Terminal Evaluation Report - Final

Cleantech Innovation Programme for SMEs in Ukraine
UNIDO ID #160246, GEF Project ID #9811

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Cover image sourced from https://gcipukraine.com/en/home/

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Acknowledgements

This Terminal Evaluation (TE) of 'Cleantech Innovation Programme for SMEs in Ukraine', (hereafter, GCIP Ukraine), reflecting its relationship to UNIDO's Global Cleantech Innovation Programme (GCIP), was prepared by an independent team headed by Principal Evaluator Dr. Joyce Miller of Capacity-Building Resource Exchange (CAPRESE) Sàrl, based near Geneva, Switzerland, with translation during interviews provided by Alina Shymanska; support on survey design and administration provided by Eli De Friend; and survey analysis provided by Stefan Lygdopolous. This team operated under the responsibility of UNIDO's Independent Evaluation Unit

In undertaking this endeavour, the diversity of perspectives and all direct and indirect input provided by the project's implementers, beneficiaries, and other stakeholders consulted during the evaluation process are gratefully acknowledged.

The quality of reflection facilitated through this evaluation process has allowed for the development of robust findings, lessons learned, and recommendations. These are offered with the aim of informing the design and implementation of projects within the domain of cleantech innovation, and beyond.

Acronyms and Abbreviations

COP	Conference of the Parties
COVID-19	Corona Virus Disease 2019, designation in March 2020 by the World Health Organization (WHO) for the disease caused by the novel coronavirus, SARS-CoV-2
ESMP	Environmental and Social Management Plan
ESSPP	Environmental and Social Safeguards Policy and Procedures
EUR	Euro
GCIP	Global Cleantech Innovation Programme
GEB	Global environmental benefits
GEF	Global Environment Facility
GHG	Greenhouse gas
M & E	Monitoring and Evaluation
MEDT	Ministry of Economic Development and Trade in Ukraine
MENR	Ministry of Ecology and Natural Resources in Ukraine
(M)SME	(Micro) Small- and Medium-Sized Enterprise
MTR	Mid-Term Review
NATO	North Atlantic Treaty Organisation
PIR	Project Implementation Report
PMU	Project Management Unit
PSC	Project Steering Committee
(R)TOC	(Reconstructed) Theory of Change
SDGs	Sustainable Development Goals
SFII	State Finance Institution for Innovations in Ukraine
TE	Terminal Evaluation
ToR	Terms of Reference
UNEG	United Nations Evaluation Group
UNFCCC	United Nations Framework Convention on Climate Change
UNIDO	United Nations Industrial Development Organisation
USD	United States dollar

Glossary of Evaluation-Related Terms

Term	Definition
Assumption	Is a significant external factor or condition that needs to be present for the realisation of the intended results but **is beyond the influence of the project and its partners**. Assumptions are often positively formulated risks.
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Driver	Is a significant external factor that, if present, is expected to contribute to the realisation of the intended results of a project. **Drivers can be influenced by the project and its partners.**
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 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

Background and Methodology

This report is the Terminal Evaluation (TE) of 'Cleantech Innovation Programme for SMEs in Ukraine', (hereafter, GCIP Ukraine), reflecting its relationship to UNIDO's Global Cleantech Innovation Programme (GCIP). Kicked off in January 2019, this 3-year project had a budget of USD 1,502,875 provided through grant funding of the Global Environment Facility (GEF).

On-the-ground execution was provided by a Project Management Unit (PMU) based in Kyiv, Ukraine, under the supervision of a UNIDO Project Manager in Vienna, Austria. Key executing partners at government level included the Ukrainian Ministry of Ecology and Natural Resources (MENR), Ministry of Economic Development and Trade (MEDT), and the State Finance Institution for Innovations (SFII).

Commissioned by UNIDO, in line with its own accountability and organisational learning requirements, this TE covered the project's design and implementation, through to its close at the end of May 2023. The TE's purpose was to assess the project's performance in terms of its Progress-to-Impact, Project Design, Relevance, Effectiveness, Efficiency, and Sustainability of Benefits and to promote operational improvement, learning, and knowledge sharing through results and lessons learned for enhancing the implementation of ongoing projects and design of new interventions.

Carried out during March-May 2023 by an independent consultant, Dr. Joyce Miller, the TE consisted of: i) review of key documents; ii) assessment of project design, including reconstruction of its Theory of Change (TOC); iii) indepth interviews of key stakeholders (41 in total) engaged in or who benefitted from the project's activities; iv) online survey of primarily Ukrainian-speaking beneficiaries, which achieved a 32% response rate (71 of 223 respondents). An evidence-based approach was used to develop the findings, lessons learned, and recommendations.

The target audience for this Evaluation Report is the donor (GEF), implementing agency (UNIDO), national partners (MENR, MEDT, SFII); the regional cleantech accelerators formed by the project (hosted by Sumy State University, Vasyl Stefanyk Precarpathian National University, Petro Mohyla Black Sea National University, Donbas State Pedagogical University, Kherson National Technical University) and other stakeholders consulted as part of the project's final assessment.

Main Findings

Project Design

Aligned with the priorities of the country and donor and fully consistent with UNIDO's mandate for inclusive sustainable industrial development, the project's design for Ukraine brings a proven, holistic approach for dynamizing the country's cleantech innovation. The design has incorporated some learning from previous GCIP implementation in other countries, although the conceptualisation and resourcing of its policy/institutional framework outcome remains insufficient, considering the project's ambition to spur meaningful advance and the pertinence of securing an overall ecosystem that fosters cleantech adoption that can consequently valorise investments like the Competition-Accelerator and its associated built capacities.

The project's results framework reflects a logically sequenced and mutually reinforcing architecture based on GCIP's proven model, and it has benefitted from some consolidation, reflecting previous learning. Despite previous feedback on this point, weak outcome formulations that reflect little more than a summing up of their constituent parts orient towards the delivery of outputs, with monitoring and reporting focussed on activities for their achievement. While the use of primarily quantitative

indicators can be easily cascaded into monitoring and reporting systems, particularly in the absence of meaningful baseline data, they provide limited insight regarding relevance, quality, and utility.

Project Performance

Relevance

The project's support was highly relevant for global and national priorities and end beneficiaries in government, academia, and industry based on its contributions to job creation, economic development, environmental protection, and showcasing of Ukrainian innovation and research. It leveraged UNIDO's mandate and domains of comparative advantage and was fully aligned with the donor's priorities for enhancing private sector engagement and promoting cleantech innovation to address climate change challenges.

Effectiveness

Due to the project team's efforts and the determination and resilience of intended beneficiaries, the planned outputs were carried out in a satisfactory manner, with targets met or exceeded, driving results related to implanting the Competition-Accelerator platform and building the capacities to sustain its operation (Outcomes 1 and 2). Design weaknesses underlying the conceptualisation and resourcing of Outcome 3 (Policy Strengthening) and its associated outputs were reflected in under-achievement.

Efficiency

While the project's duration was extended by 50% (18 months), in light of COVID-19 imposed restrictions on travel and face-to-face meetings, followed by uncertainties generated by the ongoing war between Ukraine and Russia, the project's ability to remain within less than 5% of its projected expenditure is a testament to UNIDO's strong financial control and conservatism.

Sustainability of Benefits

While design elements like the constitution and operation of the Project Steering Committee (PSC) and the Regional Accelerator concept were well-conceived with national ownership and sustainability in mind, the combination of several aspects have reduced the likelihood that the benefits of the project's investment will be sustained in the absence of further initiatives. These include the absence of a functioning steering structure 17 months before the project's close, the disconnect of GCIP 1 with the GCIP 2 structure that was intended to provide a seamless continuation of cleantech supported by UNIDO and the GEF, the substantial ongoing uncertainty at socio-political level related to Russia's invasion of its neighbour Ukraine on 24 February 2022, and the currently limited ability of the Regional Accelerators and involved entrepreneurs to access needed financial resource. This deficit was heightened by UNIDO's own inability to provide the anticipated post-Accelerator support – which was core to the project's value proposition – to the involved startups during the project's operation.

Progress-to-Impact

The establishment of five Regional Accelerators hosted by existing institutions spanning Ukraine's full geography and the associated capacities built in these universities to sustain their operation, together with their clear interest in and commitment to continuation, albeit in a situation of being unable to fulfil the associated financial support needs, provides a platform that could be activated in future, given the extent of goodwill and capability that have been developed. Furthermore, 14% (i.e. 4 of the 28 involved startups) had some basis to scale up, having attracted investment to support initial steps towards commercialisation.

However, the project's failure to materialise the contracted post-Accelerator support (a key element of GCIP's improved value proposition) has not only slowed momentum of the remaining startups, it has generated enormous discontent on the part of all interviewed stakeholders, with significant

reputational damage for both UNIDO and GCIP in Ukraine. The numerous discussions with potential national investors that were initiated then paused (thereby depriving the involved entrepreneurs of the anticipated links to support commercialisation), together with the institutional disconnect with the successor programme (GCIP 2) and its intended seamless support for GCIP 1 alumni eliminated opportunities for knowledge transfer (thereby reducing prospects for leveraging synergies). In a context where key enabling conditions to support enterprise innovation had not yet been sufficiently addressed and the ongoing between Ukraine and Russia has continued to divert the attention and resources of all sectors of society, with prioritisation of survival and recovery of infrastructure and basic services – the prospects for achieving long-term impact from this project's investment seem rather dim in the absence of mitigation measures.

Cross-Cutting Performance Criteria

Gender Mainstreaming

The project's commitment to this dimension, operationalised through targets and regular reporting of sex-disaggregated data, served to focus consistent attention of its implementers and the governance structure on ensuring that the project benefitted both women and men. This drove positive results in terms of project staffing; participation as mentors, judges, and trainers; enhancing capabilities and prospects of the supported innovations and teams through selection into the Business Academy; together with recognition through awards.

Environment and Socio-Economic Aspects

Having been appropriately subjected to UNIDO's internal screening during project preparation, no potential environmental and social issues were identified that required more detailed assessments or project-level operational safeguards. Reflecting this assessment, the project's Environmental and Social Management Plan was included as an annex in the Project Document. The extent to which it was indeed used as a 'living document' to guide project stakeholders in identifying and assessing positive and negative effects and highlighting the need for mitigation measures was not clear, given the overly high-level inclusion of this topic under the umbrella term of 'sustainability', as one of ten criteria used by judges in scoring the supported innovations.

Monitoring and Evaluation (M & E)

Following established UNIDO and GEF procedures, the design of the project's M&E was robust, with the provision of suitable budgeting, clear designation of shared roles and responsibilities between field and headquarters staff, with a repertoire of tools that were to be used to track and regularly report relevant data, gauge the project's achievements and progress-to-impact, facilitate reflection, and stimulate recalibration where needed. This is a standard, valid approach for project oversight and to promote organisational learning.

In operationalising the designed M & E system, the established procedures were duly followed, with regular monitoring, data collection, and documentation of activities and accomplishments. Annual project reporting was activity-centred with an output-level orientation. The late timing and superficial quality of the externally-commissioned MTR missed out on a key opportunity to assess emerging issues and urge corrective actions regarding outstanding payments and post-Accelerator support, which dogged the project throughout its remaining implementation.

Results-based Management

The basic elements were put in place to generate and use performance information for accountability reporting and internal management, learning, and decision-making. The PMU's professionalism, competence, and dedication was highlighted by stakeholders as a key enabler.

Performance of Partners

UNIDO

As the GEF's executing agency, UNIDO's expertise and experience for this type of intervention were highly valued by the involved stakeholders. However, its slow pace in rectifying internal management issues in the project's initial phase generated subsequent delays in the provision of anticipated support for the winning startups. Insufficient capacity to adapt the agency's procurement approach in a timely manner to *force majeur* effects further hampered the project's effectiveness, created pressure for the PMU to manage expectations, and generated dissatisfaction on the part of national stakeholders. Furthermore, the agency's procurement processes, while aiming to ensure due diligence, appear to be overly-conservative and misaligned with the project's needs and the model that was demonstrated for scaling up, thereby generating high transaction costs for UNIDO in establishing detailed contracts and monitoring multiple payments due to the decision to provide 'grants' and 'prizes' through obliging their use towards technology and/or product development support evidenced against deliverables, in contrast to earlier GCIP implementations that provided winning startups with cash prizes for winning a competition.

Regarding National Counterparts

A cross-section of relevant institutional partners were actively involved in supporting the project's execution and governance through the Project Steering Committee, which met regularly until October 2021. In view of the ongoing security situation, which understandably shifted governmental attention and resources, the engagement of national counterparts is deemed to have functioned to a feasible extent in fulfilling its guidance and oversight roles.

Donor

The donor's timely disbursement of project funds and its support for nurturing clean technology and promising entrepreneurs through the GCIP was perceived as highly relevant assistance in bridging gaps and acting as a catalytic force to spur further development of the cleantech innovation and entrepreneurship ecosystem in Ukraine. While the GEF accepted the annual project reports, no feedback provided on the project's progress or performance. Project supervision exercised by UNIDO's GEF Coordination office on behalf of the donor functioned well.

Overall Assessment

The project's overall performance is "Moderately Satisfactory". Error! Not a valid bookmark self-reference. provides the ratings for the reviewed criteria[1]. While the intervention had a high degree of relevance for all project stakeholders and the establishment of five Regional Accelerators hosted by five national universities covering the whole of Ukraine's territory as a key pillar of the project's sustainability strategy is a high achievement, some weaknesses in implementation related to lags in addressing internal management issues and the inability to provide the anticipated post-Accelerator support – a key element of GCIP's improved value proposition – together with the disconnect with the follow-up project launched in 2021 then paused, have dimmed the prospects for fully achieving the envisaged outcomes and long-term impact from the project's investment, in the absence of mitigation measures. The extremely challenging external environment with effects from COVID-19 from March 2020, overshadowed by the Russia-Ukraine war since February 2022, over which project implementers

[1] These ratings follow UNIDO's 6-point scale based on level of satisfaction (refer to Error! Reference source not found.**)**. For the criterion of Sustainability, the 6-point rating scale that is applied is that of UNIDO; it is based on "likelihood" (refer to Error! Reference source not found.).

had no control, are seen as major dampeners on its potential and have been considered in this overall assessment.

Table 1 – Summary of Evaluation Criteria and Performance Ratings

	Evaluation Criteria	Rating
A	**Progress to impact**	**U**
B	**Project design**	**MS**
1	• Overall design	MS
2	• Logframe	MS
C	**Project performance**	
1	• Relevance	HS
2	• Effectiveness	S
3	• Efficiency	S
4	• Sustainability of Benefits	U
D	**Cross-cutting performance criteria**	
1	• Gender mainstreaming	HS
2	• Environment and Socio-Economic Aspects	S
3	• M & E Design	HS
	• M& E Implementation	MS
4	• Results-based Management	S
E	**Performance of Partners**	
1	• UNIDO	U
3	• National counterparts	S
4	• Donor	S
F	**Overall assessment**	MS

Summary of Lessons Learned and Recommendations and Lessons Learned

Two lessons and five recommendations (see **Table 2**; fully elaborated in Section 5) are offered to the project's donor (GEF); implementer (UNIDO); key national stakeholders (MENR, MEDT, SFII, and the five universities hosting Regional Accelerators for organisational learning and performance improvement.

Table 2 – List of Lessons Learned and Recommendations

Lesson 1: For UNIDO management	Appropriately diagnosing and dealing with management issues in a timely manner avoids the magnification of their consequences on project execution and stakeholder relationships.
Lesson 2: For UNIDO management	Clear expectations regarding linkages with follow-up endeavours, backed by institutional mandate, provides the framework for architecting meaningful exit and onboarding strategies that facilitate timely knowledge exchange and building up effective transition pathways.
Recommendation 1: For UNIDO, GEF, Greencubator and the five Regional Accelerators	Identify a framework under which the Regional Accelerators can be relaunched, with the needed resources and an appropriate local governance mechanism in place, together with sufficient refreshment of GCIP concepts and rebuilding of institutional operational capacities, in order to sustain the project's benefits.
Recommendation 2: For UNIDO and Greencubator	Clarify the way in which startups supported in the past under GCIP 1 and the Regional Accelerators, moving forward, will be supported in a timely and pertinent manner under the GCIP 2 framework in order to access post-Accelerator support and eventual financing to enable the commercialisation of promising innovations.
Recommendation 3: For UNIDO	Replace the notion of cash prizes for winning startups with post-Accelerator support dispensed through a more agile mechanism that facilitates the provision of relevant technology and/or product development support in a timely, needs-based manner, without generating undo monitoring requirements for the provider and a high accountability burden for the recipient
Recommendation 4: For UNIDO and GEF	Provide the contracted payments to the involved startups utilising the obligated amounts before the project's financial closure.

Recommendation 5: For UNIDO and donors	Ensure a more robust conceptualisation and adequate resourcing for strengthening a country's enabling conditions for cleantech promotion and adoption in order to genuinely de-risk and leverage GCIP's climate investment.

Detailed Evaluation Report

This report is the Terminal Evaluation (TE) of the 'Cleantech Innovation Programme for SMEs in Ukraine' (hereafter, GCIP Ukraine), reflecting its relationship to UNIDO's Global Cleantech Innovation Programme (GCIP). Kicked off in January 2019 with USD 1,502,875 in grant funding provided by the Global Environment Facility (GEF), this 36-month project was granted two extensions, closing on 31 May 2023.

1 Evaluation's Purpose and Approach

The ToR (see **Annex VIII**) provided by UNIDO guided the TE's aim, design, and conduct, following United Nations Evaluation Group (UNEG) Norms and Standards[2], UNIDO's Evaluation Policy[3] and Guidelines for Technical Cooperation Project and Project Cycle[4], and GEF's guidance for its implementing agencies[5].

This TE was carried out during the project's final phase (March-May 2023) by a CAPRESE Sàrl team headed by Principal Evaluator Dr. Joyce Miller, with translation during interviews provided by Alina Shymanska; support on survey design and administration provided by Eli De Friend; and survey analysis provided by Stefan Lygdopolous. This team operated under the responsibility of UNIDO's Independent Evaluation Unit.

1.1 Objectives and Scope

The TE had three aims; namely to:

i. Provide accountability;
ii. Promote learning;
iii. Generate useful, actionable recommendations to enhance the design of new and implementation of ongoing projects by UNIDO.

The TE covered the project's entire (extended) duration: 1 January 2019 to 31 May 2023.

1.2 Methodology and Validity of Findings

The evaluation's content and conduct followed relevant guidance (¶2). The evaluation team had an opportunity to liaise with UNIDO's Independent Evaluation Division on methodological issues. A participatory approach was adopted whereby key stakeholders were kept regularly informed of progress.

The evaluation approach was documented in an Inception Report (approved 31 March 2023), which was designed to ensure shared understanding between the external Evaluation Team and the UNIDO Project Manager regarding: a) the aim, scope, key issues and questions to be explored through the evaluation; b) the conduct of the inquiry; and c) the format and contents of the resulting report.

The TE used an evidence-based approach with robust analytical underpinning. Qualitative and quantitative data were gathered to develop insights into the project's Relevance,

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United Nations Evaluation Group (2016) Norms and Stands for Evaluation http://www.unevaluation.org/document/detail/1914
UNIDO. (2018). Director General's Bulletin: Evaluation Policy (DGB/2018/08, dated 1 June 2018) and UNIDO's Evaluation Policy and Evaluation Manual (2018), Technical Cooperation Programmes, Projects and Tools (2017)
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)
GEF (2010). Evaluation Document #4, www.gefieo.org/sites/default/files/ieo/evaluations/gef-me-policy-2010-eng.pdf and Guidelines for GEF Agencies in Conducting Terminal Evaluations, Minimum Fiduciary Standards for GEF Implementing and Executing Agencies

Effectiveness, Efficiency, Sustainability, Progress-to-Impact and its key strengths and shortfalls. A variety of perspectives were sought out with the aim of building appreciation of different ways of viewing the project's performance.

Reflecting the Evaluation's ToR (see **Table 1**), the project's performance was rated using UNIDO's 6-point scale[6] (see **Table 3**), with justifications elaborated through the main body and findings.

Table 3 – Rating Scale Used to Assess Project Performance

Rating			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).	

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

As required for GEF-funded projects, the TE additionally assessed, without assigning rating: Need for Follow-Up, Materialisation of Co-Financing, and Environmental and Social Safeguards (see Section 3.6).

To preserve the integrity of the evaluation process and enhance freedom of expression, respondents were assured of the confidentiality of their input. Interviews were conducted in English or Ukrainian with translation support. The Interview Protocol (which was available in English and Ukrainian), or subsets thereof, was used as a basis for respondents to prepare in advance and/or provide written input.

Exchanges with stakeholders were conducted in a manner that balanced reflection and the generation of insights, using a retrospective lens as well as stimulating recommendations to enhance the sustainability of the project's results and benefits.

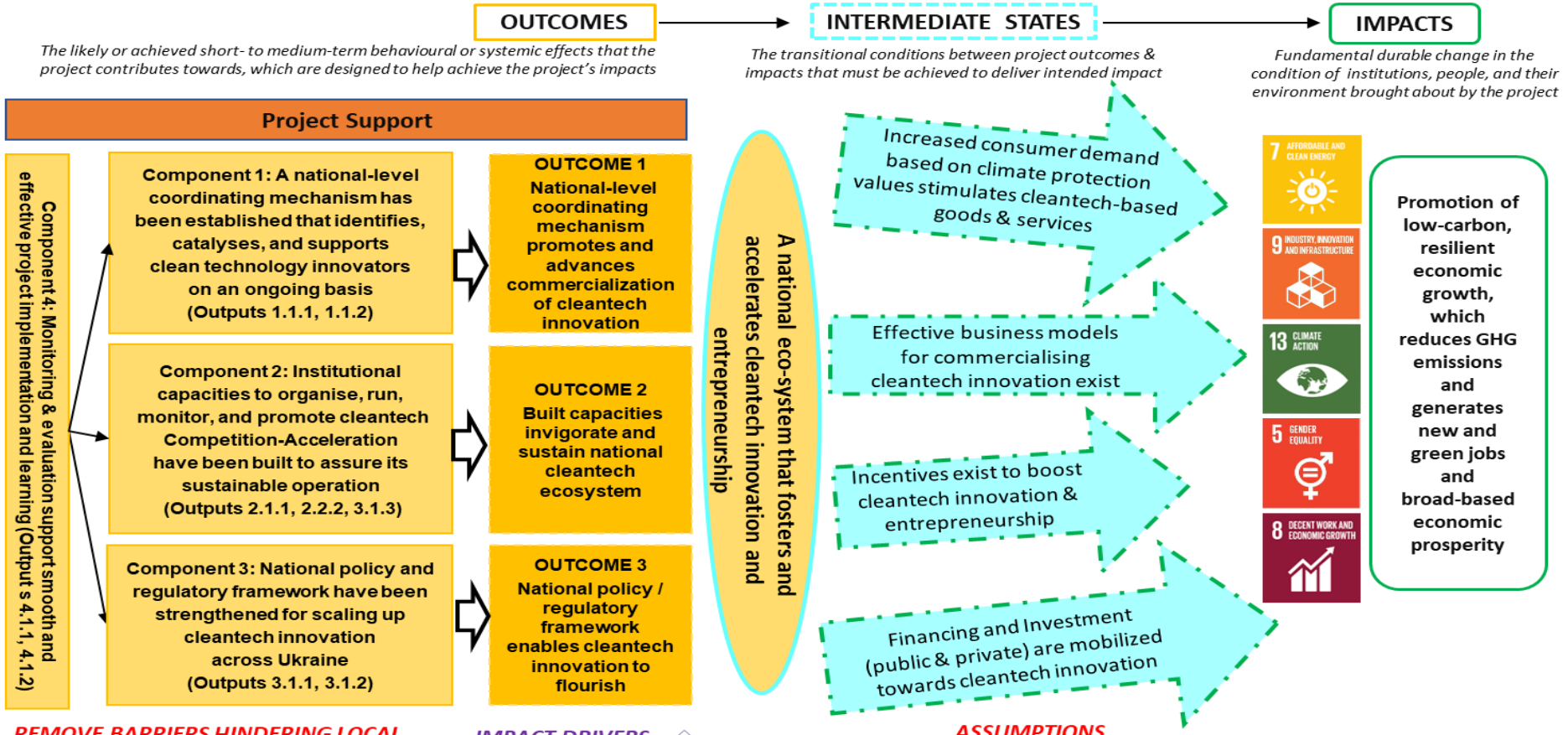
The quality of data analysis was assured using a software tool[7], which provided a trace back to evidence underpinning the findings. This tool was used to systematically analyse, cross-reference, and comment data gathered through interviews according to the evaluation criteria, which, together with a review of project documentation, allowed for the crystallisation and triangulation of findings. This approach then formed the basis for identifying useful lessons and generating recommendations for organisational learning and operational improvement.

1.3 Information Sources

Assessment of impact will be based on *likely* achievement, as it is often too early to assess the long-term impacts at project close
QDA Miner: https://provalisresearch.com/products/qualitative-data-analysis-software/freeware/

Multiple sources were used to generate and triangulate the findings, thereby enhancing reliability:

- Assessment of project design, including reconstruction of its Theory of Change (**see Annex I**);
- Review of key project documents and other relevant materials (see **Annex I** – Reconstructed Theory of Change (RTOC)



REMOVE BARRIERS HINDERING LOCAL CLEANTECH MARKET FOR SMEs & START-UPS

1) Lack of technology innovation platforms
2) Insufficient dynamism/contribution of SMEs in cleantech innovation
3) Shortage of relevant business and entrepreneurial skills of SMEs/startups
4) Limited SME/startup access to finance
5) Inadequate transfer of cleantech R&D between academia & industry
6) Weak enabling policy/regulatory environment; limited impact monitoring

IMPACT DRIVERS

Women's Inclusion & Empowerment accelerates & amplifies cleantech innovation

Scaling-up of cleantech categories, Accelerator size, geographic reach

Ecosystem Maturity (quality of post-Accelerator support services, incubation facilities; removal of compliance traps)

Linkages to Industry & Finance (Ukrainian innovators are directly linked with industry, public finance sources and gain access to domestic/global venture capitalists, investors, networks, markets)

ASSUMPTIONS

The government has a clear, coordinated vision of what it wants from cleantech innovation and takes leadership in transitioning the economy to a knowledge-based, innovation-driven economy

There is ongoing support for building up the country's cleantech ecosystem and meaningful participation by relevant executing institutions, industry, and other relevant stakeholders (e.g. mentors)

Political /socio-economic stability allows investor confidence to flourish, with resources channelled towards domestic cleantech innovation

Promising cleantech entrepreneurs have sufficient access to relevant customer segments in Ukraine, and beyond

- Annex II**)**;
- Indepth interviews of 23 key stakeholders (see **Annex III)** with exchange supported by a semi-structured protocol (see **Annex IV**Annex IIIAnnex IIIAnnex IIIAnnex IIIAnnex IIIAnnex IIIAnnex III);
- Online survey (see **Annex VI**) of 223 actors engaged in the project's implementation (entrepreneurs, mentors, judges, trainers, government counterparts, university partners running the regional cleantech accelerators, and the project's management team). Available in English and Ukrainian, the survey ran from 11 April to 26 May 2023 with 71 respondents. The bulk of these respondents were Ukrainian-speaking project beneficiaries (startups, mentors, judges, trainers, and regional accelerator staff). See **Annex IV**.
- Presentation and discussion of preliminary findings (14 April 2023) with the Project Management Unit (PMU) in Kyiv and management team in Vienna, which allowed for clarification of facts.

1.4 Limitations on the Evaluation

15) This evaluation faced typical limitations related to available budget and time. Direct inquiry could not be undertaken with all project partners engaged in all activities and all relevant stakeholders in Ukraine. In this light, representative stakeholders were identified, with 23 interviewed indepth. While *in situ* meetings would normally have been undertaken, such an approach was not feasible given the security situation in Ukraine since February 2022 (¶30). Remote interviewing was a pragmatic alternative.

16) To provide for a more inclusive approach, this consultation was complemented by quantitative data (ratings of performance) together with qualitative data (explanatory verbatim text) gathered through an online survey. Several follow-ups were used to heighten engagement, achieving a 32% response rate.

2 Country and Project Background

2.1 Brief Country Context

17) Ukraine is an independent, democratic country in Eastern Europe formed in 1991 following the dissolution of the Soviet Union. With its territory fully within Europe and its proximity to the Black Sea and Sea of Azov, Ukraine was a popular transit corridor for energy and trade flows between the East and the West. With a highly educated population, an established industrial base, and reserves of iron, manganese, titanium-zirconium ores, coal, graphite, clay and sulphur, Ukraine is a large, resource-rich nation. With its fertile soil and favourable climate, the country has been called the "breadbasket of Europe", based on its production and trade of wheat, barley, corn, sunflower seeds, and other crops.

18) Following a period of economic decline and inflation during the 1990s, the Ukrainian economy stabilized and began growing again in the 2000s. Having inherited the world's third largest stockpile of nuclear weapons, the process of nuclear disarmament was pivotal in improving Ukraine's international relations, while also complicating its relationship with its large neighbour, the Russian Federation, with whom it shared strong cultural ties. Over the past three decades, Russia had been Ukraine's largest export partner.

19) After gaining independence from the Soviet Union in 1991, Ukraine embarked on a path of political and economic reforms, including efforts to align itself with European and Euro-Atlantic structures, signing a Partnership and Cooperation Agreement with the European Union (EU) and actively pursuing accession to the EU and North Atlantic Treaty Organisation (NATO). In late 2013, the pro-Russian government led by Viktor Yanukovych embarked on a more authoritarian style of governance and backtracked on further EU integration, suspending signature of an association agreement with the EU. This sparked the 'Maidan Revolution', referring to *Maidan Nezalezhnosti* (Independence Square in Kyiv), which served as the central gathering point for violent anti-government protests led by various opposition figures, activities, and civil society organisations. Clashes with security forces led to almost 100 deaths and thousands of casualties, before the president was ousted. This was followed by Russia's annexation of Crimea in 2014 and its backing of separatist paramilitaries in the eastern *oblasts* of Donetsk and Luhansk (Donbass), home to a large share of ethnic Russians. Despite numerous ceasefires in the Donbass region, none lasted

more than six weeks. Russia has held de facto control of Crimea since 2014[8].

20) Elected president in 2014, Petro Poroschenko established anti-corruption policies, fostered European integration, and elaborated a policy, governance, and funding framework to advance regional development. In this light, over 10,000 local councils were merged into 1,469 municipalities, which were granted new administrative powers and funding in conjunction with the creation of national and subnational policy coordination bodies, including regional development agencies[9].

21) Poroschenko was defeated in the 2019 election by Volodymyr Zelenskyy, who ran on a populist and reformist platform. Zelenskyy's efforts to rekindle relations with Russia proved unsuccessful. In late 2021, Russia began amassing troops along its border with the Donbass and on 24 February 2022, invaded Ukraine. This action has threatened a core principle underpinning the post-World War II international peace and security order enshrined in the United Nations' Charter that prohibits the threat or use of force against the territorial integrity or political independence of any state[10]. In addition to triggering a largescale refugee crisis, as Ukrainians fled the conflict in their homeland[11], this set off a geopolitical realignment[12], impacted global food and energy security[13], and spurred expansion of the North Atlantic Treaty Organisation (NATO), with Finland and Sweden pursuing membership in 2023 after decades of neutrality. As of the date of this TE, Ukraine was still enduring the effects of Russia's full-scale invasion.

22) Since the 1990s, Ukraine's population has been declining due to high emigration, low birth rates and high death rates. Ukraine was expected to lose nearly one-fifth of its population by 2050[14]. In 2022, Ukraine's population was put at 41 million but this estimate did not account for emigration and displacement caused by the recent Russia-Ukraine conflict. Ethnic Ukrainians made up over three-fourths of the population. With less than one-fifth of the population, Russians were the largest minority, followed by Romanians, Belorussians, Crimean Tatars, Bulgarians, Hungarians, Poles, and Armenians[15].

2.2 Sector-Specific Issues of Concern to the Project

23) Ukraine ranked fifth in the world for energy intensity due to its inefficient energy infrastructure, historically low energy prices, and high industrial and agricultural energy sector demands[16]. Since 2014, the country had steadily improved energy efficiency, with achievements recorded in the residential sector (+22.7%) and agriculture (+27.7%) while the energy efficiency index for industry rose by 13.2%[17].

24) In light of climate-driven changes (e.g. higher temperatures) attributed with causing shifts in agricultural production and water deficiency that could compromise the country's good security and economic growth, efforts were underway to reduce emissions as well as improve energy efficiency and the management of renewable energy sources[18]. With the Ukraine-EU Association Agreement signed in 2014, the adoption of the related Action Plan put Ukraine on a path to transition towards the European 'green development model'. Ukraine was seen to have substantial renewable energy potential, including

[8] https://www.statista.com/topics/2473/ukraine/#topicOverview [22 May 2023]
[9] OECD (2 December 2022), "Turning to Regions and Local Governments to Rebuild Ukraine https://www.oecd.org/ukraine-hub/policy-responses/turning-to-regions-and-local-governments-to-rebuild-ukraine-9510f490/
[10] KPMG (March 2022), "The Geopolitical Impact of the Conflict in Ukraine: Five Trends to Help Businesses Manage the Potential Risks to Global Security and Prosperity", The geopolitical impact of the conflict in Ukraine - KPMG Global
[11] As of 9 May 2023, around 8.2. million Ukrainian refugees were registered across Europe, according to Statista https://www.statista.com/aboutus/our-research-commitment [23 May 2023]
[12] NPR (22 February 2023), "The Ripple Effects of Russia's War in Ukraine Continue to Change the World", The global impact of Russia's war in Ukraine : NPR.
[13] United Nations Meetings Coverage and Press Releases (17 March 2023), "Spotlighting Russian Federation-Ukraine War's Impact on Global Food, Energy Stability, Delegates in Security Council Urge Renewing Grain Initiative", https://press.un.org/en/2023/sc15233.doc.htm
[14] Ukraine Population 2023 (Live) (worldpopulationreview.com) [22 May 2023]
[15] https://www.statista.com/topics/2473/ukraine/ [22 May 2023]
[16] p7, Project Document
[17] International Energy Agency, "Ukraine Energy Profile", Ukraine energy profile – Analysis - IEA [23 May 2023]
[18] p7, Project Document

significant biomass resources and waste management possibilities, which remain largely untapped[19].

25) In 2016, Ukraine ratified the Paris Agreement, setting a Nationally Determined Contribution (NDC) with a target to reduce its greenhouse gas (GHG) emissions by 40% below its 1990 levels by 2030. The NDC included targets to increase renewable energy's share in the energy mix and improve energy efficiency[20].

26) The Project Document identified low carbon strategies and mainstreaming of clean technology innovation and entrepreneurship as key vectors to move the country away from its current carbon intensive growth. At the time of the project's design, the main obstacles in transitioning to a low carbon growth were identified as insufficient economic diversification, heavy reliance on expensive fossil fuel usage, outdated and inefficient production capacities, and unsustainably high subsidies in energy pricing[21].

27) In 2014, micro, small, and medium-sized enterprises dominated the economy, with 1.7 million MSMEs representing over 99.9% of all operating legal entities, accounting for almost 60% of employment and 52% of sales revenue. While their individual environmental footprint was low, their aggregated impact exceeded that of large businesses, with the greatest effects in food processing, livestock farming, and construction. Given MSMEs' limited capacity to interpret and respond to policy incentives, many OECD countries had been actively working to implement information-based tools and incentives to encourage their environmental performance to comply with and even go beyond regulatory requirements[22].

28) Almost two-thirds of MSMEs are located in regions exposed to active land warfare since Russia's aggression in February 2022. These *oblasts* employed almost 1.1 million people (77% by MSMEs, according to 2020 data). The share of women-led businesses in these *oblasts* was higher than the country's average. Four of these were amongst Ukraine's most industrialised *oblasts*, with manufacturing as the dominant sector followed by retail/wholesale trade, agriculture and construction. As of mid-April 2022, UNDP estimated that about 50% of these enterprises operated at only 10-60% of their pre-war level of capacity[23]. This same study indicated that MSMEs were highly vulnerable to war-related shocks, with any major downsizing practically meaning the cessation of their operations, given their limited ability to diversify their economic activities. For their successful development, UNDP highlighted the need for technological innovation, promotion of environmental, social and governance sectors, impact investment, and job creation.

29) Enterprise innovation was weak in small and large Ukrainian companies alike. The environment for entrepreneurship presented challenges vis-à-vis licensing, permits, taxes, weak protection of intellectual property, and poor insolvency laws. Structured to service the former pre-independence economy, research institutions and universities were not in a position to effectively support innovation and needed major reform to adapt to the new private sector realities. Despite these barriers, a few entrepreneurial firms had found ways to reach international markets and acquire venture capital, business advice, and manufacturing partners – thanks to an informal mentoring network and the Ukrainian diaspora[24].

