



## Complete list of the CPC activities carried out from 2000 onwards

*This document serves as a reference list of the CPC activities for project proposals, promotion and other materials. For each year there is a short list of projects and activities carried out. A detailed description of all projects and activities follows.*

### Activities carried out in the year 2000

- Implementation of EMAS in the regional project EKOPROFIT Zlín
- Implementation of EMS on the basis of CP in the Plzeňská Teplárenská, Co.
- Modelling of a preventative system of environmental protection in the North Bohemian region
- Implementation of Cleaner Production at a regional level in Moravská Třebová
- Implementation of CP in Macedonian enterprises within the UNDP project
- Building national capacities for CP in Macedonia
- Implementation of Cleaner Production in companies in Astrakhan, Russian Federation
- Implementation of Cleaner Production in companies in Orenburg, Russian Federation
- Project “Environmental Protection Officer” – EU Leonardo da Vinci Programme
- Basics of integrated environmental management for international and interdisciplinary studies at IHI Zittau
- BAT indicators and their statistical monitoring
- Analysis of methodology for material and energy flows at a company level used in the EU
- Project INNET – “Evaluating the function of network and spreading innovation as a tool for sustainable development”
- Study “Potential for application of CP technologies in the Czech textile industry”
- Elaboration of an implementation plan for the Directive 2000/53/EC on End-of-life vehicles
- Project “Specialised centre for evaluating, utilising and disposing of hazardous waste contaminated by radionuclides”
- CP 2000 Study

### Activities carried out in the year 2001

- Realisation of the National Cleaner Production Programme
- Implementation of EMS on the basis of CP in the Plzeňská Teplárenská, Co.
- Modelling of a preventative system of environmental protection in the North Bohemian region



- Study "Potential for application of CP technologies in the Czech textile industry"
- Building national capacities for CP in Macedonia
- Building expert and institutional capacities for the application of preventive approaches in Moldova
- Implementation of Cleaner Production in companies in Orenburg, Russian Federation
- Implementation of Czech environmental technologies and know-how in India
- Study "Preparation of programs for Cleaner Production implementation in particular branches and at the State Environment Fund"
- Study "Elaboration of background documents for the government to enforce Cleaner Production in accordance with the Decision no. 165/2000"
- Elaboration of background documents for the UNEP High Level seminar on Cleaner Production – CP7
- Handbook on Integrated Product Policy
- Study "Integrated Product Policy as a tool to improve product competitiveness"
- National report on the Support to Aarhus Initiative Secretariat for Business and Environment
- Methodology for monitoring material flows at a regional level
- Project INNET – "Evaluating the function of network and spreading innovation as a tool for sustainable development"
- Branch Manual of Waste Minimisation
- Study "Implementation plan for the proposal for EC Directive on Electric and Electronic Equipment Waste and Implementation plan for the proposal for EC Directive on Minimisation of Some Hazardous Substances in Electric and Electronic Equipment"
- Project "Specialised centre for evaluating, utilising and disposing of hazardous waste contaminated by radionuclides"
- Expert opinion on the "Environmental policy of the Škoda Steel Co."
- Project "IPPC in agriculture"
- Project "Environmental Protection Officer" – EU Leonardo da Vinci Programme
- Project EXPAND REDUCE – EU Leonardo da Vinci Programme
- Seminars on Sustainable Production and Consumption for participants from Moldova and Kazakhstan
- Technical assistance for the Programme 5.1 BAT
- Programme of support to preventative measures from the NEFCO fund
- Study "Instructions for submitting an application for financial support from the Programme 5.2 EMAS administered by the State Environment Fund"



## Activities carried out in the year 2002

- Realisation of the National Cleaner Production Programme
- Modelling of a preventative system of environmental protection in the North Bohemian region
- Study "Potential for application of CP technologies in the Czech textile industry"
- Project "Strengthening of the expert capacities in the NGO organisations in the CR and Latvia within the Integrated Pollution Prevention and Control System"
- Cleaner Production Handbook for an industrial company in Kazakhstan
- Study "Voluntary tools for IPPC implementation in the CR"
- Building national capacities for CP in Macedonia
- Building expert and institutional capacities for the application of preventive approaches in Moldova
- Implementation of Czech environmental technologies and know-how in India
- Project INNETH – "Evaluating the function of network and spreading innovation as a tool for sustainable development"
- Branch Manual of Waste Minimisation
- Project "Transfer of Environmental Education" – EU Leonardo da Vinci Programme
- Analysis of environmental and economic impacts of product utilization
- Technical assistance for the Programme 5.1 BAT
- Technical assistance for the Programme 5.2 EMAS
- Elaboration of a Cleaner Production Programme for the State Environment Fund
- Programme of support to preventative measures from the NEFCO fund
- Project "Promoting Industrial Energy Efficiency through a Cleaner Production/Environmental Management System Framework"
- Project "Environmental Due Diligence Training of EBRD´s Financial Intermediaries" – TACIS Programme
- Project "Strategic orientations and priorities in waste management in the scope of EU regulations and pollution prevention in relation to the environment and human health"
- Seminar on End-of-life vehicles

