

INDEPENDENT EVALUATION DIVISION
OFFICE OF EVALUATION AND INTERNAL OVERSIGHT

INDEPENDENT TERMINAL EVALUATION

UKRAINE

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

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Abbreviations and acronyms

Abbreviation	Meaning
COVID-19	Corona Virus Disease 2019, designation by the World Health Organization (WHO) for the disease in 2019 caused by the novel coronavirus SARS-CoV-2
CHF	Swiss franc
CTA	Chief Technical Advisor
EaP	Eastern Partnership (countries: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine)
EBRD	European Bank for Reconstruction and Development
EE	Energy Efficiency
EIP	Eco-Industrial Park (programme)
EU	European Union
EUR	Euro
FHNW	Fachhochschule Nordwestschweiz / University of Applied Science and Arts North-western Switzerland
GHG	Greenhouse Gas (emissions)
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
HCDI	Human Capacity Development Initiative
KPI	Kyiv Polytechnic Institute, referred to within National Technical University of Ukraine's Igor Sikorsky Kyiv Polytechnic Institute (official short name: Igor Sikorsky KPI)
M & E	Monitoring and Evaluation
MEDTA	Ministry for Development of Economy, Trade and Agriculture of Ukraine
MTR	Mid-Term Review
NATO	North Atlantic Treaty Organization
(N)CPC/CP	(National) Cleaner Production Centre / Cleaner Production
NGO	Non-governmental organisation
OECD	Organisation for Economic Co-operation and Development
PSC	Project Steering Committee
RECP	Resource Efficient and Cleaner Production
RECPC	The NGO arm (established in June 2013) called Kyiv City Innovative Sectoral Organization of Employers 'Resource Efficient and Cleaner Production Centre' (RECPC KCISOE); referred to as RECPCU in Annex 2
RECPC LLC	The limited liability company (LLC) arm of Resource Efficient and Cleaner Production Centre, established in October 2016 (referred to as LLC throughout the Report)
(R)TOC	(Reconstructed) Theory of Change
SECO	{Switzerland's} State Secretariat for Economic Affairs
SDGs	Sustainable Development Goals

Abbreviation	Meaning
SME(s)	Small- and Medium-Sized Enterprise(s)
TE	Terminal Evaluation
ToR	Terms of Reference
UAH	Ukrainian Hryvnia
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organisation
ULIE	Ukrainian League of Industrialists and Entrepreneurs

Glossary of evaluation-related terms

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change directly or indirectly due to an intervention.
Effectiveness	The extent to which the development intervention's objectives were achieved or are expected to be achieved.
Efficiency	A measure of how economically a project's resources/inputs (i.e. funds, expertise, time) are converted into results.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long-term effects that represent fundamental durable change in the condition of institutions, people and their environment brought about by the project.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Intermediate States	The transitional conditions between a project's outcomes and impacts, which must be achieved in order to deliver the intended impacts.
Lessons learned	Generalizations based on evaluation experiences that abstract from the specific circumstances to broader situations.
Logframe (logical framework approach)	Management tool drawing on results-based management principles used to facilitate the planning, implementation, and evaluation of an intervention. It involves identifying strategic elements (activities, outputs, outcomes, impacts) and their causal relationships, indicators, and assumptions that may affect project success or failure.
Outcome(s)	The likely or achieved short- to medium-term behavioural or systemic effects to which the project contributes, which help to achieve its impacts.
Output(s)	The products, capital goods, and services that an intervention must deliver to achieve its outcomes.
Relevance	The extent to which an intervention's objectives are consistent with beneficiaries' requirements, partner country priorities, global priorities, implementing partner and donor policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	Specific entities for whose benefit an intervention is undertaken.

Executive Summary

Evaluation Background and Methodology

This report documents the Terminal Evaluation (TE) of “Promoting the Adaptation and Adoption of RECP (Resource Efficient and Cleaner Production) through the Establishment and Operation of a Cleaner Production Centre in Ukraine” (‘the project’), which spanned 25.10.2011 to 31.12.2020, including 36 months of ‘no cost’ extension (1 year granted for 2018; another 2 years for 2019-2020). With EUR 3.74 million (including UNIDO support costs) in funding from the Governments of Switzerland and Austria], the project was implemented by UNIDO with national counterparts: Ministry for Development of Economy, Trade and Agriculture of Ukraine and the National Technical University of Ukraine ‘Igor Sikorsky Kyiv Polytechnic Institute’ (Igor Sikorsky KPI).

To fulfil accountability requirements and promote learning and feedback for ongoing and future projects, following UNIDO evaluation policy, the project’s design and performance were assessed in terms of its progress to impact, relevance, effectiveness, efficiency, and the sustainability of benefits.

Carried out during September-December 2020 by an independent Evaluation Team, the TE consisted of i) desk review of project documentation; ii) assessment of project design, including the reconstruction of its Theory of Change; iii) online survey of the Centre’s clients; iv) interviews of national and international stakeholders that were engaged in supporting, managing, and/or supervising the project. An evidence-based approach was used to develop the findings, lessons learned, and recommendations.

The target audiences for this report are the project’s key beneficiary (RECP Centre in Ukraine, hereafter ‘RECPC’ or ‘the Centre’), the donor (SECO), its implementing agency (UNIDO), national government counterparts and other interested stakeholders consulted during the evaluation’s main phase.

Key Findings

Progress to Impact

The project successfully created the envisaged Centre, together with 325 RECP experts it had trained, which assured human resources are available to verify the benefits of RECP and support scaling-up, with steps taken to stimulate future supply of expertise (e.g. RECP courses into university curricula). Based on the Centre’s experience in managing projects and its contributions to various initiatives, there was potential for the project’s results to be reproduced within and beyond Ukraine.

The combination of environmental safeguarding and economic performance (RECP’s sweet spot) provides a basis for generating impacts that can be directly/indirectly attributed to project support, with a trajectory expected to move in a positive direction and enhance the country’s socio-economic resilience – provided key elements materialise to significantly spur demand for RECP; namely: a long-term institutional framework for RECP advocacy, replication, mainstreaming, and upscaling with political/economic/social incentives for RECP adoption and RECP widely perceived and confirmed to be a vital part of the equation for achieving sustainable development in Ukraine.

Project Design

While informed by relevant experience, shared understanding, and anchored in a robust Theory of Change that heightens quality of life through improving the country’s economic and environmental conditions, the project design reflects an ambitious view of the ability of such a Centre attain organisational maturity, fully deploy the long-term institutional framework for RECP advocacy and service delivery to Ukraine’s private and public sectors, and reach financial self-sustainability within the planned duration. The detailed logical framework provided key elements for the project’s planning, execution, and accountability. Following the standard, proven strategy for establishing an RECP Centre, it reflected

a high degree of control and direction from the UNIDO side and strongly oriented the Centre's behaviour towards fulfilling designated activities and outputs.

Project Performance

Relevance

Leveraging UNIDO's mandate and domains of comparative advantage, the project's support was highly relevant for global/national development priorities and end beneficiaries in government and industry, bringing relatively unfamiliar concepts like RECP and chemical leasing to the country's drive for economic transformation and 'greening', also aligned with the donor's strategy for supporting Ukraine.

Effectiveness

Most of the planned outputs were delivered, with some shortfalls in reaching the envisaged outcomes, particularly those related to public policy formation and financial mechanisms to spur RECP implementation. While the demonstration of RECP benefits was progressing and further potential had been theoretically quantified, many measures had not yet been implemented as RECP measures that involve higher cost and/or technology change take more time to be put into place. The lack of state-level incentives and absence of legal enforcement at national level for cleaner production and emission reduction may also be factors that slow implementation.

The aim to become a self-financed entity (by generating income from different sources, including government and donor funds) was at the heart of the Centre's vision and part of the project's exit strategy. While there had been good progress towards the 65% target set by the Centre for 2020, contributions from commercial contracts had fallen significantly over the past two years. The Centre's recent success in winning contracts to implement parts of international donor projects suggested that this pathway would become a key route to enabling the entity's survival for the foreseeable future.

Efficiency

The extension in the project's timeline reflects significant effects of the outbreak of conflict in Eastern Ukraine as well as a relatively high level of ambition in the project's design. The extended duration was granted with a view to enable the delivery of its envisaged aspects in a context where the project's momentum was slowed due to a complex set of factors. The fact that the budget for a 5-year project could be stretched to cover 9 years without additional funding contributions points to shortcomings in budget planning during the project's preparation and/or insufficient use of funds during project implementation. The level of donor-financed projects operating on the Ukrainian landscape in the same period offered an abundance of opportunity for synergizing efforts for the achievement of the project's development objective. While paths for information exchange and participation in mutual events had been established, a level of strategic partnership across projects and donors that could lead to joint planning, co-financing, and joint efforts on policy formation was undermined by the struggle for "project" exclusivity and corresponding competition within the overall landscape. The RECPC itself did not pursue a notion of exclusivity.

Sustainability of Benefits

The country's acute political, economic, and institutional instability (outbreak of war in Eastern Ukraine, ongoing restructuring, high turnover of ministers and management personnel) and no clear formulation of the State's position on resource efficiency backed up by an effective and enforced legal framework during most of the project's implementation significantly dampen the likelihood that the project's benefits will be easily sustained, although preparation for Ukraine's accession to the EU (which has triggered major external assistance), a Presidential Decree (2019) mandating inclusion of energy- and resource-efficiency targets in national and industry policy documents supporting Agenda 2030 can be expected to provide important oxygen for the Centre and its mandate.

While designed to promote country ownership (with project execution in national hands administered through a legal structure composed of three national founding partners, with the Ministry for Development of Economy, Trade and Agriculture of Ukraine as key governmental beneficiary), this architecture did not optimally achieve the envisaged effects due to a high degree of ministerial restructuring throughout the project's implementation, which provided meagre opportunity for strengthening ties between the Centre and its natural institutional counterparts.

Although industrial enterprises (especially SMEs) were expected to be a major beneficiary of the Centre's services (presumably contributing to the Centre's financial sustainability), their current attitude and capacity showed limited prospects for absorbing and extending the project's benefits. In tackling this challenge, the Centre had supported companies in raising funds for RECP investment through training, preparing investment plans, direct help in preparing applications for grants and loans, and facilitating their connections with banks.

The project's exit strategy relied on having a large focus on national execution, embedding the mission to sustain practice within an institutional structure with nation-wide coverage, younger generation leadership, and a team with both technical and management capacities. Having emphasized the notion that the resulting Centre should become financially independent by the project's close and continue to pursue its mission opportunistically, the Swiss Reference Centre's support in the final phase had been oriented towards equipping the Centre to screen and pursue project acquisition from international donors, develop proposals for national programmes that leveraged its strengths and services, and generate revenue from provision of commercial services.

The goal for the Centre to become a fully self-financed entity by the close of the current project's support proved overly optimistic, with particularly poor revenue generation potential from the private sector expected to persist for the foreseeable future. On the other hand, the Centre's success in being selected through competitive bidding processes to implement international donor projects suggests that this would be a key avenue to enable its continued operation and maintenance. While relations with its designated government counterpart had stagnated amidst ongoing institutional restructuring, the emerging interest of other relevant state actors offered further entry points to provide useful services.

In summary: elements of an exit strategy were present, including developing an orientation to smartly and opportunistically pursue its mandate through the provision of commercial services and project acquisition close to its core areas of resource efficiency, energy efficiency, green modernization of industry, and capacity building in these spheres. The Centre's success in winning 3 of its 6 competitive bids on international donor projects provides organisational continuity in the short-term, with up to 60% of its operating costs covered for 2021-2022. However, the economic and socio-political context in which the Centre is currently embedded dampens the likelihood that the project's benefits will be easily sustained, in the absence of a clear formulation of the State's position on resource efficiency, backed up by an effective, enforced legal framework and/or industry's proactive preparation to seize opportunities related to Ukraine's eventual EU accession, together with building synergies and new partnerships with the financial sector. The Centre's contribution to improving the productivity, environmental performance, and competitive position of Ukrainian industry would be strengthened with a more explicit recognition and positioning by Government of the Centre as a national policy tool and a more intentional strategy to leverage its catalytic effects, moving forward, so that it becomes part of the national machinery for promoting and implementing RECP.

Cross-Cutting Performance Criteria

Gender Mainstreaming

Attention to gender mainstreaming has increased since the MTR – with the establishment of a Gender Strategy, a Gender Focal Point, enhanced website and publications, staff training, gender balance in the Centre’s management and technical teams, and an upward trend registered in women’s participation in regional training – with performance gauged through the regular collection and reporting of sex-disaggregated data.

Monitoring & Evaluation (M&E)

The Centre has established a culture and practice of using M&E for accountability and learning purposes. The project’s results framework was used as a management tool to guide development of work plans and to regularly monitor and report on results, in line with the expectations of the UNIDO contracts.

Results-Based Management

The governance structures of both the Centre and the project provided an overarching framework for assuring results-based management, together with the project’s operationalisation through contracting (which detailed the expected services on an output-by-output basis) developed in line with the Project Document and its logframe, which was appropriately used as a tool for planning, shaping, managing, controlling, and reporting on the project’s performance.

Performance of Partners

UNIDO, as Implementing Agency

With ultimate responsibility for implementation, UNIDO contributed the design (based on its ongoing development and systematization of proven RECP practices/tools) and other aspects, as expected, throughout the project’s life cycle. The approach used to manage the relationship between UNIDO and the national counterparts was in line with the MTR (2015)’s recommendation that all contractual arrangements should be made on annual subcontract basis. The use of a directive project management style reflected contracting arrangements and reporting expectations.

National Counterparts

Ongoing institutional restructuring during the project’s implementation, particularly within the project’s key governmental beneficiary (MEDTA), reduced contact with reliable touch points and limited opportunities to build understanding of the relevance of the RECP approach for Ukraine’s modernization and the Centre’s power as a related policy tool. While not yet influencing the formation of policy and regulation, the Centre’s contacts with other eco-system actors held positive promise for future collaboration.

Ukraine’s academic sphere had a key stake in the Centre through Igor Sikorsky KPI’s role as a founding partner. Igor Sikorsky KPI and 8 other universities had welcomed the inclusion of RECP and Chemical Leasing courses within relevant curricula. The Centre’s signature of Agreements on Partnership, Cooperation and Activity Coordination with these nine entities sets the stage for strengthening cooperation with Ukrainian universities and further building of RECP/Chemical Leasing awareness and capabilities.

Donors

The Governments of Switzerland and Austria level of investment in and embrace of the RECP approach as a cornerstone for green economy are highly pertinent contributions to institution-building in Ukraine, increasing prospects for the effective absorption of external resources (e.g. financial flows, technical expertise) in support of national priorities and macroeconomic and social policies. Active engagement in the project and its supervision were positive factors during implementation.

Overall Performance Rating

Overall, the project is rated as “satisfactory”, considering the balance of evidence. **Table 1** provides an overview of the ratings by criterion. The project was highly relevant for Ukraine’s development priorities, needs and interests of national counterparts, implementing partners, and end beneficiaries. The project design followed a standard, proven strategy for establishing an RECP Centre, albeit with an overly ambitious vision of the readiness of the socio-political, economic, and business environments to enable the Centre to reach financial self-sustainability within the boundaries of this intervention. By project closure, the envisaged Centre was in place with a dedicated team with highly respected technical expertise, a functioning organisation, competent leadership, and the momentum to carry forward.

The project’s impact trajectory is expected to move in a positive direction, provided that key elements materialise to significantly spur the demand for RECP, and more Ukrainian enterprises embrace the innovation this represents. Currently, the Centre is perceived as a strong service provider with highly respected technical expertise to guide enterprises to improve their situation. With a more explicit recognition and positioning of the Centre as a national policy tool and a more intentional strategy to leverage its catalytic effects, rather than its current orientation to opportunistically pursue its mission through (international) project acquisition and an uphill battle to sell commercial services on the local market to survive, the project’s results and benefits would be more strongly sustained.

Table 1 – Summary of Evaluation Criteria and Mandatory Ratings¹

Evaluation Criteria	Rating
Impact	ML
Project Design	MS
➤ Overall design	MS
➤ Logframe	S
Project Performance	
➤ Relevance	HS
➤ Effectiveness	S
➤ Efficiency	MS
➤ Sustainability of Benefits	ML
Cross-Cutting Performance Criteria	
➤ Gender Mainstreaming	S
➤ M&E (design and implementation)	S
➤ Results-Based Management (RBM)	S
Performance of Partners	
➤ UNIDO	S
➤ National Counterparts	S
➤ Donor	HS
Overall assessment	S

Summary of Lessons Learned and Recommendations

Key lessons and recommendations, based on the findings and conclusions of this assessment, are offered to UNIDO (as project implementer), the Ministry for Development of Economy, Trade and Agriculture (as project beneficiary), Igor Sikorsky KPI and RECP (as national implementers), and the Governments of Switzerland and Austria (as donors). Summarized in **Table 2**, these lessons and recommendations are elaborated in the Report’s final chapter, which provides their context, priority level, and responsibility for taking forward in which timeframe.

¹ According to evaluation criteria and 6-point scale stipulated in the evaluation’s ToR: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability of Benefits is rated from Highly Likely (HL) to Highly Unlikely (HU). Refer to **Table 3** and **Table 4**.

Table 2 – Summary of Lessons Learned and Recommendations

<p>Lesson #1: For Government of Ukraine and UNIDO</p>	<p>The shift of project execution into national hands is increasingly seen as a mechanism for strengthening national ownership as well as providing strong elements of an exit strategy. Selecting the most appropriate institutional counterpart(s) is challenging. Involving actors that develop as well as implement government policy, together with including mechanisms and pathways to allow for adaptive management, would enhance the potential to sustain relevance and gain traction within settings that are dynamic and evolving.</p>
<p>Lesson #2: For RECPC, UNIDO, and Government of Ukraine</p>	<p>Given the power of gender equality to create the foundation for a peaceful, prosperous, and sustainable world, institutions involved in nation-building are well-placed to demonstrate and drive gender mainstreaming as a permeating value that is “baked into every decision, at every level”.</p>
<p>Lesson #3: For UNIDO and RECPC</p>	<p>Striking the ‘right’ balance between direction and support is key to institution-building remits, which increasingly characterize international development cooperation activities. Situational Leadership Theory provides useful guidance for identifying criteria and transition points to shift amongst styles.</p>
<p>Recommendation #1: For Government of Ukraine</p>	<p>Recognize the asset and potential of the RECPC built up through this project’s support and determine the ways in which this Centre can be used as a strategic tool for influencing the course of industrial development towards a clean and prosperous Ukraine.</p>
<p>Recommendation #2: For UNIDIO, SECO, RECPC</p>	<p>Embrace the RECPC’s inherent nature as a Competency Centre, with the accompanying justifications and implications for its continuation, and reinforce its purpose as a powerful tool to be deployed in service of national government objectives and policies.</p>
<p>Recommendation #3: For UNIDO, Government of Ukraine, SECO (and other international donors)</p>	<p>Explicitly search for opportunities to use the Centre and work with the RECPC as a privileged partner.</p>
<p>Recommendation #4: UNIDO Headquarters in Vienna and UNIDO Focal Point in Ukraine</p>	<p>Adopt a country strategy to improve coordination across projects and donors operating in Ukraine with the aim of harnessing synergies to enhance impact and to build understanding of the RECPC’s capacities and ways in which the Centre could contribute as a partner to others’ missions and goals.</p>
<p>Recommendation #5: For RECPC</p>	<p>Enhance the staff mix to assure expertise and capabilities on the team for delivering all aspects involved in fulfilling the RECPC’s vision and mission, notably with respect to policy advice and financial mechanisms, where there are current shortfalls.</p>
<p>Recommendation #6: For RECPC</p>	<p>Strategically leverage the RECP capability pool to achieve catalytic effect by identifying individuals and organisations in target sectors that could and would act as RECP references, ambassadors and advocates to create a snowball effect to build up mass and momentum for this innovation to Ukrainian industrial practice, based on proven insights regarding the diffusion of innovation.</p>

The Evaluation Team has every confidence that action to take up these lessons and recommendations will provide the basis for consolidating and realising the intended impact and achieving the full development impact of this intervention.

1 Evaluation Objectives, Scope, and Methodology

1.1 Background of this Terminal Evaluation

- 1) Launched in October 2011 with a EUR 3.74 million budget [EUR 3,440,000 from Switzerland's State Secretariat for Economic Affairs (SECO) and EUR 300,000 from the Government of Austria], the 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" was implemented by UNIDO, with Ministry for Development of Economy, Trade and Agriculture of Ukraine² and executing partner National Technical University of Ukraine 'Igor Sikorsky Kyiv Polytechnic Institute' (Igor Sikorsky KPI). These actors were expected to have a key role in sustaining the project's results and benefits. Reference is made throughout this report to the RECPC, which was the entity intended to be created through the project and subsequently, the main beneficiary of the project's support.
- 2) Following UNIDO Evaluation Policy, this Terminal Evaluation (TE) was planned into the project's design, carried out in the project's final period (September-December 2020) by an external team, and guided by a Terms of Reference (ToR) provided by UNIDO (see **Annex 1**).

1.2 Purpose and Scope

- 3) This evaluation had the following general aims:
 - Assess the project's performance in terms of relevance, effectiveness, efficiency, progress-to-impact, and sustainability of its results and benefits;
 - Develop evidence-based findings, lessons, and recommendations that could be used to enhance the design of new projects and implementation of ongoing projects.
- 4) More specifically, according to UNIDO's Evaluation ToR, the TE was expected to:
 - Assess the extent to which expected results were achieved, i.e. extent the project contributed to establishing a self-sustaining RECP Centre that provides Ukrainian industry with tools to facilitate access to national and regional markets with environmentally-sound products and improve ability to successfully negotiate a position in the global market;
 - Make evidence-based, analytically-sound recommendations to the Government of Ukraine, donor, and UNIDO;
 - Draw lessons for replicating the experience gained in the project in other interventions.
- 5) In terms of scope: the assessment covered the project's entire duration (25.10.2011 to 31.12.2020), which includes 36 months of 'no-cost' extension (1 year granted for 2018; another 2 years for 2019-2020). According to agreement documented in the TE's Evaluation Report³, the evaluation team focussed on the period after the project's mid-term review (MTR, May 2015) and UNIDO's internal review (January 2018), Both made recommendations aimed at solidifying the Centre's sustainability (see **Annex 2**).
- 6) The likelihood that results and benefits of this intervention will be sustained was assessed by looking into the extent to which the project:
 - helped put in place conditions likely to address drivers of and overcome barriers to promoting RECP as an integral dimension of the pursuit of sustainable development;
 - coordinated with other relevant actors to develop supportive mindsets, capacities, policy and regulatory framework and incentives; integrated aspects to assure continuation of benefits;
 - yielded direct outcomes that are being used, or will be used in the near future, to improve industrial resource efficiency, reduce environmental degradation, and competitively position Ukrainian

² At project start, it was Ministry for Economic Development and Trade (2011). In 2019, it was reorganized as the Ministry for Development of Economy, Trade and Agriculture of Ukraine (MEDTA), then in 2020 – back to Ministry for Economic Development and Trade

³ Refer to TE's Inception Report (finalized 29 October 2020), which documented this agreement on scope, p7

enterprise within a framework that balances resource use and socio-economic development;

1.3 Methodology

- 7) The TE was designed and carried out in accordance with UNIDO Evaluation Policy⁴ and Guidelines for Technical Cooperation Project and Project Cycle⁵. A participatory approach was used; key stakeholders were kept informed and consulted throughout the process. The Evaluation Team liaised with UNIDO's Independent Evaluation Division (ODG/EVQ/IEV) on methodological issues and the evaluation's conduct.
- 8) The TE was carried out using UNIDO's evaluation criteria, as elaborated in **Table 3**.

Table 3 – Evaluation Criteria and Definitions Used in Project Assessment

Evaluation Criteria	Definition	Mandatory rating
Progress to Impact	Positive and negative, primary and secondary long-term effects produced by a development intervention, directly or indirectly, intended or unintended. Including redirecting trajectories of transformational process and extent to which conditions for trajectory changes are being put into place.	Yes
Project Design	Formulation of the intervention, the plan to achieve a specific purpose.	Yes
➤ Overall design	Assessment of the design in general	Yes
➤ Logframe	Assessment of the logical framework aimed at planning the intervention.	Yes
Project Performance	Functioning of a development intervention.	Yes
➤ Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient, and donor.	Yes
➤ Effectiveness	The extent to which the development intervention's objectives were achieved, or are expected to be achieved, taking into account their relative importance.	Yes
➤ Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.	Yes
➤ Sustainability of Benefits	The continuation of benefits from a development intervention after major development assistance has been completed. The probability of continued long-term benefits. The resilience to risk of the net benefit flows over time.	Yes
Cross-Cutting Criteria	Other important criteria that cut across the UNIDO intervention.	
➤ Gender Mainstreaming	The extent to which UNIDO interventions have contributed to better gender equality and gender related dimensions were considered in an intervention.	Yes
➤ M & E	Refers to all the indicators, tools and processes used to measure if a development intervention has been implemented according to the plan (monitoring) and is having the desired result (evaluation).	Yes
➤ Results-Based Management (RBM)	Assessment of issues related to results-based work planning, results-based M&E and reporting based on results.	Yes
Performance of Partners	Assessment of partners' roles and responsibilities engaged in the intervention.	
➤ UNIDO	Assessment of the contribution of partners to project design, implementation, monitoring and reporting, supervision and backstopping and evaluation. The performance of each partner will be assessed individually, based on its expected role and responsibilities in the project life cycle.	Yes
➤ National Counterparts		Yes
➤ Donor		Yes
Overall assessment	Overarching assessment of the project, drawing upon the analysis made under Project performance and Impact criteria above but not an average of ratings.	Yes

Source: UNIDO Independent Evaluation Division (April 2018), Evaluation Manual

<https://www.unido.org/sites/default/files/files/2018-04/Evaluation%20Manual%20e-book.pdf>

- 9) In applying these criteria to assess and report on the support provided by this project to the RECPC and its effects, the criteria related to impact, relevance, effectiveness, and efficiency refer to the project's support to the Centre. The criterion focused on sustainability of benefits was used to address the TE's aim that relates to assessing the prospects for the Centre's ongoing sustainability and the key risks (financial, socio-political, institutional, environmental) that may affect the continuation of results

⁴ UNIDO (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1) and UNIDO's Evaluation Policy and Evaluation Manual (2018), Technical Cooperation Programmes, Projects and Tools (2017)

⁵ UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006)

following the termination of the current project's support.

- 10) Following the Evaluation ToR's guidance, the performance of partners considered the quality of both implementation (extent to which UNIDO delivered effectively, with focus on elements that were controllable from UNIDO's perspective and how well risks were identified and managed) and execution (appropriate use of funds, procurement, contracting of goods and services).
- 11) The criteria were rated using UNIDO's standard 6-point scale (**Table 4**), with justifications elaborated through the Report's main body and findings.

Table 4 – UNIDO Rating Scale Used to Assess the Designated Evaluation Criteria

Score			Definition	Category
6	HS	Highly Satisfactory	Level of achievement presents no shortcomings (90-100% achievement rate of planned expectations and targets)	SATISFACTORY
5	S	Satisfactory	Level of achievement presents minor shortcomings (70-89% achievement rate of planned expectations and targets)	
4	MS	Moderately Satisfactory	Level of achievement presents moderate shortcomings (50-69% achievement rate of planned expectations and targets)	
3	MU	Moderately Unsatisfactory	Level of achievement presents some significant shortcomings (30-49% achievement rate of planned expectations and targets)	UNSATISFACTORY
2	U	Unsatisfactory	Level of achievement presents major shortcomings (10-29% achievement rate of planned expectations and targets)	
1	HU	Highly Unsatisfactory	Level of achievement presents severe shortcomings (0-9% achievement rate of planned expectations and targets)	

- 12) The evaluation used an evidence-based approach with robust analytical underpinning. Qualitative and quantitative data were gathered and analysed. Crystallized findings formed the basis for developing lessons and recommendations for organisational learning and operational improvement.
- 13) The Evaluation Team worked closely with the Centre's team to identify relevant documentation (**Annex 3**) and representative informants; 36 were consulted in-depth during the main evaluation phase (**Annex 4**). An interview protocol was developed to guide the inquiry (**Annex 5**). An electronic survey (**Annex 6**) was also designed and administered to gather perspectives particularly from existing and prospective clients An Evaluation Matrix was developed that further elaborated the designated criteria and identified indicators and sources of verification. The overall approach was grounded in a review of the project's results framework (**Annex 7**) and its reconstructed Theory of Change (

15) Annex 8).

16) To triangulate findings, data was collected from several sources, using multiple means:

- **Desk review:** of key documentation supplied by the project team, including the Project Document, monitoring reports (progress reports, management reports, financial reports), consultant reports, annual work plans, Business Model Canvas visualisations and discussion, MTR report, publications, training programmes, the RECPC's website, media searches, and relevant correspondence;
- **Remote Interviews:** were carried out (via Skype, Zoom) with the project management/supervisor in UNIDO (Austria), the CTA (Serbia), consultants and donor (Switzerland and Ukraine), more than half of the Centre's team in Kyiv and regional offices (14 staff in total), and all key institutional representatives. Several clients (including two international donors that contracted the RECPC to undertake mandates) as well as a competitor were also interviewed;
- **Written Feedback:** interviewed stakeholders were encouraged to provide complementary inputs and clarifications by email. Several inputs were received throughout the process.
- **Surveys:** to gauge the relevance and effectiveness of RECP services for existing and potential clients, two instruments were designed and administered: i) to 71 clients in 11 sectors for whom email addresses were available; ii) through placement in five social media channels as follows:
 - Facebook <https://www.facebook.com/recpc.ua/>
 - Twitter https://twitter.com/recpc_ua/
 - Instagram <https://www.instagram.com/recpcentre/>
 - RECPC YouTube channel <https://www.youtube.com/RECPCentreUkraine>
 - RECPC web page <http://www.recpc.org/>

17) To preserve the integrity of the evaluation process and enhance freedom of expression, respondents were assured of the confidentiality of their input. Efforts were also undertaken to ensure that evidence gathered to support the assessment was not directly attributed to specific individuals and institutions.