30) While the ongoing war with Russia (since February 2022) affected Ukraine's regions in different ways – with many communities suffering tremendous loss of life and destruction of critical infrastructure and others providing homes and support to those who have been internally displaced –regional development and decentralisation reforms adopted after the 2014 Maidan Revolution (¶19) have been described as strengthening the resilience of the country's regions and municipalities as well as providing the

[19] International Energy Agency, "Ukraine Energy Profile", Ukraine energy profile – Analysis - IEA [23 May 2023]
[20] United Nations Framework Convention on Climate Change https://unfccc.int/ [22 May 2023]
[21] p10, Project Document
[22] p12, Project Document
[23] p11, UNDP (June 2022), "Rapid Assessment of the War's Impact on Micro, Small and Medium Enterprises in Ukraine" Rapid Assessment of the War's Impact on Micro, Small and Medium Enterprises in Ukraine | United Nations Development Programme (undp.org)
[24] p12, Project Document

foundation for post-war recovery and longer-term economic development[25].

31) International development projects, including GCIP Ukraine, continued to operate during 2022-2023 throughout the ongoing conflict. USAID provided USD 13 billion in direct support to fund basic services like healthcare, education, and emergency response; USD 1.4 billion in humanitarian assistance; and USD 800 million in development assistance to bolster Ukraine's energy grid, governance institutions, agriculture, small businesses, and civil society – with the aim of gearing up for recovery and reconstruction[26].

32) In the post-war recovery, rebuilding destroyed public infrastructure was expected to be prioritized along with addressing longer-term development needs. In this setting, the lack of clarity about the division of responsibilities among levels of government that existed prior to February 2022 was identified as a risk that could lead to uncoordinated action or inaction of the part of different governmental actors[27].

2.3 Project Summary

33) The project's origins can be traced to the 2011 UN Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) in South Africa where the "Greening the COP17" project (GEF ID 4514) was launched to lessen COP17's ecological footprint and raise awareness of clean technology's role in enhancing SME competitiveness[28]. UNIDO and the GEF developed the Global Cleantech Innovation Programme (GCIP) in 2013. By 2023, 18 countries had been supported (Armenia, Cambodia, India, Indonesia, Kazakhstan, Moldova, Mongolia, Morocco, Namibia, Nigeria, Pakistan, Senegal, South Africa, Ukraine Turkey, Ukraine, Uruguay, Vietnam) in strengthening their policy/regulatory ecosystem to support cleantech innovations and accelerate promising entrepreneurs and startups.

34) The project had an overall objective to promote clean energy technology innovations and entrepreneurship in Ukraine through the development of a cleantech innovation platform and Accelerator. It was constituted by four components - with underpinning outcomes and outputs. It was expected that GCIP Ukraine would be connected with UNIDO's global GCIP coordination platform planned to be put in place by 2019 to strengthen knowledge management and exchange.

35) GCIP Ukraine received GEF grant funding of USD 1,502,875. At design, the project expected to be additionally supported by USD 12,200,000 in co-financing: USD 100,000 in grants/in-kind from UNIDO with the remainder from Ukrainian sources, including: USD 1.8 million in cash from the State Finance Institution for Innovations (SFII); USD 190,000 in-kind from government counterparts, USD 10,000 from Greencubator, and USD 10 million in the form of loans from two domestic commercial banks, which were expected to be made available in subsequent years for startups and innovation projects[29]. See **Table 4**.

Table 4 – Project Factsheet

Project title	Global Cleantech Innovation Programme for SMEs in Ukraine
UNIDO project ID	160246
GEF project ID	9811
Region	Europe and Central Asia
Planned implementation start date	14/08/2018
Planned implementation end date	28/11/2021
Actual implementation start date	01/01/2019
Actual implementation end date	31/05/2023
GEF Focal Area	Climate Change

[25] OECD (2 December 2022), "Turning to Regions and Local Governments to Rebuild Ukraine https://www.oecd.org/ukraine-hub/policy-responses/turning-to-regions-and-local-governments-to-rebuild-ukraine-9510f490/
[26] OCHA Services Relief Web (24 February 2023): "One Year Later: Helping Ukraine Win the War and Build Lasting Peace", https://reliefweb.int/report/ukraine/one-year-later-helping-ukraine-win-war-and-build-lasting-peace-0
[27] OECD (2 December 2022), "Turning to Regions and Local Governments to Rebuild Ukraine https://www.oecd.org/ukraine-hub/policy-responses/turning-to-regions-and-local-governments-to-rebuild-ukraine-9510f490/
[28] Greening the COP17. GEF ID 4514. Request for CEO Endorsement.
[29] GEF-6 Request for Project Endorsement/Approval GEF ID 9811

Implementing agency	UNIDO
Executing partners/entities	Ministry of Ecology and Natural Resources (MENR) Ministry of Economic Development and Trade (MEDT) State Finance Institution for Innovations (SFII)
Donor	GEF
GEF project grant	USD 1,502,875 (plus USD 50,000 for the project's preparation)
Total co-financing at design	USD 12,200,000 (Cash: USD 11,850,000 + In-kind: USD 350,000)
Materialized co-financing at project completion (in cash and in-kind)	Cash: N.A. In-kind: 100,000
Mid-Term Review Report	August 2021

Source: Project Document and PMU

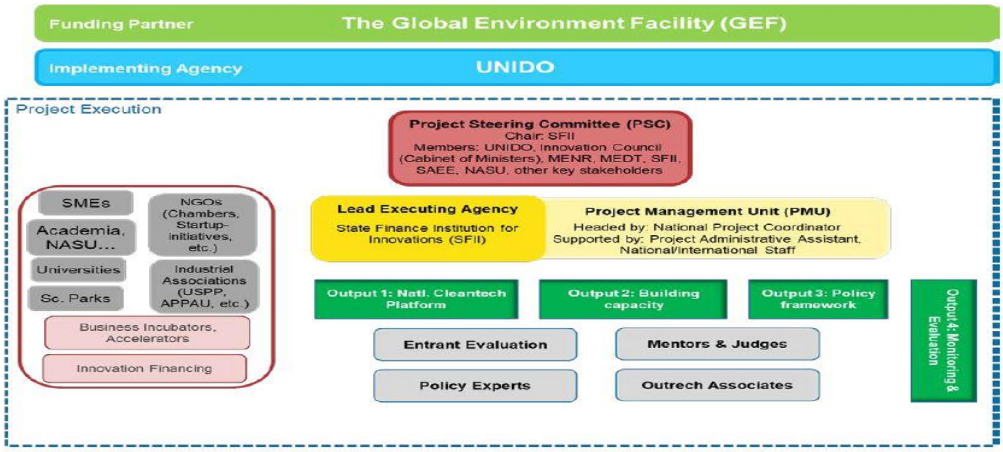
36) Planned to start in August 2018 with a 36-month duration, the project kicked off in January 2019. Due to COVID-19 (classified as a pandemic by World Health Organization on 11 March 2020), the project was granted a 1-year 'no cost' extension to November 2022, then a further 6-month extension to 31 May 2023 to allow for the completion of planned activities.

37) An independent mid-term review (MTR) was carried out during April-August 2021.

38) Key executing partners at government level included the Ukrainian Ministry of Ecology and Natural Resources (MENR), Ministry of Economic Development and Trade (MEDT), and the State Finance Institution for Innovations (SFII). On-the-ground execution was provided by the PMU in Kyiv, operating under the supervision of a UNIDO Project Manager in Vienna, with technical input from the Network for Global Innovation (NGIN in United States), with overall governance provided by the Project Steering Committee (PSC) established under SFII's chairmanship.

39) The PSC was constituted by representatives from UNIDO and Ukrainian institutions seen to most likely benefit from project outcomes, who could also play a role in sustaining its results (see **Figure 1**). During project implementation, the PSC met regularly, with discussions documented in Minutes.

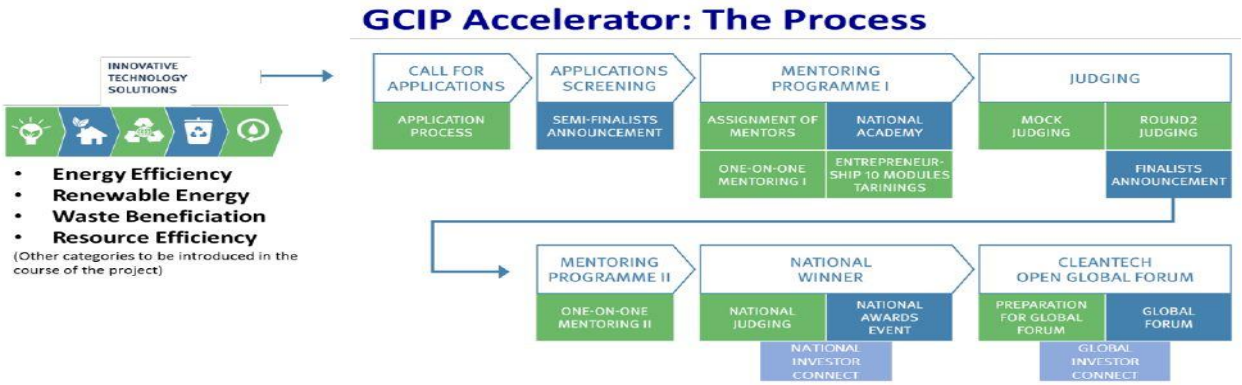
Figure 1 – Institutional Arrangement



Source: p48, GEF-6 Request for Project Endorsement/Approval GEF ID 9811

40) The GCIP mechanism was designed to identify and nurture promising cleantech innovators. The National Cleantech Platform of Ukraine was expected to act as a key knowledge hub, hosting an annual cleantech accelerators across selected SME clusters with up to 100 entrants each year. Screened and whittled down by a panel of judges, a set of up to 30 'semi-finalists' took part in a competition-based Accelerator, which functioned as an 'innovation funnel'. Their ideas were shaped through mentoring and training (in the form of a 'national academy') based on the established GCIP methodology, in cooperation with national counterparts. In each round, up to 15 finalists were to be selected by judges, with the final winners of the competition selected by an independent panel. See Error! Reference source not found..

Figure 2 – Cleantech Accelerator Process in Ukraine



Source: p24, GEF-6 Request for Project Endorsement/Approval GEF ID 9811

41) Stakeholders interviewed in other GCIP countries attested that those who completed the GCIP process were widely seen as 'high quality'. In principle, this would increase the likelihood for their innovations to reach the market, reduce GHG emissions, and create jobs.

42) Learning from the experience in other GCIP countries where many cleantech innovations characterized as 'high impact' with 'market potential' had failed due to insufficient access to financial resources to facilitate commercialisation, GCIP's implementation in Ukraine envisaged setting up a robust network with national financial institutions and funds in order to raise awareness and sensitize relevant stakeholders about the opportunities and risks associated with cleantech projects and market trends.

3 Project Assessment

43) The TE's findings are outlined below, following the content and sequence of the required evaluation criteria outlined in **Table 1**, backed up with justifications and references to key evidence.

3.1 Progress to Impact

44) UNIDO's definition of progress to impact puts the emphasis on assessing the 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 the extent to which conditions for trajectory change have been put in place.

Finding 1:	The establishment of five Regional Accelerators hosted by existing institutions spanning Ukraine's full geography and the associated capacities built in these universities to sustain their operation, together with their clear interest in and commitment to continuation, albeit in a situation of being unable to fulfil the associated financial support needs, provides a platform that could be activated in future, given the extent of goodwill and capability that have been developed. Furthermore, 14% (i.e. 4 of the 28 involved startups) had some basis to scale up, having attracted investment to support initial steps towards commercialisation. However, the project's failure to materialise the contracted post-Accelerator support (a key element of GCIP's improved value proposition) has not only slowed momentum of the remaining startups, it has generated enormous discontent on the part of all interviewed stakeholders, with significant reputational damage for both UNIDO and GCIP in Ukraine. The numerous discussions with potential national investors that were initiated then paused (thereby depriving the involved entrepreneurs of the anticipated links to support commercialisation), together with the institutional disconnect with the successor programme (GCIP 2) and its intended seamless support for GCIP 1 alumni eliminated opportunities for knowledge transfer (thereby reducing prospects for leveraging synergies). In a context where key enabling conditions to support enterprise innovation had not yet been sufficiently addressed and the ongoing between Ukraine and Russia has continued to divert the attention and resources of all sectors of society, with prioritisation of survival and recovery of infrastructure and basic services – the prospects for achieving long-term impact from this project's investment seem rather dim in the absence of mitigation measures.

45) Building on a proven concept that traces its origins to Silicon Valley[30], the GCIP approach was expected to lead the catalytic growth of a cleantech industry in developing and emerging countries through robust innovation and entrepreneurship ecosystems (p22, Project Document). Clearly relevant for Ukraine's ambition to tap the cleantech sector as an economic engine that could simultaneously address national priorities for job creation and environmental protection (see Section 3.3.1), with project achieved satisfactory performance on effectiveness (see Section 3.3.2) and efficiency (see Section 3.3.3). However, the Ukraine-Russia conflict dominated the 2022-2023 period and even as the project reached its close in May 2023, this situation continued to divert the attention and resources of government, industry, and civil society towards survival mode. The resulting uncertainty about both present and future scenarios is seen as a significant dampening factor on the project's socio-political, institutional, and financial sustainability.

46) Considering impact drivers[31] identified in the project's RTOC, the evidence is mixed regarding the ability of this intervention to deliver the envisaged impact:

- **Cleantech innovators' linkages to industry and finance** – The involved mentors/judges/trainers and PMU and Regional Accelerator staff were convinced about the relevance of the supported innovations for solving real-world problems in industry as well as regional economic development. While their infrastructure and networks have surely been impacted by the ongoing Russia-Ukraine conflict, the discussions launched by the PMU with numerous national investors (¶86) have laid an important foundation that can presumably be reactivated to identify future financing sources, although the extent to which their priorities will include supporting early stage cleantech innovation in a post-war recovery period cannot be verified at present. While some entrepreneurs had, in the past, acquired venture capital, business advice, and manufacturing partners due to existing informal mentoring networks and linkages with the Ukrainian diaspora (¶29), the extent to which these resources have remained intact throughout the ongoing conflict with Russia is also not evident.
- **Scaling-up potential** – The fact that 14% (i.e. 4 startups) had received investments (¶87) provides these innovators with some means for scaling up: i) production of biodegradable plastic from starch (by Polystrach, which received USD 5 million); ii) production of paper from fallen leaves (by Re-Leaf Paper, which received EUR 2.5 million); iii) smart farming through an artificial intelligence-powered platform (by AgriEye, which received USD 350,000); and iv) production of waxed napkins for food products (by Uf-Bee, which received EUR 50,000). The extent to which the remaining 24 startups (of 28 supported under the project) will succeed in attracting the needed investments and other support to reach commercialisation is difficult to predict, given the paused discussions with GCIP 1's array of potential investors (¶86) and the interruption of GCIP 2 (¶103), which was expressly designed to facilitate such linkages and the investment to scale-up innovative cleantech solutions. As the planned post-Accelerator did not materialise (¶134), this has presumably slowed their momentum.
- **Ecosystem maturity** – While the project's Policy Component was conceived to build awareness of the needed facilitating conditions and gaps to fill, as well as motivate meaningful advance (¶60), the limited progress on evolving this aspect (¶89) leaves significant work still to be achieved, in light of challenges related to licensing, permits, taxes, weak protection of intellectual property, etc. (¶29) which continued to dampen enterprise innovation. While the restoration of infrastructure and basic services was expected to be prioritised in the post-war recovery period (¶32), longer-term development needs, was also foreseen, although the extent to which support and stimulation of cleantech innovation would be explicitly included was not documented.
- **Women's inclusion and empowerment** – Reflecting the UN's overall commitment to promote social

[30] Referring to the business accelerator Cleantech Open (https://www.cleantechopen.org/), whose founders contributed a large portion of the logic, design, and training underlying the GCIP approach

[31] Seen to be under the influence of the project, its implementing partners, and relevant stakeholders, should these impact drivers be present, they would transmit vital catalytic power through impact pathways and contribute to realizing the project's contribution to the intended long-term impact

justice through gender equality and following UNIDO's specific recognition that gender equality and the empowerment of women have a significant positive impact on sustained economic growth and inclusive industrial development (¶107), the inclusion of targets for female participation did focus attention on supporting women as well as men under the project's framework, with explicit efforts (e.g. through establishing contacts with relevant institutes, networks, associations) to identify and channel women candidates into mentor/judge/trainer opportunities and women-led startups into the Competition-Accelerator (e.g. complemented by awards dedicated to women entrepreneurs).

47) It is confirmed that the five Regional Accelerators established under the project's framework are motivated, have built some initial capacities to sustain their operations (¶80), and established governance structures in the form of a Steering Committee. In addition to signing contracts with UNIDO during the project period to carry out the two waves, which served to strengthen institutional engagement, the involved staff attested to the utility of the GCIP process (¶84) and its value for the involved institutions ("it helped to create new direction for the development of the university"; "all universities are very proud to be part of such a tremendous project"; "we got valuable know-how"). This strengthening of capacities to support enterprise innovation addressed an important gap that had been identified as part of the project's justification (¶29).

48) Although interviewees expressed strong interest to continue ("our university is totally willing to continue"), they also mentioned that the ongoing conflict was a serious risk factor ("right now, the war is a problem"; "university professors have not been forced into the war so they are willing to continue"). Stakeholders affiliated with the Regional Accelerators also asserted that they would need financial support: in one case, they were counting on support mentioned in the contract with UNIDO that would allow for purchase of equipment and a room for convening the Business Academy training and mentoring programme. All mentioned the need for financing to support the involved startups (¶102).

The rating for Progress to Impact is 'Unlikely'

3.2 Project Design

49) The assessment of project design considered the quality of the overall design and its results framework.

3.2.1 Overall Design

Finding 2:	Aligned with the priorities of the country and donor and fully consistent with UNIDO's mandate for inclusive sustainable industrial development, the project's design for Ukraine brings a proven, holistic approach for dynamizing the country's cleantech innovation. The design has incorporated some learning from previous GCIP implementation in other countries, although the conceptualisation and resourcing of its policy/institutional framework outcome remains insufficient, considering the project's ambition to spur meaningful advance and the pertinence of securing an overall ecosystem that fosters cleantech adoption that can consequently valorise investments like the Competition-Accelerator and its associated built capacities.

50) In assessing the project's overall design, its Theory of Change (TOC) was reconstructed (see **Annex I)** based on GEF guidance[32] and the project's results framework. This exercise was also informed by the Team Leader's involvement in carrying out country-level evaluations for UNIDO during 2018 on GCIP projects in Turkey, Pakistan, South Africa (and Thailand in 2021) and a meta-evaluation of GCIP implementation spanning six countries, with findings presented to the GEF Council in December 2018.

51) This exercise was documented in the evaluation's Inception Report (April 2023), where the project's impact drivers and assumptions were made explicit, together with the intended long-term impact. Working backwards through the necessary preconditions, causal pathways were identified, which, if followed, could be expected to contribute to the desired transformative change i.e. that promotion of

[32] The Evaluation Team has based the RTOC concept, definitions of terminology (e.g. assumptions, impact drivers), and understanding of impact pathways on guidance developed by the GEF: The RotI Handbook: Towards Enhancing the Impacts of Environmental Projects https://www.gefieo.org/sites/default/files/ieo/ieo-documents/ops4-m02-roti.pdf

low-carbon resilient economic growth reduces greenhouse gas (GHG) emissions and generates new and green jobs and broad-based economic prosperity in Ukraine.

52) The Project Document's narrative identified several **barriers** in the envisaged project's environment:

- Lack of technology innovation platforms;
- Insufficient dynamism/contribution of SMEs in cleantech innovation;
- Shortage of relevant business and entrepreneurial skills of SMEs/startups;
- Limited SME/startup access to finance;
- Inadequate transfer of cleantech R&D between academia & industry;
- Weak enabling policy/regulatory environment; limited impact monitoring.

53) In identifying the problem to be addressed (i.e., energy intensity, climate change, insufficient economic diversification), the project outlined a route to address these challenges through the promotion of clean technology entrepreneurship and 'de-risking' the resulting innovations of SMEs/startups across the country by improving the enabling conditions to facilitate cleantech adoption and facilitate access to resources to support their commercialisation. As a large portion of 'cleantech' is made up of energy-related technologies[33], the GCIP Ukraine design narrative, which traced its origin to preceding design documents (¶33), retained a pronounced emphasis on energy. The 'cleantech' concept encompasses a range of sustainable technologies in water, waste, and materials, amongst other domains, and therefore, in implementation, references to 'cleantech' rather than 'clean energy technology' predominated.

54) The project is deemed to be suitably built on three substantive components, underpinned by continuous M & E to assure smooth implementation. Considering the project's aim to influence a system, this constitutes a holistic approach for dynamizing the country's cleantech innovation ecosystem by providing business assistance services to early stage entrepreneurs to support and accelerate startups towards the commercialization of their innovative ideas, developing national capacities to sustain these activities, while fostering an enabling environment that promotes the adoption of cleantech innovation. Together with the constellation of involved actors playing pertinent roles (¶55), the overall approach is considered as sound, appropriate, and technically feasible

55) The implementation arrangements (see **Figure 1**) are viewed favourably, drawing legitimacy from the involvement of relevant partners: i) GEF, which provided grant funding and endorsement used to build awareness/support for the cleantech concept; ii) UNIDO, whose expertise (¶75) was well-recognized, held the role of lead implementing agency; and iii) SFII, which was directly responsible for implementing the country's innovation policy, was designated as lead executing agency, with MENR and MEDT as key PSC members to ensure national ownership and sustainability.

56) The M & E activities included to ensure effective project implementation are seen to be more suitably budgeted than was the practice for previous GCIP country projects, with a 5% allocation of the overall project budget (i.e. USD 75,000), compared to just 1.5% for GCIP in South Africa, 2% in Turkey and 3.6% for Pakistan, which had similar 3-year interventions (¶119). Regular monitoring exercises were to be conducted, tracking tools were to be developed and used, and annual Project Implementation reports (PIRs) were to be elaborated by the PMU. A mid-term and terminal evaluation were planned and budgeted accordingly.

57) High-level risks were identified in a project risk log (pp43-44, Project Document), together with mitigation measures that are seen to be suitable at the planning stage. This represents good practice. For instance, involvement of relevant institutional partners for project execution and sustainability and access to follow-up financial support for developing and launching innovations were assessed as "low risk". By contrast, "lack of interest by the public and industry" was seen as a medium risk. Given the potential negative impact on the level and quality of participation in the Competition-Accelerator, a major priority

[33] According to the Global Cleantech Innovation Index (GCII 2012, p10), energy-related technologies constituted 77% of total cleantech venture capital investment in 2010

was consequently to be put on adequate resourcing and implementation of communications, outreach through tailored workshops, user-friendly entry forms, and online tools – which is seen to constitute an appropriate mitigation strategy.

58) It is positively noted that attention was to be put on ensuring equal opportunities were provided to women and men to promote their entrepreneurial development and job creation, following international commitments to gender mainstreaming reflected in UNIDO and GEF policies (¶108).

59) There is evidence that learning from GCIP implementation in other countries has been incorporated (explicitly mentioned on p6, Project document), thereby addressing previously identified gaps. In this light, notions that represent important catalytic potential have now been included: i) GCIP Ukraine would additionally offer post-Accelerator services to GCIP alumni in terms of targeted technical assistance and linking to financial service providers to support commercialisation of innovations; ii) Closer connectivity amongst players in the domestic cleantech system was to be promoted; and iii) Lessons learned were to be disseminated, through the addition of an output (i.e. 4.1.2). The recognition and inclusion of these missing aspects could be reasonably expected to advance commercialisation of the supported innovations as well as contribute to knowledge generation, learning, and management.

60) Turning to the Policy Component, it was expected to generally support national and sub-regional policymakers in strengthening the policy framework [in a context where the overall environment for entrepreneurship presented steep challenges vis-à-vis licensing, permits, taxes, weak protection of intellectual property, and poor insolvency laws (¶29)] -- and specifically to support the formulation of normative documents on economic incentives that would encourage entrepreneurs and SMEs to implement energy efficiency and renewable energy as well as resource efficiency technologies (p21, Project Document). The under-funding and implicit de-prioritisation of the Policy Component (deduced from its comparative budget allocation), together with planning that disregards national policy-making processes and their timelines (which typically extend far beyond the duration of a 3-year project timeline) reflected the approach of earlier country implementations. This shortcoming and its consequences (i.e. inability to deliver on policy outcomes/underpinning outputs, which weakens effectiveness, ¶89) were highlighted in a meta-evaluation of the GCIP programme34. In the planning stage, the bulk of GCIP Ukraine's budget was allocated towards implanting the Competition-Accelerator platform (43%) and building capacities to sustain its operation (33%), while just 10% of the overall budget, i.e. less than USD 150,000, was to be channelled towards the enabling environment. Some adjustments were made in the released budget during implementation, but these did not vary greatly from the apportioning foreseen in the project design. The symbolic investment in this aspect of the project seems more like an after-thought than an intentional and adequately resourced strategy to rally pertinent national actors around the challenge and encourage their leadership in evolving the needed policies/regulations to facilitate and promote cleantech adoption.

The rating for Overall Design is 'Moderately Satisfactory'

3.2.2 Logframe

Finding 3:	The project's results framework reflects a logically sequenced and mutually reinforcing architecture based on GCIP's proven model, and it has benefitted from some consolidation, reflecting previous learning. Despite previous feedback on this point, weak outcome formulations that reflect little more than a summing up of their constituent parts orient towards the delivery of outputs, with monitoring and reporting focussed on activities for their achievement. While the use of primarily quantitative indicators can be easily cascaded into monitoring and reporting

[34] p30, GEF-UNIDO Global Cleantech Innovation Programme (April 2020; presented to the GEF Council in November 2018) indicates that GCIP projects did not realise their intended outcome to strengthen the policy/regulatory environment to foster the growth of cleantech innovation (as outcomes that could be achieved over the duration of each national project were not properly considered and generally embarked on at a later stage using an ad hoc approach), which was deemed to be a risk factor for sustaining the projects' results https://www.gefieo.org/sites/default/files/documents/evaluations/cleantech-programme-2018.pdf

systems, particularly in the absence of meaningful baseline data, they provide limited insight regarding relevance, quality, and utility.

61) The project design followed the UNIDO template used for GCIP country pilots designed and implemented since 2013 (¶33). It is favourably noted that the results framework was logically sequenced and mutually reinforcing. Based on GCIP's proven model[35], it is reasonable to expect that the Competition-Accelerator could function to dynamize Ukraine's cleantech innovation ecosystem (Outcomes 1.1 and 1.2) – sustained by the supportive institutional capacities developed through 'on-the-job' training – and set the stage for scaling up cleantech innovation across the country beyond project close (Outcome 2.1). The recognition that the policy/regulatory framework would be need to be strengthened in order to facilitate cleantech adoption and upscaling was included in Outcome 3.1, albeit insufficiently resourced (¶60).

62) While the project's design was strengthened through consolidating outputs (to increase synergies and enhance articulation of activities around the main outputs), the newly-added Output 3.1.3 (national institutional capacity strengthened for sustainability) seems to have been misplaced under Outcome 3.1 (which is dedicated to improving the national policy/regulatory framework that would enable cleantech innovation to flourish). By appropriately including Output 3.1.3 and its underpinning activities under Outcome 2.1 (about building capacities), there would arguably be more clarity for effective budgeting and monitoring resource use related to the project's capacity-building outputs and outcomes, as the underpinning activity relates to training 50 staff from partner and national institution on competition organisation, which is arguably related to Output 2.1.1 (capacity building of national institutions and industrial associations to host, support and sustain the GCIP).

63) It was also observed that a weakness pointed out in previous evaluations of the same project design has remained unaddressed[36]. While the project's overall objective and impact indicators are valid, the formulation of its component-level outcomes are little more than a summing up of the constituent outputs. This had the effect of orienting monitoring and reporting towards the achievement of the planned outputs and their underpinning activities. The expected consequence of the logframe's output-orientation was indeed evident in the PIRs, which, irrespective of reporting progress on achievement of outcomes or outputs, lists activities achieved – without any documented reflection on the ways in which the project's support is being used to drive change in attitude and behaviour. Such an assessment is a key management tool to identify good practice, do timely risk analysis, diagnose and troubleshoot weak areas, make corrections, shift resourcing, etc. In backgrounding the focus on outcomes, this may underplay attention on sustainability dimensions in the form of building links, leveraging synergies, identifying resources/co-financing and developing an exit strategy, which feed into sustaining the project's benefits.

64) **Table 5** contains reformulations that reflect behavioural and systemic change that put attention beyond programmed activities and outputs, to what target groups and other relevant stakeholders are expected to do with the results and the ways in which tangible change will be spurred by the project's support. These outcome reformulations have been incorporated into the project's reconstructed Theory of Change (see **Annex I**), which was used to understand the intervention's underlying logic by demonstrating how it has been understood it will lead to its results (¶50).

Table 5 – Reformulated Outcomes Reflecting Use of Project Outputs to Promote Change

Current Output-Level Formulation in Project's Results Framework	Reformulation Reflecting Intended Behavioural and/or System Change Outcomes
Outcome 1.1: National level platform/coordinating mechanism established to promote clean energy technology innovations and entrepreneurship	National-level coordinating mechanism promotes and advances commercialisation of cleantech innovation

[35] The GCIP model is based on a proven accelerator model originally created in Silicon Valley, whose materials have been transferred to national institutions in GCIP countries to ensure sustainability, as indicated in the Project Document (p5)
[36] Referring to GCIP projects evaluated in 2018 in Turkey, Pakistan, and South Africa

Outcome 1.2: Clean technology entrepreneurs identified, coached and promoted during and beyond the GCIP Accelerator	*See as being incorporated in the above outcome*
Outcome 2.1: National institutional capacity built to support and organise the Cleantech competition and accelerator during and beyond project duration	Built capacities invigorate and sustain national cleantech ecosystem
Outcome 3.1: Policy and institutional framework strengthened to promote and support cleantech innovations in startups and SMEs	National policy/regulatory framework enables cleantech innovation to flourish

65) Indicators for outcomes, outputs, specific targets, and their means of verification were all mentioned. The indicators are primarily quantitative. While easy to transfer into a monitoring system and comparatively easy to count and report, they do not provide insight into the relevance, quality, and actual use of the outputs (which would drive outcomes). While a column was included for assumptions and risks at outcome and output level, virtually the same text (referring to continuous support, commitment and participation by national actors) was deployed throughout. This level of risk analysis is considered to be overly simplistic, missing out on vital opportunities to leverage learning from previous GCIP operationalisations.

66) Furthermore, most of the baselines mentioned are indicated as 'zero' or 'no' (i.e. "no dedicated platform", "no dedicated similar training". "no dedicated roadmap available"), which does not allow for gauging meaningful change. On the other hand, given the resourcing, it would not be reasonable to expect that the project could itself establish a baseline for the targets.

67) A weak point was found in misalignment between the targets and indicators of Outcome 3.1 (policy/institutional framework conditions). While having output-level targets to deliver a Policy Assessment Report and Roadmap highlighting necessary improvements, the related indicator pointed to the development of and/or amendments in policies, regulations and programmes (to evolve a more supportive environment for cleantech adoption). This architecture risks creating an illusion that these documents, by themselves, can spur such transformation within the project's timeline (which is too short to realise actual policy change) and the limited resourcing provided for this outcome (¶55). A more useful performance indicator would relate to prioritisation, endorsement, and resource allocations on the part of relevant national actors to move the needed policy change processes forward.

The rating for Logframe is 'Moderately Satisfactory'

3.3 Project Performance

68) The project's performance was assessed in relation to its Relevance, Effectiveness, Efficiency, and Sustainability of Benefits. Each of these aspects has been reviewed and rated below.

3.3.1 Relevance

Finding 4: The project's support was highly relevant for global and national priorities and end beneficiaries in government, academia, and industry based on its contributions to job creation, economic development, environmental protection, and showcasing of Ukrainian innovation and research. It leveraged UNIDO's mandate and domains of comparative advantage and was fully aligned with the donor's priorities for enhancing private sector engagement and promoting cleantech innovation to address climate change challenges.

Relevance at Global Level

69) The project's objective is fully consistent with global development needs and environmental priorities in promoting commercially viable clean energy technology innovations, which are seen to be a key driver

for sustainable socio-economic development[37]. The project was aligned with the 2015 Paris Climate Agreement, 2030 Development Agenda, and Sustainable Development Goals (SDGs), which instantiate the world's commitment to safeguarding the global commons. The GCIP project supported Ukraine's drive to address global climate change. At design, it was estimated that the project's support of cleantech innovations would lead to direct mitigation of 2,394,576 tCO2e over a 10-year period[38].

Pertinence to Country Priorities and Target Group Needs

70) The project was aligned with national priorities concerning job creation, economic development, and environmental protection. Interviewed stakeholders pointed to the support of the Vice Minister of Ukraine, together with active participation of relevant agencies in its governance structure, as indications of the project's value for the country from the government's perspective (¶136). A mentor described the project as "creating jobs, strengthening SME competitiveness, reducing national greenhouse gas emissions, and promoting sustainable environmental development". A judge asserted that "it helped support regional innovators and create green jobs". Strengthening institutional capacities and promoting the shift to a low-carbon economy and developing a market for cleantech innovation was aligned with the national vision to accelerate the transition to a greener economy (¶26). The promotion of green energy technologies for industrial applications was a means to lower the nation's energy intensity (¶23), contributing to national goals by scaling up energy efficient and renewable energy technologies in energy intensive manufacturing SMEs (p26, Project Document).

71) National counterparts highlighted that the project's coverage of Ukraine's full geography increased the project's relevance and also pointed to the important role that it filled in subsequently adopting such a strong regional focus, explaining that "before, there were no such accelerator programmes in this region" (referring to Donetsk), identifying this development as "critical for bringing together mentors, consultants, relevant information and financial support".

72) Regional stakeholders also emphasized the project's role in strengthening the involved universities' competences and reputation ("it helped develop our institution's strong leadership and regional coordination role supporting clean technology development and implementation, as well as facilitating stakeholder collaboration"). A Regional Accelerator representative affirmed that "all the directions relevant for GCIP are totally in tune with our university's goals". Another pointed to the universities' involvement as well as promoting regional economic development and environmental protection, asserting that "the Accelerator's operation has made it possible to select innovative projects that can help improve the environmental situation in the region in the future". A Mykolaiv representative saw the GCIP framework as providing a "unique testing ground" to operationalise the tripartite collaboration of academia, government and industry laid down in the region's strategy for development until 2027[39].

73) Industry stakeholders also remarked on the pertinence of the intervention, indicating that "through GCIP, Ukraine has been added to the global market of startups" and it "opened the way for a global distribution of Ukrainian inventions and research". Furthermore, the intervention was expected to build SME competitiveness and open avenues to national, regional and (and possibly global markets) through the project's anticipated links with investors, business, and commercial partners (p20, Project Document).

74) The project was seen to directly address a key gap in entrepreneurial skills. Mentors emphasized that the programme helped startups "transform their cleantech ideas into viable commercial products and

[37] Energy Is linked to goals and targets on poverty eradication, sustainable agriculture, food security & nutrition, health & population dynamics, education, gender equality & women's empowerment, water & sanitation, economic growth, sustainable consumption & production, and climate. Building More Inclusive, Sustainable and Prosperous Societies in Europe and Central Asia: From Vision to Achievement of the Sustainable Development Goals Call for Action from the Regional UN System, Regional Advocacy Paper 2017 produced by UNDP and UN Regional Coordination Mechanism

[38] p5, Project Document

[39] President of Ukraine's official website (21 August 2020), "The Mykolaiv Region has a Great Potential in Agriculture, Tourism, Metallurgy and Shipbuilding https://www.president.gov.ua/en/news/glava-derzhavi-mikolayivshina-maye-potuzhnij-potencial-u-sil-62897 [18 July 2023

services" and "acquire important soft skills like pitching and leadership competences". The involved entrepreneurs commented on the value-add of the GCIP approach, compared to other forms of startup support available in Ukraine at the time, illustrated by the following feedback: "some competitions just evaluate, and we weren't ready for that: we needed the business development that GCIP brought to us"; "most existing competitions in Ukraine are for experienced projects but they are not very good for young projects"; and "GCIP gave us the most valuable knowledge, we never had such an experience before".

Alignment with UNIDO Priorities

75) For UNIDO, the project was highly relevant to its mandate to pursue Inclusive and Sustainable Industrial Development. It was aligned with the notion of shifting environmental and climate change challenges away from a compliance issue towards seeing these as an economic opportunity, while also dynamizing SMEs. 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 GCIP framework. The project built directly on the experience and lessons of UNIDO projects launched in other geographies (¶55).

Alignment with Donor Priorities

76) The project's anticipated generation of global environmental benefits (GEBs) in the form of direct GHG mitigation (¶69) was fully aligned with the GEF's drive to address climate change. In addition to supporting to a transformational shift towards a low-emission resilient development path (¶70), the project expected to contribute GEBs related to biodiversity, sustainable land management in production systems, collective management of transboundary water systems, reduction of hazardous chemicals, with targets set for reduction of persistent organic pollutants, mercury and ozone-depleting substances[40]. The project was fully aligned with GEF's focal area: CCM-1 Program 1, Technology Transfer: Promote the demonstration, deployment and transfer of innovative low-carbon technologies.