## Activities carried out in the year 2003

- Realisation of the National Cleaner Production Programme
- Project "Strengthening of the expert capacities in the NGO organisations in the CR and Latvia within the Integrated Pollution Prevention and Control System"
- Branch Manual of Waste Minimisation



- Study “Modelling a common decision-making system for utilisation of waste as a secondary raw material demonstrated on the example of processing tyres in the cement industry using the LCA methodology (ISO 14004)”
- Building national capacities for CP in Macedonia
- Building expert and institutional capacities for the application of preventive approaches in Moldova
- Implementation of Czech environmental technologies and know-how in India
- Project “Promoting Industrial Energy Efficiency through a Cleaner Production/Environmental Management System Framework”
- Analysis of environmental and economic impacts of product utilization
- Project “Promoting objectives of Multilateral Environmental Agreements”
- Project “Application of preventive approaches in selected companies of Kazakhstan connected with the transfer of Czech technologies and know-how”
- Project “Transfer of Environmental Education” – EU Leonardo da Vinci Programme
- Study “Voluntary tools for IPPC implementation in the CR”
- Technical assistance for the Programme 5.1 BAT
- Technical assistance for the Programme 5.2 EMAS
- Project “Safe recycling of electric and electronic scrap”
- Project “Analysis of material flows at a macroeconomic level with the application at a microeconomic level and using the analysis for elaboration of indicators of sustainable development”

## **Activities carried out in the year 2004**

- Realisation of the National Cleaner Production Programme
- Branch Manual of Waste Minimisation
- Building national capacities for CP in Macedonia
- Implementation of Czech environmental technologies and know-how in India
- Project “Promoting Industrial Energy Efficiency through a Cleaner Production/Environmental Management System Framework”
- Project “Application of preventive approaches in selected companies of Kazakhstan connected with the transfer of Czech technologies and know-how”
- Project “Transfer of Environmental Education” – EU Leonardo da Vinci Programme
- Technical assistance for the Programme 5.1 BAT
- Technical assistance for the Programme 5.2 EMAS
- Project “Safe recycling of electric and electronic scrap”



- Project "Analysis of material flows at a macroeconomic level with the application at a microeconomic level and using the analysis for elaboration of indicators of sustainable development"
- Developing the capacity in the field of Integrated Product Policy through transfer of the best practice between the Institute of Ecological Economy research and the Czech CPC
- PRODESTS - Promotion, Demonstration and Development of Sustainable Environmental Technologies for SMEs



## Detailed description of all projects and activities

<b>Implementation of EMAS in the regional project EKOPROFIT Zlín</b>			
Type of activity <b>Project</b>	Contracting Authority	Realisation <b>1999-2000</b>	Budget

This project was undertaken under the auspices of the town of Zlín and with the assistance of its the municipal office. The project aim was to implement EMS according to EMAS scheme at the municipality of the town of Zlín and in several local companies (for example in a public transport company and the municipal technical services). It was one of the first EMAS systems implemented at the public administration offices in the CR. At the time of the project completion, in 2000, all participating organisations and companies were ready for certification.

<b>Implementation of EMS on the basis of CP in the Plzeňská teplárenská, Co.</b>			
Type of activity <b>Project</b>	Contracting Authority	Realisation <b>1999-2000</b>	Budget

Within the project framework EMS and Cleaner Production were jointly implemented in the heating plant company in compliance with the ISO 14 001 Standard by the CPC consultants. The EMS system implemented was subsequently extended so that it also met the requirements of EMAS scheme. The company afterwards went through the certification process according to ISO 14001 Standard and validation according to the EMAS scheme.

Plzeňská teplárenská, Co. became the first energy company registered in the EMAS Programme. The implementation of the management system was awarded at the Enviro 2002 Conference.

<b>Modelling of a preventative system of environmental protection in the North Bohemian region</b>			
Type of activity <b>Project</b>	Contracting Authority	Realisation <b>2000-2002</b>	Budget

The aim of this project was to implement EMS according to the EMAS Scheme so that the system ensured continuous application of an integrated preventive strategy in the environmental field at a local level. EMS was interconnected with the implementation of Cleaner Production so that a preventive approach to solving environmental impacts of activities was guaranteed.

7 companies participated in the project. Concrete outputs of the project include apart from the implementation of specific elements of the EMS system at the municipal office in Ústí nad Labem, 10 projects of CP potential assessment in companies. The importance of regional environmental aspects formulated by the municipality in Ústí nad Labem was evaluated with the use of new software.

