

Twinning – Study Visit Offer

Task: 4.2 Twinning

Item: 3 days study visit

Location: Engelskirchen, Germany

Host organisation: BAV - Bergischer Abfallwirtschaftsverband

Dates: 19. – 21. October 2015



Fachhochschule Köln
Cologne University of Applied Sciences

Description:

The research cooperation :metabolon (BAV and University of Applied Science Cologne) has volunteered to host a study visit in May 2015.

“:metabolon: From a landfill to a Competence Centre for sustainable resource management”

Presentation & Site viewing landfill “Leppe” / :metabolon

The Waste Disposal Centre Leppe is one of the most modern waste disposal sites in Europe and a reference facility for international experts. The objective of the :metabolon project is to redevelop the current Waste Disposal Centre Leppe by turning it into a competence, learning and innovation site for material conversion and location-related environmental technology and techniques.

Presentation of the research centre :metabolon

Within the :metabolon project an international and interdisciplinary teaching and research center with the thematic focuses of material conversion, resource management and environmental technologies is being set up on the Leppe landfill site. The provision, the treatment and the conversion of resources so far unused as well as the recycling and further processing of intermediate and end products of the investigated conversion processes are researched and optimized.

Viewing of one of the biggest combined combustion and compost plant in Germany

The industrial biogas plant at the former landfill site :metabolon treats the organic fraction of municipal solid waste (oMSW) from two counties with more than 550,000 inhabitants and produces 8,000,000kWh of electrical energy out of 42,000t of oMSW. The plant was built in 1997 and use the Valorga process design. The visit will comprise an introduction to the plant as well as a tour through the plant that will give insight on the daily challenges of process monitoring and operation.

Visitation of waste-to-energy plant

The AVEA operates the waste-to-energy plant (MHKW) in Leverkusen for the thermal treatment of waste. Each year, about 210,000 tonnes of domestic waste and domestic-type waste from businesses are burned here, and converted into useful forms of energy. The Leverkusen MHKW ensures the thermal treatment is environmentally friendly with its ultra-modern process technology. An important measure in this regard is the cleaning of the exhaust gases in the highly efficient flue gas purification plant.



Visitation of partner of :metabolon Aggerverband

The Aggerverband is a local water association whose main duties consist of supplying fresh water and carrying away wastewater. The area covered by the association stretches over a total surface area of 1,091.9 square kilometres (km²), in which approx. 350,000 inhabitants live. Members of the association are districts, towns, communities, public utilities and industrial companies. Planned is a tour through the waterwork Auchel and a guided tour through the wastewater treatment plant Brüchermühle.



Profile: The participants should be interested in the innovative Conversion of biogenous waste by different technologies.