77) In summary, the project is deemed to be highly relevant based on the strength of its alignment with the donor's priority (¶76), consistency with UNIDO's mandate to pursue Inclusive and Sustainable Industrial Development (¶75), contribution to national priorities (¶70), and suitability for strengthening the lead national executor's mandate vis-à-vis innovation policy and investment in the implementation of innovative projects (¶50).

The overall rating for Relevance is 'Highly Satisfactory'

3.3.2 Effectiveness

78) The project's effectiveness was assessed by looking at the achievement of planned outputs and outcomes vis-à-vis the indicators and targets in the project's results framework – also considering their quality and utility in the eyes of intended users and other project stakeholders.

Finding 5:	Due to the project team's efforts and the determination and resilience of intended beneficiaries, the planned outputs were carried out in a satisfactory manner, with targets met or exceeded, driving results related to implanting the Competition-Accelerator platform and building the capacities to sustain its operation (Outcomes 1 and 2). Design weaknesses underlying the conceptualisation and resourcing of Outcome 3 and its associated outputs were reflected in under-achievement.

79) Regarding the outputs: following review of annua PIRs (from July 2018) and consolidated information provided by the PMU for January 2019 to May 2023 (see **Annex VII)**, triangulated with perspectives collected through the evaluation interviews and survey, it has been concluded that the envisaged

[40] The project's targeted contribution to GEBs were outlined in the Project Document (5); actual contributions were to be calculated at the project's closure. Verification was not available to the Evaluator at the time of the preparation of the TE Report.

activities and planned outputs have been delivered in a satisfactory manner for outputs related to Outcomes 1 and 2. See **Table 6**, which presents key evidence justifying this assessment.

80) Of note, the project over-achieved on the designed target to run 3 annual Competition-Accelerator waves, managing to run 6 waves at national level within a 5-year period (thanks to the project's extension) with 254 startups trained on product development/market entry compared to the 60 that were targeted in the planning phase. This achievement is especially impressive considering the unfavourable context: first, with effects from COVID-19 restrictions on travel and face-to-face training and meetings imposed from March 2020 (after just one wave had been conducted at national level), then the major disruption since 24 February 2022 with Russia's aggression against its neighbour Ukraine, all of which required major adaption and flexibility on the part of all project stakeholders, including the learning involved in shifting activities online. Given the key assumption in the project's results framework of "continuous support and participation by industry and other relevant stakeholders", the project's over-achievement is a genuine credit to the project team's efforts ("the project continued to work even in war-time") and reflects the determination and resilience of targeted beneficiaries.

81) The two waves that were additionally run during June 2021 to February 2022 by the five Regional Accelerators established under the project (apart from Kherson National Technical University, which ran just one wave in Autumn 2021 then paused activities due Russian occupation of the territory) enlarged the pool of supported startups and capacities, thereby introducing the cleantech innovation concept and a supportive infrastructure across Ukraine.

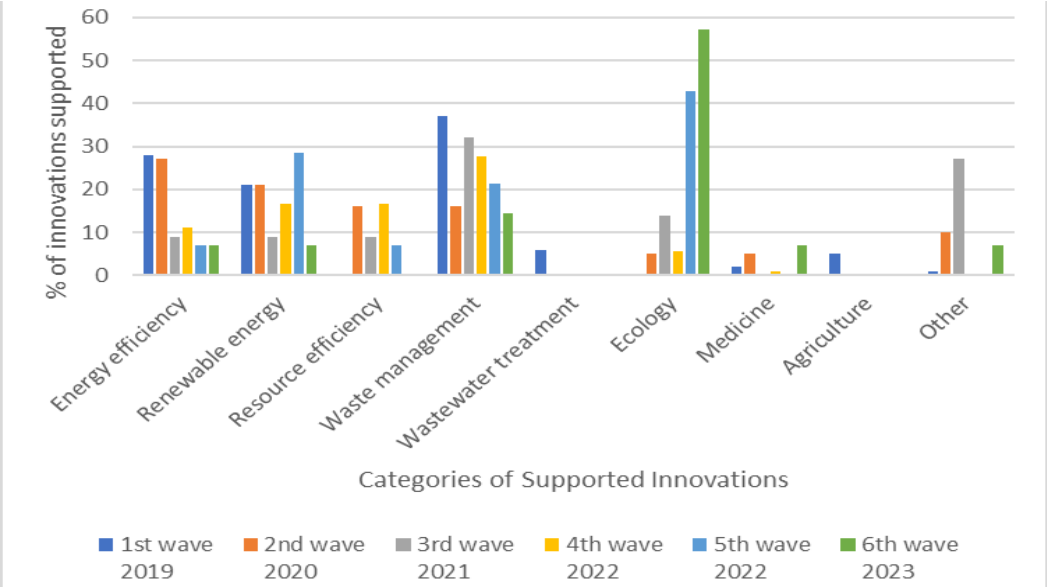
82) Communication amongst the Regional Accelerators allowed for knowledge sharing. Due to the different timing of the waves, several of the involved universities accepted applications from other regions. The cooperation between Mykolaiv, Sumy, and Donetsk was specifically mentioned.

83) The number of mentors (43), judges (48) and local trainers (44) – spanning both national and relation levels – whose capacities were enhanced through the process significantly outstripped the planned targets (15 mentors, 10 judges; no targets were mentioned for equipping local trainers) reflects the project's success in engaging these needed cohorts to sustain the continued operation of the Competition-Accelerator beyond the project's close.

84) Mentors and judges involved at various stages of the GCIP process, at national and/or regional level, universally confirmed the usefulness of the training, describing it as "an effective, focussed process". The involved startups articulated the value they received in terms of helping them move along a development trajectory, indicating: "this programme is not only about competition. We learned a lot. It helped our project grow", while others attested that "GCIP taught us how to create a real product from a useful idea and bring it to a new level of development" and "it helped us understand the real values of our product and how to go to market".

85) Concerning the startups and SMEs supported through the six waves of the Competition-Accelerator that were conducted, in the initial years, in alignment with GCIP's thematic intention (¶53), those categorised under 'energy efficiency', 'renewable energy' and 'waste management' featured more prominently, while beginning with the 4th wave (2022), what appeared to be a catch-all category named 'ecology' garnered significantly more representation, accompanied by a noticeable drop in innovations related to energy concepts (see **Figure 3**). While there were signs of a mildly liberal intake at national level, with the inclusion of the category of 'medicine' and 'organic farming', an overly broad interpretation in the regional roll-out allowed for the inclusion and support of innovations that appeared to have a very tenuous connection to cleantech (e.g. collection of food waste from restaurants to distribute through a Food Bank to homeless people, justified by the notion that reducing food waste is related to changing behaviour; another project that stakeholders mentioned related to a traditional home brew of honey with alcohol whose promoters were hoping to enlarge its commercial prospects, which was described as "giving it a 2nd life"). PMU representatives were confident that the involved judges were aware of the cleantech criteria and explained that "sometimes they feel these other criteria are needed".

Figure 3 – Supported Innovations, by Category (2019-2023)



86) While the PMU reported that at least 28 startups with promising clean energy technologies/products/services business ideas had been identified, mentored and prepared for implementation under the project's framework (compared to the target of 18) and discussions had been launched with a long list of potential national investors (as detailed in **Annex VII**), the extent to which they were able to tap any of these sources was not clear. A startup financing programme with JSC PRIVATBANK (Head of the Directorate for work with SMEs) was agreed and launched. However, it was immediately suspended due to the war in Ukraine, as reported in the PIR for 2022.

87) Four startups attracted investment ranging from EUR 50,000 to USD 5 million, which suggests that their participation in GCIP Ukraine was an asset in their collective ability to attract USD 7.9 million to fund their respective efforts towards commercialisation.

88) The project's area of serious defect related to unfulfilled contracts with the Regional Accelerators and for the provision of post-Accelerator support is addressed under Section 3.5.1.

89) Concerning outputs related to Outcome 3, significant and varied activities were undertaken that quite likely surpassed the provided resources and were presumably carried out by PMU staff on an in-kind basis (see **Annex VII**). While the planned Policy Assessment report was indeed produced, the accompanying roadmap with recommendations – together with progress of achievement monitored by the PMU – was not feasible during the project's lifetime. This aspect is not considered to be a defect in the project's implementation; rather, it is seen as a weakness stemming from the design which disregards national policy-making processes and their typically lengthy timelines (¶60).

Table 6 – Achievement of Planned Outputs and Outcomes

Outcomes and Underpinning Outputs	Indicators from Project Results Framework	Evaluator's Assessment with key evidence with respect to targets and indicators of Project Results Framework
Overall Outcome: Promotion of clean energy technology innovations and entrepreneurship in Ukraine through the development of a cleantech innovation platform and Accelerator	# of SMEs and startups to pursue innovations in clean energy technologies Target: National Cleantech Platform established, with at least 18 SMEs/startups with promising clean energy technologies/products/services/business ideas identified and mentored	**Over-Achieved** National Cleantech Platform established At national level: over 6 waves of Acceleration (compared to the target of 3), 139 semi-finalists with promising projects were eligible to participate in Business Academy thereby receiving mentoring and other business support

	# of successful cleantech programmes organised after project completion Target: 3	**Likely to be Achieved** This target can be assessed at least 6 months after project completion Likely to reach target based on interviews of Regional Cleantech Accelerator teams
	Additional investment into clean energy technology innovations due to increased interest in cleantech programme Target: USD 6 million	**Over-Achieved** USD 7.9 million investment attracted by 4 GCIP startups, who were then able to start their production processes
	# of SMEs and startups as members of national platform (sex-disaggregated) Target: at least 200 SMEs (40% women-led)	**Over-Achieved** Through 6 waves of Competition-Acceleration at **national level**: - 397 applications received - 139 semi-finalists (on average, 28.1% women) - 75 finalists - 45 special nomination winners - 6 national winners Through 2 waves conducted by 5 Regional Cleantech Accelerators at **regional level**: – 115 semi-finalists – 79 finalists – 35 special nomination winners – 10 regional winners (1 per wave @ 5 regional accelerators) **Total across national and regional levels:** – 254 semi-finalists – 154 finalists – 80 special nomination winners – 16 winners
	Tons of GHG emissions director or indirectly avoided Target: Indirect emission reduction in range of 2,432,123 to 6,323,626.71 tCO2e avoided over 10 years	**Achieved, according to estimated** Approximately 2,947,105tCO_2e over 10 years is the estimated indirect emission reduction of cleantech startups supported by GCIP Ukraine
Outcome 1.1: GCIP Ukraine platform established, 3 annual cleantech Accelerators conducted across selected SME clusters	National Cleantech Platform/coordinating mechanism established Target: 1 # of new clean energy technologies or innovative businesses created/accredited Target: at least 4 businesses per Competition during or after project implementation period	National Cleantech Platform/coordinating mechanism office was established (within PMU) to support SMEs and startups 6 waves (national level) of Competition-Accelerator were conducted during June 2019 to May 2023 2 waves (regional level) of Competition-Accelerator carried out by each of 5 Regional Cleantech Accelerators during July 2021 to May 2023 Online learning platform for conducting GCIP Ukraine Business Academy was developed and actively used https://wizzylab.com/
Output 1.1.1: GCIP Ukraine platform established, 3 annual cleantech Accelerator conducted across selected SME clusters	GCIP platform established. Target: 1 # of methodologies/guidelines for Competition developed Target: Specific methodologies and (gender-responsive) guidelines for participation/execution of	**Over-Achieved** National Cleantech Platform established in 2019 with successful completion of 6 waves of Competition-Accelerator during project's extended timeframe (January 2019-May 2023) versus the planned 3 waves over 3 years From 2nd wave (2020), shifted to online delivery, which required adaptive management, new material development, new protocols, learning 6 waves of Competition-Acceleration (national level) attracted a total of 397 applications, ranging each wave from 48 (2023) to 82 (2019), with an average of 66 applications per wave

<table>
<tr><td></td><td>Competition-Accelerator developed
# of Competition criteria
# of semi-finalists, finalists, etc.
<u>Target</u>: at least 20 entrants per category in Competition Year 1; at least 30 entrants per category in Year 2 onwards (40% women participants, mentors, judges)</td><td><u>Totals during 6 waves of Competition-Acceleration (national level):</u>
397 applications received
139 semi-finalists selected
75 finalists
45 nominated winners
6 National Winners
At least 20 entrants per category attracted in each wave through open call for applications, according to interviewee
National Level: % of applications or startups per category, based on data reported data from PMU in final PIR covering January 2019-May 2023<table><tr><th>Wave (national level)</th><th>Waste Management</th><th>Wastewater Treatment</th><th>Energy Efficiency</th><th>Renewable Energy Sources</th><th>Resource Efficiency</th><th>Organic Farming</th><th>Ecology</th><th>Medicine</th><th>Other</th></tr><tr><td>1</td><td>37</td><td>6</td><td>28</td><td>21</td><td>-</td><td>5</td><td>-</td><td>2</td><td>1</td></tr><tr><td>2</td><td>16</td><td>-</td><td>27</td><td>21</td><td>16</td><td>-</td><td>5</td><td>5</td><td>10</td></tr><tr><td>3</td><td>32</td><td>-</td><td>9</td><td>9</td><td>9</td><td>-</td><td>14</td><td></td><td>27</td></tr><tr><td>4</td><td>27.8</td><td>-</td><td>11.1</td><td>16.7</td><td>16.7</td><td>-</td><td>5.6</td><td>1</td><td>-</td></tr><tr><td>5</td><td>21.4</td><td>-</td><td>7.1</td><td>28.6</td><td>7.1</td><td>-</td><td>42.9</td><td>-</td><td>-</td></tr><tr><td>6</td><td>-</td><td>-</td><td>7.1</td><td>7.1</td><td>-</td><td>-</td><td>57.1</td><td>-</td><td>7.1</td></tr></table></td></tr>
<tr><td>Output 1.1.2: GCIP community and network maintained</td><td># of GCIP communities identified and maintained
<u>Target</u>: at least 6 identified</td><td>Achieved
Working contacts created and maintained with 6 GCIP communities
OSCE project partnership established (resulted in 3rd wave special nomination)
Established contact/collaboration with 3 Japanese actors (including government, technology, and financial partners) plus a Polish enterprise forum</td></tr>
<tr><td>Outcome 1.2: Clean technology entrepreneurs identified, coached, and promoted during and beyond GCIP Accelerator</td><td>National Cleantech Platform/coordinating mechanism established.
<u>Target: 1</u>
# of new clean energy technologies or innovative businesses created/accredited
<u>Target</u>: at least 4 businesses per Competition during or after project implementation period</td><td>Achieved
Provided assistance in organization and conduct of 2 waves with Regional Cleantech Accelerators hosted by universities covering key Ukrainian geography
6 new clean technologies (startups' innovations) have been implemented and are being used by businesses in Ukraine during the project's lifetime</td></tr>
<tr><td>Output 1.2.1: Post-Accelerator support provided for SMEs/ startups to access finance and market entry</td><td># of SMEs/startups trained on product development and market entry
<u>Target</u>: at least 60 SMEs/startups (40% women) receive such training
# of investors/funding mechanism identified
<u>Target</u>: at least 6 investors identified</td><td>Achieved
254 startups trained on product development/market entry (139 at national level, 115 at regional level). Women's participation reached 41% in only the 6th wave (2023). Lowest (13%) in 3rd wave (2021). Average: 29.1%
Extent to which post-Accelerator support could be attributed with this achievement is not clear.
4 investors (instead of 6) identified
Amount attracted: USD 7.9 million (by the 4 startups, ranging from EUR 50,000 to USD 5 million)
Negotiations carried out with 19 national financial entities (private banks, etc.) with aim of attracting potential investors for GCIP-supported startups</td></tr>
<tr><td>Outcome 2.1: National institutional capacity built to support and organize cleantech Competition-Accelerator during and beyond project duration</td><td># of new clean energy technologies or innovative businesses created/accredited
<u>Target</u>: development and implementation of Accelerator with generalist & specialised mentors and judges identified and trained</td><td>Achieved
5 Regional Cleantech Accelerators established, hosted by 5 national universities, which each successfully competed 2 waves of Competition-Accelerator (fully online using Zoom) during June 2021-May 2023 (apart from Kherson National Technical University, which ran just one wave during Autumn 2021 then paused activities due to war in Ukraine)
<u>Totals during 2 waves of Competition-Acceleration (regional level):</u>
115 semi-finalists selected
79 finalists</td></tr>
</table>

Output 2.1.1: Capacity building of national institutions and industrial associations to host, support and sustain GCIP	# of SMEs/startups trained on product development and market entry Target: at least 15-20 SMEs/startups trained per cycle # of mentors/judges trained Target: at least 15 mentors and 10 judges trained	• 35 special nomination winners • 10 National Winners **Total mentors and trainers pool of GCIP Ukraine:** • 43 Mentors • 44 Trainers • 48 Judges **National level:** - 22 Mentors (45% women) - 16 Trainers (50% women) - 14 Judges (35.7% women) **Regional level:** - 21 Mentors - 28 Trainers - 34 Judges
Output 2.1.2: Impact monitoring, advocacy and promotion	Annual Innovation Conference held Target: at least 1 publication annually GCIP platform established. Target: 1	**Achieved** Annual Innovation Conference was not held but other dissemination efforts exceeded targets, as follows: – GCIP Ukraine website created, regularly updated https://gcipukraine.com/ – 236 articles pushing in mass media + pages of project partners/stakeholders – 700 posts to social pages of project, partners, startups about GCIP activities – 18 promotional videos produced; promotional campaign in opening ceremony – Printed materials (manuals, certificates, brochures, notebooks, pens, bags, folders) designed and distributed to promote GCIP Ukraine
Outcome 3.1: Policy and institutional framework strengthened to promote and support clean technology innovations in SMEs/ startups	Extent to which existing polices and regulations are amended or effectively implemented Target: 2-3	**Under-Achieved (poor formulation of target)** Contributed to 1 change - Participated in Working Group on preparation of Draft Law on Energy Storage Systems. The corresponding law "On Amendments to Some Laws of Ukraine on Development of Energy Storage Systems" was adopted 14 February 2022
Output 3.1.1: Policy analysis report on best practice policies, regulations & incentives required for promotion of clean technology innovations developed	Polices, regulations, and programmes amended or developed to create more supportive environment for clean energy technology innovations in/by SMEs Target: Policy Assessment Report (of existing relevant policies and economic sectors requiring support for promotion of clean tech), available, including stakeholder mapping	**Achieved** Policy Assessment Report produced - Informed by extensive analysis and reviews undertaken
Output 3.1.2: Policy recommendations on how to enhance cleantech innovation and entrepreneurship ecosystems developed and roadmap in place	Roadmap to highlight necessary improvements of policy framework on cleantech innovations Target: roadmap available, with progress of implementation monitored by the PMU	**Not Achieved (poor formulation of target)** Roadmap with recommendations, with progress of achievement monitored by PMU not feasible during project's lifetime. Such planning disregards national policy-making processes and timelines
Output 3.1.3: National institutional capacity	# of staff from partner and national institutions receive	**Achieved** SFII representatives (partner) were involved in planning all GCIP Ukraine activities and studied the Business Academy for further use in SFII's work

strengthened for sustainability	training on Competition organisation Target: 50 such staff trained (40% women) # of subnational cleantech stakeholder meetings held Target: at least 3 stakeholder meetings held (30% women) in 3 years	Staff of national institutions and partners involved in several workshops to develop expertise in enhancing enabling conditions to foster cleantech innovation adoption. 8 stakeholder meetings held (versus target of 3)

90) **Turning to outcome level**: through 6 waves (June 2019-May 2023), the national cleantech platform indeed operated to promote and advance commercialisation of cleantech innovation, with entrepreneurs identified, coached, and promoted (Outcomes 1.1, 1.2) using built national institutional capacities (Outcome 2.1). While the project's operation only contributed to one change in existing policies (Outcome 3.1) through participation in a Working Group on the preparation of a Draft Law on Energy Storage Systems, which saw the adoption of a corresponding law on 14 February 2022, this result reflects the magnitude of the poor conceptualisation of this aspect of the project's design, considering the target to effect 2-3 changes in such a short period, with such symbolic resourcing (¶60).

The rating for Effectiveness is 'Satisfactory'

3.3.3 Efficiency

Finding 6: While the project's duration was extended by 50% (18 months), in light of COVID-19 imposed restrictions on travel and face-to-face meetings, followed by uncertainties generated by the ongoing war between Ukraine and Russia, the project's ability to remain within less than 5% of its projected expenditure is a testament to UNIDO's strong financial control and conservatism.

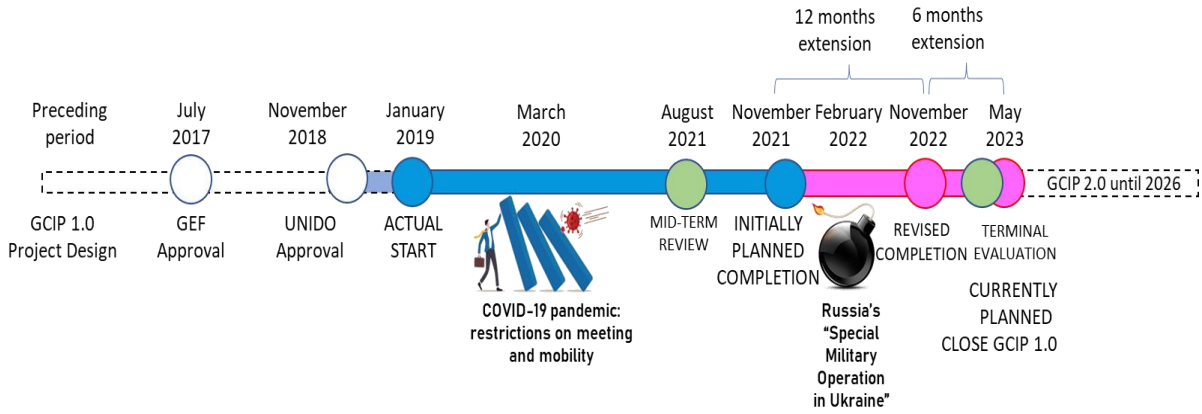
91) A key question explored was how thoughtfully and effectively were the project's inputs used to produce the desired results. In this light, the financial resources (budget), human capabilities (expertise, attitude, behaviour of team members/consultants) and the level of synergy across the project's component parts and with relevant stakeholders and initiatives to achieve the project's aims were reviewed.

92) From a time perspective: approved in November 2018, the project was rapidly kicked off, with staff put in place, arrangements for the 1st Competition-Accelerator quickly put in place, and a first meeting of the Project Steering Committee convened on 10 January 2019. From the Evaluator's experience in assessing many other UNIDO- and UNEP-implemented projects, based on documentation in the first PIR (July 2018-June 2019), this initial period was optimally used to plan and launch activities; organise needed cooperation; develop local networks of mentors, judges, trainers and other national experts; and launch relevant outreach to 22 universities as candidates for the eventual Regional Accelerators.

93) While planned with a 3-year duration until November 2021 (see **Figure 4**), the project was extended by 12 months until 30 November 2022, at the request of the PSC (during its 6th meeting on 1 October 2021) following the recommendation of the MTR (August 2021) to provide additional time to introduce remedial measures in light of delays related to the COVID-19 pandemic and UNIDO management (¶135). As restrictions on mobility and movement were imposed globally from March 2020, the reduced momentum while accommodating the adaptation to fully online settings was quite understandable and consistent with the experience of the majority of international development projects in this era.

94) An additional 6-month 'no cost' extension was subsequently granted to allow for the completion of planned activities, in light of ongoing conflict (¶21), with the project finally closing at the end of May 2023. While the two extensions constituted a 50% expansion of the timeline, for a total of 54 months, this significant decrease in the project's time efficiency is fully understandable, given the unprecedented and complex context in which the project's implementation has unfolded.

Figure 4 – GCIP Ukraine Project Timeline



95) From a cost perspective: according to UNIDO's Open Platform, the full amount (USD 1,502,875) of the GEF grant has been utilised, with an excess expenditure of USD 58,768 (=3.9% of the original grant). The bulk of project funds were deployed in 2019 (27%) in conjunction with the project's initial set up and 1st wave of the Competition-Accelerator, then in 2021 (35.5%), in connection with kicking off the 1st wave of the Regional Acceleration programme involving five national universities, each of which received the first (50%) instalment of a USD 30,000 contract to facilitate their contributions to the programme (see **Table 7)**.

Table 7 – Budget Versus Actual Project Expenditure 2019-2023 (in USD)

Year	Budget	Expenditures
2018	38,801	38,801
2019	423,017	423,017
2020	223,257	223,257
2021	554,742	554,742
2022	245,369	57,254
2023	62,633	76,457
Total	1,547,819	1,561,643

Source: UNIDO Open Platform https://open.unido.org/projects/UA/projects/160246 [consulted 7 July 2023)

96) Considering that six waves of the Competition-Accelerator were conducted at national level (starting in May 2019), together with two waves at regional level (starting in June 2021), with the project remaining within its budget despite the 50% 'no cost' extension of time, the project's cost efficiency is quite positive. Presumably, the travel restrictions and replacement with virtual means allowed for savings on more costly face-to-face approaches traditionally used to run the Business Academy training.

97) Strong control on financial management was exercised by UNIDO headquarters' staff.

The rating for Efficiency is 'Satisfactory'

3.3.4 Sustainability of Benefits

Finding 7:	While design elements like the constitution and operation of the Project Steering Committee (PSC) and the Regional Accelerator concept were well-conceived with national ownership and sustainability in mind, the combination of several aspects have reduced the likelihood that the benefits of the project's investment will be sustained in the absence of further initiatives. These include the absence of a functioning steering structure 17 months before the project's close, the disconnect of GCIP 1 with the GCIP 2 structure that was intended to provide a seamless continuation of cleantech supported by UNIDO and the GEF, the substantial ongoing uncertainty at socio-political level related to Russia's invasion of its neighbour Ukraine on 24 February 2022, and the currently limited ability of the Regional Accelerators and involved entrepreneurs to access needed financial resources. This deficit was heightened by UNIDO's own inability to provide the

anticipated post-Accelerator support – which was core to the project's value proposition – to the involved startups during the project's operation.

98) The overall governance structure was well-conceived with the aim of sustaining the project's results (¶136), considering its membership fostered national ownership [¶55), ¶137)] and its chair, the SFII, was expected to take over GCIP after completion of the GEF funded phase (p35, Project Document).

99) The PSC met convened regularly until its 6th and final meeting (1 October 2021). Governmental support understandably lessened during the COVID-19 era (from March 2020), the shift in attention and resources became even more protracted with the advent of the conflict with Russia (from February 2022). In the aftermath, some government institutions "disappeared" altogether, while other ministries had been created and yet others had been subordinated. At the date of this TE, there was no end in sight of this disarray and reform process in sight. As the PSC had ceased to gather after October 2021 (¶140), the absence of a formal multistakeholder structure, together with the substantial uncertainty that remained at a socio-political level (¶45), are seen as dampening factors on the side of institutional sustainability.

100) While no GCIP implementations (i.e. in South Africa, Pakistan, Morocco, Palestine) had yet been completed that could confirm the validity of the Regional Accelerator concept, there were high hopes for its success in Ukraine. The engagement of institutions and associated capacity-building of five Regional Accelerators hosted by five national universities with geographic spread across Ukraine reflects an area of high achievement and constitutes a key pillar of the project's sustainability strategy. The GCIP approach was seen to address a gap in the university/research sector: its capacity-building equipped involved institutions to more effectively support enterprise innovation, which was particularly weak in the country (¶29).

101) The fact that the involved universities had managed to run two waves of the Competition-Accelerator during May 2021 to February 2022 (apart from Kherson National Technical University, in the heart of occupied territory, which conducted just one wave in Autumn 2021), with the accompanying operational and supporting capacities and communities (mentors, judges – who also had links to regional economic development institutions) put in place (¶80), there is evidence that the project's core concept was shared. The involved actors attested "it is clear that we should go on"; "the university is very proud of this concept"; "our university is totally willing to continue the project"; "we know that we can do it". Given the notion that earlier reforms had functioned to strengthen the resilience of Ukraine's regions and municipalities (¶30), the context of the Regional Accelerators contained some promising elements to foster continuation. Several stakeholders associated GCIP's support with enabling and accelerating the country's post-war recovery through its "excellent preparation work".

102) While the PMU and the involved university actors expressed great confidence in their ability to reproduce the mechanism and some intentions were even expressed to kick off such activities during 2023, the lack of financial resources was a barrier for moving forward. A regional stakeholder explained: "We would like to make a 3rd wave. The university has the human capacities and technology resources but we need the financial support to provide to the startups".

103) While a follow-up project (UNIDO ID 190025) – which stakeholders referred to as GCIP 2, funded under GEF-7, to distinguish it from the current project, referred to as GCIP 1 funded under GEF-6 – had been designed for implementation from September 2021 (until August 2026) – with significant leverage[41] expected to be gained from GCIP 1, the fact that GCIP 2 was launched then paused shortly thereafter in 2022 due to the ongoing strife eliminated the opportunity for a seamless continuation of cleantech supported by UNIDO and the GEF and put into question the Project Document's assertion (p38): "GCIP 2 Ukraine will build upon the achievements of GCIP 1".

104) The USD 10,000 private-sector sourced in-kind contribution by Greencubator mentioned in the GCIP 1 Project Document (¶35) has been interpreted by the Evaluation Team as being a tacit indication that interactions were intended to take place with the national institution that had been selected and

[41] The CEO Endorsement entry for GCIP 2 contains 71 references to contacts, knowledge, and achievements that GCIP 2 is planning to draw on. Source: https://open.unido.org/projects/UA/projects/190025

contracted as the local implementing partner for the follow-up project being implemented under UNIDO's programmatic framework for GCIP (¶34). While the GEF's CEO Endorsement of GCIP 2 made explicit and numerous references to the predecessor project, the envisaged knowledge exchange did not transpire to any degree and there appeared to be no formal onward linkages built between GCIP 1 and GCIP 2 as part the former's exit strategy, which reduces prospects for sustaining results and benefits.

105) Although there were personal connections between PMU staff and Greencubator and clear willingness was expressed to share contact lists for mentors, judges, startups, etc., the absence of an institutional mandate and opportunity for substantive knowledge transfer is deemed to further reduce prospects for reaping the investment made in GCIP 1. Furthermore, there was no clear path laid down for startups supported under the 2019-2023 programme to benefit from post-Accelerator support nor for the Regional Accelerator activities to genuinely feed into the subsequent GCIP incarnation, although the Project Document stated that the main target group of its Component 1 activities "are the alumni graduating from GCIP 1"(p38) seen as "crucial for facilitating an uninterrupted scale-up of enterprises graduating from the GCIP 1 framework" (p41).

106) A key stakeholder pointed out that the risk that "if GCIP 2 is not operating, then the involved actors will turn to other activities". Others highlighted the negative effects stemming from the loss of momentum as well as reputational damage related to the unfulfilled contracts and post-Accelerator support that had been promised but was not materialised under the GCIP 1 framework (¶130).

The rating for Sustainability of Benefits is 'Unlikely'

3.4 Cross-Cutting Performance Criteria

3.4.1 Gender Mainstreaming

Finding 8:	The project's commitment to this dimension, operationalised through targets and regular reporting of sex-disaggregated data, served to focus consistent attention of its implementers and the governance structure on ensuring that the project benefitted both women and men. This drove positive results in terms of project staffing; participation as mentors, judges, and trainers; enhancing capabilities and prospects of the supported innovations and teams through selection into the Business Academy; together with recognition through awards.

107) The UN has a mandate to promote social justice through gender equality[42]. Gender mainstreaming involves necessary temporary gender-specific measures to combat direct and indirect consequences of past discrimination that have left women or men in a particularly disadvantageous position. In terms of global goals, SDG 5 seeks gender equality and to empower women and girls through a set of specific targets. GEF's Policy on Gender Equality emphasizes the intention to include and empower women in initiatives that it funds[43]. These sentiments and directives are equally reflected in UNIDO's policies[44].

108) With these aspects in mind, a guiding design principle was to ensure that both women and men were provided with equal opportunities to access, participate in and benefit from the project (p42, Project Document). The results of the envisaged gender-sensitive recruitment strategy were evident in the project's staffing (60% of the PMU were women). Outreach to women's associations like Ukrainian Women in Business, Institute for Partnership and Development (with projects Inspiring Women and Women's Business) and Lean In (a women's entrepreneurship club) ensured that the project reached its targets for attracting women as mentors, judges, trainers and holding leadership positions of the involved startups. The sex-disaggregated data shows that the project's serious intention to reach 40% women's

[42] Guidance Document: Integrating Human Rights and Gender Equality in Evaluations, UN Evaluation Group, Aug 2014, p19

[43] Adopted in October 2017, the GEF Director of the Policy, Partnership, and Operations Unit explained: "b*y explicitly recognizing that efforts to combat environmental degradation and those to address gender inequality can be mutually supportive, this new Policy will help the GEF to more actively catalyze projects and actions that have the potential to materialize greater environmental impact through gender-responsive approaches and results"*

[44] UNIDO Director General's Bulletin (18 September 2019): Policy on Gender Quality and the Empowerment of Women and UNIDO's Strategy for Gender Equality and the Empowerment of Women 2020-2023

participation in all activities of the project was met. The inclusion of targets for female participation did actively focus attention on supporting women as well as men under the project's framework, with explicit efforts (e.g. through establishing contacts with relevant institutes, networks, associations) to identify and channel women candidates into mentor/judge/trainer opportunities and women-led startups into the Competition-Accelerator (e.g. complemented by awards dedicated to women entrepreneurs).

109) UNIDO's sensitivity to this dimension was visible in the integration of gender aspects into project activities right from the outset, together with the creation of the GCIP Ukraine Women Network. Compared to other GCIP Phase 1 countries that were implemented in the same period, Ukraine's operationalisation of this dimension set a much higher target: 40% women compared to the target of 30% that had been set for Thailand and 10% set for countries that had participated previous to 2018.

110) Furthermore, stakeholders indicated that the issue of gender equality regularly featured on the agenda of the Project Steering Committee, the MTR pointed out that gender targets had not been fully exceeded on one dimension, which further strengthened efforts towards the inclusion of women, and gender quality was a consideration in the selection of teams to benefit from Business Academy support. On the other hand, feedback suggested that selection of winning teams was 'gender blind' apart from the awards for "Best Women's Project" and "Women's Leadership"

The rating for Gender Mainstreaming is 'Highly Satisfactory'

3.4.2 Environmental and Social Aspects

111) The assessment of environmental and social aspects is based on the project's compliance with the provisions specified in UNIDO's Environmental and Social Safeguards Policy and Procedures (ESSPP).

Finding 9:	Having been appropriately subjected to UNIDO's internal screening during project preparation, no potential environmental and social issues were identified that required more detailed assessments or project-level operational safeguards. Reflecting this assessment, the project's Environmental and Social Management Plan was included as an annex in the Project Document. The extent to which it was indeed used as a 'living document' to guide project stakeholders in identifying and assessing positive and negative effects and highlighting the need for mitigation measures was not clear, given the overly high-level inclusion of this topic under the umbrella term of 'sustainability', as one of ten criteria used by judges in scoring the supported innovations.

112) At design, in December 2017, the project was appropriately subjected to internal environmental and social screening using UNIDO's ESSPP, which was used to identify environmental and social issues that should be addressed in its development and implementation. The assessment undertaken indicated that no potential environmental and social issues were identified that required more detailed assessments. In this light, the project was appropriately identified as a 'Category B' project, signifying that its activities related to establishing new servicing sectors/designing new schemes and business models in relation to renewable energy and was therefore likely to have comparatively less adverse impacts on human populations or environmentally-important areas than those in Category A, which related to upgrading or introducing alternative technologies at an existing facility.

113) Following a precautionary approach, the project's assessment regarding the need for operational safeguards (OS) related to Protection of Natural Habitats and Biodiversity (OS 2), Involuntary Resettlement and Land Acquisition (OS 3), Indigenous People (OS 4), Pest Management (OS 5), Cultural Heritage (OS 6), Safety of Dams (OS 7), Labour and Working Conditions (OS 8), Resource Efficiency and Pollution Prevention (OS 9), Community Health, Safety and Security (OS 10) is deemed to be appropriate, with the conclusion that no associated project-level operational safeguards needed to be triggered.

114) Building on this assessment, the project's Environmental and Social Management Plan (ESMP) was appropriately formulated and appended to the Project Document as Annex H. It highlighted environmental and safety risks identified during the project's preparation, together with potential mitigation measures. It was used expected to be used as a 'living document' to guide the subsequently

involved innovators, trainers, and judges in assessing possible negative (e.g. release of chemicals, emissions; unsustainable resource use, etc.) and positive impacts (e.g. job creation, gender inclusiveness, etc.). The depth to which such assessment of the supported innovations was carried out as part of the Business Academy was not clear. While 'sustainability' was one of ten criteria included in the GCIP score sheet that judges were expected to use, the provided guidance to look at "how well does the team describe, quantify and validate the net environmental, economic and social benefits/impacts of their cleantech application" puts the emphasis on description without giving orientation about the effects and the potential need to elaborate suitable mitigation measures.