In the final phase of the project 3 companies were selected and prepared for validation according to the EMAS Scheme.

The project was partly financed by the Bundesumweltstiftung foundation and by the German consultancy company BeraCon.



<b>Implementation of Cleaner Production at a regional level in Moravská Třebová</b>			
Type of activity <b>Project</b>	Contracting Authority <b>British Embassy in the CR Canadian Embassy in the CR</b>	Realisation <b>1998-2000</b>	Budget

The project aimed at the implementation of Cleaner Production, reduction of environmental burdens in the region and increasing the competitiveness of individual participants of the project as well as the region as a whole. Activities of the project focused on the implementation of CP, reducing emissions to the air, pollution of surface and ground water and minimisation of solid waste produced in the region. Participating companies used the win-win strategy also to enhance their competitiveness not only within the region. The project started with CP Methodology training followed by several demonstration projects in enterprises. Course participants used acquired theoretical knowledge in daily practice of their companies.

<b>Implementation of CP in Macedonian enterprises within the UNDP project</b>			
Type of activity <b>Project</b>	Contracting Authority <b>UNDP, Macedonian</b>	Realisation <b>Apr – Nov 2000</b>	Budget

This project included the elaboration of first demonstration CP projects in 7 enterprises. Individual CP projects focused especially on metallurgy, tanning and food industry). Proposed measures aimed mainly at reduction of water consumption and the wastewater discharged into surface waters, as well as at closing the cooling cycles and raw material replacement. The project realisation was understood as a demonstration of CP strategy assets. Czech experts also got acquainted with local industrial conditions in order to be prepared for realisation of development assistance projects in Macedonia. Potential of Czech exporting activities in Macedonia was also discussed within the project meetings.

<b>Building national capacities for CP in Macedonia</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment CR UNIDO</b>	Realisation <b>2000-</b>	Budget

This project was prepared by UNIDO and realised within the framework of the Czech Multilateral Development Assistance as a follow-up activity to the project mentioned above. Most of the enterprises participating in the UNDP project continued in implementing the preventative approach based on CP/EMS.

The general objective of the project was to support sustainable development of the Macedonian industry. Concrete aims included searching potential for pollution prevention measures of investment and non-investment character. Economic benefits of the project helped to initiate systematic use of the CP concept within the framework of decision-making processes in companies. Trainings of company employees were also carried out within the project framework and expert capacities of local environmental consultants were developed in specialised seminars.

Companies participating in the project included enterprises from the following industrial fields: building industry, steelworks, chemical industry, mining and processing, food industry and several others.

Within the project framework the Macedonian Cleaner Production Centre was established with the support of the Macedonian Fund for Environment and the Ministry of Environment of Macedonia.



### **Implementation of Cleaner Production in companies in Astrakhan, Russian Federation**

Type of activity <b>Project</b>	Contracting Authority <b>UNIDO</b>	Realisation <b>2000</b>	Budget
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The project was a part of UNIDO funded Integrated Programme for Russian Federation. Its objective was to carry out the first demonstration projects in the Astrakhangasprom Company that extracts, cleans and stores natural gas – one of the biggest polluters in the area of the Caspian Sea. Within the 7 CP projects carried out the proposed measures focused mostly on the technological procedures for the gas mining, collection and regeneration of work aids and reduction of water consumption. Some other CP measures focused on the optimisation of carried out construction works. The project proceedings showed that there existed legal barriers for the full use of the CP potential in companies of Russian Federation.

### **Implementation of Cleaner Production in companies in Orenburg, Russian Federation**

Type of activity <b>Project</b>	Contracting Authority <b>UNIDO</b>	Realisation <b>2000-2001</b>	Budget
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The project was also carried out within the framework of UNIDO funded Integrated Programme for Russian Federation. The project focused mainly on companies specialising in exploitation of gas and crude oil. The CPC experts prepared training in CP methodology for company employees and potential objectives were drafted for individual CP projects. As a part of the project outputs the first branch-specialised Cleaner Production Centre was founded in the Russian Federation.

### **Environmental Protection Officer – EU Leonardo da Vinci Programme**

Type of activity <b>Project</b>	Contracting Authority <b>European Union</b>	Realisation <b>2000-2001</b>	Budget
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The aim of this international project was to create training modules for company employees responsible for environmental protection and/or EMS. The modules were adapted to actual Czech conditions and included multi-media version.

### **“Basics of integrated environmental management” for international and interdisciplinary study at IHI Zittau**

Type of activity <b>Project + study</b>	Contracting Authority	Realisation <b>1999-2001</b>	Budget
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The preparation of study plans for students from Poland, Germany and the Czech Republic began in 1997. The CPC participated in their drafting and subsequent detailed elaboration. The CPC also prepared and realised lectures on practical experience with CP implementation.

