Project Twinning: Status

Final Project meeting Sayhog

Overview

- Project Twinning: what is it
- Approach project twinning in SAHYOG
- Results

Project Twinning

- Twinning: “synchronize projects”

  Outcome: find partners for future projects, exchange experts, collaborate in HR training,share and compare experiences on selected topics, joint papers, etc

Basic Rules for twinning:

- Use already approved project funds
- Projects/partners keep their own intellectual property rights (no IP transfer)
- No exchange of funds- each project is self-funded
- Twinning is not merging: each project remains independent!

Approach

- Mapping of EU-India RTD Projects for project twinning (M16)
- Identification of candidate Indian and EU RTD projects for twinning (M20)
- Approach project leaders
- Organisation of a twinning workshop (M24)
    - Mobilize project leaders, programme managers
- Monitor twinning

Results: mapping for twinning (D 3.2)

7 strategic research themes, they include:

- Bioethanol production from lignocellulosic biomass
- Thermochemical conversion technologies
- Anaerobic digestion technologies
- Algae production and conversion systems
- Biomass to chemicals – the biorefinery approach
- Feedstock production and genetic improvement of plants
- Sustainability and life cycle assessment

Results: mapping Indian RTD projects

Research Theme for Project Twinning	*All projects*	*Ongoing or immediate past projects*	*% of total*
Feedstock Production + Genetic Improvement	67	53	25%
Thermochemical conversion technologies (pyrolysis, gasification)	11	8	4%
Bioethanol production from lignocellulosic biomass	36	32	15%
Anaerobic digestion technologies (biogas, biomethane, hydrogen)	44	33	16%
Algae production and conversion systems	23	22	10%
Biomass to chemicals – the biorefinery approach	28	25	12%
Sustainability and life cycle assessment	8	6	3%
Biodiesel	25	13	6%
Others	34	20	9%
Total	276	212	100%

Results: mapping EU RTD projects

Research Theme for Project Twinning	*Number of projects*	*% of total*
Feedstock Production + Genetic Improvement	111	15%
Thermochemical conversion technologies (pyrolysis, gasification)	40	6%
Bioethanol production from lignocellulosic biomass	56	8%
Anaerobic digestion technologies (biogas, biomethane, hydrogen)	22	3%
Algae production and conversion systems	47	7%
Biomass to chemicals – the biorefinery approach	304	42%
Sustainability and life cycle assessment	70	10%
Liquid Biofuels	72	10%
Total	722	100%

India-EU SAHYOG Twinning Activities

The SAHYOG Project

The main aim of the project SAHYOG is to bring together leading organisations in the field of **biomass production and bio-waste conversion research** carried out within EU research programmes and related programmes by Indian national institutions.

Inventories of biomass and bio-waste potentials and research projects/programs elaborated and analysed within SAHYOG are the basis for the joint **Strategic Research Agenda (SRA)** finally leading to a **Roadmap for policymakers and researchers**.

SAHYOG Twinning

Through facilitating and coordinating project twinning, SAHYOG **brings together project coordinators and other lead partners from past and on-going projects and initiatives as well as international networks** in order to consolidate R&D results, exploit synergies and thus build up a critical mass for future EU-India research collaboration.

Twinning Activities

The following activities are possible under SAHYOG twinning:

- Research cooperation, exchange of researchers
- Organisation of joint workshops/meetings
- Development of common trainings
- Common literature reviews
- Exchange of tools, analytical methods and databases
- Exchange of data, information, knowledge and material

In addition, within SAHYOG a 2-day twinning workshop will be organized to facilitate and deepen contacts between interested stakeholders.

SAHYOG Twinning – Research Themes

The **priority strategic research themes for twinning** of initiatives from India and Europe activities are:

- Bioethanol production from lignocellulosic biomass
- Thermochemical conversion technologies (pyrolysis, gasification)
- Anaerobic digestion technologies (biogas, biomethane, hydrogen)
- Algae production and conversion systems
- Biomass to chemicals – the biorefinery approach
- Feedstock production and genetic improvement of plants
- Sustainability and life cycle assessment

FOOD & BIOBA

Strengthening Networking on Biomass Research and Bio-waste Conversion - Biotechnology for Europe India Integration

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TERI, India
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Website: www.sahyog-europa-india.eu

Department of Biotechnology
Ministry of Science & Technology, Government of India