115) As part each annual reporting cycle, there is evidence that the PMU reviewed the project's environmental and social risk profile to determine whether new risks had emerged during the reporting period which might trigger the need for additional assessments or operational safeguards. The project's risk profile remained steady throughout implementation, at 'Category B'.

The rating for Environmental and Social Aspects is 'Satisfactory'

3.4.3 M & E

116) The assessment of M&E considered both design and implementation aspects, which have been separately reviewed and rated on the basis of the available evidence.

M & E Design

Finding 10: Following established UNIDO and GEF procedures, the design of the project's M&E was robust, with the provision of suitable budgeting, clear designation of shared roles and responsibilities between field and headquarters staff, with a repertoire of tools that were to be used to track and regularly report relevant data, gauge the project's achievements and progress-to-impact, facilitate reflection, and stimulate recalibration where needed. This is a standard, valid approach for project oversight and to promote organisational learning.

117) Established in accordance with UNIDO and GEF procedures, the project's Monitoring and Evaluation (M & E) design assures a successful, quality implementation based on the approach of regular project monitoring and oversight by UNIDO, in close coordination with national counterparts MENR, MEDT and other relevant government agencies. In this setting, the National Project Manager in Kyiv was responsible for continuous monitoring of project activities, implementation, and performance. The UNIDO Project Manager in Vienna was responsible for tracking overall project milestones and progress towards achievement of planned outputs/outcomes as well as bi-annual reporting to the GEF on the project's progress as per its annual implementation plan. An annual report was to be submitted by the PMU at the end of each project cycle year with a summary of activities carried out over the year, as the basis for the annual PIRs. This report was also expected to cover the "benefits gained and impacts made" (p52, Project Document) through the project's implementation, including evidence to demonstrate progress in the achievement of impact and performance indicators that featured in the project's results framework.

118) The project's M & E devices included a project inception report, progress reporting, a final project report, use of the GEF Tracking Tool (to be submitted at CEO approval and at project closure), the project's overall governance structure, as well as mid-term and final evaluations. The project's TE was to be conducted independently and submitted to UNIDO. Together, these mechanisms are deemed to be suitably designed to facilitate reflection; promote discussion regarding content, scope, and resourcing; stimulate recalibration where needed; and gauge the project's progress-to-impact and achievements.

119) With USD 75,000 to be set aside from the GEF grant, which represents a 5% allocation of the overall project budget, compared to just 1.5% for GCIP in South Africa, 2% in Turkey and 3.6% for Pakistan, which had similar 3-year interventions, the M & E allocation for Ukraine is seen to be at a more suitable level, including USD 40,000 reserved for the TE process. Co-financing equivalent to USD 150,000 related to the involvement of government counterparts (¶117) was additionally foreseen to support M & E activities.

The rating for M & E Design is 'Highly Satisfactory'

M & E Implementation

Finding 11:	In operationalising the designed M & E system, the established procedures were duly followed, with regular monitoring, data collection, and documentation of activities and accomplishments. Annual project reporting was activity-centred with an output-level orientation. The late timing and superficial quality of the externally-commissioned MTR missed out on a key opportunity to assess emerging issues and urge corrective actions regarding outstanding payments and post-Accelerator support, which dogged the project throughout its remaining implementation.

120) The project's results framework was indeed used as a management tool to guide the development of work plans that elaborated outputs and key activities, which mapped to contracts signed with UNIDO. The Annual Work Plans that were reviewed showed the planned timing of activities (together with the assigned budgets) and adequately served to operationalise the planned outputs to support achievement of the mentioned milestones and deliverables conceived in relation to the project's outcomes.

121) Monitoring and regular data collection were implemented according to elements laid out in the project's M & E Plan, fulfilling requirements to track, review, and report on project activities and accomplishments in relation to performance and impact indicators (e.g. projected GHG emission reductions of the supported innovations, number of direct beneficiaries disaggregated by gender).

122) While the Project Document (p52) directed the PMU to present a report to UNIDO every six months, progress reporting appeared to have been done on an annual basis. In reviewing the available interim project progress reports, they are observed to excel in performing accountability aims in so far as containing detailed documentation of activities undertaken as well as providing context (e.g. Component 3 related to strengthening the policy/regulatory framework contains helpful contextual explanation regarding the key institutional actors as well as main normative acts for regulating innovation activity in Ukraine). The primary emphasis is on output-level reporting, which is fully comprehensive. Outcome-level reporting is weak (i.e. information regarding the relevance, quality and use of outputs with respect to the desired changes in attitude and behaviour).

123) Based on a review of project documentation, it is confirmed that the PIRs were prepared and submitted on an annual basis for 2019, 2020, 2021, 2022 and 2023 in line with the GEF project progress reporting system. The PMU included self-ratings (with justifications) in the PIRs and highlighted risks and corresponding mitigation measures. The Evaluation Team benefited from the provision of documentation linked to envisaged project outputs and outcomes, which greatly facilitated the TE, as well as regular and comprehensive detail on every question put to the PMU in the course of assessing the project's performance. This attested to the availability of data in an organised fashion and that insights were generated from this to guide the project team and engage with other relevant stakeholders.

124) The MTR did not adequately support the project's implementation. The timing of the MTR was late, covering the project's first 28 months of operation (i.e. the project was 78% of the way through its planned timeline). By the time that it was finally commissioned, the project faced serious delays stemming from COVID-19 effects and weak oversight on the UNIDO headquarters' side, which resulted in the appointment of an alternative project manager in March 2021. Conducted by a team composed of an international evaluation expert working together with the national evaluation consultant, the MTR was suitably budgeted and was expected to provide an external view of the challenges faced by developing evidence-based findings through consultation of relevant stakeholders together with a review of project documentation, as the basis for lessons and recommendations.

125) Having reviewed the resulting MTR report, which is primarily descriptive and drawing heavily on material from the evaluation ToR provided by UNIDO, this exercise seems to have provided rather superficial assessments and limited insights. The MTR glossed over management issues on UNIDO's side, attributing challenges to a communication issue between Kyiv and Vienna at the beginning of the project, asserting that this "slightly affected the project progress" and mentioning that issues were quickly resolved when

this was clearly not the case for a large part of the project's implementation, which necessitated the change of Project Manager effected only in March 2021. While the MTR pointed out that there was a potential risk of under-utilisation of the promised post-Accelerator support of product/prototype development, only suggesting that this needed to be better managed, issues related to why and how this situation had come about and the associated impact on project performance and reputation were not addressed. There was a growing issue related to fulfilling contracted payments. The MTR missed a key opportunity to highlight the seriousness of this situation, assess the issue and urge corrective action.

The rating for M & E Implementation is 'Moderately Satisfactory'

3.4.4 Results-Based Management

Finding 12: The basic elements were put in place to generate and use performance information for accountability reporting and internal management, learning, and decision-making. The PMU's professionalism, competence, and dedication was highlighted by stakeholders as a key enabler.

126) As the purpose of results-based management is to generate and use performance information for accountability reporting to external stakeholder audiences and for internal management, learning, and decision-making[45], the reviewed evidence indicates that suitable elements had been put in place:

i) Formulation of intended results and how these would be achieved was adequately communicated through the project's logframe and description of the underpinning TOC;

ii) Identification of indicators: Indicators for outputs and outcomes specified exactly what was to be measured along a scale or dimension;

iii) Setting targets: The expected or planned level of result to be achieved was included in the project's results framework and transferred into the monitoring system. While this granularity of information was not mentioned in the Annual Work Plans, the annual reporting contained detailed information about activities undertaken, which demonstrates that the achievement of planned deliverables was a top priority for the PMU;

iv) Monitoring results: The project's monitoring system directly mapped to the activities, targets, and indicators specified in the project's results framework that allowed for easy assessment of achievement of planned outputs and outcomes. Regular monitoring was carried out.

v) Reviewing and reporting results: This process involves comparing actual results vis-à-vis targets or other criteria for making judgements about performance; the project progress reports reflected this orientation, reinforced by the inclusion of self-ratings and explanatory remarks;

vi) Conducting evaluation: MTR and TE were planned, budgeted, and undertaken, providing additional perspectives on project performance that complemented the monitoring system;

vii) Using performance information: The generated information was used to track and assess performance. There was evidence that the main findings and recommendations of the MTR were considered in the decision to extend the project

127) Asked about performance enablers, survey respondents most frequently highlighted the professionalism, competence, coordination, support, trust, transparency, and dedication of the PMU team. Illustrative of sentiments expressed, one of the judges commented, "the PMU did everything possible and impossible to ensure the successful implementation of the GCIP project".

[45] p10, OECD (2000), Results Based Management in the Development Co-Operation Agencies: A Review of Experience https://www.oecd.org/development/evaluation/dcdndep/31950852.pdf which also reflects the definition of results-based management on p12 of UNIDO's Evaluation Manual (2018) https://www.unido.org/sites/default/files/files/2018-04/Evaluation%20Manual%20e-book.pdf

The rating for Results-Based Management is 'Satisfactory'

3.5 Performance of Partners

3.5.1 UNIDO as Implementing Agency

Finding 13	As the GEF's executing agency, UNIDO's expertise and experience for this type of intervention were highly valued by the involved stakeholders. However, its slow pace in rectifying internal management issues in the project's initial phase generated subsequent delays in the provision of anticipated support for the winning startups. Insufficient capacity to adapt the agency's procurement approach in a timely manner to *force majeur* effects further hampered the project's effectiveness, created pressure for the PMU to manage expectations, and generated dissatisfaction on the part of national stakeholders. Furthermore, the agency's procurement processes, while aiming to ensure due diligence, appear to be overly-conservative and misaligned with the project's needs and the model that was demonstrated for scaling up, thereby generating high transaction costs for UNIDO in establishing detailed contracts and monitoring multiple payments due to the decision to provide 'grants' and 'prizes' through obliging their use towards technology and/or product development support evidenced against deliverables, in contrast to earlier GCIP implementations that provided winning startups with cash prizes for winning a competition.

128) The project's combination of technical assistance, capacity-building, and policy strengthening reflects current best practice and matches UNIDO's expertise and experience for this type of intervention. As GEF's implementing agency, UNIDO held ultimate responsibility for the project's implementation, contributed the project design, oversaw delivery of planned outputs, and monitored expected outcomes.

129) The participation and reputation of UNIDO were highly valued. Participants highlighted the pertinence of the implanted approach. A representative from a winning startup said: "we could compare the experience to other competitions; the UNIDO project far and away gave us the most valuable knowledge". The agency's name recognition was very strong and carried positive associations for the involved actors. One asserted that "UNIDO opens the way for a global distribution of Ukrainian inventions and research". Another attested that thanks to UNIDO's involvement, "many Ukrainian inventors find it desirable to participate in the GCIP competition".

130) While UNIDO is judged to have carried out its duties in a serious manner and followed its own policies to fulfil accountability aims, its adoption of low contract threshold values (USD 5,000) that require monitoring, with payments to be provided in tranches against deliverables and evidence was out of step with the project's design intention and generated unnecessarily high transaction costs, diverting precious management attention and ultimately resulting in the failure to provide the planned post-Accelerator support.

131) For the Regional Accelerators, UNIDO's procurement policy meant that the allocated USD 30,000 to run two waves of the Competition-Accelerator was to be provided in three tranches of USD 10,000. With the project's second extension (related to the ongoing war, ¶94), while UNIDO was reportedly awaiting guidance from the GEF Secretariat, the amounts were obligated within the GEF grant, but remained undisbursed. The five universities that hosted the Regional Accelerators were expected to prepare and submit progress reports; this facilitated payments of the first two tranches. UNIDO indicated that changes in their banking details and shifts from one region to another (stemming from the ongoing conflict) resulted in additional administrative requirements to ensure due diligence for the payments, respecting both UNIDO and GEF procedures. The 3rd tranche (USD 10,000) for the Regional Accelerators was still unpaid at the time of the TE and remained unpaid at the project's close in May 2023.

132) Concerning the envisaged assistance for the involved startups: according to the Project Document (p26), it was planned to "select up to 10 startups annually who were expected to be granted prize money primarily from the GEF grant". In this light, USD 191,250 was allocated for startup grants. While the project kicked off quickly in 2018, it was only with the installation of a new project manager in March

2021 that UNIDO moved forward with the envisaged support (¶124).

133) While earlier incarnations of GCIP in other countries had provided this funding directly as a cash prize, GCIP Ukraine opted to provide assistance through contracts to the winning startups, reflecting a more concerted effort to ensure that the recipient startups deployed the support in ways that GCIP intended. Following UNIDO Procurement Policy, to fulfil accountability aims, 21 startup grants that summed up to USD 185,000 [including 4 contracts for USD 5,000; 12 contracts for USD 10,000; 3 for USD 15,000) were to be disbursed through a set of payments against deliverables that reflected their utilisation of technology and/or product development support. At the time of the TE, 53 of the involved payments were outstanding, related to contracts signed in November-December 2021 and January 2022 with the winning startups from the first three waves. For winning startups from the 4th and 5th waves, UNIDO prepared contracts but did not go ahead in signing them, given that the challenges for disbursing these grants were already very apparent and as yet, unresolved. It is unknown whether the notion of post-Accelerator support was even offered to the participants of the 6th wave conducted in Spring 2023.

134) Although the issue of outstanding payments was already raised and discussed in the PSC meeting in October 2021, with a letter sent to UNIDO requesting fulfilment of contracts to which there was reportedly no response, the issue remained unsolved at the project's close in May 2023. During the TE, this problem was identified and discussed during presentation of the preliminary findings (14 April 2023) but no solution was evident to the Evaluation Team at the time of preparation of the final report (July 2023). The involved actors reported, "this is a real problem for our project" and "it's been very difficult to explain why the payments were not made in 2019-2020 when there was no pandemic and no war". Describing the negative effect of the situation, one of the involved judges explained, "the winners of the competitions have not yet received the funds they were supposed to receive in accordance with the terms of the competitions. This has a negative impact on the ability to implement their startups and projects. It may also have a negative impact on the achievement of the GCIP project goals". Through the evaluation survey, the bulk of respondents relayed disappointment about the situation and commented on the negative effect of the unfulfilled payments, referring to general reputational damage for UNIDO and specifically mentioning lowered prospects for the success of GCIP 2 in Ukraine due to a loss of trust in initiatives involving UNIDO and the GEF.

135) Another area of poor performance relates to the delay in dealing with internal management issues on headquarters' side (described in the MTR as a communication issue between Kyiv and Vienna at the start of the project, ¶125), which was attributed with the delay in provision of expected support for the winning startups that emerged out of the first three waves of the national Competition-Accelerator. Furthermore, on the UNIDO side, it was understood that an internal restructuring was initiated in December 2022, which was still underway at the time of the project's TE in 2023, with the effects described as "people were moved amongst departments and mandates were not clear". This aspect was also attributed by stakeholders as a reason for the delay in finding a solution.

The performance of UNIDO is rated as 'Unsatisfactory '

3.5.2 National Counterparts

Finding 14:	A cross-section of relevant institutional partners were actively involved in supporting the project's execution and governance through the Project Steering Committee, which met regularly until October 2021. In view of the ongoing security situation, which understandably shifted governmental attention and resources, the engagement of national counterparts is deemed to have functioned to a feasible extent in fulfilling its guidance and oversight roles.

136) A suitable governance structure was established through the PSC, which brought together relevant officials from the designated national counterparts who were expected to benefit from the project's outputs and outcomes as well as play a key role in sustaining the project's results (¶98). These entities included Ministry of Ecology and Natural Resources of Ukraine, State Finance Institution for Innovations, Ministry of Education and Science of Ukraine, State Agency on Energy Efficiency and Energy Saving of

Ukraine, GEF National Focal Point). The project was supported from its outset by the Vice Minister of Ukraine, which reflects the project's perceived relevance for the country from the government's perspective (¶70). Government support lessened during the COVID-19 era (from March 2020) and was reduced further with the start of the conflict with Russia (from February 2022). The consequent shift of governmental attention and resources understandably shifted. As a result of the war, some government institutions reportedly "disappeared", which was reflected in a changing composition of the PSC.

137) Minutes of six PSC meetings convened during project implementation are taken as evidence of the active involvement of national counterparts (or their delegates). The expanded attendance in the 3rd meeting (19 October 2020) that included representatives of the five Regional Accelerators is interpreted as a positive indication of laying the ground for national ownership, enhancing sustainability prospects.

138) The PSC included national co-financing partners. This arrangement was designed to allow them to participate, guide, and measure the impact of their investment.

139) The PSC operated according to a ToR designed to support the project's effective management. Agendas and minutes (prepared in both English and Ukrainian, to facilitate full comprehension) confirm that this governance body operated appropriately at the level of strategic management as well as reviewing and endorsing the project's detailed work plan.

140) The final formal meeting of the PSC was convened on 1 October 2021, with key agenda items involving the generation of a management response to the project's MTR, approval of the Work Plan for the project's extension until 30 November 2022, and discussion of the still unresolved issue of grant disbursements and amounts for selected participants of three waves of the acceleration programme conducted to that point. Following this session, the PSC did not convene its next planned bi-annual meeting in light of the ongoing conflict and increasing security situation, although there was evidence of the PMU's intermittent contact with PSC members to keep them updated and solicit advice.

The performance of National Counterparts is rated as 'Satisfactory'

3.5.3 GEF as Donor

Finding 15: The donor's timely disbursement of project funds and its support for nurturing clean technology and promising entrepreneurs through the GCIP was perceived as highly relevant assistance in bridging gaps and acting as a catalytic force to spur further development of the cleantech innovation and entrepreneurship ecosystem in Ukraine. While the GEF accepted the annual project reports, no feedback provided on the project's progress or performance. Project supervision exercised by UNIDO's GEF Coordination office on behalf of the donor functioned well.

141) The GEF Operational Focal Point endorsed the Project Identification Form, triggering a GEF grant of USD USD 1,502,875. The timely disbursement of project funds provided vital support to embark on the envisaged activities.

142) The GEF's financial contribution and support through the GCIP for nurturing clean technology and promising entrepreneurs were highly appreciated by all stakeholders concerned and perceived to be highly relevant assistance to bridge gaps in resources and capabilities, acting as a catalytic force for further development of the cleantech innovation and entrepreneurship ecosystem in Ukraine.

143) Project supervision on behalf of the donor performed by UNIDO's GEF Coordination Office functioned well, beginning with a rigorous review of the quality of project design and focussing on ensuring compliance aspects during implementation.

144) The annual PIRs submitted to the GEF were accepted. No feedback was provided, which is understandable in a context where large portfolios are under supervision, with limited capacities for review, with the consequence that this standalone project occurring at the end of the GEF-6 cycle may have been perceived as comparatively minor.

The performance of the Donor is rated as 'Satisfactory'

3.6 Other Assessments Required for GEF-Funded Projects

145) **Need for follow-up**: The project followed UNIDO procedures for financial management and related guidance, based on GEF requirements. Unintended effects and risks (related to reputational damage and loss of trust, ¶134) are evident in the overly-conservative posture adopted in response to due diligence requirements of UNIDO, in compliance with GEF requirements. From the discussion (31 July 2023) of the TE's findings, lessons, and recommendation, it was understood that UNIDO was actively working to find solutions to execute as much as possible the provisions of the contracts signed with the supported startups (¶133) before the project's financial closure in 2023.

146) **Materialization of co-financing**: According to the Project Document, USD 12.2 million was expected to be contributed by national actors as co-financing by government partners and private sector actors allowing for broader stakeholder participation, industry sponsorship, and investment in the project's sustainability. Letters asserting the corresponding amounts of co-financing support were obtained in 2018. The anticipated levels of co-financing fell far short and are indicative of a mismatch between the planning phase and what could be realistically raised, given the severely challenging socio-political context that emerged during the project's implementation [¶36), ¶45)].

147) According to the project's MTR Ukraine's National Academy of Sciences (Institute of Renewable Energy of NASU) provided in-kind co-financing contribution equivalent of USD 150,000 in the form of use of their office premises by GCIP Ukraine, including communication services. Additionally, SFII received approximately USD 148,000 from the Government of Ukraine to finance the SFII cleantech programme in 2019-2020, which was supported under GCIP Ukraine. Although SFII had pledged cash co-financing of USD 1.8 million plus USD 100,000 in-kind, the cash component did not materialise. During the latter part of the project's implementation, it was difficult to attract the anticipated co-financing from government agencies as UNIDO itself had not come through on providing the contracted post-Accelerator support, on which the winning teams were depending to advance their prototypes. While USD 10 million was anticipated to be provided in the form of loans from two domestic commercial banks in subsequent years for startups and innovation projects (¶35), it is too early to tell whether such support will indeed materialise. On the other hand, by the close of GCIP 1, four startups managed to attract USD 7.9 million which attests to the value of their innovations and their participation in GCIP Ukraine (¶87).

148) **Environmental and social safeguards**: It has been verified that the appropriate environmental and social safeguards were addressed within project design and implementation (see Section 3.4.2).

4 Overall Assessment and Conclusions

4.1 Overarching Assessment and Rating Table

149) **Table 8** summarizes the TE's findings, according to the criteria of UNIDO's Evaluation ToR and using UNIDO's 6-point scale, which were used to assess the project's design and performance[46].

Table 8 – Summary of Findings and Project Performance Ratings by Evaluation Criteria

Criteria	Summarized Finding	Section	Rating
Progress to Impact			
Progress to Impact	The establishment of five Regional Accelerators hosted by existing institutions spanning Ukraine's full geography and the associated capacities built in these universities to sustain their operation, together with their clear interest in and commitment to continuation, albeit in a situation of being unable to fulfil the associated financial support needs, provides a platform that could be activated in future, given the extent of goodwill and capability that have been developed.	3.1	U

[46] 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)

	Furthermore, 14% (i.e. 4 of the 28 involved startups) had some basis to scale up, having attracted investment to support initial steps towards commercialisation. However, the project's failure to materialise the contracted post-Accelerator support (a key element of GCIP's improved value proposition) has not only slowed momentum of the remaining startups, it has generated enormous discontent on the part of all interviewed stakeholders, with significant reputational damage for both UNIDO and GCIP in Ukraine. The numerous discussions with potential national investors that were initiated then paused (thereby depriving the involved entrepreneurs of the anticipated links to support commercialisation), together with the institutional disconnect with the successor programme (GCIP 2) and its intended seamless support for GCIP 1 alumni eliminated opportunities for knowledge transfer (thereby reducing prospects for leveraging synergies). In a context where key enabling conditions to support enterprise innovation had not yet been sufficiently addressed and the ongoing between Ukraine and Russia has continued to divert the attention and resources of all sectors of society, with prioritisation of survival and recovery of infrastructure and basic services – the prospects for achieving long-term impact from this project's investment seem rather dim in the absence of mitigation measures.		
Project Design		**6.2**	**MS**
Overall Design	Aligned with the priorities of the country and donor and fully consistent with UNIDO's mandate for inclusive sustainable industrial development, the project's design for Ukraine brings a proven, holistic approach for dynamizing the country's cleantech innovation. The design has incorporated some learning from previous GCIP implementation in other countries, although the conceptualisation and resourcing of its policy/institutional framework outcome remains insufficient, considering the project's ambition to spur meaningful advance and the pertinence of securing an overall ecosystem that fosters cleantech adoption that can consequently valorise investments like the Competition-Accelerator and its associated built capacities.	3.2.1	MS
Logframe	The project's results framework reflects a logically sequenced and mutually reinforcing architecture based on GCIP's proven model, and it has benefitted from some consolidation, reflecting previous learning. Despite previous feedback on this point, weak outcome formulations that reflect little more than a summing up of their constituent parts orient towards the delivery of outputs, with monitoring and reporting focussed on activities for their achievement. While the use of primarily quantitative indicators can be easily cascaded into monitoring and reporting systems, particularly in the absence of meaningful baseline data, they provide limited insight regarding relevance, quality, and utility.	3.2.2	MS
Project Performance			
Relevance	The project's support was highly relevant for global and national priorities and end beneficiaries in government, academia, and industry based on its contributions to job creation, economic development, environmental protection, and showcasing of Ukrainian innovation and research. It leveraged UNIDO's mandate and domains of comparative advantage and was fully aligned with the donor's priorities for enhancing private sector engagement and promoting cleantech innovation to address climate change challenges.	3.3.1	HS
Effectiveness	Due to the project team's efforts and the determination and resilience of intended beneficiaries, the planned outputs were carried out in a satisfactory manner, with targets met or exceeded, driving results related to implanting the Competition-Accelerator platform and building the capacities to sustain its operation (Outcomes 1 and 2). Design weaknesses underlying the conceptualisation and resourcing of Outcome 3 and its associated outputs were reflected in under-achievement.	3.3.2	S

Efficiency	While the project's duration was extended by 50% (18 months), in light of COVID-19 imposed restrictions on travel and face-to-face meetings, followed by uncertainties generated by the ongoing war between Ukraine and Russia, the project's ability to remain within less than 5% of its projected expenditure is a testament to UNIDO's strong financial control and conservatism.	3.3.3	S
Sustainability of Benefits	While design elements like the constitution and operation of the Project Steering Committee (PSC) and the Regional Accelerator concept were well-conceived with national ownership and sustainability in mind, the combination of several aspects have reduced the likelihood that the benefits of the project's investment will be sustained in the absence of further initiatives. These include the absence of a functioning steering structure 17 months before the project's close, the disconnect of GCIP 1 with the GCIP 2 structure that was intended to provide a seamless continuation of cleantech supported by UNIDO and the GEF, the substantial ongoing uncertainty at socio-political level related to Russia's invasion of its neighbour Ukraine on 24 February 2022, and the currently limited ability of the Regional Accelerators and involved entrepreneurs to access needed financial resource. This deficit was heightened by UNIDO's own inability to provide the anticipated post-Accelerator support – which was core to the project's value proposition – to the involved startups during the project's operation.	3.3.4	U
Cross-Cutting Performance Criteria			
Gender Mainstreaming	The project's commitment to this dimension, operationalised through targets and regular reporting of sex-disaggregated data, served to focus consistent attention of its implementers and the governance structure on ensuring that the project benefitted both women and men. This drove positive results in terms of project staffing; participation as mentors, judges, and trainers; enhancing capabilities and prospects of the supported innovations and teams through selection into the Business Academy; together with recognition through awards.	3.4.1	HS
Environmental and Social Aspects	Having been appropriately subjected to UNIDO's internal screening during project preparation, no potential environmental and social issues were identified that required more detailed assessments or project-level operational safeguards. Reflecting this assessment, the project's Environmental and Social Management Plan was included as an annex in the Project Document. The extent to which it was indeed used as a 'living document' to guide project stakeholders in identifying and assessing positive and negative effects and highlighting the need for mitigation measures was not clear, given the overly high-level inclusion of this topic under the umbrella term of 'sustainability', as one of ten criteria used by judges in scoring the supported innovations.	3.4.2	S
M & E Design	Following established UNIDO and GEF procedures, the design of the project's M & E was robust, with the provision of suitable budgeting, clear designation of shared roles and responsibilities between field and headquarters staff, with a repertoire of tools that were to be used to track and regularly report relevant data, gauge the project's achievements and progress-to-impact, facilitate reflection, and stimulate recalibration where needed. This is a standard, valid approach for project oversight and to promote organisational learning.	3.4.3	HS
M & E Implementation	In operationalising the designed M & E system, the established procedures were duly followed, with regular monitoring, data collection, and documentation of activities and accomplishments. Annual project reporting was activity-centred with an output-level orientation. The late timing and superficial quality of the externally-commissioned MTR missed out on a key opportunity to assess emerging issues and urge corrective actions regarding outstanding payments and post-Accelerator support, which dogged the project throughout its remaining implementation.	3.4.3	MS
Results-Based Management	The basic elements were put in place to generate and use performance information for accountability reporting and internal management, learning, and	3.4.4	S

<table>
<tr><td></td><td>decision-making. The PMU's professionalism, competence, and dedication was highlighted by stakeholders as a key enabler.</td><td></td><td></td></tr>
<tr><td colspan="2">Performance of Partners</td><td></td><td></td></tr>
<tr><td>Executing Agency</td><td>As the GEF's executing agency, UNIDO's expertise and experience for this type of intervention were highly valued by the involved stakeholders. However, its slow pace in rectifying internal management issues in the project's initial phase generated subsequent delays in the provision of anticipated support for the winning startups. Insufficient capacity to adapt the agency's procurement approach in a timely manner to force majeur effects further hampered the project's effectiveness, created pressure for the PMU to manage expectations, and generated dissatisfaction on the part of national stakeholders. Furthermore, the agency's procurement processes, while aiming to ensure due diligence, appear to be overly-conservative and misaligned with the project's needs and the model that was demonstrated for scaling up, thereby generating high transaction costs for UNIDO in establishing detailed contracts and monitoring multiple payments due to the decision to provide 'grants' and 'prizes' through obliging their use towards technology and/or product development support evidenced against deliverables, in contrast to earlier GCIP implementations that provided winning startups with cash prizes for winning a competition.</td><td>3.5.1</td><td>U</td></tr>
<tr><td>National Counterparts</td><td>A cross-section of relevant institutional partners were actively involved in supporting the project's execution and governance through the Project Steering Committee, which met regularly until October 2021. In view of the ongoing security situation, which understandably shifted governmental attention and resources, the engagement of national counterparts is deemed to have functioned to a feasible extent in fulfilling its guidance and oversight roles.</td><td>3.5.2</td><td>S</td></tr>
<tr><td>Donor</td><td>The donor's timely disbursement of project funds and its support for nurturing clean technology and promising entrepreneurs through the GCIP was perceived as highly relevant assistance in bridging gaps and acting as a catalytic force to spur further development of the cleantech innovation and entrepreneurship ecosystem in Ukraine. While the GEF accepted the annual project reports, no feedback provided on the project's progress or performance. Project supervision exercised by UNIDO's GEF Coordination office on behalf of the donor functioned well.</td><td>3.5.3</td><td>S</td></tr>
<tr><td>Overall assessment</td><td>The project's overall performance is "Moderately Satisfactory". Overall Assessment
The project's overall performance is "Moderately Satisfactory". Error! Not a valid bookmark self-reference. provides the ratings for the reviewed criteria. While the intervention had a high degree of relevance for all project stakeholders and the establishment of five Regional Accelerators hosted by five national universities covering the whole of Ukraine's territory as a key pillar of the project's sustainability strategy is a high achievement, some weaknesses in implementation related to lags in addressing internal management issues and the inability to provide the anticipated post-Accelerator support – a key element of GCIP's improved value proposition – together with the disconnect with the follow-up project launched in 2021 then paused, have dimmed the prospects for fully achieving the envisaged outcomes and long-term impact from the project's investment, in the absence of mitigation measures. The extremely challenging external environment with effects from COVID-19 from March 2020, overshadowed by the Russia-Ukraine war since February 2022, over which project implementers had no control, are seen as major dampeners on its potential and have been considered in this overall assessment.

Table 1 – Summary of Evaluation Criteria and Performance Ratings
<table>
<tr><th></th><th>Evaluation Criteria</th><th>Rating</th></tr>
<tr><td>A</td><td>Progress to impact</td><td>U</td></tr>
</table></td><td>4</td><td>MS</td></tr>
</table>

B	Project design	MS
1	• Overall design	MS
2	• Logframe	MS
C	**Project performance**	
1	• Relevance	HS
2	• Effectiveness	S
3	• Efficiency	S
4	• Sustainability of Benefits	U
D	**Cross-cutting performance criteria**	
1	• Gender mainstreaming	HS
2	• Environment and Socio-Economic Aspects	S
3	• M & E Design	HS
	• M& E Implementation	MS
4	• Results-based Management	S
E	**Performance of Partners**	
1	• UNIDO	U
3	• National counterparts	S
4	• Donor	S
F	**Overall assessment**	MS

provides the ratings for the reviewed criteria[47]. While the intervention had a high degree of relevance for all project stakeholders and the establishment of five Regional Accelerators hosted by five national universities covering the whole of Ukraine's territory as a key pillar of the project's sustainability strategy is a high achievement, some weaknesses in implementation related to lags in addressing internal management issues and the inability to provide the anticipated post-Accelerator support – a key element of GCIP's improved value proposition – together with the disconnect with the follow-up project launched in 2021 then paused, have dimmed the prospects for fully achieving the envisaged outcomes and long-term impact from the project's investment, in the absence of mitigation measures. The extremely challenging external environment with effects from COVID-19 from March 2020, overshadowed by the Russia-Ukraine war since February 2022, over which project implementers had no control, are seen as major dampeners on its potential and have been considered in this overall assessment.

The overall rating for the project's performance is 'Moderately Satisfactory'

4.2 Conclusions

150) The project's key strength was found in the **relevance of the cleantech innovation approach** that was implanted in the country (¶77), together with the **capacities built to sustain its operation** [¶80), ¶83), ¶101)]. These are seen to simultaneously address national priorities to strengthen enterprise innovation, drive job creation and economic development, and actively enhance environmental protection (¶70), which also supporting national commitments to safeguard the global commons (¶69). Based on the strength of stakeholders' perceptions regarding this intervention's gap-filling and value-added potential [¶47), ¶59), ¶60), ¶74), ¶100), ¶142)], the GCIP approach should continue to be disseminated and advocated as a pertinent tool to direct national trajectories towards a low-carbon pathway that leads to environmental sustainability, energy independence, economic growth, improved public health, and technological leadership, thereby transitioning countries towards a more sustainable and resilient future.

[47] These ratings follow UNIDO's 6-point scale based on level of satisfaction (refer to Error! Reference source not found.**)**. For the criteria of Sustainability of Benefits and Progress to Impact, the 6-point rating is based on "likelihood" (refer to Error! Reference source not found.).

151) Echoing feedback provided in the terminal evaluations of previous GCIP country implementations (¶63), the weak outcome formulations that persist in the design document (which are effectively output statements that sum up their constituent parts) provide implementers with little encouragement to reflect on and document ways in which the project's support is actively being used to drive behaviour change, thereby potentially missing vital, timely opportunities for risk analysis, troubleshooting, recalibration, and channelling adequate attention and resources to sustaining the project's benefits.

152) **In spite of UNIDO's delay in dealing with internal management issues** on its headquarters' side, which generated delays in providing the expected support for the winning startups from the first three Competition-Accelerator waves (¶135) and the subsequently **extremely challenging external context**, with effects from restrictions imposed in light of an unprecedented global pandemic from March 2020 (¶36), finally fully lifted by Ukraine's Ministry of Health only on 1 July 2023[48] but largely overshadowed by Russia's full-scale invasion on 24 February 2022, which channelled the attention and resources of government, industry, and civil society towards survival mode (¶45), the project still **managed to deliver its planned activities and outputs** (¶79), albeit over an extended timeframe [¶93), ¶94)]. In attributing this achievement to the determination and resilience of project beneficiaries (¶80) and the dedication of the PMU team, which was identified across stakeholders as a key performance enabler (¶127), the decision to continue the project through to its conclusion has not only enabled a subset of the supported startups to embark on initial steps towards commercialisation and scaling up (¶45), the project provides a platform to test the validity of the Regional Accelerator concept (¶100).

153) Conceived as a **key pillar of the project's sustainability strategy** (¶100), the ongoing operation and success of the **Regional Accelerators** is all the more pertinent, given that the GCIP 2 successor project in Ukraine was paused shortly after its launch in 2021 and considering the risk that its targeted beneficiaries turn to alternative activities (¶105), potentially losing momentum and diluting the anticipated role of GCIP in leading the catalytic growth of a cleantech industry through robust innovation and entrepreneurship ecosystems (p22, Project Document). Underpinned by a rigorous identification and selection process (¶92), with suitable governance structures established and contracting with UNIDO (¶47) that facilitated knowledge transfer through the two waves of the Competition-Accelerator were carried out (¶101) have instilled confidence on the part of the PMU and the involved personnel that the host universities have grasped the GCIP fundamentals (¶102). The extent to which the five universities are truly able to strengthen enterprise innovation with such limited exposure (¶29) and reproduce the GCIP mechanism will only be known once they have the resources (¶102) and opportunity to launch and run a next wave.

154) Furthermore, the question of how the supported startups will acquire post-Accelerator support for product/technology development and access to venture capital to facilitate steps towards commercialisation (¶45) is not clear due to several factors: i) absence of the follow-up project's operation (¶102) and the envisaged strategy to channel promising regional innovators towards GCIP 2 (¶105); ii) the lapse in discussions initiated then paused with potential national investors (¶86); and iii) the changing composition of the project's Steering Committee (¶136) and its complete cessation 17 months before the project's close (¶140), given the expected function of this structure to enhance national ownership and play a role in sustaining results (¶98).

155) While the shift in execution modality for GEF-7 funded projects that required the designation of a local partner did, in this case, seem to provision for knowledge transfer with the GEF-6 standalone project in Ukraine, with the inclusion of a USD 10,000 in-kind financing contribution interpreted by the Evaluation Team as a signal of the intended exchange (¶104), this weak architecture and overly implicit arrangement did not create sufficient institutional mandate to motivate useful exchanges during the project's implementation and the development of a path for GCIP 1 alumni to be engaged in the follow-up project, thereby operationalising the vision that GCIP 2 would indeed actively build on GCIP 1 achievements (¶105). The **complete absence of formal onward linkages forged between GCIP 1 and GCIP 2** as part of

[48] The Kyiv Independent https://kyivindependent.com/health-ministry-covid-19-measures-lifted-in-ukraine/ [12 July 2023]

an exit and onboarding strategy, respectively, has reduced prospects for sustaining the benefits of the investment in GCIP 1.