### **BAT indicators and their statistical monitoring**

Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment CR</b>	Realisation <b>2000</b>	Budget
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The project was led by consultants from the Danish company Carl Bro. The CPC played a role of the co-ordinator of the project on the Czech side. The main objective of the project was to prepare relevant conditions for the implementation of the BAT concept in the CR and to draw up technical documentation for secondary legislation to the prepared Act on IPPC. These documents were supposed for their future use in the permitting processes. A form was also drafted for a procedure aimed at granting an integrated permit; its content and structure were tested in a simulated permitting for a pulp and paper-making company.

<b>Analysis of methodology for material and energy flows at a company level used in the EU</b>			
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Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment CR</b>	Realisation <b>2000-2001</b>	Budget
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The project aimed at surveying material and energy flows in enterprises and the region as a whole. The CPC contributed to the project realisation by dealing with the analysis of methodologies and approaches focusing on monitoring material and energy flows at a company level.

<b>INNET – “Evaluating the function of network and spreading innovation as a tool for sustainable development”</b>			
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Type of activity <b>Project</b>	Contracting Authority	Realisation <b>2000</b>	Budget
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This was a three-year project realised within the 5<sup>th</sup> Framework Action Programme of the European Commission. The CPC co-operated on this project with six large companies dealing with environmental issues in Western Europe. The project aims included exploring the potential for disseminating cleaner production as an innovation through networks. The CPC project team was responsible for drawing up a profile of CP as a strategy that can be disseminated via the Internet and for elaboration of theoretical background for further progress of the project.

<b>Potential for application of CP technologies in the Czech textile industry “Dutch Clean Technology Export to the Czech Textile Industry”</b>			
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Type of activity <b>Study</b>	Contracting Authority <b>Embassy of the Netherlands in the CR</b>	Realisation <b>2001-2002</b>	Budget
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Within the framework of this project the CPC elaborated in co-operation with BECO, a Dutch consulting company, a survey of potential for applying cleaner production technologies and procedures in the Czech textile industry. Outputs of the project resides in surveying the technologies used by Czech textile manufacturers with focus on older technologies or those offering large potential for economic savings and environmental improvements. Performance of the selected textile companies was assessed within three phases; the aspects taken into consideration included waste water management, solid waste management and consumption of energy and resources. The results of this assessment were finally handed over to the managements of these companies for evaluation and further use.



### **Elaboration of an implementation plan for the Directive 2000/53/EC on End-of-life vehicles**

Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2000</b>	Budget
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This study was elaborated for the Department of waste of the Ministry of Environment. It points out the importance of preventative measures applied to the whole life cycle of vehicles in accordance with the EC Directive.

### **Specialised centre for evaluating, utilising and disposing of hazardous waste contaminated by radionuclides**

Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Industry</b>	Realisation <b>2000</b>	Budget
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The CPC participated in this project by processing technical information and background documentation focussing on the occurrence of this type of waste, assessment of the properties of this waste and possibilities of prevention of its production.

### **CP 2000**

Type of activity <b>Study</b>	Contracting Authority <b>CPC</b>	Realisation <b>2000</b>	Budget
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The study elaborated by external consultants was supposed to function as a background material for the development of new know-how reflecting progress and changes both in the industrial sector and in services that have a great influence on the implementation of Cleaner Production.

### **Building expert and institutional capacities for the application of preventive approaches in Moldova**

Type of activity <b>Project</b>	Contracting Authority <b>CR Government</b>	Realisation <b>2001-2003</b>	Budget
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This project was carried out within the framework of the Czech Multilateral Programme of Development Assistance. Its first phase was realised in 2001 and the follow-up projects continued in the subsequent years.

The general objective of the project is targeted at building institutional and expert foundations for broader application of preventative approaches in the recipient country industry. This objective will be achieved on one hand through trained experts from public administration, universities and industrial companies that will be able to apply preventative approaches in practice and on the other hand by means of demonstration prevention projects carried out by the CPC consultants.

Demonstration projects carried out in Moldovan companies are primarily aimed at increasing efficient use of input raw materials, decreasing energy intensity of installations and reducing impacts of industrial activities on the environment. Demonstration projects are drawn up in the way that they ensured effective transfer of experience and know-how directly to the specialists in Moldovan companies. These specialists are subsequently able to continue the application of preventive measures without the external assistance of the CPC consultants.



<b>Implementation of Czech environmental technologies and know-how in India</b>			
Type of activity <b>Project</b>	Contracting Authority <b>CR Government</b>	Realisation <b>2001-</b>	Budget

This bilateral project of the Czech international development assistance focused on preventive measures and environmental technologies that aim – in compliance with the recipient's demands - at securing sources of drinking water and minimising the consumption of water and energy. Stakeholders involved included especially: small and medium waste-water treatment plants of various types designed to function in rather complex climate conditions and in large cities, co-generation energy units, and other technologies. Based upon the reactions of the Indian side a research was conducted to scan the environmental technologies on the Czech market and select those that would be suitable with regard to climate conditions and the Indian market. The project has continued in 2002 and 2003 with the objective of negotiating with the Indian side about the conditions for establishing joint-ventures producing technologies that would help in solving the dismal state of the environment in some Indian regions.

