

## Chapter 7.8

# From Cleaner Production to Greening the Local Economy: A Case Study of Two European Programs Enhancing SMEs Competitiveness Through Environmental Approaches

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### ABSTRACT

As interests in the impacts of business activities on environment have been growing, environmental policy is now shifting from the “end of pipe” stage to the next stage, which factor in the life cycles and social efficiency. An increasing trend in environmental departments of state and municipal governments in Europe is that these departments have outgrown their restriction-based environmental measures. Their concept of environmental policy has shifted to management support programs that helps small- and medium-sized enterprises (SMEs) increase their competitiveness through improving their environmental efficiency. This chapter discusses and compares

two environmental programs: the case of die Effizienz Agentur NRW (EFA) and the case of der ÖkoBusinessPlan Wien, the Eco Business Plan Vienna (EBP). The goal of this chapter is to extract the conveyed meanings of partnerships and the role of public sectors through the activities of local intermediaries such as agents need to play in fostering environmental conservation. The focus of discussion is on the partnerships among the parties involved in the programs and on the program operations.

### INTRODUCTION

One of the downsides of industrial agglomeration is the affect on the environment caused by discharge of a large quantity of waste and pol-

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lutants beyond self-purification capacity and large volumes of energy consumption. Ashford (2005) presents his concept of triple sustainability<sup>1</sup> that include the following: (1) improvement in competitiveness (or productivity) and long-term dynamic efficiency, (2) social cohesion (labor/employment), and (3) environmental sustainability (based on resource productivity together with measures for combating environmental pollution, damage to ecosystems, and climate disruption). Eco-efficiency aims at creating economic values by reducing the impact of industrial activity on the environment and limiting resource consumption. Improving resource productivity leads us to review the cost of the entire production system and added value at the same time (Porter & van der Linde, 1995).

Due to a growing interest of the impact of business activities on the environment, environmental policy is now shifting from the “end of pipe” stage to the next stage. In this stage, prominence is given to environmentally sound designs that feature in the life cycle of the products and lead to social efficiency. We have seen an increasing number of cases where government departments dealing with environmental issues in states and municipalities across Europe have gone beyond their restriction-based environmental measures. In many cases, they have shifted their support programs in favor of private enterprises, in particular small- and medium-sized enterprises (SMEs), by inducing them to reform their production processes based on environmental friendliness and social efficiency. These programs are aimed at reducing the environmental burden, not by forcing SMEs to follow government imposed measures, but by supporting SMEs’ own efforts to reduce the burden. This can be categorized as a diffusion-oriented policy.

In this chapter, two cases are examined and compared. The first case is the environmental program model of utilizing *Produktionsintegrierter Umweltschutz* (PIUS), which refers to “environmental conservation incorporated into

production,” that is, cleaner production. This program, PIUS-Check has been implemented by the agency of *die Effizienz Agentur NRW* (EFA), which was established by the State Government of North Rhine-Westphalia (NRW) in Germany. The second case is *der ÖkoBusinessPlan Wien*, the EcoBusinessPlan Vienna (EBP) operated by the Environmental Protection Department of Vienna City in Austria. This chapter focuses on the partnerships among the parties involved in the programs and on the program operations. The goal of this chapter is to extract the conveyed meanings of the roles local agents need to play in fostering environmental conservation. Proceeding with this research, we conducted hearings with the following groups: (1) the Ministry of the Environment, Nature Conservation, Agriculture and Consumer Protection of North Rhine-Westphalia, (2) EFA, (3) the SMEs that have adopted the PIUS-Check, (4) the Environmental Protection Department of Vienna City Government, and (5) the SMEs and the technical consultants that have participated in EBP.

## **ACTIVITIES OF EFA NRW FOR CLEANER PRODUCTION**

NRW<sup>2</sup>, the largest German state in terms of economy with large industrial agglomeration areas, has been conducting the project which is intended for SMEs to pursue both environmental conservation and economic growth. EFA, located in Duisburg, is a nonprofit agency that was founded by the State of NRW in 1998. 403 projects were executed or are now ongoing as of April of 2007.

### **The Establishment of EFA/NRW and the Concept of the PIUS-Check**

It was the state general election in 1995 that led to EFA’s foundation. The Social Democratic Party of Germany (SPD) and German Green Party (*Die Grünen*) formed a coalition<sup>3</sup> and agreed on policies

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