



# Annual Report 2014

# RESOURCE EFFICIENT AND CLEANER PRODUCTION CENTRE OF UKRAINE

**UNIDO PROJECT:** "Promoting the adaptation and adoption of RECP (Resource Efficient and Cleaner Production) through the establishment and operation of a Cleaner Production Centre (CPC) in Ukraine" - UE/UKR/11/001 and UE/UKR/11/002

**FUNDED BY:** 

SWISS CONFEDERATION REPUBLIC OF AUSTRIA

#### List of abbreviations

**CPC** Cleaner Production Centre (=RECPC)

CP Cleaner Production
ChL Chemical Leasing
IE International Expert
EoI Expression of Interest

**IPA** In-plant assessments

ISO International Organization for Standardization

NE National Expert

**NEFCO** Nordic Environment Finance Corporation

NTUU "KPI" National Technical University of Ukraine "Kiev Polytechnic Institute"

RECP Resource Efficient and Cleaner Production Programme
RECPC Resource Efficient and Cleaner Production Centre

SAEE&EM State Agency of Energy Efficiency and Energy Management SECO The State Secretariat for Economic Affairs (SECO) is part

of the Swiss Federal Department of Economic Affairs

**SRC** Swiss Reference Centre

UAH Code of Ukrainian currency (Hrivna) according to ISO 4217
ULIE Ukrainian League of Industrialists and Entrepreneurs

UNDP United Nations Development Programme
UNEP United Nations Environment Programme

**UNIDO** United Nations Industrial Development Organization

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#### **Background**

The UNIDO project "Promoting the adaptation and adoption of RECP (resource efficient and cleaner production) through the establishment and operation of a Cleaner Production Centre in Ukraine" aims at enhancing the resource productivity, competitiveness and environmental performance of industry in Ukraine. It supports the adaptation and adoption of Resource Efficient and Cleaner Production methods, practices, technologies and policies, providing national industries with the necessary tools to facilitate access to national and regional markets with environmentally sound products and improve the ability of national enterprises to successfully negotiate their position in the global market.

The present 5 year project, supported by the Swiss Confederation and Republic of Austria, builds on the results and lessons learned during the implementation of the previous UNIDO project phase for establishing a National Cleaner Production Programme in Ukraine which has been ongoing since 2007.

#### **The Centre**

On 29 January 2013, the official inauguration of the project took place at NTUU KPI and in June 2013, the Centre ("Resource-Efficient and Cleaner Production Centre", further referred as RECPC) obtained legal status to facilitate the delivery of services to the industries, municipalities and the national government.

Founders of the Centre and three main national project partners are: National Technical University of Ukraine "KPI" (http://www.inter.kpi.ua/), Science Park "Kyivska Polytechnika" (http://www.spark.kpi.ua/) and Ukrainian League of Industrialist and Entrepreneurs (http://www.uspp.org.ua/).

A Swiss consortium under the lead of the University of Applied Science and Arts Northwestern Switzerland (FHNW) was selected as Swiss Reference Centre to provide technical support to the Centre in Ukraine. In October 2013, the Swiss Chief Technical Advisor (CTA) was invited to Ukraine to assist the team of the Centre in technical as well as in strategic development. Due to the political crisis in the country, the CTA renounced beginning of 2014 and left the Centre. A new candidate for the post has been pre-selected and is expected to start the assignment in the first quarter of 2015.

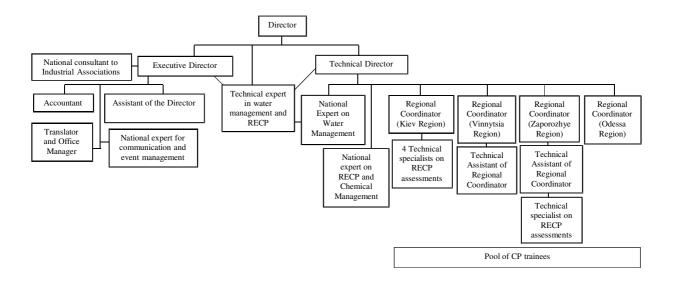
The Centre is located at the premises of the National Technical University of Ukraine and has a professional team of experts from different industrial sectors and academic background. It follows a sector and regional approach focusing on national priority sectors, namely chemicals, agro-processing, metallurgical and metal processing industries. The target regions foreseen in the original project documents are Vinnitsa, Zaporozhe, Kiev, Lviv, Luhansk, Kherson & Crimea.

*The 5 core activities of the Centre are:* 

- 1. Information dissemination and awareness raising
- 2. National capacity building
- 3. Technical assistance and in-plant assessments

- 4. Policy advice
- 5. Technology transfer and development of financial mechanisms

The organizational set-up and structure of the Centre is presented below:



The team of the Centre consists of 25 staff members recruited on part-time and full-time basis in four different regions. In addition, the Centre established a pool of trainees and cooperates with national experts on contract basis.

#### 1. Introduction

The present report provides an overview of activities carried out from January to December 2014 in the framework of the UNIDO project: "Promoting the adaptation and adoption of RECP (Resource Efficient and Cleaner Production) through the establishment and operation of a Cleaner Production Centre (CPC) in Ukraine" and highlights results achieved.

#### 1.1. Highlights in 2014

The following is a summary of the main achievements in 2014:

- The national staff of the Centre has grown from 20 to 25 technical experts and administrative support personal, working on part-time and full-time basis.
- 19 RECP assessments were completed and the following results achieved:
  - Total economic savings from identified RECP options amount to Euro 935,000 per year:
    - *Reduction in materials consumption 176 t/y*
    - Reduction in water consumption  $180769.6 \text{ m}^3/\text{y}$
    - *Energy savings* 19 367.1 *MWh/y*
    - Reduction of  $CO_2$  emissions 4 451 t/y
- 39 workshops organized for 92 trainees (with average number of approx. 12 participants per workshop)
- 1 train-the-trainer workshop carried out for 9 experienced national RECP experts
- 5 companies signed contracts with the Centre on commercial basis leading to a total income of 22,400 UAH
- Extension of cooperation agreement with IFC until end of 2015
- The Centre engaged in the regional EU funded project "Greening Economies in the Eastern Neighbourhood" (EaP GREEN) as national focal point
- The web-site was **re-launched** (www.recpc.kpi.ua)
- Regional Focal Points were further strengthened in the four regions Kyiv,
   Vinnitsa, Zaporizhia and Odessa

#### 2. Results achieved in 2014

The Centre achieved significant results in 2014 in improving its operations and networks and the quality of RECP assessment work at company level. Despite the fact that the political and economic crisis in the country slowed down daily work in considerable manner, especially during the first months of the year, the Centre fulfilled its targets to a great extent. The Centre finalized 19 company assessments (target: 23) and initiated cooperation with 17 new companies (target: 20). The professional expertise in the Centre and its regional focal points was further strengthened and 61 new trainees engaged in RECP trainings in four regions, resulting in 122% fulfillment of the target in the work plan. Sector specific RECP work and elaboration of guidelines were initiated but need further attention.

Cooperation with financial institutions was reinforced and the MOU with IFC extended until the end of 2015. In most of the information and awareness seminars organized by the Centre, 3- 4 different financial institutions presented available financial instruments and credit lines to participating companies. Despite these efforts, companies were reluctant to take loans mainly because of two reasons: High interest rates and devaluation of the local currency UAH.

Efforts in bringing RECP policy work forward and in specific obtaining the approval of the National CP strategy were hindered by changes in the Government structure, high-fluctuation of Ministries' staff and the general political instability.

In regard to fostering financial sustainability, the Centre made some progress and generated first income from services provided to companies and engaged in the EU funded "Greening Economies in the Eastern Neighbourhood" (EaP GREEN) that brought additional financial resources. Financial sustainability, however, remains a challenge and participating in additional internationally funded project like the EaP Green should be considered.

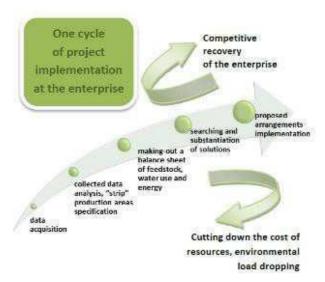
Cooperation with the international expert consortium from FHNW further improved, even though, the Chief Technical Advisor (CTA) resigned at the beginning of 2014 because of the political crisis in the country. Efforts to recruit a new expert for this post were on-going in 2014 and it is expected that the new CTA start the assignment in the first quarter of 2015.

As already stated, the work of the RECP Centre in 2014 was affected by the political and economic crisis in the country which escalated following the decision of the Ukrainian government in November 2013 to suspend the process of signing an Association Agreement with the European Union. This decision led to massive protests in the center of Kyiv, as well as in other cities of Ukraine, called "Euromaidan" in social networks and media.

The crisis made it impossible to fulfill the original plan and establish regional offices in the regions of Crimea, Luhansk and Donetsk regions. During the Steering Committee meeting at the beginning of 2014, it was, thus, agreed to postpone any further expansion to new regions beyond Kyiv, Zaporizhzhia, Vinnitsa and Odessa.

#### 2.1. Technical assistance at plant level

19 of the 23 RECP company assessments initiated in four region in 2013 were finalized this year 2014, following the below stated project cycle.



One cycle of RECP project implementation at the enterprise

Total economic savings **identified** in 2014 - **more than 935 thousands EUR/y**, derived from:

- Reduction in materials consumption 176 t/y
- Reduction in water consumption 180 769.6 m<sup>3</sup>/y
- Energy savings 19 367.1 MWh/y
- Reduction of CO2 emissions 4 451 t/y

Total economic savings of **implemented** options in 2014 – **more than 94 thousands EUR/y**, derived from:

- Reduction in materials consumption 160 t/y
- Reduction in water consumption 74 135,36 m3/y
- Energy savings 2 059,25 MWh/y
- Reduction of CO2 emissions 760,03 t/y

This comparison shows that a large potential for improvement at plant level is still to be explored over the coming months. Experience shows that low cost options are being implemented rather fast while options requiring larger investment take time. In the current economic situation it is rather unlikely to expect that companies will

undertake large investments. This has also become quite clear in discussions with IFC that has frozen its green credit line in Ukraine.

Obtaining reliable data from companies is another challenge faced due to several reasons: Lack of monitoring data at the company side, lack of trust to reveal data to persons from out-side the company and non-availability of adequate measurement instruments. In 2014, additional portable measurement instruments were purchased to facilitate date collection at plant level and make company management better aware of the costs related to inefficient resource consumption. The involvement of experts from the region has proven to be helpful to gain the interest and commitment from companies. Increasing prices for energy also stimulated the interest of companies in RECP work.

The Centre managed to sign five commercial contracts for a total of UAH 22,400 with the following companies: "Kalinivsky machine building plant", OJSC "Kombinat stroyindustrii", OJSC "Mayak", OJSC "Beton ot Kovalskoy" and "OJSC "Ukrgraphit.

From July to December the Centre undertook considerable efforts to involve new companies in RECP work. In total, 17 companies from Vinnitsa, Zaporizhia, Odessa and Kyiv region signed cooperation agreements with the Centre and the respective assessments are going to be finalized in 2015.

For detailed information, please refer to Annex 4 - List of Companies involved in RECP assessments in 2014.

#### 2.2. National Capacity Building

Training for new RECP experts was enhanced and the training portfolio diversified. In total, 92 trainees from four regions took part in RECP expert trainings carried out mainly by Centre staff with some support from international experts. It is planned to involve the trainees that fulfill all requirements and obtain the UNIDO CP Expert Award in future assessment programmes and strengthen the presence in the regions.

A specific train-the-trainers workshop was carried out to train 9 experienced NCPC staff. These trainers will continue to form new RECP experts at national level. In September a training cycle on life cycle assessments (LCA) started in Kiev, followed by workshops in Vinnitsa. In total 20 persons were trained and a core LCA team was established within the Centre.

#### 2.3. Policy Advice

Policy work has been a major challenge during the past years. In 2013, the Centre was invited by the Ministry of Environment to participate in the development of a CP strategy. The strategy paper was elaborated and discussed during two round tables with several Ministries and the Department of Strategy Planning, Economy and Finances and finally adopted by the Ministry of Economy. Unfortunately, the Ministry of Finance

refused the strategy review and as a consequence it has not yet been submitted for approval to the Cabinet of Ministry of Ukraine. The frequent staff changes in the different Ministries together with changes in the overall Government structure and different priorities are hindering forces.

Despite these difficulties, the Centre coordinated the national RECP policy working group and organized several meetings with the different stakeholders. Regional RECP focal point offices were encouraged to participate and to carry out similar initiatives in the respective regions.

#### 2.4. Awareness Raising and Information Dissemination

Awareness on the RECP and the Centre as national focal point for RECP services increased through the organization of thematic events as well as the active participation of the Centre in national and international seminars, fairs, round tables etc.

The cooperation with industrial associations in organizing four RECP information seminars for the members (Chemical Union, Construction, Metal and Agro Associations) brought good results and allowed to better target the interventions. This approach will be further enhanced in the up-coming year.

The organization of the final RECP award conference that took place in the four regions remains a good instrument to attract national industries, government representatives and financial institutions.

Attention was also given to build-up the corporate identity of the Centre by re-designing the webpage and publishing a number of PR materials and being present in the media.

See annex 5: List of awareness raising events and information materials.

#### 2.5. Technology Transfer and Development of Financial Mechanisms

Ukrainian companies face serious obstacles in introducing higher-cost RECP options and technologies due to limited access to finance and lack of financial incentive schemes. In 2014 interest rates for credit line increased up-to 50% and potential investors were reluctant to invest in the country. The devaluation of the local currency and the crisis caused a freeze of the green loans offered by ProCredit Bank and supported by IFC.