18) The quality of data analysis was assured using a software tool (QDA Miner⁶), which provided a trace back to evidence underpinning the findings. This tool was used to systematically analyse, cross-reference, and comment data gathered through interviews according to the evaluation criteria, allowing for the triangulation of findings and evidenced-based recommendations.

1.4 Risks and Limitations on the Evaluation

19) Direct inquiry could not be undertaken with all partners and beneficiaries engaged in all project activities due to limitations of budget and timing. Consequently, selected respondents were identified with the objective of providing a representative cross-section of input that was expected to provide perspectives illustrative of the overall population.

20) While a field mission was included in the TE's planning and budget – which would have provided the opportunity for *in situ* meetings, focus groups, interviews– this was curtailed by UNIDO's prohibition on travel, aligned with global efforts to contain the COVID-19 virus' spread. In this light, the Evaluation Team was obliged to remotely interview respondents. While pragmatic, this data collection approach lacked the opportunity for direct observation and non-verbal cues that provide avenues for further probes. An interview protocol was shared with respondents to enable them to prepare their input. In some cases, informants used this mechanism to provide further elaboration in written form.

21) Most informants were more comfortable answering questions in their mother tongue, rather than in English. Consequently, following an introduction in English, the bulk of interviews were carried out in Ukrainian, guided by the national consultant. To ensure adequate sharing and discussion of the input with the full Evaluation Team, these interviews were electronically recorded (with permission of the informants), with key points translated into English, according to the interview protocol.

22) While an effort was made to supplement and enrich interview data through two online surveys, with

⁶ <https://provalisresearch.com/products/qualitative-data-analysis-software/freeware/>

response possible in English and Ukrainian compiled into a common dataset, these instruments did not yield significant additional material. The client survey, which ran for 2 months, had an 8.4% response rate. Of the 71 email addresses provided by the Centre (many of which were directed to an unspecified individual, i.e. in the form of info@organisation.ua), only 6 clients responded. A misunderstanding within the Evaluation Team regarding the survey link to be included for the Ukrainian version led to a technical error (which was subsequently rectified), which also contributed to the lower response rate. The spontaneous action of online visitors to the Centre's social media channels garnered 11 survey responses.

2 Project Context

2.1 Country Background

- 23) The second largest country in Europe, after Russia, Ukraine's geopolitical location, economic and industrial history play an important role in shaping the country's key economic sectors. Ukraine counted amongst the most important economic contributors within the former Soviet Union.
- 24) With 44.3 million inhabitants and Gross Domestic Product (GDP) of USD 139.1 billion, since 2019, Ukraine, a lower-middle-income country⁷ has undergone major transition, politically and economically. After the 1990s fall of the communist regime, Ukraine established the foundation of its market liberalisation, industry privatisation, and democratic socio-economic policies. The "Euromaidan Revolution" in February 2014, following the suspension of preparations for the implementation of an Association Agreement with the EU, sparked a vicious cycle of acute political, security, and economic challenges. The country experienced a second major decrease in GDP in 2014 (-6.6%) and 2015 (-9.8%), with corresponding effects for Ukrainian industry. The effects of several momentous events, including the outbreak of conflict in eastern Ukraine, are reflected in the country's economic indicators (Table 5).

Table 5 – National Economic Indicators for Ukraine (2015-2019)

Economic indicators	2015	2016	2017	2018	2019
Population (million)	42,6	42,4	42,2	42	41,9
GDP per capita (USD)	2,055	2,175	2,686	3,120	3,678
GDP (USD billion)	87,5	92,3	113	131	154
Economic Growth (GDP, annual variation in %)	-9,8	2,4	2,5	3,4	3,2
Consumption (annual variation in %)	19,8	2,7	9,5	9,3	11,9
Investment (annual variation in %)	-9,2	20,4	16,1	16,6	14,2
Industrial Production (annual variation in %)	-12,3	4	1,1	3	-0,5
Unemployment Rate	9,1	9,3	9,5	8,8	8,2
Inflation Rate (CPI, annual variation in %)	43,3	12,4	13,7	9,8	4,1
Inflation Rate (CPI, annual variation in %)	48,5	14,9	14,5	11	7,9
Trade Balance (USD billion)	-3,5	-6,9	-9,7	-12,7	-14,3
Exports (USD billion)	35,4	33,6	39,7	43,3	46,1
Imports (USD billion)	38,9	40,5	49,4	56,1	60,5
Exports (annual variation in %)	-29,9	-5,3	18,3	9,2	6,4
Imports (annual variation in %)	-32,6	4,2	21,9	13,6	7,8

Source: <https://www.focus-economics.com/countries/ukraine>

- 25) The Ukrainian economy is driven by services, hospitality, manufacturing/machinery, mining and metal industry. The manufacturing sector's value added decreased over the past decade, contributing almost 11% of GDP in 2019⁸. In the first half of 2019, the economy grew by 3.6 %, powered by a strong agricultural harvest and the services sector, while manufacturing and investment growth remained weak. Sound fiscal/monetary management, including control of public expenditures, mitigated inflation. Going forward, addressing expenditure pressures and financial risks will be important to keep the fiscal deficit below 2% of GDP, further reduce public debt, and meet the country's large debt repayments.
- 26) Industry generates about 32% of the total output of products and services, 25.7% of gross value added, and 15.1% of jobs. Currently, there are 44,000 industrial enterprises with various forms of ownership, of large-size (239; by far, the smallest number of the total with just 0.5%), medium-sized (4,854; 10.8%),

⁷ "Recent Economic Developments", The World Bank in Ukraine <https://www.worldbank.org/en/country/ukraine/overview#1>

⁸ "Manufacturing Value Added, Ukraine", World Bank <https://data.worldbank.org/indicator/NV.IND.MANF.ZS?locations=UA>

and small-sized (39,779; 88.7%). The processing industry alone accounts for almost 35,200 enterprises.

- 27) Manufacturing is dominated by heavy industries, like iron (Ukraine is the world's 6th largest producer) and steel, which account for around 30% of industrial production. Coal mining, chemicals, mechanical products (aircraft, turbines, locomotives, tractors) and shipbuilding are also important sectors. Manufacturing employs almost 12.4% of the labour force (not much lower than the Europe-wide average of 14.9%⁹). In 2018, manufacturing was third most important sector for generating employment, after the services sector (60.7%) and agriculture/forestry (14.9%). The construction sector and mining/utilities employed 6.6% and 5.4% of the working population, respectively.
- 28) Ukraine's manufacturing sector is undergoing simultaneous transitions related to technology, innovation, and 'greening'. The technology content of activities is growing alongside a progressive shift from low-technology to medium- and high-technology industries, which can be expected to eventually lead to greater value added. Technology-intensive industries are also associated with higher R&D and can therefore serve as a proxy for innovation.
- 29) The main consumers of energy resources are industry (30.2% of total energy consumption), households (32.8%), and the transport sector (19.5%). Ukraine's level of energy intensity of GDP in 2018 exceeded that of Poland (2.5 times), Germany (3.3 times), and the average global value (2 times)¹⁰. The 2019 Global Competitiveness Index (GCI)¹¹ ranked Ukraine 85th (of 141 countries), reflecting the comparatively low efficiency and competitiveness of its economy.
- 30) The country has gained membership in important global and regional bodies, including United Nations (UN), Organization for Security and Co-operation in Europe (OSCE), GUAM Organization for Democracy and Economic Development (with other post-Soviet states: Georgia, Azerbaijan, Moldova), Council of Europe, and European Union (EU)'s Energy Community. Ukraine is currently taking steps to accede to the EU and NATO; it has a special partnership with both structures. In 2017, Ukraine entered an Association Agreement with the EU that promotes deeper political ties, stronger economic links and respect for common values¹². Ukraine's President Volodymyr Zelenskyy (since April 2019) reiterated the vision for the country to be invited into the EU at the same level and with the same status as other members, acknowledging that countries aspiring to join must meet many conditions¹³.
- 31) During 2014-2019, the Government undertook key reforms including: significant fiscal consolidation; moving to a flexible exchange rate; reforming energy tariffs and social assistance; enhancing transparency of public procurement; simplifying business regulations, stabilizing, and restructuring the banking sector; embarking on health and pension reforms; and establishing anti-corruption agencies¹⁴. Economic downturn – triggered by President Zelenskyy's decision to sack his reformist government in early March 2020 and remove many senior officials in his administration – was exacerbated by the national state of emergency declared on 25 March 2020 related to managing the global COVID-19 crisis.
- 32) Ukraine's economy has been hit hard by the COVID-19 global pandemic. Experiencing a 6.5% decline in GDP in the first half of 2020, with the expectation of an overall 5.5% contraction by year end¹⁵. Metal industry, mining, and manufacturing have been seriously impacted by weak external demand.
- 33) Fiscal pressures in 2020 arose from declining revenues, additional spending related to COVID-19 support measures, and large debt repayments coming due. As a result, a supplementary budget was passed in April 2020 that targeted a budget deficit of 7.6% of GDP (versus 2.5% in the original budget). Fiscal

⁹ "Country Profile: Ukraine", UNIDO Industrial Analytics Platform <https://iap.unido.org/country/UKR>

¹⁰ Global Energy Statistical Yearbook <https://www.enerdata.net/publications/world-energy-statistics-supply-and-demand.html>

¹¹ Global Competitiveness Index, 2019 <https://www.weforum.org/reports/how-to-end-a-decade-of-lost-productivity-growth>

¹² <https://www.consilium.europa.eu/en/policies/eastern-partnership/ukraine/>

¹³ Official Website of the President of Ukraine, 13 October 2020 <https://www.president.gov.ua/en/news/ukrayina-robit-use-shob-buti-rivnopravnim-chlenom-yes-glava-64541>

¹⁴ <https://www.worldbank.org/en/country/ukraine/overview#1>

¹⁵ "Ukraine", The World Bank Databank <https://www.worldbank.org/en/country/ukraine/overview#3>

outcomes in the first half of the year showed an almost balanced budget, reflecting low expenditure execution and better-than-expected revenue performance; a deficit overrun of 5% of GDP was anticipated. Significant financing needs during 2020 were alleviated by external actors (EU, International Monetary Fund) financing of US\$2.7 billion, plus the July 2020 issuance of a US\$1.3 billion 12-year Eurobond. Domestic financing remains sufficient to cover domestic debt repayment needs¹⁶.

- 34) Still on the way to achieving a sustainable socio-economic system, Ukraine is exposed to vulnerabilities stemming from skills mismatch, unemployment, outdated infrastructure, technology gaps, and relatively weak social policies. Growing urbanisation is creating pressure for enhanced employment opportunities, increased productivity, higher quality infrastructure and efficient management systems. Many of the opportunities and changes outlined by the Government to address this situation require actively mobilising funding and attracting investment inflows¹⁷.
- 35) Throughout 2020, the Ukrainian Cabinet of Ministers imposed restrictive measures on movement and gathering. Some organisations were shuttered due to prolonged quarantine (to 31 December 2020). Many companies incurred severe financial losses while coping with the economic challenges of the pandemic, with devastating repercussions anticipated for years to come¹⁸.
- 36) Together with dealing with these enduring effects, the country's growth outlook depended on delivering the government's ambitious reform agenda aimed at addressing bottlenecks to private investment and productivity¹⁹. Major external assistance has been directed towards Ukraine to assist in this respect. Since 2014, under the neighbourhood enlargement framework, the EU and its financial institutions [European Bank for Reconstruction and Development (EBRD), European Investment Bank] had mobilised over EUR13 billion in loans and EUR2 billion in grants to help Ukraine stabilize its economy, carry out comprehensive reforms, and improve citizens' lives²⁰. In 2018, international technical assistance worth USD6.6 billion was deployed in Ukraine²¹. Switzerland established a Kyiv office to coordinate its assistance programmes in Ukraine, which had an average yearly budget of CHF 27 million²².

2.2 Institutional Setting Relevant to RECP Issues

- 37) The Ministry of Economy and Trade was identified as the main government partner (beneficiary) of the project. It had an extensive, complex organisational structure and was the country's largest ministry in terms of employees. During the project's implementation, this Ministry underwent significant changes, several times. Since 2013, nine different individuals were appointed as Minister of Economy. Since 2014, Ukraine has not had a Ministry of Industrial Policy; its functions were reorganized and converted into the Industry Development Department within the Ministry of Economy and Trade. In 2019, this entity was reorganized into Ministry for Development of Economy, Trade and Agriculture of Ukraine (MEDTA), following the liquidation of the Ministry of Agrarian Policy and Food. The following year, this move was deemed erroneous, and a decision was made to re-establish a separate ministry to deal with agriculture

¹⁶ <https://www.worldbank.org/en/country/ukraine/overview#3>

¹⁷ Ministry of Economic Development and Trade of Ukraine, "Sustainable Development Goals: Ukraine. 2017 National Baseline Report" <https://bit.ly/32CbHnD>

¹⁸ A September 2020 study by UNDP projected devastating impacts of COVID-19, pushing Ukraine towards depression, dropping GDP by 6%. Over 8% of SMES were already on the brink of bankruptcy and unemployment was surging. According to a UNIDO study, 700,000 small businesses had closed, representing a loss of 3.5-4 million jobs https://www.undp.org/content/undp/en/home/news-centre/news/2020/UN_study_documents_impact_COVID19_in_Ukraine.html and <https://www.unido.org/stories/after-covid-19-shock-how-boost-ukraines-economic-recovery>

¹⁹ According to World Bank's Ukraine Economic Update <http://pubdocs.worldbank.org/en/100071574084094307/Ukraine-economic-update-Fall-2019-en.pdf>

²⁰ https://ec.europa.eu/neighbourhood-enlargement/neighbourhood/countries/ukraine_en

²¹ According to the Ukrainian Ministry of Economic Development and Trade, in 2018, the largest donors were: United States (USD2 billion; 124 projects); EBRD (USD 759.7 million; 44 projects); EU (USD 522.3 million; 235 projects); Germany (USD 386.9; 39 projects); Canada (USD 152.3 million; 18 projects <https://www.kmu.gov.ua/en/news/u-2018-roci-v-ukrayini-realizovualisy-proekti-donorskoyi-dopomogi-na-66-mlrd-zvit-minekonomrozvitku>

²² <https://www.eda.admin.ch/countries/ukraine/en/home/representations/embassy-in-kyiv/cooperation-office.html>

and rural development, together with reincarnating the Ministry of Economy and Trade.

- 38) With the May 2019 election of a new President, public authorities' infrastructure had been subjected to further restructuring. To date, some key state institutions relevant for RECP did not yet have fully authorized heads; notably, Ministry of Energy, State Agency for Energy Efficiency). In June 2020, a Minister of Environment had been appointed. In July 2020, a Ministry of Strategic Industries was created, but the strategy for Ukrainian industry had not yet been determined.
- 39) The country's system of environmental protection inevitably depends on the overall system of public governance. In this respect, Ukraine has inherited a certain legacy and has been working through a number of associated challenges, including effects of oligarch ownership of large enterprises and their sustained (even increased) influence. Following approval of a reform concept in April 2014, the Government of Ukraine stepped up decentralization efforts²³. However, one of the ongoing major policy barriers for the extension of RECP services in Ukraine is related to insufficient law enforcement mechanisms and low fines for emissions and non-disclosure of actual data. There is reportedly a reluctance to allow eco-inspectors and even RECP experts to enter premises.
- 40) Ukraine's (No. 5598) "Law on the Energy Efficiency Fund (EEF)" adopted on 8 June 2017 defined its objective to serve as a technical and financial instrument that will foster the more efficient use of state budget funds as well as attract international aid. The EEF was officially registered on 24 July 2018 and launched its first programme, "Energodim", on 3 September 2019.
- 41) While Ukraine presently occupied the lower rungs of the world's economies in terms of energy efficiency, this situation was expected to be ameliorated by 2030. Ukraine's Ministry of Energy, together with the State Energy Efficiency Agency, had initiated and developed a draft order of the Cabinet of Ministers of Ukraine "On the National Action Plan for Energy Efficiency for the Period up to 2030". The expert community was also involved in this work, including the EU4Energy Governance project.
- 42) In 2019, the environmental tax on CO₂ emissions increased 24 times, shifting from UAH 0.41 to 10 UAH per ton. As a result, the state budget expected to gain UAH 1.2 billion. In a bid to optimize the energy consumption of industrial enterprises and reduce the financial burden of higher taxes, this mechanism allows for the use of part of the funds from the CO₂ tax as a loan repayment for energy efficient projects.
- 43) During the 22nd Ukraine-EU Summit (October 2020 in Brussels), several bilateral agreements were signed related to resource efficient and clean production. An EU contribution of EUR 10 million for the "Climate Package for a Stable Economy: (CASE) in Ukraine" was designed to:
 - develop and implement policies and measures for the transition to climate-neutral, clean, resource-efficient and secure energy supply and consumption;
 - combat climate change by reducing greenhouse gas emissions and ozone-depleting substances;
 - stimulate the transition to a circular economy with the active use of secondary resources.
- 44) Currently, Ukraine is developing a compensation mechanism for companies that implement energy efficiency measures. The amount of compensation will be set as a percentage of the cost of projects, according to enterprise size: small (50%); medium (40%); large (30%,) with limits on total compensation set respectively - for small (UAH 1 million); medium (UAH 2.5 million); large (UAH 5 million)²⁴. Furthermore, Ukraine created a Loan Guarantee Fund as part of the objectives of the GEF-UNIDO project, "Introduction of Energy Management System Standard in Ukrainian Industry". This is the first financial instrument in Ukraine that uses guarantees to improve financing conditions for Industrial Energy Efficiency (IEE). The size of the Energy Efficiency Loan Guarantee Fund is USD 1.5 million.
- 45) In 2020, the government's inter-agency working group on climate change coordination within the

²³ The World Bank (2016), Ukraine Country Environmental Analysis

<https://openknowledge.worldbank.org/bitstream/handle/10986/24971/Ukraine000Coun0ironmental0analysis.pdf?sequence=4&isAllowed=y>

²⁴ <https://www.epravda.com.ua/projects/ekopromyslovist/2020/12/16/668493/>

European Commission's European Green Course initiative shared a position paper with possible mechanisms for Ukraine's participation in the European Green Deal (EGD), an action plan to move to a climate-neutral Europe by 2050. In declaring its intention to join the EGD, Ukraine would need to build public policy, update annexes to the EU Association Agreement, and agree on national and regional climate strategies as part of economic sector development. The requirements of the EU's Gender Action Plan 2021-2025 would also need to be respected; it aimed to accelerate progress on gender equality and women's empowerment as a key aspect of building back better from COVID-19 effects²⁵.

- 46) The EGD has strategic opportunities: the acceptance of an 'industrial visa-free regime' would facilitate Ukrainian industry's integration into new EU industrial processes. Furthermore, opportunities are hidden in the economy's low energy efficiency/high carbon intensity caused by high depreciation of fixed assets and large fossil fuel share in the energy balance. If an international and/or bilateral mechanism could be established under the EGD, this would open possibilities to raise 'green' funding for modernizing Ukraine's industrial infrastructure and processes. While anticipated restrictions in the EU market related to the environmental friendliness could create new niches for Ukrainian producers who could meet these needs, the EGD's key threat relates to potentially restricted access of Ukrainian goods to EU markets and new non-tariff trade barriers on energy/resource-intensive goods (metallurgy, agriculture, energy, heavy chemicals, engineering, steel, building materials) which constitute a major share of Ukrainian exports²⁶.
- 47) At present, UNIDO counted 6 projects within its Ukraine portfolio, valued at USD 15.27 million, funded by three donors (Government of Austria, Government of Switzerland, and the GEF)²⁷. Currently, three UNIDO projects operated in overlapping fields: promotion of resource efficiency through the RECP; promotion of cleantech innovation (related to low carbon, energy efficiency, renewables); and introduction of energy efficiency standards. Ukraine was also involved in a Swiss-supported global programme for eco industrial parks, being implemented by UNIDO (¶201). Described as an extended RECP for higher country level results (policy, parks, enterprises), this was seen as a logical programme extension rather than an overlap.

3 Project Summary

3.1 Background

- 48) The project under evaluation traces its origins to the International Programme of National Cleaner Production Centres (NCPCs) launched in 1994 as a follow-up to the 1992 UN Conference on Environment and Development (UNCED, popularized as 'Rio'). The NCPC concept, originally conceived by Switzerland's State Secretariat for Economic Affairs (SECO), has been a key dimension of Swiss international development cooperation and has been used as an engine to improve the resource productivity and environmental performance of business and other organisations, thereby contributing to sustainable production, consumption, and industrial development in developing and transitioning countries²⁸. Applied at enterprise level, RECP reduces the intensity of natural resource use and waste and emission generation per unit of industrial output. RECP is a cornerstone of the NCPC concept.
- 49) The first 8 NCPCs opened their doors in 1995. Their achievements sparked global interest. Several donors (Switzerland, Austria, Norway, Italy, The Netherlands, Denmark, Sweden, Germany, European Union) supported the longstanding cooperation of UNIDO and UNEP that fostered the eventual establishment of 58 NCPCs and programmes worldwide under the Joint Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries (2011-2018) designed to mainstream and upscale the application of RECP at technical and policy levels.

²⁵ <https://ec.europa.eu/international-partnerships/system/files/factsheet-draft-gender-action-plan-v08.pdf>

²⁶ According to the Policy Paper, "European Green Deal: Opportunities and Threats to Ukraine" <https://www.rac.org.ua/en/our-products/policy-documents/european-green-deal-opportunities-and-threats-for-ukraine-policy-paper-2020>
http://www.ier.com.ua/files/publications/Policy_papers/IER/2020/european-green-deal-final_IER_com_ua.pdf

²⁷ UNIDO Open Data Platform <https://open.unido.org/projects/list>

²⁸ <https://www.seco.admin.ch/seco/en/home/seco/nsb-news/medienmitteilungen-2012.msg-id-47090.html>

3.2 Establishment of the Ukrainian RECP Centre

- 50) Discussions about creating a Ukrainian NCPC (2007) were followed by a UNIDO-organised international expert mission (2009) and consultation with national institutions and donors involved in CP-related activities (2010). From 2007, action was managed as a UNIDO project in collaboration with the government-nominated partner, Igor Sikorsky KPI. This preparatory work oriented understanding that the Centre's function was to "focus its activities on building capacity of national experts with regard to RECP, implementing RECP assessments, and supporting RECP technology projects in companies in selected priority sectors (chemicals, agro-processing, metallurgical/metal processing industries) and regions"²⁹.
- 51) With the aim of fostering a nationally driven implementation, the present project was initiated upon agreement between the Government of Ukraine and UNIDO in September 2011, with Igor Sikorsky KPI as host institution responsible for the project's overall management at national level. In this role, the host institution was expected to ensure smooth coordination with other national stakeholders; regularly report to UNIDO; provide office space, conference/training facilities for the RECP Centre (which was to be formally constituted under the project with an appropriate legal structure and business plan); open its science-business networking to the Centre and facilitate cooperation with governmental, financial, scientific, and business institutions. Igor Sikorsky KPI's specialists were also expected to provide technical assistance for cleaner production training and assessment activities; undertake laboratory services; and actively engage in the assessment, development, transfer and adoption of RECP technologies.
- 52) Following the November 2011 Letter of Agreement between SECO and UNIDO, the Project Appraisal Document was issued in February 2012, which released the agreed funding. An important milestone was reached in June 2013 with the formation of a non-governmental organisation (NGO), the Resource Efficient and Cleaner Production Centre Kyiv City Innovative Sectoral Organization of Employers (RECPC KCISOE), referred to as the RECPC, hosted by Igor Sikorsky KPI, with two other founding partners: Corporation Science Park 'Kyivska Polytechnika'³⁰ and the Ukrainian League of Industrialists and Entrepreneurs (ULIE)³¹. This provided the framework to take on the project's 5-year mandate to develop in-country RECP capacities and deliver RECP services to Ukrainian industries, municipalities, and the national government.
- 53) A Swiss Reference Centre led by Fachhochschule Nordwestschweiz (FHNW) was selected to provide technical support (2013-2019) and a Chief Technical Advisor (CTA) was appointed by UNIDO to provide overall guidance. While CTA support was planned to run for the initial 2.5 years of the project, this assistance was subsequently provided through to the end of 2020.
- 54) During 2013-2014, the Ukrainian centre was one of nine teams (together with NCPCs in Colombia, Kenya, Mexico, Morocco, Serbia, South Africa, Sri Lanka, Vietnam) that benefitted from institutional-strengthening and business planning support under the GIZ-implemented Human Capacity Development Initiative (HCDI). The HCDI aimed to enable participating Centres to become institutionally and financially sustainable by offering demand-driven services for small- and medium-sized enterprises (SMEs) and promoting Centres' exchange and learning through the RECPnet, a global network established under the sponsorship of UNIDO and UNEP to bundle and utilize NCPC capacities.
- 55) During the same era, an EU-funded Eastern Partnership (EaP) regional programme was set up to strengthen RECP service delivery in Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine. UNIDO's component on RECP service delivery was complemented by OECD-supported activities on green economy policy, UNECE activities on environmental planning, and UNEP activities on SCP pilots. In 2013 institutional capacities and past RECP experiences were mapped and assessed for the six partner countries (including Ukraine). The UNIDO component was mainly funded by the EU, with co-financing

²⁹ Cited in the Project Document, p2

³⁰ <http://www.spark.kpi.ua/>

³¹ <http://www.uspp.org.ua/>

from the Government of Slovenia, Austrian Development Bank, and UNIDO³².

- 56) In light of 2015 national legislation that prohibited non-profit organisations to charge for their services, a limited liability company (LLC) was established (04.10 2016) to operate alongside the NGO. Although this dual structure created administrative and governance complexity, the LLC gave the Centre a legal status that qualified it to bid on projects tendered by international donors and assured that it could sign commercial contracts in compliance with national law. The resulting arrangement enabled the Centre to:

“on the one hand, operate as an NGO with the goal of promoting resource efficiency and green industry, guiding industrial companies to improve their environmental performance, advising policy makers on RECP implementation, complying with the Paris Climate Agreement, implement international projects that are related to RECP and green industry in synergy with the RECP project and promote RECP with industrial and economic sectors in Ukraine; and on the other hand, ensure opportunities to deliver commercial services on RECP and related to RECP for companies.”³³

- 57) By 2017, the Centre had made considerable progress in developing its capabilities and reputation – with tangible environmental benefits. Monitoring verified that 50% of 140 involved companies implemented over 70% of identified options³⁴. However, the country’s deteriorating political and economic situation had caused delays in the Centre’s envisaged activities (¶124). Following UNIDO’s internal review, a 2-year ‘no cost’ project extension was granted in 2018, funded by the USD 1.3 million that remained in the project budget at the end of 2017 (¶116). A hope was expressed at the time that the Centre would become “the first-choice institution for RECP project development in Ukraine”³⁵ by the project’s extended close on 31 December 2020.

3.3 Project Objective and Structure

- 58) Formulated with an overall objective to “enhance efficiency, productivity, competitiveness and environmental performance of companies in Ukraine, especially SMEs, through the implementation of RECP methods, practices, and technologies”, the project was constituted by four outcomes and associated outputs (see **Annex 7**), underpinned by an extensive set of activities.
- 59) The support was planned for 5 years (until 2017) with a first 3-year phase (including 1-year inception) during which the Centre was to develop its business plan, legal structure, and mainly focus on RECP capacity building of national experts and implementation of RECP assessment projects in companies from selected priority sectors and regions (¶150). A second phase (covering the remaining project duration) was to be adjusted, according to the progress achieved.
- 60) According to the Project Document (pp39-40):
- The vision for the Centre was for it to “become a self-financed knowledge-based organisation with a strong team delivering a wide range of high-quality RECP solutions that provide added value to industry, academia, governmental organisations, and other national organisations while contributing to the protection of the environment”;
 - Its mission was to “disseminate the RECP concept and promote its application in industrial activities to improve the competitive position of Ukrainian industry in the context of global economic integration”.

3.4 Governance Arrangements

- 61) The RECP was governed by an Advisory Board with representatives from government and academia to ensure that the Centre’s activities were relevant and beneficial to public and private sector stakeholders and responded to their expressed needs. It provided strategic advice, promoted the Centre’s work, and

³² UNIDO Progress Report on RECP Programme to SECO (covering January-December 2013)

³³ Final Report (2012-2017), “Promoting the Adaptation and Adoption of Resource Efficient and Cleaner Production (RECP) through the Establishment and Operation of a Cleaner Production Centre (CPC) in Ukraine”, p6

³⁴ Ibid, p11 showed annual savings of 3,002 tons of CO₂; 2,365 MWh electricity; 10,509 MWh thermal energy; 1,829 tons of materials; 107,042m³ of water

³⁵ Swiss Reference Centre FHNW’s Final Report (31 December 2019), p3

coordinated with other national institutions. The Advisory Board was chaired by the Director General of the Union of Small, Medium, and Privatized Enterprises of Ukraine, who was also the Deputy Head of the Council of the Federation of Employers of Ukraine.

- 62) The project was governed by a Project Steering Committee (PSC), which met annually, composed of representatives of institutions that actively contributed to the project and its objective. These included national government (Ministry of Economy, host institutions/founders), the Swiss Cooperation Office in Ukraine, UNIDO, and the Advisory Board’s Chair who had a “voice but no vote” (consistent with an advisory function while also serving to include high-level representation from industry). The PSC’s decisions were binding for the Centre’s management.
- 63) Both governance bodies supported the Centre’s ongoing mandate and had made recommendations over the years to strengthen the Centre’s role, link effects of its activities to Ukraine’s contribution to Sustainable Development Goals (SDGs) and national policies (e.g. modernization of the nation’s economy). The guidance of these two governance bodies was also oriented towards improving the Centre’s prospects to become self-financing and self-sustaining. The Advisory Board was an ongoing structure, whereas the PSC was disbanded at the conclusion of the present project.