156) UNIDO's **inability to deploy the planned post-Accelerator support for the Competition-Accelerator** (¶130) reflects a serious misalignment in the agency's procurement procedures with the project's needs and the model that was to be demonstrated for scaling up in the country. While UNIDO headquarters' inordinately slow resolution of an internal issue for overseeing the project created initial delays in moving forward with the envisaged support (¶135), the subsequent delays stemming from the COVID-19 pandemic, then a war-time situation, point to an urgent need to review procurement policy as well as enhance organisational leadership and agility. These features will be increasingly demanded in the complex contexts in which UNIDO's development cooperation projects and technical assistance unfold. Very low contract thresholds that required payments in tranches against specified deliverables, presumably designed to fulfil accountability aims, had the presumably unintended effect of generating substantial transaction costs, a high monitoring burden (¶133) that could not be fulfilled, and finally resulted in the failure to provide any of the promised (and for the most part contracted) payments to the involved startups (¶134) in light of the ongoing security situation in Ukraine as well as the varied timeline under which such endeavours would be in a position to pursue the relevant support. The reputational damage to UNIDO and GCIP in Ukraine resulting from the unfulfilled post-Accelerator support, particularly in situations where it had been contracted, have generated a loss of trust with potentially grave consequences, lowering prospects for the success of GCIP 2 (¶134). This weakness in execution is considered to be severe, given that GCIP Ukraine's key area of innovation was in offering post-Accelerator support, designed to fill a gap identified in previous country implementations (¶59).

157) The conceptualisation of and resourcing for the project's Policy Component raises a question, given its ambition to build awareness of the needed framework conditions to facilitate cleantech promotion and adoption and the consequent gaps to fill, as well as to motivate meaningful advance (¶60). Given the significant structural barriers (¶29) and the project's overall objective to strengthen the national ecosystem, thereby de-risking innovation and enabling cleantech innovation to flourish, the symbolic investment in simply assessing policies and economic sectors to produce a report and roadmap risks that the project's significant investment in establishing a coordinating platform and associated capacities for its operation in order to stimulate and support ongoing innovation may be undermined in the absence of building the necessary enabling conditions.

5 Moving Forward

5.1 Lessons Learned

158) In the spirit of promoting organisational learning, two lessons (see **Table 9**) have been distilled from the project's experience, providing food for thought for ongoing and future project endeavours. Of note, both lessons reflect opportunities to enhance the sustainability of a project's benefits through the timely identification and action to address project management issues.

Table 9 – Lessons Learned with their Context

Lesson #1:	**Appropriately diagnosing and dealing with management issues in a timely manner avoids the magnification of their consequences on project execution and stakeholder relationships.**
Context:	➢ This lesson stems from the conclusion that the delay in appropriately dealing with an internal management issue generated delays in a key area of the project's execution, whose effects were magnified with the passage of time (¶152). ➢ While the MTR itself was commissioned at an overly late stage 78% of the way through the project's implementation timelines (¶124), in then presenting the issue as a communication challenge between the field and headquarters, suggesting that this had been solved at an early stage (¶125), the MTR missed the opportunity to offer a balanced external assessment of the situation.

	➢ The effects of delays in organising and executing a fundamental part of the project's design that had been explicitly programmed and budgeted (¶132), stemming from unresolved management issues, were consequently under-appreciated and dogged the project through to its closure in the form of unfulfilled contracts and mistrust on the part of key stakeholders (¶134). ➢ Promptly and appropriately identifying the management issue would have created a platform to bring together all the different perspectives and generated urgency and priority to put an effective arrangement in place that could have potentially avoided increased effects that emerged in relation to the initial delay – in view of the unanticipated deterioration in the country's situation, first with effects from an unprecedented global pandemic then being plunged into a wartime context (¶80).

Lesson #2:	**Clear expectations regarding linkages with follow-up endeavours, backed by institutional mandate, provides the framework for architecting meaningful exit and onboarding strategies that facilitate timely knowledge exchange and building up effective transition pathways.**
Context:	➢ This lesson reflects the conclusion that an overly implicit concept regarding linkages with a follow-up project does not sufficiently direct and support the involved actors in building effective exit and onboarding strategies (¶155). ➢ On the one hand, the inclusion of USD 10,000 equivalent co-financing in GCIP 1's design that was to be contributed by GCIP 2's local implementing partner (¶35) has been interpreted as awareness during the project's planning of Greencubator's future role in the follow-up project (¶104). ➢ While no mention was made of the linkages between GCIP 1 and GCIP 2 in the former's Project Document, instead indicating that GCIP would be transferred to SFII, a national partner (¶98),the GCIP 2 Project Document contained numerous reference to its predecessor project, anticipating knowledge transfer and stating that its main target group were GCIP 1 alumni (¶104), without any provisioning for this in the GCIP 1 design, which remained unmodified throughout the project's implementation. ➢ While the GCIP 2 follow-up project was launched during GCIP 1's ongoing operation (¶103), the opportunity to clearly articulate linkages and expectations was not taken (e.g. through PSC meetings, through a modified project charter). ➢ In the absence of an explicit institutional mandate regarding the relationship between these GEF-funded projects and the anticipated transition, the planning and budgeting for knowledge exchange and the development of a clear path for startups supported under the 2019-2023 programme to benefit from post-Accelerator support was not formulated as part of GCIP 1's exit strategy, risking that the involved actors turn to other activities (¶106) and that the intended catalytic impact of the GEF grant is not fully realised.

5.2 Recommendations

159) Five recommendations that emerged (see **Table 10**) are anchored in the findings and conclusions of the evaluation, with cross-referencing to relevant paragraphs within the TE report. They are set in context, prioritized, and assigned a lead responsibility and proposed timeframe for implementation.

Table 10 – Recommendations with Context, Priority, Responsibility, Timeframe

Recommendation #1:	**Identify a framework under which the Regional Accelerators can be relaunched, with the needed resources and an appropriate local governance mechanism in place, together with sufficient refreshment of GCIP concepts and rebuilding of institutional operational capacities, in order to sustain the project's benefits.**
Context:	➢ Considering the current assessment of the project's Progress to Impact as being 'unlikely' (see Section 3.1), this recommendation reflects the conclusion that the ongoing operation and success of the Regional Accelerators is a key driver for

	sustaining the project's benefits (¶153). ➢ While there is willingness and motivation (¶102), in the absence of an ongoing framework, the Evaluation Team sees their prospects for continuation as dim, given the disconnect between GCIP 1 and GCIP 2 (¶103) and no apparent path forward for the Regional Accelerators developed as part of GCIP 1's Exit Strategy. ➢ Strengthening universities' capabilities to support enterprise innovation was identified as a mechanism to fill an important gap in light of reforms needed to adapt to new private sector realities in Ukraine's independent, democratic era (¶29). ➢ Kherson National Technical University ran just one wave of the Competition-Accelerator in Autumn 2021 before its territory fell into Russian occupation, while the other four host universities managed to run two waves during May 2021 to February 2022. While this allowed the GCIP concept to be shared with some supporting capacities put in place (¶101) and those who were involved were convinced about the pertinence and value of the approach, to date (July 2023), no next wave has been initiated by these Regional Accelerators. ➢ Although fundamentals were grasped at the time (¶153), with the passage of time, attrition of personnel and knowledge can be expected. In the absence of continued activity, presumably the Steering Committees established in 2021 in relation to the Regional Accelerators (¶47) have not continued to function in the interim, but they could be resurrected as a local governance mechanism. ➢ The overly broad interpretation observed in the regional roll-out allowed for the inclusion and support of innovations that appeared to have a rather tenuous connection to cleantech (¶85). Refreshment on the GCIP training concepts and materials, together with rebuilding of institutional operational capabilities, will surely be needed to enhance the likelihood of successful ongoing operation of the Regional Accelerators focussed on genuinely cleantech innovation that supports the country's post-war recovery. ➢ As GCIP 2 was designed to welcome and support promising innovators identified by the Regional Accelerators (¶105), an additional support package to ensure the Regional Accelerators are equipped for their anticipated role could arguably be included under this framework, which is also GEF-funded, albeit under a subsequent cycle with different execution modality. Pursuing the recommendation through this mechanism would require additional resourcing for its Component 1 /Outcome 3 (Cleantech innovation and entrepreneurship ecosystem strengthening and connectivity), which has provisioned USD 75,000 for the capacity building of at least 6 national institutions (such a formulation and budget presumably assumes that the Regional Accelerators established under GCIP 1 are fully operational, which is not seen to be the case). The fact that GCIP 1's Project Manager in Vienna carries the corresponding responsibility for GCIP 2 is seen as an asset for ensuring smooth communication with the GEF and the local executing partner regarding this extenuating situation. ➢ As effective cooperation had emerged organically amongst the Regional Accelerators during GCIP's implementation (¶82), the notion of a self-organised framework amongst the host universities is also worth exploring. Inspiration could be usefully drawn from the 2019 establishment of the Alliance of Universities in Kyrgyz Republic for Green Economy and Sustainable Development (AVZUR), which functioned as a nation-wide, self-organised network of universities operating through the in-kind

	contributions of its members[49].
Priority Level:[50]	Critical Recommendation
Responsibility:	UNIDO, GEF, Greencubator, and the five universities hosting the Regional Accelerators
Timeframe:	In conjunction with planning the restart of GCIP 2

Recommendation #2:	**Clarify the way in which startups supported in the past under GCIP 1 and the Regional Accelerators, moving forward, will be supported in a timely and pertinent manner under the GCIP 2 framework in order to access post-Accelerator support and eventual financing to enable the commercialisation of promising innovations.**
Context:	➢ This recommendation addresses the conclusion that the lack of operationalised linkages between GCIP 1 and GCIP 2 as part of their respective exit and onboarding strategies has reduced prospects for sustaining the benefits of the GEF's investment in GCIP 1 (¶155). ➢ Given that GCIP 1 closed in May 2023 and GCIP 2 was launched in 2021 then paused shortly thereafter, the mechanism for the envisaged channelling of startups supported under GCIP 1 and subsequently by Regional Accelerators that were expected to take over as a key pillar of its sustainability strategy (¶153) has not been established (¶105). ➢ The results of taking up Recommendation 1 would be positively magnified by ensuring there is a clear path for the anticipated pipeline of projects generated through future acceleration rounds.
Priority Level:	Critical Recommendation
Responsibility:	UNIDO and Greencubator
Timeframe:	Within the coming 3 months

Recommendation #3:	**Replace the notion of cash prizes for winning startups with post-Accelerator support dispensed through a more agile mechanism that facilitates the provision of relevant technology and/or product development support in a timely, needs-based manner, without generating undo monitoring requirements for the provider and a high accountability burden for the recipient.**
Context:	➢ This recommendation reflects the conclusion that UNIDO's procurement procedures and GEF's accountability requirements are not able to appropriately support the intention to provide relevant, timely support to accelerate the commercialisation of promising cleantech innovations (¶156) using funds that were specifically allocated under the GEF grant for this purpose (¶132). ➢ While the notion of awarding cash prizes to winning startups is a remnant of GCIP's Silicon Valley-originated concept (¶45), its roll-out in Ukraine pioneered an alternative approach of channelling the USD 191,250 provisioned in the GEF grant into tailored contracts signed with the winning startups for total amounts ranging from USD 5,000 to USD 15,000, each disbursed through three tranches that obliged recipients to provide supporting documentation for expenses encountered in relation to acquiring post-Accelerator assistance during the project's implementation timeframe. ➢ While this was a creative solution to simultaneously solve the challenge of incentivising

[49] For more information about AVZUR, see https://avzur.kg/?lang=en. Refer to Kyrgyz Republic Case Study contained in Annex V of the Evaluation of the Partnership for Action on Green Economy (PAGE)'s Operational Strategy 2016-2020 (authors: Dr. Joyce Miller, Dr. Stephanie Robert Oksen, Dr. Achim Engelhardt), available from https://wedocs.unep.org/handle/20.500.11822/42281

[50] 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 activity.

	the involved startups while also obliging the recipients to deploy the support in ways that GCIP intended – while also meeting the demanding accountability and control requirements of UNIDO and the GEF – under the Ukraine roll-out, 53 payments on 21 signed contracts were still outstanding at the project's close. This alternative approach simply did not align with the startups' reality of the timeline and process for cleantech innovation; at the same time, the detailed requirements of the contracting and monitoring outstripped scarce project management resources. ➢ While meeting UNIDO's procurement requirements put in place to assure due diligence and compliance with GEF's procedures, the adopted approach was an outright failure in terms of delivering the key added value of the GCIP incarnation in Ukraine, which was the provision of post-Accelerator support (¶156), designed to fill a gap identified as the learning from previous country implementations (¶59). ➢ The approach for post-Accelerator assistance piloted in Ukraine does not seem suitable for replication and scaling up, given the lack of financial resources highlighted by the Regional Accelerators to support prizes to incentivize winning startups (¶102).
Priority Level:	Critical Recommendation
Responsibility:	UNIDO
Timeframe:	In conjunction with roll-out of GEF-7 funded GCIP activities

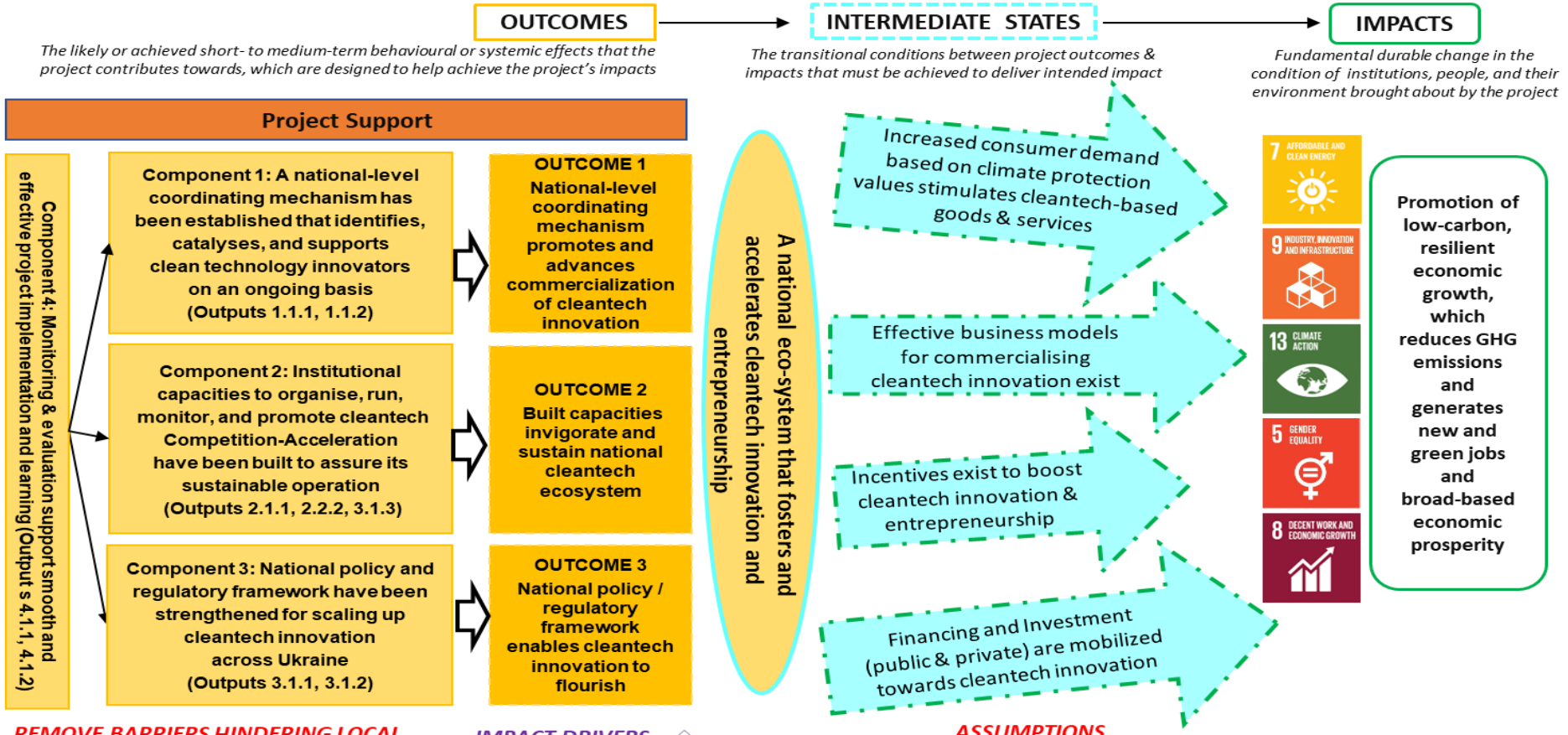
Recommendation #4:	**Provide the contracted payments to the involved startups utilising the obligated amounts before the project's financial closure.**
Context:	➢ This recommendation reflects the conclusion that the reputational damage to UNIDO and GEF in Ukraine from the unfulfilled contracts with the involved startups has severe consequences related to the breach of trust (¶156). ➢ Exiting the project without fulfilling these contracts contradicts the intention of the provisioned support under the GEF grant (¶132). ➢ According to many interviewed/surveyed stakeholders, this situation has reduced trust in both organisations (¶106) and could jeopardize ongoing UNIDO-GEF activities in the cleantech innovation domain in Ukraine, specifically the GCIP 2 intervention (¶134).
Priority Level:	Critical Recommendation
Responsibility:	UNIDO, GEF
Timeframe:	In conjunction with the financial closures of GCIP 1

Recommendation #5:	**Ensure a more robust conceptualisation and adequate resourcing for strengthening a country's enabling conditions for cleantech promotion and adoption in order to genuinely de-risk and leverage GCIP's climate investment.**
Context:	➢ This recommendation reflects the conclusion that evolving the framework conditions to de-risk GCIP's key interventions[51] and more broadly, facilitate cleantech promotion and adoption – a key prerequisite to valorize the investment in implanting GCIP's Competition-Accelerator and building the accompanying operational capacities – requires a significantly more robust conceptualisation and resourcing (¶157). ➢ Key enabling conditions to support enterprise innovation have not yet been sufficiently addressed; this deficit in ecosystem maturity is a dampening factor on the project's Progress to Impact (¶45)

[51] The GCIP 2 Project Document (p9) envisages that co-financing (predominantly in-kind) from the public sector is intended to create the enabling framework conditions that de-risk the key interventions by the GCIP project. According to the World Resources Institute (22 July 2022), de-risking cleantech innovation involves "reallocation, sharing or reducing the existing or potential risks associated with climate investment" https://www.wri.org/insights/de-risking-low-carbon-investments

	➢ GCIP's design put a disproportionate emphasis on implanting the Competition-Accelerator platform (43% of project budget) and building capacities to sustain its operation (33% of budget), with a symbolic 10% allocation for the Policy Component, despite its ambition to build awareness of the needed framework conditions as well as motivate and support meaningful advance (¶60) towards addressing the identified gaps [e.g. through support on formulation of normative documents on economic incentives, working with national and sub-regional policymakers, and carrying out assessment, building a roadmap and monitoring progress (¶89)].
Priority Level:	Important Recommendation
Responsibility:	UNIDO, donors
Timeframe:	In conjunction with the design and implementation of further GCIP country implementations

Annex I – Reconstructed Theory of Change (RTOC)



REMOVE BARRIERS HINDERING LOCAL CLEANTECH MARKET FOR SMEs & START-UPS

1) Lack of technology innovation platforms
2) Insufficient dynamism/contribution of SMEs in cleantech innovation
3) Shortage of relevant business and entrepreneurial skills of SMEs/startups
4) Limited SME/startup access to finance
5) Inadequate transfer of cleantech R&D between academia & industry
6) Weak enabling policy/regulatory environment; limited impact monitoring

IMPACT DRIVERS

Women's Inclusion & Empowerment accelerates & amplifies cleantech innovation

Scaling-up of cleantech categories, Accelerator size, geographic reach

Ecosystem Maturity (quality of post-Accelerator support services, incubation facilities; removal of compliance traps)

Linkages to Industry & Finance (Ukrainian innovators are directly linked with industry, public finance sources and gain access to domestic/global venture capitalists, investors, networks, markets)

ASSUMPTIONS

The government has a clear, coordinated vision of what it wants from cleantech innovation and takes leadership in transitioning the economy to a knowledge-based, innovation-driven economy

There is ongoing support for building up the country's cleantech ecosystem and meaningful participation by relevant executing institutions, industry, and other relevant stakeholders (e.g. mentors)

Political /socio-economic stability allows investor confidence to flourish, with resources channelled towards domestic cleantech innovation

Promising cleantech entrepreneurs have sufficient access to relevant customer segments in Ukraine, and beyond

Annex II – Documents and Other Resources Consulted

Project Documentation

UNIDO's Open Data Platform https://open.unido.org/projects/M0/projects/170065

Project Document: Global Programme Economic Empowerment of Women in Green Industry. Phase 1: Policy Prioritisation (2019-2021) https://open.unido.org/api/documents/13350363/download/EEWiGI_prodoc_BMZ%20contribution_final.pdf

UN Agency to UN Agency Contribution Agreement between UNIDO and UN Women signed 22 November 2019

Policy Assessment for the Economic Empowerment of Women in Green Industry: Synthesis Report of the Country Assessments in Cambodia, Peru, Senegal and South Africa (31 December 2021), Includovate https://www.includovate.com/economic-empowerment-of-women-in-green-industry/

Policy Assessment Country Reports for Cambodia, Peru, Senegal, South Africa (February 2021)

Inception Phase presentation and agenda of Global Inception Meeting (13-14 November 2019)

EEWiGI Communications Strategy

Selected Minutes of Meetings in Cambodia, Peru, Senegal, South Africa

Terms of Reference for EEWiGI National Steering Committee

EEWiGI Annual Work Programme 2019-2020 (updated 7 November 2019)

Terms of Reference for the implementation of UN Women's responsibilities in EEWiGI

Concept Note for UN Women's Development of two Training Activities

Concept Note and "Story Line" for Closing Workshop, 28 March 2022

Webinar to Disseminate Policy Assessment on 20 July 2021 https://www.youtube.com/watch?v=nblkisdZoTU

Thematic Resources

European Commission Manual for Gender Mainstreaming of Employment Policies, 2007 https://ec.europa.eu/social/main.jsp?langId=en&catId=89&furtherEvents=yes&newsId=106

Website of the Donor Committee for Enterprise Development (DCED) https://www.enterprise-development.org/implementing-psd/womens-economic-empowerment/

Miles, I. (June 2019), Women's Empowerment & the Green Economy https://www.eda.admin.ch/countries/ukraine/en/home/internationale-zusammenarbeit/projekte.html/content/dezaprojects/SECO/en/2011/UR00511/phase1

Van Hagen, M. and J. Willems (October 2012) Scoping Study for DCED's Green Growth Working Group: Women's Participation in Green Growth – A Potential Fully Realised? https://www.enterprise-development.org/wp-content/uploads/Womens_participation_in_Green_Growth.pdf

UNITAR et al, Gender and Environment Introductory Training Module

UNEP (2016), Gender Equality and the Environment: A Guide to UNEP's Work https://wedocs.unep.org/handle/20.500.11822/7642

UNEP on inclusive green economy: https://www.unep.org/explore-topics/green-economy/why-does-green-economy-matter/what-inclusive-green-economy

McKinsey and Company (October 2017), Women Matter: Time to Accelerate. Ten Years of Insights into Gender Diversity https://www.mckinsey.com/featured-insights/gender-equality/women-matter-ten-years-of-insights-on-gender-diversity

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

https://www.un.org/womenwatch/osagi/conceptsandefinitions.htm

Annex III – Stakeholder Consultation through Indepth Interviews

23 stakeholders interviewed (15 women – 65%; 8 men – 35%)

Related to UN Agencies and Funder (4 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
F	Olga RATAJ	UNIDO	Project Manager from March 2021	Vienna, Austria
M	Alaeldin Sayed Ali MOHAMED	UNIDO	Project Assistant	Vienna, Austria
M	Gerswynn MCKURR	UNIDO	In relation to coordination with parent programme	Vienna, Austria
F	Olga GORDIIEVSKA	UNIDO GEF Coordination Office	Donor representative	Vienna, Austria

PMU - Project Management Unit (5 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
M	Igor KYRLYCHUK	UNIDO	National Coordinator	Kyiv, Ukraine
F	Kateryna PASICHNYK	UNIDO	Assistant	Kyiv, Ukraine
M	Mykola KOBETS	UNIDO	National Expert (Policy Component)	Kyiv, Ukraine
F	Kateryna PERNATA	UNIDO	National Expert (Business Academy Coordinator))	Brussels, Belgium
F	Tetyana MAZAIEVA	UNIDO	National Expert	Kyiv, Ukraine

Related to National Agencies, Academic Partners (9 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
M	Volodymyr STAVNYUK	State Finance Institution for Innovations (SFII) and Head, Israel-Ukraine Chamber of Commerce	Project Steering Committee Head	Kyiv, Ukraine
M	Andriy PIVEN	Sumy State University	Coordinator, Sumy Region Regional Accelerator ("New Generation")	Sumy city. Ukraine
F	Iryna HRYGORUK	Vasyl Stefanyk Precarpathian National University	Coordinator, Ivano-Frankivsk Regional Cleantech Accelerator	Ivano-Frankivsk city, Ukraine
F	Valentyna YAKUBIV		Regional Cleantech Accelerator Management Team	
F	Anna ALEKSEEVA	Petro Mohyla Black Sea National University - Senior Lecturer, Environmental Chair	Coordinator, Mykolaiv Regional Cleantech Accelerator	Mykolayiv city, Ukraine
F	Tetiana SHULYK	Donbas State Pedagogical University – Head, Monitoring Department	Coordinator, Sloviansk Regional Cleantech Accelerator	Slavyansk city, Ukraine
F	Iryna VOLVACH	Kherson National Technical University (KNTU)	Coordinator (2019-20), Kherson Regional Cleantech Accelerator	Thun, Switzerland
F	Larysa PONOMARENKO	International Cooperation Department, KNTU	Coordinator (from 1 March 2023), Kherson Regional Cleantech Accelerator	Kherson city, Ukraine
F	Julie SARIBYEKOVA	Pro-Rector of Science and International Activities, KNTU	Regional Academic Stakeholder	Kherson city, Ukraine

Trainers, Mentors, Judges (4 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
F	Nadiia KOGUTIAK	Deputy of the Ivano-Frankivsk City Council	Judge	Ivano-Frankivsk city, Ukraine
F	Lilia KORCHEVSKA	Department of Science, KNTU	Local Trainer/ Mentor	Kherson city, Ukraine
M	Ruslan NABOKA	Head of Management and Marketing Department KNTU	Local Trainer/ Mentor	Kherson city, Ukraine
F	Kateryna PERNATA	Consultant engaged by PMU	Mentor in 6th wave of Business Academy	Brussels, Belgium

Entrepreneurs/Start-Ups/SMEs in Ukraine supported under the project (2 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
M	Arthur FROLOV	Entrepreneur	Participant in Business Academy	Kherson city, Ukraine
F	Olga PIZUKA	DZHERON PRYVATNE PIDPRYYEMSTVO	"Medicine for Sustainable Development" and "Best Women's Project", 2020	Kyiv, Ukraine

Annex IV – Stakeholder Consultation through Online Survey

71 stakeholders surveyed

Related to UN Agencies and Funder (2 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
M	Alaeldin Sayed Ali MOHAMED	UNIDO	Project Assistant	Vienna, Austria
M	Mykola KOBETS	UNIDO	National Expert (Policy Component)	Kyiv, Ukraine

Related to National Agencies, Academic Partners (7 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
M	Volodymyr STAVNYUK	State Finance Institution for Innovations (SFII) and Head of Israel-Ukraine Chamber of Commerce and Industry	Head of Project Steering Committee	Kyiv, Ukraine
M	Andriy PIVEN	Sumy State University	Coordinator, Sumy Region Regional Accelerator ("New Generation")	Sumy city. Ukraine
F	Iryna HRYGORUK	Vasyl Stefanyk Precarpathian National University	Coordinator, Ivano-Frankivsk Regional Cleantech Accelerator	Ivano-Frankivsk city, Ukraine
F	Valentyna YAKUBIV	Vasyl Stefanyk Precarpathian National University	On the Regional Cleantech Accelerator Management Team (has 3 members)	
F	Anna ALEKSEEVA	Petro Mohyla Black Sea National University - Senior Lecturer, Environmental Chair	Coordinator, Mykolaiv Regional Cleantech Accelerator	Mykolayiv city, Ukraine
F	Tetiana SHULYK	Donbas State Pedagogical University – Head, Monitoring Department	Coordinator, Sloviansk Regional Cleantech Accelerator	Slavyansk city, Ukraine
F	Iryna VOLVACH	Kherson National Technical University (KNTU)	Former Coordinator, Kherson Regional Cleantech Accelerator (2019-2020); took over from Halina Savina	Thun, Switzerland

Trainers, Mentors, Judges (15 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
F	Kateryna PERNATA	Consultant engaged by PMU	Mentor in 6th wave of Business Academy	Brussels, Belgium
F	Nadiia KOGUTIAK	Deputy of the Ivano-Frankivsk City Council	Judge	Ivano-Frankivsk city, Ukraine
F	Lilia KORCHEVSKA	Department of Science, KNTU	Local Trainer/ Mentor	Kherson city, Ukraine
M	Oleksander TROHYMCHUK	Head of the Council of investments Rivno Oblast Administration	Judge	
M	Bohdan SENCHUK	Swedish Business Association	Mentor	Ukraine
F	Olena POSHTARENKO	HR Expert	Mentor	Ukraine
F	Olena LENSKA	State Agency on Energy Efficiency and Energy Saving of Ukraine	Judge	Ukraine
F	Yevgenia ZHOROVA		Local Trainer/ Mentor	Ukraine
M	Yuriy TASCHEIEV		Judge	Ukraine
M	Volodymyr CHERNETSKYI		Mentor	Ukraine
M	Illia PYSMENSKYI	Project Manager	Mentor	Mykolaiv, Ukraine (now in Germany)
F	Tetiana PREDCHUK	GCIP	Mentor/Trainer	Ukraine

F	Natalia MATUSEVYCH	GCIP	Mentor/ Trainer	Ukraine
M	VALERIY Grygoruk		Judge	Kyiv, Ukraine
F	Anastasia BYTKO		Mentor	Ukraine

Entrepreneurs/Start-Ups/SMEs in Ukraine supported under the project (43 stakeholders)

Gender	Name	Organisation	Role in GCIP Ukraine	Location
F	Arthur FROLOV	KIEV AIKIDO AND MARTIAL ARTS FEDERATION	Participant in Business Academy	Kherson city, Ukraine
F	Olga PIZUKA	DZHERON PRYVATNE PIDPRYYEMSTVO	“Medicine for Sustainable Development” and “Best Women’s Project”, 2020	Kyiv, Ukraine
M	Volodymyr STATSENKO	WARM WALLS		Ukraine
M	Volodymyr KRAVTSOV	STREAM		Ukraine
F	Vira TYMCHAK	Innovative strategy of integrated use of food industry waste for the livestock industry		Ukraine
M	Mykola VELYCHKO	Disposal of worn car tires		Ukraine
M	Anton FILAYOV	VACUUM GRAVITY ENERGY		Ukraine
F	Viktoria		Innovative technology of processing the blood of slaughter animals into an iron-containing dietary supplement	Ukraine
M	Valeriy SHKLIARENKO	SV - eco, "Wind-permeable dynamic SES"		Ukraine
M	Tymur HUBARIEV	iSos		Ukraine
M	Valerii KOLOKOV		Technology of improving the quality of pyrolysis fuel obtained during the processing of waste and biomass by the hydrogenation method	Ukraine
M	Taras TOVSTOPIAT	LDMS	Eye in the sky Landfills detection and monitoring service	Ukraine
M	Taras GRYADIL		App for mobile devices for non-invasive measurement of blood glucose concentrations	Ukraine
F	Olena BAHIROVA	SOLAR PLEX		Ukraine
M	Oleksiy SYNYOV		Damless hydroelectric power plant	Ukraine
M	Oleksiy ROMANOVSKY	Com-Pom	Reduction of the negative impact on the environment from the activities of the processing enterprise through the implementation of the startup technology "Com-Pom" (Compost Pomace)	Ukraine
M	Anatolit SHEVCHU		Method of extinguishing forest fires	Ukraine
F	Tetiana SHULYK	Donbas State Pedagogical Unversity	Interactive Lotto for the New Ukrainian School “Integraiko”	Ukraine
M	Saveliy KUKHARETS		Complex for receiving electric energy from straw	Ukraine
M	Nevzgoda Oleksandr ANATOLIYOVYCH	GO ZUTA	Panacea The apparatus of extracorporeal blood hyperthermia and use of it in inflammatory and purulent processes of the chest organs	Ukraine

M	Mykola SHYKHAYLOV		Development of a 4 kW wind farm	Ukraine
M	Volodymyr POTAPOV		Innovative technology of processing the blood of slaughter animals into an iron-containing dietary supplement	Ukraine
M	Vasyl POLUYKO	MOL (Eat My Plastic)		Ukraine
M	Oleksandr GRYTSYNA	Smart4BioEnergy		Ukraine
M	Lyubomyr Matsekh-UKRAINSKYI	MOL (eat my plastic)		Ukraine
F	Oksana KURYLETS		Development of modular sewage treatment plants of low productivity for biological treatment of domestic wastewater	Ukraine
M	Oleksiy KURKUZOV	SOLAR PLEX		Ukraine
F	Suzansky KOSTYANTYN		Creation of a prototype "Contactless ultrasonic thickness gauge for wood"	Ukraine
M	Vasyl KLYMENKO	HydrateBiotech		Ukraine
M	Serhiy KURTA		Environmentally clean technology and equipment for crushing, separation and recycling of industrial and household waste - waste paper with polymers	Ukraine
M	Dmytro BILYI		Development of a cold extraction unit for the production of ether extracts from plant and medicinal raw materials	Ukraine
F	Ivanova TETIANA		Utilization of bread and alcohol production waste by cultivation of medicinal mushrooms	Ukraine
F	Valentyn FRECHKA	LLC LLC RE-LEAF PAPER	RE-LEAF PAPER	Ukraine
M	Serhii HOLMOV	MaxiMinHouse (MMH)	Building without heating	Ukraine
F	Oksana PROKHOROVA	Worm NET	Eco-board from reeds - Worm NET	Ukraine
F	Olga PUSHKARCHUK		Disposal of TPP ash and slag dumps	Ukraine
M	Andriy GELYSH		Development of modular sewage treatment plants of low productivity for biological treatment of domestic wastewater	Ukraine
M	Berezhnyi KOSTYANTYN	Biopolymer Production		Ukraine
M	Andriy SUKHORIABOV	Green Straws		Ukraine
F	Alona PRENKOVSKA	Prenkovska A.O. FOP		Ukraine
F	Alona BILOKON	Expert on Business management		Ukraine
F	Mykola VARNYAHA		Production of gas generator for environmentally safe innovative waste utilization	Ukraine
M	Andriy VOLOSHENYUK	MArpo		Ukraine

Annex V – Interview Protocol

Preamble

*This terminal evaluation has been requested by UNIDO for an independent assessment of the Cleantech Programme for SMEs' Relevance, Effectiveness, and Impact and Sustainability. It has 2 dimensions: a) **Backward-looking**: assessing performance and achievements b) **Forward-looking**: gathering stakeholder input and recommendations to sustain its results and benefits.*

Relevance

1) What is this project's **key added value** for Ukraine? What **gaps** has this project filled? To what extent is it unique? Is the project's **design fit for purpose**?
2) In which ways has the project helped the involved national institutions to fulfil their mandates? Were the **'right' institutions and end beneficiaries engaged** in the project? Do they need further support?
3) Did this intervention come too early, too late, or exactly at the right time?

Effectiveness

4) What **criteria** do you use to judge the effectiveness of this project?
5) What would you consider as the project's **key successes**?
6) What were its **shortfalls** / weaknesses? In which ways could it have been more relevant and more effective in dynamizing and supporting cleantech innovation in Ukraine?
7) Which results (**outcomes**) of the project are you particularly proud of? Who had key roles in delivering this?
8) To what extent (in %) do you believe that the project's programmed outputs will be delivered by the project's close? If not 100%, what are the **obstacles**? If 100% will be achieved, what are the **facilitating factors**?
9) Was the **training, mentoring,** and **connection to investors** useful for advancing cleantech innovation? To what degree were these aspects useful and sufficiently carried out?
10) Were **gender issues** sufficiently addressed and in what manner; any success stories?

Efficiency

11) Did the project **deliver 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** had an influence on the project's efficiency?
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 **project's management**? Did 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 project's management?
15) Did the project's **governance structure** assure an efficient and effective use of resources? On a scale of 1 to 10, how would you rate the project's governance?
16) How well did the **Project Steering Committee** function in performing its duties?

