Consortium:** 11 EU partners

**Duration:** 2 years project, finished in Oct 2011

**Objectives:**

- Promote coordination of on-going research at European and national levels
- define research priority needs
- Promote information exchange in any aspect of the entire production value chain

Amongst the main contributions:

**Mapping & Information Exchange**

Internet-based site for information exchange in the area of biorefinery projects where the database today has details of 350 Res Projects on biorefinery

- Could be basis for finding suitable projects for the SAHYOG proj. Inv.
- Proposal to combine SAHYOG & STAR-Colibri databases

**For more information visit our web-site**

<http://www.sahyog-europa-india.eu/>

**Published and edited by the WP5 leader :**

Dr. Rainer Janssen

Dipl.-Ing. Dominik Rutz

WIP – Renewable Energies, Munich

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# Thanks for your kind attention!



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