3.5 Organisational Arrangements

- 64) To ensure nation-wide coverage of upscaling of RECP culture and practice, the Centre was guided, as part of the initial project design, to work with Focal Points in seven regions of Ukraine: Kyiv Region, Kharkiv, Krym (Crimea)/Kherson, Luhansk, Lviv, Vinnytsia, and Zaporizhia. Coordinated by the main office in Kyiv, the regional Focal Points were tasked with organizing training and assessment activities in their respective regions and building up local RECP knowhow. These RECP Focal Points were to be managed by local coordinators who were expected to be familiar with the local setting as well as capable of establishing close links with industry and local government.
- 65) Following an October 2018 restructuring (which stemmed from UNIDO’s internal review), a new young proactive management was installed, new regional coordinators and local RECP experts were recruited, and a new regional structure was established, which consolidated the complex administrative arrangement into four offices. This became operational from early 2019 with the Head Office in Kyiv, the East Office in Kharkiv, the South Office in Zaporizhzhia, and the West Office in Lviv, still giving the Centre nation-wide coverage (see **Figure 1**).

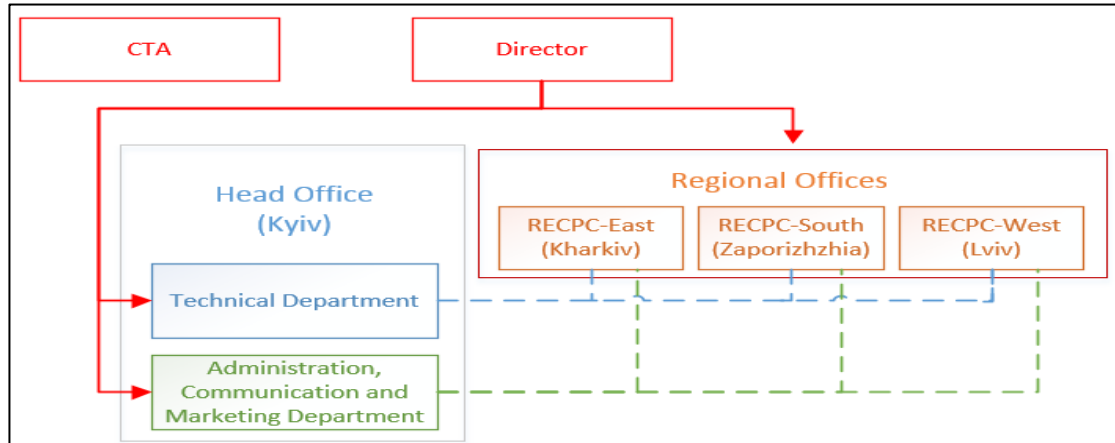
Figure 1 – Regional Structure Operational from Early 2019



Source: RECP Project Management Report, 2019

- 66) By year end 2019, the RECPC had 25 staff. Its core team was constituted by project managers, technical experts, administrative personnel, regional coordinators, an event manager, and a gender focal point. The organisational set-up is visualised in **Figure 2**.

Figure 2 – RECPC’s Organogram, 2019



Source: RECPC Project Management Report, 2019

- 67) While the RECPC was able to carry out limited monitoring of implemented RECP measures during November 2020, due to the imposed constraints on mobility and meeting, most of the Centre’s activities were carried out online. This was extensively reported in the RECPC’s 2020 Project Management Report.
- 68) According to the RECPC’s 2020 Project Management Report, during the project’s final year, the team had focused on carrying out awareness-raising events to promote RECP activities among different target groups; preparation of thematic training materials and videos; conducting RECP assessments in regions of Ukraine; monitoring implemented technical options; preparation of RECP assessment reports for the companies; providing technical services for industry; cooperating with local authorities, financial institutions and national universities; submitting the applications for participation in the Global Chemical Leasing Award 2021; and seeking for and maintaining close cooperation with other RECP-related projects in Ukraine “as stipulated in the ToR”.
- 69) For the upcoming year, the RECPC’s 2020 Project Management Report indicated that the Centre would focus on providing RECP assessments and developing other services to companies on a paid basis; identifying RECP/Chemical Leasing options; monitor implemented options identified in 2020 and before; conduct training and information events; and develop promotional materials regarding available services.

4 Impact Assessment

Finding 1: The project successfully created the envisaged Centre, together with 325 RECP experts it had trained, which assured human resources are available to verify the benefits of RECP and support scaling-up, with steps taken to stimulate future supply of expertise (e.g. RECP courses into university curricula). Based on the Centre’s experience in managing projects and its contributions to various initiatives, there was potential for the project’s results to be reproduced within and beyond Ukraine.

The combination of environmental safeguarding and economic performance (RECP’s sweet spot) provides a basis for generating impacts that can be directly/indirectly attributed to project support, with a trajectory expected to move in a positive direction and enhance the country’s socio-economic resilience – provided key elements materialise to significantly spur demand for RECP; namely: a long-term institutional framework for RECP advocacy, replication, mainstreaming, and upscaling with political/economic/social incentives for RECP adoption and RECP widely perceived and confirmed to be a vital part of the equation for achieving sustainable development in Ukraine.

- 70) The creation of the RECPC as an independent juridical entity is a clear, intended outcome of the project. Perceived as “a strong service provider able to support implementation of environmentally friendly methods, practices, and technologies”, industry stakeholders confirmed that the Centre’s technical capacities were highly respected, that it had relevant experience and tools to identify resource efficiency problems, and that the team could guide enterprises to improve their situation. The Centre had also developed nation-wide human capacities to support eventual scaling up of RECP practice, through training and certifying 325 RECP experts and integrating RECP courses into universities ¶104).
- 71) The Centre had provided training as part of various projects outside Ukraine and had cooperated with other RECP Centres (e.g. Serbia) on IFC-funded projects. While not having had projects outside Ukraine, the team has been often asked to help with contacts or to present Ukraine within the framework of EaP projects. In the case of the EU4Environment project, the RECPC acted as a leader; with its capacities, it had been able to take the role of “ice-breaker” in activities and then its experience was used in other participating countries. With the Centre’s experience in managing projects, its language capacities (Russian and English) and its knowledge of the region, whose industry faced similar challenges, there seemed to be some potential for the project’s results to be reproduced within and beyond Ukraine.
- 72) There were early signs of a positive impact trajectory stemming from attitude and behaviour change. While the overall business sector held onto relatively conservative thinking (¶138), the Centre had gained traction with a set of ‘innovators’ and ‘early adopters’ engaged in demonstration activities, who attested that “we learned a lot”; “we did not even expect such positive results”; “we can now see that the needed technical solutions don’t require large financing costs”; “we learned to pay attention to certain things”. Another stakeholder asserted that the Centre had made “a significant contribution to changing the consciousness of management and technical personnel towards resource-efficient and energy-saving technologies”. Through the online client survey (¶122), all six respondents said they would recommend the Centre’s services. This was triangulated with input of RECPC staff who confirmed that “after several years of successful work, the Centre’s clients have begun to recommend our services to other companies”.
- 73) The 2015 MTR (p41) highlighted a situation that appeared to still hold true five years later: that the initial promising benefits at company level are the result of implementing rather obvious, low-cost RECP options (¶98). However, sustaining the project’s broader objective at national level (which implied the widespread, successful application and scaling up of RECP practice throughout Ukraine, resulting in significant long-term environmental and economic benefits) requires (in addition to macro-economic and political stability) a conducive legal framework, including incentives and enforcement (¶39).

The prospect for achieving long-term impact is rated as ‘moderately likely’

5 Project Design Assessment

Finding 2: While informed by relevant experience, shared understanding, and anchored in a robust Theory of Change that heightens quality of life through improving the country’s economic and environmental conditions, the project design reflects an ambitious view of the ability of such a Centre to attain organisational maturity, fully deploy the long-term institutional framework for RECP advocacy and service delivery to Ukraine’s private and public sectors, and reach financial self-sustainability within the planned duration.

5.1 Overall Design

- 74) The project design was informed by previous experience in conceiving, implementing, and reviewing lessons learned from the creation, funding, and monitoring of 58 such Centres since the 1990s (¶48). The Project Document described the baseline situation – acknowledging weak incentives and high transaction costs for the implementation of cleaner production in the national setting (p36) – elaborated the envisaged project approach, identified implementation risks and corresponding mitigation measures, and

emphasized developing a service portfolio and fee-based structures for income generation (p40, p43).

- 75)** In using a Theory of Change approach³⁶ to deepen understanding of this project's ability to contribute to transformative change (in this case, heightening quality of life through improving the country's economic and environmental conditions), based on its results framework (**Annex 7**), the intervention's underlying logic was reconstructed (

³⁶ Such an exercise deepens understanding of an intervention's underlying logic. In addition to making barriers that a project is designed to address, assumptions, and impact drivers explicit, its Theory of Change shows how a project is expected to lead to its results by starting with intended long-term impact and working back through necessary preconditions to identify causal pathways, which, if followed, can be expected to contribute to the desired end state (representing a transformative change).

- 77) Annex 8), enriched and validated by input throughout the evaluation exercise.
- 78) **Barriers** that the intervention set out to address were identified as follows:
- Low productivity and environmental degradation from inefficient/obsolete processes, technologies;
 - Inefficient resource utilization, which unnecessarily increased product cost and lowered industrial competitiveness;
 - Weak or lacking national strategies for sustainable production in target sectors;
 - Limited awareness and advocacy support for RECP methods, practices, and technologies – and demonstration of the benefits these could avail;
 - High transaction costs for implementation of cleaner production (access to information, applicability and affordability of available services).
- 79) **Assumptions** were also uncovered. These external factors are seen as largely beyond the control of the project and its implementing partners. Should they be present (thereby adding leverage) or their absence minimized, this could meaningfully influence realization of intended impacts:
- Genuine national intention to achieve sustainable industrial development/sustainable consumption and production (evidenced by national strategy/action plan with targets, accompanying budget provisions, relevant legislation, incentives and penalties, enforcement capacities, carbon taxes, etc.);
 - Resource use and socio-economic development can be better optimized, balancing economic, environmental, and social considerations as part of the sustainable development equation; the RECP approach has or will be adopted as an integral dimension of its pursuit;
 - Political, economic, and social stability will be restored and continue, channelling significant investment into climate action and sustainable development.
- 80) **Impact drivers** seen as under the influence of the project and its implementing partners were identified. These drivers, should they be present, were expected to transmit vital catalytic power through impact pathways and contribute to realising the project's contribution to the intended long-term impact:
- **Scaling-up and Sustainability Potential** (of RECP concepts, methods, practices, technologies, and policy instruments, powered by suitable training/dissemination activities and investment models);
 - **Market Transformation** (growth in consumer and industrial demand for resource efficient cleaner production as a vital part of the equation for achieving sustainable development);
 - **Institutional Harmonization** (integrated, coordinated, supportive policy/regulatory design, planning, management, incentives, and enforcement across all administrative levels).
- 81) Building on a preparatory era (from 2007, ¶150), the project's support to the Centre privileged demonstration of RECP potential and development of service capacities, with UNIDO's mandate described by an informant as "to help build it, guide it, and provide all necessary tools, skills, and means to service local industry". These aspects accounted for three of the project's outcomes and a strong orientation towards developing technical expertise; its fourth outcome aimed at supporting mechanisms to foster favourable conditions for RECP adoption nation-wide.
- 82) The need for such a Centre to push forward and support Ukrainian industry in adopting RECP – which represented a major innovation to existing industrial practice – was clear for the consulted stakeholders, giving further credence to the project design:
- "Was the business environment ready for cooperation with the Centre at the time of its creation? Most likely no. These were difficult times for Ukrainian entrepreneurs. They fought for survival and did not understand that the services offered by the Centre are precisely the help they need to increase competitiveness. It was the Centre that began to open their eyes to the fact that survival is impossible without the introduction of resource efficient and energy efficient technologies. The emergence of the Centre was timely and very necessary at that moment".*
- 83) At the same time, informants pointed out that the project budget and duration were inadequate to build up the Centre's capacity and reputation, carry out all its social good functions (awareness-raising,

training, policy advice³⁷) and service the envisaged stakeholders, while also managing to reach organisational maturity and financial self-sustainability within a first phase, given that:

- national climate targets were only declarative, with limited enforcement; this influenced the extent to which incentives and penalties to spur cleaner production were strengthened (an assumption largely outside the project’s control, ¶179); by its closure, the political, legislative, and regulatory environments were not sufficiently prepared to drive demand for and foster adoption of RECP;
- the business environment was not ready for RECP services [¶138], [¶140]), underlined by informants who observed: *“bearing in mind the lack of readiness for a green shift, one of the project’s most important tasks was to break the mentality of the heads of Ukrainian manufacturing enterprises”*;
- the Centre was able to make initial contributions by using international experts to carry out a review of CP-related policies in Ukraine and gaps in national legislation as well as organising a roundtable on RECP policies with MEDTA and the Ministry of Ecology and Natural Resources of Ukraine and other state organizations.

84) The finding that this was an overly ambitious vision for a first phase is borne out by the implementation of similar Centres, captured in a 20-year retrospective looking back over the NCPC experience globally³⁸.

The project’s overall design is rated as ‘moderately satisfactory’

5.2 Logframe Design

Finding 3: The detailed logical framework provided key elements for the project’s planning, execution, and accountability. Following the standard, proven strategy for establishing an RECP Centre, it reflected a high degree of control and direction from the UNIDO side and strongly oriented the Centre’s behaviour towards fulfilling designated activities and outputs.

- 85) The logical framework fulfilled its main purpose in terms of providing key elements for project planning, monitoring, subcontracting, reporting, and developing shared understanding amongst the stakeholders.
- 86) Its comprehensive elaboration had advantages: activities generating outputs could be easily broken down into tasks and cascaded into a timeline; corresponding responsibilities could be allocated to relevant actors; and indicators, verification sources, and assumptions could be documented and mapped at output level. While described by an informant as “the usual and proven strategy of establishing an NCPC”, the disadvantage of such a highly directive approach maintained throughout the project’s duration was that this left little manoeuvrability for the recipient, which was expected to grow into a self-sustaining organisation, to develop its independence and agency. Informants observed that “it was hard to convince them to explore other directions and learn all the different fields that are actually needed to sustain the business in the long run because they were fully occupied in fulfilling the UNIDO contract”.
- 87) The Centre’s behaviour was strongly oriented by the annual contracts issued by UNIDO. They contained ToRs (which were developed in line with the Project Document and its logframe) and detailed the expected services on an output-by-output basis, with a largely quantitative orientation, which set the tone for corresponding progress reports., which focussed on reporting the achievement of tasks and activities (outputs more than outcomes). Informants observed that the Centre “didn’t pay as much attention to the selection of target companies; rather, they focussed on the numbers”.
- 88) As planned into the original design and aligned with good practice, the logframe was reviewed using a phased approach and refined over time (¶158), including in conjunction with UNIDO’s 2018 internal review

³⁷ The Project Document (pp40-41) did state that while the Centre was expected to develop a comprehensive service portfolio, it was expected that the range of services related to fostering the demand for RECP by creating favourable framework conditions and incentives, as well as information and awareness-raising activities, would “not generate large income”

³⁸ UNIDO-UNEP (2015). National Cleaner Production Centres 20 Years of Achievement: Towards Decoupling Resource Use and Environmental Impact from Manufacturing Growth https://www.unido.org/sites/default/files/2015-10/NCPC_20_years_0.pdf

and the grant of a 2-year ‘no cost’ extension. Reflecting the use of adaptive management to enhance results, logframe changes mainly affected Output Category 4 (Technologies and Financial Mechanisms) and a further Output Category 5 was added. Not linked to an actual outcome in the logframe (thereby weakening its strategic intent), this is seen as nudging the Centre towards broadening its project portfolio in preparation for the project’s closure (¶149).

The logframe design is rated as ‘satisfactory’

- 89) While the project’s development objective was to “enhance efficiency, productivity, competitiveness, and environmental performance of companies, especially SMEs, through implementation of RECP methods, practices, and technologies”, in light of the above assessment of its overall design as overly ambitious and the logframe’s highly directive character that was less adapted to the aim of enabling self-direction and agency as an explicit part of the project’s exit strategy, the formulation of the intervention and its plan to achieve a specific purpose has been deemed as moderately satisfactory.

The overall project design is assessed as ‘moderately satisfactory’

6 Project Performance

6.1 Relevance

Finding 4: Leveraging UNIDO’s mandate and domains of comparative advantage, the project’s support was highly relevant for global/national development priorities and end beneficiaries in government and industry, bringing relatively unfamiliar concepts like RECP and chemical leasing to the country’s drive for economic transformation and ‘greening’, also aligned with the donor’s strategy for supporting Ukraine.

- 90) The project’s objective was fully consistent with global development needs and is well-aligned with the 2015 Paris Climate Agreement, 2030 Development Agenda, and Sustainable Development Goals (SDGs), which reflect the world’s commitment to safeguarding the global commons. The RECP approach promoted by this project is highly relevant to addressing the challenge of industrial pollution and over-use of resources through reducing material, energy, and pollution intensity per unit of industrial outputs, which lowers ecological footprint while improving productivity and competitiveness through cost savings.
- 91) Following the Government of Ukraine’s 2007 request for support to establish a cleaner production centre, this project was a response to the 2009 request for technical assistance. The project was highly relevant to Ukraine’s drive for economic transformation (¶24), supported the desired transition in technology and ‘greening’ its manufacturing sector (¶28), and was aligned with the government’s reform agenda aimed at addressing bottlenecks to private investment and productivity (¶29). With its focus on enhancing resource efficiency, the project supported the government’s environmental tax (from 2019) on CO₂ emissions to push industrial enterprises to optimize their energy consumption, with funds raised from the tax allowed as loan repayment on energy efficiency measures (¶42).
- 92) Described as being “slightly ahead of its time”, in so far that RECP and chemical leasing concepts were relatively unfamiliar to Ukrainian enterprises, the project provided valuable capacities and impetus to demonstrate the benefits to be gained from improving their resource efficiency as well as exploiting new opportunities expected to materialise in conjunction with the country’s planned accession to the European Union and future membership in the EGD (¶46). The Centre was portrayed as “an independent broker for resource efficiency”, “a change agent that brings new concepts to the market that would not make it otherwise”, with the task to “serve as an icebreaker to educate entrepreneurs on these issues”. The Centre’s value was also seen in terms of its ability to translate and embed RECP notions within national experience and conditions, including the development of Ukrainian examples and guidance.
- 93) Government stakeholders described the Centre as a “valuable intermediary in the communication with industrial enterprises”, asserting that “it brings us signals about problems and helps us react to industry

demands". Other informants mentioned that it could provide realistic input to inform the preparation of legislation, based on its many contacts with manufacturing and industry, which the government lacked.

- 94) For UNIDO, the project was highly relevant to its mandate to pursue inclusive and sustainable industrial development. The agency's 20 years of experience in technical cooperation for industry (especially SMEs) through technology transfer, resource-efficient and low-carbon/energy efficient industrial production, clean energy access for productive use, and capacity building for implementation of multilateral environmental agreements could all be leveraged under the framework of this project. The project built directly on the experience and lessons of UNIDO-led RECP interventions in other geographies.
- 95) From the donor side, the project was fully aligned with SECO's cooperation strategy for Ukraine, which hinged on building a democratic state attuned to the needs of its people and promoting development, reconciliation, and peace³⁹. Having recognized the newly independent state of Ukraine in the early 1990s, the Swiss government had channelled its support through various bilateral and multilateral cooperation initiatives. With its focus on promoting RECP, this project well-reflected the aim and belief that "efficiency gains and environmental gains go together".
- 96) As the project was well-aligned with global/national priorities; highly pertinent to the needs/interests of the RECP, end beneficiaries, and government counterparts, consistent with the donor's priorities; and well-suited to UNIDO's mandate and competences, the project has been assessed as highly relevant.

The rating for relevance is 'highly satisfactory'

6.2 Effectiveness

6.2.1 Achievement of Planned Outputs and Outcomes

Finding 5: Most of the planned outputs were delivered, with some shortfalls in reaching the envisaged outcomes, particularly those related to public policy formation and financial mechanisms to spur RECP implementation. While the demonstration of RECP benefits was progressing and further potential had been theoretically quantified, many measures had not yet been implemented, as RECP measures that involve higher cost and/or technology change take more time to be put into place. The lack of state-level incentives and absence of legal enforcement at national level for cleaner production and emission reduction may also be factors that slow implementation.

- 97) There are several approaches to structuring the implementation of international technical assistance projects. A common scheme breaks the project down into substantive components: demonstration, capacity building, policy support, etc., with each led by a local expert with appropriate qualifications and local experts hired (international experts may also be engaged) to carry out specific tasks of the work plan. In the case of the current project, a different principle was used: a monolithic team of primarily technical specialists was given the challenge to achieve the project's four expected outcomes:
- I. **RECP (including Chemical Leasing) Service Delivery Capacity** - the Centre will deliver value-adding RECP services to companies, government organisations and business service providers that enable and promote the scale-up of RECP implementation;
 - II. **RECP (including Chemical Leasing) Applications at Company Level** - RECP concepts, methods, practices, and technologies will be implemented by companies and other organisations in Ukraine and their environmental, resource-saving, and economic benefits will be proved;
 - III. **RECP Policy and Strategy** - mechanisms for mainstreaming RECP concepts and policy instruments will be created at suitable administrative levels in relevant national and regional policies and regulations;
 - IV. **Technologies and financial mechanisms** - target companies are implementing RECP technologies

³⁹ <https://www.eda.admin.ch/eda/en/fdfa/fdfa/aktuell/dossiers/alle-dossiers/engagement-der-schweiz-in-ukraine.html>

and have achieved economic and environmental benefits.⁴⁰

- 98) Most of the planned outputs were delivered during the project's implementation, with some shortfalls in reaching the envisaged outcomes (**Figure 3**), which is understandable given the highly unstable political situation in the country following the 2014 Euromaidan Revolution and consequential drop in GDP and effects for Ukrainian industry (¶24). Regarding Outcome I: in addition to the creation of a fully-fledged RECP Centre (a key deliverable of the project's support), laudable results were achieved in the area of building RECP service delivery capacity. The Centre was staffed with qualified technical personnel and the necessary equipment to assess and identify improvement potential. It was hoped that the fourth quarter 2020 investment in further equipment (¶110) would reduce logistical challenges in transporting equipment that had, to date, been concentrated in the Central Office.
- 99) Beyond the Centre's own team, it had trained and certified 325 RECP consultants⁴¹, and integrated RECP courses into universities, providing scaling up capacity with nation-wide coverage (¶70).
- 100) In terms of demonstrating RECP's potential to generate benefits, monitoring data gathered during 2012-2020 quantified reductions of materials, water, chemicals, energy, and CO₂ emissions in terms of results already achieved and further potential to be realised (**Annex 9**). While momentum had significantly slowed in 2020, due to COVID effects (¶32), the project team was optimistic that identified options would gain traction in future, particularly for capturing the remaining 'low hanging fruit'.
- 101) Having established a Sound Chemicals Management unit in 2019 and engaged two staff to support awareness-raising on chemical leasing (a performance-based business model for sustainable chemicals management promoted by UNIDO since 2004), the notion of redefining the business relationship between chemical user and supplier had not yet gained traction in Ukraine. The Centre supported the preparation of 10 applications for the Global Chemical Leasing Award 2018⁴², which involved academic proposals to carry out research and pilot chemical leasing applications. Of these, 3 Ukrainian companies received awards: CJSC "Radomyshl Brewery" and Ecolab LLC (BRONZE and SILVER, respectively in the "Case Study" category) for excellence in applying Chemical Leasing to a surface treatment process. Bila Tserkva National Agrarian University's Department of General Ecology and Ecotrophology received the GOLD award in the "Research" category for excellence in developing the Chemical Leasing Curriculum.

⁴⁰ The Centre had established memoranda of understanding, had a contract with UkrGazBank, and developed joint publications, e.g. with IFC: http://www.recpc.org/wp-content/uploads/2018/02/IFC_UNIDO_Low-cost-measures.pdf and some proposals from companies that have been submitted for funding support

⁴¹ Becoming an "RECP expert" required 3-4 experiences in undertaking real assessment. Those trained by the RECPC had typically carried out 1 real assessment. Therefore, it would be recommended to work initially in pairs or teams and gain some additional input on "doing business" and have reliable access to relevant equipment (rent or do pre-assessment without equipment)

⁴² <http://www.recpc.org/novosti-en/three-ukrainian-companies-became-fourth-global-chemical-leasing-award-winners/>

Figure 3 – Assessment of Achieved Outputs and Outcomes

Outcome #	Planned Outputs	Rating
1	<ul style="list-style-type: none"> CPC established and operating as per agreed institutional and governance provisions Staff and associated experts trained in basic and advanced RECP methods and applications 	S S
2	<ul style="list-style-type: none"> Awareness and understanding of RECP opportunities and benefits improved at national and regional levels among companies, government organizations and other stakeholders Demonstrated REP potential for reduction of waste, GHGs, other emissions (water, raw material, etc.) and Chemical Leasing for sound management of chemicals and energy efficiency 	S S
3	<ul style="list-style-type: none"> Policy assessment carried out and RECP strategy developed National Action Plan for RECP developed; implementation mechanisms established Government’s implementation and enforcement capacity for RECP-related policy and legislation has been enhanced Technical guidelines for target sectors developed RECP opportunities identified for national implementation of Multilateral Environmental Agreements (MEAs): Persisting Organic Pollutants (POPs), Ozone Depleting Substances (ODS), GHGs, hazardous waste, Clean Development Mechanisms (CDM) 	S U MS S MS
4	<ul style="list-style-type: none"> Professional capacities created and used to support adaptation, development, and transfer of RECP technologies Awareness and understanding of RECP technology opportunities improved at national and regional levels RECP technology opportunities identified as part of RECP assessments Agreements and financial mechanisms to support RECP technologies developed and implemented Economic and environmental benefits of RECP technology adaptation, development and transfer verified Stakeholder platform to support RECP technology adaptation, development, and transfer established and is taking an active role in advocating RECP technologies at company level 	S S S MS MS MS

- 102) During the project’s implementation, the Centre had a total of about 180 clients. The six respondents in the online client survey (¶122) confirmed positive results (reduction of production cost reduction and GHG emissions; energy and resource savings) after implementing the Centre’s recommendations. 83% of respondents rated the Centre’s consultancy and services as excellent value for money. 67% of respondents said there was no better alternative than the Centre for supplying these services.
- 103) The signature of 25 commercial contracts in 2018 appeared to put the Centre on a good track for demonstrating RECP’s benefits as well as its own potential for generating income from service provision (¶111), which reflected an aspiration integrated into the project from its outset (¶74). While the Centre had success in undertaking RECP assessments, the suggested measures were not always put into practice by clients. The implementation of RECP options, especially those with higher cost implications and/or technology change, understandably take time and explain the lapse of time between identification and implementation: in 2019, only 8 companies implemented 24 of the solutions offered. In 2020, the Centre had completed 17 assessments (of 25 contracts signed); 4 companies had carried out RECP improvements by the end of the year; the rest had postponed their cooperation due to the COVID-19 outbreak.
- 104) Implementation of RECP measures is also influenced by the availability of funding for enterprises to implement the solutions proposed by the Centre and willingness to invest their own funds in RECP modernization. Enterprise behaviour reflects the lack of state-level incentives for RECP modernization, the lack of legal enforcement with respect to cleaner production and emission reduction, and the expectation of enterprises for free services under international technical assistance projects.
- 105) Outcome III was very ambitious for a team of technical experts. The elaboration of a National Action Plan for RECP requires familiarity with policy tools and implementation mechanisms involved in the formation of public policy at national and regional levels. Taking up the MTR’s (2015) recommendations, much attention was paid to enhancing the Centre’s personnel through training, participation in relevant events, and networking. In 2020, due to COVID restrictions, this continued in a virtual manner: 17 staff members completed 41 online courses on management, business planning, and gender mainstreaming. However, being a good technical professional does not automatically equate to being a trainer, lobbyist, or policy advisor; such backgrounds and skillsets do not naturally reside in the technical specialists attracted to work at the Centre.
- 106) Regarding Outcome IV: the RECPC had made good considerable progress in disseminating knowledge in the field of resource-saving and clean production through its website and social media channels. As well, it had published key resources in Ukrainian, opened an online RECP course⁴³, integrated RECP-related courses in 8 Ukrainian universities⁴⁴, and developed training materials through other projects (e.g. EaP GREEN: developed a Study Book used by professors for course design; GIZ Green Economy Modernization Project: developed a Study Book on industrial resource efficiency; this was mailed to 300 Ukrainian companies). Another pillar for building scaling-up capacity (¶70) is seen in the Centre’s development of the “Promotion of Environmental and Technical Higher Education” project (PROMETHE-U.S., financed by US Embassy in Ukraine), which engaged 500+ youth in 10 workshops. This doubled their preference to choose technical universities, setting the stage for future generations to join the ranks of the 45 students who had studied RECP at Igor Sikorsky KPI’s Institute of Energy Saving and Energy Management in recent years.

