

Short abstract

## "Networking and best practice of CP-projects in SMEs - Experiences from North Rhine-Westphalia, Germany"

### **Resource efficiency - a field that is wide open to new approaches**

Measures for increasing resource efficiency are an important precondition to ensuring long-term company success at the same time as protecting the environment. The Effizienz-Agentur NRW (EFA) combines this issue with a broad specialist knowledge and long-term experience.

Technologies such as membrane technology and biotechnology help not only to improve resource efficiency in the companies, they are an important step towards a future-focused type of economy, securing long-term competitive advantages and protecting the environment.

### **Example 1:**



### **News procedures - economic alternatives – networking with SMEs**

From 2004 to 2007, EFA tested the application of highly viscous lubricants, so-called dry lubricants, in the project "application of highly-viscous drawing and reshaping oils in metal processing". Six SMEs from different industry sectors (e.g. automotive, metall processing) were part of the research and development project. The result: the application of highly viscous lubricants is worthwhile.

With lower application amounts, the reshaping capacity was even improved. Subsequent processing steps, such as smoothing by hand and the removal of grease or varnish were not interfered with. The absence of oil for the machines and the components led to considerable savings, for example, in the case of storage before transportation where intermediate storage of paper is no longer necessary and, therefore, does not require disposal.

The main results are:

- Process stability is guaranteed
- Lower consumption compared to low-viscosity lubricants
- the required shaping performance is achieved
- operational and interplant cost reductions in the process chain



## Example 2:

Best practice – metal processing: effective cleaning of machined parts

### Company Profile

The company Vibrotec GmbH, located in Unna near Dortmund has 18 employees working with cutting processes and mechanical engineering.

### Approach

The company has developed and launched an alternative cleaning process vibrotec® for oily machined parts. The conventional method of cleaning machined parts consumes a great deal of power and water and takes up a lot of space. Vibrotec has developed a dry cleaning process that shakes off liquids such as oils and emulsions from parts by means of vibration, while a suction device continually aspirates the liquids and feeds them back into the production machine.

### Results

This system removes 95% of the impurities, recycles nearly 100% of the oil, need less energy and reduces operating costs by nearly 80%.