<b>Preparation of Programs for Cleaner Production Implementation in particular branches and at the State Environment Fund</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2001</b>	Budget

The objective of this study was to further develop the National Cleaner Production Programme into a detailed description of outputs for each of the sectors/branches, so that they could voluntarily utilise the general outputs of cleaner production projects as stated in the Governmental Decision no.165/2000. Attention was drawn especially to the State Environment Fund as a source of financial support and the proposal of criteria for financial support to implement CP. The study was based on the analysis of sectoral policies from the point of view and preventive approach to environmental protection and focused on the priorities in support programmes of individual ministries.

<b>Elaboration of Background Documents for the Government to enforce Cleaner Production in accordance with the Decision no. 165/2000</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2001</b>	Budget

The aim of this study was to analyse individual approaches of each of the stakeholders involved in the National Cleaner Production Program for the year 2001 and propose further action. The study served as a background document for a regular report prepared by the Minister of Environment for the Czech Government.

<b>Preparation of background documents for the UNEP High Level Seminar on Cleaner Production - CP7</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2001</b>	Budget



This study was carried out to prepare background documents for the High Level Seminar on Cleaner Production - CP7; both for the preparation of the Seminar and the discussion with UNEP that provided institutional support to the conference. The CP7 Conference held in Prague, on April 29-30, 2002, was the 7<sup>th</sup> official meeting of experts that meet on a regular basis to discuss strategies of prevention and their links with the objective of supporting and harmonising tools and methodologies leading to sustainable development.

<b>Handbook on Integrated Product Policy</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2001</b>	Budget

The study was aimed to describe the principles, rules and goals of IPP. It was based on the Green Paper of the European Commission on IPP. Subsequently to the study the IPP Council of the CR was established out of departmental representatives and the expert public. The Council now provides institutional support to activities connected with IPP.

<b>Integrated Product Policy as a tool to improve product competitiveness</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Industry and Trade</b>	Realisation <b>2001</b>	Budget

This study focused on the tools for the implementation of Integrated Product Policy. It was aimed to be a first step to a series of handbooks for particular industries, producers and companies.

<b>National Report on the Support to Aarhus Initiative Secretariat for Business and Environment</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Regional Environmental Centre (Szentendre, Hun)</b>	Realisation <b>2001</b>	Budget

This study was conducted as a part of a larger REC project. Its aim was to provide a detailed description of the status quo, approaches of all stakeholders (public authorities, entrepreneurs, expert public) to eco-efficiency and support to eco-efficient investments. The information analysis provided recommendations for the development of eco-efficiency dissemination strategy in the CR.

<b>Methodology for monitoring material flows at a regional level</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Charles University Centre for the Environment</b>	Realisation <b>2001</b>	Budget

The study was a second stage of the project "Methodology analysis of material and energy flows in companies in EU, legal requirements concerning such monitoring in the CR and detailed analysis of approaches and methodology presently used in Czech companies". CPC provided a scheme of material and energy flows in companies and regions. The information was based on the analysis of methods and approaches used to monitor material and energy flows at a company and regional level, and on the relevant legal requirements. A part of this study was a Handbook on Material Flow Analysis at a Company Level and a Handbook on Material Flow Analysis at a Regional Level.



<b>Branch Manual for Waste Minimisation</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2001-2004</b>	Budget

This is a four-year Research and Development project co-ordinated by the CPC. A key output of this project will be a general manual of pollution minimisation. It will take a form of a logical scheme (algorithm), and a form of elementary software that will be continually updated with database information on production, products, prevention tools, recovery and recycling, to facilitate a search for concrete solutions. Project will describe the way in which these databases may be established, maintained and modified in connection to the legal requirements and technical development. Modular form of the manual enables variable solutions to problems of pollution prevention and waste minimisation. A part of the project is verification of solutions in specific branches of industry.

<b>Implementation plan for the proposal for EC Directive on Electric and Electronic Equipment Waste and Implementation plan for the proposal for EC Directive on Minimisation of Some Hazardous Substances in Electric and Electronic Equipment</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2001</b>	Budget

Various legislative proposals for these Directives have been subject to broad discussion for several years now, since the complexity and variety of electric and electronic equipment results in significant differences in waste disposal according to particular categories and leads inherently to different measures adopted in legal system for each of the categories. This study involved a proposal for implementation of the requirements from these directives into the Czech legal system.