6.2.2 Progress on Self-Financing

Finding 6: The aim to become a self-financed entity (by generating income from different sources, including government and donor funds) was at the heart of the Centre’s vision and part of the project’s exit

⁴³ Accessible since 3 November 2020 from this link, with 16 videos:

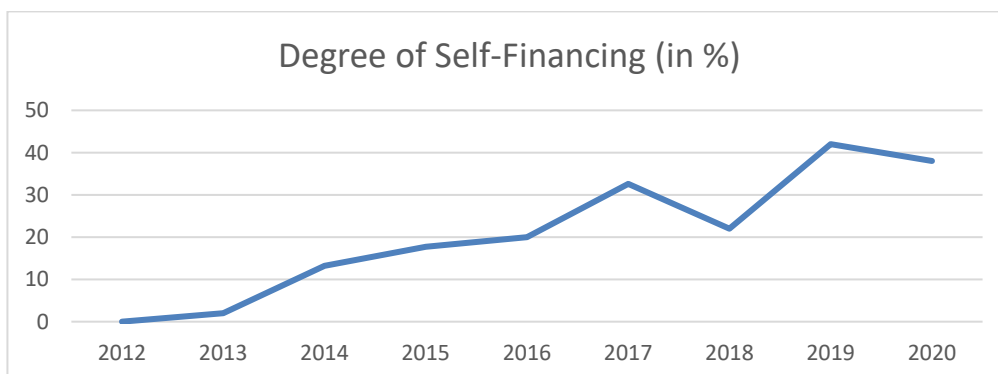
<https://youtube.com/playlist?list=PLOYNaTQfGkXr3A9qSHA2jIV48mUSMC4eT>

⁴⁴ Following reforms in the academic sector, universities could add their own disciplines. The RECPC was thus able to directly contact professors who were interested in implementing new courses and material.

strategy. While there had been good progress towards the 65% target set by the Centre for 2020, contributions from commercial contracts had fallen significantly over the past two years. The Centre’s recent success in winning contracts to implement parts of international donor projects suggested that this pathway would become a key route to enabling the entity’s survival for the foreseeable future.

- 107) The vision that the Centre should “become a self-financed knowledge-based organisation” was stated in the Project Document (¶160). The Centre was not expected to become self-sustaining from the provision of commercial RECP services but rather, from income generated through different sources, including government and donor funds. Reflecting what was mentioned in the Swiss Reference Centre’s reporting, becoming “independent from UNIDO’s financial support” by the close of the current project was part of the exit strategy (¶146). Although not mentioned in the results framework and backed up by targets and indicators to drive the Centre in this direction, the current leadership team was aware of the expectation of UNIDO and the donor to move firmly in this direction.
- 108) The Centre’s annual project management reporting indicated a progressive level of self-financing:⁴⁵ 2% in 2013; 13.2% in 2014; 17.7% in 2015. Its income flowed from contracts with companies (e.g. RECP assessments, other services) and funds received for executing contracts related to international donor projects. Funding from UNIDO in relation to the current project was not considered in this equation.
- 109) It was only in the Centre’s 2017 Project Management Report that a specific target was mentioned: i.e. to reach 50% self-financing by the project’s fifth year of operation (i.e. 2017, its initially envisaged termination). In 2016, the Centre reached 20% and in 2017, 32.6% according to the respective Management Reports.
- 110) Following UNIDO’s (2018) internal review, an even more ambitious goal was included in the updated logframe: to reach 65% self-financing in 2020. It was positively noted that the Centre reached a 56% degree of self-financing in 2020’s third quarter. However, this decreased to 38%, reflecting the Centre’s fourth quarter investment in equipment for its regional offices and due to general economic instability related to the COVID-19 pandemic, which had resulted in “low activity of companies, international organisations and other actors”. In this light, the Centre’s situation in 2020 was not taken as a reference year from which overall conclusions were drawn.
- 111) **Figure 4** shows a positive upward trend in income from self-acquired projects since the LLC’s establishment (in 2016). This was presented to the Evaluation Team as a reflection of increasing demand from industry for the Centre’s services, which certainly appeared to be the case in 2018, where services provided to companies represented 48.5% of total self-generated income (with EUR 32,790 generated in relation to 25 commercial contracts for assessments and training with private companies), with the remaining 51.5% of self-financed income generated through international donor projects.

Figure 4 – The Centre’s Achievements in Self-Financing (2012-2020)



Source: RECPC Project Management Reports

⁴⁵ Defined as the ratio of revenue earned for services provided compared with the Centre’s actual operating expenses.

- 112) In reviewing the past two years' performance (**Table 6**), income from companies had significantly deteriorated (4.8% and 2% in 2019 and 2020, respectively), although total self-income almost doubled in volume – with income from international donor projects representing 95.2% and 98% in 2019 and 2020, respectively. In this light, it was increasingly clear that international donor projects would continue to play a pivotal role in the Centre's portfolio for the foreseeable future. Presumably, the Centre's growing competence in developing winning proposals reflected the investment in capacity building and continuous screening of donor activities described by the Swiss Reference Centre in its progress reports.

Table 6 – Breakdown of Centre's Self-Generated Income (2018-2020)

Source	2018		2019		2020
Total income from contracts signed with Companies	32,790		5,980		2,657
Total income from contracts signed with international donor projects (apart from current UNIDO project)	34,875		119,293		125,604
Total self-generated income	67,665		125,273		128,261
% of total generated from companies	48.5		4.8		2
% of total generated from international donors	51.5		95.2		98
Details regarding the specific projects with these international donors					
GIZ (Green Modernization of Ukrainian Economy)	1,140	EU (EU4 Environment)	45,000	UNIDO (EU4 Environment)	77,816
US Embassy (Promotion of Environmental and Technical Higher Education)	16,620	US Embassy (Promotion of Environmental and Technical Higher Education)	4,847	UNIDO (Eco-Industrial Parks)	4,283
GIZ (Energy Efficiency in Companies)	17,114	GIZ Energy Efficiency in Companies (GIZ)	27,122	GIZ (Energy Efficiency in Companies)	6,752
		GIZ (Energy Efficiency in Municipalities II)	42,323	GIZ Energy Efficiency in Municipalities II)	34,561
				CUTIS	2,189

Source: RECPC Project Management Reports 2018, 2019, 2020

- 113) While some informants felt that the relatively large, enduring contract with UNIDO had hindered the Centre from focussing on assuring its own sustainability ("the long implementation distracted the team from being fast, moving forward, and keeping concentrated"), counter evidence suggests that the Centre's leadership was well aware of the need to develop a business model to ensure its survival and moreover, had leveraged the 'no cost extension' of the past two years to carry out the remaining programmed tasks while also thinking about other revenue sources (see Section 6.4.5).
- 114) Considering the shortfall in achieving planned outputs and outcomes, together with the Centre's progress to become self-financed through commercial contracts, government and other international donor projects, in light of the evolving political situation, drop in GDP and effects for Ukrainian industry related to the 2014 Euromaiden Revolution, the effectiveness of the project's support is deemed satisfactory.

The overall rating for effectiveness is 'satisfactory'

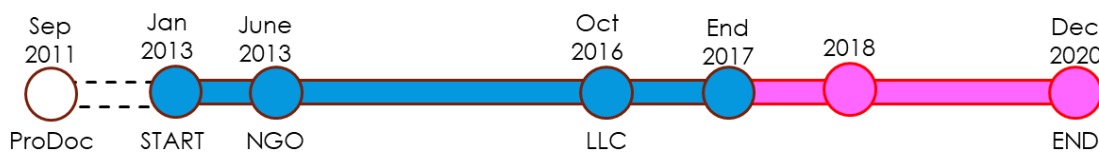
6.3 Efficiency

Finding 7: The extension in the project's timeline reflects significant effects of the outbreak of conflict in Eastern Ukraine as well as a relatively high level of ambition in the project's design. The extended duration was granted with a view to enable the delivery of its envisaged aspects in a context where the project's momentum was slowed due to a complex set of factors. The fact that the budget for a 5-year project could be stretched to cover 9 years without additional funding contributions points to shortcomings in budget planning during the project's preparation and/or insufficient use of funds during project implementation. The level of donor-financed projects operating on the Ukrainian

landscape in the same period offered an abundance of opportunity for synergizing efforts for the achievement of the project's development objective. While paths for information exchange and participation in mutual events had been established, a level of strategic partnership across projects and donors that could lead to joint planning, co-financing, and joint efforts on policy formation was undermined by the struggle for "project" exclusivity and corresponding competition within the overall landscape. The RECPC itself did not pursue a notion of exclusivity.

- 115) An important question to be answered in assessing project performance relates to how thoughtfully and effectively its inputs were used. In this light, time, financial resources (budget), and human capabilities were considered. The level of synergy with other stakeholders to achieve the project objective with respect to the application and dissemination of ideas and technologies of resource efficient production in Ukrainian industry was also assessed.
- 116) From a time perspective: While the project was planned to have a 5-year duration, the timeline reached almost 9 years, including two extensions without additional funding (Error! Reference source not found.). While this move had a dampening effect on the project's performance from a time efficiency standpoint, the grant of additional time is seen as warranted in light of the overly ambitious design to achieve the envisaged aspects (¶184).
- 117) The extension in time can be explained by several aspects. The project was subjected to a 15-month delay between the signature of the Project Document and its actual kick-off. One contributing factor was the challenge to recruit a CTA with the desired profile (including an initial preference of the donor to search for Swiss candidates, which was subsequently eased). Changes in the country's socio-political situation with social unrest during 2013-2014 (¶24) led to a reset of all public administration. The CTA left the project after 6 months, having established valuable steps towards interesting food processing enterprises in RECP demonstration activities. Meanwhile, aggression by the Russian Federation in the east of the country and the annexation of Crimea led to a significant drop in industrial production and a deterioration in the general economic situation – which slowed down the project's dynamics.

Figure 5 – The Project's Timeline (September 2011 – December 2020)



- 118) From a cost perspective: The possibility to use the 5-year budget of the project for almost 9 years cannot be explained only by benefitting from a favourable exchange rate and speaks to shortcomings in budget planning during the project's preparation and/or insufficient use of funds during project implementation. The fact that the project budget still had USD 1.3 million available in 2017 (when the project was initially planned to close) was understood to be a contributing factor in granting the project extension.
- 119) Organizational issues: Many staffing, financial, and organisational issues required more time than planned to resolve. Due to a change in national legislation, in addition to the initially established NGO structure, a limited liability company (LLC) was subsequently also put in place as a legal structure capable of ensuring the Centre's financial self-sufficiency (included as a design principle, ¶107).
- 120) The project's salary fund experienced a significant load due to the extension of the CTA's term of operation [until the end of the project instead of the planned 2.5 years ¶153], which was only partially offset by the receipt of income after registration and the start of LLC's activities.
- 121) An important condition for the effective implementation of such a technical assistance project is a balanced mix of personnel. Many informants noted that the Centre's important achievement was the creation of a highly professional expert team. The main emphasis was placed on involvement of technical specialists. However, different components of the project's implementation needed not only RECP experts but also specialists in business development, financial mechanisms, lobbying for legislative

initiatives, and preparing input into legislative and regulatory acts.

- 122) In addition to considering the balance (¶164) and mix of capabilities, staffing arrangements were also reviewed. With the aim of preserving flexibility (given the challenges of laying off staff with permanent contracts), only a small part of the team engaged on the project were full-time staff. This status provided some advantages in terms of a higher salary level and certain social guarantees, like insurance. Many of the engaged specialists worked under contracts (full-time and part-time). The final report prepared by the Swiss Reference Centre (2019) indicated that “the general mood and work motivation are positive”.
- 123) From a synergy perspective: according to the Project Document (p87), there were several ongoing and planned initiatives supported by UNIDO and other actors⁴⁶ offering synergies⁴⁷. It is understood that some meetings were convened during the project’s inception period to discuss potential future cooperation. Informants mentioned that the Centre had contacts on a working level with at least three projects.
- 124) Information exchange was established between the projects. Sometimes there was mutual participation in various activities. However, there was no strategic partnership at the level of joint planning, co-financing, and joint efforts for policy formation. This state of affairs is partly due to the "project" approach to Ukraine and the lack of a clear policy and strategy of presence and influence on the industrial policy of Ukraine from the UNIDO headquarters and the UNIDO Focal Point in Ukraine.
- 125) As a general observation: the relationship of a UNIDO project with projects of other (donor) organisations has often been limited to the level of customer-implementing relationship and therefore not regarded as ‘equal’ and ‘partnership’. On the Ukrainian landscape, it was observed that there were elements of a kind of competition and struggle for one’s own "project" exclusivity (although, to be clear, this was not observed in the Centre’s behaviour). The consequence of such dynamics is that coordination of impact and effort from donor organisations is imperative to achieve meaningful results.
- 126) In sum, the need for a significant (by 36 months) increase in project duration was primarily related to the outbreak of war in Eastern Ukraine, which created security risks and dampened momentum at large. The project’s budget was calculated for 5 years; however, after this period, almost \$USD 1.3 million remained unused, from which it can be concluded that there were weaknesses in financial planning during the project’s preparation and/or inefficient use of budget during execution, leading to an assessment of moderately satisfactory, taking account of contextual aspects that slowed momentum.

The overall rating for efficiency is ‘moderately satisfactory’

6.4 Sustainability of Benefits

- 127) The anticipated scaling up of results from the implementation of RECP measures will contribute to environmental safeguarding and building socio-economic resilience (¶71) and are aligned with the priorities of Ukraine and the world community regarding climate change mitigation and adaptation (¶90). The extent to which these project benefits will indeed be extended depends on the socio-political context; the degree of national understanding of the power of the RECP agenda and the Centre as a policy instrument and long-term framework to drive its application, mainstreaming, and upscaling. The attitude and capacity of end beneficiaries in the industrial sector are also a factor. These interlinked aspects are reviewed below, followed by an assessment of the project’s exit strategy and prospects for the Centre’s

⁴⁶ Three UNIDO projects with a similar focus were ongoing at the time: Global Cleantech Innovation Program for SMEs in Ukraine (2016-2021); Introduction of Energy Management System Standards in Ukrainian Industry (2013-2023); Improving Energy Efficiency and Promoting Renewable Energy in the Agro-Food and Other Small and Medium Enterprises (SMEs) in Ukraine (2012-2018). Other similar GIZ-financed projects: “Energy Efficiency Reforms in Ukraine” (2017-2019); “Advising Companies on Energy Efficiency” (2017-2021). EU-financed projects: EU4Energy, Energy Efficiency Support Program for Ukraine (EE4U); EU “Strategic Technical Assistance in Reforms towards Energy Efficiency and Renewables STARTER” (2020-2023).

⁴⁷ For example, UNIDO’s Stakeholder Consultation Workshop on the Sustainable Application and Promotion of Cleaner Production in Ukraine (3 June 2010) identified 15 Cleaner Production initiatives in the Dnipro River Project. In 2010, International Finance Corporation planned a 5-year Cleaner Production in agribusiness program. A GEF-funded project for improving energy efficiency and promoting renewable energy in agro-food was envisaged with close cooperation with the Centre. The Norwegian Government focused on cleaner production through its 2007-2012 program.

self-sustainability within this overall setting.

6.4.1 Socio-Political Context: Hindering and Facilitating Factors

Finding 8: The country's acute political, economic, and institutional instability (outbreak of war in Eastern Ukraine, ongoing restructuring, high turnover of ministers and management personnel) and no clear formulation of the State's position on resource efficiency backed up by an effective and enforced legal framework during most of the project's implementation significantly dampen the likelihood that the project's benefits will be easily sustained, although preparation for Ukraine's accession to the EU (which has triggered major external assistance), a Presidential Decree (2019) mandating inclusion of energy- and resource-efficiency targets in national and industry policy documents supporting Agenda 2030 can be expected to provide important oxygen for the Centre and its mandate.

- 128) Many aspects of the socio-political context are seen as dampening the likelihood that project benefits will be easily sustained: acute political instability and insecurity (¶24); deteriorating economic situation (¶32); chaotic, ongoing institutional restructuring (¶37); no clear formulation of the State's position on resource efficiency and clean production; absence of a fully-fledged legal framework with mechanisms to stimulate efficient resource use (energy, raw materials, by-products) and ensure responsibility for non-compliance (¶38); over-regulation that affected the ease of doing business (complex tax system, limited access to credit, onerous license requirements). Some informants emphasized the extent to which instability "in all of its manifestations: economic, political, and now a global pandemic, negatively affected the Centre's work to a large degree as well as the conditions of its clients, both real and potential".
- 129) Given the significant decline of Ukrainian industry and its slow re-industrialization, stakeholders asserted that more RECP advocacy and dissemination of practical knowledge was gravely needed, through industrial associations and universities. A stakeholder underlined the interwoven challenges:
- "As long as Ukraine's environmental protection laws are not supported and weakly enforced, the Centre will have a hard time to develop a profitable business. Companies would rather pay the penalty than do the work to fulfil requirements that are not enforced. Energy prices are also too low; that makes RECP a hard sell. The Centre will need international support. The money to run its activities, especially training, will not be in Ukraine".*
- 130) Since the September 2019 Presidential Decree, which triggered action in support of Agenda 2030, the importance of RECP for Ukraine's re-industrialization and its role in policy was expected to gain strength, providing important oxygen for the Centre and its mandate. National targets and indicators on 17 SDGs had been identified⁴⁸, with ongoing efforts to incorporate SDGs into Ukraine's strategic documents. Energy and resource efficiency targets had been mandated and relevant targets had been included in national and industry policy documents, such as the Environmental Strategy of Ukraine until 2030, the National Waste Management Strategy until 2035, the draft Strategy for the Development of the Industrial Complex until 2025, the Energy Strategy and draft law on Energy Efficiency until 2035. Informants mentioned that a national obligation to undertake energy audits (so far, not under discussion) would significantly boost the Centre's activities and meaningfully sustain the project's benefits.
- 131) With the July 2020 formation of a new Ministry of Strategic Industries, there was hope that this would drive new initiatives and tasks related to re-industrialization and increasing enterprise competitiveness in strategic sectors. In this light, informants expressed the belief that it would be "necessary to make fuller use of the Centre's experience and specialists so that these regulations will be correctly written and can work effectively". As at February 2021, with just 125 staff in place (versus the planned 333), this Ministry had not yet become fully operational.
- 132) Having witnessed a change in the vector of the country's development after signing the Association Agreement with the EU, which spurred promotion of SME development and increased environmental requirements for exporters, stakeholders indicated that ongoing preparation for and Ukraine's eventual

⁴⁸ In response to the 2017 National Baseline Report, Sustainable Development Goals: Ukraine <https://www.ua.undp.org/content/ukraine/en/home/library/sustainable-development-report/sustainable-development-goals--2017-baseline-national-report.html>

accession to the EU would sustain the relevance of the Centre's role and corresponding project benefits. The transition to EU regulations was expected to incline companies to adopt more resource- and energy-efficient profiles (¶146). In cases where Ukrainian companies had European partners, they had already been obliged to enhance their energy and environmental performance.

- 133) The EU-funded Covenant of Mayors East (CoM East)⁴⁹, designed to introduce the EU's climate and energy initiative to EaP countries, is also seen as creating momentum for the application of RECP and generating demand for services supporting local authorities/cities in developing sustainable energy policies and facilitating their contribution to climate change mitigation and adaptation. Informants attested that the Centre "can be simply indispensable in this work, as well as in advising local businesses on the principles of green economy, circular economy, resource efficiency, and energy efficiency".⁵⁰

6.4.2 Public Sector: Extent of National Ownership

Finding 9: While designed to promote country ownership (with project execution in national hands administered through a legal structure composed of three national founding partners, with the Ministry for Development of Economy, Trade and Agriculture in Ukraine as key governmental beneficiary), this architecture did not optimally achieve the envisaged contributions and effects. The situation was exacerbated by the high degree of ministerial restructuring throughout the project's implementation, which provided meagre opportunity for strengthening ties between the Centre and its natural institutional counterparts.

- 134) From its outset, the project was designed to stimulate national ownership by:
- giving national actors the responsibility for project execution (¶151);
 - administering the project through a legal structure (NGO) composed of three founding parties, creating a structure seen as assuring continuity beyond project closure (¶152);
 - through the creation of an Advisory Board with key representatives who were expected to coordinate the Centre's activities with those of their institutions who were seen as benefitting from the project's support and therefore would have an interest in sustaining its benefits (¶161).
- 135) As planned, international project funds have been channelled through the NGO entity administered by its three founding partners (¶152), although there was little visibility regarding leverage achieved between the Centre and the Corporation Science Park 'Kyivska Polytechnika' (¶192). The RECPC was initially located within Igor Sikorsky KPI's premises as an in-kind contribution and reflection of national ownership, according to the plan. In 2014, the Centre shifted into rented premises whose costs have since been covered by the project's operating budget. This shift was connected with complex issues related to working conditions, accessibility, and the availability of premises in the facility that the Centre had occupied, which had been redeployed as a lab. Equipment acquired with project funds have been properly purchased by the Centre and continues to be at its disposal for undertaking RECP activities.
- 136) Although the Centre had worked successfully during 2016-2018 and had many private sector clients, there was a noticeable trend in the Centre's strategy towards engaging with international projects. The RECPC's Business Plan (p8) indicated that its main sources of funding during the 2018-2020 period were expected to stem from international organisations like UNIDO, GIZ and other donor organizations (like GEF and SECO).
- 137) Within the national setting, the Centre's success was linked to its relations with government bodies. RECPC representatives were invited to various working groups that discussed strategies, laws, and other

⁴⁹ As a signatory to CoM East in 2009, 10 Ukrainian municipalities undertook to reduce their CO₂ emissions by at least 20% by 2020. Signatories that have joined since 2016 commit to reducing CO₂ emissions by 30% by 2030. Under this framework, with the aim of enhancing resilience by adapting to climate change impacts, signatories undertake a climate change risk and vulnerability assessment are expected to prepare and submit a Sustainable Energy Action Plan (SEAP) approved by the local council, within one year from the date of accession to the Covenant of Mayors. The SEAP should contain consistent and realistic steps describing what they plan to do to achieve the agreed goal. <http://com-east.eu/en/about/>

⁵⁰ The RECPC was in periodic contact with CoM East to explain the Centre's activities but had not collaborated thus far

regulations. The minutes of Advisory Board meetings showed interest of governmental stakeholders in the Centre’s work. At the same time, it was also mentioned that it was difficult for the RECP to adequately establish and sustain appropriate contact points (“we had to knock on the doors of our Ministries for a very long time; they had no time for us”). This was partially attributed to the high level of institutional restructuring that was ongoing throughout the project’s implementation. This situation led to uncertainty about how Ukrainian industry should be developed, key priorities, and how to take account of current international trends. This situation deteriorated in 2020, with the COVID crisis and continuing turnover at ministerial level, with no representative specifically appointed for environmental protection until June 2020 (¶138).

6.4.3 Private Sector: Interest and Capacity

Finding 10: Although industrial enterprises (especially SMEs) were expected to be a major beneficiary of the Centre’s services (presumably contributing to the Centre’s financial sustainability), their current attitude and capacity showed limited prospects for absorbing and extending the project’s benefits. In tackling this challenge, the Centre had supported companies in raising funds for RECP investment through training, preparing investment plans, direct help in preparing applications for grants and loans, and facilitating their connections with banks.

- 138) With the establishment of the LLC, the Centre had a legal structure that it could utilize to receive income from commercial services. During the project’s implementation, the Centre reached a high point in 2018, generating EUR 32,790 in revenue from private sector contracts. While this showed the potential, this was not a reliable trajectory, nor sufficient to cover the Centre’s operating costs (see **Table 6**). In demonstrating proof of concept, the Centre had carried out initial surveys for enterprises on a free-of-charge basis. Such quick assessments were used as a means to attract clients. Informants indicated “this could be afforded while having the support of an international technical assistance project, but it was hardly the case for a Centre that should finance itself”.
- 139) The Centre was described as being “designed for business”. Its technical capacities were highly respected by the business community, academic, and public actors. While there was demonstrated proof of the benefits that could be achieved through RECP adoption (¶100) and appreciation of the Centre’s tools and capacities to support the business sector in their pursuit (¶70), the instability and deterioration of the general economic situation had generated many challenges for companies; their solution was a priority: “all other proposals for them fade into the background”.
- 140) To move beyond the set of demonstration companies that had been engaged during the project, it was mentioned that the Centre faced an uphill battle in opening the eyes of the larger business community to the notion that RECP adoption was central to their survival [¶82, ¶83]), particularly in view of the lacking legal framework and enforcement to back this up. Informants attested that the Centre’s work was “greatly hindered by the conservative thinking of enterprise directors and senior management”; “our entrepreneurs are very conservative and reluctant to innovate”; “Ukrainian companies don’t really understand the notion of services”; “they prefer specific work, with quick results”; and “they are not ready to pay for RECP services, like the analysis of production”. Recognizing that old production sites were not well-designed, companies tended to carry out improvements by themselves, albeit “using old equipment and old manuals”, reflecting “a post-Soviet idea that we are good technically but actually, the new generation is not so good technically”.
- 141) RECP could bring major performance improvements to large enterprises, which had in-house resources available (including their own engineers and solutions). However, they were seen as more interested in channelling funds into the purchase of equipment or technology and had “little appetite for RECP investment”. Their service needs were addressed by energy efficiency control organisations, described as “huge competition for the Centre”. While training had better traction with big companies, it was mentioned that some simply wanted to have measurements from the Centre.
- 142) While the main envisaged beneficiary, SMEs, appreciated and could benefit from the Centre’s services,

they typically had limited capacity for uptake: “they want, they need, but very often, they are not ready or able to pay”. A survey conducted by UNIDO in the EaP countries showed that SMEs considered insufficient access to finance to be their greatest obstacle to implementing RECP in their operations, followed by insufficient human resources⁵¹. To address this challenge, the Centre had supported companies in raising funds for RECP investment through training, preparing investment plans, direct help in preparing applications for grants and loans, and facilitating their connections with banks.

- 143) At present, Ukrainian companies could not rely on financial incentives from the national budget to improve their resource efficiency. But even when international subsidies were available, their organisational capacities were typically insufficient to follow-through. For instance, while the Centre was an authorized provider for a programme of the European Bank for Reconstruction and Development (EBRD) through which companies could get 50% repaid for RECP services provided, SMEs were reluctant to take up such offers as “there was too much paperwork in English”. Of clients who were more amenable to the Centre’s service offering, many looked at the Centre as “a kind uncle who will solve their problems at the Centre’s expense” or expected that the Centre would find them the financial sources to facilitate implementation of the proposed measures. It was also mentioned that the Centre’s clients were presently more interested in the energy efficiency sphere (energy audit, energy management improvement) than in the topic of resource efficiency, per se.
- 144) Recognizing that companies could not afford to buy its whole assessment process, the Centre had divided its services into smaller parts. Although the team faced ongoing challenges to secure paying business clients, the fact that existing clients were beginning to recommend the Centre’s services was cause for optimism.

6.4.4 Exit Strategy Elements

Finding 11: The project’s exit strategy relied on having a large focus on national execution, embedding the mission to sustain practice within an institutional structure with nation-wide coverage, younger generation leadership, and a team with both technical and management capacities. Having emphasized the notion that the resulting Centre should become financially independent by the project’s close and continue to pursue its mission opportunistically, the Swiss Reference Centre’s support in the final phase had been oriented towards equipping the Centre to screen and pursue project acquisition from international donors, develop proposals for national programmes that leveraged its strengths and services, and generate revenue from provision of commercial services.

- 145) The project’s exit strategy rested largely on seeing its mandate as establishing the Centre and building its technical RECP capabilities in the initial period and then strengthening its capacities related to Organisational Development, Business Plan, and Project Acquisition. In the eyes of the Evaluation Team, the support offered by the Swiss Reference Centre and Swiss Cooperation Office in Ukraine support during 2012-2020 is seen as relevant and effective, particularly in that the approach was adapted over time, according to the evolving needs of the Centre and its team.
- 146) Another pillar of the exit strategy involved putting project execution in national hands (¶134), with the expected collateral benefit of building country ownership, with a vision to sustain the project’s results vested within the resulting structure (RECPC), which was given a “medium-term goal” (from the project’s start in 2012) to achieve independence from UNIDO’s financial support by the end of 2020. This included notions of developing its own projects that leveraged its strengths and services and proposing them to Ukrainian and international partners as well as generating income through commercial services, with an orientation to “opportunistically acquiring new projects and opportunities to pursue its mission”⁵².
- 147) In this light, the establishment of an entity that could legally receive funds from donors (¶152) and another one that could receive fees from paying customers (¶156) laid another important paving stone in the

⁵¹ RECPC’s 2018 Project Management Report, p6

⁵² Swiss Reference Centre FHNW’s Final Report (31 December 2019)

project's exit strategy.

- 148) A further aspect that is interpreted by the Evaluation Team as part of the project's exit strategy relates to the leadership succession that was engineered in 2018 to align the Centre's human resources with the evolving strategic vision. This management change significantly contributed to setting the Centre on a solid path towards solidifying its contribution on the Ukrainian landscape. Perceived by some as heavy-handed and inappropriate interference in personnel decisions of an independent entity, by the project's close in December 2020, informants mentioned that the level of staff turnover was much lower than before 2018, there was relatively high employee satisfaction and good team spirit, a generally optimistic attitude about the Centre's future and individual career prospects, and a "lot of informal power, energy, and motivation across the team". The capacity building and coaching of staff provided under the project's support in this period were highly valuable cornerstones of the exit strategy.
- 149) Changes made in the project's logframe for the 2019-2020 period inserted a forward-looking perspective (¶188), which is seen as softly contributing to the project's exit strategy. In orienting the Centre towards pursuing future involvement in eco-industrial parks, particularly related to policy components, the Centre was perceived "to have the requisite expertise needed for such an assignment" and seen as "well-placed to successfully bid and win". It was expected that the Centre would be invited to tender in an open call for the Swiss-funded, UNIDO-implemented Eco-Industrial Parks (EIP) programme⁵³.
- 150) Stakeholders asserted that "the Centre is now strong, has built its reputation to train experts, and has raised awareness on many levels". Judging from remarks in the RECPC's 2020 Project Management Report, the Centre had achieved the presumably desired identity as a high-quality service provider (¶160, ¶170, ¶181)] and hoped to survive by cultivating the fruits of further RECP labour (¶169).
- 151) Following the project's closure on 31 December 2020, the Centre was described as "not fully independent, but it will become more independent" in so far that the Centre was involved in three projects funded by international donors, for which its competitive bids were successful.

