

# Project Twinning: Status



Final Project meeting Sayhog



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# Overview

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



# Project Twinning

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- 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!



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# Approach

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- 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



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# Results: mapping for twinning (D 3.2)

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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

<i>Research Theme for Project Twinning</i>	<i>All projects</i>	<i>Ongoing or immediate past projects</i>	<i>% of total</i>
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%
<b>Total</b>	<b>276</b>	<b>212</b>	<b>100%</b>



# Results: mapping EU RTD projects

<i>Research Theme for Project Twinning</i>	<i>Number of projects</i>	<i>% of total</i>
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%
<b>Total</b>	<b>722</b>	<b>100%</b>



## 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



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

#### Contact for SAHYOG Twinning:

Wageningen UR, The Netherlands  
Dr. Robert Bakker  
robert.bakker@wur.nl

WIP – Renewable Energies, Germany  
Dr. Rainer Janssen  
Dominik Rutz  
rainer.janssen@wip-munich.de  
dominik.rutz@wip-munich.de

#### Project Coordination:

ENEA, Italy  
Dr. Neeta Sharma  
neeta.@enea.it

TERI, India  
Dr. Priyanshu Manab Sarma  
priyanms@teri.res.in

Website: [www.sahyog-europa-india.eu](http://www.sahyog-europa-india.eu)



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.



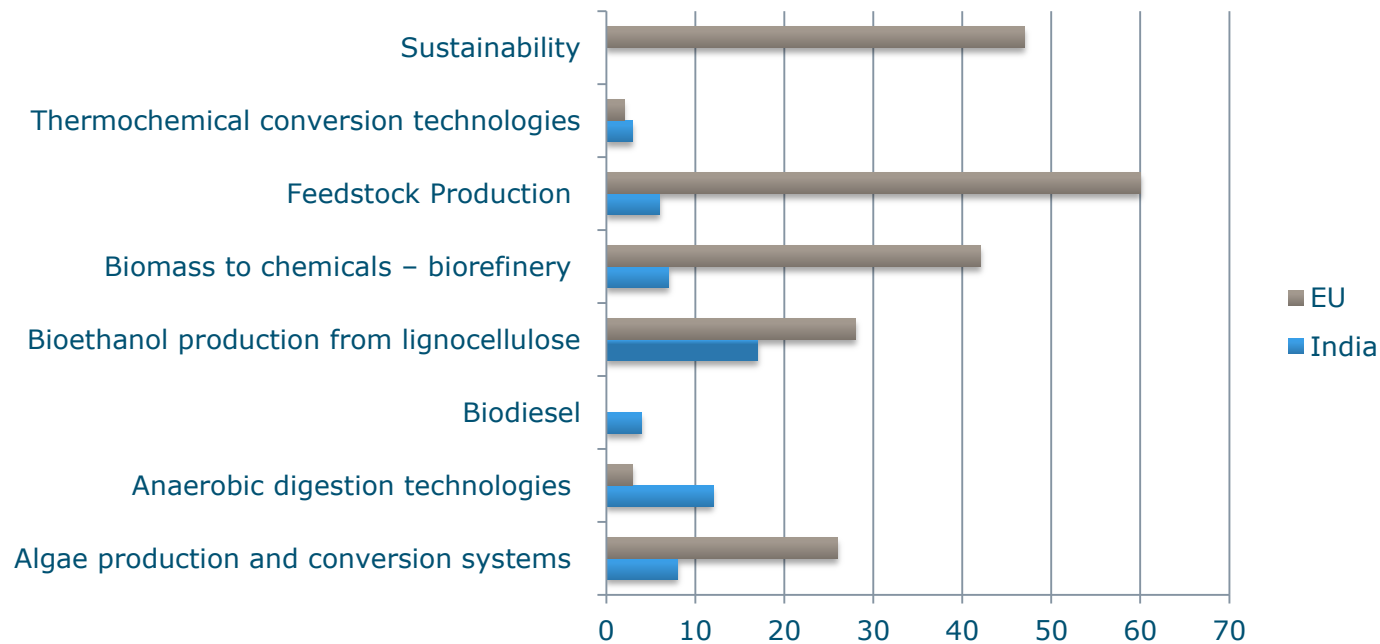


# Results: identifying twinning candidates

NO.	Project Acronym	Project Title	Twinning Area*							End year
			AD	Etoh	Chem	Alg	TC	FD	Sus t	
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



NAGARJUNA Group  
Dr Kasturi, Dr Pandey  
Hyderabad  
INDIA

Wageningen, 25<sup>th</sup> 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. Priyanshu Manab Samra  
TERI - The Energy and Resources Institute  
SAHYOG Coordinator 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

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- 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



Welcome to the SAHYOG Project Inventories website.