<b>Environmental Policy of the Škoda Steel, Co.</b>			
Type of activity <b>Expert opinion</b>	Contracting Authority <b>Škoda Steel, Co.</b>	Realisation <b>2001</b>	Budget

The CPC prepared an assessment of the environmental policy of the Škoda Steel, Co., commissioned by the company. The results were compared with the ČSN EN ISO 14 001 Standard requirements for environmental policy.

<b>IPPC in Agriculture</b>			
Type of activity <b>Project</b>	Contracting Authority <b>AEA Technology</b>	Realisation <b>2001</b>	Budget

The CPC co-operated with the AEA Technology, Plc., on the preparation of the first pilot application for an integrated permit in compliance with the Act no. 76/2002 Coll., on integrated prevention, for intensive farming. The CPC provided expert opinion on the application for an integrated permit, comments for the public hearing and expert opinion on the permit. It also took an active part in the public hearing itself.



<b>Expand REDUCE – EU Leonardo da Vinci Programme</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Arendal Maritime Videregående skole</b>	Realisation <b>2001</b>	Budget

The project was launched upon signing a contract between the CPC and Arendal Maritime Videregående skole, Norway, which received an approval for project within the LdV programme. The aim was to disseminate outcomes of the REDUCE project concerned with minimisation and registration of hazardous substances. The work associated with EXPAND REDUCE represented mainly translation of the output documents and methodologies into Czech language, their assessment and proposals for further utilisation in CR.

<b>Seminar on Sustainable Production and Consumption for participants from Moldova and Kazakhstan</b>			
Type of activity <b>Seminar</b>	Contracting Authority	Realisation <b>2001</b>	Budget

In cooperation with the Open Society Fund Praha, the CPC organised a seminar for participants from Moldova and Kazakhstan. During this seminar, various approaches to sustainable production and consumption strategy in CR, Kazakhstan and Moldova were discussed. The project has continued in the years 2002 and 2003.

<b>Strategic orientations and priorities in waste management in the scope of EU regulations and pollution prevention in relation to the environment and human health</b>			
Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2002</b>	Budget

This study carried out for the Ministry of Environment is a background document for identification of pollution prevention tools in waste management plans. The study deals with the role of prevention in material flows, links between a product and waste, preventive methodologies in production, services and waste management, evaluation of changes of material flows evoked by preventive measures, requirements on secondary raw materials, utilisation of waste, and a proposal for indicators to measure the efficiency of individual measures.

<b>Voluntary tools for IPPC implementation in the Czech Republic</b>			
Type of activity <b>Study</b>	Contracting Authority	Realisation <b>2001-2002</b>	Budget

This study described and summarised experiences with voluntary activities that can be immediately utilised for the implementation of the IPPC Act and its requirements (EMS/EMAS, CP, eco-design, IPP). It showed the connections and links between these activities. The study also focused on practical experience with CP, especially assessment of its benefits and the targets of the National Cleaner Production Programme.



<b>Instructions for submitting an application for financial support from the Programme 5.2 EMAS administered by the State Environment Fund</b>			
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Type of activity <b>Study</b>	Contracting Authority <b>State Environment Fund</b>	Realisation <b>2001</b>	Budget
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The aim of this study was to elaborate proposal for methodology that could be used to estimate environmental benefits of implementation of an environmental management system according to the EMAS Scheme in the first year after its introduction. The methodology takes a form of instructions for filling-in the application for the financial support from the EMAS Programme. The proposal for methodology was tested on three types of applications for financial support.

<b>Technical assistance in the framework of the 5.1 BAT Programme</b>			
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Type of activity <b>Project</b>	Contracting Authority <b>State Environment Fund</b>	Realisation <b>2002</b>	Budget
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As an expert guarantor of the 5.1 BAT Programme declared by the Minister of Environment CR to support investments into technologies that reach the level close to the Best Available Techniques, the CPC provides basic information about the programme, assists applicants in the process of preparing and submitting their applications, organises seminars for consultants and employees of the State Environment Fund. The interest of companies in the BAT Programme increased with the new Act on integrated prevention coming into force.

<b>Technical assistance in the framework of the 5.2 EMAS Programme</b>			
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Type of activity <b>Project</b>	Contracting Authority <b>State Environment Fund</b>	Realisation <b>2002</b>	Budget
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CPC also provides assistance within the framework of the 5.2 EMAS Programme declared by the Minister of Environment CR to support implementation of environmental management systems or their combination with the quality management systems. The support to applicants takes a form of subsidy. CPC provides information about EMS and the methodology of evaluating reduction of environmental impacts both for the State Environment Fund and for applicants. CPC also organises seminars and informational meetings for potential applicants.

