The Green Revolution in Logistics

Currently, logistics - goods transport and logistics real estate - causes more than 5.5 per cent of all carbon dioxide emissions worldwide. The demand for “greener products” has been on the increase for some time now - not least because of extensions to emissions trading and new legal regulations. Society and capital markets require more transparency and comparability for logistics services and products; companies want to increase their resources efficiency to stay competitive.

That is why manufacturers, retail and service providers are now focusing on the issue of environment. However, there are still numerous obstacles to be overcome on the way to achieving “green logistics”: There is a lack of standards for ecological evaluations and decision support systems for the integrated evaluation of ecology and economy. This makes ecological innovations more difficult as there is not enough transparency. Moreover, the market power of some individuals is not sufficient to set standards and to promote ecological approaches. One of the joint objectives within the EffizienzCluster is to overcome these obstacles so as to enable a decisive innovative leap to be made on the way towards a green revolution in logistics.

Key Topic
Environment in Focus

Projects in the key topic:
- Green Logistics
- Resource-Efficient Maintenance Logistics
- Sustainable Sourcing Excellence
- Tray Cycling

The Green Revolution in Logistics

// Key topics as central innovation corridors

Within seven key topics of EffizienzCluster LogistikRuhr, the biggest research and innovation cluster of logistics, innovations are created that will change the face of logistics. The key topics are:
- Changeable Logistics Systems
- Logistics-as-a-Service
- Urban Supply
- Goods Transport Management
- Environment in Focus
- Logistic Design Competence
- Activation of Cluster Potentials

// Solutions for tomorrow’s logistics

In the EffizienzCluster LogistikRuhr, more than 180 partners from research and economy are working together on logistic challenges in about 40 research and associated projects. It is a requirement and target to facilitate tomorrow’s individuality - in terms of the individual supply of goods, mobility and production - with just 75 per cent of today’s resources.
In future, eco-friendliness and the conservation of resources will be obligatory so companies can deliver their economic performance in times of insufficient resources and more stringent environmental regulations. Sustainability will then be standard as a matter of course, just as quality is today. Eco-friendliness and the conservation of resources immediately lead to cost savings because of a stronger internalization of external impacts. In this way, sustainable products and services will become Europe’s export hits.

Levels of Innovation

The key topic aims economies achieved by ecology. In the joint products, research is carried out into basic methodological principles on the one hand and into exemplary logistics fields on the other. Objectives are:

- Development of solutions which conserve resources, are environmentally friendly and sustainable along the entire logistics chain from procurement, storage and distribution through to reserve logistics
- Strengthening the know-how and certification of company competences in the field of sustainability
- Economic and ecological concepts and intelligent use of technology for maintenance, intralogistics and logistics
- Standardized processes for the recovery of raw materials and the closure of material cycles

In total, 15 specific products are being developed – from the CO2-efficient sourcing platform and the low CO2-logistics network through to material flow controls centers. The so-called “Green Line” allows companies to act sustainably within and throughout all company divisions.

Potentials of the Key Topic

Discussions about the possibilities and necessity of sustainability in logistics are only just beginning. However, whether it is glocalization with distributed production facilities, independent industrial centers in which companies offer complementary products by using waste products from other companies, or urban mining: The trends of the future already require sustainable logistics concepts. In the long term, the true ecological challenge will be in the growth markets outside Europe.