Home Contact Information



The objective of the project **SAHYOG** (Strengthening Networking on Biomass Research and Biowaste Conversion – Biotechnology for Europe India Integration) is to actively and effectively link research activities implemented within EU research programmes and related programmes by Indian national institutions.

This SAHYOG Inventory on Research Programs and Projects presents an overview of existing programs and research projects in Europe and India, searchable with respect to the categories Upstream/Downstream, Type of Biomass, Production and pre-treatment, Biomass conversion technology, Product, Type of research, Organisation type, Drivers, and Sector. [SEE INSTRUCTIONS](#)

This is a preliminary version with projects up till March 2012, and will be updated by End of April with more projects.

Your comments on this website, the content, categorisation can be sent to us and will be used to improve the website.

Please send it to: [Michiel.Evers@Agentschapnl.nl](mailto:Michiel.Evers@Agentschapnl.nl)





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SAHYOG Mini-SYMPOSIUM and TWINNING WORKSHOP - Mozilla Firefox

Datei Bearbeiten Ansicht Chronik Lesezeichen Extras Hilfe

SAHYOG Mini-SYMPOSIUM and TWINN...

www.b2match.eu/sahyog

Meistbesucht Erste Schritte Vorgeschlagene Sites Web Slice-Katalog

## SAHYOG Mini-SYMPOSIUM and TWINNING WORKSHOP

Developments in Sustainable Biomass Valorisation  
EU-India R&D collaboration on Biomass and Biowaste

28-29 October 2013, Utrecht, The Netherlands

HOME HOW IT WORKS AGENDA TRAVEL DETAILS CONTACT PRESENTATIONS

Register or sign in

Participants Search Show All

B2B Meetings Overview

Participants	
Belgium	5
Germany	2
Greece	3
India	11
Italy	3
Netherlands	11
Others	2
Spain	1
Sweden	1
United Kingdom	2
<b>Total</b>	<b>41</b>

Bilateral Talks

Participants	35
Meetings	45

Profile Views

Before Event	506
After Event	96
<b>Total</b>	<b>602</b>

**SAHYOG Mini-SYMPOSIUM and TWINNING WORKSHOP**  
Developments in Sustainable Biomass Valorisation  
EU-India R&D collaboration on Biomass and Biowaste

In this MiniSymposium and Twinning Workshop, specific views and insights will be presented on the following topics:

- What are major drivers in biomass utilisation and valorisation in the international context?
- What underlying policies and roadmaps can lead to more sustainable use of biomass?
- What is the industry's role, and what can public-private partnerships bring to the table?
- What are major topics for collaboration, in particular with India-one of the largest growing economies in the world?

The Symposium and Workshop specifically aims at bringing European and Indian researchers and project developers together in order to benefit from shared knowledge and experiences.

Read more...

**Target groups and Participants**

Participants are key stakeholders from EU member states and India, including

- Representatives of governments and public bodies in EU and India
- Project and -programme leaders of international biomass research and development.
- Experts and interested participants in international biomass sourcing and valorisation
- Industry representatives from EU and India

Event language: English  
Costs: Free of charge

Organisers

WIP

Supported by

SEVENTH FRAMEWORK PROGRAMME

Department of Biotechnology  
Ministry of Science & Technology  
Government of India

Location

10:35 04.11.2013



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# Twinning workshop: brokerage event



# Twinning workshop: sessions

- 7 technical sessions
  - 43 registered participants
  - Intensive exchange experiences, ideas
  - Joint recommendations
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- See 33 page Workshop Summary report



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# Twinned Projects

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- 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