Impact and Learning

17) What **changes in attitude and/or behaviour** have been stimulated and supported by the project? Have you observed such changes in yourself related to involvement in this project?
18) If you have not already seen evidence of the anticipated changes, what is the **likelihood** that the project's envisaged impacts will actually occur in the next 2 years? What **obstacles are in the way of realising those changes**?
19) Are you aware of any information, lessons, or specific project results that have been incorporated into broader stakeholder mandates or initiatives (e.g. laws, policy, regulation, projects)? (**replication, mainstreaming**)
20) What are the most **important lessons** stemming out of the project thus far? To what extent have the project's methodology, lessons, and/or technologies been **adopted and/or reproduced**?

Sustainability

21) 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 project's reach and sustainability?
22) Are you confident that the national-level platform and the competition/accelerator will **continue to be regularly organized**? What factors would facilitate this? Which factors could hinder?
23) Which **other institutions** need to be engaged, in which ways, to assure the continuation of benefits and create a path for replication and scaling up?
24) In which ways could **resources be mobilized** to assure the project's results are sustained?

Annex VI – Online Survey Questions

This survey was run on the Sogoyltics platform https://www.sogolytics.com/static/login.aspx

Organisational Information

1) To enable us to understand your answers within the relevant context, could you kindly share some background information ?
   - Full name:
   - Gender (select from: Female, Male, Not Listed, Prefer Not to Say)
2) What role(s) do you have with respect to the GCIP project (Global Cleantech Innovation Programme) in Ukraine ? Check all that apply.

Check box (allows more than 1 choice):

- Entrepreneur/Innovator/Start-Up
- Mentor
- Trainer
- Judge
- Government Representative
- Civil Society Representative
- Industry Representative
- Project Management Unit (PMU, Ukraine)
- UNIDO Headquarters
- Other (please specify)

Relevance

3) The GCIP project is relevant to me and my organisation's needs and interests. Do you agree ?

On a scale of 1-6 (Highly Disagree, Disagree, Moderately Disagree, Moderately Agree, Agree, Highly Agree)

4) Please explain your rating. In which way can the GCIP project's results be used to strengthen the cleantech ecosystem even further in Ukraine ?

Free text box

Gender/Social Inclusiveness

5) To what extent has the GCIP project in Ukraine been sensitive to considerations regarding gender and social inclusiveness ?

On a scale of 1-6 (Highly Unsatisfactory, Unsatisfactory, Moderately Unsatisfactory, Moderately Satisfactory, Satisfactory, Highly Satisfactory)

6) Do you have any suggestions for how GCIP could improve its approach to gender and social inclusiveness ?

Free text box

Effectiveness, Results-based Management

7) To what extent has the GCIP project achieved its objective to promote clean energy technology innovations and entrepreneurship in Ukraine ?

On a scale of 1-6 (Highly Unsatisfactory, Unsatisfactory, Moderately Unsatisfactory, Moderately Satisfactory, Satisfactory, Highly Satisfactory)

8) In your opinion, what are the reasons for this achievement or lack of achievement ?

Free text box

9) FOR THOSE WHO INDICATE THEIR ROLE AS TRAINER, MENTOR, JUDGE: Which aspects supported you in performing the role of 'trainer', 'mentor', and/or 'judge' in the GCIP Ukraine project ?

On a scale of 1-6 (Highly Unsatisfactory, Unsatisfactory, Moderately Unsatisfactory, Moderately Satisfactory, Satisfactory, Highly Satisfactory)

10) FOR THOSE WHO INDICATE THEIR ROLE AS TRAINER, MENTOR, JUDGE: What hindered your performance in the role of 'trainer', 'mentor', and/or 'judge' ? Do you have any suggestions for improvements ?

Free text box

11) To what extent has the Project Management Unit (PMU in Kyiv) been effective in implementing the GCIP project in Ukraine ?

On a scale of 1-6 (Highly Ineffective, Ineffective, Moderately Ineffective, Moderately Effective, Effective, Highly Effective) + Don't Know

12) Please describe areas of particular achievement and/or where the PMU's approach fell short of expectations.

Free text box

13) In your opinion, what effects (positive, negative, intended, and/or unintended) can be directly attributed to the GCIP project ?

Free text box

Efficiency

14) How well did the GCIP project make use of its resources in implementing its activities in Ukraine ?

On a scale of 1-6 (Highly Unsatisfactory, Unsatisfactory, Moderately Unsatisfactory, Moderately Satisfactory, Satisfactory, Highly Satisfactory) + Don't Know

15) Please provide examples of particularly efficient and/or wasteful use of project resources.

Free text box

Sustainability

16) With GCIP's support, 5 "Regional Cleantech Accelerators" have been established in collaboration with Vasyl Stefanyk Precarpathian National University, Sumy State University, Donbas State Pedagogical University, Petro Mohyla Black Sea National University, and Kherson National Technical University. After this GCIP project closes in May 2023, in your opinion, is it likely that these institutions will continue to regularly organise the cleantech Competition-Accelerator ?

On a scale of 1-6 (Highly Unlikely, Unlikely, Moderately Unlikely, Moderately Likely, Likely, Highly Likely) + Don't Know

17) What helped the GCIP Regional Cleantech Accelerators in playing their anticipated role ? Please use specific examples.

Free text box

18) What has hindered the GCIP Regional Cleantech Accelerators in playing their anticipated role ? Please use specific examples.

Free text box

19) To what extent are needed mechanisms in place to sustain activities and results after May 2023 (end of donor funding):

On a scale of 1-5 (Highly Unsatisfactory, Unsatisfactory, Moderately Unsatisfactory, Moderately Satisfactory, Satisfactory, Highly Satisfactory) + Don't Know

- Availability of qualified cleantech innovators & startups
- Availability and capabilities of mentors to support participating entrepreneurs/startups
- Availability and capabilities of judges to engage in cleantech Competition-Acceleration activities
- Availability and capabilities of local trainers to support cleantech Competition-Acceleration activities
- Availability of financing for startups to reach commercialisation
- Post-Accelerator support
- Linkages with relevant industry actors
- Access to relevant customer segments in Ukraine, and beyond
- Public awareness regarding the potential of clean technology

On a scale of 1-6 (Highly Unsatisfactory, Unsatisfactory, Moderately Unsatisfactory, Moderately Satisfactory, Satisfactory, Highly Satisfactory)

20) Would you like to add anything else about the activities of GCIP Ukraine?

Free text box

Invitation text

In agreement with UNIDO National Coordinator Igor Kyrylchuk, I am getting in contact to ask if you would kindly complete this 10-question survey about the Global Cleantech Innovation Project (GCIP) that has been implemented in Ukraine.
Your input and perspectives are highly valuable and will be used to develop an understanding of this project's performance and its impact. Please be assured that your responses will be kept confidential and will only be used for the purpose of learning as part of this project's Terminal Evaluation, which I am carrying out as an independent external evaluator, on behalf of UNIDO.

A high response rate is essential to assure the validity of the analysis and conclusions.
Could I count on having your participation in this survey by 30 April 2023 ?
Please complete this online survey using the link below:

[[Survey_Button]] OR [[Survey_Copy-paste]]

With best regards

Dr. Joyce Miller, International Evaluation Expert
Terminal Evaluation - Global Cleantech Innovation Project (GCIP) Ukraine
Funded by Global Environment Facility (GEF), implemented by UNIDO

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A Swiss-based consultancy that supports the development of individual, team, and organisational capacities to create vision, mission, and strategy-- and to implement change

Annex VII – Project Reporting on Achievement of Outputs and Outcomes

Outcomes and Underpinning Outputs	Indicators from Project Results Framework	Achievement against indicators (as reported by PMU with explanatory remarks; edited for clarity by the Evaluator)
Overall Outcome: Promotion of clean energy technology innovations and entrepreneurship in Ukraine through the development of a cleantech innovation platform and Accelerator	# of SMEs and startups to pursue innovations in clean energy technologies Target: National Cleantech Platform established, with at least 18 SMEs/startups with promising clean energy technologies/products/services/business ideas identified and mentored	National Cleantech Platform/coordinating mechanism office to support SMEs and startups was established 5 regional cleantech accelerators GCIP Ukraine in 5 regions of Ukraine on the base of 5 universities, namely Kherson National Technical University (Kherson city), Donbas State Pedagogical University (Slavyansk town), Petro Mohyla Black Sea National University (Mykolaiv city), Vasyl Stefanyk Precarpathian National University (Ivano-Frankivsk city), Sumy State University (Sumy city) were established; Online learning platform for conducting GCIP Ukraine Business academy was adopted *https://wizzylab.com/* At least 28 startups with promising clean energy technologies/products/services/business ideas identified, mentored and prepared for implementation
	# of successful cleantech programmes organised after project completion Target: 3	This target can be assessed at least 6 months after project completion
	Additional investment into clean energy technology innovations due to increased interest in cleantech programme Target: USD 6 million	Total investment attracted to date (May 2023): USD 7.9 million 4 startup-projects received investments and started their production: - Polystrach-UA - production of biodegradable plastic from starch - USD 5 million - Re-leaf Paper - production of paper from fallen leaves - EUR 2.50 million - AgriEye - information platform using artificial intelligence for smart farming, resource management sustainable agriculture - USD 350,000 - Uf-Bee - production of waxed napkins for food products - EUR 50,000
	# of SMEs and startups as members of national platform (sex-disaggregated) Target: at least 200 SMEs (40% women-led)	Through 6 waves of Competition-Acceleration at **national level**: - 397 applications received - 139 semi-finalists (on average, 28.1% women) 45 nominated winners - 75 finalists - 6 national winners During 2 waves at **regional level** conducted by 5 Regional Cleantech Accelerators: 115 semi-finalists 79 finalists 35 nominated winners 10 winners (1 per wave @ 5 regional accelerators) **Total across national and regional levels:** 254 semi-finalists 154 finalists 80 nominated winners 16 winners
	Tons of GHG emissions director or indirectly avoided Target: Indirect emission reduction in range of 2,432,123 to 6,323,626.71 tCO2e avoided over 10 years	Estimated indirect emission reduction of cleantech startups: approximately 2,947,105tCO_2e over 10 years
Outcome 1.1: GCIP Ukraine platform established, 3 annual	National Cleantech Platform/coordinating mechanism established. Target: 1	National Cleantech Platform/coordinating mechanism office to support SMEs and startups was established 6 waves of Competition-Accelerator were conducted Online learning platform for conducting GCIP Ukraine Business Academy was developed and actively used https://wizzylab.com/

cleantech Accelerators conducted across selected SME clusters	# of new clean energy technologies or innovative businesses created/accredited Target: at least 4 businesses per Competition during or after project implementation period	2 waves of Business Academy carried out in 5 Regional Cleantech Accelerators: **Ivano-Frankivsk Region:** 1st wave: 14-30 September 2021 2nd wave: 2-18 November 2021 **Donetsk Region:** 1st wave: 13-27 July 2021 2nd wave: 30 November 2021 – 21 January 2022 **Kherson Region:** 1st wave: 29 September – 22 October 2021 2nd wave: Not conducted due to war **Sumy Region:** 1st wave: 29 September – 3 November 2021 2nd wave: 9 February – 4 March 2022 **Mykolaiv Region:** 1st wave: 26 August – 8 September 2021 2nd wave: 20 June – 8 July 2022
Output 1.1.1: GCIP Ukraine platform established, 3 annual cleantech Accelerator conducted across selected SME clusters	GCIP platform established. Target: 1 # of methodologies/guidelines for Competition developed Target: Specific methodologies and (gender-responsive) guidelines for participation/execution of Competition-Accelerator developed # of Competition criteria # of semi-finalists, finalists, etc. Target: at least 20 entrants per category in Competition Year 1; at least 30 entrants per category in Year 2 onwards (40% women participants, mentors, judges)	Online learning platform for conducting GCIP Ukraine Business Academy was developed and actively used. See https://wizzylab.com/ 3 guidelines developed: 1 for cleantech competition criteria + 1 for judging; 1 for mentoring **1st wave Competition-Accelerator (national level) - 2019** Application Form + 3 training modules for Business Academy + 6 training manuals developed to support the learning process • 82 applications received, by category: – Waste Management – 37% – Wastewater Treatment – 6% – Energy Efficiency – 28% – Renewable Energy Sources – 21% – Organic Farming – 5% – Medicine – 2% – Other – 1% • 20 days of face-to-face training in Business Academy for 2 groups of semi-finalists • Final judging (November 2019) selected 1 National Winner, 2nd and 3rd place winners, 6 special nominations, 40 semi-finalists (30% women),17 finalists **2nd wave Competition-Accelerator (national level) - 2020** 3 online training modules developed for Business Academy + 1 training manual developed about how to work and conduct online training and webinars to support the learning process • 80 applications received, by category: – Energy Efficiency - 27% – Renewable Energy Sources - 21% – Waste Management - 16% – Resource Efficiency 16% – Medicine - 5% – Ecology - 5% – Other - 10% • 23 semi-finalists selected. As 4 teams withdrew, 19 semi-finalists went through Business Academy (17% women) with 16 days of training for semi-finalists conducted online 16 October to 16 November 2020 • The final judging selected 1 National Winner, 2nd and 3rd place winners, 19 finalists; 5 special nominations addressing UN SDGs were specified: ♣ "Medicine for Sustainable Development" ♣ "Best Women's Project" ♣ "Clean Water" ♣ "Best Bioenergy Project" ♣ “Technological Breakthrough”

		3rd wave Competition-Accelerator (national level) - 2021 3 online training modules developed for Business Academy • 66 applications received with 30 semi-finalists selected. As 2 teams withdrew, 28 semi-finalists (13% of women) participated in 12 training days conducted online (18 May – 4 June 2021), by category: – Energy Efficiency - 9% – Renewable Energy Sources - 9% – Waste Management - 32% – Resource Efficiency - 9% – Ecology -14% – Other - 27% • Final judging selected 1 National Winner, 22 finalists; 7 nominations addressing UN SDGs including nomination resulting from cooperation with OSCE Project for startup projects related to climate change adaptation, environment/water management in Dniester Basin: ♣ "Creative Approach to Problem of Rational Use of Resources" ♣ "Women's Leadership" ♣ "Circular Economy" ♣ "Global Impact on Development of the World Economy" ♣ "Technological Breakthrough" ♣ "Waste Disposal Solutions" ♣ "Socio-Ecological Project" **4th wave Competition-Accelerator (national level) - 2021** • 64 applications received, by category: – Energy efficiency –11.1% – Renewable energy sources – 16.7% – Waste management – 27.8% – Resource efficiency – 16.7% – Medicine – 1% – Ecology – 5.6% • Business Academy conducted online 19 February – 19 March 2021 with participation of: – 6 Trainers (83.3% women) – 9 Mentors and Experts (66.66% women) – 7 Judges 42.85% women) – 39 Participants (36.8% women) • Final judging selected 1 National Winner, 8 finalists; 8 special nominations addressing UN SDGs specified: ♣ "Women's Leadership" ♣ "Best Female Project" ♣ "Medicine for Sustainable Development" ♣ "Innovations for Integrated Development of Cities" ♣ "Promising Technology for Sustainable Energy" ♣ "Best Project in Food Industry" ♣ "Innovations for the Beauty and Food Industry" ♣ "Sustainable Use of Fuel Resources" **5th wave Competition-Accelerator (national level) - 2022** • 57 applications received • Business Academy conducted 11-26 October 2022, with participation of: – 6 Trainers (83.3% women) – 9 Mentors and Experts (66.66% women) – 7 Judges (42.85% women) – 23 Participants (36.8% women) • Participating startups, by category: – Energy Efficiency – 7.1%

		– Renewable Energy Sources – 28.6% – Waste Management – 21.4% – Resource Efficiency – 7.1% – Ecology – 42.9% • Final Judging on 10-11 November 2022 selected 1 National Winner, 6 finalists; 6 special nominations addressing UN SDGs were specified: ♣ "Renewable Energy" ♣ "Healthy and Safe Environment" ♣ "Innovations for Sustainable Development of Agriculture" ♣ "Waste Recycling" ♣ "Best Youth Project" ♣ "Women's Leadership" **6th wave Competition-Accelerator (national level) - 2023** • 48 applications received (41% women) • 25 startup projects were selected. As 11 withdrew, 14 teams took part in the Business Academy**,** by category: – Energy Efficiency – 7.1% – Renewable Energy Sources – 7.1% – Waste Management – 14.3% – Medicine – 7.1 % – Ecology – 57.1% – Other – 7.1 % • Business Academy conducted 12-28 April 2023, with participation of: – 8 Trainers (62.5% women) – 8 Mentors and Experts (66.66% women) – 7 Judges (42.85% women) – 20 Participants (28.1% women) • Final Judging selected 1 National Winner, 9 special nominations awarded, 3 finalists • 8 special nominations specified: ♣ "Medicine for Sustainable Development" ♣ "Innovations for Food Safety" ♣ "Best Social Project" ♣ "Best Women's Project" ♣ "Innovations for Sustainable Development of Agriculture" ♣ "Circular Economy" ♣ "Expansion of Geography of Mineral Water Consumers" - "Waste Recycling" ♣ "Youth Entrepreneurial Initiative" **<u>Totals during 6 waves of Competition-Acceleration (national level):</u>** • 397 applications received • 139 semi-finalists selected • 75 finalists • 45 nominated winners • 6 National Winners **Mentors and trainers involved:** • 22 Mentors (45% women) • 16 Trainers (50% women) • 14 Judges (women 35.7% women) **Capacity Building of 5 Regional Cleantech Accelerators trained in GCIP methodology:** • 21 Mentors • 28 Trainers • 34 Judges

		Total pool of GCIP-trained mentors and trainers: • 43 Mentors • 44 Trainers • 48 Judges
Output 1.1.2: GCIP community and network maintained	# of GCIP communities identified and maintained Target: at least 6 identified	• Identified and maintained working contacts with 6 GCIP communities (Pakistan, Turkey, Armenia, Moldova, Kazakhstan, South Africa) • Established partnership with OSCE Project. During 3rd wave (national level), a special nomination was identified for projects related to adaptation to climate change, environment, and water management in the Dniester Basin • Established collaboration with Tokyo Institute of Technology and Tokyo Venture Fund as technology partners • Established contact with Japan's Ministry of Economy, Trade and Industry • Established contact with MIT Enterprise Forum CEE (Poland)
Outcome 1.2: **Clean technology entrepreneurs identified, coached, and promoted during and beyond GCIP Accelerator**	National Cleantech Platform/coordinating mechanism established. Target: 1 # of new clean energy technologies or innovative businesses created/accredited Target: at least 4 businesses per Competition during or after project implementation period	Provided assistance in organization and conduct of 2 waves with Regional Cleantech Accelerators in Kherson (Kherson National Technical University), Mykolayiv (Petro Mohyla Black Sea National University), Sumy (Sumy State University) and Sloviansk (Donbas State Pedagogical University) 6 new clean technologies have been implemented and are being used in business: 1) Uf-Bee (eco alternative to plastic food film) 2) Polystrach-UA (biopolymer production project with a controlled biological destruction period) 3) AgriEye (information platform using artificial intelligence for smart farming, resource management and sustainable agriculture) 4) Re-leaf Paper (technology for production of cellulose from fallen leaves as a material for paper production) 5) Ecosifarm (mixture for soil restoration) 6) Innovative compact cryogenic freezer STS – 190 C/(DNIPRO MT) (mixture of 'green' gases that can substitute freon in freezers with an operating temperature of up to -190°C)
Output 1.2.1: Post-Accelerator support provided for SMEs/ startups to access finance and market entry	# of SMEs/startups trained on product development and market entry Target: at least 60 SMEs/startups (40% women) receive such training # of investors/funding mechanism identified Target: at least 6 investors identified	Access to finance and market entry - Training on product development/market entry provided to a total of 254 startups: At national level - 139 startups At regional level –115 startups *Women's participation per wave:* 1st wave - 30% women 2nd wave - 17% women 3rd wave - 13% of women 4th wave - 36.8% women 5th wave – 36.8% of women 6th wave – 41% women • 4 investors identified; 4 startup-projects received investments and started production: 1) Polystrach-UA - production of biodegradable plastic from starch (USD 5 million) 2) Re-leaf Paper - production of paper from fallen leaves (EUR 2.5 million) 3) AgriEye - an information platform using artificial intelligence for smart farming, resource management and sustainable agriculture (USD 350,000) 4) Uf-Bee - production of waxed napkins for food products (EUR 50,000) • A startup financing program from Private Bank was agreed/launched; it is currently suspended due to the war in Ukraine • Negotiations with potential national investors regarding possibility of attracting investments for startup projects were held with: - Investment Group "Univer" - Financial and Industrial Group "TAS" - Investment and Financial Group "VSE" - Asset Management Company "Vsesvit" - Star Investment CZ - JSC "PRIVATBANK" (Head of Directorate for Work with Small and Medium Business - Oschadbank JSC - JSC "Kredobank"

		- JSC “PUMB” - JSC “Acordbank” - JSC “Bank Pivdennyi” - JSC “ACCORDBANK” (Chairman of the Board) - PJSC MOTOR BANK - PIRAEUS BANK ICD JSC - KPLT Attorneys at Law - Young Business Club - Private investors - JSC "Motor Sich" - Group of investors InvestDrivers.in.UA
Outcome 2.1: National institutional capacity built to support and organize cleantech Competition-Accelerator during and beyond project duration	# of new clean energy technologies or innovative businesses created/accredited Target: development and implementation of Accelerator with generalist & specialised mentors and judges identified and trained	Capacity building of national institution and partners: • 5 Regional Cleantech Accelerators in 5 regions were established in 5 universities: Kherson National Technical University (Kherson city), Donbas State Pedagogical University (Slavyansk town), Petro Mohyla Black Sea National University (Mykolaiv city), Vasyl Stefanyk Precarpathian National University (Ivano-Frankivsk city), Sumy State University (Sumy city) - Signed contracts with UNIDO for creation of 5 pilot Regional Cleantech Accelerators and started their work Creation/accreditation of clean energy technologies or innovative businesses • 13 new clean energy technologies or innovative businesses created/accredited - National level: 6 - Regional level: 7 - Mykolaiv Regional Cleantech Accelerator - 2 - Sumy Regional Cleantech Accelerator - 2 - Donbas Regional Cleantech Accelerator - 1 - Ivano-Frankivsk Regional Cleantech Accelerator - 2 • Project assisted in selection of **trainers** for 5 Regional Cleantech Accelerators (Ivano-Frankivsk – 7, Kherson – 3, Sumy – 6, Slovyansk – 6, Mykolaiv - 6), **mentors** (Kherson - 4, Sumy – 4, Sloviansk – 4, Mykolaiv – 4, Ivano-Frankivsk - 5); and **judges** (Ivano-Frankivsk – 8, Kherson – 5, Sumy – 9, Slovyansk – 7, Mykolaiv – 5)
Output 2.1.1: Capacity building of national institutions and industrial associations to host, support and sustain GCIP	# of SMEs/startups trained on product development and market entry Target: at least 15-20 SMEs/startups trained per cycle # of mentors/judges trained Target: at least 15 mentors and 10 judges trained	Capacity building of national institution and partners: • 34 Ukrainian universities of Ukraine involved in network • GCIP Ukraine Women Network was created **Through 2 waves of Competition-Accelerator in 5 Regional Cleantech Accelerators, the following were selected:** 115 semi-finalists; 79 finalists**;** 35 nominated winners; 10 winners **Total mentors and trainers pool of GCIP Ukraine:** • 43 Mentors • 44 Trainers • 48 Judges **National level:** - 22 Mentors (45% women) - 16 Trainers (50% women) - 14 Judges (35.7% women) **Regional level:** - 21 Mentors - 28 Trainers - 34 Judges Achievements of 5 Regional Cleantech Accelerators **1) Ivano-Frankivsk Region** - 1st call for applications: 14 June-15 July 2021 - 20 startup projects selected - 1st Business Academy: 14-30 September 2021 - 7 trainers, 6 mentors, 8 judges involved - 10 teams presented startup-projects in final judging

		- Regional winner of 1st wave: “Food bank “TARILKA” - 2nd call for applications: 15 September-15 October 2021 - 2nd Business Academy: 2-18 November 2021 - 7 trainers, 5 mentors, 8 judges involved - Regional winner of 2nd wave: “ZIGRIWAY fuel briquettes from coffee grounds” **2) Kherson Region** - 1st call for applications: 1 July-27 September 2021 - 10 startup projects selected - 1st Business Academy: 29 September-22 October 2021 - 3 trainers, 4 mentors, 6 judges involved - 5 teams presented their startups in the final judging; - Regional winner of 1st wave: Project “Marine thermal soundproofing material” - 4 nominations awarded to 4 teams: i) "Creative approach to the problem of rational use of resources" – won by "Low-emission solid fuel furnace", ii) "Circular Economy" - won by "School of children's skills" Second life of things", iii) "Technological Breakthrough" - won by "Abrasives for running parts of apport transport", iv) "Social and Environmental project" – won by "The Paw of a Friend" - 2nd call for applications: 1 October-30 November 2021 - 2nd Business Academy: 9-23 February 2022 - 3 trainers, 4 mentors, 6 judges involved - 4 teams presented their startups in final judging **3) Mykolayiv Region** - 1st call for applications: 1 July-10 August 2021 - 1st Business Academy: 26 August-8 September 2021 - 6 trainers, 4 mentors, 5 judges involved - 8 teams presented their startup-projects in final judging - Regional winner of 1st wave: Project “MedLED” - 2nd place: Project “Cyber Stitch” - 3rd place: “Social School Enterprise” - Additional prize for “Participation in the national GCIP Ukraine competition of innovative and ecologically friendly projects” – won by “Airfilter” - 2nd call for applications: 1 October-10 November 2021 - 2nd Business Academy: 20 June-10 July 2022 - 6 trainers, 8 mentors, 5 judges involved - 22 project teams took part in Business Academy - 11 teams presented their startup-projects in final judging - Regional winner of 2nd wave: Project “TitanBody” - 2nd place: “Online Platform “Time for Yourself” - 3rd place: “Chimeras of the Wild Steppe” **4) Sumy Region** - 1st call for applications: 18 June-8 August 2021 - 1st Business Academy: 29 September-3 November 2021 - 6 trainers, 4 mentors, 10 judges involved - 9 teams presented their startup-projects in final judging - Regional winner of 1st wave: “Autonomous Robot” - 7 nominations awarded to 7 teams: i) “Prospects for tourism development” – won by “OK TOWN”; ii) “Perspective technologies in construction” - won by “3D printing. Revolution in construction”; iii) “Perspective technologies for Energy Independence” – won by “Eco heating”; “Perspective project in the creative field” – won by “OpenAR”; iv) “Perspective social project” – won by “ProCreative Recycling, a platform for a creative approach to production residues”; v) “Perspective research project” – won by “FlyChit”; vi) “Perspective project for digitization of agricultural sector” – won by “Biologer”; vii) “Finding a convenient and effective way to overcome the biggest problem of our time – won by project “New treatment of coronavirus disease Covid-19” - 2nd call for applications: 19 October-8 November 2021 - 2nd Business Academy: 2 December 2021-9 February 2022 - 8 trainers, 4 mentors, 10 judges involved - 8 teams presented their startup-projects during final judging - Regional winner of 2nd wave: Project“CRIO”

		- 7 nominations awarded to 7 teams: i) "The best junior startup"- Evist shop eco-friendly printing on fabric; ii) "Best startup in field of green energy" - Sunny cold, an autonomous solar-energy powered cooling system; iii) "Best startup in field of tourism" - MonTravel Convenient, an application with voice assistant Monica that searches tours around the world to improve and simplify people's lives; iv) "Best startup in field of energy" - Zola Enrichment of TPP ash burnout for its reuse; v) "Perspective Social Project" – EcolNheart, a mobile application on environmental and social topics; vi)"Best Educational Startup" - Gonath Educational Project for the development of technological talents in Ukraine; vii) "Best startup in field of content management systems (CMS)" - SDstudio Editor Tools WordPress CMS plugin to increase the speed and productivity of blog writers **5) Donetsk Region** - 1st call for applications: 28 May-4 July 2021 - 1st Business Academy: 13 July- 27 August 2021 - 6 trainers, 3 mentors, 7 judges involved - 9 teams presented their startup-projects during final judging - 5 nominations awarded to 6 teams: i) "Solving the problem of waste disposal" – won by project "Hydrogenation method in improved waste to fuel pyrolysis technology"; ii) "Female Leadership" – won by project "Bag, a transformer with the information supplement"; iii) "Social and Environmental Project" – won by project "Tool Library"; iv) "Creative approach to environmental problems solving" – won by project "Cleaning methods of reservoirs and riverbeds using mining equipment"; v) "Participation in national GCIP Ukraine competition of innovative and ecologically friendly projects" – won by projects "Highly selective chemical metallization, a laser drawing on ceramic substrates, ceramics and crystals" and "Technology of chemical nickel plating of steel, cast iron and plastics and other materials" - 2nd call for applications: 4 October-21 November 2021 - 2nd Business Academy: 30 November 2021-21 January 2022 - 6 trainers, 3 mentors, 7 judges involved - 8 teams presented their startup-projects during the final judging - Regional winner of 2nd wave: Project "Green mini-power station NOVA" - 6 special prizes/nominations awarded to 6 teams: i) "Participation in national GCIP Ukraine competition of innovative and ecologically friendly projects" – won by an unnamed project; ii) "Social and environmental project" - won by "Bicycle rental "M-bike"; iii) "ECO-IT Project" - won by "Automated construction of investment portrait of the enterprise"; iv) "Creative approach to environmental problems solving" - won by "Second life of clothes"; v) "Female Leadership" – won by "Flax eco-bags for cereals"; vi) special prize for "Participation in national GCIP Ukraine competition of innovative and ecologically friendly projects" -won by "Jute washcloths and natural soap with loofah" Capacity building of national institution and partners: • 1st wave (2019) - 18 mentors were trained on methodology and process of mentoring and supported startups (45% women); - 9 judges received guidance on judging process and were involved in selecting the startups (17% women) - 3 international and 5 national trainers were involved • 2nd wave (2020) - 19 startup-projects (finalists) were trained on product development and market entry (17% women) - 14 mentors trained on methodology and process of mentoring and supported the startups (53% women) - 9 judges involved in selection of semi-finalists - 3 international trainers involved • 3rd wave (2021) - 22 finalists were selected (13% women); - 15 mentors supported startups (53% women); - 9 judges received guidance on the judging process and were involved in selecting startups (33% of women); - 6 national trainers involved • 4th wave (2022) - 17 finalists were selected

		- 6 mentors and experts supported startups - 10 judges involved in selection of startups - 6 national trainers involved • 5th wave(2022) - 13 finalists were selected - 9 mentors and experts supported startups - 7 judges were involved in selection of startups - 6 national trainers involved • 6th wave (2023) - 11 finalists were selected - 8 mentors and experts supported startups - 7 judges involved in selection of startups - 8 national trainers involved
Output 2.1.2: Impact monitoring, advocacy and promotion	Annual Innovation Conference held Target: at least 1 publication annually GCIP platform established. Target: 1	Established partnership with OSCE Project, which resulted in a special nomination set for projects related to adaptation to climate change, environment and water management in the Dniester Basin in 3rd wave (national level) During the reporting period (January 2019 – May 2023): • 236 articles published in mass media and on pages of project partners/stakeholders about GCIP Ukraine activities • About 700 posts published on social pages of project, project partners and startups about GCIP Ukraine activities • Website created https://gcipukraine.com/, with continual updates (news, events, general section information) • Pages on social networks are maintained: Facebook (https://www.facebook.com/CleantechUkraine/?eid=ARA70E3tH-mxzOcLR61_-cFStcyFofIqm3fyxzRkB9oLL-VshYtpoKEEUJjSgB58LexHE2JiWLFiSLn7), Twitter (https://twitter.com/GCIP_Ukraine), and Telegram channel (CleanTech Ukraine); • 2 videos broadcast on a local TV channel about GCIP Ukraine activity • 4 videos produced about startup-project finalists • 10 video interviews produced with mentors and participants in the GCIP Accelerator • 2 promotional videos produced on GCIP Business Academy, Acceleration Program and training for Universities • Promotional campaign "Prominent innovators of Ukraine who shook the world" conducted in context of Cleantech Startup Project Competition opening ceremony • Participation of Ukraine Delegation (representatives of PMU, government, SFII, startup-projects) in international competition of startups "CleanTech Week 2019" in Vienna, Austria (5-11 October 2019) • Participation of GCIP Ukraine 1st wave (national level) finalists in "Ukrainian Innovation Market 2019" (5-7 November 2019) • Awards Ceremony of 1st wave National Winners and finalists (19 November 2019) • Promotional materials (notebooks, pens, bags, folders) designed, printed and distributed • YouTube channel (GCIP Ukraine) created and maintained (https://www.youtube.com/channel/UCcx00gU_rSgJ2hQRafma5M) - posted presentations and general information about winners of 6 waves (national level) • Information about UNIDO's key achievements in Ukraine published in UNDAF Ukraine 2020 report for the UNRCO (suitable verifiable indicators/targets that have been achieved in 2020 under GCIP Ukraine projects at output level and higher); • Prepared materials and data on measurable and SDG-related results of GCIP Ukraine (& pictures, infographics) for UNECE SDG report • Article "Save food, save our planet" published on UNIDO web site in GEF Newsletter (May) • CleanTech Innovation Quarterly Digest (1st, 2nd, 3rd, 4th, 5th, and 6th) posted for 6 waves in b. https://gcipukraine.com/pravova-baza/monitoring-zakonodavstva/ • 21 monthly Digest "Cleantech/Innovations/Green Transition – in brief" were prepared and published on the project's website www.gcipukraine.com • Posted presentations and general information about 6 waves of Acceleration the winner • Manuals, certificates, project brochures designed and produced to promote GCIP Ukraine • Created videos and high-quality photos for further use for branding purposes based on interviews of founders and teams of Uf.Bee and BIOC projects.