<b>Programme of the Cleaner Production for the State Environment Fund</b>			
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Type of activity <b>Project</b>	Contracting Authority <b>State Environment Fund</b>	Realisation <b>2002</b>	Budget
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The CP programme proposed within the framework of this project aims at supporting Cleaner Production awareness raising and its practical implementation. It was based on the fact that small and medium sized companies, services and non-production organisations have difficulties with following and personally supporting the process of implementation of voluntary tools.



### **Promoting Industrial Energy Efficiency through a Cleaner Production/ Environmental Management System Framework**

Type of activity <b>Project</b>	Contracting Authority <b>UNEP</b>	Realisation <b>2002-2003</b>	Budget
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The project aim is to decrease GHG emissions through analysis and realisation of the energy efficiency measures. Simplified tools of energy audit methodology are used for the realisation of such measures. Six members of the UNIDO/UNEP network are participating in the project and co-ordinate together linking of the concept of increasing energy efficiency and cleaner production.

### **Strengthening of the expert capacities in the NGO organisations in the CR and Latvia within the Integrated Pollution Prevention and Control System**

Type of activity <b>Project</b>	Contracting Authority <b>European Commission</b>	Realisation <b>2002-2003</b>	Budget
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The project financed from the Phare Access 99 Programme focused on support of the international exchange of experience with IPPC systems implementation in accessing countries with the emphasis on the Czech Republic and Latvia. Proposed support to NGOs respects the situation in the non-governmental sector in the CR and Latvia. NGOs are an important target group participating in the process of issuing an integrated permit. The transfer of know-how and capacity building of partner organisations were achieved within the project framework and partner organisations has since played an active role in process of supporting and securing public control over the permitting process. In February 2003 an international conference on IPPC was organised by the CPC in Prague.

### **Environmental Due Diligence Training of EBRD´s Financial Intermediaries (Program TACIS)**

Type of activity <b>Project</b>	Contracting Authority <b>European Development Bank</b>	Realisation <b>2002</b>	Budget
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The project focused on training of employees in credit departments in one of the major banks in Tajikistan. On the basis of analysis of environmental, health and safety regulations the experts elaborated recommendations for the bank how to evaluate risks in the phase of assessing investment plans of their clients. The objective of the project was to reduce financing risks of projects with increased environmental risks by using various environmental and health assessment methods.

### **Transfer of Environmental Education – EU Leonardo da Vinci Programme**

Type of activity <b>Project</b>	Contracting Authority <b>EU</b>	Realisation <b>2002-2003</b>	Budget
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The objective of the project was to improve knowledge in the field of environmental protection in the countries of Central and Eastern Europe. The transfer of knowledge was based on existing training modules that were prepared and tested within the framework of previous projects. On the basis of analysis of the state of environmental education in the countries of project partners the educational modules and study materials were adapted and pilot-tested through the train-the-trainers seminars. All modules and materials created within the project framework are now disseminated through dissemination network established by the project partners.



<b>Cleaner Production Handbook for industrial enterprises in Kazakhstan</b>			
Type of activity <b>Study</b>	Contracting Authority <b>KAP Ltd.</b>	Realisation <b>2002</b>	Budget

The CPC developed a Handbook on Cleaner Production measures for industrial enterprises in Kazakhstan as a subcontract for contracting organisation KAP Ltd., Prague. The handbook comprises tools for technology processes and material flow optimisation, pollution prevention principles, energy efficiency tools and other similar measures.

<b>The environmental and economic impact analyses of products</b>			
Type of activity <b>Study</b>	Contracting Authority <b>ZS Brno Co.</b>	Realisation <b>2002</b>	Budget

The study is a follow-up of a Cleaner Production Project realised in 2000. It provides analyses of the product life cycle, focusing on the product use phase in comparison with other products.

<b>Seminar on End-of-Life vehicles</b>			
Type of activity <b>Seminar</b>	Contracting Authority	Realisation <b>2002</b>	Budget

The first seminar focusing on the issues of End-of-Life vehicles (ELV) was organised as a part of accompanying programme of the Brno Trade Fairs in the year 2000. From the basic information about the possibilities of using individual fractions of ELV waste the discussion proceeded to the requirements of the EU Directive 2000/53/EU and the Act no. 185/2000 Coll., on waste, the issues of prevention, quality of waste that can be used as raw material and international experience with dismantling, processing and utilisation of parts and materials recovered from ELVs.

<b>National Cleaner Production Programme</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2000-</b>	Budget

CPC was appointed the Agency of the National Cleaner Production Programme (NCP) in the year 2000. The Agency prepares materials for the Council of NCP and background documentation for regular annual evaluation of the NCP results by the Minister of Environment and the CR Government. The Agency proposes projects (e.g. trainings for public administration and consultants, regional CP projects, establishing regional centres of sustainable development), searches support for projects within the NCP, especially for small and medium sized enterprises. CPC as an Agency operates public library and information database focusing on industrial pollution prevention.