The Centre, however, continued and enhanced its cooperation with the following financial institutions and potential funding sources:

- EBRD (UKEEP) SM Business Support Program;
- GIZ:
- GUF (German-Ukrainian Fund);
- Ukreximbank;
- Megabank;

- Ukrprofbank;
- Invest Fund Kalinin;
- NEFCO.

Following the good evaluation of the results coming from the co-operation of the Centre with IFC, the MOU for jointly promoting RECP in Ukraine was renewed and extended until end of 2015.

Delays occurred in the development of sector specific RECP manuals, so far only one manual for the metal sector was elaborated. Main reasons for this being that the Centre needed to gain in-depth experience and know-how on the sector specific application of RECP.

#### 2.6. Steering Committee and Advisory Board

A Steering Committee meeting took place in April 2014. During the meeting, two main decisions were taken: Postpone the expansion to new regions and reduce the target for companies involved in RECP assessment from 10 to five companies per region and year. The possibility to extend by 2 years the project duration without budget increase was positively reviewed by the Steering Committee members. The final decision on the extension, however, will depend on the results of the mid-term evaluation that was planned to take place in 2014 but faced delays.

No Advisory Board meeting took place because many of its members come from different Ministries and governmental institutions that faced drastic changes and staff fluctuation.

#### 3. Additional activities of the Centre

## 3.1. EU funded project: The "Greening Economies in the Eastern Neighbourhood" (EaP GREEN)"

This regional project is jointly implemented by OECD, UNEP and UNIDO in six countries: Azerbaijan, Armenia, Belarus, Georgia, Moldova and Ukraine.

The UNIDO managed Regional RECP Demonstration Component Projects are part of the Regional Action of the European Union to support the greening of economies in the EaP countries. The UNIDO component supports in each of the six EaP countries individually as well as regionally:

- Creation of human and institutional capacities for RECP;
- Demonstration, dissemination and replication of RECP in priority sectors (chemicals, food and construction materials);
- Transfer of and investment in RECP technologies.

In the case of Ukraine, the Centre was selected as national focal point for the implementation of demonstration and training activities in the construction material sector. EaP Green in the country is supported by the Ministry of Ecology and Natural Resources and the Ministry of Economic Development and Trade.

#### 3.2. New projects applications

In line with the recommendation of the Steering Committee and previous work experiences, the Centre staff sees the need to engage in additional projects to foster its sustainability and carried out the following activities;

- Preparation of an offer to participate in the new project "Supporting investments in sustainable municipal solid waste management and recycling in Ukraine" (EBRD);
- Development of a proposal on "Enhancing International Waters Sustainability through Nutrient Discharge Reduction from WWTP's and Agricultural Areas in Ukraine". Result: Presentation of the Project Proposal at CIS-GEF Workshop "Regional Capacity Building for Developing Programmes for Mitigation of Global Environmental Problems" (13-17 October 2014, Vienna);
- Participation in the development of the Terms of Reference for the Project "Energy Audit Ukraine Higher Education" (EIB) prepared;
- Participation in the preparation process for the UNIDO Project "Introduction of the Energy Management System Standards in Ukrainian Industry".

#### 3.3. Partnership development

Enhancing cooperation with its founding institutions and main stakeholders as well as entering in new partnership were clear objectives of the Centre in 2014.

#### Overview of partnerships and joint activities:

Partner name	Cooperation/ Joint activities in 2014
Ukrainian League of Industrialists and Entrepreneurs	Agreement on joint coordination of RECP activities in Vinnitsa region (with a Vinnitsa branch of ULIE)
Zaporozhye Chamber of Commerce and Industry	Cooperation Agreement on RECP implementation in Ukraine
Association of Energy Efficiency and Energy Saving	Cooperation Agreement on RECP implementation in Ukraine
Odessa National Academy of Food Technologies	Cooperation Agreement on RECP implementation in Odessa region
Kyiv National University on Design and Technologies	Cooperation Agreement on RECP implementation discussed
National University of Water Management and Land Use, Rivne	Cooperation Agreement on RECP implementation discussed
NGO "Institute of green economy"	Agreement on Cooperation and Coordination of activities related to Green Economy
NGO "Zhiva planeta"	Agreement on Cooperation and Coordination of the activities related to the organization of the International Forum "Green Mind"
World Data Centre of Geoinformatics and sustainable development	Cooperation Agreement on organization of joint public events related to sustainable development
Ukrainian Union of Manufactures of Building Materials and Products	Cooperation Agreement onjoint organization of public events related to sustainable development

#### 4. Gender mainstreaming

Following the recommendations of the report on gender mainstreaming into CP activities developed by a national expert in 2013, several internal training took place to include Gender mainstreaming aspects in the operations of the Centre.

In 2014, the gender mainstreaming work focused on:

- Development of a draft gender strategy;
- Collection, monitoring and analysis of gender disaggregated statistics;
- Continuation of internal gender trainings;
- Incorporation of Gender Platform into the revised website of the Centre;
- Initiation of cooperation with other organizations in the countries involved in gender mainstreaming and equity work;
- Planning in cooperation with IFC of a joint national conference on "Women in industry and RECP".

Gender mainstreaming remains an important element of the Centre's work and additional efforts need to be undertaken to include qualified women trainees and experts in the RECP work of the Centre.

#### 5. Lessons learned and recommendations

This year's activities have proven that the process of RECP option identification and implementation was built upon mature methodological approaches. However, work in practice and data analysis led to several conclusions in terms of lessons learned and recommendations for the future that are stated hereinafter.

First, the <u>RECP methodology needs to be further targeted</u> to the national reality in the country. This conclusion is closely connected to the fact that political developments in the country need to be considered very thoroughly for each single project across sectors. Project management in the country needs to be accompanied by adequate risk management and analysis of influence factors for industrial development in different regions and sectors.

Second, it was found that sector-specific RECP training was limited and should be addressed more in the up-coming year. Companies expect workshop leaders and RECP experts to be familiar with certain sector-specific processes. A stronger involvement of sector-specific international experts should be considered as this would also facilitate information transfer on new RECP technologies. In this regard the successfully started cooperation with professional associations in the regions can be up-taken as a promising element to not only increase awareness on RECP but to also address company needs according to the sector-specific demand of RECP techniques and technologies.

Third, on a strategic level, a need for developing and implementing efficient <u>RECP upscaling mechanisms</u> was identified, while at the same time increasing the attempts to systematically collaborate with the <u>large consumers of resources and energy</u> in the regions. Both intents come along with the recommendation to <u>closer cooperate with partners from industry</u> (such as the Ukrainian Union of Industrialists and Entrepreneurs, the Chamber of Commerce in Ukraine) and to achieve a <u>better interaction with local authorities</u> in the development of resources and energy conservation programmes in the regions.

Finally, on a more operational level, it was found that training needs must be analyzed in more detail. It is suggested to <u>adjust training material</u>, be more practical, develop more case studies and to also include <u>gender mainstreaming activities</u> more often in RECP trainings. In this regards, it seems helpful to define clearly job functions of members of the regional teams and bring them to the attention of employees. This could be supported by enhanced planning and organization of international expert missions that adequately refer to specific topics (i.e. RECP expert for agricultural practices, gender experts etc.).

#### 6. Outlook

For 2015 the focus will lay on regional expansion; up-scaling; fine tuning of the country and sector-specific RECP methodology; enhanced gender mainstreaming work; further capacity building in financial engineering and strengthening of the Centre's operations.

<u>Regional expansion</u>: In the second half of 2015 it is planned to initiate assessment and training activities in 10 companies and prepare the ground for the establishment of focal points in two new regions: Lviv and Kharkiv. In both regions a stronger cooperation with UNIDO's up-coming energy standards project is planned.

<u>Up-scaling</u>: The Centre has gained considerable RECP expertise at company level to consider innovative approaches to enhance up-scaling. In this regard, the creation of RECP clubs ("association of enterprises of cleaner technologies" as proposed by the Centre staff) that fuses RECP best practices into a strong network of RECP expertise is being considered.

<u>Country and sector specific RECP methodology:</u> As already mentioned in the previous section, the market demands strong sector know-how. With the support and active engagement of international and national sector-specific experts additional sector specific guidance and guidelines will be developed. In additional, a UNIDO Comfar training will be organized to train the Centre staff and experts on financial engineering and adequate cost and investment calculations.

<u>Gender mainstreaming</u>: The gender strategy will be finalized and training workshops on gender mainstreaming in RECP operations and activities will be carried out in all regional focal offices. In cooperation with IFC a national conference on *women in green industry* will be organized to raise awareness of the role of women in advancing RECP.

<u>Centre's operation</u>: A new CTA is expected to be recruited in the first quarter of 2015 who will support the technical as well as the management work of the Centre. Next steps will be tailored following the results of the in-depth evaluation that will take place in 2015.

Finally, the organization of a study tour to visit selected enterprises and institutions involved in RECP activities in the donor countries Austria and Switzerland should be considered.

## Financial summary

#### **O**verview

	Expenditures,	Incomes
	Euro	received from
		companies
		and other
		projects, Euro
• Office equipment in 4 regions, maintenance of the	7 214,53	
offices in 4 regions (without rent payments)		43 011,06
Measurement equipment in 4 regions	12 112,16	
Office equipment software in 4 regions	1 238,07	
Salaries of RECPC staff	170 039,30	
<ul> <li>Rent payments in Kiev, Vinnitsa, Zaporizhya for events and office</li> </ul>	2 571,75	
<ul> <li>Communication and internet in 4 regions</li> </ul>	417,27	
Notary, Lawyer, Auditor	3 469,35	
Stationary and Post services in 4 regions	1341,74	
Translation during events in 4 regions	2 081,59	
Bank services	403,40	
Sector-specific experts in Kiev and Zaporozhye regions	4 934,54	
Travels of the technical experts to the regions	1 825,92	
Organization and participation in conferences, fairs and other events in 4 regions	9 079,55	
PR materials, leaflets, toolkits, all advertising and information printing materials	4 404,39	
<ul> <li>Video spots (interviews and advertising spots about Centre and Final Conferences)</li> </ul>	1 334,42	
<b>Total expenditures in 2014</b> (for the date of 31 <sup>st</sup> December 2014)	222 467,98	
Total amount received in 2014	281 228,00	
Total incomes received from companies and other		43 011,06
projects in 2014		
Amount on hand left from the Project (for the date of		
31 <sup>st</sup> December 2014)	58 760,02	

### ANNEX 1

## **Logical Framework**

efficient and cleaner	ation and adoption of RECP (resource production) through the establishment Cleaner Production Centre (CPC) in	Country/Region: UKRAINE  Means of verification	Project Number / Code:  Important assumptions
activities			
Project objective  To enhance efficiency, productivity, competitiveness and environmental performance of companies in Ukraine, especially SMEs, through the implementation of Resource Efficient and Cleaner	Aspects 1. Environment: reduced environmental footprint of companies and other organizations. 2. Production efficiency: increased resource productivity (including energy efficiency) and reduced operational and/or compliance costs to the SME's and other organizations. 3. Policy: implemented and enforced	<ul> <li>Final project evaluation</li> <li>Aggregated results from demonstration projects</li> <li>Project progress reports</li> <li>Introduction of new policies, legislation and/or guidelines</li> <li>Regional development reports</li> <li>Surveys of target sectors</li> <li>Companies' annual reports</li> <li>National RECP database</li> </ul>	National stakeholders from government, industry, academia and financial institutions are interested in RECP and prepared to implement it.
Production methods, practices and technologies	policies and regulations conducive to RECP and RECP promoted at the national level 4. Technologies and Financial mechanisms: increased RECP technology up-take and adaptation by target companies and sectors		

Outcomes			
1. RECP(incl. ChL) service delivery capacity - CPC delivers value adding RECP services to companies, government organizations and business service providers that enable and promote the upscaling of RECP implementation	<ul> <li>Recognition of the CPC by private and public sectors and civil society</li> <li>Quality of services and products available increased</li> </ul>	<ul> <li>Final project evaluation</li> <li>Annual reports</li> <li>Qualitative assessments of services</li> <li>Professional and scientific publications</li> <li>RECP conferences and workshops</li> </ul>	<ul> <li>Interest in RECP services exists among national industries which have recognized the relevance and benefits of RECP</li> <li>Potential for up-scaling of RECP exists</li> <li>Interest in sound chemicals management exist</li> </ul>
2, RECP (incl. ChL) applications at company level - RECP concepts, methods, practices and technologies have been implemented by companies and other organizations in Ukraine, and the environmental, resource saving and economic benefits thus achieved have been verified.	<ul> <li>Reduced environmental footprint of enterprises</li> <li>Increased resource productivity and chemical management of enterprises</li> <li>Reduced operational and compliance costs of enterprises</li> </ul>	<ul> <li>Final project evaluation</li> <li>Annual reports</li> <li>Environment, financial and/or sustainability reports of companies</li> <li>Review of results and benefits of demonstration projects</li> <li>Professional and scientific publications</li> <li>RECP conferences and workshops</li> </ul>	Inefficient production processes affect the competitiveness of national industry and generate demand for RECP and Chemical Leasing