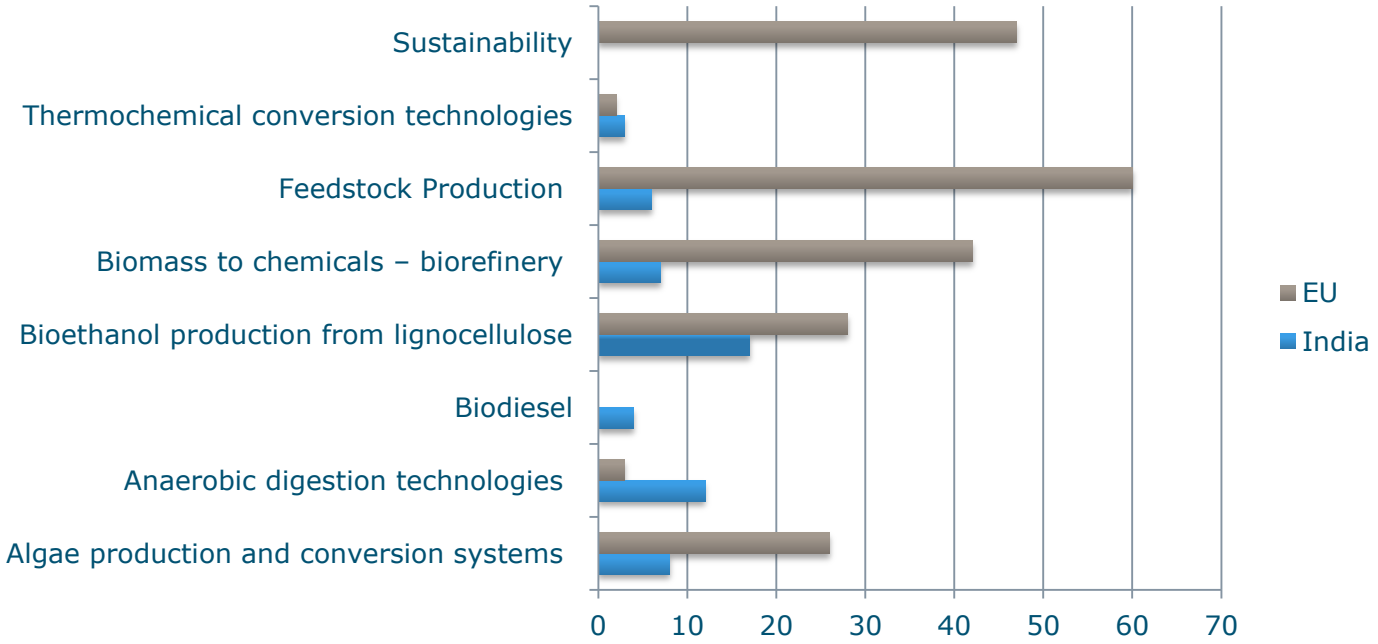
SEVENTH FRAMEWORK PROGRAMME

SAHYOG is supported by the European Commission within the 7th Framework Programme (FP7-289615) and by the Department of Biotechnology (DBT) of the Indian Ministry of Science and Technology.

Results: identifying twinning candidates

NO.	Project Acronym	Project Title	Twinning Area*							End year
			AD	Etoh	Chem	Alg	TC	FD	Sust	
88	BIOCORE	Biocommodity refinery		X					X	2014
94	BIOPREDYN	From Data to Models: New Bioinformatics Methods and Tools for Data-Driven Predictive Dynamic Modelling in Biotechnological Applications		X	X					2014
96	BIOSURFING	New-to-nature biosurfactants by metabolic engineering: production and application			X			X		2015
97	BIOTREAT	BIOTREATMENT OF DRINKING WATER RESOURCES POLLUTED BY PESTICIDES, PHARMACEUTICALS AND OTHER MICROPOLLUTANTS						X	X	2014
105	CANTOGETHER	Crops and ANimals TOGETHER						X	X	2015
118	COMOFARM	Contained Molecular Farming – Controllable Contained Systems for High Yield and Consistency			X			X		2012

Summary Twinning candidates



Contacting project/programme leaders

Department of Biotechnology
Ministry of Science & Technology,
Government of India

NAGARJUNA Group
Dr Kasturi, Dr Pandey
Hyderabad
INDIA

Wageningen, 25th February 2013

Invitation to participate in India-EU SAHYOG Twinning Activities

Dear Dr Kasturi, Dr Pandey

We would like to cordially invite the NAGARJUNA Group to participate in twinning activities organised in the framework of the project SAHYOG (Strengthening Networking on Biomass Research and Bio-waste Conversion - Biotechnology for Europe India integration).

SAHYOG is supported by the European Commission within the 7th Framework Programme (FP7-289615) and by the Department of Biotechnology (DBT) of the Indian Ministry of Science and Technology.

The main aim of the project SAHYOG is to bring together leading organisations in the field of **biomass production and bio-waste conversion research** carried out within EU research programmes and related programmes by Indian national institutions.

Through facilitating and coordinating project twinning, SAHYOG aims to **bring together project coordinators and other lead partners from past and on-going projects and initiatives as well as international networks** in order to consolidate R&D results, exploit synergies and thus build up a critical mass for future EU-India research collaboration.

The following activities are possible under SAHYOG twinning: research cooperation and exchange of researchers, organisation of joint workshops/meetings; development of common trainings; common literature reviews; exchange of tools, analytical methods and databases; exchange of data, information, knowledge and material. In addition, within SAHYOG a 2-day twinning workshop will be organized to facilitate and deepen contacts between interested stakeholders.

We hope that NAGARJUNA Group will accept this invitation to join SAHYOG twinning activities and we look forward to this cooperation opportunity.