6.4.5 Self-Sustainability Goal

Finding 11: The goal for the Centre to become a self-financed entity by the close of the current project's support proved overly optimistic, with particularly poor revenue generation potential from the private sector expected to persist for the foreseeable future. On the other hand, the Centre's success in being selected through competitive bidding processes to implement international donor projects suggests that this would be a key avenue to enable its continued operation and maintenance. While relations with its designated government counterpart had stagnated amidst ongoing institutional restructuring, the emerging interest of other relevant state actors offered further entry points to pursue its mission and sustain its existence.

- 152) Following the project's closure, there was an interest for the Centre to become independent, thrive, and for the project's benefits to be sustained. An informant highlighted the challenge ahead for the RECPC:

"This is the usual dilemma. Such a centre must be financially independent and have its own income. But it also needs to have an Advisory Board to coordinate with the government and other donors. The Centre must somehow survive but it can't survive only on national government programmes. There are a lot of changes going on in Ukraine. The current political and economic situation is very difficult".

- 153) While the Centre had made good progress on its own goal to reach 65% degree of self-financing, with

⁵³ Funded by SECO with a budget of USD 1.9 million (CHF 2.260 million), the UNIDO-implemented Global Eco-Industrial Parks Programme – Ukraine: Country Level Intervention, running 2019-2023. It was expected that the Centre would participate in a competitive bid to provide services under its **Outcome 1: EIP incentivized and mainstreamed in relevant policy and regulations leading to an increased role of EIP in environmental, industry, and other relevant policies at national level in the participating Programme countries**. The project's second outcome related to: EIP opportunities identified and implementation started, with environmental (e.g. resource productivity) economic and social benefits achieved by enterprises confirmed. The implementation of EIP opportunities by enterprises and other organisations will be supported by the EIP services providers and will lead to reduction of the environmental footprint and operational and compliance costs of businesses, and an increase in their natural resource productivity <https://open.unido.org/projects/UA/projects/180320>

solid achievements from the sale of commercial services in 2018, this had levelled off over the past two years (Error! Reference source not found.). Prospects for revenue generation from the private sector seemed limited for the foreseeable future, in view of current attitudes and capacities (see Section 6.4.3).

- 154) Considering the experience of other NCPCs (¶152), some stakeholders feared that “post closure, the Centre will be dead within a month”, while others felt that the Centre was “on a really good track for self-sustainability” and pointed to various potential sources of revenue that could be pursued:
- Selling services to local industry [while the best-paying were large enterprises, even multinationals, the Centre’s mandate was to focus on SMEs but they had limited resources (¶142); informants also indicated that if the only work carried out for such enterprises was to identify opportunities to enhance their resource- and energy-efficiency, that would not allow the Centre to survive];
 - Running training programmes in universities and colleges;
 - Conducting training online for a wide range of industrialists, with the issuance of certificates;
 - Motivating the national government to partially finance the Centre [such a prospect was seen as limited in the short term (¶136); however, there was optimism that demonstrated proof of the RECP approach could eventually trigger funding from national sources for awareness-raising on RECP];
 - Approaching an agency like the Global Environment Facility to be a direct project implementer, in view of evolving programming directions privileging country-driven processes and transformation⁵⁴;
 - Competing to implement (part of) international projects operating in Ukraine.
- 155) Insiders shared their opinion that the Centre could not survive without attracting grant money or funds from international projects and pointed to the need to actively participate in upcoming tenders related to the EGD (¶137) and EaP framework (¶155). It was suggested that the Centre could propose its services to donors, as the requirements of open tenders did not always fully match with the Centre’s strengths and services⁵⁵. At the same time, informants asserted that a link could and should be maintained with companies “even if they’re not ready to pay much for that”.
- 156) In fact, the Centre had already reportedly secured up to 60% of the team’s work for 2021. This achievement was attributed to the Centre’s effectiveness in positioning itself as a preferred organisation to implement contracts and projects supporting the national government but not necessarily financed by the Ukrainian government. Given the Centre’s success in securing 3 of the 6 competitive bids (all related to energy efficiency, resource efficiency, industry) that it had submitted to international donor projects, it was envisaged that the RECPC could be maintained during 2021-2022 in its existing constellation.

6.4.6 International Projects

Finding 12: While successful in winning competitive bids and being selected as an implementing partner for international projects and programmes (on a landscape being flooded with external assistance, albeit uncoordinated), this approach could not be expected to reliably assure the Centre’s ability to optimally pursue its mission and vision.

- 157) The RECPC was a well-respected partner for implementing (parts of) international projects and programmes (e.g. by conducting energy audits as part of an energy efficiency campaign for the country), but donors did not appear to have a broad picture of the Centre’s capacities and the ways in which the Centre could contribute to their missions, goals, and visions. It was mentioned that some years ago, donors had met to discuss different project ideas and how to cooperate and find synergies. At that time, the Centre had been invited to present its services to the different donors.
- 158) A significant volume of external assistance (¶136) was being channelled towards Ukraine [e.g. related to the EGD, ¶146); USAID project for Energy Security; EU-funded STARTER project to operationalize Ukraine’s

⁵⁴ GEF-7 programming directions for the next 4-year replenishment cycle (2018-2022) shifted the bulk of project execution into national hands, driving for impact <https://www.thegef.org/sites/default/files/events/2.%20Programming%20Directions.pdf>

⁵⁵ Swiss Reference Centre FHNW’s Progress Report (2017-2018), p14

Energy Efficiency Fund, ¶139)]. See also **Footnote 46**. Based on the feedback from informants that “there are a lot of projects and a lot of money, but nobody knows how to use it”, there seems to be an opportunity for better coordination to enhance the effectiveness of interventions.

- 159) At present, several donor projects were being implemented in virtually the same fields (¶136), which informants indicated “had almost no contact with each other, but rather, compete” for the attention of governmental counterparts (¶125). In discussing the opportunity to strengthen results and maximize outcomes, it was suggested that if SAEE were the beneficiary of these similar UNIDO projects, there would be a higher possibility to coordinate their activities.

The overall rating for sustainability of benefits is ‘moderately likely’

7 Cross-Cutting Factors Performance Criteria

7.1 Gender Mainstreaming

Finding 13: Attention to gender mainstreaming has increased since the MTR – with the establishment of a Gender Strategy, a Gender Focal Point, enhanced website and publications, staff training, gender balance in the Centre’s management and technical teams, and an upward trend registered in women’s participation in regional training – with performance gauged through the regular collection and reporting of sex-disaggregated data.

- 160) The UN has a mandate to promote social justice through gender equality⁵⁶. At the time of this project’s design, gender mainstreaming was related to Millennium Development Goal #3⁵⁷. This dimension was reflected in the Project Document as a high-level issue, described as “promotion of the quality of opportunities in access to information, training and active involvement in the programme”, with the directive to develop Gender Policy as part of Human Resource policy within the project’s first 6 months of operation. It was also suggested that the Centre’s Director should create a corporate culture (e.g. gender balance) that encouraged open communication with staff members and regional offices.
- 161) While this high-level positioning was suitable for such a topic, which is of serious importance to the UN, next steps to formulate clear objectives and a strategic approach integrated into the very fabric of the Project Document (which would have served to orient the endeavour) were not adequately undertaken. The annual reporting of the Swiss Reference Centre (which was in alignment with their ToR), reflected a more siloed approach, focussed on developing technical RECP capacities, services, and demonstration.
- 162) As a compensatory action, the UNIDO management team maintained a sustained focus on this topic, reflecting institutional commitments “to address gender inequalities in industry and to harness women’s full potential as leaders and agents of change, thereby transforming economies and generating inclusive growth”. UNIDO’s efforts to develop and enhance its own gender policy were ongoing throughout the project’s implementation, culminating in the publication of a Strategy for Gender Equality and the

⁵⁶ Guidance Document: *Integrating Human Rights and Gender Equality in Evaluations*, UN Evaluation Group, Aug 2014, p19

⁵⁷ MDG #3 was formulated as Promote Gender Equality and Empower Women. Gender mainstreaming involves necessary temporary measures to combat direct and indirect consequences of past discrimination that have left women or men in a particularly disadvantageous position. With the ushering in of the bolder 2030 Agenda for Sustainable Development in 2016, this dimension is currently reflected at global level through SDG#5, which seeks gender equality and to empower women and girls through a set of specific targets, based on the notion that gender equality is not only a fundamental human right but a necessary foundation for a peaceful, prosperous, sustainable world. www.un.org/sustainabledevelopment/gender-equality/ According to UNIDO’s (2014) *Guide on Gender Mainstreaming: Energy and Climate Change Projects*, p3, gender mainstreaming was already included in the 1995 Beijing Platform for Action then embraced in 1997 by the UN’s Economic and Social Council, which defined mainstreaming a gender perspective as “the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in any area and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension in the design, implementation, monitoring and evaluation of policies and programmes in all political, economic, and societal spheres so that women and men benefit equally, and inequality is not perpetuated. The ultimate goal is to achieve gender equality.”

Empowerment of Women (2016-2019), now extended for 2020-2023.

- 163) Informants noted that “without UNIDO’s initiative, there would not be too much talk about gender balance” in this project. Despite such advocacy efforts, a sense came through from informants that there were currently more important issues to deal with (“this gender question is something for international organisations”; “in Ukraine, you have to be a specialist and do your job well”).
- 164) The absence of clear objectives and a strategic approach to gender mainstreaming were identified through the MTR (2015). This deficit was recognized and addressed in a serious manner, as shown by the Centre’s subsequent diligence in developing a Gender Strategy, a gender platform on its website⁵⁸, relevant publications⁵⁹, appointing a Gender Focal Point, training staff, and facilitating their participation in gender-related events with the aim of discussing and supporting gender issues in Ukraine. Explicit efforts were also made to reflect gender balance in the Centre’s management and technical teams, showing good progress over time. Currently, there were 5 women amongst the 13 staff (40%) carrying out RECP assessments: “going onsite, doing measurement, advising clients” with “no complaints registered”. The Centre’s 2020 application for a gender award sponsored by the Women’s Energy Club of Ukraine, while not selected, presumably generated further positive consolidating effects.
- 165) The Centre management’s conviction that “ensuring women and men have equal access to and participate in training is an important step in creating equal employment opportunities for women”⁶⁰ guided the Centre’s implementation of gender mainstreaming and the measurement of its performance, i.e. through collection and reporting of sex-disaggregated data. In this light, the Centre was able to demonstrate an upward trend in female participation in regional training (**Table 7**).

Table 7 – Percentage of Female Participants in Regional RECP Training (2018-2019)

Gender performance indicators for trainees in regions	Total number of RECP trainees in region (2018)	% Female (2018)	Total number of RECP trainees in region (2019)	% Female (2019)	Progress in 1 year
Kyiv	19	37%	9	33%	4% down
Zaporizhzhia	9	56%	9	67%	11% up
Lviv	7	14%	9	56%	42% up
Kharkiv	25	28%	9	33%	5% up

Source: RECPC Annual Project Management Report (2019), p28

- 166) The RECPC’s annual project management reporting mentioned numbers and ratios of women and men, and highlighted female involvement (e.g. as conference speakers, students, teachers). Since 2013, 35% of the 325 individuals trained in RECP methodology (i.e. 114 women) had become RECP experts.
- 167) Given the Centre’s uptake of the MTR’s feedback and efforts to reflect ideas for how to deal with gender mainstreaming included in the project’s design, the project’s performance on this dimension is assessed as satisfactory. At the same time, there was a recognition that with gender parity as the ultimate global goal (see **Footnote 57**), there was an ongoing need and opportunity to engage on this dimension.

The rating for gender mainstreaming is ‘satisfactory’

7.2 M & E

Finding 14: The Centre has established a culture and practice of using M&E for accountability and learning purposes. The project’s results framework was used as a management tool to guide development of

⁵⁸ <http://www.recpc.org/recp-and-women-en/>

⁵⁹ “Women’s Role in Inclusive Sustainable Development”; “Women in Industry: Reality and Challenges”; Gender Equality in Economy: Ukraine’s Commitments to the EU <http://www.recpc.org/recp-and-women-en/>

⁶⁰ RECPC Project Management Annual Report (2019), p28

work plans and to regularly monitor and report on results, in line with the expectations of the UNIDO contracts.

- 168) In terms of design: the importance and function of M&E was adequately considered, budgeted, and planned as part of the project architecture, including provisions for ongoing monitoring and mid-term and terminal evaluation. The project's results framework was used as a management tool to guide the development of work plans that elaborated outputs and key activities, which mapped to the contract with UNIDO, and was used to direct regular data collection and reporting.
- 169) In terms of implementation: the M&E framework was used to collect data and regularly report on project performance. The minutes of Advisory Board and Project Steering Committee Meetings (which document participative working processes generating input, guidance, recommendations) evidence a culture and operational processes to track project implementation, gauge performance, engage and manage relevant stakeholders, troubleshoot, and recalibrate aspects as needed, although this was not necessarily reflected in the RECPC's annual Project Management Reports, which appeared to function more as an information repository for meeting minutes, training agendas, participants lists, event reports, etc.
- 170) Recommendations and lessons identified through the MTR and internal review conducted by UNIDO (reflected in refinements to the logframe for 2016-2018 and 2019-2020, respectively) show appreciation for and use of M&E processes for accountability and learning purposes. The recommendation to replace direct funding with annual full-cost contracts was taken on board. In this light, the Centre reported quarterly on the cumulative advancements made under each subcontract. While some perceived that the reporting tasks required time, these were in line with the contractual requirements of UNIDO.
- 171) Monitoring practices also extended to tracking the implementation of options identified through RECP assessments carried out in companies. Positive results stemming from such action are fundamental to proving the case for RECP adoption and providing an impetus for upscaling. While the Centre's RECP assessment and field monitoring activities had both slowed throughout 2020 (e.g. of 25 contracts concluded, only 17 RECP assessments had been completed), it was fully expected that momentum would be regained with the lifting of COVID-19 restrictions, and that the Centre could rely on established practice and processes for evaluating, documenting, and showcasing relevant benefits.

The rating for M&E is 'satisfactory'

7.3 Results-Based Management

Finding 15: The governance structures of both the Centre and the project provided an overarching framework for assuring results-based management, together with the project's operationalisation through contracting (which detailed the expected services on an output-by-output basis) developed in line with the Project Document and its logframe, which was appropriately used as a tool for planning, shaping, managing, controlling, and reporting on the project's performance.

- 172) The RECPC is guided at the highest level by an appropriately constituted, ongoing governance structure in the form of its Advisory Board (¶161), which meets yearly. This body provides an overarching framework for results-based management. As evidenced by the meeting minutes, it enables active discussion and provides input "focused on ways and means that might help the Centre improve its activity in Ukraine in the direction of cooperation with governmental and international organisations, and enterprises"⁶¹. Convened ahead of the Project's Steering Committee (PSC) meeting, the project's operationalisation and governance benefited from this structure, which provided regular input. Composed of representatives that actively contributed to the project and its objective (¶162), the PSC met annually to discuss the previous year's Project Management Report and adopt the current year's Work Plan.
- 173) The project's results framework (logframe) was used as the backbone for planning, shaping, managing,

⁶¹ Minutes of Advisory Board Meeting convened on 4 February 2020, contained in Centre's 2020 Management Report

controlling, and reporting on the project's performance (¶187) and maintaining a focus on results.

- 174) In sum, the project's governance and implementation constitute a proven project management approach in the sense of maintaining focus on delivering the programmed activities and outputs and bringing these across the finish line. The project's orientation reflects the spirit of a recommendation made to UNIDO and SECO (implementer and key donor for the larger RECP programme in which the Ukrainian initiative was conceived) that emerged through its terminal evaluation with respect to a stronger embrace of a results-based management and monitoring systems⁶².

The rating for Results-Based Management is 'satisfactory'

7.4 Performance of Partners

7.4.1 UNIDO

Finding 16 With ultimate responsibility for implementation, UNIDO contributed the design (based on its ongoing development and systematization of proven RECP practices/tools) and other aspects, as expected, throughout the project's life cycle. The approach used to manage the relationship between UNIDO and the national counterparts was in line with the MTR (2015)'s recommendation that all contractual arrangements should be made on annual and subcontract basis. The use of a directive project management style reflected contracting arrangements and reporting expectations.

- 175) UNIDO's project design was grounded in its ongoing development and systematization of proven RECP practices and tools⁶³, which is a cornerstone of its support for countries to progress towards the world's Sustainable Development Goals⁶⁴. UNIDO drew on its longstanding experience in mobilizing enterprises in productive sectors to 'green' operations and use natural resources in a more efficient, less polluting manner and advocated for an intervention that would foster demand for and supply of RECP services using an approach designed to deepen national ownership and sustain the benefits of the intervention. In this light, the decision to shift from a UNIDO-managed project [which had been in operation since 2007, (¶150)] to fully national execution, guided by UNIDO, is viewed as a timely and positive enabler.
- 176) The project's combination of technical assistance, capacity-building, and policy strengthening reflects good practice in international development and was well-aligned with UNIDO's expertise and experience (¶194). Through its role as international implementing agency, UNIDO held ultimate responsibility for the project's implementation, contributed the project's design, contracted, and oversaw delivery of planned outputs, monitored their achievement and expected outcomes, and managed relationships with donors, annually reporting performance following agreed protocols.
- 177) In the project's early years, the UNIDO team regularly visited Ukraine for meetings and discussions about the Centre's work. While some irritating effects for national stakeholders were flagged in the initial implementation phase, these had since been rectified and a subsequent period of stability had prevailed. During 2018-2019, the CTA spent approximately 60 working days in Ukraine. The COVID-19 restrictions in force during 2020 resulted in little in-country presence, with advice instead provided from afar.
- 178) Informants expressed positive sentiments regarding the synergistic potential that could be realised

⁶² Independent Terminal Evaluation (December 2017) of Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries (UNIDO Project ID# 100050), p55 <https://www.unido.org/resources-evaluation-and-internal-oversight-evaluation/reports-project-evaluations>

⁶³ Ibid, page ix and x

⁶⁴ Under the joint flagship RECP Programme, sponsored primarily by the Government of Switzerland, UNIDO and UNEP have promoted continuous application of preventive environmental strategies to processes, products, and services to increase efficiency and reduce risks to humans and the environment. In this light, RECP addresses three sustainability dimensions: 1) heightened economic performance through improved productive use of resources; 2) environmental protection by conserving resources and minimizing industry's impact on the natural environment; 3) social enhancement by providing jobs and protecting the wellbeing of workers and local communities. <https://www.unido.org/our-focus/safeguarding-environment/resource-efficient-and-low-carbon-industrial-production/resource-efficient-and-cleaner-production-recp>

through better coordination and ideally, by considering the Centre as a privileged partner. While it was mentioned that UNIDO's Energy Department had selected regional centres as preferred suppliers and that this had been perceived in a positive light, it appeared that discussions about privileging entities that had been previously supported had not similarly progressed in UNIDO's Environment Department.

- 179) UNIDO's provision of a detailed results framework; tightly mapped contracting, monitoring, and reporting; and extension of the initially envisaged CTA role from 2.5 years to the project's full duration arguably reflect an assessment of the as-yet unformed Centre and its team as relatively immature, lacking competence and orientation. The consequent adoption of a relatively directive project management style could be seen as a hedge against perceived risks and consistent with the agency's overall responsibility for project implementation. The adopted approach was in line with the recommendation of the MTR (2015) that all contractual arrangements should be made on annual and subcontract basis. While such a style may have been justified at the project's outset, over time, informants reported that "the level of over-control made them less standing on their own feet. They were guided and told what has to be done, which was enforced through the contracting, rather than being given the big objective and allowed to work out themselves how to do it".
- 180) In responding to the MTR's (2015) recommendation to develop a systematic approach to strengthening institutional capacities (including governance, strategic management, financial management, marketing, human resource management), UNIDO mandated substantial support from the outset, which was provided by the Swiss Reference Centre. This support was described as "going above and beyond the typical level of support provided" for an RECP Centre, with the aim of assuring its continued viability.
- 181) UNIDO and the Swiss Government advocated for the Centre's regional restructuring and supported the succession of younger leadership and a more dynamic team ("the change in management took place upon their initiative"). Some stakeholders perceived this as an undue interference (given that one of the project's main thrusts was the creation of an independent Centre) while others saw this as logically linked with the responsibility of the implementing agency and donor. Appreciation was expressed for the resources put into identifying, assessing, and selecting candidates, administered by the Swiss Reference Centre, which had the collateral benefit of building knowledge and capacities for creativity, team orientation/leadership/productivity, and profiling individuals' technical, methodological, administrative and management skills, feeding into the development of the Centre's performance management system.
- 182) Balancing the assessment of UNIDO's contribution to project design, implementation, monitoring and reporting, supervision, backstopping and evaluation, the performance of its expected role and responsibilities throughout the project's life cycle is seen in a satisfactory light.

UNIDO's performance is rated as 'satisfactory'

7.4.2 National Counterparts

- 183) The role, responsibilities, and performance of national counterparts were considered in terms of two main groups (government and academic institutions), each with their own degree of interest in and cooperation with the project and expectations regarding the project's results.

Government Institutions

Finding 17 Ongoing institutional restructuring, particularly within the project's key governmental beneficiary, reduced contact with reliable touch points and limited opportunities to build understanding of the relevance of the RECP approach for Ukraine's modernization and the Centre's power as a related policy tool. While not yet influencing the formation of policy and regulation, the Centre's contacts with other eco-system actors held positive promise for future collaboration.

- 184) The Government of Ukraine had requested the technical assistance provided through this project (¶151),

which has been interpreted by some informants as an indicator of national ownership (¶134), and it had identified the Ministry for Development of Economy, Trade and Agriculture of Ukraine (MEDTA) as the main governmental counterpart and project beneficiary. The Ministry of Environmental Protection and Natural Resources of Ukraine was also involved, contributing two directors to the RECPC and being a member of its Public Council in different years.

- 185) During the project's period of implementation in Ukraine, 3 Presidents, 6 Governments, and 9 Ministers of Economy changed. Arguably, the frequent organisational and personnel restructuring of the Ministry (¶137) did not function to strengthen governmental counterpart ties with the project (¶137) and had a dampening influence on the implementation and achievement of the project's objectives. Informants observed that ministerial representatives did not have in-depth knowledge of energy efficiency and resource efficiency issues in industry ("they did not realise that the Centre is a kind of tool for their work with industrial enterprises") and "were reluctant to attend the Centre's events".
- 186) The RECPC also had contact with the Ministry of Ecology, the State Agency for Energy Efficiency⁶⁵ (SAEE, which is a central executive body) and Regional Administrations. Some informants mentioned that "it was a pity that these actors were not official beneficiaries, as that would have improved the Centre's level and quality of interaction with the government".
- 187) SAEE's activities were directed and coordinated by Ukraine's Cabinet of Ministers through the Minister of Energy. SAEE implements state policy promoting the efficient use of fuel/energy resources, energy saving, renewable energy sources, and alternative fuels. This agency develops, coordinates, and controls implementation of target programmes in the field of efficient use of energy resources, energy saving, promotion of renewable energy sources application. SAEE also implements public-private partnerships and coordinates sectoral, regional, and local programmes in the above-mentioned spheres.
- 188) In view of the weak linkage with its designated government beneficiary (¶185), the Centre had stepped up efforts to gauge the willingness of eco-system actors to make links with the Centre and/or respond to its outreach. Although not an official project beneficiary, the Centre had established good contact with SAEE, with the RECPC acting as a kind of intermediary between industrial enterprises and this agency. In this light, the Centre's relationship with the SAEE appears to hold valuable promise, solidified through a Memorandum of Cooperation (06.07.2017), inclusion of SAEE representatives in the Centre's Consultation Council, and the agency's expressed interest to develop a roadmap for continuing cooperation, following recent organisational changes (creation of a new department reflecting the shift from energy efficiency to low carbon development, its potential name change to Green Energy Agency). SAEE indicated that it would ask the Centre to participate in regional decarbonisation programmes (preparation of regional energy/climate plans) and support decarbonisation of United Territorial Communities and small cities that need assistance to develop strategies for green transition and accompanying plans (including energy utilization effectiveness, decarbonization of local enterprises).
- 189) Contacts with other central public bodies were mostly sporadic and unsystematic. These actors include:
- Ministry of Energy and Environment Protection of Ukraine (since 2019)
 - Ministry of Environment Protection and Natural Resources of Ukraine (before 2019)
 - Ministry of Education and Science of Ukraine
 - Ministry of Agrarian Policy and Food of Ukraine (before 2019)
 - Entrepreneurs Council at the Cabinet of Ministers

Their cooperation was limited to participation in various events (conferences, roundtables). The RECPC also participated in some Public Council meetings of these ministries. In such a setting, the Centre had little influence on the formation of relevant policies and regulations.

- 190) The RECPC's regional offices had established good relations with regional (*oblast*⁶⁶ and local) state

⁶⁵ Website of State Agency on Energy Efficiency and Energy Saving of Ukraine - <https://saee.gov.ua/en>

⁶⁶ Oblast is a type of administrative division; it refers to Ukraine's 24 primary administrative units

administrations. These regional administrations have assisted the Centre in finding potential customers i.e. local businesses that would be open to implement resource-saving and energy-efficient approaches and technologies. In return, due to the project's support, the Centre conducted regional educational activities and trains local staff on energy and resource conservation in production and circular economy.

Academic/Educational Institutions

Finding 18 Ukraine's academic sphere had a key stake in the Centre through Igor Sikorsky KPI's role as a founding partner. Igor Sikorsky KPI and 8 other universities had welcomed the inclusion of RECP and Chemical Leasing courses within relevant curricula. The Centre's signature of Agreements on Partnership, Cooperation and Activity Coordination with four entities in 2019 sets the stage for strengthening cooperation with Ukrainian universities and further building of RECP/Chemical Leasing awareness and capabilities.

- 191) Within the academic sphere, the project's main counterpart was the Igor Sikorsky KPI. In 2013, together with Corporation Science Park 'Kyivska Polytechnika' and the Ukrainian League of Industrialists and Entrepreneurs (ULIE), they co-founded an NGO: 'Resource Efficient and Cleaner Production Centre' Kyiv City Innovative Sectoral Organization of Employers (RECPC KCISOE), which provided the framework for taking on the current project (¶152).
- 192) It was difficult to understand the actual role and contribution of 'Kyivska Polytechnika' in the project's implementation. Initially, it was expected that this Science Park would propose innovative RECP technologies and solutions to the Centre.
- 193) Regarding ULIE (which is an NGO), its representatives are members of the Centre's Advisory Board. They have taken an active part in many of the Centre's activities and assisted the Centre to find customers for RECP assessments. Although the ULIE is one of the Centre's founders and active contributor, it is surprising to observe a complete lack of information about the Centre and its activities on the ULIE's website <https://uspp.ua/>.
- 194) From the project's start, Igor Sikorsky KPI was actively involved in formation and development of the RECPC: most of its staff (including the Director) came from Igor Sikorsky KPI. In 2019, the RECPC counted 11 Igor Sikorsky KPI graduates amongst its staff. Hosted by Igor Sikorsky KPI, the University provided the Centre with office space, free of charge, until 2015.
- 195) It was positively noted that Igor Sikorsky KPI included an RECP course in the curriculum of the Institute of Energy Saving and Energy Management for 2018/2019 academic years and included an RECP course in the curriculum of its Chemical Technology Faculty. Furthermore, the RECPC and Igor Sikorsky KPI prepared a joint proposal and submitted this to USAID.
- 196) In support of the project's goals (particularly Outcome II), the RECPC established good relations and introduced RECP courses into university curricula into the following educational institutions:
 - **Vernandskyyi Tavria National University** (2017) – included an RECP course into the curriculum for students of the Electric Engineering Department;
 - **Bila Tserkva National Agrarian University** (2018) – included a Chemical Leasing course into the curriculum of Department of General Ecology and Ecotrophology (related to nutrition science);
 - **Ukrainian National Forestry University** (2018/2019) – included RECP courses into curricula for students (Bachelor and Master level degrees) of the Forestry and Forest Roads Department (specializations "Forestry Engineering", "Applied Mechanics");
 - **National University of Life and Environmental Sciences of Ukraine** – integrated the discipline of "Resource Saving Technologies in Food Industry" into its specialty "Food Technology";
 - **Ukrainian State University of Railway Transport in Kharkiv**
 - **State Higher Educational Institution "Kyiv Electromechanical College"**

- **Institute of Energy Saving and Energy Management, National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”**
- **National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, Chemical Technology Faculty.**

197) To strengthen its cooperation with Ukrainian universities, the Centre signed Agreements on Partnership, Cooperation and Activity Coordination with 9 entities, including, amongst others, the National University “Lviv Polytechnic” (signed 10.10.2019), National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute” (15.10.2019), Igor Sikorsky KPI’s Scientific and Technical Centre “Ecological Technologies and Energy Saving” (24.10.2019), and the Poltava State Agrarian Academy (20.11.2019).

The collective performance of National Counterparts is assessed as ‘satisfactory’

7.4.3 Donors

Finding 19 The Governments of Switzerland and Austria investment in and embrace of the RECP approach as a cornerstone for green economy are highly pertinent contributions to institution-building in Ukraine, increasing prospects for the effective absorption of external resources (e.g. financial flows, technical expertise) in support of national priorities and macroeconomic and social policies. Active engagement in the project and its supervision were positive factors during implementation.