3. <u>RECP policy and strategy:</u> - Mechanisms for mainstreaming RECP concepts and policy instruments have been created at suitable administrative levels in relevant national and regional policies and regulations	<ul> <li>Increased role of RECP in environmental, industrial and other relevant policies at national and regional level and an increased number of relevant policies introduced</li> <li>RECP practices and technologies embedded in technical guidelines of target sectors</li> <li>Policies, strategies, incentives and instruments for RECP increased</li> <li>Increased awareness levels for RECP in key departments and agencies</li> </ul>	<ul> <li>Annual report</li> <li>Final project evaluation</li> <li>Statistics</li> <li>Qualitative assessments</li> <li>Reviews</li> <li>Workshop and meeting reports</li> <li>Publication of relevant policies, strategies and guidelines</li> <li>Active participation of government representatives in the CPC Advisory Board and other RECP-related events</li> </ul>	<ul> <li>Stable government willing to cooperate in RECP</li> <li>Relevant ministries and regional authorities are interest in RECP and are willing to cooperate</li> </ul>
4. Technologies and financial mechanisms:  - Target companies are implementing RECP technologies and have achieved economic and environmental savings	<ul> <li>Increased availability and transfer of RECP technologies</li> <li>Increased number of financial instruments and cooperation agreements to support RECP technologies developed, promoted and applied in cooperation with IFC and other financial institutions and donors</li> <li>Increased number of enterprises have implemented the innovation, transfer and development of RECP technologies</li> <li>Increased financial and human capacity for the adaptation, development and transfer of RECP technologies</li> </ul>	<ul> <li>Reports of providers of RECP technologies and trade promotion services</li> <li>Final project evaluation</li> <li>Annual report</li> <li>Case studies</li> <li>Trade statistics</li> <li>Discussions</li> <li>Qualitative assessments</li> <li>Reports from financial institutions</li> <li>Surveys</li> </ul>	<ul> <li>RECP technologies are relevant and beneficial to industry and national companies are committed to implementing them</li> <li>Local suppliers are interested in developing and supplying key RECP technologies to enterprises</li> <li>National industrial sectors and enterprises are interested in the innovation and development of RECP technologies</li> <li>Financial institutions have RECP technologies in their strategy and are interested in supporting their application</li> </ul>

Output Category 1			
RECP service delivery	Indicators Achieved	Indicators Planned according to Project Document	Important Assumptions and Comments
1.1. CPC established and operating as per agreed institutional and governance provisions	<ul> <li>3 Annual Steering Committee meetings organized since the start of the Project</li> <li>1 Advisory Board meeting organized</li> <li>Adequate staffing and facilities for the CPC: by the end of 2014, 12 full time employees and 13 part time employees were working for the Centre in the 4 regional offices established in Vinnitsa, Zaporozhe, Kiev and Odessa. 1 kick-off meeting carried out for starting of the Lviv regional office.         Negotiations initiated with Mr.         A.Kinakh (ULIE President) to setup a regional office in the branch of ULIE in Kharkiv.</li> <li>Draft business plan developed</li> <li>5 staff members trained on CPC management and business planning within the framework of cooperation with GIZ 2014</li> <li>3 annual reports drawn up and monitored</li> <li>Quality management system still to be further developed</li> <li>Financial monitoring in place</li> <li>Registration of the CPC as independent legal entity finalized in June 2013</li> </ul>	<ul> <li>Regular meetings of the Project Steering Committee and Advisory Board</li> <li>Adequate staffing and facilities for the CPC</li> <li>Establishment of 6 regional offices</li> <li>Business plan developed</li> <li>Minimum of 10 staff members (including regional coordinators) trained on the CPC management and business planning</li> <li>Annual reports drawn up and monitored</li> <li>Annual work plans and reviews drawn up and monitored</li> <li>Quality management system in place</li> <li>Financial monitoring in place</li> <li>Registration of the CPC as independent legal entity</li> <li>In year 5, the self- financing degree (national costs) will be 50 %</li> </ul>	<ul> <li>Important Assumptions at the start of the project:</li> <li>Main national stakeholders are interested in developing a solid institutional foundation and governance arrangements for the CPC</li> <li>Stable economic situation allowing the fulfilment of the CPC business plan.</li> <li>Comments:         <ul> <li>Advisory Board: Most of its members are from the Government. The organization of additional Advisory Board meetings was delayed because of the political and economic crisis in Ukraine (end of 2013 – 2014).</li> <li>Business Plan: Additional work to be done to finalize the plan.</li> <li>Quality management system: Setting-up a system in line with ISO 9001 is being considered.</li> <li>Self-financing is a challenge during the present economic and political crises.</li> <li>The establishment of regional offices in Crime cancelled and the one for Luhansk postponed.</li> </ul> </li> </ul>

	<ul> <li>In 2014 (year 3) the self-financing degree was 13,12 %</li> </ul>		
1.2. CPC staff and associated experts trained in basic and advanced RECP methods and applications	<ul> <li>In total, since the start of the Project 15 staff members trained on RECP methodology</li> <li>39 experts in 4 regions trained on RECP methodology and certified</li> <li>3 experts and 9 junior experts trained on ChL activity</li> <li>16 RECP and ChL trainers trained</li> <li>18 experts trained on CP related topics (water management issues and LCA)</li> <li>4 training materials were developed/translated/adopted for Ukraine on RECP (target: 2): Update version of the Ukrainian CP toolkit (water management chapter); Introduction to assessment of meat plant; Compressed Air and Evaporation Exercise Training Presentation; Analysis of material flows and Ishikawa diagram Training Presentation</li> <li>ChI toolkit adopted, translated and printed</li> <li>The current database includes 79 RECP experts</li> </ul>	<ul> <li>Number of training courses for CPC professional staff and associated experts</li> <li>Minimum 10 staff members (including regional coordinators) trained on RECP methodology</li> <li>Minimum 15 experts trained on RECP methodology per year/region (per 5 years: minimum 380 experts trained)</li> <li>Minimum 30 experts trained on ChL during first 3 years</li> <li>Minimum 3 RECP and ChL trainers trained per year/region (per 5 years: minimum 15 trainers trained)</li> <li>Minimum 4 experts trained on specific CP- related topics per year/per region (per 5 years: minimum 80 experts trained)</li> <li>Minimum of 2 training materials developed/translated/adopt ed for Ukraine on RECP</li> <li>Minimum 1 training material developed/translated/adopt ed for Ukraine on ChL</li> <li>Databases on RECP and ChL experts created</li> </ul>	Important Assumptions at the start of the project:  Availability of qualified national experts interested to be trained on RECP and Chemical Leasing  Comments:  More staff members trained than planned: 15 staff members were trained on RECP this is 50% higher than the target.  RECP experts trained: The target for the first three years was to train 45 certified RECP experts in three regions. By the end of 2014, 39 RECP experts in four regions were certified according to UNIDO's criteria. It should be noted that 61 trainees took part in the trainings but only 39 fulfilled the requirements.  Chemical Leasing: Only 3 experts received in-depth training on ChL because the political and economic situation makes it difficult to introduce the model. The model is being amended and the scope broadened to sound chemicals management.  More RECP trainers than planned: 16 RECP trainers trained, the target was 15 for five years  Experts trained on CP related topics: The target of 36 experts could not be reached because of the need to focus on training of RECP experts.

Output Category 2			
RECP service delivery	Indicators Achieved	Indicators Planned according to Project Document	Important Assumptions and Comments
2.1 Awareness and understanding of RECP opportunities and benefits improved at national and regional levels among companies, authorities and other stakeholders	<ul> <li>Website developed and up-dated on regular basis, including a specific gender platform, training materials on RECP and related topics and linked to the UNIDO Knowledge Management System</li> <li>13 awareness seminars carried out for key stakeholders and representatives from target groups</li> <li>18 promotional and information materials and case studies/articles on RECP and ChL developed</li> <li>RECP branding developed: Logo, posters, case studies, folders, etc, available</li> <li>RECP/ChL is integrated in the master curricula on Ecology, Environmental Protection and Sustainable Use of Natural Resources at NTUU KPI (http://kpi.ua/web_eco-kpi)</li> <li>Since the start of the Project 2 workshops were jointly carried out with financial institutions and associations:         <ul> <li>Joint IFC-RECPC workshop</li> </ul> </li> </ul>	<ul> <li>Website and helpdesk established</li> <li>Minimum of 5 awareness seminars per year on RECP and ChL organized and attended by key stakeholders and representatives from target groups</li> <li>Minimum of 5 promotional and information materials and case studies/articles on RECP and ChL developed per year</li> <li>RECP branding developed</li> <li>Minimum of 3 Universities have integrated RECP/ChL in their curricula</li> <li>Minimum of 2 information seminars per year carried out with financial institutions and other industrial associations</li> <li>Minimum of 5 RECP/ChL related videos for TV-programmes developed</li> <li>Minimum of 2 ChL</li> </ul>	Important Assumptions at the start of the project:  Basic interest in information on opportunities for and benefits of RECP among main stakeholders, target sectors and regions exists  Comments: RECP/ChL integration in university curricula: Additional efforts will be undertaken to involve more universities. ChL activities are delayed and a broader approach to sound chemicals management will be applied in the future because of the economic and political critical situation in the country

	on RECP methodology and financial instruments, April 4th, 2013  • Workshop "Financial and technical instruments for Resource Efficient and Cleaner Production (RECP) for agro processing sector companies", June 11th, 2014  • In addition, representatives from different banks and financial institutions participated in information and awarding events of the Centre  • 8 RECP/ChL related videos were developed and broadcasted for TV-programmes and on YouTube  • 5 RECP Award ceremonies organised  • 16 fairs/big national events related to RECP attended; see annual report annex 7	information seminars and one roundtable for countries of the Black Sea region organised  1 ChL Award Ceremony organised  5 Annual RECP Award Ceremonies organised  Minimum of 3 events as trade fairs/roundtables/ big national or regional conferences related to RECP/ChL attended per year	
2.2 Demonstrated potential of RECP for the reduction of waste, greenhouse gases (GHG) and other emissions (water, raw material, etc.) as well as Chemical Leasing for the sound management	<ul> <li>31 RECP assessments finalized in 4 regions</li> <li>3 ChL demonstration projects developed and 3 companies involved</li> <li>16 % of participating companies in 2014 implemented more than 50% of options developed (evaluated at the end of 2014)</li> </ul>	<ul> <li>Minimum of 10 RECP assessments per year/region (per 5 years: minimum 200 assessments)</li> <li>Minimum of 10 ChL demonstration projects developed and 20 companies involved</li> <li>Minimum of 70 % of participating companies implemented more than</li> </ul>	Important Assumptions at the start of the project:  Companies are interested in implementing RECP and ChL  Comments: During the Steering Committee Meeting in 2014, the members agreed to reduce the original target of 10 RECP assessments per year/region (per 5 years: minimum

of chemicals and energy efficiency	<ul> <li>1 sector specific RECP manual for the metal sector developed prepared</li> <li>1 ChL manual published</li> <li>Database on target sectors and sector-specific RECP and Chemical Leasing case studies developed</li> <li>Data base containing RECP technical options developed</li> </ul>	50% of options developed 3 sector specific RECP manuals published 1 ChL manual published Database on target sectors and sector-specific RECP and Chemical Leasing case studies developed	200 assessments) to 5 RECP assessments per year/region.  The target for implementation of RECP options is not achieved: Main reasons for this are the economic and political crises in the country and the lack of access to financial sources and viable credit lines.  Recommendation: Review this target and discuss new approaches for fostering implementation of RECP options at plant level.  Give priority to the development of sector specific manuals
2.3. Mechanisms established for the sector-based replication and up- scaling of RECP results and opportunities in business	<ul> <li>First documents were developed (pre-assessment questionnaires for companies) to serve as sector-based self-assessment tools, benchmarks and guidelines</li> <li>First initiatives started for agriculture on group-based training and assistance model for the upscaling of RECP</li> </ul>	<ul> <li>Sector-based self-assessment tools, benchmarks and guidelines for minimum of 3 sectors developed</li> <li>Group-based training and assistance model for the up-scaling of RECP created</li> </ul>	Important Assumptions at the start of the project:  Sufficient market for the replication of results of RECP assessment projects  Comments: The development and implementation of efficient RECP up-scaling mechanisms should be an important focus for the next years. The Centre has by now gained sufficient experience to address this matter.
2.4. Results and benefits of RECP and ChL demonstrations documented in verifiable and transparent manner	<ul> <li>National specific indicator framework for measuring RECP benefits at company level established and based on general RECP programme indicators</li> <li>Global sustainability criteria for ChL business models applied</li> </ul>	<ul> <li>National specific indicator framework for measuring RECP benefits at company level established and based on general RECP programme indicators</li> <li>Global sustainability criteria</li> </ul>	Important Assumptions at the start of the project:  Participating companies provide reliable data and are willing to share their experiences in RECP and ChL.

