

Project Fact Sheet

Project Title **Accelerate Morocco's Biogas Sector: A Higher Education– Industry Partnership - AMBER**

Keywords Curriculum advancement, higher education, Biogas sector, Industrial collaboration, entrepreneurship development

Project Details

Project Start	2022	Duration	3 Years
Grant Scheme	Practical partnerships between universities and companies in Germany and in developing countries.	Project ID	57647326
Funding Authority	DAAD		
Project Budget	539.802,48 €		
Project Leader	Prof. Dr.-Ing. Wilfried Zörner		
Contact Person	Carina Mwatunga		

Project Partners

University partner in Morocco:

Al Akhawayn University (AUI), École Nationale d'Agriculture (ENA)

Industry partner in Germany:

Awite Bioenergie GmbH (Germany), Snow Leopard Projects GmbH (Germany)
Coopérative Al Wifac (Morocco), Biodôme (Morocco), Ben Aziz Agri (Morocco)

Description

In recent years, the expansion of renewable energies in Morocco has become increasingly important. However, the biogas sector has so far hardly spread in Morocco, despite the government's stated goal of establishing biogas as a promising and sustainable energy source. The project Accelerate Morocco's Biogas Sector: A Higher Education-Industry Partnership (AMBER) builds on these national goals and is dedicated to enhancing a thriving biogas sector in Morocco. The focus is on the close partnership between the partner universities - Al Akhawayn University (AUI), École Nationale d'Agriculture (ENA) and Technical University Ingolstadt (THI) and the industrial partners from Morocco (Coopérative Al Wifac, Biodôme, Ben Aziz Agri) and Germany (Awite Bioenergie GmbH, Snowleopard Projects GmbH).

The AMBER project has set itself the following goals:

- Joint development of practice-relevant curricula/teaching modules in the subject area of biogas that correspond to the state of the art in science.
- Technical and didactical qualification of the teaching staff at the partner universities in the field of biogas energy.
- Creation of adequate structural conditions and services for the planned study programs.

- Expansion of a local network between universities and industry in the field of biogas.

As can already be seen from the objectives, the AMBER project focuses primarily on higher education in the biogas sector. For this purpose, it is planned to adapt two existing courses at the two partner universities (AUI and ENA) to focus on the use of biomass in the future. The content of the courses will be developed with local industry partners to ensure they are based on the local context. In addition, the plan is to offer study-related services with a direct link to the labor market. This will promote both the practical understanding and the entrepreneurial thinking of the students. Through cooperation with industrial partners, the universities will be able to provide internships to their students to enhance their practical understanding of the biogas industry. This will give them work experience before they graduate from university and a first impression of how biogas is used in industry. Through additional so-called "meet the experts" events (company presentations, scientific presentations, or political problems), the students will be able to gain additional knowledge and insight into the different areas in the field of biogas energy.

The scientific aspect of the project focuses on the analysis of the energy demand of small local farms and under which conditions biogas can be used efficiently, sustainably, and financially affordable for the farmers. For this purpose, the three universities are working together on different scientific questions, which will be adapted to the needs of the local context. This is ensured by close cooperation with Moroccan and German industrial partners. Regular research trips of the Moroccan partners to Germany and of the German scientific staff to Morocco will strengthen the cooperation of the project partners and ensure a lively exchange of the different scientific projects.

Over the duration of the project, additional partners from science and industry are to be included. Through the expansion of the network in the biogas sector, further joint projects are to be planned in the future. Thus, the scope of the AMBER project should extend far beyond the project duration and contribute to the expansion of the biogas sector in Morocco in the future and at the same time provide university graduates with better opportunities in the labor market through practical experience.