# **Algae Production and Conversion Systems**

# **SAHYOG Twinning**

Through facilitating and coordinating project twinning, SAHYOG brings together project coordinators and other lead partners from past and on-going projects 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 in the area of biomass and bio-waste.

### **Background**

Algae are unicellular microorganisms capable of photosynthesis. Since the 1950s algae have been grown commercially, however solely with focus on high-value products. Recently, algae (both micro and macro algae) have emerged as potential promising feedstock for bioenergy production. Thereby, specific interest was triggered by theoretically very high yields in comparison with traditional biomass feedstock options.

### **Research Themes**

The following research themes in the field of algae production and conversion systems will be addressed under SAHYOG twinning:

- Identification and improvement of suitable algae strains
- Development of new strains (e.g. by genetic modification)
- Development of (large-scale) cultivation systems for micro and macro algae
- Development of efficient harvesting and logistics systems
- Improvement of technologies for algae-to-bioenergy conversion
- Development of quality monitoring systems
- Identification of active substances from algae
- Assessment of LCA and energy balances of algae based value chains
- Facilitate scale-up of cost competitive algae based bioenergy production systems

# **SAHYOG Twinning – How to get involved?**

With respect to EU-India twinning, the following activities and procedures are foreseen within SAHYOG:

- Get in contact with SAHYOG partners responsible for twinning (Robert Bakker, Rainer Janssen, Dominik Rutz)
- Sign Letter of Interest on India-EU SAHYOG twinning
- Define your areas of interest for research cooperation
- Cooperation contacts from India/Europe are identified by SAHYOG
- Assistance for twinning activities is provided by SAHYOG
- Participation in SAHYOG twinning workshop is facilitated

# India-EU SAHYOG Twinning Activities



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

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