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	<ul> <li>Verification of benefits achieved by demonstration companies</li> </ul>	for ChL business models applied Verification of benefits achieved by demonstration companies	
Output Category 3			
RECP service delivery	Indicators Achieved	Indicators Planned according to Project Document	Important Assumptions and Comments
3.1. Policy assessment carried out and RECP strategy developed	<ul> <li>A national working policy working group was established in 2013</li> <li>Gaps identified for RECP promotion and policy</li> <li>A draft for a CP State Strategy was presented at the Policy Round Table (October 8, 2013) and is being discussed among Government members.</li> </ul>	<ul> <li>National working groups established and operational</li> <li>Gaps identified for RECP promotion and policy</li> <li>Policy strategy with RECP targets and policy instruments</li> </ul>	Important Assumptions at the start of the project:  Government and relevant private sector and civil society stakeholders are committed to developing, implementing and enforcing RECP-conducive policies and regulations  Comments:  The political and economic situation makes policy work very challenging
3.2. National action plan for RECP developed and implementation mechanisms established	<ul> <li>Implementation mechanisms for RECP policy and strategy are being discussed with the Ministry of Ecology.</li> <li>National action plan not published</li> </ul>	<ul> <li>Implementation         mechanisms for RECP         policy and strategy         developed</li> <li>National action plan         published</li> </ul>	<ul> <li>Important Assumptions at the start of the project:</li> <li>Government and relevant private sector and civil society stakeholders are committed to developing, implementing and enforcing RECP-conducive policies and regulations</li> </ul>
3.3. Implementation and enforcement capacity of the government for RECP-related policy and legislation enhanced	<ul> <li>Programme of training and implementation support for government officials Not yet established</li> <li>Establishment of database of national RECP experts and expertise established and open to central government and regional authorities</li> </ul>	<ul> <li>Programme of training and implementation support for government officials established</li> <li>Database of national RECP experts and expertise established and open to central government and regional authorities</li> </ul>	Important Assumptions at the start of the project:  Government and relevant private sector and civil society stakeholders are committed to developing, implementing and enforcing RECP-conducive policies and regulations

3.4. Technical guidelines for target sectors developed	<ul> <li>Gaps identified in the RECP technical guidelines</li> <li>Guidelines development initiated in cooperation with IFC</li> </ul>	<ul> <li>Gaps identified in the system of technical guidelines</li> <li>Minimum 3 guidelines developed, tested and endorsed for target sectors</li> </ul>	Important Assumptions at the start of the project:  Opportunities exist to foster the application of RECP practices and technologies by strengthening the national system of technical guidelines for industrial installations
3.5. RECP opportunities utilized for the national implementation of Multilateral Environmental Agreements (MEAs): Persisting Organic Pollutants (POPs), Ozone Depleting Substances (ODS), GHG, hazardous waste, Clean Development Mechanisms (CDM)	<ul> <li>Assessment of commitments and actions under RECP-relevant MEA NOT yet undertaken</li> <li>Identification of opportunities for MEA implementation initiated, e.g involvement of Centre in UNIDO Stockholm Convention activities</li> </ul>	<ul> <li>Assessment of commitments and actions under RECP-relevant MEA undertaken</li> <li>Opportunities for MEA implementation identified</li> </ul>	Important Assumptions at the start of the project:  The Government of Ukraine is committed to MEAs and interested in considering RECP as an opportunity for fostering the implementation of MEAs  Comment:  The assumption is only partially fulfilled.  Involvement of Centre in Stockholm Convention activities planned for 2015.
<b>Output Category 4</b>			
RECP service delivery	Indicators Achieved	Indicators Planned according to Project Document	Important Assumptions and Comments
4.1. Professional capacities created and utilized to support the adaptation, development and transfer of RECP technologies	<ul> <li>Training of experts on RECP technologies and related topics initiated as part of assessment work initiated</li> <li>Development of 2 sectors specific training materials on RECP technologies initiated for</li> </ul>	<ul> <li>Minimum of 5 experts per region/year trained RECP technologies and related topics</li> <li>At least 3 sectors specific training materials on RECP technologies</li> </ul>	Important Assumptions at the start of the project:  Availability of qualified national experts interested to be trained on RECP technologies

		paper and cellulose industry and for food and beverage industry. No experts trained on COMFAR up-to-date	•	developed/adapted 20 experts trained on COMFAR	Comments:  UNIDO's COMFAR methodology has been revised and, therefore, the training has been postponed to 2015.
4.2. Awareness and understanding of RECP technology opportunities improved at national and regional levels		9 promotion and information events on RECP technologies carried in cooperation with local technology providers  Sector-specific or problem specific surveys (e.g. water treatment, waste minimisation etc) initiated carried out  9 requests received for assistance in the development and transfer of RECP technologies from target industries  8 service providers contacted the CPC for involvement in RECP technologies activities, the active participation of these companies is still being discussed		Minimum of 3 promotion and information events on RECP technologies carried out per year  Minimum of 3 sector-specific or problem specific surveys (e.g. water treatment, waste minimisation etc) carried out  Minimum of 10 requests per year received for assistance in the development and transfer of RECP technologies from target industries  Minimum of 20 service providers contacted the CPC and got involved in RECP technologies	Important Assumptions at the start of the project:  Industry, business service providers and government agencies are interest in RECP technologies
4.3. RECP technology opportunities are identified as part of RECP assessments	•	88 technology options identified 30 % of identified options were evaluated	•	Minimum 20 of technology options per year identified Minimum 10 of technology options per year evaluated	<ul> <li>Important Assumptions at the start of the project:</li> <li>Companies in Ukraine possess great potential to develop and implement RECP technologies within their operations</li> </ul>

4.4. Agreements and financial	<ul><li>2 financial established</li><li>No grants received</li></ul>	<ul> <li>Minimum of 3 financial mechanisms established</li> </ul>	Important Assumptions at the start of the project:
mechanisms to support RECP technologies	<ul><li>1 joint publication under development with IFC</li><li>4 joint events</li></ul>	<ul> <li>Minimum 200,000 Euro of special grants received</li> </ul>	<ul> <li>Financial institutions and other donors have included RECP technologies in their strategies and</li> </ul>
developed and implemented on the	with financial institutions carried out	<ul> <li>Minimum of 3 joint publications developed</li> </ul>	are interested in supporting them
basis of meetings and discussions held with key	<ul> <li>1 annual meetings/conferences to discuss further cooperation organised</li> </ul>	<ul> <li>Minimum of 5 joint events organised</li> </ul>	
financial institutions and donors	6 large— scale technical assessments for the clients of IFC, NEFCO carried out	<ul> <li>5 annual meetings/conferences to discuss further cooperation organised</li> </ul>	
		<ul> <li>Minimum of 10 large—scale technical assessments for the clients of IFC, NEFCO and other financial institutions carried out</li> </ul>	
4.5. Economic and environmental benefits of RECP technology adaptation, development and transfer verified	<ul> <li>6 RECP technology assessments carried out</li> <li>Minimum of 70 % of participating companies implemented more than 50% of options developed 16 % of participating companies in 2014 implemented more than 50% of options developed (evaluated at the end of 2014)</li> <li>Minimum of 3 RECP technology (sector or problem specific) case studies drawn up 2 RECP technology case studies developed (Promgaztechnology, DVRZ)</li> </ul>	<ul> <li>Minimum of 5 RECP technology assessments per year carried out (totally minimum of 25 assessments)</li> <li>Minimum of 70 % of participating companies implemented more then 50% of options developed</li> <li>Minimum of 3 RECP technology (sector or problem specific) case studies drawn up</li> </ul>	Important Assumptions at the start of the project:  Ukraine has the potential to adapt, develop and transfer RECP technologies and is interested in doing so Financial mechanisms are available to support RECP technologies.  National policies that support RECP technology adaptation, development and transfer are in place

4.6. Stakeholder
platform to support
RECP technology
adaptation,
development and
transfer has been
established and is
taking an active
role in advocating
RECP technologies
at company level

- RECP technology working group established: Head of RECP technical working group – Konstiantin Tadlya
- Knowledge management and database on RECP technology providers established: Participation at the Regional KMS of the EECCA Region at http://eecca.recpnet.org/
- Three meetings were organized to increase cooperation agreements between companies and technology developers
- One event focusing on the development of RECP technologies and their implementation in target sectors organized in cooperation with the Innovative Fund "Kalinin"

- RECP technology working group established
- Knowledge management and database on RECP technology providers established
- Increased cooperation agreements between companies and technology developers
- Increased number of events focusing on the development of RECP technologies and their implementation in target sectors

## Important Assumptions at the start of the project:

- There is a need and interest to increase cooperation and establish active communication, information and knowledge management tools
- There is an interest in the sector to stimulate innovation in this area

 $\label{eq:ANNEX2} \mbox{Results achieved versus the five priorities set out in the work plan for 2014}$ 

Priority	Planned	Achieved
Appoint national and international experts of the AG1 to provide training on UNIDO's RECP methodology as well as on the RECP technology development and transfer and provide technical assistance in the implementation of the RECP service market)  RECP projects at plant level (Amount of trainees in 4 regions at the beginning of 2014 - 50, amount of companies in 4 regions at the beginning of 2014 - 23)		Amount of trainees in 4 regions – 61 instead of 50 (122%), amount of companies in 4 regions – 19 instead of 23 (78%)
	Appoint national and international experts for Assessment Group (AG) 2 to provide training on UNIDO's RECP methodology as well as on the RECP technology development and transfer and provide technical assistance in the implementation of the RECP projects at plant level:  - appointment of CP experts in 4 regions as supervisors for new trainees from the list of experts of 2014;  - development of schedule for visits and WS in 4 regions	7 supervisors appointed in 4 regions
	Establish evaluation criteria for the selection of companies that are interested in the implementation of the RECP projects and carry out the final selection of the companies and national experts that will participate in the CP projects:  - Update of criteria for selection process;  - Selection of 5 companies in each region (4 regions). Total min 20 companies;  - Selection of new trainees for AG2 (10 trainees/region)	29 companies in 4 regions selected for AG2 (K:3, V:10, Z:10, O:6); 51 trainees selected for AG2 (K:15, V:11, Z:14, O:11)

Establish 20 agreements (in 4 regions)	Kick-Off Meetings,
with the participating new companies for AG2 and carry out initial meetings at plant level to discuss the individual needs, benefits and timeframes of the implementation of the RECP projects: - Kick-Off Meetings in companies; - Agreements signed	were organized in 29 companies. 17 companies signed agreements for participation in AG2
Organize assessment teams (AG2) and develop the final assessment implementation plan: - selection of trainees (20 assessment teams in 4 regions); - develop assessment plan; - establishment supervisors for separate teams	51 trainees for assessment teams (K:15, V:11, Z:14, O:11); 2 supervisors (V:1, Z:1)
Provide continuous support and assistance to on-going 20 companies pre-assessed by AG1 (approx. 48 visits) participating in the RECP projects and identify the RECP techniques and technology options to be applied by the companies	Continuous support and assistance to on- going 19 companies provided pre- assessed by AG1
Collect information from 20 on-going companies and draw up the final technical reports on the findings and results of the implementation of the RECP projects (together with AG1): - collect information; - final reports and presentations	19 final technical reports and presentations at company level done
Start to collect information from 20 new companies (together with AG2):	Pre-assessments at 14 new companies finalized

Create and update a database on national benchmarks	Regular update of database of companies
Draw up 2 case studies to demonstrate the specific approaches of Chemical Management for sound chemicals management in selected industrial sectors	2 case studies (two types of fertilizers)
Develop and update a database on the target sectors and sector-specific and ChM case studies: -appointment of selected applicant for ChM coordinator position; - development of action plan on ChM	5 applicants for ChM coordinator but no appointment
Analyze the RECP technology options identified during the RECP assessments and calculate environmental and economic benefits for 12 companies assessed in 2012-2013	Done for 12 companies
Analyze the RECP technology options identified during the RECP assessments and calculate environmental and economic benefits for on-going companies assessed in 2014 by AG1	Calculations for 19 IPAs done
Provision of RECP services of the indepth assessments to companies on payment basis (5 follow-up companies: KPI, Mayak, ISP, Vetropak, Boguslav,)	Done
Review and analyze the different technology databases available: - Seminar of Swiss Reference Centre (SRC) experts Participants - 10	Done
Identify the key RECP technologies with high environmental and resource productivity benefits and high replication potential in the respective sectors	Done but needs continuous attention

Identify possibilities for the transfer of existing technologies and/or adaptation and further development of existing and emerging technologies	Done but needs continuous attention
Establish a RECP technology working group, nominate a coordinator, and develop the schedule of meetings	Partially done
Develop and organize a number of information events focusing on the development of RECP technologies: - Seminar of SRC experts and RECP Technology Vendors to Experts and Companies (in the framework of mission in Jun. of Carbotech	Partially done-
Provide quick scan of the new 20 companies as a part of selection process (20 QS reports)	3 QS reports (15%) Needs attentions
Provide focus assessments for selected 3 companies (3 reports)	Not achieved
Provide specific assessments for selected 3 companies (3 reports)	3 specific assessment reports done
Select and involve sector-specific experts (4 sector-specific experts for 5 months) on payment basis for provision sector-specific assessments and technical consulting	5 sector-specific experts (125%), selected and involved
Prepare new working places for the new technical experts recruited in September for purposes of intensifying assessments at company level in Kiev, Vinnitsa and Zaporozhye regions	New working places (K:2, V:1, Z:2) established as planned
Purchase additional office and measurement equipment and appropriate analytical software technology adaptation, development and transfer	Done

2nd priority: Training of CP experts for CP methodology implementation (conditions creation for the	Collect the information on available national experts trained on CP: - updating database of best trainees from the AG1	Done
market and the active work of the CPCs)	Collect information on the national technicians/experts interested in participating in the RECP training courses: - distribution announcement about training course in Ministries and Institutes, Universities (in 4 regions); - involvement selected experts to training course	
	Develop a schedule of training activities for AG2 for each region defining in detail supervision and monitoring: - development of schedule for visits and WS in V and Z regions; - development of schedule for visits and WS in K and O regions	Done
	Organize and carry out 16 Workshops in total in 4 regions as training course for the selected trainees on UNIDO's RECP methodology (AG1). Note:*SRC participate according to missions planned (61trainees in 4 regions)	Done
	Organize and carry out 16 Workshops in total in 4 regions as training course for the selected trainees on UNIDO's RECP methodology (AG2). (expected number of trainees - 40 in 4 regions):  - Preparation. Carrying out kick-off seminars in Vinnytsia and Zaporizhia;  - Preparing training materials for new phase of Workshops	More than planned 51 new trainees in 4 regions