Outcome 3.1: Policy and institutional framework strengthened to promote and support clean technology innovations in SMEs/ startups	Extent to which existing polices and regulations are amended or effectively implemented Target: 2-3	Participated in Working Group on preparation of Draft Law on Energy Storage Systems The corresponding law "On Amendments to Some Laws of Ukraine on the Development of Energy Storage Systems" was adopted 14 February 2022
Output 3.1.1: Policy analysis report on best practice policies, regulations & incentives required for promotion of clean technology innovations developed	Polices, regulations, and programmes amended or developed to create more supportive environment for clean energy technology innovations in/by SMEs Target: Policy Assessment Report (of existing relevant policies and economic sectors requiring support for promotion of clean tech), available, including stakeholder mapping	• Analytical Review was undertaken: "Current CleanTech Innovation Potential of Ukraine and the ways of it strengthening" • Analysis conducted of "Clean Technology Innovation Market in Ukraine: State of the Art and Prospects" • Analysis conducted of "Potential of Clean Technology innovations commercialization and realization in Ukraine" • Analysis of "PEST-analysis of factors that influence the development of CleanTech innovation ecosystem in Ukraine" • Worked in cooperation with the Ministry of Education and Science of Ukraine: - Contributed to drafting laws/secondary legislative acts (through participation in working groups, analytical support, comments and proposal preparation): - Analysis conducted of draft law "On Amendments to Certain Legislative Acts of Ukraine on the Activities of Scientific Parks" - Analysis conducted of Draft KCC Resolution "On Amendments to the Decree of the Cabinet of Ministers of Ukraine dated December 17, 1999 No. 2311" On Regulatory and Legal Acts to Ensure the Implementation of the Law of Ukraine "On the Special Regime of Innovative Activities of Technology Parks" - Analysis conducted of Draft Resolution of Cabinet of Ministers of Ukraine "On Amendments to Resolution of the Cabinet of Ministers of Ukraine of August 6, 2003 No. 1219" On Approval of the Regulation on the Commission on the Organization of the Activities of Technology Parks and Innovative Structures of Other Types" - Analysis conducted of draft law "On Amendments to the Law of Ukraine" On State Regulation of Activities in the Sphere of Technology Transfer" • Analytical paper developed: "Justification of the need to renovate Ukrainian legislation to regulate the activities of venture funds in Ukraine" • Analysis conducted of modern international and Ukrainian mechanisms and tools for financing investment startups, which resulted in Analytical Paper "Analysis of the modern international and Ukrainian mechanisms and instruments for financing investments startup projects" • Thesis and presentations conducted on "Analysis of the recommendations of the Energy Community on the use of RES in the transport sphere of Ukraine" presented at XXIII international scientific and practical online conference "Renewable Energy and Energy Efficiency of the XXI century" • CleanTech News Digest (monthly digest of news in field of transition to a Green Economy, Clean Technologies and Innovations) has been regularly prepared and posted on project website from December 2021 https://gcipukraine.com/en/cleantech-news-digest-6/ • Cleantech News Digests were prepared and published (on the web site), as follows: - CleanTech Innovation News (overview of new technologies, utility models, etc.) - News from Partners and Cleantech stakeholders - Forthcoming Cleantech events (seminars, workshops, forums, conferences, exhibitions) - Legislation overview (law drafting, secondary legislation, ministerial orders) https://gcipukraine.com/pravova-baza/monitoring-zakonodavstva/ • Participation (12 January 2022) in Cleantech for Europe web summit "What's next for Cleantech: trends and topics to watch out for in 2022": 7 Challenges: - The decade of action - deploying cleantech innovation at scale - A sustainable finance framework to unlock cleantech financing

Output 3.1.2: Policy recommendations on how to enhance cleantech innovation and entrepreneurship ecosystems developed and roadmap in place	Roadmap to highlight necessary improvements of policy framework on cleantech innovations Target: roadmap available, with progress of implementation monitored by the PMU	• In cooperation with Ministry of Education and Science of Ukraine, worked on updating list of priority areas of cooperation to support efforts in the segment of innovative development • At a meeting with representatives of the Ministry of Education and Science of Ukraine, discussed possibilities to support GCIP Ukraine's work through Draft Law "On Support of Innovative Development", the development of which has begun • Work was conducted on developing recommendations for the Cabinet of Ministers of Ukraine to develop financing mechanisms/initiatives to support innovative cleantech development in all sectors of the Ukrainian economy and to introduce financial instruments to promote climate change mitigation and adaptation • Work was conducted on development of Draft Law of Ukraine "On the Ukraine venture funds activities" • Provided analytical support (international experience of carbon tax introduction) to the Parliament Committee on Energy, Housing and Communal Services. • Provided consultancy and information support to the Intellectual Property Council under Ministry of Economic Development and Trade of Ukraine through participation in drafting legislative acts on Intellectual property rights and on Improving the Legal Protection of Inventions and Utility Models • Draft Law of Ukraine "On Amendments to the Budget Code of Ukraine on Promoting Innovative Activity of Budgetary Institutions" has been prepared together with Ministry of Education and Science of Ukraine (during public discussions) • Provided recommendations for National Strategy for the Development of Intellectual Property in Ukraine for the period 2025 (during public discussions)
Output 3.1.3: National institutional capacity strengthened for sustainability	# of staff from partner and national institutions receive training on Competition organisation Target: 50 such staff trained (40% women) # of subnational cleantech stakeholder meetings held Target: at least 3 stakeholder meetings held (30% women) in 3 years	• SFII representatives were involved in planning all GCIP Ukraine activities and studied the Business Academy for further use in SFII's work • National institutional capacity regarding GCIP principles strengthened through: - 7 representatives (including 3 women) from partner and national institutions were trained on competition organization - 5 SFII staff worked as mentors and trainers during 1st, 2nd and 3rd Business Academy (national level) - 3 staff of State Agency of Energy Efficiency and Energy Saving were involved as mentors - 8 stakeholder meetings conducted with Ministry of Ecology and Natural Resources of Ukraine and with Ministry of Education and Science of Ukraine - 2 workshops conducted on Policy Environment and Innovation Regulation in Ukraine - At least 25 representatives from partner and national institutions were involved in workshops: i) "Current policy and regulatory framework in the field of clean technology innovation and entrepreneurship in Ukraine"; ii) "Development of the concept of a training program for representatives of business incubators at the universities of Ukraine and SFII on the development and stimulation of innovation activities"; iii) "Training program for startups. Challenges and possibilities for Ukraine. International experience"

Annex VIII – Evaluation Terms of Reference

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

TERMS OF REFERENCE

Terminal evaluation

The Global Cleantech Innovation Program for Small and Medium Enterprises in Ukraine

UNIDO Project ID: 160246

GEF ID: 9811

March 2023

Contents

I. Project background and overview

Project factsheet

Project title	The Global Cleantech Innovation Program for Small and Medium Enterprises in Ukraine
UNIDO project ID	160246
GEF project ID	9811
Region	ECA - Europe and Central Asia
Country(ies)	Ukraine
Planned implementation start date	14/08/2018
Planned implementation end date	28/11/2021
Actual implementation start date	01/01/2019
Actual implementation end date	31/05/2023
GEF Focal Area	Climate Change
Implementing agency(ies)	UNIDO
Executing partner(s)/entity(ies)	Ministry of Ecology and Natural Resources, Ministry of Economic Development and Trade, State Finance Institution for Innovations
Donor(s):	GEF
Total project allotment (for GEF: project grant)	USD 1,502,875
Total co-financing at design (in cash and in-kind)	**Cash:** 11,850,000 **In-kind:** 350,000
Materialized co-financing at project completion (in cash and in -kind)	**Cash:** N.A **In-kind:** 100,000
Mid-term review date	August 2021

(Source: Project document)[52]

Project context

In 2011, the United Nations Industrial Development Organization (UNIDO), in partnership with the Global Environment Facility (GEF), piloted the first Clean Technology Competition for green entrepreneurs and SMEs in South Africa with innovative ideas and concepts in the areas of green buildings, energy efficiency, and renewable energy. Building on this success, UNIDO and the GEF developed the Global Cleantech Innovation Programme (GCIP), which uniquely fosters a policy and regulatory ecosystem approach that supports cleantech innovations in SMEs and start-ups by providing catered tools and methodologies that enhance their productivity and competitiveness. In the inception, GCIP adapted and customized all the necessary materials and tools from a proven accelerator model initially created in Silicon Valley to GCIP countries, transferring the ownership of the materials to national institutions in order to guarantee sustainability.

[52] Project information data throughout these TOR are to be verified during the inception phase.

By the end of 2017, eight countries – namely Armenia, India, Malaysia, Morocco, Pakistan, South Africa, Thailand, and Turkey – had participated in the GCIP, and over 865 start-up companies over a period of 4 years were supported. GCIP builds on human ingenuity and dynamism in start-ups and SMEs involved in developing climate technologies innovations to introduce new green technologies and services that underpin a systematic shift towards low-carbon and climate-resilient development. In addition, the GCIP approach has proven to be an articulating mechanism for all the players involved in the policy, regulatory, and financing spaces that ensure the sustainability of the technology push and market pull mechanisms for domestic climate technology innovations development.

In this regard, the GCIP project in Ukraine took advantage of the lessons learned and achievements of GCIP in other countries and has foreseen the incorporation of new key post-competition services to GCIP alumni in terms of targeted technical assistance towards commercialization and linking to financial service providers. This new GCIP strategy has enhanced the country's cleantech innovation and entrepreneurship sustainability and will lead to a long-lasting transformative change in the domestic innovation ecosystem. Furthermore, this project promotes closer connectivity among domestic players in the cleantech ecosystem and improved coordination among GCIP countries, thereby creating global synergies, market opportunities, joint ventures, and co-innovation. Accordingly, this project seeks to strengthen Ukraine's clean technology innovation and entrepreneurship ecosystem while catalyzing investments and international partnerships to support the country's climate-resilient and low-carbon development.

The overall objective of the project is to create low-carbon economic growth by promoting clean technology innovations and entrepreneurship through a cleantech innovation platform and accelerator programme. The project objectives are in line with and complement the national priorities of Ukraine as well as those of UNIDO in that the project will contribute to capacity building and will invest in the creation of comprehensive energy policy frameworks and an extensive network of clean energy entrepreneurs.

The project primarily aims to promote an innovation ecosystem in Ukraine by (i) identifying and nurturing cleantech innovators and entrepreneurs; (ii) building capacity within national institutions and partner organizations for the sustainable implementation of the cleantech ecosystem and accelerator approach; and (iii) supporting and working with national and sub-regional policymakers to strengthen the supportive policy framework for SMEs and entrepreneurs through south-south collaboration. Accordingly, with a relatively minimal GEF grant, the project catalyzes investment to support and accelerate start-up entrepreneurs toward the commercialization and development of their innovative concepts through creating a cleantech knowledge platform.

Project implementation started in January 2019, and the initial project end date was in November 2021. The project’s implementation duration was extended to November 2022 and then again to May 2023. The current implementation end date is May 2023.

The project document foresees regular monitoring, an independent mid-term review (MTR) and a terminal evaluation (TE).

An independent MTR was carried out in April 2021 – November 2021 (MTR report, November 2021).

This MTR covered the first 27 months of the project, i.e., from January 2019 to March 2021. Given the point of time in the project life cycle and given the above-mentioned purpose and

objectives, the external mid-term review looked mainly into implementation and processes; and the review criteria, i.e., relevance, effectiveness, efficiency, management, and gender, while assessing progress towards the potential impact and sustainability of the project.

Project objective

The key objective of the project is to promote innovative environmentally friendly clean technologies in small businesses and SMEs. The project is in line with the national policies of the Ukraine and GEF focal area priorities. Clean technologies developed and promoted as a result of the GCIP Accelerator programme will lead to reductions in overall national GHG emissions and will contribute to Ukraine's sustainable green growth, thereby addressing a global issue of climate change, and national issues of energy security, employment creation, SME development and competitiveness.

The following **project components** have been developed to achieve the project objectives:

Component 1: National cleantech platform to promote clean technology innovations for global environmental benefits and green jobs in Ukraine. To establish a national GCIP platform to raise awareness and promote and support clean energy technology innovations in start-ups and SMEs.

Component 2: Building national capacity to support and promote clean energy technology innovations. To ensure the long-term sustainability of the National Cleantech Platform and accelerator in Ukraine and the support to the cleantech innovation ecosystem in the country, partners and stakeholders, including staff of SFII would be trained on best practices for management of the platform. Capacity building initiatives, among others, would include training of trainers on entrepreneurship, start-ups, knowledge management and exchange of information on best practices, and a coordination mechanism including a specific focus on women entrepreneurs and participants.

Component 3: Policy and regulatory framework strengthened for a national cleantech innovation and entrepreneurship ecosystem. Policy component of GCIP is an integral part of its "ecosystems approach", and also of strategic relevance in ensuring that the outputs and outcomes of the project are contributing to the national priorities. This component will aim to inform the policy makers of how the innovation and entrepreneurship ecosystem can be supported by the government, and also identify the role of GCIP in supporting the government.

Component 4: Monitoring & Evaluation (M&E). The project involves continuous monitoring. The final evaluations will be carried out by independent M&E experts. Any other interim evaluations are conducted internally as per project requirements. An annual report and periodical newsletter on best practices, information on country level projects and key indicators of progress made under the project will be prepared and distributed to key stakeholders and agencies.

The following are, in brief, some of the expected results of the project/programme:

- Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society;

- Sustainable land management in production systems (agriculture, rangelands, and forest landscapes);

- Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services;

- Support to transformational shifts towards a low-emission and resilient development path;

- Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern; and

- Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks.

Project implementation arrangements

As the GEF Implementing Agency, UNIDO has the ultimate responsibility for the timely implementation of the project, the delivery of the planned outputs and monitoring of the achievements of the expected outcomes. The execution of the project on the ground is the responsibility of the Project Management Unit (PMU). The PMU, under the supervision of the UNIDO project manager with the technical input from the Network for Global Innovation (NGIN, USA) and in close consultation with SFII, MNER, MEDT, NASU, and other national partners, is responsible for the daily management of the project execution. The PMU consists of the National Project Coordinator (NPC, ISA contract) and a Project Assistant (PA, ISA contract).

Main findings on project progress

According to the project's Mid-term review, The GCIP project appears to be a very commendable initiative by UNIDO in Ukraine to support innovation in clean technology, and is timely. Supporting entrepreneurs to develop clean technology is clearly something very much within the GEF and UNIDO priorities, and also in line with the Ukraine government strategies and policies. Design of the project is satisfactory, with some issue in defining and articulating outputs and targets in the logframe.

Gender issues have been well covered in the Project Document and implementation team is making every effort to see gender balance in beneficiaries.

The project is highly relevant due to the fact that it aligns with Ukrainian national policies and strategies and also with UNIDO and GEF priorities. The Government agencies involved in the project were highly grateful to UNIDO for implementing this project and find the project very relevant. Importantly, the SFII as the key partner has been active in the project, and are keen to continue the activities of the GCIP project once it is complete which improves the sustainability of the project. However, due to some recent changes in the government 40 structure and ministries, some of the officials were not familiar with the project activities and were not able to contribute much to the MTR.

Procedures for support to start-up SMEs for post-accelerator support has been established for the GCIP project, but targeting early-stage start-ups for the grant support to develop prototypes, and beneficiaries have been identified.

Some key findings are highlighted below.

- Some of the indicators not well defined which can lead to some confusion during evaluation – internal or external.
- There is no report with an appropriate title (e.g. Policy Recommendations and Analysis, which will match the title of the Output 3.1.1 Policy analysis report on best practice policies). Due to this, the evidence of the activities carried out were not easy to ascertain as means of verification.
- During the first wave of the accelerator, 40% target of women participation was not achieved.
- It is not possible to estimate the overall project ratio of women participants in all aspects of the project, but a lot of women are present among participants and partners of the Project in all target groups.

Further details can be obtained from the MTR report (August 2021).

Budget information

Table 1. Financing plan summary

Description	**Project Preparation** (in USD)	**Project** (in USD)	**Total** (in USD)
GEF project Financing	50,000	1,502,875	1,552,875
Co-financing[53] (in cash and/or in-kind)		12,200,000	12,200,000
Total ($)	**50,000**	**13,702,875**	**13,752,875**

Source: Project document/GEF: CEO endorsement document

Table 2. Financing plan summary – project component breakdown

Project outcomes	**GEF grant amount (excl. PPG) Donor(s)** (in USD)	**Co-financing** (in USD)	**Total** (in USD)
1. National cleantech platform to promote clean technology innovations for global environment benefits and green jobs in Ukraine 1.1. National level platform/coordinating mechanism established to promote clean technology innovations and entrepreneurship 1.2. Clean technology entrepreneurs identified, coached and promoted during and beyond the GCIP Accelerator	650,000	9,800,000	10,450,000

[53] Co-financing types are grant, soft loan, hard loan, guarantee, in kind, or cash.

2. Building national capacity to support and promote clean energy technology innovations 2.1. National institutional capacity built to support and organize the GCIP Accelerator during and beyond the project duration	500,000	1,400,000	1,900,000
3. Policy and regulatory framework strengthened to promote and support clean energy innovations. Startups, and SMEs 3.1. Policy and framework strengthened to promote and support clean energy innovations. Startups, and SMEs	145,795	450,000	595,795
Monitoring and Evaluation	75,000	150,000	225,000
Project Management	132,080	400,000	532,080
Total (in USD)	1,502,875	12,200,000	13,702,875

Source: Project document/GEF: CEO endorsement document

Table 3. Co-financing source breakdown

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount (USD)
Implementing Agency	UNIDO	Grants	$50,000
Implementing Agency	UNIDO	In-Kind	$50,000
Recipient Government	State Finance Institution for Innovations (the Ministry of Economic Development and Trade of Ukraine)	In-kind	$100,000
Recipient Government	State Finance Institution for Innovations (the Ministry of Economic Development and Trade of Ukraine)	Cash	$1,800,000
Recipient Government	Institute of Renewable Energy of the National Academy of Sciences	In-kind	$150,000
Recipient Government	Scientific park of the National University of Life and Environmental Science of Ukraine (NUBIP)	In-kind	$40,000
Private sector	UKRGASBANK	Loan	$6,000,000
Private sector	Raiffeisen Bank Avel	Loan	$4,000,000
Private sector	Greencubator	In-kind	$10,000
Total Co-financing			**$12,200,00**

Source: Project document/GEF: CEO Endorsement Document

Table 4. UNIDO budget execution[54] (Grant No.: 2000003742)

Items of Expenditure	2019	2020	2021	2022	2023	Total Exp.
Contractual Services	117,831.72	27.9	349,695.48	319.87	-	467,874.97
Equipment	-	-	924.73	1005.24	-	1,929.97
International Meetings	-	-	-	-	-	-
Local travel	43,202.62	(2,024.51)	(176.51)	-	-	41,001.60
Natl. Consult./Staff	118,323.71	146,930.26	137,340.87	186,325.28	32,456.96	621,377.08
Intl. Consult./Staff	-	-	-	-	-	-
Other Direct Costs	35,119.26	48,311.94	19,287.19	17,479.29	-	120,197.68
Premises	-	-	256.87	322.18	-	579.05
Staff and Intern	382.2	30,010.97	47,413.26	39,916.96	-	117,723.39
Staff Travel	-	-	-	-	-	-
Train/Fellowship/Study	102,014.92	-	-	-	-	102,014.92
Grand Total	**416,874.43**	**223,256.56**	**554,741.89**	**245,368.82**	**32,456.96**	**1,472,698.66**

Source: UNIDO. ERP database as of 27th January 2023

II. Scope and purpose of the evaluation

The terminal evaluation (TE) will cover the whole duration of the project from its starting date up to the date of the evaluation. It will assess project performance against the evaluation criteria: relevance, effectiveness, efficiency, sustainability and impact.

The TE has an additional purpose of drawing lessons and developing recommendations for UNIDO, the Government, Donors, and the project stakeholders and partners that may help improving the selection, enhancing the design and implementation of similar future projects and activities in the country and on a global scale upon project completion. The TE report should include examples of good practices for other projects in the focal area, country, or region.

The TE should provide an analysis of the attainment of the project objective and the corresponding outputs and outcomes. Through its assessments, the Evaluation Team (ET) should enable the Government, counterparts, UNIDO and other stakeholders and donors to verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators. The assessment shall include re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter III below.

The overall purpose of the TE is to assess whether the project has achieved or is likely to achieve its main objective, i.e. promoting innovative environmentally friendly clean technologies in small businesses and SMEs, and to what extent the project has also considered sustainability and scaling-up factors for increasing contribution to sustainable results and further impact.

The evaluation has three specific objectives:

(i) Assess the project performance in terms of relevance, effectiveness, efficiency, sustainability and progress to impact;

(ii) Identify key learning to feed into the design and implementation of the forthcoming projects; and

(iii) Develop a series of findings, lessons and recommendations for enhancing the design of new and implementation of ongoing projects by UNIDO.

[54] Disbursement: Expenditure, incl. commitment

III. Evaluation approach and methodology

The TE will be conducted in accordance with the UNIDO Evaluation Policy[55] UNEG Norms and Standards for evaluation and the UNIDO Guidelines for the Technical Cooperation Project and Project Cycle[56].

In addition, the GEF Guidelines for GEF Agencies in Conducting Terminal Evaluations, the GEF Monitoring and Evaluation Policy and the GEF Minimum Fiduciary Standards for GEF Implementing and Executing Agencies must be considered.

The evaluation will be carried out as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project will be informed and consulted throughout the evaluation. The evaluation team leader will liaise with the UNIDO Independent Evaluation Division on the conduct of the evaluation and methodological issues.

In line with its objectives, the evaluation will have two main components. The first component focuses on an overall **assessment of performance** of the project, whereas the second one focuses on the **learning** from the successful and unsuccessful practices in project design and implementation.

The evaluation will use a theory of change approach and mixed methods to collect data and information from a range of sources and informants. It will pay attention to triangulating the data and information collected before forming its assessment. This is essential to ensure an evidence-based and credible evaluation, with robust analytical underpinning.

The theory of change will identify causal and transformational pathways from the project outputs to outcomes and longer-term impacts, and drivers as well as barriers to achieve them. The learning from this analysis will be useful to feed into the design of the future projects so that the management team can effectively manage them based on results.

In those cases where baseline information for relevant indicators is not available, the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.

Data collection methods

The ET will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources, as necessary: desk studies and literature review, statistical analysis, individual interviews, focus group meetings/discussions, surveys and direct observation. This approach will not only enable the evaluation to assess causality through quantitative means but also to provide reasons for why certain results were achieved or not and to triangulate information for higher reliability of findings. The specific mixed methodological approach will be described in the inception report.

Following are the main instruments for data collection:

(a) **Desk and literature review** of documents related to the project, including but not limited to:

[55] UNIDO. (2018). Director General's Bulletin: Evaluation Policy (DGB/2018/08, dated 1 June 2018)
[56] 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)

- The original project document, monitoring reports (such as progress and financial reports), mid-term review report, output reports, back-to-office mission report(s), end-of-contract report(s) and relevant correspondence
- Notes from meetings of committees involved in the project

(b) **Stakeholder consultations** will be conducted through structured and semi-structured interviews and focus group discussion. Key stakeholders to be interviewed include:
- UNIDO Management and staff involved in the project; and
- Representatives of donors (GEF focal point) and counterparts

(c) Other interviews, surveys or document reviews as deemed necessary by the evaluation team and/or by the Independent Evaluation Division for triangulation purposes

Evaluation key questions and criteria

The evaluation team will develop interview guidelines. Online interviews can take place either in the form of focus-group discussions or one-to-one consultations.

The key evaluation questions are the following:

(a) What are the key drivers and barriers to achieve the long term objectives? To what extent has the project helped put in place the conditions likely to address the drivers, overcome barriers and contribute to the long term objectives?

(b) How well has the project performed? Has the project done the right things? Has the project done things right, with good value for money?

(c) What have been the project's key results (outputs, outcome and impact)? To what extent have the expected results been achieved or are likely to be achieved? To what extent the achieved results will sustain after the completion of the project?

(d) What lessons can be drawn from the successful and unsuccessful practices in designing, implementing and managing the project?

The evaluation will assess the likelihood of sustainability of the project results after the project completion. The assessment will identify key risks (e.g. in terms of financial, socio-political, institutional and environmental risks) and explain how these risks may affect the continuation of results after the project ends. Table 5 below provides the key evaluation criteria to be assessed by the evaluation. The detailed questions to assess each evaluation criterion are in annex 2. The **rating criteria** and table to be used is presented in annex 8.

Table 5. Summary of Project evaluation criteria

Index	Evaluation criteria	Mandatory rating
A	**Progress to Impact**	**Yes**
B	**Project design**	**Yes**
1	• Overall design	Yes
2	• Logframe	Yes
C	**Project performance**	**Yes**
1	• Relevance	Yes
2	• Effectiveness	Yes
3	• Efficiency	Yes
4	• Sustainability of benefits	Yes

D	**Cross-cutting performance criteria**	
1	• Gender mainstreaming	Yes
2	• Environment and socio-economic aspects[57]	
2	• M&E: (focus on Monitoring) ✓ M&E design ✓ M&E implementation	Yes
3	• Results-based Management (RBM)	Yes
E	**Performance of partners**	
1	• UNIDO	Yes
2	• National counterparts	Yes
3	• Donor	Yes
F	**Overall assessment**	Yes

IV. Evaluation process

The evaluation will be implemented in phases which are not strictly sequential, but in many cases iterative, conducted in parallel and partly overlapping:

- UNIDO Independent Evaluation Division (IED) identifies and selects the Evaluation Team members, in consultation with project manager
- Inception phase
  - ✓ Desk review and data analysis: The evaluation team will review project-related documentation and literature and carry out a data analysis (incl. familiarization with GEF programmes and strategies, and with relevant GEF policies such as those on project cycle, M&E, co-financing, fiduciary standards, gender, and environmental and social safeguards)
  - ✓ Briefing of consultant(s) at UNIDO Headquarters (HQ)
  - ✓ Preparation of inception report: The evaluation team will prepare the inception report providing details on the methodology for the evaluation and include an evaluation matrix with specific issues for the evaluation; the specific site visits will be determined during the inception phase, taking into consideration the findings and recommendations of project progress reports or mid-term reviews.
  - ✓ Interviews, survey
- Reporting phase
  - ✓ HQ debriefing with preliminary findings, conclusions and recommendations by the ET leader
  - ✓ Data analysis and draft report writing
  - ✓ Draft report submission
  - ✓ Sharing and factual validation of draft report with stakeholders
  - ✓ Final evaluation report Submission and QA/clearance by IED, and
  - ✓ Two pages summary take-away message
- IED Final report issuance and distribution with the respective management response sheet and further follow-up, and publication of evaluation report in UNIDO intra/internet sites

[57] GEF-6 projects have followed the provisions specified in UNIDO/DGAI.23: UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP)

V. Evaluation team composition

A staff from the UNIDO Independent Evaluation Division will be assigned as Evaluation Manager and will coordinate and provide evaluation backstopping to the evaluation team and ensure the quality of the evaluation. The UNIDO Project Manager and national project teams will act as resourced persons and provide support to the evaluation team and the IED evaluation manager.

The evaluation team will be composed of at least one international evaluation consultant acting as the team leader and one national consultant. The evaluation team members will possess relevant strong experience and skills on evaluation and evaluation management, including social safeguards and gender. Expertise and experience in the related technical subject of the project is desirable. The evaluation consultants will be contracted by UNIDO.

In some specific cases (e.g. complex projects, regional projects, projects at risk), an IED evaluation officer could be also assigned to be part of the evaluation team and hence participate in the whole conduct as such.

The tasks of each team member are specified in the job descriptions in annex 3 to these terms of reference.

According to UNIDO Evaluation Policy, members of the evaluation team must not have been directly involved in the design and/or implementation of the project under evaluation.

The UNIDO GEF Coordinator and GEF OFP(s) will be briefed on the evaluation and provide support to its conduct. GEF OFP(s) will, where applicable and feasible, also be briefed and debriefed at the start and end of the evaluation exercise.

VI. Time schedule

The evaluation is scheduled to take place from March to April/May 2023.

The Final Evaluation report will be submitted 2 weeks after comments received.

VII. Evaluation deliverables

Inception report

This Terms of Reference (ToR) provides some information on the evaluation methodology, but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with the project manager, the International Evaluation Consultant will prepare, in collaboration with the national consultant, a short inception report that will operationalize the ToR relating to the evaluation questions and provide information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible UNIDO Evaluation Manager.

The Inception Report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative

approaches through an evaluation framework ("evaluation matrix"); and a debriefing and reporting timetable[58].

Evaluation report and review procedures

The draft report will be delivered to UNIDO Independent Evaluation Division (the suggested report outline is in annex 4) and circulated to UNIDO staff and national stakeholders associated with the project for factual validation and comments. Any comments or responses, or feedback on any errors of fact to the draft report provided by the stakeholders will be sent to UNIDO Independent Evaluation Division for collation and onward transmission to the project evaluation team who will be advised of any necessary revisions. On the basis of this feedback, and taking into consideration the comments received, the evaluation team will prepare the final version of the terminal evaluation report.

The ET will present its preliminary findings to the local stakeholders and consider their feedback in preparing the evaluation report. A presentation of preliminary findings to UNIDO's Decarbonization and Sustainable Energy Division at HQ via an online format.

The TE report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated, and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Findings, conclusions and recommendations should be presented in a complete, logical and balanced manner. The evaluation report shall be written in English and follow the outline given in annex 4. The ET should submit the final version of the TE report in accordance with UNIDO Independent Evaluation Division standards.

VIII. Quality assurance

All UNIDO evaluations are subject to quality assessments by UNIDO Independent Evaluation Division. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process of UNIDO Independent Evaluation Division, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report).

The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as annex 5. UNIDO's Independent Evaluation Division should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these terms of reference. The draft and final evaluation report are reviewed by UNIDO Independent Evaluation Division, which will issue and circulate it within UNIDO together with a management response sheet, as well as submit to relevant stakeholders as required.

[58] The evaluator will be provided with a Guide on how to prepare an evaluation inception report and a Guide on how to formulate lessons learned (including quality checklist) prepared by the UNIDO Independent Evaluation Division.

Annex 1: Project results framework

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress as of August 2021
Component 1 – National platform to promote clean technology innovations for global environmental benefits and green jobs in Ukraine				
Outcome 1.1: National level platform/coordinating mechanism established to promote clean energy technology innovations and entrepreneurship				
Output 1.1.1. GCIP Ukraine platform established, 3 annual Cleantech Accelerator conducted across selected SME clusters	• GCIP platform established Number of methodologies and guidelines for the competition developed; Number of competition entries, number of semi-finalists and finalists etc.	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• Specific methodologies and guidelines (gender-responsive) for participation in and execution of the competition and Accelerator program developed; • At least 20 entrants per category competition in Year 1 (target of 40% women participants) and at least 30 entrants per category competition in Year 2 onwards (target of 40% women participants/ mentors/judges);	• The 1st competition of GCIP Ukraine for innovative cleantech startup-projects was conducted; o The application form for participation in the competition of cleantech innovation startup-projects was developed; o 82 applications for competition have been received: ▪ 37% waste management; ▪ 6% wastewater treatment; ▪ 28% energy efficiency; ▪ 21% renewable energy sources; ▪ 5% organic farming; ▪ 2% medicine; and ▪ 1% other o 40 semi-finalists were selected (30% of women) o 1 guidebook for cleantech competition was developed; and o 1 guidebook for judging and 1 guidance for mentoring was developed. • The 1st wave of Business Academy GCIP Ukraine was conducted: o 3 Modules of training program for Business Academy were developed and implemented; o A total of 20 days of training at the Business Academy for 2 groups of semi-finalists were held; o 1 National Winner, 2nd and 3rd place winners, 6 special nominations, 17 finalists were chosen during the 1st wave of Accelerator Program GCIP Ukraine; o 6 training manuals were developed for further implementation in the learning process.

				• The 2nd competition of GCIP Ukraine for innovative Cleantech startup-projects was conducted; ○ 80 applications for competition were received
Output 1.1.2. GCIP community and network maintained	• The number of GCIP community identified and maintained	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• At least 6 GCIP communities identified.	• 6 GCIP communities was identified and maintained (Pakistan, Turkey, Armenia, Moldova, Kazakhstan, South Africa, and Morocco)
Outcome 1.2: Clean technology entrepreneurs identified, coached and promoted during and beyond the GCIP Accelerator				
Output 1.2.1. Post-Accelerator support provided for start-ups and SMEs to access to finance and market entry	• Number of SMEs and Startups trained on product development and market entry; • Number of investors/ funding mechanism identified.	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• At least 60 SMEs and Startups receive training on product development and market entry (with at least 40% being women); • At least 6 investors identified.	• 40 selected startup-projects received training on product development and market entry (30% of women); • Preliminary consultations with 5 potential investors have been conducted; • 1 startup-project got investments and started their production (Project Uf.Bee); and • Contact has been established with the Tokyo Institute of Technology (as technology partners)
Component 2 – Building national capacity for the support and promotion of clean technology innovations				
Outcome 2.1: National institutional capacity built to support and organize the Cleantech competition and accelerator during and beyond project duration				

Output 2.1.1:
 	
Capacity building of national institutions and industrial associations to host support and sustain the GCIP, and 15
	• Number of national institutions, industrial associations and SME or Startups trained on product development and market entry;
	
	• Number of mentors/judges trained
		• The values of all indicators at the beginning of the project were equal to 0 / no value.	• At least 15-20 SMEs and/or startups trained per cycle;
			
			• At least 15 mentors and 10 judges trained;
				• Capacity building of national institution and partners:
				  ○ 5 pilot regional accelerator cleantech (Sumy, Kherson, Mykolaiv, Ivano-Frankivsk, and Sloviansk) are at the opening stage; and
				  ○ 22 Universities of Ukraine involved to GCIP Ukraine network;
				  ○ 2 day's workshop "Current policy and regulatory framework in the field of clean technology innovation and

mentors and 10 judges identified and trained.				entrepreneurship in Ukraine" was conducted on March 6-7,2019; ○ Participated on "Scale Up Ukrainian Innovations! All Ukrainian Festival of Innovation!" on May 16, 2019; ○ Support of conduction All Ukrainian Competition of Innovations "IntelEco-2019" on February 5, 2019; ○ The 2 day`s workshop "Development of the concept of a training program for representatives of business incubators at the universities of Ukraine and SFII on the development and stimulation of innovation activities" on May 16-17, 2019 was conducted; ○ The expert discussion on "Training program for startups. Challenges and possibilities for Ukraine. International experience" on May 23-24, 2019 was conducted; ○ The training for management unit of startup incubators at university, Lviv, October 28-30, 2019; and ○ The expert discussion on "Women in innovation entrepreneurship. Challenges and solutions" on November 27, 2019, was conducted; • 40 selected startup-projects received training on product development and market entry (30% of women); • With 5 business-incubators and accelerators collaboration was established (iHub, Startup School TechUp, Jet Accelerator, Accelerator, Biofarma); • With 5 business associations collaboration was established (Sweden Business Association, European Business Association, Kaizen Institute Ukraine, Association of Industrial Automation of Ukraine, Greencubator);

				• Currently, as part of the project activity are on the stage of creation:
				  ○ Center for Support of Innovation and Technology at the basis of National Academy of Sciences of Ukraine; and
				  ○ Startup and Innovation Projects Development Center GCIP Ukraine
				
				• Capacity building of national mentors and experts:
				  ○ 18 mentors for work and support of startups were involved;
				  ○ 9 judges for selection of startups were involved;
				  ○ 18 mentors received training on methodology and process of mentoring (45% of women);
				  ○ 9 judges received guidance on the judging process (17% of women); and
				  ○ 3 international and 5 national trainers were involved;

Output 2.1.2: Impact monitoring, advocacy and Promotion.	• Annual Innovation Conference held, GCIP platform established	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• At least 1 publication published annually and 1 GCIP platform established.	• 56 articles about GCIP Ukraine activities published in mass media; • 275 articles about GCIP Ukraine activities published on social pages of the project, project partners and startups; and • Pages in social media were created and maintained: Facebook (https://www.facebook.com/CleantechUkraine/?eid=ARA70E3tH-mxzOcLR61_-cFStcyFofIqm3fyxzRkB9oLL-VshYtpoKEEUJjSgB58LexHE2JiWLFiSLn7), Twitter (https://twitter.com/GCIP_Ukraine) and Telegram channel (CleanTech Ukraine); • The web-platform of GCIP Ukraine was created and started (https://gcipukraine.com);

				• The YouTube channel (GCIP Ukraine) was created and maintained; • 2 videos on a local TV channel about GCIP Ukraine activity were come out; • 4 videos about the finalists of the startup-projects were produced; • 10 video-interview and responses about the Acceleration Program from mentors and participants produced; • 2 promo video about the Acceleration Program GCIP Ukraine, Business Academy and training for Universities was produced; • The promotion campaign "Prominent innovators of Ukraine who shook the world" was conducted in the framework of the opening ceremony of competition for innovative Cleantech startup-projects; • Participation of Ukraine delegation (representatives of PMU, government, SFII, and startup-projects) in the International competition of startups "CleanTech Week 2019" in Vienna, Austria, on October 5-11, 2019; • Participation of Acceleration Program GCIP Ukraine finalists in the "Ukrainian Innovation Market 2019" on November 5-7, 2019; • The Awards Ceremony of National Winners and finalists of Acceleration Program GCIP Ukraine 2019 was conducted on November 19, 2019;

				• For promoting of GCIP Ukraine the printing materials were design and printed: notebooks, pens, bags, and folders; and • The brochures with information of GCIP Ukraine activities were printed.
Component 3 –Policy and regulatory framework strengthened for national Cleantech innovation and entrepreneurship ecosystem				
Outcome 3.1: Policy and Institutional framework strengthened to promote and support clean technology innovations in startups and SMEs.				
Output 3.1.1: Policy analysis report on best practice policies, regulations and incentives required for the promotion of clean technology innovations developed	• Policies, regulations and programs amended or developed to create more supportive environment for clean energy technology innovations in/by SMEs	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• Assessment of existing relevant policies and economic sectors requiring support for promotion of Cleantech; Policy assessment report including stakeholder mapping for Cleantech in Ukraine developed.	• The Analytical Review “Current CleanTech Innovation Potential of Ukraine and the ways of it strengthening” was conducted; • The analysis of “Clean Technology Innovation Market in Ukraine: state of the art and prospects” was made; • The analysis of “Potential of Clean Technology innovations commercialization and realization in Ukraine” was made; • The analysis of “PEST-analysis of factors that influence the development of CleanTech innovation ecosystem in Ukraine” was made; • Work in cooperation with the Ministry of Education and Science of Ukraine: o Making a contribution to the laws/secondary legislative acts drafting (direct participants in working groups, analytical support, comments and proposals preparation): o Analysis of the Draft Law «On Amendments to Certain Legislative Acts of Ukraine on the Activities of Scientific Parks” was made; o Analysis of the Draft KCC Resolution "On Amendments to the Decree of the Cabinet of Ministers of Ukraine dated December 17, 1999 No. 2311" On Regulatory and Legal Acts to Ensure the Implementation of the Law of Ukraine "On the Special Regime of Innovative Activities of Technology Parks"; o Analysis of the Draft KCC Resolution "On Amendments to the Decree of the Cabinet of Ministers of Ukraine dated December 17, 1999 No. 2311" On Regulatory and Legal Acts to Ensure

				the Implementation of the Law of Ukraine "On the Special Regime of Innovative Activities of Technology Parks" was made; ○ Analysis of the Draft Resolution of the Cabinet of Ministers of Ukraine "On Amendments to the Resolution of the Cabinet of Ministers of Ukraine of August 6, 2003 No. 1219" On Approval of the Regulation on the Commission on the Organization of the Activities of Technology Parks and Innovative Structures of Other Types"; ○ Analysis of the Draft Law of Ukraine "On Amendments to the Law of Ukraine" On State Regulation of Activities in the Sphere of Technology Transfer"; • Was made an analysis of the: ○ VRU Resolution “On the Concept of Scientific, Technological and Innovative Development of Ukraine” № 916-XIV dated 13.07.1999; ○ Law of Ukraine “On special regime of innovative activity of technological parks” № 991-XIV dated 16.07.1999 (Document status: current, current edition – dated 05.12.2012); ○ Law of Ukraine «On Innovative Activity» № 40-IV від 04.07.2002 (Document status: in force, current redaction – dated 05.12.2012); ○ Resolution of the VRU «On compliance with the legislation on the development of scientific and technical potential and innovative activity in Ukraine» № 1786-IV dated 16.06.2004; ○ Resolution of the VRU «On Recommendations of Parliamentary Hearings on the topic: National Innovation System of Ukraine: Problems of Formation and Implementation» № 1244-V dated 27.06.2007; ○ Resolution of the VRU «On the Recommendations of the Parliamentary Hearings on the topic:" Strategy of innovative development of Ukraine for 2010-2020 in the face of globalization challenges» № 2632-VI dated 21.10.2010;