<b>Programme of support to preventative measures from the NEFCO fund</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Nordic Environment Finance Corporation</b>	Realisation	Budget



In the year 2000 Scandinavian NEFCO Fund (Nordic Environment Finance Corporation) earmarked 4 mil. EUR for loans to finance realisation of preventive measures from the cleaner production projects. In course of the next year the conditions and mechanisms of obtaining loans was specified. The NEFCO Fund selected 5 pilot projects out of 12 applications submitted to test the proposed mechanism and methodology of providing loans. In the year 2002 the CPC prepared in co-operation with companies 4 complete applications for the NEFCO loans. The co-operation with the Fund has been interrupted last year.

**Modelling a common decision-making system for utilisation of waste as a secondary raw material demonstrated on the example of processing tyres in the cement industry using the LCA methodology (ISO 14004)**

Type of activity <b>Study</b>	Contracting Authority <b>Ministry of Trade and Industry</b>	Realisation <b>2003</b>	Budget
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The aim of the project was to evaluate environmental aspects of using waste as raw material with the link to legislation and existing policies; creating common decision-making algorithms enabling to evaluate the possibilities of utilisation of waste as a raw material from the environmental, economic and social point of view; the algorithm was tested on the example of utilising tyres and waste rubber in cement industry.

**Promoting objectives of Multilateral Environmental Agreements**

Type of activity <b>Project</b>	Contracting Authority <b>InWEnt</b>	Realisation <b>2003</b>	Budget
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Within the project "Environmental support of Enterprises in the South East Europe" financed by the German organisation InWEnt the CPC prepared a series of seminars in Rumania, Macedonia and Bulgaria aimed at presenting the principles and tools for using Multilateral Environmental Agreements to the employees of public administration, industry and other interested stakeholders. In course of the seminars the participants were also introduced to the experience with the process of integration of CR into European Union, with special focus on implementation and harmonisation of horizontal legislation, especially the IPPC Directive.

**Application of preventive approaches in selected companies of Kazakhstan connected with transfer of Czech technologies and know-how**

Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2003-</b>	Budget
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The aim of this project carried out within the framework of Czech bilateral development assistance is reduction of negative impact of industrial production in Kazakhstan. The integral part of these projects is application (or recommended use) of Czech environmental technologies. In cases where analyses or marketing studies show potential for broader utilisation of certain environmental technologies on the market in Kazakhstan, possibilities of starting joint production in the recipient country will be searched.



<b>Safe recycling of electric and electronic scrap</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Ministry of Environment</b>	Realisation <b>2003-</b>	Budget

This project aims at proposing a system of collection, dismantling and recycling of electronic equipment after the end of its life-cycle in an environmentally-friendly way. The project should also test technical and economic parameters for creating complex system solution in the CR. The proposed system will be tested in a pilot project and suitable technologies will be identified. A strategy of dealing with "electro-scrap" will be developed as a support to fulfilment of requirements of the Waste Act and support to implementation of a newly proposed EU Directive on electroscrap.

<b>Developing the capacity in the field of Integrated Product Policy through transfer of the best practice between the Institute of Ecological Economy research and the Czech CPC</b>			
Type of activity <b>Project</b>	Contracting Authority <b>EC</b>	Realisation <b>2003-2004</b>	Budget

The project is based on development of basic skills and extending of CPC range in the field of IPP tools implementation with the focus on Life Cycle Assessment. The transfer of experience is realised through exchange programme with experienced NGO partner organisation located in Germany, which provides to CPC an expert training, and consultations focussed on theoretical background and practical application of the LCA. The extended CPC capacity is then utilised into LCA methodology handbook, organisation of seminar, preparation of the proposal of the pilot LCA project applicable in SME.

<b>Analysis of material flows at a macroeconomic level with the application at a microeconomic level and using the analysis for elaboration of indicators of sustainable development</b>			
Type of activity <b>Project</b>	Contracting Authority <b>Centre for Environment</b>	Realisation <b>2003-2004</b>	Budget

The aim of this project is to analyse material flows in the Czech Republic with the use of background documentation obtained within previous studies. The analysis should describe potential use of methodology of material flows in decision-making processes with respect to the principles of sustainable development, when elaborating indicators of sustainable development at macroeconomic level and possible connection of material flows accounts and company accounting.

<b>PRODESTS - Promotion, Demonstration and Development of Sustainable Environmental Technologies for SMEs</b>			
Type of activity <b>Project</b>	Contracting Authority <b>European Commission</b>	Realisation <b>2004-2006</b>	Budget

The aim of the project is to stimulate technology development by European environmental SMEs and technology demonstration at SME users to increase their commitment in future related Integrated Projects within FP6. The CPC plays the role of a local partner within the project, facilitating contacts and Information exchange between Czech SMEs and the project network.