- 198) Having actively supported the newly independent state of Ukraine since the early 1990s, the Swiss cooperation agenda exhibits a long-term view, focussed on development, reconciliation, and peace. Since the year 2000, the Swiss had established a cooperation office in Kyiv to coordinate its assistance programmes in Ukraine, which had an average yearly budget of CHF 27 million⁶⁷. The economic and cultural cooperation between Austria and Ukraine is longstanding⁶⁸. The Austrian Development Agency’s main goals in the South Caucasus relate to combating poverty, ensuring peace and preserving the environment. The Government of Austria’s EUR 300,000 contribution (which came to a close in 2017) was provided as co-funding for the establishment of the RECP. The Government of Switzerland’s contribution of EUR 3.74 million (which flowed until the project’s close at the end of 2020).
- 199) The strength of conviction and longevity of support offered by the Governments of Switzerland and Austria for the RECP concept, in general, and for fostering the establishment and consolidation of the RECP Centre in Ukraine, in particular, was highly appreciated by all stakeholders and perceived as relevant assistance. The significant level of investment and the donor’s enduring commitment to this theme and country are viewed as positive factors, aligned with the recognition that institution-building is key to enabling recipient countries and actors to absorb external resources (e.g. financial flows, technical expertise) and build more effective supports for the implementation of macroeconomic and social sector policies⁶⁹.
- 200) Beyond the financial support provided by SECO through the project, its local team in the Swiss Embassy genuinely viewed the RECP as a vital actor (“we know about the Centre and it’s a partner that is important for us”) and played an active and engaged role, with “many hours spent discussing business ideas”, in line with the donor’s conviction that the Centre needed to develop a business model that will facilitate its financial self-sustainability.
- 201) Supervision from the donor side functioned well and supported the project’s implementation: it was managed/monitored by two staff using an internally developed matrix (looking at number of enterprises

⁶⁷ <https://www.eda.admin.ch/countries/ukraine/en/home/representations/embassy-in-kiev/cooperation-office.html>

⁶⁸ <https://mfa.gov.ua/en/news/75948-ukraine-and-austria-are-united-by-longstanding-friendship-close-partnership-and-active-economic-and-cultural-cooperation>

⁶⁹ Brookings Policy Briefs assessed project design and factors for reaching the world’s Millennium Goals <https://www.brookings.edu/research/strengthening-institutional-capacity-in-poor-countries-shoring-up-institutions-reducing-global-poverty/>

reached, extent of national coverage, etc.); there was appropriate, regular participation in annual PSC meetings; review of their Minutes showed clear interest in the project, with questions designed to spur further reflection and action that supported the national government’s priorities. The project’s annual Progress Reports and MTR were rigorously reviewed and accepted. There was keen interest in the project’s TE and prospects for sustaining its benefits and the Centre’s continuing operation.

- 202) The committed funding flowed smoothly and facilitated the involved actors in playing their anticipated roles and carrying out their responsibilities. A high level of openness was perceived with respect to adjusting aspects on which the project was controlled, e.g. “key performance indicators in the logframe that don’t make sense or if there are certain things that can’t be achieved...always willing to discuss and adjust”. Upon provision of annual reporting, it is understood that requests could be made to transfer the next instalment, with a 30-day payment period.
- 203) In putting the RECP concept (described as “the perfect tool to link different activities”) at the heart of SECO’s Global Eco-Industrial Parks Programme⁷⁰ (running 2019-2023 with a budget of CHF 17.125 million, involving Ukraine and six other countries), implemented by UNIDO, the donor’s privileging of the RECP approach as a cornerstone of Green Economy is deemed as strengthening the Centre’s standing in the eyes of national stakeholders (public and private), thereby enhancing its sustainability prospects.

The donor’s performance is rated as ‘highly satisfactory’

8 Overarching Assessment and Rating Table

- 204) **Table 8** summarizes the TE’s findings and ratings according to the given criteria to assess the project’s design and performance⁷¹.

Table 8 – Summary of Findings and Ratings, by Evaluation Criteria

Evaluation Criteria	Summarized Finding	Section	Rating
Impact			
➤ Progress to Impact	<p>The project successfully created the envisaged Centre, together with 325 RECP experts it had trained, which assured human resources are available to verify the benefits of RECP and support scaling-up, with steps taken to stimulate future supply of expertise (e.g. RECP courses into university curricula). Based on the Centre’s experience in managing projects and its contributions to various initiatives, there was potential for the project’s results to be reproduced within and beyond Ukraine.</p> <p>The combination of environmental safeguarding and economic performance (RECP’s sweet spot) provides a basis for generating impacts that can be directly/indirectly attributed to project support, with a trajectory expected to move in a positive direction and enhance the country’s socio-economic resilience - provided key elements materialise to significantly spur demand for RECP; namely: a long-term institutional framework for RECP advocacy, replication, mainstreaming, and upscaling with political/economic/social incentives for RECP adoption and RECP widely perceived and confirmed to be a vital part of the equation for achieving sustainable development in Ukraine.</p>	4	ML

⁷⁰ The GEIPP involves Ukraine, Colombia, Egypt, Indonesia, Peru, South Africa and Vietnam
<https://www.eda.admin.ch/eda/en/fdfa/fdfa/aktuell/dossiers/alle-dossiers/engagement-der-schweiz-in-ukraine/strategie-2015-2018.html/content/dezaprospects/SECO/en/2018/UR01231/phase1>

⁷¹ According to evaluation criteria and 6-point scale stipulated in the evaluation’s ToR: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU). Sustainability of Benefits is rated from Highly Likely (HL) to Highly Unlikely (HU)

Evaluation Criteria	Summarized Finding	Section	Rating
Project Design	With an overall design seen as ambitious and a directive logframe that was less adapted to the aim of enabling self-direction and agency as an explicit part of the project's exit strategy, the formulation of the intervention and its plan to achieve a specific purpose is deemed moderately satisfactory.	5	MS
➤ Overall design	While informed by relevant experience, shared understanding, and anchored in a robust Theory of Change that heightens quality of life through improving the country's economic and environmental conditions, the project design reflects an overly ambitious view of the ability of such a Centre to attain organisational maturity, fully deploy the long-term institutional framework for RECP advocacy and service delivery to Ukraine's private and public sectors, and reach financial self-sustainability within the planned duration.	5.1	MS
➤ Logframe	The detailed logical framework provided key elements for the project's planning, execution, and accountability. Following the standard, proven strategy for establishing an RECP Centre, it reflected a high degree of control and direction from the UNIDO side and strongly oriented the Centre's behaviour towards fulfilling designated activities and outputs.	5.2	S
Project Performance			
➤ Relevance	Leveraging UNIDO's mandate and domains of comparative advantage, the project's support was highly relevant for global/national development priorities and end beneficiaries in government and industry, bringing relatively unfamiliar concepts like RECP and chemical leasing to the country's drive for economic transformation and 'greening', also aligned with the donor's strategy for supporting Ukraine.	6.1	HS
➤ Effectiveness	<p>Most of the planned outputs were delivered, with some shortfalls in reaching the envisaged outcomes, particularly those related to public policy formation and financial mechanisms to spur RECP implementation. While the demonstration of RECP benefits was progressing and further potential had been theoretically quantified, many measures had not yet been implemented as RECP measures that involve higher cost and/or technology change take more time to be put into place. The lack of state-level incentives and absence of legal enforcement at national level for cleaner production and emission reduction may also be factors that slow implementation.</p> <p>The aim to become a self-financed entity (by generating income from different sources, including government and donor funds) was at the heart of the Centre's vision and part of the project's exit strategy. While there had been good progress towards the 65% target set by the Centre for 2020, contributions from commercial contracts had fallen significantly over the past two years. The Centre's recent success in winning contracts to implement parts of international donor projects suggested that this pathway would become a key route to enabling the entity's survival for the foreseeable future.</p>	6.2	S

Evaluation Criteria	Summarized Finding	Section	Rating
➤ Efficiency	<p>The extension in the project’s timeline reflects the significant effects of the outbreak of conflict in Eastern Ukraine as well as a relatively high level of ambition in the project’s design. The extended duration was granted with a view to enable the delivery of its envisaged aspects in a context where the project’s momentum was slowed due to a complex set of factors. The fact that the budget for a 5-year project could be stretched to cover 9 years without additional funding contributions points to shortcomings in budget planning during the project’s preparation and/or insufficient use of funds during project implementation. The level of donor-financed projects operating on the Ukrainian landscape in the same period offered an abundance of opportunity for synergizing efforts for the achievement of the project’s development objective. While paths for information exchange and participation in mutual events had been established, a level of strategic partnership across projects and donors that could lead to joint planning, co-financing, and joint efforts on policy formation was undermined by the struggle for “project” exclusivity and corresponding competition within the overall landscape. The RECPC itself did not pursue a notion of exclusivity.</p>	6.3	MS
➤ Sustainability of Benefits	<p>The project design included elements of an exit strategy, including being left with an orientation to opportunistically pursue its mission through the provision of commercial services and project acquisition. The Centre’s success in winning 3 of its 6 competitive bids on international donor projects provides organisational continuity in the short-term, with up to 60% of its operating costs covered for 2021-2022.</p> <p>The socio-political and economic context in which the Centre is embedded dampens the likelihood that the project’s benefits will be easily sustained. In the absence of a clear formulation of the State’s position on resource efficiency backed up by an effective and enforced legal framework and/or industry’s proactive preparation to seize opportunities related to Ukraine’s eventual accession to the EU, the RECPC’s current ability to catalyze effects towards improving the competitive position of Ukrainian industry appears weak.</p>	6.4	ML
Cross-Cutting Performance Criteria			
➤ Gender Mainstreaming	<p>Attention to gender mainstreaming has increased since the MTR – with the establishment of a Gender Strategy, Gender Focal Point, enhanced website and publications, staff training, gender balance in the Centre’s management and technical teams, and an upward trend registered in women’s participation in regional training – with performance gauged through the regular collection and reporting of sex-disaggregated data.</p>	7.1	S
➤ M&E design and implementation	<p>The Centre has established a culture and practice of using M&E for accountability and learning purposes. The project’s results framework was used as a management tool to guide development of work plans and to regularly monitor and report on results, in line with the expectations of the UNIDO contracts.</p>	7.2	S
➤ Results-Based Management	<p>The governance structures of the Centre and project provided an overarching framework for assuring results-based management, together with the project’s operationalisation through contracting (which detailed the expected services on an output-by-output basis) developed in line with the Project Document and its logframe, used as the basis for planning, shaping, managing, controlling, and reporting on the project’s performance.</p>	7.3	S
Performance of Partners			

Evaluation Criteria	Summarized Finding	Section	Rating
➤ UNIDO	With ultimate responsibility for implementation, UNIDO contributed the design (based on its ongoing development and systematization of proven RECP practices/tools) and other aspects, as expected, throughout the project's life cycle. The approach used to manage the relationship between UNIDO and the national counterparts was in line with the MTR (2015)'s recommendation that all contractual arrangements should be made on annual and subcontract basis. The use of a directive project management style reflected contracting arrangements and reporting expectations.	7.4.1	S
➤ National Counterparts	Ongoing institutional restructuring, particularly within the project's key governmental beneficiary, reduced contact with reliable touch points and limited opportunities to build understanding of the relevance of the RECP approach for Ukraine's modernization and the Centre's power as a related policy tool. While not yet influencing the formation of policy and regulation, the Centre's contacts with other eco-system actors held positive promise for future collaboration. Ukraine's academic sphere had a key stake in the Centre through Igor Sikorsky KPI's role as a founding partner. Igor Sikorsky KPI and several other universities had welcomed the inclusion of RECP and Chemical Leasing courses within relevant curricula. The Centre's signature of Agreements on Partnership, Cooperation and Activity Coordination with four entities in 2019 sets the stage for strengthening cooperation with Ukrainian universities and further building of RECP/Chemical Leasing awareness and capabilities.	7.4.2	S
➤ Donor	The Government of Switzerland's level of investment in and embrace of the RECP approach as a cornerstone for green economy are highly pertinent contributions to institution-building in Ukraine, increasing prospects for the effective absorption of external resources (e.g. financial flows, technical expertise) in support of national priorities and macroeconomic and social policies. Active engagement in the project and its supervision were positive factors during implementation.	7.4.3	HS
Overall Assessment		¶205)	S

205) The project successfully created the envisaged RECP Centre with a dedicated team with highly respected technical expertise, a functioning organisation, competent leadership, and the momentum to carry forward. While the prospects for the project's benefits to be sustained appear to be moderately likely, the intervention was timely, requested, and highly relevant, with acceptable performance on effectiveness and efficiency considering the challenges of the country context and global pandemic throughout the project's implementation, leading to an overall assessment of satisfactory performance.

The overall rating for the project is 'satisfactory'

206) These findings, which are underpinned by the preceding analysis and justifications, are the basis for drawing conclusions, lessons, and recommendations, as outlined in the next sections.

9 Conclusions, Lessons Learned, and Recommendations

9.1 Conclusions

207) **The project's support**, aimed at establishing and enabling the envisaged RECP Centre, **was highly relevant** for Ukraine's development priorities (¶91) and the needs/interests of end beneficiaries [¶92), ¶93)], well-suited to UNIDO's mandate and competences (¶94), and consistent with the donor's priorities (¶95). This high degree of pertinence and alignment gave this intervention a cohesive foundation for driving its development aim and its desired effects (¶89).

208) The **project design**, together with the **vision** and **mission** defined for the RECP (¶60), focussed the Centre on demonstrating the benefits of RECP for Ukrainian industry and developing its technical expertise (presumably seen as being within the Centre's realm of control), **thereby ensuring the supply of high quality RECP capabilities** (¶81), in a context where the **demand for these capacities and related**

services had not yet been sufficiently stimulated and supported (¶83).

- 209) Regarding the **effectiveness** of the project's support: **demonstration of RECP's potential** to enhance industrial competitiveness and reduce environmental impact, spearheaded by the RECPC (whose establishment is a key desired outcome), was **underway with a cadre of enterprises (¶57)**, with full realisation of benefits slowed by COVID effects (¶100), hesitancy or inability (especially SMEs) to invest own resources (¶142), lack of easy access to subsidies and incentives (¶143). While those currently engaged with the Centre were positively disposed towards RECP (¶72), the **upcoming challenge was to move beyond demonstration activities and shift RECP practice** – which represented a major innovation to existing industrial practice (¶82) – **into the mainstream and beyond just the 'low-hanging fruit' (¶73).**
- 210) Looking at the project through the lens of **efficiency**: its initial parameter for **duration proved unable to absorb** the slowing momentum of project activities stemming from the outbreak of war in Eastern Ukraine which led to changes in the economic and socio-political landscape that affected industrial production (¶117) – and thus interest in RECP. The extended timeline provided valuable time to resolve staffing, financial, and organisational issues that are natural with an evolving and maturing organisation (¶119). In this light, the extended timeline was warranted. The planning and/or use of the project's **financial inputs showed room for optimisation**, given that almost USD 1.3 million still available at the time when the project was initially planned to close (¶118).
- 211) An appropriate mix of human resources is a vital lever in the delivery of project outcomes. The Centre's achievements in reflecting **gender balance in its management and technical teams** are recognized and applauded (¶164). The Centre is **highly respected for its technical expertise**, with capacities in place to support further demonstration of the economic and environmental benefits of RECP in industrial enterprises and for scaling these up (¶99). For the project's implementation – and ultimately for pursuing the Centre's vision and mission – while experts in the field of RECP are valuable, there was also a **need to strengthen its expertise in policy advice, financial mechanisms, and eventually business development (¶121)**. While the Centre's staff had benefitted from training and support in these areas from the Swiss Reference Centre and through participation in various courses and events (¶105), the background, orientation, and skillsets to position and enable the RECPC to legitimately, competently, and fully play its role as a national policy tool do not naturally and fully reside in the technical specialists attracted to work at the Centre.
- 212) Turning to cross-cutting factors influencing project performance, the Centre's **efforts to seriously address gender mainstreaming** since the project's MTR (2015) have increased staff understanding of the UN's priority placed on this topic and **yielded positive progress** (gender strategy, focal point, promoting gender balance in management and technical teams and training programmes; ¶164). The approach used to measure and report on gender mainstreaming performance (through sex disaggregated data) reflects the notion of promoting equal opportunities of participation for women and men (¶165). However, this **may not go far enough for building understanding of the ways in which inclusion and empowerment of women works to accelerate the uptake of RECP**, and thereby inspire action in its target sectors.
- 213) **M&E was adequately considered and planned as part of the project architecture** and budget and applied to collect data and regularly report on project performance (¶168), in alignment with the contracting framework, supporting an **orientation for results-based management (¶173)** and showing appreciation for and use of M&E processes for accountability and learning purposes (¶170). Given the extensive effort and time invested in these activities, it was surprising to see that the **Annual Project Management Reports to UNIDO and the donor appeared to function more as an information repository** (assembly meeting minutes, training agendas, participant lists, event reports, etc.; ¶169) than conveying indepth analysis of performance and conclusions to inform and drive decision-making and strategy execution through providing transparency and early warning.
- 214) The performance of the project's partners influenced the orientation and traction of its results. In addition to the project design, the **support provided by UNIDO** (described as going over and above the typical level) was **aimed at building, equipping, and guiding the resulting Centre (¶81)**. The directive

project management style adopted at the outset was suitable for an inexperienced team and arguably reflected UNIDO’s ultimate responsibility for implementation (¶179). Striking the appropriate balance in transitioning to a more delegative orientation, in conjunction with the development of the Centre’s competence, commitment, and leadership, proved a challenge, given the contracting arrangements and reporting expectations contained in the project’s very foundation.

- 215) While there were good intentions amongst all involved **national counterparts**, the ongoing institutional restructuring that occurred throughout the project’s implementation is fully understandable, in light of the acute political and socio-economic disturbances of the era (¶24). However, the Centre’s lack of reliable touch points and ongoing dialogue with its designated government beneficiary [¶137, ¶185] had the consequence of offering limited opportunities to build understanding of the relevance of the RECP approach for Ukraine’s modernization and advocacy of the RECP agenda, and the Centre’s power as a related policy tool, with the corresponding leverage of the Centre’s role, capacities, and services.
- 216) The **sustainability of the project’s benefits has been judged as moderately likely**. Absence of a clear formulation of the State’s position on resource efficiency and clean production and fully-fledged legal framework with mechanisms to stimulate efficient use of resources and ensure responsibility for non-compliance weakens the potential of RECP to drive industrial modernization (see Section 6.4.1). While relevant RECP capacities had been adequately built and were ready for deployment (¶70), at present, there appeared to be limited interest and capacity of the business community to absorb and expand the project’s benefits (see Section 6.4.3), which dampens the potential for replication and upscaling. Major challenges related to funding investment in RECP (¶142) and weak organisational capacities (¶143) point to the need and opportunity for further focus on these levers.
- 217) Having **encouraged the Centre to strive towards reaching self-sustainability through service provision** as a design principle (¶106), with the goal to achieve financial independence by the project’s close as part of the exit strategy, and being left to pursue its mission opportunistically (¶146) – in a context where the demand for RECP services is still embryonic (¶138), with weak incentives to stimulate its growth (¶83) – this leaves the Centre in a situation of continuing an uphill battle to generate income from selling commercial services on the local market to survive (¶139), channelling its energies towards bidding on the open market to be an implementer of international donor projects, and/or proposing its services to donors, as the requirements of open tenders did not always fully match with the Centre’s strengths and services (¶155). With such an exit strategy, it would appear that UNIDO, the donor, and the RECP are overlooking the **Centre’s key asset: its institutional role as the crucial first step on the long-term pathway to a clean and prosperous Ukraine** and the extent to which the RECP is a valid, and therefore necessarily ongoing operationalisation of the UNIDO/SECO strategy for influencing a country’s industrial development, decoupling resource use and environmental impact from manufacturing growth.

9.2 Lessons Learned

- 218) In the spirit of promoting organisational learning, three lessons have been distilled from the project’s experience (Table 9), which provide food for thought for future project formulation and implementation.

Table 9 – Lessons Learned, with their Context, Priority, and Responsibility

Lesson #1:	The shift of project execution into national hands is increasingly seen as a mechanism for strengthening national ownership as well as providing strong elements of an exit strategy. Selecting the most appropriate institutional counterpart(s) is challenging. Involving actors that develop as well as implement government policy, together with including mechanisms and pathways to allow for adaptive management, would enhance the potential to sustain relevance and gain traction within settings that are dynamic and evolving.
Responsibility:	Government of Ukraine, UNIDO

Priority Level⁷²:	Opportunity for Improvement
Context:	<ul style="list-style-type: none"> ➤ Discussions about creating a Ukrainian NCPC reach back to 2007 and included a consultation with national institutions and donors involved in CP-related activities, resulting in a first UNIDO project implemented in collaboration with nominated partners responsible for <u>developing government policy</u> and providing entry points into technical universities; the decision to build on these relationships and infrastructure is logical, natural, and understandable; ➤ The success of the project and the resulting Centre is linked to the continuity and quality of relations with government bodies. However, the designated beneficiary (the country's largest ministry, with a complex organisational structure) experienced an unusually high level of reorganisation, with nine successive Ministers appointed since 2013. With meagre ground for nurturing the needed relationships, there is currently insufficient understanding on the part of the project's key government beneficiary of the Centre's value as a policy tool and RECP as a vital instrument for industrial modernization, and therefore limited advocacy for the RECP agenda and the corresponding leverage of the Centre's role, capacities, and services to realise its catalytic contributions to influencing Ukraine's industrial development; ➤ During the project's roll-out, the Centre's outreach resulted in relationships and partnerships with other actors involved in <u>implementing national policy</u> (e.g. SAEE, regional administrations), which hold promise and would benefit from consolidation; ➤ Associating international technical assistance projects with more than one national beneficiary could serve to mitigate risk; ➤ For projects with desired outcomes that span policy advice and enhancing facilitating conditions as well as demonstration, it could be useful to ensure that a set of designated government counterparts cover domains that relate to both developing and implementing government policy.

Lesson #2:	Given the power of gender equality to create the foundation for a peaceful, prosperous, and sustainable world, institutions involved in nation-building are well-placed to demonstrate and drive gender mainstreaming as a permeating value "baked into every decision, at every level".
Responsibility:	RECPC, UNIDO, Government of Ukraine
Priority Level:	Opportunity for Improvement
Context:	<ul style="list-style-type: none"> ➤ The project's Theory of Change identifies the inclusion and empowerment of women as a force for accelerating the benefits generated through RECP adoption; ➤ The UN promotes gender equality, which is linked to the 2030 Agenda for Sustainable Development as a critical foundation for a peaceful, prosperous, sustainable world; ➤ While stakeholders consulted for this project evaluation did not necessarily see the relevance of gender mainstreaming, positive performance on this dimension could create new entry points for enlightened Ukrainian enterprises under the EGD; Ukraine's accession to the EU would engage it in requirements of the EU Gender

⁷² Identified using this categorisation:

Critical recommendation: address significant and/or pervasive deficiencies in governance, risk management or internal control processes, such that reasonable assurance cannot be provided regarding the achievement of programme objectives.

Important recommendation: address reportable deficiencies or weaknesses in governance, risk management or internal control processes, such that reasonable assurance might be at risk regarding the achievement of programme objectives. Important recommendations are followed up on an annual basis.

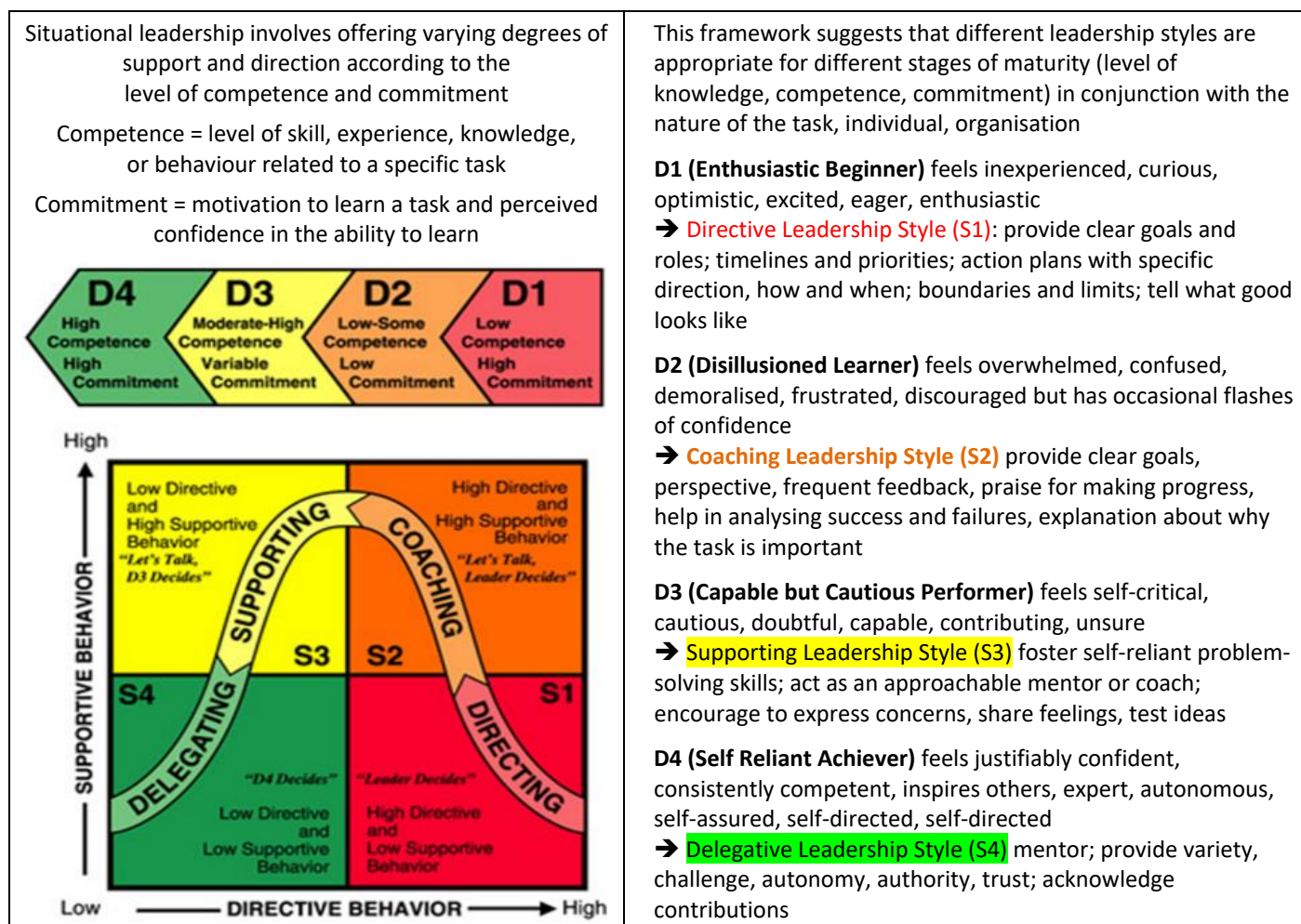
Opportunity for improvement: comprise suggestions that do not meet the criteria of either critical or important recommendations and are only followed up as appropriate during subsequent oversight activities.

	<p>Action Plan, which aims to accelerate progress on gender equality and women’s empowerment as a key aspect of building back better from COVID-19 effects;</p> <ul style="list-style-type: none"> ➤ Research supports the notion that diverse and inclusive teams tend to be more creative and innovative than homogenous groups; the Centre’s efforts to go in the direction of gender balance on its management and technical teams have been noted and are hopefully enriching the team and building its standing as a standards-bearer; ➤ For the Centre to inspire action on gender mainstreaming in its target sectors, the use of ‘lagging’ indicators (e.g. sex disaggregated data) that measure what has happened may not be sufficient, whereas ‘leading’ indicators that help to predict what will happen (e.g. recruiting, retention, and advancement rates) may be more helpful in driving and tracking progress; ➤ Inspiration for addressing gender mainstreaming in a more strategic manner could be drawn from the way in which the Oil & Gas sector changed its approach, making safety a “value” instead of a “priority”. In this way, safety became a core value and the basis for strategy and ensured that “safety was baked into every decision, at every level”⁷³.
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Lesson #3:	Striking the ‘right’ balance between direction and support is key to institution-building remits, which increasingly characterize international development cooperation activities. Situational Leadership Theory provides useful guidance for identifying criteria and transition points to shift amongst styles.
Responsibility:	RECPC, UNIDO
Priority Level:	Opportunity for Improvement
Context:	<ul style="list-style-type: none"> ➤ A highly directive style could be seen as a hedge against perceived risks and was consistent with UNIDO’s overall responsibility for project implementation; however, maintaining this level of control and direction (which was anchored in contracting, reporting, and donor expectations) was not fully aligned with a key thrust of the project, which was the creation of an independent self-sustaining entity; ➤ The use of a highly directive style at the project’s outset is consistent with the tenets of situational leadership, which point to the appropriateness, in such a setting, of providing clear goals, roles, timelines, priorities, action plans; establishing boundaries; and specifying ‘what good looks like’ (e.g. through targets, indicators); ➤ Situational Leadership Theory (see ➤ Figure 6) provides a useful framework and guidance for transitioning to a more delegative orientation, in conjunction with the development of maturity (knowledge, competence, commitment) and looking to cues, such as the type of task, nature of the group, etc.

⁷³ Mehnert, K. (13 May 2019). “Make Gender Equality a Value, Not a Priority” <https://sloanreview.mit.edu/article/make-gender-equality-a-value-not-a-priority/>

Figure 6 – Using Situational Leadership to Transition Degree of Direction and Support



Source: Paul Hersey and Kenneth Blanchard Situational Leadership Model www.kenblanchard.com

9.3 Recommendations

220) A set of recommendations (**Table 10**), anchored in the preceding evidence, analysis, findings, and conclusions of this terminal assessment, are offered to UNIDO (as project implementer), the Ministry for Development of Economy, Trade and Agriculture of Ukraine (as project beneficiary), Igor Sikorsky KPI and the RECPC (as national implementers), and the Governments of Switzerland and Austria (as donors). The recommendations are set in context, prioritized, and assigned a lead responsibility and proposed timeframe for uptake and implementation.