Carry out the final evaluation test upon completion of the training course for AG1	Done
Carry out 1 train-the-trainer workshops (10 participants)	Done
Analyze the potential and necessity to develop additional training materials or specific training courses: - discussion potential for LCA training and training on preparation companies for the ISO certification; - discussion of possibility to develop Water management training course; - Development of water management training materials + ChM	Done
Finalize the selection of national experts who will participate in additional in-depth training courses on Sound Chemicals Management (7 technical experts from the CPC):  - Preparation for the Training (Trainer - ChM Coordinator from other CPC);  - ChM Training for RECP experts	Not achieved
Updating the existing database of national RECP and ChL experts	Partially achieved
Organize and carry out min. 1 LCA training (3-days training) in each region, 1 seminar on more efficient water use in each region (4 regions)	Done
Organize 1 UNIDO RECP Award/Final conference in 4 regions (100 participants in each region): - Award of experts from AG1	Done

3rd priority: Information dissemination and awareness	Create a calendar for the participation in relevant national/regional events (conferences, trade fairs, roundtables, etc.)	Done
raising on UNIDO RECP project, RECP methodology and RECPC (creation conditions for RECP service market)	Participate in the selected national events on Ecology and Energy and Resource Efficiency and present the RECP concept and the work of the CPC (7 events per year):  - Int. Ecological Forum (Slavutych);  - Green Expo (Kiev);  - Fair "Foundry and Metallurgy"(Zaporozhye);  - Int. Energy Forum (Zaporozhye);  - Fair "Energy in industry" (Kiev);  - Fair "Energy Efficiency" (Kiev);  - Int. Industrial Forum (Kiev)	More than planned (5 in total)
	Regular update of the CPC website, link it to the important websites. Incorporate Gender Platform to the CPC website as well as an interactive map of the main activity regions of the CPC: - Support; - Gender Platform	Done
	Organize, together with the main national institutions from the selected industrial sectors and regions, 5 information seminars to outline the RECP concept and its application at plant level:  - Kalinivka (Vinnitsa region), 17/02 (11 pers.);  - Slavutych (Kiev region), (20 pers.);  - Kiev (20 pers.);  - Kiev (20 pers.);  - Kiev (20 pers.);	4 seminars organized. (80% achieved)

Organize and carry out 4 Awareness 3 Awareness raising raising seminars for Industrial seminars organized 9 Associations. Invite key stakeholders and (75% achieved) representatives of companies from target sectors to participate: - AR for Chemical Union of Ukraine; - AR for Construction Association of Ukraine: - AR for Metal Association of Ukraine; - AR for Agro Association of Ukraine **Update** promotion and information Done materials (1 leaflet about UNIDO, 1 leaflet Leaflets about Centre, 1 leaflet about IPA at 9 RECP case studies company level, 1 leaflet about support of and 2 RECP articles IFC, 1 leaflet about ChM), elaborate 12 3 video spots RECP case studies and 2 RECP articles. 5 videos on You Produce 1 video spot about the CPC and Tube its services and put it on the website Develop the marketing and branding Done strategy for the CPC and its RECP services: - Commercial Proposal; - Draft strategy; - Involvement the number of marketing experts to the process of development of marketing and branding strategy.

carrying

on issues

out

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-Organization

information

and

potential for commercialization of RECP and marketing strategy development

seminar

	Establish new cooperation with 5 new universities and follow-up cooperation with existing 7 universities; assist them in developing a RECP course to be included in the curricula:  - National University of Life and Environmental Sciences of Ukraine (Kiev);  - National University of Food Technologies,  - University of light technologies and design;  - Lviv Polytechnic University,  - Odessa Agrarian University;  - Establish contacts with J. Staniskis (Kaunas UT) for providing seminar for CPC on cooperation with universities in line of RECP course introduction	Partially achieved
4th priority: Cooperation with financial institutions	Collect and analyze information on existing agreements and financial institutions/mechanisms that might support RECP technologies in Ukraine	Done
	Discuss with the main institutions involved in RECP financing (IFC, World Bank, IBRD, Nefco, Min. Economy, donors, etc.) the implementation and/or adaptation needs of the respective instruments applied (e.g. credit lines, grants, etc.):  - 11 IFC meetings; - 5 NEFCO meetings	Partially achieved: 5 IFC meetings (45%) 5 NEFCO meetings (100%)
	Establish a joint plan of action (agreements) with selected and interested institutions on developing and implementing financial instruments for supporting RECP:  - Action Plan with Nefco; - Renew Cooperation Agreement with IFC	Done

	Organize annual meetings/conferences with financial institutions to discuss the further development of agreements and credit lines: - Annual Meeting	Not achieved
	Develop and organize 1 specific training workshop on RECP with financial institutions for Agro-processing companies	Not achieved
	QS of 10 agro processing companies with IFC	Not achieved
	Update 1 joint publication with IFC and Nefco: - Update of IFC-RECPC joint leaflet	On going
5th priority. Cooperation on RECP policies (creating the conditions for RECP service market)	Coordinate and/or participate in national working group(s) on RECP policy, invite relevant stakeholders to the group(s) and organize a schedule of regular meetings (regular meetings): - Participation in working group on RECP policy; - Participation in working group on Green Growth; - Participation in working group on EaP Green; - Participation in working group on elaboration State Concept on CP	Done
	Encourage regional stakeholders and Regional Focal Point Coordinators to participate in the work on the RECP policy and strategy: - Participation in working group on RECP policy; - EcoProfit Approach at municipality	Partially achieved

Arrange visits for some of the participants of the working group(s) to benefit from the experiences already gained in other countries:  - Arrangement of visit to another country	Not achieved
Maintain continuous lobbying activities towards the integration of RECP supporting measures within the national environmental and industrial policies	
Review and analyze technical guidelines and identify areas of improvement and potential for the incorporation of the RECP concept	Not achieved
Analyze the national structure of the RECP technology market (incl. suppliers) and different demands in the target regions and sectors:  - 1 Meeting with market experts and companies for discussion RECP technical option market	Needs attention

#### ANNEX 3

# Monitoring Matrix for Swiss Cooperation Strategy Ukraine 2011-2015 (based on the Result Framework of the CS) (Values of the indicators marked with \* are additionally explained at the bottom of the table)

Indicator	Observed Values			Target-2015	Source	Comments, including reference to Transversal Topics		
	2011	2012	2013	2014	2015			
Cumulative number of     enterprises targeted by Swiss     interventions applying cleaner     production	-	IPAs initiate d in 18 compa nies and 2 regions	12 IPAs finalized + 20 new IPAs initiated in 4 regions	19 IPAs finalized + 14 new IPAs initiated in 4 regions	20 new IPAs in 4 regions	According to decision of the Steering Committee (16/04/2014) the number of IPA has been reduced to 5 IPAs per year and region	IPAs reports	It is expected that minimum 70% of the addressed companies implement more than 50% of the RECP options developed.  Comment: 16 % of participating companies in 2014 implemented more than 50% of the RECP options developed
Self-financing degree of Cleaner Production Centre (CPC)	-	0	Approx. 2 %	13,12 %	Approx. 5.5%	No target for 2015	CPC business plan UNIDO annual report	In Year 5, the self- financing degree (national costs) should be 50%.
3. Annual energy savings (total amount in MWh and %)	-	-	33,425 MWh/y (17,1%)	19 367 MWh/y (21,15 %)	About 20%	15% energy savings		This value includes natural gas and electricity saving.
Pollution reduction in target enterprises by introducing RECP							Assessment reports	
-Indicator 1: Annual Greenhouse Gas								

IPA:In-Plant-Assessment

(GHG) emissions/CO2 reduction (total amount in t of CO2 and %)			8,700 t/y (9,7 %)	4 451 t/y (8,57 %)	About 10%	-10% CO2 emissions		
-Indicator 2: Annual sewage water reduction (total amount in m3 and %)			23,480 m3/y (8,1 %)	162 979,3 m3/y (12,8 %)	About 10%	-10% sewage water		
-Indicator 3: Annual reduction of material consumption and waste (total amount in t and %)			4,272 t / y (1,1 %)	176 t/y (0,1 %)	About 1 %	- 2 % material and waste		
5. Annual water savings (total amount in m3 and %)	-	-	106 708 m3/y (17,5%)	180 769,6 m3/y (12,8 %)	About 15%		Assessment reports	

# Additional explanations on the observed values of some indicators

Indicator	Comments on the observed value 2011	Comments on the observed value 2012	Comments on the observed value 2013	Comments on the observed value 2014	Comments on the observed value 2015
Self-financing degree of Cleaner Production Centre (CPC)	No data available, as Swiss intervention has started in 2012	Lack of responses from industry to pay for RECP services	Contracts with 3 companies, totaling to 18,000 UAH, established	Contract with 1company, totaling to 22,400 UAH, established  EU funded Regional EaP GREEN Programme – national component Ukraine: Financial contracts for national staff and activities of national staff (excl. international expert costs) amounted in 2014 to approx. Euro 30,000.	Contracts signed and service delivery is on-going with 3 companies. Negotiation is on-going with 2 companies in addition. Subcontract on demonstration component of EaP GREEN Programme in Ukraine is ongoing in 2015.
Reduction of pollution intensity in target enterprises by introducing RECP	No data available, as Swiss intervention has started in 2012	Assessments were not yet finalized	Basis for calculation: % and total amount of reductions in C02, waste water, material and waste	Basis for calculation: % and total amount of reductions in C02, waste water, material and waste	Basis for calculation: % and total amount of reductions in C02, waste water, material and waste

IPA:In-Plant-Assessment

Indicator	Comments on the observed value 2011	Comments on the observed value 2012	Comments on the observed value 2013	Comments on the observed value 2014	Comments on the observed value 2015
49. GHG emissions avoided in target enterprises of CPC	No data available, as Swiss intervention has started in 2012	No data completed	Only C02 values were calculated – 8 666 t/y CO2 emission	Only C02 values were calculated - 4 451 t/y CO2 emission	Only C02 values were calculated

#### **ANNEX 4**

# List of Companies involved in RECP assessments in 2013-2014

Companies participating in AR 1 that started in 2013 and finished in 2014

#### Kiev region

#	Company	Project status	Comments
1.	JSC "Brovary Moloko"	Assessment Completed. Implementation and monitoring	
2.	Private JSC "Brewary Ziberta"	Only pre- assessment done.	company management decided not to continue
3.	Public JSC "Kombinat Budindustrii" (Construction Materials Factory)	Assessment Completed. Implementation and monitoring go on. Discussing a contract signing possibility.	-
4.	National Technical University of Ukraine "KPI"	Assessment Completed. Implementation and monitoring go on.	-
5.	Public JSC "Chervony Zhovten"	Only pre- assessment done.	company management decided not to continue
6.	Private enterprise "Auto-Active"	Assessment Completed. Implementation and monitoring go on. Discussing a contract signing possibility.	-
7.	Public JSC "S. Kovalska Reinforced-Concrete Products Plant"	Assessment Completed. Implementation and monitoring go on.	-

### Vinnitsa region

#	Company	Project status	Reasons
1.	Private JSC " Kalynivskyi Machine Building Plant"	Assessment Completed. Implementation and monitoring go on.	-
2.	Private JSC "Mogilev-Podilskyi Machine Building Plant"	Pre-assessment, project put on hold at the stage of in-depth assessment.	Company management decided not to continue.
3.	"Nemyriv Factory of Cooperative Industry" at Nemyriv district consumers' society	Assessment Completed. Implementation and monitoring go on.	-
4.	Company "LIME-CENTRE" Ltd.	Assessment Completed. Implementation and monitoring go on.	-
5.	Farming enterprise "Yulia +"	Completed.	-
6.	Farming enterprise "Laptyeva"	Completed	-
7.	Research Agricultural Enterprise Hushchenetskyi Highest Vocational College	Pre-assessment, project put on hold at the stage of in-depth assessment.	Due to transportation difficulties (access to the enterprise) faced by experts, project is on hold
8.	Private JSC "Majak"	Repeated assessment, currently at implementation stage.	Changes in company staff

## Odessa region

#	Company	Project status		Reasons		
1.	Mineral water plant "Kuyalnik"	Only	pre-	Company	manager	nent
		assessment		decided	not	to
		completed.		continue.		
2.	"Micron" Ltd.	Only	pre-	Company	manager	nent
		assessment		decided	not	to
		completed.		continue.		
3.	Olexandrivskyi meat-processing plant	Assessment		-		
		Completed.				

4.	Biliayevskyi meat-processing plant	Assessment		-
		Completed.		
5.	Canning factory "Evrica"	Only	pre-	Company management
		assessment		decided not to
		completed.		continue.
6.	Plastic products factory "Sanpromin" Ltd.	Assessment		-
		Completed.		
7.	Bakery "Nove Dilo" Ltd.	Only	pre-	Company management
		assessment		decided not to
		completed.		continue.

