



Lindlar: From waste to resource :metabolon turns landfill into an innovation site

:metabolon – From Waste to Resource

The idea

When the Leppe landfill was designated for follow-up use, the :metabolon project was expanded to form a European Centre of Resources Management as part of the structural funding programme of the state of North Rhine-Westphalia (Regionale 2010). The body responsible for the project is the waste management association Bergischer Abfallwirtschaftsverband, which developed the location into a competence, learning and innovation centre for material conversion and site-related environmental technology and techniques. This was done jointly with Oberbergisch region, the Rheinisch-Bergisch region and the municipalities of Engelskirchen and Lindlar. Existing competencies were integrated, developed further and presented in a new light.

The approach

The project has five substantial areas on which it focuses. It is a place of learning and experience for all age groups (in terms of life-long learning), an exhibition platform for the energy-efficient modernisation of buildings and an events platform for regional players, a sustainable industrial estate and a location for leisure and recreation activities. In addition to this the interdisciplinary, international research community constitutes a central element of the project in collaboration with the Cologne University of Applied Science.

In view of the general problems associated with the growing scarcity of fossil resources, the research community aims at developing new strategies for handling the

available mineral resources and recyclable materials. Their sustainable use calls for the development of an efficient material flow management which will help meet the needs of society as a whole in the long term.

Since it was launched at the end of 2011, :metabolon has been developing steadily into the internationally acknowledged competence centre for resources management. Its defining features are in particular the provision of a generously dimensioned technology centre, practice-based research facilities and a modern laboratory environment for international, practice-oriented research and teaching.

Furthermore the key technologies of efficient material flow management, the metabolism between society and nature, and fundamental methods of the organisation and control of regional resources are scientifically investigated and processed. Alongside research, a prime aim of the approach is to impart knowledge. And so a unique and authentic learning landscape has been created at :metabolon. Visitors to the site are exposed to various elements (exhibition, „succession strip“, recycling axis, diverse places of learning, etc.) and are thus made sensitive to the individual subject areas. In addition the Bergisches Energiekompetenzzentrum is an official teaching and information centre of the regional crafts association Kreishandwerkerschaft Bergisches Land, the NRW Chamber of Agriculture, the NRW Silviculturist's Association and the NRW Chamber of Architects. It is also used by a wide range of players as an information platform.





The location

The project location :metablon provides the basis for sustainable and forward-looking research. Its characteristic features are:

- long-standing experience gathered over many years and an existing infrastructure in regional material flow management,
- research facilities with pilot plants geared to actual practice and modern laboratory equipment, making it possible to apply research results in industrial practice,
- a broad international network of research partners and players from various value chains.

The partners

The current partners in the project are prominent universities and colleges, research and development institutions at home and abroad, companies, municipal authorities and professional associations. Together these have built up a knowledge centre to tap unutilised resources and optimise material flows.

This includes not only natural resources, such as wood, but also end products from man-made value chains (waste products), as well as the wide range of renewable energy forms of energy. Research and optimisation is conducted into the provision, processing and conversion of resources, plus the recycling and further processing of intermediate and end products from these processes with a view to their utilisation as material and energy.

Brief description

Collaborative project of the waste management association Bergischer Abfallwirtschaftsverband with the University of Applied Sciences Cologne

Partners

- national and international universities and colleges
- research and development institutions
- professional associations
- regional companies
- administrative districts and municipalities

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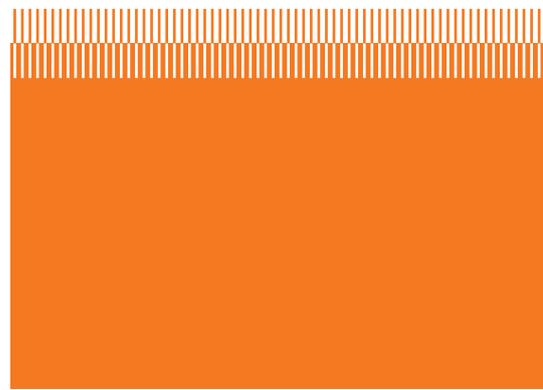
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