				○ Law of Ukraine «On Priority Areas of Innovation Activity in Ukraine» № 3715-VI dated 08.09.2011 (Document status: in force, current redaction – dated 05.12.2012); ○ Law of Ukraine "On Foreign Economic Activity" № 959-XII dated 01.04.1991. (Document status: in force, current redaction – dated 07.02.2019); ○ Law of Ukraine «About investment activity» № 1560-XII dated 18.09.1991. (Document status: in force, current redaction – dated 20.10.2019); ○ Law of Ukraine «On protection of foreign investments in Ukraine» № 1540a-XII dated 10.09.1991. (Document status: in force); ○ Law of Ukraine «On the regime of foreign investment» № 93/96-BP dated 19.03.1996. (Document status: in force, current redaction – dated 25.06.2016); ○ Law of Ukraine «On Amendments to Some Legislative Acts of Ukraine on Abolishing the Obligation of State Registration of Foreign Investments» № 1390-VIII dated 31.05.2016. (Document status: in force); ○ Law of Ukraine «On Amendments to the Law of Ukraine" On Investment Activity "on State Investment Projects» № 1981-VIII dated 23.03.2017. (Document status: in force); ○ Law of Ukraine «On Amendments to Some Legislative Acts of Ukraine on Removing Barriers to Attracting Foreign Investment» № 2058-VIII dated 23.05.2017. (Document status: in force).
Output 3.1.2: Policy recommendations on how to enhance the clean technology innovation and		• The values of all indicators at the beginning of the project were equal to 0 / no value.	• Roadmap available to highlight necessary improvements of policy framework on cleantech innovations; monitor its	• Providing consultancy and informational support to the Intellectual Property Council under Ministry of Economic Development and Trade of Ukraine in particular: participation in drafting legislative acts on Intellectual property rights and on Improving the Legal Protection of Inventions and Utility Models;

entrepreneurship ecosystems developed and roadmap in place			implementation progress by PMU	• Draft Law of Ukraine "On Amendments to the Budget Code of Ukraine on Promoting Innovative Activity of Budgetary Institutions", prepared by Ministry of Education and Science of Ukraine (during the public discussions); and • National Strategy for the Development of Intellectual Property in Ukraine on the period 20-25 (during the public discussion)
Output 3.1.3: National institutional capacity strengthened for sustainability	• Number of subnational cleantech stakeholder meetings held	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• 50 staff from partner and national institutions receive training on competition organization (with at least 40% being women); • At least 3 stakeholder meetings held (at least 30% women participants) in 3 years	• Representatives of State Finance Institution for Innovations (SFII) were involved in the process of planning the GCIP Ukraine activities and studying the experience of the GCIP Ukraine Business Academy for further use of this experience in the work of SFII. In order to strengthen their experience, they worked as mentors and trainers during the Business Academy for the 1st wave of the GCIP Ukraine Accelerator Program; • As part of the project strategy to strengthen the national institutional capacity to better understand the principles of the GCIP Ukraine and to ensure the programme sustainability, the project have: o 2 persons of the State Agency of energy efficiency and Energy saving of Ukraine involved as mentors for startups; o 8 stakeholder meetings (with Ministry of Ecology and `natural resources of Ukraine and Ministry of Education and Science of Ukraine) was conducted; o 2 workshops on discussion the Policy Environment and innovation regulation in Ukraine were conducted. o At least 25 representatives from partner and national institutions were involved to the workshops “Current policy and regulatory framework in the field of clean technology innovation and entrepreneurship in Ukraine”, "Development of the concept of a training program for representatives of business incubators at the universities of Ukraine and SFII on the development and stimulation of innovation activities";

				○ "Training program for startups. Challenges and possibilities for Ukraine. International experience"
Component 4 – Monitoring and Evaluation (M&E)				
Outcome 4.1: Adequate monitoring of all project indicators together with regular evaluations to ensure successful project implementation				
Output 4.1.1: Terminal project evaluation conducted	• Tons of GHG emissions directly or indirectly avoided. • Achievement of project targets and improvement in gender mainstreaming	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• Independent terminal evaluation to capture the impact and sustainability of the program	• 9 business plans were developed with the help of COMFAR II software for the winners and finalists of the 1st wave of the GCIP Ukraine Acceleration Program to attract investment in the implementation of the selected projects. GHG emissions reductions did not occur in the specified reporting period (as it is planned in the next period after the launch of startups) • The 2nd meeting of the Steering Committee was organized and conducted on February 19, 2020; • Reports of 6 trainings of GCIP Ukraine Business Academy and training for business incubator management at universities; • A report on the mission of the Ukrainian delegation to participate in the Vienna Clean Technology Week, where Ukrainian startup projects were presented; • Annual Project Report was developed for 2019; • 2020 Work Plan developed;
Output 4.1.2: Documentation of lessons learned and best practices from pilot experience and dissemination	• Terminal evaluation report, leaflets/brochures, and case study	• The values of all indicators at the beginning of the project were equal to 0 / no value.	• 1 Terminal evaluation report, at least 2 leaflets/brochures and case study each	• GCIP Ukraine Project brochures (2 redactions) and corporate printing materials (bags, pens and notebooks) were developed and printed; ○ 5 training modules of the business academy were developed; ○ Regional &Global Expansion; ○ Marketing & Communication; ○ Creating an effective Investor Presentation; ○ Venture Funding: Angel Investment & Venture Capital; and ○ Business Model Innovation & Validation.

Annex 2: Detailed questions to assess evaluation criteria

The evaluation team will assess the project performance guided by the questions below.

No.	Evaluation criteria
A	**Progress to impact**
1	✓ Likelihood to contribute to the expected 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 the extent to which conditions for trajectory change are being put into place. ✓ Replication: To what extent the project's specific results (e.g. methodology, technology, lessons, etc.) are reproduced or adopted ✓ Mainstreaming: To what extent information, lessons or specific results of the project are incorporated into broader stakeholder mandates and initiatives such as laws, policies, regulations and project? ✓ Scaling-up: To what extent the project's initiatives and results are implemented at larger geographical scale? ✓ What difference has the project made to the beneficiaries? ✓ What is the change attributable to the project? To what extent? ✓ What are the social, economic, environmental and other effects, either short-, medium- or long-term, on a micro- or macro-level? ✓ What effects are intended or unintended, positive or negative? [The three UNIDO impact dimensions are: ✓ Safeguarding environment: To what extent the project contributes to changes in the status of environment. ✓ Economic performance: To what extent the project contributes to changes in the economic performance (e.g. finances, income, costs saving, expenditure) of individuals, groups and entities? ✓ Social inclusiveness: To what extent the project contributes to changes in capacity and capability of individuals, groups and entities in society, such as employment, education, and training?]
B	**Project design**
1	• Overall design[59] ✓ The project design was adequate to address the problems at hand? ✓ Is the project consistent with the Country's priorities, in the work plan of the lead national counterpart? Does it meet the needs of the target group? Is it consistent with UNIDO's Inclusive and Sustainable Industrial Development? Does it adequately reflect lessons learnt from past projects? Is it in line with the donor's priorities and policies? ✓ Is the applied project approach sound and appropriate? Is the design technically feasible and beased on best practices? Does UNIDO have in-house technical expertise and experience for this type of intervention? ✓ To what extent the project design (in terms of funding, institutional arrangement, implementation arrangements…) as foreseen in the project document still valid and relevant?

[59] GEF-6 projects have followed the provisions specified in UNIDO/DGAI.23: UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP); is it in line with GEF Minimum Fiduciary Standards: Separation of Implementation and Execution Functions in GEF Partner Agencies? (GEF/C.41/06/Rev.01)).

No.	Evaluation criteria
	✓ Does the project document include a M&E plan? Does the M&E plan specify what, who and how frequent monitoring, review, evaluations and data collection will take place? Does it allocate budget for each exercise? Is the M&E budget adequately allocated and consistent with the logframe (especially indicators and sources of verification)? ✓ Were there any changes in project design and/or expected results after start of implementation. ✓ Did the project establish a baseline (initial conditions)? Was the evaluation able to estimate the baseline conditions so that results can be determined? ✓ Risk management: Are critical risks related to financial, social-political, institutional, environmental and implementation aspects identified with specific risk ratings? Are their mitigation measures identified? Where possible, are the mitigation measures included in project activities/outputs and monitored under the M&E plan?
2	• <u>Logframe</u> ✓ Expected results: Is the expected result-chain (impact, outcomes and outputs) clear and logical? Does impact describe a desired long-term benefit to a society or community (not as a mean or process), do outcomes describe change in target group's behaviour/performance or system/institutional performance, do outputs describe deliverables that project will produce to achieve outcomes? Are the expected results realistic, measurable and not a reformulation or summary of lower level results? Do outputs plus assumptions lead to outcomes, do outcomes plus assumptions lead to impact? Can all outputs be delivered by the project, are outcomes outside UNIDO's control but within its influence? ✓ Indicators: Do indicators describe and specify expected results (impact, outcomes and outputs) in terms of quantity, quality and time? Do indicators change at each level of results and independent from indicators at higher and lower levels? Do indicators not restate expected results and not cause them? Are indicators necessary and sufficient and do they provide enough triangulation (cross-checking)? Are they indicators sex-diaggregated, if applicable? ✓ Sources of verification: Are the sources of verification/data able to verify status of indicators, are they cost-effective and reliable? Are the sources of verification/data able to verify status of output and outcome indicators before project completion?
C	**Project performance**
1	• <u>Relevance</u> ✓ How does the project fulfil the urgent target group needs? ✓ To what extent is the project aligned with the development priorities of the country (national poverty reduction strategy, sector development strategy)? ✓ How does project reflect donor policies and priorities? ✓ Is the project a technically adequate solution to the development problem? Does it eliminate the cause of the problem? ✓ To what extent does the project correspond to UNIDO's comparative advantages? ✓ Are the original project objectives (expected results) still valid and pertinent to the target groups? If not, have they been revised? Are the revised objectives still valid in today's context?
2	• <u>Effectiveness</u> ✓ What are the main results (mainly outputs and outcomes) of the project? What have been the quantifiable results of the project? ✓ To what extent did the project achieve their objectives (outputs and outcomes), against the original/revised target(s)? ✓ What are the reasons for the achievement/non-achievement of the project objectives?

No.	Evaluation criteria
	✓ What is the quality of the results? How do the stakeholders perceive them? What is the feedback of the beneficiaries and the stakeholders on the project effectiveness? ✓ To what extent is the identified progress result of the project rather than external factors? ✓ What can be done to make the project more effective? ✓ Were the right target groups reached?
3	• <u>Efficiency</u> ✓ How economically are the project resources/inputs (concerning funding, expertise, time…) being used to produce results? ✓ To what extent were expected results achieved within the original budget? If no, please explain why. ✓ Are the results being achieved at an acceptable cost? Would alternative approaches accomplish the same results at less cost? ✓ What measures have been taken during planning and implementation to ensure that resources are efficiently used? Were the project expenditures in line with budgets? ✓ To what extent did the expected co-financing materialize, in cash or in-kind, grants or loan? Was co-financing administered by the project management or by some other organization? Did short fall in co-financing or materialization of greater than expected co-financing affected project results? ✓ Could more have been achieved with the same input? ✓ Could the same have been achieved with less input? ✓ How timely was the project in producing outputs and outcomes? Comment on the delay or acceleration of the project's implementation period. ✓ To what extent were the project's activities in line with the schedule of activities as defined by the Project Team and annual Work Plans? ✓ Have the inputs from the donor, UNIDO and Government/counterpart been provided as planned, and were they adequate to meet the requirements?
4	• <u>Sustainability of benefits</u> ✓ Will the project results and benefits be sustained after the end of donor funding? ✓ Does the project have an exit strategy? *Financial risks:* ✓ What is the likelihood of financial and economic resources not being available once the project ends? *Socio-political risks:* ✓ Are there any social or political risks that may jeopardize the sustainability of project outcomes? ✓ What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? ✓ Do the various key stakeholders see that it is in their interest that project benefits continue to flow? ✓ Is there sufficient public/stakeholder awareness in support of the project's long-term objectives? *Institutional framework and governance risks:* ✓ Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize the sustainability of project benefits? ✓ Are requisite systems for accountability and transparency and required technical know-how in place? *Environmental risks:*

No.	Evaluation criteria
	✓ Are there any environmental risks that may jeopardize the sustainability of project outcomes? ✓ Are there any project outputs or higher level results that are likely to have adverse environmental impacts, which, in turn, might affect the sustainability of project benefits?
5	• <u>Monitoring of long-term changes</u> The M&E of long-term changes is often incorporated in GEF-supported projects as a separate component and may include determination of environmental baselines; specification of indicators; and provisioning of equipment and capacity building for data gathering, analysis, and use. This section of the evaluation report will describe project actions and accomplishments towards establishing a long-term monitoring system. The evaluation will address the following questions: ✓ Did the project contribute to the establishment of a long-term monitoring system? If it did not, should the project have included such a component? ✓ What were the accomplishments and shortcomings in establishment of this system? ✓ Is the system sustainable — that is, is it embedded in a proper institutional structure and does it have financing? How likely is it that this system continues operating upon project completion? ✓ Is the information generated by this system being used as originally intended?
D	**Cross-cutting performance criteria**
1	• <u>Gender mainstreaming</u> ✓ Did the project design adequately consider the gender dimensions in its interventions? Was the gender marker assigned correctly at entry? ✓ Was a gender analysis included in a baseline study or needs assessment (if any)? Were there gender-related project indicators? ✓ Are women/gender-focused groups, associations or gender units in partner organizations consulted/ included in the project? ✓ How gender-balanced was the composition of the project management team, the Steering Committee, experts and consultants and the beneficiaries? ✓ Do the results affect women and men differently? If so, why and how? How are the results likely to affect gender relations (e.g., division of labour, decision-making authority)? ✓ To what extent were socioeconomic benefits delivered by the project at the national and local levels, including consideration of gender dimensions?
2	✓ Environment and socio-economic aspects[60]
3	• <u>M&E: ***(focus on Monitoring)***</u> ✓ ***M&E design*** o Was the Monitoring plan at the point of project approval practical and sufficient? o Did it include baseline data and specify clear targets and appropriate indicators to track environmental, gender, and socio economic results? o Did it include a proper M&E methodological approach; specify practical organization and logistics of the M&E activities including schedule and responsibilities for data collection; o Did it include budget adequate funds for M&E activities?

[60] GEF-6 projects have followed the provisions specified in UNIDO/DGAI.23: UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP)

No.	Evaluation criteria
	✓ ***M&E implementation*** ○ How was the information from M&E system used during the project implementation? Was an M&E system in place and did it facilitate timely tracking of progress toward project results by collecting information on selected indicators continually throughout the project implementation period? Did project team and manager make decisions and corrective actions based on analysis from M&E system and based on results achieved? ○ Are annual/progress project reports complete and accurate? ○ Was the information provided by the M&E system used to improve performance and adapt to changing needs? Was information on project performance and results achievement being presented to the Project Steering Committee to make decisions and corrective actions? Do the Project team and managers and PSC regularly ask for performance and results information? ○ Are monitoring and self-evaluation carried out effectively, based on indicators for outputs, outcomes and impact in the logframe? Do performance monitoring and reviews take place regularly? ○ Were resources for M&E sufficient? ○ How has the logframe been used for Monitoring and Evaluation purposes (developing M&E plan, setting M&E system, determining baseline and targets, annual implementation review by the Project Steering Committee…) to monitor progress towards expected outputs and outcomes? ○ How well have risks outlined the project document and in the logframe been monitored and managed? How often have risks been reviewed and updated? Has a risk management mechanism been put in place?
4	• <u>Project management</u> ✓ Review overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement. ✓ Review whether the national management and overall coordination mechanisms have been efficient and effective? Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfil its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions)? ✓ The UNIDO HQ-based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (e.g. problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)? ✓ The project implemented outreach and public awareness campaigns. Outreach and public awareness materials produced are in line with the relevant UNIDO and donor advocacy guidelines?"
E	**Performance of partners**
1	• <u>UNIDO</u> ✓ ***Design*** ○ Mobilization of adequate technical expertise for project design ○ Inclusiveness of project design (with national counterparts) ○ Previous evaluative evidence shaping project design ○ Planning for M&E and ensuring sufficient M&E budget

No.	Evaluation criteria
	✓ ***Implementation*** o Timely recruitment of project staff o Appropriate use of funds, procurement and contracting of goods and services o Project modifications following changes in context or after the Mid-Term Review o Follow-up to address implementation bottlenecks o Role of UNIDO country presence (if applicable) supporting the project o Engagement in policy dialogue to ensure up-scaling of innovations o Coordination function o Exit strategy, planned together with the government
2	• National counterparts ✓ ***Design*** o Responsiveness to UNIDO's invitation for engagement in designing the project ✓ ***Implementation*** o Ownership of the project o Support to the project, based on actions and policies o Counterpart funding o Internal government coordination o Exit strategy, planned together with UNIDO, or arrangements for continued funding of certain activities o Facilitation of the participation of Non-Governmental Organizations(NGOs), civil society and the private sector where appropriate o Suitable procurement procedures for timely project implementation o Engagement with UNIDO in policy dialogue to promote the up-scaling or replication of innovations
3	✓ ***Donor*** ✓ Timely disbursement of project funds ✓ Feedback to progress reports, including Mid-Term Evaluation ✓ Support by the donor's country presence (if applicable) supporting the project for example through engagement in policy dialogue
F	**Overall project achievement** ✓ Overarching assessment of the project, drawing upon the analysis made under Project performance and Progress to Impact criteria above but not an average of ratings.

Annex 3: Outline of an in-depth project evaluation report

Acknowledgement (incl. list of evaluation team members)
Abbreviations and acronyms
Glossary of evaluation-related terms
Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be maximum 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project[61] and important developments during the project implementation period
- Project summary:
  - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
  - Brief description including history and previous cooperation
  - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
  - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
  - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section VI Project Evaluation Parameters). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

A. Project design
B. Implementation performance
   - Ownership and relevance (Report on the relevance of project towards countries and beneficiaries, country ownership, stakeholder involvement)
   - Effectiveness (The extent to which the development intervention's objectives, outcomes and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)
   - Efficiency (Report on the overall cost-benefit of the project and partner countries' contribution to the achievement of project objectives)

[61] Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g. relevant legislation, enforcement capacities, government initiatives, etc.)

- Likelihood of sustainability of project outcomes (Report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of benefits after the project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)
- Project coordination and management (Report project management conditions and achievements, and partner countries commitment)
- Assessment of monitoring and evaluation systems (Report on M&E design, M&E plan implementation, and budgeting and funding for M&E activities)
- Monitoring of long-term changes
- Assessment of processes affecting achievement of project results (Report on preparation and readiness / quality at entry, financial planning, UNIDO support, co-financing, delays of project outcomes/outputs, and implementation approach)

C. Gender mainstreaming

At the end of this chapter, an overall project achievement rating should be developed as required in annex 8. The overall rating table should be presented here.

IV. Conclusions, recommendations and lessons learned

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings
- be realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or Counterpart Organizations
- Donor

C. Lessons learned

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson, the context from which they are derived should be briefly stated

For further guidance on the formulation and expected quality of lessons learned, please consult the guidance document on lessons learned prepared by the UNIDO Independent Evaluation Division (Annex 6). The document also includes a checklist on the quality of lessons learned. **Annexes** should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, including an updated table of expenditures to date, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex

Annex 4: Checklist on evaluation report quality

Project title: The Global Cleantech Innovation Program for Small and Medium Enterprises in Ukraine
UNIDO Project ID: 160246
GEF ID: 9811

Evaluation team
Evaluation team leader:
National evaluation consultant:
Evaluation manager (IED):

Quality review done by: Date:

Report quality criteria	UNIDO Independent Evaluation Division assessment notes	Rating
A. Was the report well-structured and properly written? (Clear language, correct grammar, clear and logical structure)		
B. Was the evaluation objective clearly stated and the methodology appropriately defined?		
C. Did the report present an assessment of relevant outcomes and achievement of project objectives?		
D. Was the report consistent with the ToR and was the evidence complete and convincing?		
E. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible? (Including assessment of assumptions, risks and impact drivers)		
F. Did the evidence presented support the lessons and recommendations? Are these directly based on findings?		
G. Did the report include the actual project costs (total, per activity, per source)?		
H. Did the report include an assessment of the quality of both the M&E plan at entry and the system used during the implementation? Was the M&E sufficiently budgeted for during preparation and properly funded during implementation?		
I. Quality of the lessons: were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
J. Quality of the recommendations: did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can these be immediately implemented with current resources?		
K. Are the main cross-cutting issues, such as gender, human rights and environment, appropriately covered?		
L. Was the report delivered in a timely manner? (Observance of deadlines)		

Rating system for quality of evaluation reports
A rating scale of 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0.

UNIDO evaluation lessons learned

Definition

The Organisation for Economic Cooperation and Development's (OECD) Development Assistance Committee (DAC) (2002) defines lessons learned related to the evaluation of development assistance as follows: "***Generalizations based on evaluation experiences*** *with projects, programs, or policies that abstract from the specific circumstances to broader situations. Frequently, lessons highlight strengths or weaknesses in preparation, design, and implementation that affect performance, outcome, and impact."*[62]

Focus on generalization

- The International Labour Organisation (ILO) provides one of the most comprehensive definitions of lessons learned with relevance for evaluations in the UN system (2014) "***A lesson learned is an observation from project or programme experience which can be translated into relevant, beneficial knowledge by establishing clear causal factors and effects****. It focuses on a specific design, activity, process or decision and may provide either positive or negative insights on operational effectiveness and efficiency, impact on the achievement of outcomes, or influence on sustainability.* ***The lesson should indicate, where possible, how it contributes to 1) reducing or eliminating deficiencies; or 2) building successful and sustainable practice and performance****"*[63]*.*

Focus on transferability & generalization

UNIDO evaluation lessons learned contain information about the context, challenges, causal factors, target users and success/failure, as also shown in below **Lessons learned quality criteria checklist.**

What is not a lesson learned?

Lessons learned are not:	• Simply restating or paraphrasing existing doctrine, policy, process, etc. This does not qualify as an appropriate and bona fide lessons learned[64]. • Just applicable to a specific situation but applicable to a generic situation[65] • The same as recommendations. Recommendations usually refer to very specific situations including who should take action on what by when

[62] http://www.oecd.org/dataoecd/29/21/2754804.pdf

[63] ILO Evaluation Unit, 2014: Guidance Note 3: Evaluation lessons learned and emerging good practices

[64] www.dtic.mil/ndia/2004cmmi/CMMIT2Tue/LessonsLearnedtc3.pdf

[65] *www.globalhivmeinfo.org/Pages/Glossary.aspx* globalhivmeinfo.org/DigitalLibrary/Digital%20Library/Glossary%20of%20Monitoring%20and%20Evaluation%20Terms.doc

Examples of lessons learned

Source	Well-identified lessons learned in UNIDO evaluations
UNIDO, 2016: Independent UNIDO country evaluation: Thailand	• A more effective collaboration between the government of Thailand and UNIDO *(context; target users)* will be more beneficial in developing a "country programme" that identifies the priority areas in which they should work together and then seek funding from potential sources *(success)* than the choice of the projects being driven by UNIDO on the basis of the financial support the latter is able to mobilize *(causal factor; challenge)*.
UNIDO, 2017: Evaluación final independiente del proyecto: Centro de Automatización Industrial y Meca- trónica (Uruguay)	• It is important that UNIDO projects get adequate technical in-house support *(context).* When this capacity is limited to persons that at a later stage get detached from the project the risk emerges *(challenge)* that UNIDO can't adequately met the expectations raised *(causal factor; failure).* UNIDO *(target user)* risks to lose its reputation as a strategic partner in such situations.
UNIDO, 2016: Independent Terminal Evaluation: Demonstration of BAT/BEP in fossil fuel-fired utilities and industrial boilers in response to the Stockholm Convention on POPs	• To UNIDO programme managers *(target users)*: The implementation of this regional project involving six countries *(context)* was very challenging and required more time and better planning to meet deadlines *(challenge).* One important lesson that emerged is that the design should be kept simple. For the same set of objectives, the design should consider to have smaller number of components meaning less administrative burden and more flexibility *(success)* resulting in a better and more successful implementation process (causal factor). *Lesson learned was amended for this guideline.*
UNIDO, 2016: Independent terminal evaluation. Industrial Energy Efficiency in Ecuador	• To UNIDO country director *(target user)*: Lack of synergies *(challenge)* between energy efficiency projects and Clean Production activities developed by UNIDO at local level *(context)* drives to lose opportunities *(failure)* for a more efficient achievement of shared goals *(causal factor). Lesson learned was amended for this guideline.*

Examples of statements that do not qualify as lessons learned

Statements identified in UNIDO evaluation reports in the lessons learned sections that are in fact no lessons learned
• "Focus on product development innovation methods and tools". *The context, challenge, causal factors, success/failure and target users are omitted. This statement resembles more to a recommendation with suboptimal formulation.*
• "UNIDO, as the International executing Agency, was instrumental in: a) introducing new technologies such as the Vallerani System, the use of Zander in tree planting; b) linking environmental preservation to economic development; c) providing support to the HCEFLCD for upgrading its nursery network". *The context, challenge, causal factors, success/failure and target users are omitted. This statement is a finding.*
• "Include in the peer review process also other agencies, such as UNEP and UNDP, which also support countries in the implementation of Enabling Activities and NIP update projects for the Stockholm Convention". *The context, challenge, causal factors, success/failure and target users are omitted. This statement resembles more to a recommendation with suboptimal formulation.*

Lessons learned quality criteria checklist

The evaluator should cite and explain the points below.
✓ **Context** – Explain the context from which the lesson has been derived (e.g. economic, social, political). If possible, point to any relevance to the broader UNIDO mandates or broader technical or regional activities.
✓ **Challenges** – Cite any difficulties, problems or obstacles encountered / solutions found - Positive and negative aspects should be described.
✓ **Causal factors** – Present evidence for "how" or "why" something did or did not work?
✓ **Target users affected by the lessons learned should be cited** (e.g. Management, programme managers, donors or beneficiaries)
✓ **Success or failure** – The lessons learned should cite any decisions, tasks, or processes that constitute reduced or eliminated deficiencies or built successful and sustainable practice and performance; or have the potential of success. Avoid repetition of failure
✓ **The lesson learned is not mistaken for a recommendation or conclusion**

(Source: ILO Evaluation Unit, 2014: Guidance Note 3: Evaluation lessons learned and emerging good practices, amended with UNIDO IEV)

For assessing the quality of evaluation lessons leaner UNIDO uses a 6-point (with one point for each criterion) rating scheme:

- **Ratings 4-6** are **satisfactory** and **meet quality criteria**.
- **Ratings 1-3** are **unsatisfactory** and **fail to meet quality criteria**.

The criterion "The lesson learned is not mistaken for a recommendation or conclusion" **is an exclusion criterion**, i.e. when this criterion is met, the lesson learned automatically fails the quality check regardless the quality in other criteria.

Annex 6. GEF Minimum requirements for M&E[66]

Minimum requirement 1: Project design of M&E

All projects will include a concrete and fully budgeted M&E plan by the time of work program entry for full-sized projects (FSP) and CEO approval for medium-sized projects (MSP). This M&E plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- Baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- Identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- Organizational set-up and budgets for monitoring and evaluation.

Minimum requirement 2: Application of project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- The baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and
- The organizational set-up for M&E is operational and budgets are spent as planned.

[66] http://www.thegef.org/gef/sites/thegef.org/files/documents/ME_Policy_2010.pdf

Annex 7. Rating tables

The following table should be used for rating the different key evaluation criteria:

Evaluation Rating Table

#	Evaluation criteria	Definition	Mandatory rating
A	**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 the extent to which conditions for trajectory change are being put into place.**	Yes
B	**Project design**	**Formulation of the intervention, the plan to achieve a specific purpose.**	Yes
1	Overall design	Assessment of the design in general.	Yes
2	Logframe	Assessment of the logical framework aimed at planning the intervention.	Yes
C	**Project performance**	**Functioning of a development intervention.**	Yes
1	Relevance	The extent to which the aid activity is suited to the priorities and policies of the target group, recipient and donor.	Yes
2	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
3	Efficiency	A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted to results.	Yes
4	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
D	**Cross-cutting performance criteria**	**Other important criteria that cut across the UNIDO intervention.**	
1	Gender mainstreaming	The extent to which UNIDO interventions have contributed to better gender equality and gender related dimensions were considered in an intervention.	Yes
2	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
3	Results-based management (RBM)	Assessment of issues related to results-based work planning, results based M&E and reporting based on results.	Yes
E	**Performance of partners**	**Assessment of partners' roles and responsibilities engaged in the intervention.**	**Yes**
1	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
2	National counterparts		Yes
3	Donor		Yes
F	**Overall assessment**	**Overarching assessment of the project, drawing upon the analysis made under Project performance and Progress to Impact criteria above but not an average of ratings.**	**Yes**

It is acknowledged that some issues covered by one criterion might overlap with others. Yet to enable UNIDO to learn from the deeper evaluation analyses and lessons on a number of areas, separate criteria are included such as those on Monitoring and Evaluation and Results-Based Management. The consistent use of the criteria pertinent to the evaluation object allow for comparability of UNIDO's performance over time. Evaluation questions are formulated around those evaluation criteria in UNIDO, as specified in the following section.

Rating systems and criteria

UNIDO introduced a six-point rating system for the evaluation criteria in 2015, in line with the practice adopted by other development agencies, including the GEF. The aim of the system is to quantify the judgment of evaluators, identify good and poor practices, to facilitate aggregation within and across projects and enable tracking performance trends over a period. The six-point rating system, with six (6) representing the best and one (1) the worst score, allows for nuanced assessment of performance and results. The same rating scale is used for all rating areas as shown below.

UNIDO evaluation rating scale

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

Note: * For impact, the assessment will be based on the level of *likely* achievement, as it is often too early to assess the long-term impacts of the project at the project completion point.

Table below contains the formula applied to transform the results of UNIDO's six-point rating scale to the GEF's four-point scale for sustainability[67].

Formula transforming UNIDO ratings into GEF ratings

UNIDO rating	UNIDO rating: sustainability	GEF rating: sustainability
6	Highly likely (HL)	Likely (L)
5	Likely (L)	Moderately Likely (ML)
4	Moderately likely (ML)	Moderately Likely (ML)
3	Moderately Unlikely (MU)	Moderately Unlikely (MU)
2	Unlikely (U)	Moderately Unlikely (MU)
1	Highly unlikely (HU)	Unlikely (U)

[67] GEF uses a four-point scale for the criterion of sustainability.

This formula underscores the distinction of ratings into "satisfactory" and "unsatisfactory", both in applying UNIDO's six-point rating scale and the transformation into the GEF four-point rating scale for sustainability. To ensure coherence in ratings, the rating is defined above. The use of benchmarks like the performance of peers for the same criteria helps to facilitate the interpretation of ratings.

Project design

Criteria for rating project design are related to the logical framework approach and the quality of overall project design. These criteria include:

Overall design quality
- Pertinence to country priorities, needs of target groups and UNIDO strategies
- Consideration and use of lessons and evaluative evidence from other projects
- Technical feasibility and validity of project design
- Budgeted M&E plan with clear timelines, roles, and responsibilities
- Adequacy of risk assessment (for example financial, sociopolitical, institutional, environmental and implementation aspects)

Logframe/logframe-like matrix based on the project's theory of change
- Clarity and logic of results-chain, including impacts, outcomes and outputs
- SMART indicators
- Adequacy of Means of Verification and Assumptions

Implementation performance

Implementation performance criteria correspond broadly to DAC criteria and need to be customized according to the context of the intervention to be evaluated.
- Relevance
- Effectiveness
- Efficiency
- Progress to Impact
- Sustainability of benefits

Partners' performance

UNIDO's projects are characterized by a group of main partners with specific roles and responsibilities. UNIDO itself acts as project implementer and supervisor. Though supplemented by implementation performance criteria listed above, the criteria to assess UNIDO as a partner are more specific and help to address frequent issues in its performance. Governments are local executers, and owners of the project and donors provide project funding. Hence, rating the partners is a key part of UNIDO project evaluations[68]. The six-point rating scale applies[69].

The key issues to be addressed to rate **UNIDO's performance** are:

Project design
- Mobilization of adequate technical expertise for project design

[68] As practiced by the World Bank and the International Fund for Agriculture Development.

[69] 6 = Highly satisfactory; 5 = Satisfactory; 4 = Moderately satisfactory; 3 = Moderately unsatisfactory; 2 = Unsatisfactory; 1 = Highly unsatisfactory

- Inclusiveness of project design (with national counterparts)
- Previous evaluative evidence shaping project design
- Planning for M&E and ensuring sufficient M&E budget

Implementation
- Timely recruitment of project staff
- Project modifications following changes in context or after the Mid-Term Review
- Follow-up to address implementation bottlenecks
- Role of UNIDO country presence (if applicable) supporting the project
- Engagement in policy dialogue to ensure up-scaling of innovations
- Coordination function
- Exit strategy, planned together with the government
- Overall effectiveness of project management as outlined in the Project Document
- Project's governance system
- National management and overall coordination mechanisms
- UNIDO HQ-based management, coordination, monitoring, quality control and technical input

To assess the ***performance of national counterparts***, the evaluation looks into the following issues:

Project design
- Responsiveness to UNIDO's invitation for engagement in designing the project

Implementation
- Ownership of the project
- Financial contributions (cash or in-kind)
- Support to the project, based on actions and policies
- Counterpart funding
- Internal government coordination
- Exit strategy, planned together with UNIDO, or arrangements for continued funding of certain activities
- Facilitation of the participation of Non-Governmental Organizations (NGOs), civil society and the private sector where appropriate
- Suitable procurement procedures for timely project implementation
- Engagement with UNIDO in policy dialogue to promote the up-scaling or replication of innovations

For the assessment of ***donor performance***, the following issues require ratings:
- Timely disbursement of project funds
- Feedback to progress reports, including Mid-Term Evaluation, if applicable
- Support by the donor's country presence (if applicable) supporting the project for example through engagement in policy dialogue

Gender mainstreaming

The UNIDO Policy on gender equality and the empowerment of women, issued initially in April 2009, and revised in March 2015 (UNIDO/DGB/(M).110/Rev.), provides the overall guidelines for establishing a gender mainstreaming strategy and action plans to guide the process of addressing gender issues in the Organization's industrial development interventions. It commits the organization that evaluations will demonstrate effective use of the UNEG guidance on evaluating from a human rights and gender equality perspective, as indicated by the Organization's meta-evaluation scores according to the UNEG Evaluation Scorecard.

In line with the UNIDO Gender Equality and Empowerment of Women Strategy, 2016-2019, all UNIDO technical assistance projects post-2015 are to be assigned a gender marker and should go through a gender mainstreaming check-list before approval. UNIDO's gender marker is in line with UN System-wide action plan (SWAP) requirements, with four categories: 0 — no attention to gender, 1 — some/limited attention to gender, 2a — significant attention to gender, 2b — gender is the principal objective[70].

Besides, Guides on Gender Mainstreaming for Inclusive and Sustainable Industrial Development (ISID) Projects in different areas of UNIDO's work have been developed and published during 2015[71], which have specific guidance on suitable outputs/activities/ indicators per technical area.

If the project design and gender analysis/existing indicators are not sufficient to allow for an accurate appraisal at the final evaluation, specific indicators could be created during the evaluation planning stage (preparing and revising the inception report) and assessed during the evaluation process. Together with the budget, the time required to adequately carry out a gender responsive evaluation will need to be taken into account. The evaluation time depends on the questions the assessment needs to answer, on how deep the analyses are requested to be, and on financial and human resources available as well as other external factors.

For terminal evaluations of projects that have been approved after 2015, evaluations should assess if the rating was correctly done at entry, if appropriate outputs/activities/indicators and monitoring were put in place during implementation and what results can be actually observed at the time of terminal evaluation (in line with UNIDO's organizational results reporting to SWAP). The Gender Mainstreaming six-point rating scale should then be used accordingly.

For projects that have **2a** or **2b ratings** at project design/entry at least one evaluation team member should have demonstrated/significant experience in evaluating GEEW projects. For other projects, evaluators are encouraged to further familiarize themselves with the key gender aspects and impacts of UNIDO projects, both through the foundation modules of "I know Gender" online course of UN Women and the UNIDO's Guides on Gender Mainstreaming ISID Projects.

[70] http://intranet.unido.org/intra/Gender_Mainstreaming_Tools_and_Guides
[71] www.unido.org/en/what-we-do/cross-cutting-issues/gender/publications.html