# Zaporizhia region

#	Company	Project status	Reasons
1.	SPC "Rost" Ltd.	Assessment Completed. Implementation and monitoring go on.	-
2.	Municipal enterprise "International Zaporizhzhia Airport"	Assessment Completed. Implementation and monitoring go on.	-
3.	Public Joint-Stock Company "Zaporozhye Plant of welding fluxes and glass products"	Assessment Completed. Implementation and monitoring go on.	-
4.	Public Joint-Stock Company "Plant "Zaporozhavtomatika"	Assessment Completed. Implementation and monitoring go on.	-
5.	Public Joint-Stock Company "Ukrainsky Grafit"	Assessment Completed. Implementation and monitoring go on.	-

# Companies participating in AR 2 that started in 2014

## Kiev region

#	Enterprises	Specialization	Agreement	Pre-	Number
				assessment	of visits
1.	"M-Kvadro" Ltd.	Lime and	Signed	On-going	2
		Sand-Lime			
		bricks			
2.	JSC "Vishnevskii Casting	Machine Signed		Not started	2
	and Forging plant"	building			
3.	Vasylkivmlyn	Food On-going		Not started	3
		processing	_		
Total number of visits					

## Vinnitsa region

#	Enterprises	Specialization	Agreement with a company	Pre- assessment	Number of visits
1	PJSC "45 Experimental Mechanical Plant"	Machine building	Signed	Finished, Follow up	17
2	PJSC "Gnivansky special reinforced concrete plant	Construction material manufacture	Signed	Finished, Follow up	9
3	PJSC "Koziatynbread"	Food (Bakery)	Signed	Finished, Follow up	6
4	"Lider" Ltd.	Food	Signed	Finished, Follow up	7
5	"Bonus-u" Ltd.	Agro processing	Signed	Finished, Follow up	6
6	"Vinnytsia Cooperative Institute"	Educational institution	Signed	Finished, Follow up	10
7	"Krasnyansky specialized enterprise "Agromash" Ltd	Machine building (for agricultural sector)	On-going	Not Started	2
8	"Khlibne Shastia" Ltd	Food (Bakery)	On-going	Not Started	2
9	Municipal utility companies "Energyresources"	District heating	On-going	Not Started	2
10	Privat Enterpreneur Martynenko	Bakery	On-going	Not Started	2
Tot	al number of visits				63

## Zaporizhia region

#	Enterprises	Specialization	Agreemen t	Pre- assessment	Numbe r of visits
1	Private enterprise production and commercial firm "Polymer"	Electrotechnic al manufacturing, Production of plastics, Wood-working production	Signed	On-going	2
2	Zaporizhia Municipal Company of City Electric Transport "ZaporizhElectroTrans"	Public Transport	Signed	On-going	4
3	PJSC "Berdiansk bakery"	Food	Signed	Not started	1
4	PJSC "Zaporizhzhya Confectionery "ZKF"	Food	Signed	On-going	3
5	PJSC "Zaporizhzhya hlebzavod #2"	Food	Signed	Not started	1
6	PJSC "Zaporizhzhya hlebzavod #5"	Food	Signed	Finished, Follow up	5
7	Zaporizhzhia Asphalt Concrete Plant	Building Materials	On-going	On-going	2
8	Reinforced concrete plant № 1	Building Materials	On-going	On-going	2
9	ZaporizhzhiaTitanium- Magnesium Plant	Metallurgy	On-going	Not started	2
10	Zaporozhye Industrial- Mechanical Plant	Machine building	On-going	Not started	1
Tot	al number of visits				23

## Odessa region

#	Enterprises	Specialization	Agreement with a company	Pre- assessment	Number of visits
1	"IceBlik» Ltd.	Production of purified inert gases	Signed	On-going	3
2	"Paritet" Ltd.	Construction materials	On-going	On-going	3
3	"Starokozatskii syr" Ltd.	Food	On-going	Finished, Follow up	4

To	Total number of visits				
		radiators			
		aluminum			
6	"Santechrai" Ltd.	Production of	On-going	On-going	5
5	Odessa bread factory	Food	Signed	On-going	4
4	"Walker" Ltd (Restaurant)	Food	Signed	On-going	3

#### **ANNEX 5**

Draft ResolutionOn Conclusions of the Roundtable on Policy and Development of the legislation basis in the sphere of resource efficient and cleaner production (RECP) in the framework of III International Forum "Green Mind"

Date: 3 Oct 2014. 14.30-18.00

Location: Kyiv, Velyka Zhytomyrska, 33

#### **Moderators of the Roundtable:**

Petra Widmer, Deputy Director, Swiss Cooperation Office, Karim Zein, President, Sustainable Business Associates, Igor Shylovych, Director of Resource Efficient and Cleaner Production Centre (RECPC)

Representatives from different international organizations (Swiss Cooperation Office in Ukraine, CSD INGENIEURE AG and Sustainable Business Associates), as well as representatives of the Ministries, Departments, Unions, institutes and universities of Ukraine took part in the Roundtable. **Total number of participants is 42.** 

#### **Decisions of the Roundtable:**

- RECP has great importance in developing green economy. The example of implementing RECP technologies were Swiss Confederation and a range of European countries. In Swiss Confederation, a Business Council for sustainable development was created for realizing RECP technologies.
- Nowadays the Ministry of Economic Development and Trade is developing a project on fundraising to overcome environmental impacts of those companies that have ceased their operation. In the framework of the project it is planned to make payments to a non-governmental fund to be used for the intended purpose or to eliminate the consequences in case of company's bankruptcy or suspension, or to improve the direction of energy efficiency of the enterprises. The Government introduced changes to the Tax Code of Ukraine regarding increase of lease payment for use of mineral resources, which will favor efficient use of natural resources; the Law on Standardization and Program on elimination of technical barriers have been also improved. It is expected that all these activities will foster process of cleaner production in Ukraine.
- The problem of ecological standards and requirements towards companies was analyzed with consideration of examples of industry "greening" in European countries (Switzerland and Germany), Asia (Vietnam) and South America. The abovementioned countries already use a number of efficiency indicators (including resource efficiency and cleaner production) for evaluation of company operation. It allowed achieving growth in companies' productivity with simultaneous reduction of their negative influence on environment (decrease of pollution indicator per one unit of product).

• Switzerland and Ukraine partnership in RECP and BEN spheres envisages certain interaction and mutual complementation. BEN will facilitate creation of target groups and relations between producers, dissemination of information and development of strategies on increasing awareness level, evaluation of RECP practices and technologies by business representatives (pilot projects); it will also ensure industries timely reaction on specific internal and external policy. As regards development of recommendations and taking decisions on fostering the introduction of RECP state strategy it was mentioned that baseline study is necessary for analysis of RECP status in the country, as well as conducting a number of meetings with companies for identification of the leaders for participation in BEN, creation of an independent network, including vision, membership criteria, strategy for ideas dissemination, analysis of sources of financing and liaison with relevant institutions.

ANNEX 6

# Overview of information dissemination activities and PR material

Topic	What kind of activities	Results + positive impact to the project achieved
Awareness for companies		
Final Conference "Introduction of resource efficient and cleaner production methodology on enterprises in Vinnitsa region", July 29, 2014	Organization of the Final Conf.	<ul> <li>Awareness creation on the results of the RECP demonstration projects in the region.</li> <li>122 participants (RECPC complete team, Vinnytsia coordinator, trainees and experts, 4 participating companies, politics, governor of Vinnytsia region, NEFCO representative)</li> <li>Awarding enterprises - participants of the RECP project with UNIDO certificates</li> <li>About 200 brochures about the RECPC and 100 brochures about the UNIDO were distributed</li> </ul>
Final Conference "Recourse efficiency of the of work of the of enterprises of Kyiv region", November 13, 2014	Organization of the Final Conf.	<ul> <li>Awareness creation on the results of the RECP demonstration projects in the region</li> <li>Around 100 of participants         (representatives from industry, government, NGOs, donors, financial organizations and mass media)</li> <li>20 industrial enterprises in the region attended the conference</li> <li>Awarding enterprises - participants of the RECP project with UNIDO certificates</li> <li>About 200 brochures about the RECPC and 100 brochures about the UNIDO were distributed</li> </ul>
Final Conference "Recourse efficiency of the of work of the of enterprises of Zaporozhye region", December 4, 2014	Organization of the Final Conf.	<ul> <li>Awareness creation on the results of the RECP demonstration projects in the region</li> <li>Around 100 of participants         (representatives from industry, government, NGOs, donors, financial organizations and mass media)</li> <li>Awarding enterprises - participants of the RECP project with UNIDO certificates</li> <li>About 200 brochures about the RECPC and 100 brochures about the UNIDO were distributed</li> </ul>

Topic	What kind of activities	Results + positive impact to the project achieved
Roundtable "The United Nations Industrial Development Organization (UNIDO) project on implementation of resource efficiency and clean production: Odessa region perspective", December 23, 2014 (News release in the Annex 9)	Organization of the Final Conf.	<ul> <li>Awareness creation on the results of the RECP demonstration projects in the region</li> <li>26 of participants (representatives from industry, government, NGOs, donors, financial organizations and mass media)</li> <li>Awarding enterprises - participants of the RECP project with UNIDO certificates</li> <li>About 30 sets of brochures on RECPC and UNIDO, cases, promotion materials were distributed</li> </ul>
Exhibition GreenExpo, 22-25 April, 2014 (Kyiv)	Participation in the exhibition	20 new contacts established with companies interested in RECP concept. 200 brochures about the RECPC were distributed
International Ecological Energy Forum "Environment of Ukraine", April 23-25, 2014 (Kyiv)	Participation in the Forum	50 brochures about the RECPC were distributed. Several contacts were established.
Round table "Sustainable energy development of Ukrainian cities", April 24 (Slavutich, Kyiv region)	Participation in the Forum	Presentation on RECP was given. 50 brochures about the RECPC were distributed. Several contacts were established.
Round table "Greening economies in the Eastern Neighbourhood" of the Project "Organic Market Development in Ukraine", April 29 (Kyiv)	Participation in the exhibition	Presentation on RECP was given. New contacts were established. 26 brochures about the RECPC were distributed
Exhibition "Aqua Therm Kyiv, May 13- 16, 2014	Participation in the exhibition	50 brochures about the RECPC were distributed
Roundtable "Development of investment projects in energy efficiency", May 15, 2014 (GIZ)	Participation in the exhibition	Presentation on RECP was given. 35 brochures about the RECPC were distributed
Machine Building.	Participation	RECPC stand with RECPC banner presented.

Topic	What kind of activities	Results + positive impact to the project achieved
Metallurgy. Casting. Round table, May 27- 29 (Zaporizhzhia)	in the exhibition	200 RECPC promotion materials disseminated
Awareness raising seminar (EaP Green project), May 28, 2014 (Kyiv)	Participation in the exhibition	New contacts established. 45 RECPC promotion materials disseminated
Exhibition Agro-2014, June 4-7, (Kyiv)	Participation in the exhibition	100 brochures about the RECPC were distributed
Conference "Ukraine on the way to sustainable development: integration of RIO Convention provisions into national policy of Ukraine", July 3, 2014 (Kyiv)	Participation in the conference	50 brochures about the RECPC were distributed
Conference: "Long- term growth strategies: Sustainability and Value-Added Business Models in Ukraine", July 8, 2014 (Kyiv)	Participation in the conference	50 brochures about the RECPC were distributed
Round table «Resource Efficient and Cleaner Production at the enterprises of construction materials' sector»", August 6, 2014 (Kyiv)	Participation in the exhibition	50 brochures about the RECPC were distributed
The I International Conference "Energy Efficiency in Industry and Agribusiness", September 4-5, 2014	Participation in the conference	Presentation on RECP was given. About 100 brochures about the RECPC were distributed
Round table «Resource Efficient and Cleaner Production at the enterprises of construction materials' sector», September 10, 2014 (Zaporizhzhia)	Participation in the exhibition	50 brochures about the RECPC were distributed

Topic	What kind of activities	Results + positive impact to the project achieved
Awareness information seminar on RECP for Obukhov district organization of employers, October, 7th, 2014 (Kiev region)	Co- organization and Participation	3 presentations. Discussion on RECP potential. Questions and Answers. New contacts established. 20 about the RECPC were distributed.
3rd International Forum for Sustainable Business Development "Green Mind", Round table on RECP policy development, October 8-9, 2014 (Kyiv)	Co- organization and Participation	100 brochures about the RECPC, 100 brochures about RECP project implementation at company level, 100 brochures about UNIDO were distributed in frame of 2 events.
International Forum "Interaction of Post- Secondary Institutions, Government and the Private Sector for Sustainable Community Development", October 30-31, 2014 (Kyiv)	Participation in the exhibition	50 brochures about the RECPC were distributed
VII International Trade Fair "Energy Efficiency. Renewable Energy – 2014", November 4-7 (Kyiv)	Participation in the exhibition	RECPC stand with RECPC banner presented. 200 RECPC promotion materials disseminated
International Industrial Forum (Fair), November 18-20 (Kyiv)	Participation in the exhibition	RECPC stand with RECPC banner presented. 200 RECPC promotion materials disseminated
All-Ukrainian Ecological League Conference "Pesticides handling problems in Ukraine: social ecological, economic consequences and ways of their solving", December 12, 2014	Participation in the Conference	50 brochures about the RECPC were distributed. Presentation on RECP
UNIAN Press conference "The future of Ukraine within the green growth context", December 23, 2014	Participation in the Press conference	Popularization of Green growth in Ukraine

Topic	What kind of activities	Results + positive impact to the project achieved
Workshops	of activities	acineveu
Workshop on pre-	Organization	28 of participants
assessment, March 25-	o i gamzation	20 of participants
26, 2014 (Kyiv)		
Workshop on pre-	Organization	15 of participants
assessment, May 15,	o i guille union	To or puriorpulity
2014 (Kyiv)		
Workshop on water	Organization	9 of participants
management and in-		1 1
depth assessment, May		
20-21, 2014 (Odessa)		
Workshop on in-depth	Organization	12 of participants
assessment, May 22,		
2014 (Vinnitsa)		
Workshop on water	Organization	7 of participants
management and in-		
depth assessment, May		
28-30, 2014		
(Zaporizhzhi)		
Workshop "Financial	Organization	Information about RECPC activities and
and technical		services presented to 60 round table
instruments for		participants.
Resource Efficient and		22 new contacts established with companies
Cleaner Production		and organizations working in the project
(RECP) for agro		
processing sector		
companies", June 11,		
2014 (Kyiv)		
Workshop on RECP	Organization	9 of participants
(Johannes Fresner),		
July 1-4, 2014 (Kyiv)		
Brainstorming Infinity,	Organization	12 of participants
July 25, 2014 (Kyiv)	<u> </u>	
Awareness for the univer		
II-nd stage of all-	Participation	Presentation on RECP was given. 50
Ukrainian students'		brochures about the RECPC were distributed
contest on energy		
management, April 15-		
16, 2014 (Kyiv)	DECD 2 :	
Kiev National	RECP Project	
University of	Presentation	
Architecture and	by Maria	
Construction	Tsybka	