Best regards,

Dr. Neeta Sharma
ENEA, Italy
SAHYOG Coordinator

Dr. Priyangshu Manab Sarma
TERI - The Energy and Resources Institute
SAHYOG Coordinator India

Department of Biotechnology
Ministry of Science & Technology,
Government of India

India-EU SAHYOG Twinning Activities

Letter of Interest

With this letter VIB Department of Molecular Microbiology, KU Leuven states its interest to participate in India-EU SAHYOG twinning activities organised in the framework of the project SAHYOG (Strengthening Networking on Biomass Research and Bio-waste Conversion - Biotechnology for Europe India integration).

SAHYOG is supported by the European Commission within the 7th Framework Programme (FP7-289615) and by the Department of Biotechnology (DBT) of the Indian Ministry of Science and Technology.

VIB Department of Molecular Microbiology, KU Leuven is potentially interested in the following activities foreseen under SAHYOG twinning: research cooperation and exchange of researchers, organisation of joint workshops/meetings; development of common trainings; common literature reviews; exchange of tools, analytical methods and databases; exchange of data, information, knowledge and material. Furthermore, participation in the SAHYOG 2-day twinning workshop may be possible to facilitate and deepen contacts between interested stakeholders.

With respect to SAHYOG research themes in the area of biomass and bio-waste, VIB Department of Molecular Microbiology, KU Leuven is interested in the following topic(s) – please mark appropriate research theme(s):

- **X Bioethanol production from lignocellulosic biomass**
- **Thermochemical conversion technologies (pyrolysis, gasification)**
- **Anaerobic digestion technologies (biogas, biomethane, hydrogen)**
- **Algae production and conversion systems**
- **X Biomass to chemicals – the biorefinery approach**
- **Feedstock production and genetic improvement of plants**
- **Sustainability and life cycle assessment**

VIB Department of Molecular Microbiology, KU Leuven looks forward to this cooperation opportunity in the framework of SAHYOG twinning activities.

Best regards,

Prof. Johan Thevelein
Department Director
Department of Molecular Microbiology, VIB

18 February 2013, Leuven, Belgium

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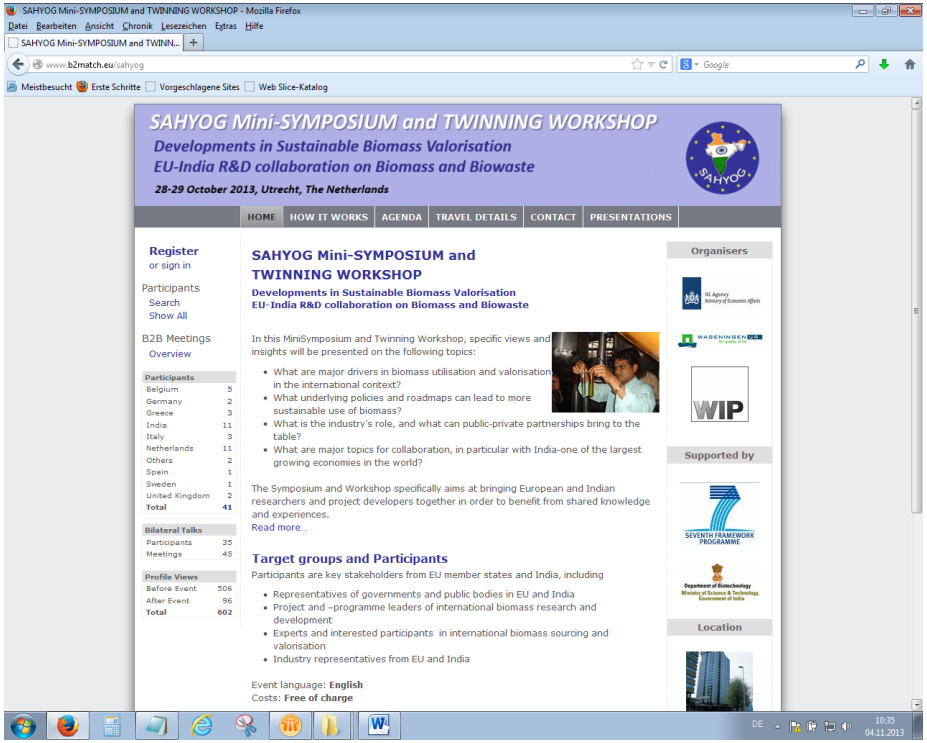
Twinning workshop

- Mini-SYMPOSIUM and TWINNING WORKSHOP
- Developments in Sustainable Biomass Valorisation EU-India R&D collaboration on Biomass and Biowaste
- Utrecht, the Netherlands 28-29th October 2013

Twinning workshop: tools



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Twinning workshop: brokerage event




Twinning workshop: sessions

- 7 technical sessions
- 43 registered participants
- Intensive exchange experiences, ideas
- Joint recommendations

- See 33 page Workshop Summary report

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SAHYOG

Twinned Projects

- Projects already linked to India
  - Alcue, BioCore, Crops2Industry, Namaste, Sweetfuel
- Projects already identified
  - Sunlibb, PISCES, BERI, BRiSK, BioLyfe, Jatropt, Valorgas, Velica, etc.
- Projects identified from Project Inventories -) in progress