Table 10 – Recommendations in their Context, Priority, Responsibility, Timeframe

Recommendation #1:	Recognize the asset and potential of the RECPC built up through this project’s support and determine the ways in which this Centre can be used as a strategic tool for influencing the course of industrial development towards a clean and prosperous Ukraine.
Responsibility:	Government of Ukraine
Priority Level:	Critical Recommendation
Timeframe for implementation:	Immediate
Context:	➤ The RECPC’s establishment, vision, and mission are a direct response to a request from the Government of Ukraine for international technical assistance to support the country’s drive for economic transformation and ‘greening’. The strong

	<p>alignment of this response to national development needs and priorities gave this intervention a cohesive and compelling foundation on which to demonstrate the relevance of the RECP approach for Ukrainian industry (especially SMEs), as the first step on the way to a long-term institutional framework for its adoption and upscaling;</p> <ul style="list-style-type: none"> ➤ Due to ongoing institutional restructuring during the bulk of the project’s support, there was meagre ground for securing an indepth, ongoing relationship between the Centre and its designated ministerial counterpart, with the consequence that there appears to be, understandably, limited comprehension of the Centre’s potential role and function as a strategic tool; on the other hand, the RECPC’s outreach to other actors (e.g. SAAE, Regional Administrations) with roles in implementing industrial policy showed positive promise; ➤ The RECPC is a tool that has shown leadership in demonstrating the value of resource efficiency and cleaner production in industrial processes and in building awareness and capabilities in future generations by developing partnerships with Ukrainian universities and advocating the inclusion of RECP and Chemical Leasing in relevant curricula, with untapped potential to support further ecosystem actors in enhancing the role of RECP in environmental, industrial, and other relevant policies at national/regional levels; ➤ The Centre has succeeded in building up a supply of high quality RECP capabilities ready to be channelled in support of industrial policy objectives; the Centre can take the lead on mainstreaming RECP approaches – to do this, it needs further seed money; ➤ To increase prioritization of RECP practice to genuinely support Ukrainian industrial interests, it is recommended to allocate public money to the RECPC – and/or strategically channel EU funding to enforce EU-compliant industrial practices, with a clear vision of preparing Ukrainian industry to be competitive in the European market, which is a lever for massively and broadly cleaning up Ukrainian industry; ➤ To support the communication and adoption of RECP concepts, it is recommended to initiate a resource efficiency cleaner production programme to weave RECP intention and vocabulary into the fabric of government policy and action; ➤ While channelling EU funding to incite Ukrainian industry to align itself with EU norms, the Ukrainian government must align its legislation with that of the EU, prior to its accession to this community.
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Recommendation #2:	Embrace the RECPC’s inherent nature as a Competency Centre, with the accompanying justifications and implications for assuring its continuation.
Responsibility:	UNIDO, SECO, RECPC
Priority Level:	Critical Recommendations
Timeframe for implementation:	Immediate
Context:	<ul style="list-style-type: none"> ➤ The RECPC’s vision and mission point to the expectation for it to become a “self-financed knowledge-based organisation”, disseminating the RECP concept. UNIDO’s description of the RECP Programme indicates that it was established to respond to countries’ growing demand for help with the delivery of RECP services; in Ukraine, there is not a demand for such services. The RECPC has a different role

	<p>at this stage of the nation’s industrial development.</p> <ul style="list-style-type: none"> ➤ With over 20 years of accumulated experience, UNIDO’s RECP programme is arguably in a position to ascertain differences between countries’ situations (e.g. by assessing the environment of a project/RECP Centre with key indicators like the cost of carbon fuels, budget for environmental inspections, etc.) and gauging how far environmental costs are increasingly being borne by enterprises (e.g. through carbon taxes, fees for waste disposal, etc.) in order to offer the appropriate type of support. Such an analysis would point to whether such a Centre should be more oriented towards supporting the government to establish a facilitating environment for RECP – or could already move to a self-sufficiency strategy from the sale of commercial services to enterprises. ➤ The RECPC is understood to be a Competency Centre: it provides information and services that may not be deemed immediately bankable by the market but these support organisations’ pursuit of long-term, strategic policy goals; ➤ Traditionally, the RECP vision and goal are far more valued by its sponsors than by private sector actors. For-profit organisations will never be the only or main beneficiaries of RECP measures; the actual beneficiaries are the wider population, flora, fauna, and future generations; ➤ The RECPC was expected to become self-sustaining from income generated through different sources, including government and donor funds and provision of commercial RECP services. Developing a market out of a service that is not yet recognized as being a revenue-generating activity where RECP demand and supply forces are not functioning optimally is challenging; furthermore, national industrial policy has not been fully elaborated and compliance requirements are not clear nor with ‘teeth’ (enterprises would rather pay the fines than improve performance); ➤ The aim of reaching financial self-sustainability is better suited to an imagined future period when demand for RECP services might stem from a more mature socio-political setting, a stronger enforcement context for national environmental legislation, and/or incentives generated by EU accession or other external forces. The risk of insisting that the RECPC continues its existence, post project, as a “service provider” and “profit centre” is that these notions mask the Centre’s more powerful deployment as a policy tool of the national government.
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Recommendation #3:	Explicitly search for opportunities to use the Centre and work with the RECPC as a privileged partner.
Responsibility:	UNIDO, Government of Ukraine, SECO (and other international donors)
Priority Level:	Important recommendation
Timeframe for implementation:	Following the project’s closure
Context:	➤ Given the Centre’s success in winning tenders on the open market in the project’s final phase (as oriented by the Swiss Reference Centre’s support and presumably encouraged by UNIDO and the donor), there was optimism that the Centre would be able to maintain its operations for the near future. The extent to which such an approach will enable the RECPC to avoid the fate (shrinkage) of many NCPs

	<p>established with UNIDO and Swiss support after project close remains to be seen;</p> <ul style="list-style-type: none"> ➤ The Centre has been left with a strategy to opportunistically pursue its mission through project acquisition; it appears to possess the skills to prepare and win bids to implement international donor projects. However, this puts the Centre in an unreliable situation, subject to the winds of changing topics driven by the agendas of others; this does not automatically translate into the ability to develop and pursue a coherent strategy to sustain the project’s benefits; ➤ The RECPC is a national operationalisation of the UNIDO-SECO vision for a key contribution to the country’s sustainable development through the continuous application of preventive environmental strategies to processes, products, services to increase efficiency and reduce risks to humans and the environment; having established a physical representation of this vision on the ground in Ukraine, its sponsors have the responsibility and opportunity to adopt a more intentional strategy in order to maximally leverage its operation towards the RECP vision ➤ Recognizing the Centre’s value as a tool for implementing government policy (as opposed to being placed into the box of “service provider” obliged to sustain its operations in competition with private sector consultancies), the RECPC is analogous to an entity like GIZ’s International Services, which benefits from institutional support, infrastructure, and networks financed by German taxpayers (which private sector actors would contend obstructs the laws of a free market; but in reality, these services support public-funded policy). Following the logic of this analogy, it is legitimate for the RECPC to benefit from public funded support because it exists to further national policy in specific areas. ➤ Therefore, UNIDO and SECO are recommended to explicitly and intentionally search for opportunities to use the RECPC and work with the Centre as a privileged partner; this would heighten sustainability of the Centre and the project’s benefits as well as enable a coherent strategy and implementation of mission; an upcoming example is the RECPC’s participation in the Swiss-funded, UNIDO-implemented Eco-Industrial Parks (EIP) programme; ideally, the Centre would be positioned in this project in a way that would enhance its institutional legitimacy, giving it a strategic platform to dialogue with Ukrainian government partners – together with the opportunity to strengthen its competences in RECP policy advice (currently a weak point – see Recommendation #5); ➤ Beyond UNIDO and SECO, all relevant national and international actors should be encouraged to recognize the Centre as a reliable partner and to think about how to use the RECPC instrument in a more strategic and intentional manner.
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Recommendation #4:	Adopt a country strategy to improve coordination across projects and donors operating in Ukraine with the aim of harnessing synergies to enhance impact and to build understanding of the RECPC’s capacities and ways in which the Centre could contribute as a partner to others’ missions and goals.
Responsibility:	UNIDO Headquarters in Vienna, UNIDO Focal Point in Ukraine
Priority Level:	Opportunity to Improve
Timeframe for implementation:	2021
Context:	➤ While the Project Document outlined an abundance of opportunity for synergizing efforts towards the project’s development objective, the extent to which

	<p>coordination had taken place to achieve these effects was not evident. Informants mentioned that some meetings had taken place in the past amongst donors to discuss different project ideas and how to cooperate and find synergies – and that the Centre had been invited to present its services to the different donors; there was a joint meeting of the EU delegation, SECO, UNIDO, and the RECPC in December 2020;</p> <ul style="list-style-type: none"> ➤ Currently, six UNIDO projects were being implemented in Ukraine, valued at USD 15.27 million, funded by three donors (Government of Austria, Government of Switzerland, and the GEF); informants mentioned that they experienced three of these projects as operating in overlapping fields: promotion of resource efficiency through the RECPC; promotion of cleantech innovation (related to low carbon, energy efficiency, renewables); and introduction of energy efficiency standards. Ukraine was also a pilot country in the Swiss-funded global programme for eco-industrial parks launched a year previously, being implemented by UNIDO; ➤ More coordination across donors and projects could enhance the leverage and catalytic impact of the large volume of external assistance being channelled towards Ukraine, with more to come in future; it is understood that Switzerland has established a 3-tier structure to enhance coordination between the government and other development partners; ➤ While the RECPC was, at present, a well-respected implementer for (parts of) international projects and programmes (e.g. it conducted energy audits for GIZ as part of an energy efficiency campaign), donors did not have a broad picture of the Centre’s capacities and the ways in which the Centre could contribute as partner to their missions, goals, and visions. ➤ It is understood that the Centre implements EU4Environment project, is a member of the Steering Committee of an EMS project and had developed contacts with at least 3 other projects. While paths for information exchange and participation in mutual events had been established, a level of strategic partnership across projects and donors that could lead to joint planning, co-financing, and joint efforts did not exist and was, according to informants, undermined by the competition amongst projects. ➤ In this light, UNIDO is recommended to consider the adoption of a country strategy vis-à-vis its activities in Ukraine with country portfolio manager responsibility established at headquarters’ level to optimize synergies across its projects, support the UNIDO Focal Point in Ukraine, to interface with other agencies operating in Ukraine, in the spirit of enhancing coordination and impact.
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Recommendation #5:	Enhance the staff mix to assure expertise and capabilities on the team for delivering all aspects involved in fulfilling the RECPC’s vision and mission, notably with respect to policy advice and financial mechanisms, where there are current shortfalls.
Responsibility:	RECPC
Priority Level:	Critical Recommendation
Timeframe for implementation:	2021
Context:	➤ While technical specialists have been attracted to work at the Centre, which has now developed a highly respected reputation for its RECP expertise, its current

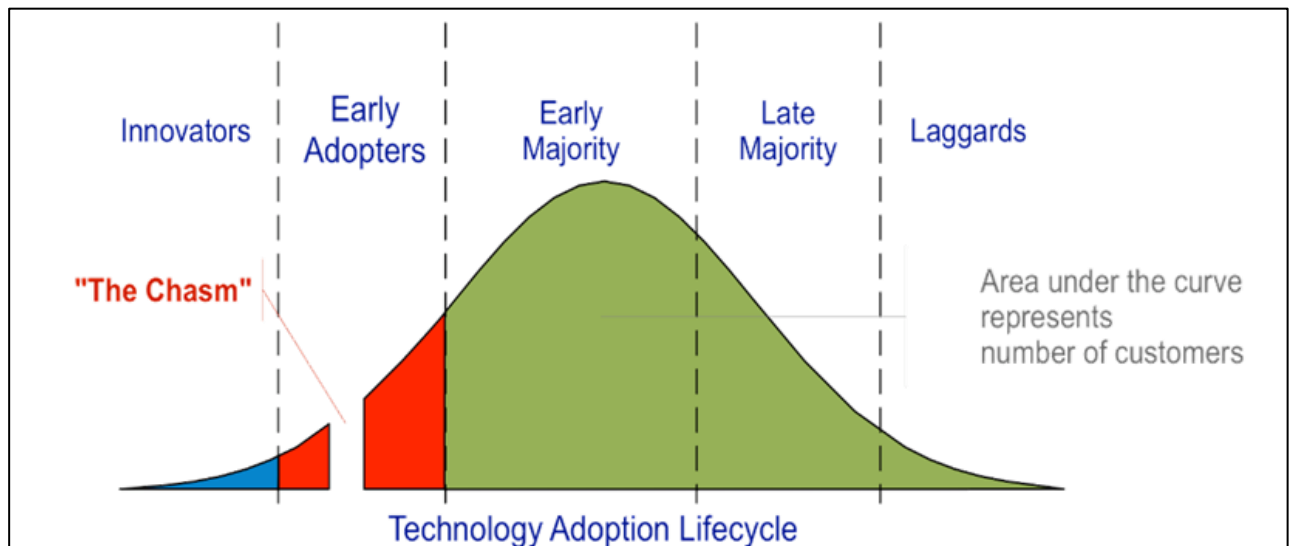
	<p>staffing profile does not fully reflect the capabilities for delivering all aspects involved in fulfilling the RECPC’s vision and mission, notably with respect to policy advice and financial mechanisms;</p> <ul style="list-style-type: none"> ➤ While efforts have been undertaken with the project’s support to strengthen the current team towards such domains, there is nonetheless a shortfall in the background, orientation, and skillsets to position and enable the RECPC to play its role legitimately, competently, and fully as a national policy tool; ➤ It is recommended to identify and onboard experts in these domains, ideally in relation to a mandate (e.g. the EIP programme) that would position the RECPC at a level of strategic dialogue with governmental counterparts, thereby providing the framework to utilize such capabilities and strengthen the Centre’s legitimacy to operate at this level – while giving an opportunity to contribute to strengthening the framework conditions for fostering RECP and its mainstreaming in Ukraine.
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Recommendation #6:	Strategically leverage the RECP capability pool to achieve catalytic effect by identifying individuals and organisations in target sectors that could and would act as RECP references, ambassadors and advocates to create a snowball effect to build up mass and momentum for this innovation to Ukrainian industrial practice, based on insights on diffusion of innovation.
Responsibility:	RECPC
Priority Level:	Opportunity for Improvement
Timeframe for implementation:	From 2021 until RECP is adopted by a large portion of the ‘early majority’
Context:	<ul style="list-style-type: none"> ➤ The RECPC has built up a pool of highly respected technical expertise. It is vital to maintain this asset and ensure that the capabilities and motivation that have been built up do not deteriorate from disuse. ➤ Working from the assumption that skills deployed will not decay, it is nevertheless important to leverage this talent pool in a strategic way, to build catalytic effect; ➤ The attitude and capacity of the Ukrainian private sector to adopt RECP, which is seen as a major innovation to existing industrial practice, overshadows the Centre’s endeavours to introduce this approach and demonstrate its value; ➤ Without drivers of enforcing compliance to a legislative framework and tangible incentives to improve environmental performance, it could be expected that the Centre would continue to face an uphill battle in opening the eyes of the business community to the notion that RECP adoption was central to their survival; ➤ Enterprises already engaged with the Centre were positively disposed towards RECP and would recommend its services to others; this points to the traction that the RECPC had gained with so-called ‘innovators’ and ‘early adopters’; ➤ Informed by insights from the diffusion of innovation, it is recommended that the RECPC concentrate its efforts on building acceptance/implementation of RECP amongst an increasingly larger cohort of ‘early adopters’. Such a strategy involves less focus on simply “getting the numbers”, as was observed during the project’s implementation. Instead, it requires more networking, leveraging of Advisory Board contacts and other stakeholders, together with analysis to specifically identify which sectors and within that, which companies and other actors could and would act as meaningful references, ambassadors, and advocates to create a snowball effect to help “cross the chasm” and build mass and momentum with the

'early majority' (see **Figure 7**), at which point it could be considered that RECP practice has been mainstreamed as a value throughout Ukrainian industry, subsequently embraced by society at large, over time;

- Taking account of the Centre's experience thus far in the project's demonstration activities, it is further recommended to insist on enterprises' mandatory financial participation in the implementation of measures (e.g. in the range of 10-15%) in order to foster ownership, commitment, and the capture of 'low hanging fruit', inspiring interest in further potential benefits;
- Such a recommendation should be organised in conjunction with the Centre's activities to link RECP assessment and implementation with existing or planned national and international subsidies, incentives, financial mechanisms. The Centre would need to allocate resources to developing such activities and this would likely necessitate the engagement of qualified staff, as this is outside the RECPC's existing organisational profile although it was within the remit of the project's support (this was an area where the envisaged outcomes were not fully achieved).

Figure 7 – Diffusion of Innovation



Source: Geoffrey Moore (1991), Crossing the Chasm www.geoffreyamoore.com

Annex 1 – Evaluation Terms of Reference (ToR)

The complete evaluation Terms of Reference could be accessed at the below link:

<https://www.unido.org/resources-evaluation-and-internal-oversight-evaluation/terms-reference-ongoing-and-past-evaluations>



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE

Independent terminal evaluation of 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

UNIDO PROJECT ID: 104112

Annex 2 – Recommendations from Independent MTR (2015)

Recommendations to UNIDO (Environment Branch, project specific)

- (1) Apply for a no-cost extension of at least two years.
- (2) Revise the logical framework and implementation modalities along the following lines:
 - a. Update the logical framework to respond to the current situation and to the fact that the RECPCU has already been established.
 - b. Fully replace direct funding of RECPC's costs (in particular, staff salaries) through full-cost service contract (not linked to an activity-based budget) for implementation of all local activities. Handover equipment procured under the Project to the RECPCU. Funding should be gradually phased out until the end of 2018 upon an agreed schedule. Annually commission a full audit of the RECPCU's financial statements.
 - c. Separate governance and management structures of the Project and the RECPCU.
 - d. Continue to support the RECPCU with well-tailored and flexible technical support.
 - e. Consider assisting the RECPCU in developing service capacities in additional sectors (e.g. agricultural production, the hospitality sector, public housing, municipalities) and/or geographical regions with a high demand. The question on whether, to which regions and how to expand should be taken based on an assessment of costs and benefits through a business plan rather than merely the aim to achieve the broadest geographical coverage possible. Further expansion should only start after consolidation of the current operations and after the necessary organizational capacities of the RECPCU have been strengthened.
 - f. Consider assisting the RECPCU in developing service capacities for additional value-added servicing relating to RECP; in particular, engineering (technology implementation), support companies in preparing for energy/environmental management certifications, establishing bankable business plans for companies applying for funding for technological upgrading and assisting companies in liaising with financial institutions and investors.
 - g. Consider assisting the RECPCU in developing proposal for the implementation of donor-funded initiatives (in fields that match its competencies and to not conflict with the existing Project).
 - h. Develop a clear strategy for communication and advocacy activities to be provided through the RECPCU.
 - i. Develop a clear strategy on how the RECPCU could support the government to implement the EU-Ukrainian Association Agreement. This should include the positioning of the RECPCU as a partner for the international donor community.
 - j. Develop a gender policy for RECPCU and get it formally approved.
- (3) As a part of institutional strengthening, reinforce (in addition to complementing technical capacities where needed) on a demand-basis the managerial capacities of the RECPCU along the following lines:
 - a. Coaching of the RECPCU's management in day-to-day operations.
 - b. Retain an experienced business planning specialist to support management of the RECPCU in developing a business plan that meets good practices.
 - c. Obtain legal advice (full legal due diligence) on what would be the most appropriate structure for the RECPCU to implement its business plan.
 - d. Support the RECPCU in preparing for and obtaining ISO 91 certification.
 - e. Retain an experienced marketing specialist to support the RECPCU in developing a full marketing plan that meets good practices.
 - f. Retain a financial management specialist to support the RECPCU in establishing a proper

financial and managerial accounting system, which is suitable for the RECPCU's regular operations as a service provider.

- g. Retain a reputable audit firm to conduct a full annual financial audit (requesting a report and a management letter).
- h. Assess organizational capacities of the RECPCU around one year before the Project ends to identify additional areas of support required.

Recommendations to UNIDO (general)

- (4) Where an expected result of development interventions is the establishment of organizations (e.g. service providers), UNIDO should develop a systematic approach to the strengthening their institutional capacities (including governance, strategic management, financial management, marketing, human resource management) rather than only providing technical capacity building. Support should be provided based on an in-depth organizational assessment of beneficiary organizations and be gradually phased out in line with a business plan agreed upon. Institutional development support should be provided through management specialists.

Recommendations to the Governments of Switzerland and Austria

- (5) Favourably consider UNIDO's request for a no-cost project extension of at least two years.

Recommendations to the RECPCU

- (6) Consistently apply governance and management mechanisms as outlined in the Charter.
- (7) Obtain endorsement from its founders to amend legal structures in a way that are conducive to delivering services on a commercial basis, taking into account legal advice obtained (see recommendation to UNIDO above).

Lessons Learned

- Establishing RECPCs that as service providers within a global network are able to perpetuate project benefits is a core element of UNIDO's RECP Programme. Strong institutions require both technical and managerial competencies. UNIDO needs to develop a systematic approach to the strengthening of institutional capacities beyond merely technical capacity building. Managerial development support needs to be provided through in-depth coaching and hands-on support by management specialists rather than through generic capacity building only.
- Attention should be paid to a legal set-up that allows RECPCs to function as service providers (to companies, donor-funded projects and where possible to government institutions) on commercial terms in order to ensure sufficient revenue generation to cover the costs of fulfilling their mandates beyond the end of UNIDO's support. The choice for an appropriate legal form of establishment requires a proper legal due diligence by a lawyer familiar with nationally appropriate legal forms.
- Where RECPCs have already been established as legally independent institutions with a functioning basic institutional structure, contracting beneficiary institutions to implement project activities rather than providing core-funding is conducive to institutional development, but it should be consistently implemented. This means that (a) funds provided to RECPCs to implement project activities should be provided under full-cost service contract that is not linked to an activity-based budget based on UN cost norms and (b) that management and staff of the RECPCs should not be seconded by UNIDO. In turn,

RECPCs should be subject to a stringent audit for the duration of UNIDO's support.

- Projects may be phased in a way that distinguishes between project support prior and after the establishment of RECPCs. After the establishment of RECPCs as independent institutions, logical frameworks should differentiate between deliverables of UNIDO (main focus on strengthening the RECPCs) and those of the RECPC (main focus: service delivery to companies and for the common good). Also, project management by UNIDO and governance/management of the RECPC as a beneficiary institution (including accounting) should be clearly separated.
- Exchanges among the RECPC network are potentially powerful tools for effective capacity building. If not carefully managed by UNIDO, the risk of experience sharing within the RECPC network is that new centers take up of "bad practices" (e.g. flaws in business planning) or replicate models that are not appropriate within a specific country context.

Annex 3 – List of Documents and Other Resources Consulted

Country Context

The World Bank (2020), Doing Business 2020: Comparing Business Regulation in 190 Economies, <http://documents.worldbank.org/curated/en/688761571934946384/pdf/Doing-Business-2020-Comparing-Business-Regulation-in-190-Economies.pdf>

UNDP (2019), Human Development Report 2019: Beyond Income, Beyond Averages, Beyond Today: Inequalities in Human Development in the 21st <http://hdr.undp.org/en/2019-report>

UNDP (2019), Inequalities in Human Development in the 21st Century, Ukraine Briefing Note http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/UKR.pdf

Index Mundi, Ukraine County Profile 2019 <https://www.indexmundi.com/ukraine/>

Central Intelligence Agency (last updated September 2020), The World Factbook: Ukraine <https://www.cia.gov/library/publications/the-world-factbook/attachments/summaries/UP-summary.pdf>

Theodora: <https://theodora.com/wfbcurrent/ukraine/index.html>

Media Reports

GIZ, Advisory Services for Energy Efficiency in Companies (in Ukraine), project description implemented with Ministry of Economic Development, Trade and Agriculture of Ukraine (2017-2021) <https://www.giz.de/en/worldwide/58792.html>

Green Growth Knowledge Platform, *Ukraine – Create Action Plan on Introducing Resource Efficient and Cleaner Production*, <https://www.greengrowthknowledge.org/big-e/ukraine-create-action-plan-introducing-resource-efficient-and-cleaner-production>

4 February 2016, Open for Business: Business News from Ukraine *Ukrainian Enterprises Begin to Introduce Resource-Efficient Production Technology* <https://open4business.com.ua/ukrainian-enterprises-begin-to-introduce-resource-efficient-production-tehnology/>

Funder and Implementing Agency

Resource Efficient and Cleaner Production Program in Ukraine <https://www.eda.admin.ch/countries/ukraine/en/home/internationale-zusammenarbeit/projekte.html/content/dezaprojects/SECO/en/2011/UR00511/phase1>

Switzerland's Activities in Ukraine (Swiss Cooperation Strategy 2015- 2018, CHF 100 million) <https://www.eda.admin.ch/eda/en/fdfa/fdfa/aktuell/dossiers/alle-dossiers/engagement-der-schweiz-in-ukraine.html>

Swiss Cooperation Office in Ukraine (supporting Swiss Cooperation Programme 2020 – 2023) <https://www.eda.admin.ch/countries/ukraine/en/home/representations/embassy-in-kiev/cooperation-office.html>

21 July 2020, Ukrinform (Ukrainian multimedia platform for broadcasting), *Switzerland Allocates CHF108M for Humanitarian Aid to Ukraine – Zelensky* <https://www.ukrinform.net/rubric-society/3067383-switzerland-allocates-chf-108m-for-humanitarian-aid-to-ukraine-zelensky.html#:~:text=Switzerland%20has%20allocated%20108%20million,today%2C%20an%20Ukrinform%20correspondent%20reports.>

19 July 2019, *Switzerland and UNIDO Deepen Partnership to Support Global Eco-Industrial Park Development* <https://www.unido.org/news/switzerland-and-unido-deepen-partnership-support-global-eco-industrial-park-development>

UNIDO Progress Report on RECP Programme to SECO (covering Jan-Dec 2013), prepared by René van Berkel

Project Description and Selected Project Documentation

UNIDO's Open Data Platform <https://open.unido.org/projects/UA/projects/104112>

Project Document #104112 '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'

RECPC website: www.recpc.org

Project Management Report (2019) on the UNIDO Project 'Promoting the Adaptation and Adoption of RECP through the Establishment and Operation of a Cleaner Production Centre (CPC) in Ukraine'

RECPC's Operational Report (2019), prepared in relation to Terms of Reference dated 14 January 2019 and those in the amendment 1 dated 1 October 2019

Independent Mid-Term Evaluation (June 2015) of the UNIDO Project 'Promoting the Adaptation and Adoption of RECP through the Establishment and Operation of a Cleaner Production Centre (CPC) in Ukraine'

Steering Committee Meeting minutes (26 February 2020)

Evaluation Guidance and other Resources

UNIDO Evaluation Manual, April 2018 <https://www.unido.org/sites/default/files/files/2018-04/Evaluation%20Manual%20e-book.pdf>

Integrating Human Rights and Gender Equality in Evaluations, UN Evaluation Group (UNEG), August 2014 <http://www.uneval.org/document/detail/1616>

Independent Terminal Evaluation Project ID# 100050 Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries (Independent Evaluation Division, UNIDO), December 2017

<https://www.unido.org/sites/default/files/files/2018-03/100050-RECP%20Ind%20Eval%20Report.pdf>

Independent Mid-Term Review Project ID# 100050 Joint UNIDO-UNEP Programme on Resource Efficient and Cleaner Production (RECP) in Developing and Transition Countries (Independent Evaluation Division, UNIDO), October 2015

<https://open.unido.org/api/documents/3195627/download/Independent%20Mid-Term%20Evaluation%20100050>

Annex 4 – List of Stakeholders Consulted

Related to UN Agencies (2)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Petra SCHWAGER	UNIDO	Project Manager	Vienna, Austria
Tatiana CHERNYAVSKAYA	UNIDO	Industrial Development Expert, Coordinator of EU-funded EU4Environment programme introducing RECP and circular economy initiatives in Eastern Partnership countries (Armenia, Azerbaijan, Belarus, Georgia, Republic of Moldova, Ukraine)	Vienna, Austria

Related to Technical Support (4)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Branko DUNJIC	UNIDO	Chief Technical Advisor (CTA)	Belgrade, Serbia
Heinz LEUENBERGER	Ex-UNIDO	Former CTA	Solothurn, Switzerland
Prof. Dr. Christoph HUGI	Fachhochschule Nordwestschweiz (FHNW)	Swiss Reference Centre Consortium Lead (Business Plan and Strategy responsible)	Muttenz, Switzerland
Hildegard NIBEL	HR Risk Management	FHNW consortium consultant and coach	Zurich, Switzerland

Related to Donors (3)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Priska DEPNERING-NYDEGGER	Deputy Director of Cooperation and National Programme Officer, Swiss Cooperation Office in Ukraine Embassy of Switzerland in Ukraine	Donor	Kyiv, Ukraine

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Ganna (Anna) KUYNETSOVA	National Programme Officer, Swiss Cooperation Office in Ukraine, Embassy of Switzerland in Ukraine	Donor	Kyiv, Ukraine
Philipp ISCHER	Program Manager in Economic Cooperation and Development, Swiss State Secretariat for Economic Affairs (SECO)	Donor	Bern, Switzerland

Related to National Governance (5)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Vyacheslav BYKOVETS	Director General, Union of Small, Medium, and Privatized Enterprises of Ukraine and Deputy Head of the Council of the Federation of Employers of Ukraine vyacheslav.bykovets@gmail.com	Advisory Board Chairman	Kyiv, Ukraine
Serhii SIDORENKO	Vice Rector on Scientific and Pedagogical Work/International Relations, National Technical University of Ukraine Igor Sikorsky Kyiv Polytechnic Institute (Igor Sikorsky KPI)	Steering Committee Member RECPC c Founding institution	Kyiv, Ukraine
Sergiy SHUKAYEV	Deputy Head, International Cooperation Department, Igor Sikorsky KPI	RECPC co-founding institution	Kyiv, Ukraine
Tamara BURENKO	State Agency for Energy Efficiency and Energy Saving (SAEE) Deputy Director of Department for SAEE Strategic Development	Advisory Committee Member	Kyiv, Ukraine
Liudmyla MUSINA	Planning Advisor, Ukrainian Ministry of Economy (UNIDO Focal Point in Ukraine)	Steering Committee Member	Kyiv, Ukraine

Related to the RECPC (14)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Andrii VORFOLOMEIEV	RECPC	Director	Kyiv
Anna IVANETA	RECPC	Head of Administrative Department, Steering Committee Member, Advisory Board Secretary	Kyiv

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Kateryna ROMANOVA	RECPC	Communication and Advocacy Expert	Kyiv
Renata TSITSIKAN	RECPC	Administration Manager	Kyiv
Olexiy TCHAYKOV'S'KY	RECPC	Regional Coordinator, Central Region	Kyiv
Nadia SHMYGOL	RECPC	Regional Coordinator, South Region	Zaporizhzhia
Ivan OMELCHUK	RECPC	Regional Coordinator, East Region	Kharkiv
Volodymyr POPOVYCH	RECPC	Regional Coordinator, West Region	Lviv
Serhii KHUDOBIN	RECPC	Business Development Manager, Steering Committee Member, Head of Department, Ukrainian League of Industrialists and Entrepreneurs, Co-founding institution	Kyiv
Kostiantyn TADLIA	RECPC	Technical Director	Kyiv
Tetiana DEHODIA	RECPC	Deputy Director, Business Development Manager	Kyiv
Olena TABACHUK	RECPC	Chemical Management Expert	Kyiv
Oleksandr KHOKHOTVA	RECPC	Chemical Management Expert	Kyiv
Valerii PAVSHUK	RECPC	Technical Advisor	Kyiv

Clients (7)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Zaporizzia VOGNETRUV	Director, Zaporizhvognetryv PJSC	Existing client (East) Manufacturer of refractory ceramic products, cast iron and non-ferrous metals casting	Region (South)
Sergii SYVOLOBOV	Director, PTK Ltd. (Disla)	Existing client (Central) Installation of special purpose equipment; manufactures units, parts, accessories for motor vehicles and engines	Kyiv (Central)
Artem PARKHOMENKO	Director of Company PJSC «Rozdil Ceramic Factory»	Existing Client (West) Building materials industry (production of ceramic bricks)	Lviv (West)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Olena IVASENKO	Director "Alitoni" LLC	Existing Client (Central) (Lighting Industry)	Kyiv (Central)
Ricardo KUELHEIM Svitlana CHEBOTARYOVA	Project Officers, Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH (GIZ)	Contracted RECPC to deliver Energy Efficiency services in Ukrainian companies; potential future client	Kyiv, Ukraine
Viktoria MYKHAILENKO	Cultural Affairs Assistant, Public Affairs Section, U.S. Embassy in Ukraine	Contracted the RECPC for PREMETHU-U.S. project; potential future client	Kyiv, Ukraine

Competitors (1)

Name	Organisation	Role vis-à-vis RECPC Ukraine	Location
Serhii ZIMENKO	TOP INFORM	Granted online training certificate in November 2020	Kyiv, Ukraine

Annex 5 – Interview Protocol

Preamble

This evaluation has been commissioned by UNIDO for an independent assessment of the RECPC. It has 2 dimensions:

- a) **Backward-looking**: assessing performance and achievements particularly over the past 5 years*
- b) **Forward-looking**: gathering stakeholder input and recommendations to sustain its results and benefits.*

What was your role in the project, and are you satisfied with your contribution?