Topic	What kind of activities	Results + positive impact to the project achieved
National University of Life and Environmental Sciences of Ukraine	RECP Project Presentation and Lecture on LCA (by Fredy Dinkel)	11th of September 2014 Participants from the Centre: Tatjana Knyazkova, Olexej Tchaikovky, Valeria Tkachenko and Fredy Description: About 60 students and professors were present. Also for the professors the concept of LCA was new and they were interested in this topic. Photo attached:
NTUU KPI (ChemTech Faculty)	Project Presentation and Lecture (by Fredy Dinkel)	Lecture for teachers and post-gradute students of ChemTech Faculty on "Importance of using comprehensive evaluation methods in RECP" (21st of October 2014)
Odessa national academy of food technologies	Project Presentation by Galina Krussir	29 <sup>th</sup> of April 2014. Number of participants: 28 master students. No distribution of leaflets
Odessa State Economic University	Project Presentation by Galina Krussir	13 <sup>th</sup> of May 2014. Number of participants: 29 master students and teachers of Faculty of International Economy and merchandizing department. No distribution of leaflets
Odessa National Polytechnic University	Project Presentation by Galina Krussir	21 <sup>st</sup> of October 2014. Number of participants: 10 scientific fellows, teachers and post- graduate students of Mechanical Engineering Faculty. No distribution of leaflets
Vinnitsa Cooperative Institute	Project Presentation by Valeriy Redchik	28 <sup>th</sup> of November 2014. Number of participants: 10 teachers, Electric Engineer of the Institute and Administrative Manager of the Institute. No distribution of leaflets
Institute for Civil Engineering, Thermal Power Engineering and Gas Supply (InCETPEGS) of the	Project Presentation by Valeriy Redchik	20 <sup>th</sup> of September 2014. Number of participants: 30 post-graduate and master students. 15 RECP leaflets distributed

Topic	What kind of activities	Results + positive impact to the project achieved
Vinnitsa National		
Technical University		
Institute for Ecology	Project	27 <sup>th</sup> of September 2014. Number of
(InEEC) of the	Presentation	participants: 12 scientific fellows and
Vinnitsa National	by Valeriy	teachers. 10 RECP leaflets distributed
Technical University	Redchik	

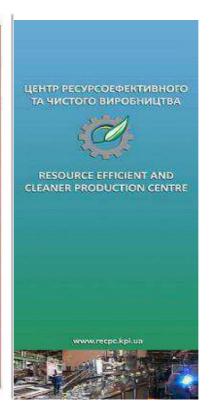




Workshop "Financial and Technical Instruments for Resource Efficient and Cleaner Production (RECP) for Agro-processing Sector Companies" (June  $11^{th}$ , 2014)

#### <u>Information materials prepared</u>





Leaflet Banner

What kind of materials?	Short	For which	How many	How many
	description	purpose?	printed?	distributed?
Publication «Green growth	Green Industry	For	100	95
from Labour to Resource	Initiative	companies		
Productivity best Practice		and		
Examples, Initiatives and Policy		stakeholders		
Options» (translated and				
published)				
Publication about RECPC	Women in	For	100	100
project and its Gender	industry	companies		
Component in KPI newspaper		and		
"Kyivskyi Politekhnick"		stakeholders		
(March 6, 2014)				
Publication "Project "The	Press-release	For	100	100
"Resource efficient and cleaner		companies		
production" helps consumer		and		
cooperatives Vinnichiny		stakeholders		
Report "Resource Efficiency		For	electronic	electronic
and Cleaner Production in		stakeholders		
Ukrainian Metallurgy and				
Machine Building"				
Interview with V. Pavshuk,	Interview	For	online	online
RECPC Technical Director for		stakeholders		
"Renewable energy" website				
(May 14, 2014)				
Video of the RECP in the	(prime + 10	For	1 week	1 week
channel "Business"	outputs story)	stakeholders	broadcasting	broadcasting
Posters				
Poster for Final Conference in	Invitation	For	1	1
Kiev	word, Name,	stakeholders		_
	logo and			
	contacts			
Poster for Final Conference in	Invitation	For	11	11
Vinnitsa	word, Name,	stakeholders		
	logo and			
	contacts			
Poster - Way to Sustainable	Name, logo,	For	1	1
Development Development	contacts	stakeholders,	_	_
,		for Fair		
		participants		
Poster RECPC big	Name, logo	For	1	1
	1 1000	stakeholders	_	-
Poster RECPC logo	Logo	for Fair	1	1
1 05001 10201 0 1020	2080	participants	1	•
		participants	1	

What kind of materials?	Short description	For which purpose?	How many printed?	How many distributed?
RECPC Roll-up	Logo, Name, web-site	For stakeholders	1	1
Training packages Materials for Training for Trainers	ToT Methodology	For trainers and experts	30	30
Handouts	RECPC, RECP steps at company level, UNIDO	For stakeholders	1690	1565
Leaflets				
Commercial offer RECP	About RECPC	For stakeholders	500	500
9 Cases RECP (Annex 6)	RECP implementation experience in various fields of Ukraine	For stakeholders	300	2800
Joint leaflet with IFC		For stakeholders	200	200
About the RECPC Programme		For stakeholders	465	440
About the UNIDO		For companies	275	250
Press release for the IFC		For stakeholders and companies	100	100
"Women in Industry: Reality and Challenges"		For stakeholders and companies		
Press release for the Final Conferences in Kiev, Vinnitsa and Odessa		For stakeholders	200	200
Press release for the Forum Green Mind		For stakeholders	100	100
Paper bags: Reducing Resource Consumption – Way to Sustainable Development		For all	200	Kiev Vinnitsa Zaporozhe Odessa
UNIDO green industry initiative – translation of the publication was revised by the team of the Centre		For stakeholders	145	145

#### *Website modifications:*

The new web-site was launched December 04, 2014

A web site design, structure and content were newly updated. The University provided the "KPI" hosting. The web-site (www.recpc.kpi.ua) is available in 3 languages. It is continuously updated with new information and topics.



Comment: RECP Workshops start in September and finished in May as well as assessments at company level

#### Background for annual planning approach based on assessments at company level:

Note on the work plan: n July 2015 the Centre together with the trainees will finish 20 RECP assessments initiated in enterprises in 2014. For this purpose it is planned to conduct a number of RECP workshops and consultations for the trainees and these activities are referred to in the present work plan as Assessment Group 1 (AG1). In autumn 2015 new trainees will be selected and participate in a similar RECP training and assessment round referred to in this work plan as Assessment Group 2 (AG2).

Goal	Activities according to PD	Responsil	Jan.	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1st priority.	1.2.2.1) Appoint national and international experts of the AG1 to provide	IS - general	Jan.	I TED	Watch	Api	Iviay	Juli	oui	Aug	Зер	OCI	1404	Dec
UNIDO	training on UNIDO's RECP methodology as well as on the RECP technology	coordination; VP, RC - distribution												
RECP	development and transfer and provide technical assistance in the	of local supervisors:												
Methodolo	implementation of the RECP projects at plant level (Amount of existing	SRC -												
gy	trainees in 4 regions at the end of 2014 - 51, amount of companies in 4 regions at the end of 2014 - 20)	appointment of the Int.Experts	Annointme	ent for AG1		Current	activities							
implementa tion at plant			Аррошинс	III IOI AGT		Odrient	dolivitios					Appointm	nent of CP	
level	1.2.2. 2) Appoint national and international experts for AG2 to provide training on UNIDO's RECP methodology as well as on the RECP technology	VP, RC - pre-											4 regions	Developmen
(Creation of	development and transfer and provide technical assistance in the	selection									1		visers for	of schedule for visits and
RECP	implementation of the RECP projects at plant level	and pre-											es from the	WS in 4
service	F	distributio										list of expe	erts of 2015	regions
market)	(Selection process for IPA companies) 2.2.2 Establish evaluation criteria						Unda	te of Crite	ria for se	lection pro	ocess			
	for the selection of companies that are interested in the implementation of	IS, VP, RC							e current					
	the RECP projects and carry out the final selection of the companies and	, ,					4000	.ag to t	country	O.L.O.L.				
	national experts that will participate in the CP projects								country					
	2.2.3 Establish individual 30 agreements (min. 20 agreements in 4 regions +					Establishi	Negotiatio				Agre	eements sign	nings	
	10 agreements in Lviv and Kharkiv from September 2015) with the	VP, RC,				ng	n	Kick-Off	Meetings o	n RECP				
	participating <b>new</b> companies (new companies will be assessed by AG2) and	IS, TS				contacts			pt for comp					
	carry out initial meetings at plant level to discuss the individual needs,	-, -	C	<b></b>										
-	benefits and timeframes of the implementation of the RECP projects		Searching	for new com	ipanies						Coloction	of trainees	Develop	Establish
												essment	asessmen	ment
	2.2.4 Organize assessment teams (AG2) and develop the final assessment	VP, Reg.										6 regions)	t plan. V,	superviser
	implementation plan	coordinato										,	Z, K, O, L,	s for
	implementation plan												Kh	separate
														teams.
-	(Finalization of the pre-assessments of the companies invloved in 2014	IS, VP,												
	- min. 20 companies and ) 2.2.5 Provide continuous support and	Reg.Coor												
	assistance to companies participating in the RECP projects and identify the													
	RECP techniques and technology options to be applied by the companies	recruited												
	2.2.6. 1) Collect information from 20 on-going companies and draw up the	experts												
	final technical reports on the findings and results of the implementation of	and												
	the RECP projects (together with AG1)	trainees												
				1										
	2.2.6. 2) Start to collect information from 30 new companies in 6	experts and	<del>                                     </del>	1	<del>                                     </del>		<del>                                     </del>				<del>                                     </del>			
	regions(together with AG2)	trainees	<b>-</b>	1	-						-			
			<del>                                     </del>	1	<del>                                     </del>		<del>                                     </del>				<del>                                     </del>			
				1										
			Regular ur	date of data	base of cou	mpanies								
	20000	VO 05	- g u	10 2. 2410										
	2.3.2 Create and update a database on national benchmarks	YG, OP												
	4.3.1.1) Analyze the RECP technology options identified during the	Reg.												
	RECP assessments and calculate environmental and economic benefits for	Coordinat ors. IS.	Einalize or	alculation of	the PECP							1		
	19 companies assessed in 2013-2014			rs for 19 con							1	1		1
		TS, YG Reg.	ilidicato	.5 .61 15 601	пратноз									
	4.3.1.2) Analyze the RECP technology options identified during the	Coordinat												
	RECP assessments and calculate environmental and economic benefits for on-going companies assessed in 2015 by AG2												lations for I	
		YG, KT,	1						· ·			compa	inies of 201	4-2015

nt)

		NI, VN,	On going n	roooo duri	na tha waar	except holic	lava and an	d of year (m	in Foomno	nice on nei	d boois)			
		IS, TS,	On-going p	rocess duri	ng the year	except noild	ays and en	o year (m	in. 5 compa	nies on pai	d basis)			
	Provision of RECP services of the in-depth or/sector specific assessments	AV,												
	to companies on payment basis	Sector- specific												
		specific												
						Seminar on the different			Seminar of SRC					
						technology			experts.					
		KT, RC,				databases available of			Participants					
	4.2.1 Review and analyze the different technology databases available	YG,				SRC experts.			- 10					
		Sector- Specific				Participants - 10								
		Experts,				10								
		SRC												
	4.3.2 Identify the key RECP technologies with high environmental and	IS, KT,												
	resource productivity benefits and high replication potential in the respective sectors	YG, YY, experts						5 kov l	DECD tooks	ologies ide	ntified			
	Sectors	<u> </u>						3 Key i	ILOI (ecili	iologies ide	mineu			
		IS, KT,												
	4.3.3 Identify possibilities for the transfer of existing technologies and/or adaptation and further development of existing and emerging technologies	YG, Sector-												
	adaptation and further development of existing and emerging technologies	specific												
		experts						2 possib	ilities for the	e transfer id	entified			
		KT, YG,			regularly									
	4.6.1 Involve new experts to the RECP technology working group	Reg.Coor	1											
		d., experts,			KT - coord	inator								
		15, SRC,			. Coolu	Requestin		Seminar						
	4.6.4 Develop and organize a number of information events focusing on the	Jurg Walder,	<u> </u>	<u></u>	<u></u>	g SRC, Jurg		of SRC experts on		L	<u> </u>			
	development of RECP technologies	Johannes				Walder,		RECP						
		Fresner				Johannes	repapratio	Technolog						
	4.5.1 Establish indicators for measuring the economic and environmental		With suppo	rt of SRC										
	benefits of RECP technology adaptation, development and transfer	IS, KT, YG												
		10		Selection										
				of										
1st priority.			New	applicants										
ChM model		IS, TS,	requests	for ChM Coordinat	Developm ent of									
implementa	Finalize selection process of the applicants for ChM coordinators and	HR	on ChM	or	action									
tion at company	appoint ChM coordinator (ChM and Green Chemistry)	manager	Coordinat	position.	plan on									
level			vacation	Appointm	ChM									
				ent of selected										
				applicant										
2d priority.	404.0	Reg.Coor												
Training of CP experts	1.2.1. Collect the information on available national experts trained on CP	dinators, OS	U	odating data	abase of be	est trainees fi	om the AG	1						
for CP	1000-11	Reg.				Distribution a	announcement Collect		ct Data Processing and		, Involvement selec			
methodolo	1.2.3 Collect information on the national technicians/experts interested in participating in the RECP training courses	Coordinat				about training course in Ministries and Institutes, in				process	experts to			
gy	P	ors				Universities (	in 6 regions)	n		p. 00000	COL	irse		
implementa tion		1				l								
(conditions	1.2.4 Update schedule of training activities for AG1 in existing regions					l					Developm			
creation for	according to current situation in the regions, develop schedule for visits to	VP, Reg.	Update of								ent of			
the market	new regions (after SC Meeting) and develop schedule of training activities	coordinato rs	schedule for visits			L				<u></u>	schedule for visits			
and the active work	for AG2 for each region defining in detail supervision and monitoring	15	and WS in	Develop so	chedule for						and WS in			
of the		1	4 regions	visits to ne	ew regions	l					all regions			
CPCs)		ļ	for AG1	(L,	Kh)						for AG2			
	1.2.5. 1) Organize and carry out 20 WorkShops in total in 4 regions as	IS, VP,			v	ve								
	training course for the selected trainees on UNIDO's RECP methodology (AG1).	OT, RC			V	VS								
	(·······).													
	405 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				I	1			Preparatio	Preparing				
	1.2.5. 2) Organize and carry out <b>18 WorkShops in total in all regions as training course</b> for the selected trainees on UNIDO's RECP methodology	SRC, IS,							n.	training				
	(AG2), including RECP trainings in K,V,Z,O on small payment basis	VP, OT,							Carrying	materials		W	S	
	(AG2), including RECP trainings in K,V,Z,O on small payment basis (Trainers from SRC).	RC				-			out kick- off	for new phase of				
		<u> </u>							UII	priase of				
		OT - Kiev, VP -	1								1			
		VP - Vinnitsa,	1								1			
	1.2.6 Carry out the final evaluation test upon completion of the training	IS -						4 regions						

	course for AG1	Odessa, Zaporozh ye												
	1.2.7 Carry out 1 train-the-trainer workshops (10 participants)	Event Manager, SRC					Preparatio n for the ToT WS	SRC expert or J.Fresner						
	1.2.9 Analyze the potential and necessity to develop additional training materials or specific training courses	Event Manager, TK, VP, RC			Translati	training r		ne ChM						
	12.10 Finalize the selection of national experts who will participate in additional in-depth training courses on <b>Sound Chemicals Management</b> (7 technical experts from the CPC), including representatives of companies on small payment basis	ChM coordinato r, Event Manager,				Discussio n on ChM Training with other	Preparatio n for the Training (Trainer -		ChMTraini ng for RECP experts					
	1.2.12 Updating the existing database of national RECP experts	os		Update of DB				AG1			AG2			
	Continue LCA trainings in each region, 1 seminar on more efficient water use in each region (4 regions)	IS, ID										Cost incl.	ID salary	
	1.2.13. Organize 1 UNIDO RECP Award/Final conference per region     (target - 4 Award/Final Conferences in 4 regions - K,Z,V,O (100	IS, Staff				Prepa	ration	V Award of e	K, Z, O Award of e	xperts from	AG1			
3d priority. Information	2.1.2 Update calendar for the participation in relevant national/regional events (conferences, trade fairs, roundtables, etc.)	Event Manager,	Update of											
on and awareness	2.1.3 Participate in the selected national events on Ecology and Energy	PR IS, TS,	calendar		Prepaprati	Int.Ecologi cal Forum	Fair "Foundry and			Prepaprati on	Int.Energy Forum (Zaporozh	Green Mind	Fair "Energy Efficiency"	
raising on UNIDO RECP project,	and Resource Efficiency and present the RECP concept and the work of the CPC (min. 8 events per year)	Staff			Update of printed materials	Green Expo (Kiev)	Metallurgy "(Zaporoz hye)				Fair "Energy in		Int. Industrial	
RECP methodolo gy and RECPC	2.1.4 Regular update of the CPC website, link it to the important websites. Develop additional web-site for commercial services in V (investment 400E)	PR Manager	Support											
(creation conditions for RECP	2.2.1 Organize, together with the main national institutions from the selected industrial sectors and regions, 5 information seminars to outline the RECP concept and its application at plant level	Event Manager, PR Manager					1st in Kiev (20 pers.)	Odessa Region	Vinnitsa region		Zaporozh ye (20 pers.)	2nd in Kiev (20 pers.)		
service market)	2.1.5 Organize and carry out 2 Awareness Raising seminars for Industrial Associations. Invite key stakeholders and representatives of	Event Manager,			AR for Agre	o Assoc. in	AR for Chemical							
	companies from target sectors to participate	PR			March joint	ly with IFC	Union of							
	2.1.6 Updating promotion and information materials (1 leaflet about Centre, 1 leaflet about IPA at company level, 1 joint RECPC-IFC catalogue of cases, 1 leaflet about ChM), elaborate 19 RECP case studies and 2 RECP articles. Produce additional 1 video spot about the CPC and its services and put it on the website	Event Manager, PR Manager	Permanent	activity										
	2.1.7 Update of the marketing and branding strategy for the CPC and its RECP services according to the current situation	TS,Event Manager, SRC								incl. m	oney for ma	rketing con	sulting	
	2.2.8 Develop and update a database on the target sectors and sector- specific and ChM case studies	Reg.Coor dinators, ChM									To	gether with	PR manage	or .
	2.1.8 Follow-up cooperation with existing universities; assist them in developing a RECP course to be included in the curricula	Event Manager, PR Manager										getiei witi	Trimanage	
4th priority. Cooperatio n with	4.4.1 Collect and analyze information on existing agreements and financial institutions/mechanisms that might support RECP technologies in Ukraine	IS, TS					oport for RE ent Group of		ne					
financial institutions and implementa	4.4.2 Discuss with the main institutions involved in RECP financing (IFC, World Bank, EBRD, Nefco, MinEconomy, NBU donors, etc.) the implementation and/or adaptation needs of the respective instruments applied (e.g. credit lines, grants, etc.)	IS, TS												
tion financial mechanism s to	4.4.3 Update joint plans of action (agreements) with selected and interested institutions on developing and implementing financial instruments for supporting RECP	IS, TS												
	4.4.4 Organize annual meetings/conferences with financial institutions to			on		Organizati	Annual Me	eting with a	II stakeholde	ers from fina	ancial institu	tions		

support	discuss the further development of agreements and credit lines	IS, TS												
RECP (creation of RECP	4.4.5 Develop and organize 1 specific training workshop on RECP with financial institutions for selected companies	Event Manager,				Prepa	pration	WS						
service market)	4.4.7 Update 1 joint publication with IFC (Joint CPC-IFC catalogue of cases on low-cost options) and Nefco	IS TS, PR Manager		catalogue ases			Joint Gend	er Conferer	nce on Worr	en in Indus	try			
5th priority. Cooperatio n on RECP	3.1.1 Coordinate and/or participate in national working group(s) on RECP policy, invite relevant stakeholders to the group(s) and organize a schedule of regular meetings (regular meetings)	IS, VP, MT		Participation Participation Participation	I on in working on in working on in working	g group on	Green Grow EaP Green	th						
policies (creating the	3.1.2 Encourage regional stakeholders and Regional Focal Point Coordinators to participate in the work on the RECP policy and strategy	IS, VP		Participation Participation	on in working on in working	g group on l	elaboration S RECP policy	State Conc	ept and Sta	te Strategy	on CP	EcoProfit A	pproach at	municipalit
conditions for RECP service market)	3.1.6 Maintain continuous lobbying activities towards the integration of RECP supporting measures within the national environmental and industrial policies	VP, SH, RC												
,	4.6.2 Analyze the national structure of the RECP technology market (incl. suppliers) and different demands in the target regions and sectors	KT, TS, Sector- specific experts							Coordinati on Meeting on technolog					
Operational and administrat ive activity	1.1.1 Organize and carry out Project Steering Committee and Advisory     Board	IS, TS, PR and Communication Manager, Event manager	Exact Date of SC to be discussed in Skype	AB Meeting	SC Meeting in March							2nd AB Meeting		
of RECPC	1.1.2 Invite/select new candidates for the Boards	IS			During SC meeting						:		of the Cent	
- -	Preparing to the Centre evaluation from donors	IS, TS									inci. sum ic	riocal audi	or the Cent	re
	1.1.6 Update the business plan and work plans, including quality management and financial monitoring systems	SBA, TS, PR manager		Update of the draft business plan together with SBA after presentation SC Meeting										
	Develop a detailed operational and administrative scheme for existing and new regional CP Focal Points	TS				schen finalizing	operational ne after business an							
	Select trainees who successfully finalized assessments for involvement them to the recruited CP expert pool: min. 6 individual agreements should be signed in 4 regions	IS, TS			•									
	Establishing subcontracts with recruited engineering, management, financial, accounting and linguistic staff of the Centre. In addition, Event manager, PR and communication Manager, HR manager and Assistant of the Director to be selected and recruited	IS, TS												
	Select and involve local sector-specific experts (4 sector-specific experts for part-time and for specific issues) on payment basis for provision sector-	IS, Reg.Coor												
	Services on energy audit of residential sector and other design services in construction (Vinnitsa region)	Redchil + Vin.team												
	Rent of premises (in Kiev, Zaporozhye, Vinnitsa)	IS, TS									incl. additio	nal m2 in Z	aporozhye	
	Select coordinators and assistants of coordinators in Lviv and Kharkiv and establish subcontracts with recruited staff in Lviv and Kharkiv (2 persons in Lviv and 2 persons in Kharkiv)	IS, TS												
	Rent of premises (in Lviv and Kharkiv)	IS, TS												
	Prepare new working places for the new technical experts recruited for purposes of intensifying assessments at company level in Odessa and L, Kh regions	IS, TS												
	Purchase additional office and measurement equipment for Zaporozhye (IR camera FlirE40 and pyrometr testo 835-T2) and appropriate analytical software (Ansys for all regions)	IS, TS												
	Organize min. 3 coordination meetings with 4 regional coordinators and the key staff of the Centre	TS, IS												
1				]										

	1.1.7 Update detailed operational and administrative scheme according to new regions	TS		Es		Establishment of regional office (Lviv, Kharkov)									
Additional activities	EaP Green Programm: Trainings, Assessments	IS, AV, TS, MT	Finalization o assessment company le	its at	Success stories										
	Activities in the frame of the new UNIDO/GEF project "Regional capacity building for developing programmes for mitigation of global environmental problems"	TK, Event manager				Trainings Awarene s Raisin								Repo	rting
_	Participation in the preparation of the Technical Proposal for the new project "Supporting investments in sustainable municipal solid waste management and recycling in Ukraine" (EBRD) (if the Eol held a contest)	IS, TS, SBA, Experts on Waste Manageme nt				No	result of E	ol contest y	et						
	Participation in the development of the Terms of Reference for the Project "Energy Audit Ukraine Higher Education" (EIB)	-				CPC T	ΓoR did not	pass the co	ntest						
	Enhance of the fundraising	Comm.M anager, TS, IS					∕lin. 1 additi	onal project							
	Participation in the development of the Terms of Reference for the Project on Green Chemistry (UNIDO/GEF)	VY, TK, IS	Sub	bmission o	of the Tech	nical Propo	sal								
	Continue gender mainstreaming work (Regular Update of the Gender Platform on the website, Gender Seminars, Gender Meetings, Participation in Gender event organized by Gender Focal Point in NTUU KPI)	OK, IS	Min.	n. 2 Gende	er Semina	Gender Plates s for train event organ	Co-Organiz	ation of the			Ex nce with IFC		incl. semina	'S	
	Participation in other UNIDO projects related to RECP, including Energy Management and energy efficiency, PCB Project in Ukraine (Stockholm Convention)	TK, Event manager		Establish Efficient Cooperation with UNIDO/GEF Project on Energy Management Standard and PCB Project								ment	Repo	rting	

#### Abbreviations:

RECP - resource efficient and cleaner production

RECPC - resource efficient and cleaner production centre (= NCPC - National Cleaner Production Centre, CPC - Cleaner Production Centre)

CP - cleaner production

ChM - Chemical Management

ChL - Chemical Leasing

SRC - Swiss Reference Centre

SBA - Sustainable Business Associates

MENR - Ministry of Environment and Natural Resources of Ukraine

Z - Zaporozhye region

V - Vinnitsa region K - Kiev region

O - Odessa region

L - Lviv region Kh - Kharkiv region

CTA - Chief Technical Advisor

RC - regional coordinator

AG1 - Assessment group 1

AG2 - Assessment group 2

IS - Igor Shilovich, Director

VP - Valeriy Pavshuk, Technical Director

TS - Taras Sakalosh, Executive Director OT - Olexiy Tchaikovskiy, Coordinator in Kiev region

VR - Valeriy Redchik, Coordinator in Vinnitsa region

SK - Sergey Kalachev, Coordinator in Zaporozhye region GK - Galina Krussir, Coordinator in Odessa region

MT - Maria Tsybka

OS - Oksana Siutkina, Office Manager and Translator

YG - Yuriy Gaidaenko, technical CP expert in Kiev region

KT - Konstantin Tadlya, technical CP expert

KP - Katerina Priymak, technical CP expert

OP - Olena Pushna, Junior Water and Chemical Management expert

TK - Tatyana Knyazkova, National Water Management expert

SH-Sergiy Khudobin

AV - Andrey Vorfolomeiev, CP expert in K. Ach - Anatoly Chepenko, CP expert in V.

ID - Irina Dzhigirey, LCA Coordinator in Centre

VY - Vsevolod Yaremenko, Applicant for position of the ChM Coordinator

OK - Olena Kochemirovska