Relevance

- 1) What is the RECPC's **key added value** for Ukraine? What is the Centre's USP (**unique selling proposition**) ?
- 2) In which ways does the RECPC support government/national/regional/municipal institutions to fulfil their mandates? Have the **'right' institutions and beneficiaries been engaged** in the project?
- 3) Is the establishment of the RECPC too early, too late, or exactly at the right time?

Effectiveness

- 4) What **criteria** do you use to judge the effectiveness of the RECPC?
- 5) What would you consider as its **key successes**?
- 6) What are its **shortfalls** / weaknesses? In which ways can the RECPC become even more relevant and more effective in **dynamizing and supporting resource efficient cleaner production** in Ukraine?
- 7) Which results (**outcomes**) of the RECPC are you particularly proud of? Who had key roles in delivering this?
- 8) To what extent (in %) do you believe the programmed outputs will be delivered by the project's close Dec 2020?
If not 100%, what are the **obstacles**? If 100% will be achieved, what are the **facilitating factors**?
- 9) Has the **training and tools** available through the RECPC been useful for advancing RECPC?
- 10) Are **gender issues** sufficiently addressed by the RECPC? In which areas could there be **more responsiveness**?

Efficiency

- 11) Has the RECPC **delivered sufficient results within the expected timeframe**? Was this done in an efficient manner? Any examples of **wasted resources**; any examples of **cost-saving measures**?
- 12) What factors have influenced the Centre's efficiency? (constraints that had a negative influence, unexpected assets that generated positive influence, etc.)
- 13) Do you have any feedback about the **duration, sequencing, and resourcing** of the project's activities?

Project Management, Governance

- 14) Are you satisfied with the **RECPC's management**? Does it positively or negatively influence results? On a scale of 1 to 10 (1 is very little, 10 is fully), how would you rate the Centre's management?
- 15) Has the Centre's **governance structure** assured an efficient and effective use of resources? On a scale of 1 to 10, how would you rate the RECPC's governance?
- 16) How well does the **Steering Committee** function in performing its duties?
- 17) How well does the **Advisory Committee** function in performing its duties?

Impact and Learning

- 18) What **changes in attitude and/or behaviour** have been stimulated and supported by the RECPC? Please provide specific examples? Are they replicable? Can they be upscaled?
- 19) If you have not already seen evidence of the anticipated changes, what is the **likelihood** that envisaged impacts will actually occur in the next 2 years? What **obstacles are in the way of realising those changes**?
- 20) Are you aware of any information, lessons, or specific results that have been incorporated into broader stakeholder mandates or initiatives (e.g. laws, policy, regulation, projects)? (**replication, mainstreaming**)
- 21) What are the most **important lessons** stemming out of the RECPC's operation thus far? To what extent have its methodologies, lessons, and/or technologies been **adopted and/or reproduced**?

Sustainability

- 22) To what extent have relevant stakeholders been empowered and equipped to carry forward the process that has been started with this project? How could **partnership arrangements** be improved to enhance the Centre's reach and sustainability?
- 23) Are you confident that the RECPC will **continue to operate** (following the exit of UNIDO and Swiss government support)? What factors would enable the Centre to reach financial self-sufficiency? Which factors could hinder?
- 24) What other institutions (individuals?) need to be engaged, in which ways, to assure the Centre's continuation and create a path for replication and scaling up?
- 25) In which ways could **resources be mobilized** to assure the RECPC results are sustained?

Annex 6 – Client Survey

This online survey was designed and administered using SOGO Survey, using a rating scale in accordance with UNIDO's 6-point scale, with space for elaboration of ratings, provision of comments, clarifications, etc.

s#	Question	Answer
1.	How did you learn about RECP Centre?	<input type="checkbox"/> RECPC site <input type="checkbox"/> Social networks (Facebook, Twitter etc.) <input type="checkbox"/> Conferences, Workshops, Training Courses <input type="checkbox"/> Word of mouth, reference <input type="checkbox"/> Other (please, indicate) _____
2	Are you satisfied with the level of communication with the management and experts of the RECP Centre? (from 1 to 6) (1 - absolutely not satisfied, 6 - absolutely satisfied)	If "1" - absolutely not satisfied, please, indicate why? _____
3	Are you satisfied with the service(s) provided by RECP Centre? (from 1 to 6 where 1 - absolutely not satisfied, 6 - absolutely satisfied)	If "1" - absolutely not satisfied, please, indicate why? _____
4	Did you realise positive results after implementing the Centre's recommendations? (in terms of production cost reduction, energy and resources savings, GHG emission reduction; other benefits?)	(Yes/No) Please elaborate
5	What RECP technologies/services were implemented/provided in your company?	Please elaborate
6	What services could the RECP Centre offer that you need and would be ready, willing, and able to pay for on a commercial basis?	
7	Is there a better alternative, in your eyes, than the RECPC for supplying these services? If so, who?	Please elaborate
8	How would you evaluate the background and experience of Centre's experts? (from 1 to 6) (1 – poor, 6 – excellent)	
9	Are you ready to recommend RECPC service(s) to the other potential clients/customers? (Y/No)	
10	Any other comments, suggestions, proposals? (How to improve RECPC service offering?)	Please elaborate

Social Media Survey

The following four questions were placed in five of the RECPC's social media channels (¶16):

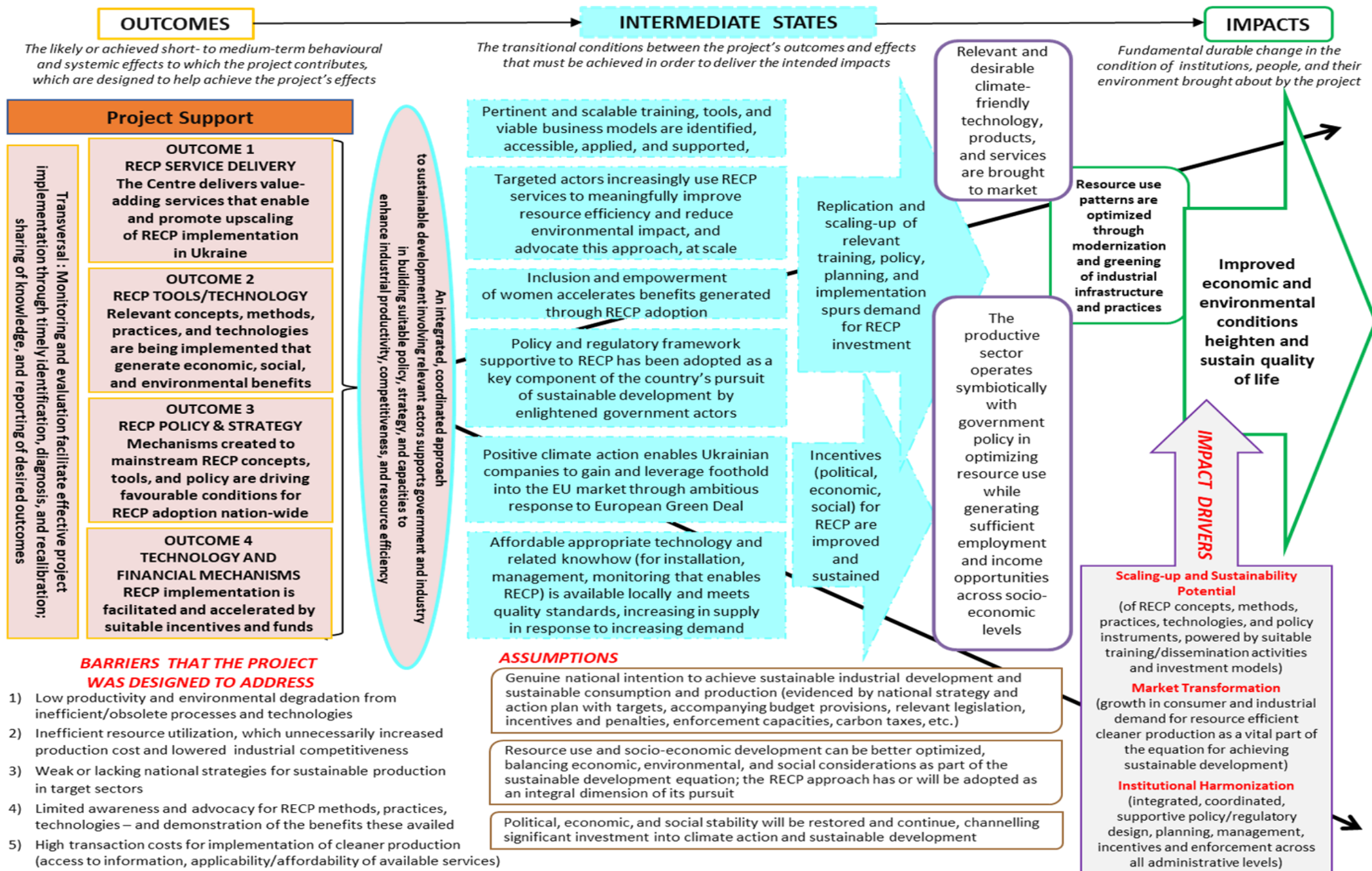
- Do you think that the Centre for Cleaner Production is doing important and useful work for both society and the environment? (Y/N, Hard to tell)
 Як Ви вважаєте, Центр займається вагомю і корисною справою для суспільства та довкілля? (Так, Ні, Важко відповісти)
- Were the publications posted on the Centre's website/social networks useful to you? (Y/N, Hard to tell)
 Чи були для Вас корисними матеріали, розміщені на сайті Центру або його сторінках? (Так, Ні, Важко відповісти)
- Have you ever participated in online trainings, conferences or other information events conducted by the Centre? (Y/N)
 Ви брали участь в онлайн тренінгах, конференціях або інших інформаційних заходах Центру? (Так, Ні)
- What additional information would you like to see on the Centre's website/social networks ? (please, describe)
 З якою ще інформацією Ви хотіли б ознайомитися на сторінках Центру? (опишіть)

Annex 7 – The Project’s Planned Outcomes, Outputs, and Indicators

Development Objective:		Indicators (aspects), after project closure	
Enhance efficiency, productivity, competitiveness, and environmental performance of companies, especially SMEs, through implementation of RECP methods, practices, and technologies.		1) <i>Environment</i> : reduced environmental footprint of companies and other organisations 2) <i>Production Efficiency</i> : increased resource productivity (including energy); reduced operational and/or compliance costs for SMEs and others 3) <i>Policy</i> : implemented and enforced policies and regulations conducive to RECP and RECP promoted at the national level 4) <i>Technologies and Financial Mechanisms</i> : increased RECP technology up-take and adaptation by target companies and sectors	
Output Category	Expected Outcome	Indicators	Planned Outputs (<i>updated following UNIDO 2018 Internal Review</i>)
Category 1: RECP (including Chemical Leasing) service delivery capacity	<u>Outcome 1:</u> CPC-Ukraine will deliver value-adding RECP services to companies, government organisations, business service providers that enable/promote RECP implementation scale-up	<ul style="list-style-type: none"> ✓ Recognition of the CPC by private and public sectors and civil society ✓ Quality of services and products available increased 	1.1 CPC established and operating as per agreed institutional and governance provisions 1.2 CPC staff and associated experts trained in basic and advanced RECP methods and applications
Category 2: RECP (including Chemical Leasing) applications at company level	<u>Outcome 2:</u> RECP concepts, methods, practices, technologies are implemented by Ukrainian companies and other organisations and their environmental, resource-saving economic benefits will be proved	<ul style="list-style-type: none"> ✓ Reduced environmental footprint of enterprises ✓ Increased resource productivity and chemical management of enterprises ✓ Reduced operational and compliance costs of enterprises 	2.1 Awareness and understanding of RECP opportunities and benefits improved at national/regional levels among companies, government, and other stakeholders 2.2 Demonstrated potential of RECP for reduction of waste, GHG and other emissions (water, raw material, etc.) and Chemical Leasing for sound management of chemicals and energy efficiency 2.3 Mechanisms established for sector-based replication and up-scaling of RECP results and opportunities in business 2.4 Results and benefits of RECP and Chemical Leasing demonstrations documented in verifiable, transparent manner
Category 3: RECP policy and strategy	<u>Outcome 3:</u> Mechanisms for mainstreaming RECP concepts and policy instruments will be created at suitable administrative levels in relevant national and regional policies and regulations	<ul style="list-style-type: none"> ✓ Increased role of RECP in environmental, industrial and other relevant policies at national/regional level and increased # of relevant policies introduced ✓ RECP practices and technologies embedded in technical guidelines of target sectors ✓ Policies, strategies, incentives and instruments for RECP increased ✓ Increased awareness levels for RECP in key departments and agencies 	3.1 Policy assessment carried out and RECP strategy developed 3.2 Enhanced implementation and enforcement capacity of the government for RECP-related policy and legislation 3.3 Capacity built on environmental protection, industrial cooperation, and standards focusing on the EU market 3.4 Technical guidelines for target sectors developed 3.5 RECP opportunities used for national implementation of Multilateral Environmental Agreements (MEAs): Persisting Organic Pollutants (POPs), Ozone Depleting Substances (ODS), GHG, hazardous waste, Clean Development Mechanism (CDM)
Category 4: Technologies and financial mechanisms	<u>Outcome 4:</u> Target companies are implementing RECP technologies and have achieved economic and environmental benefits	<ul style="list-style-type: none"> ✓ Increased availability and transfer of RECP technologies ✓ 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 	4.1 Professional capacities created and used to support adaptation, development, and transfer of RECP technologies 4.2 Awareness and understanding of RECP technology opportunities improved at national and regional levels 4.3 RECP technology opportunities identified as part of RECP assessments 4.4 Agreements and financial mechanisms to support RECP technologies developed and implemented

		<ul style="list-style-type: none"> ✓ Increased number of enterprises have implemented the innovation, transfer and development of RECP technologies ✓ Increased financial/human capacity for adaptation, development, transfer of RECP technologies 	<p>4.5 Economic and environmental benefits of RECP technology adaptation, development, and transfer verified</p> <p>4.6 Stakeholder platform to support RECP technology adaptation, development, and transfer established and is taking an active role in advocating RECP technologies at company level</p>
<p>Category 5: Project Portfolio</p>	<p><u>No outcome mentioned</u></p>	<ul style="list-style-type: none"> ✓ Secured role in industrial parks project (e.g. funded by GEF, SECO) 	<p>5.1 Portfolio diversification</p>

Annex 8 – Reconstructed Theory of Change



Annex 9 – Impact Data (2012 – 2020)

From RECPC Project Management Report covering 2012-2020

RECP Assessments

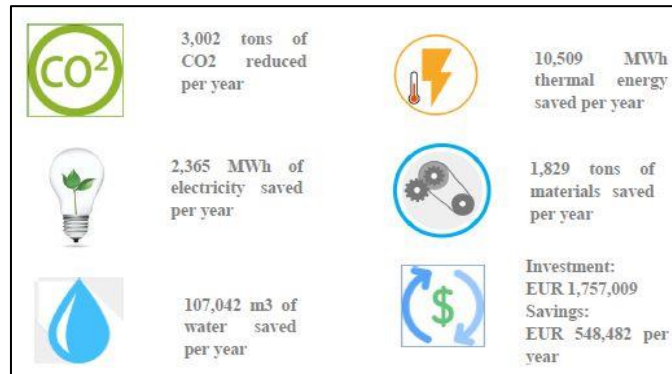
During 2012-2020, RECP experts trained by the Centre conducted technical audits for more than 140 companies by applying UNIDO’s methods of Cleaner Production. The following table provides an overview of the results achieved from the implementation of RECP:

RECP Assessments	2012	2013	2014	2015	2016	2017	2018	2019	2020
Number of assessments	Initiated CP projects in 19 companies	12 RECP assessments completed	19 RECP assessments completed	21 RECP assessments completed	32 RECP assessments completed	30 RECP assessments completed	30 RECP assessments completed	19 RECP assessments completed ⁷⁴	17 RECP assessments completed ⁷⁵
Number of options identified	-	49	84	72	144	123	99	59	57
Total economic savings identified, EUR/y	-	3,300,000	935,000	1,247,235	814,000	1,229,016	1,339,150	645,800	300,134
Reduction of material consumption, t/y	-	4,242	176	105	397	4,330	84	3,100	53
Reduction of water consumption, m ³	-	106,708	180,770	47,500	78,600	1,283,352	4,009	-	1,871
Reduction of energy consumption, MWh/y	-	33,425	19,367	28,120	23,630	28,938	43,302	10,400	8,147
Reduction of emission generation, t CO ₂ -eq./y	-	8,666	4,451	6,545	5,300	6,619	8,718	2,700	2,079
Reduction of waste generation, kg/y	-	-	-	-	-	-	-	28,400	125,017
Reduction of chemicals, kg/y	-	-	-	-	-	926	400	-	-

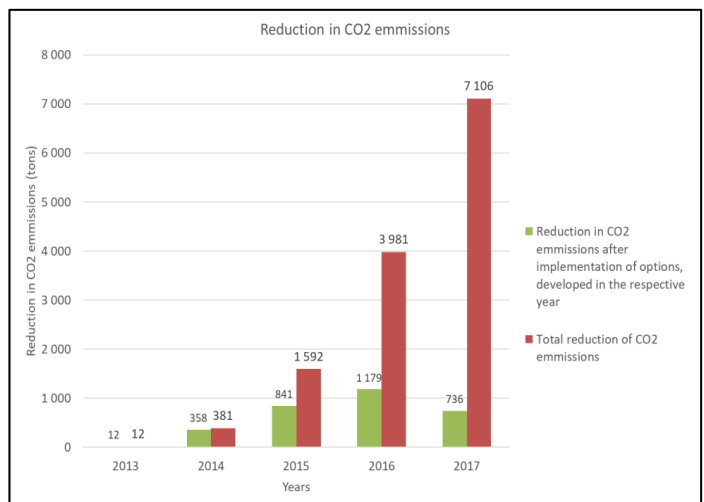
⁷⁴24 assessments were started. Some uncompleted assessments were finalized during the following year, others were not because of COVID-19 lockdown

⁷⁵ Total 25 contracts were concluded with companies. However, not all assessments were completed as some companies postponed their cooperation due to the COVID-19 lockdown

In close cooperation with the involved companies, in 2017, the RECPC monitored the implementation of options presented in assessment reports provided to the companies. During the 2012-2017 period, 50% of the companies implemented over 70% of the options by the end of 2017, with the following savings:



This data verifies the reduction in CO₂ emissions after implementation of technical options at the enterprises. The green bars show the reduction in CO₂ emissions after implementation of options in the respective year (X axis); the red bars show the total reduction in CO₂ emissions (2013-2016) after implementation of the current and previous years' technical options. **CO₂ emission reduction has increased each year.** The reduction in CO₂ emissions in 2017 is lower compared to the previous years because many options developed in 2017 had not yet been implemented. The number of implemented options was expected to increase.



From RECPC Project Management Report (2018)

RECP Assessments

30 RECP assessments were completed at companies in 5 regions of Ukraine (Kyiv, Vinnytsia, Zaporizhzhia, Lviv, Kharkiv) resulting in the identification of 99 options, resulting in significant material, water, chemicals, and energy (heat and electricity) savings as well as emissions reductions. Total economic savings identified amount to EUR 1'399'150 with the following benefits:

- Reduction of materials – 84 t/y
- Reduction of water – 4'009 m³/y
- Reduction of chemicals – 400 kg/y
- Reduction of energy (43'302 MWh), in particular, electricity – 559 MWh/y, heat – 42'743 MWh/y
- Reduction of emissions – 8'718 t of CO₂-eq./y

In addition, the RECPC carried out 7 energy audits of companies from construction materials sector within the framework of the GIZ project "Energy Efficiency in Companies". Total annual economic savings from identified options are EUR 367'755, which have the following benefits:

- Reduction of energy (17'939 MWh), in particular, electricity – 469 MWh/y, heat – 17'470 MWh/y
- Reduction of emissions – 3'705 t of CO₂-eq./y







The investment required for the implementation of the options is EUR 334'624.

Monitoring the implementation of options identified in 2017-2018

In 2018, the RECPC monitored 124 options identified through 30 assessments in 2017. This monitoring showed a very positive result: 66.7% of enterprises partially implemented the identified options and were willing to proceed with the implementation. As per December 2018, 29 of 124 options were implemented by 20 companies. 20 options were planned to be implemented in 2019-2020. A survey conducted by UNIDO in the EaP countries showed that small and medium enterprises (SMEs) consider insufficient access to finance to be the greatest obstacle to implementing RECP in their operations, followed by insufficient human resources.

With the 29 implemented RECP measures, the following benefits were achieved⁷⁶:

ENVIRONMENTAL BENEFITS (reducing resource consumption or non-productive output generation)

	2'676 tons of materials in 2017	6 tons of materials in 2018		19'355 MWh of thermal energy in 2017	9'437 MWh of thermal energy in 2018
	2'752 MWh of electricity in 2017	300 MWh of electricity in 2018		4'790 tons of CO ₂ -eq. emissions in 2017	2'022 tons of CO ₂ -eq. emissions in 2018
	489 kg of chemicals in 2017	400 kg of chemicals in 2018		90'552 m ³ of water in 2017	

ECONOMIC BENEFITS

	EUR 3'115'688 Investments in 2017	EUR 962'825 Investments in 2018
	EUR 870'043 Economic savings in 2017	EUR 419'508 Economic savings in 2018

From 2019 RECPC Project Management Report

Technical assistance at company level

In 2019, the RECPC conducted 24 assessments in 4 regions [19 finalized (4 in Central region, 5 in Western region, 6 in Southern region, 4 in Eastern region); the remaining 5 are ongoing]. 59 options on material and energy savings (heat, electricity) and reduction of emissions and waste generation were identified and proposed to the companies. The identified options and respective indicators are presented in the following table:

<i>Options and potential savings identified in 2019</i>	
Options identified	59
Reduction of material consumption, t/y	3.100
Reduction of waste generation, kg/y	28.400
Reduction of electricity consumption, MWh/y	2.400
Reduction of heat consumption, MWh/y	8.000
Reduction of emission generation, t CO ₂ -eq./y	2.700
Total economic savings, EUR/y	645.800
Investments, EUR	526.200

⁷⁶ As the monitoring was carried out in December 2018, companies assessed in 2018 had a short period (1-4 months) to implement the identified options, which explains why the benefits of implemented options identified in 2017 are considerably higher than for 2018

Monitoring the implementation of options identified in 2019

The RECPC monitored the implementation of the technical options identified in 2019. 8 out of 59 options were accepted for implementation immediately upon the presentation of the assessment results and are being implemented by 7 companies, respectively. The remaining options will probably be implemented in 2020. The implementation of results can be summarized as follows:

OPTIONS IMPLEMENTED	8
ENVIRONMENTAL BENEFITS	
○ Reduction of material consumption, t/y	2.830
○ Reduction of energy consumption, MWh/y	3.000
○ Reduction of waste generation, kg/y	1.050
○ Reduction of emission generation, t CO ₂ -eq./y	750
ECONOMIC BENEFITS	
○ Investments, EUR	76.100
○ Economic savings, EUR/y	166.700

Monitoring the implementation of options identified in 2018

In 2018, the RECPC monitored 99 options identified through 20 assessments. As of December 2019, 10 companies implemented 21 options out of 99. Having implemented 21 RECP options, the following benefits were achieved:

OPTIONS IMPLEMENTED	21
ENVIRONMENTAL BENEFITS	
○ Reduction of material consumption, t/y	6
○ Reduction of chemicals, kg/y	400
○ Reduction of energy consumption, MWh/y	7.700
○ Reduction of emission generation, t CO ₂ -eq./y	1.620
ECONOMIC BENEFITS	
○ Investments, EUR	1.262.100
○ Economic savings, EUR/y	442.800

From 2020 RECPC Project Management Report

Total 25 contracts were concluded with companies. The RECPC completed 16 assessments, other companies postponed the cooperation due to COVID-19 outbreak.

Total 47 technology options in 15 RECP assessments have been identified and 52 feasibility studies for RECP technology options have been elaborated.

4 RECP assessments initiated in the previous year have been finished. All reports have been prepared and presented to the companies.

The monitoring of implemented RECP options was carried out in November 2020. Only 4 companies were implemented RECP options that were developed in 2020 (due to the COVID-19).

The monitoring of implemented RECP options from the previous RECP assessments (2019) was carried out and 22% of options have been implemented.

Annex 10 – Project’s Financial Data

Financing Plan Summary (Planned versus Actual) – Breakdown by Year, in USD

Year	Budget at Project Conception	Actual Expenditure
2012 and before	372,090	381,347
2013	440,161	437,282
2014	972,021	955,704
2015	781,894	664,287
2016	371,607	367,575
2017	629,492	654,155
2018	552,178	522,237
2019	308,797	274,524
2020	445,233	445,312
Future	308,305	5,049
Total	5,181,779	4,737,482

Source: UNIDO Open Data Platform <https://open.unido.org/projects/SS/projects/104112> last accessed 25 January 2021

UNIDO budget execution (Grants 200001206, 200001207, and 200001208)

		2012	2013	2014	2015	2016	2017	2018	2019	2020
1100	Staff & Intern Consultants	28,001	70,743.0	149,401	169,931	86,968	151,485	61,706	(40,935)	99,635
1500	Local travel	19,787	9,003.0	2,220	11,827	9,627	15,199	23,241	9,501	2,542
1600	Staff Travel	8,368	8,892.0	3,957	9,673	5,842	2,708	3,543	682	1,093
1700	Nat.Consult./Staff	59,601	93,539.0	101,551	103,368	24,317		(15,297)	18,695	3,956
2100	Contractual Services	128,931	137,934.0	457,438	336,423	205,890	398,482	397,716	275,278	231,646
3000	Train/Fellow ship/Study	16,693	11,927.0				3,746	(3,820)		
3500	International Meetings						6,655			
4300	Premises									
4500	Equipment	19,433					(1,443)			
5100	Other Direct Costs	7,182	(159.0)	119	611	555	2,157	69	3,464	1086
		287,996	331,879	714,686	631,833	333,199	578,989	467,158	266,685	339,958

Source: Project/Grant Funds Availability Report as of 22 September 2020