



CEO Endorsement (CEO) entry - Medium sized Project Child – GEF - 7

Clean technology innovation programme for SMEs and start-ups in the Republic of Moldova

Part I: Project Information

Name of Parent Program

[Global Cleantech Innovation Programme \(GCIP\) to accelerate the uptake and investments in innovative cleantech solutions](#)

GEF ID

10457

Project Type

MSP

Type of Trust Fund

GET

CBIT/NGI

CBIT

NGI

Project Title

Clean technology innovation programme for SMEs and start-ups in the Republic of Moldova

Countries

Moldova

Agency(ies)

UNIDO

Other Executing Partner(s)

Energy Efficiency Agency (EEA), Network for Global Innovation (NGIN), Cleantech Group (CTG)

Executing Partner Type

Government

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Mitigation, Technology Transfer, Sustainable Urban Systems and Transport, Renewable Energy, Financing, Energy Efficiency, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Paris Agreement, Influencing models, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Stakeholders, Communications, Public Campaigns, Education, Awareness Raising, Behavior change, Beneficiaries, Civil Society, Academia, Private Sector, Large corporations, Individuals/Entrepreneurs, Capital providers, Financial intermediaries and market facilitators, SMEs, Type of Engagement, Participation, Partnership, Information Dissemination, Gender Equality, Gender results areas, Participation and leadership, Capacity Development, Knowledge Generation and Exchange, Access to benefits and services, Gender Mainstreaming, Gender-sensitive indicators, Capacity, Knowledge and Research, Innovation, Knowledge Exchange, Learning, Indicators to measure change

Rio Markers**Climate Change Mitigation**

Climate Change Mitigation 2

Climate Change Adaptation

Climate Change Adaptation 0

Submission Date

2/16/2021

Expected Implementation Start

6/1/2021

Expected Completion Date

5/31/2026

Duration

60In Months

Agency Fee(\$)

76,950.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCM-1-4	Promote innovation and technology transfer for sustainable energy breakthroughs for clean-tech innovation.	GET	855,000.00	9,630,000.00
Total Project Cost(\$)			855,000.00	9,630,000.00

B. Project description summary**Project Objective**

Promote the acceleration of high-impact clean technology innovation for large-scale deployment and green job creation.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing(\$)	Confirmed Co-Financing(\$)
1 Transforming early-stage innovative cleantech solutions into scalable enterprises	Technical Assistance	1.1 Early-stage cleantech innovations are accelerated	<p>1.1.1 The GCIP guidebooks are adapted for the GCIP Moldova</p> <p>1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Moldova Accelerator</p> <p>1.1.3 Three cycles of the annual competition-based GCIP Moldova Accelerator are conducted</p>	GET	408,356.00	1,500,000.00

1 Transforming early-stage innovative cleantech solutions into scalable enterprises	Technical Assistance	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization	GET	79,644.00	1,000,000.00
			1.2.2 Enterprises (up to 10) are connected to financing opportunities and provided with tipping-point investment facilitation support			
			1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion			

1 Transforming early-stage innovative cleantech solutions into scalable enterprises	Investment	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services	1.2.4 Investment (up to 4 mln USD) is mobilized to deploy innovative cleantech solutions across various sectors (leading to wide socio-economic and environmental impacts, e.g. up to 45 enterprises with economic gains, up to 50 additional jobs created or retained, up to 10 enterprises with an increase in exports, up to 15 enterprises with increased inclusion in value chains, at least 63,000 CO2eq emissions reduced directly, 15 new technologies adopted)	GET	100,000.00	4,534,545.00
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2 Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity	Technical Assistance	2.1 The CIEE in Moldova is strengthened and interconnected	<p>2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)</p> <p>2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed</p> <p>2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted</p>	GET	102,540.00	1,000,000.00
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3 Programme coordination and coherence	Technical Assistance	3.1 Efficiency and sustainability of the GCIP Moldova is ensured through programme coordination and coherence with other GCIP country projects	<p>3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Moldova</p> <p>3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Moldova</p> <p>3.1.3 The GCIP Moldova web platform is operated to maintain the GCIP community</p>	GET	30,100.00	400,000.00
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3 Programme coordination and coherence	Technical Assistance	3.2 Impacts and progress of the GCIP Moldova are tracked and reported	3.2.1 The GCIP methodology for impact assessment is adapted and applied 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted 3.2.3 External terminal evaluation is conducted	GET	56,633.00	320,000.00	
Sub Total (\$)					777,273.00	8,754,545.00	
Project Management Cost (PMC)							
					GET	77,727.00	875,455.00
Sub Total(\$)					77,727.00	875,455.00	
Total Project Cost(\$)					855,000.00	9,630,000.00	

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Economy and Infrastructure of the Republic of Moldova (MEI)	Grant	Investment mobilized	4,300,000.00
Recipient Country Government	Energy Efficiency Agency (EEA)	Grant	Investment mobilized	450,000.00
Recipient Country Government	Energy Efficiency Agency (EEA)	In-kind	Recurrent expenditures	1,000,000.00
GEF Agency	UNIDO	Grant	Investment mobilized	30,000.00
GEF Agency	UNIDO	In-kind	Recurrent expenditures	100,000.00
Private Sector	S.A. CET-Nord	Equity	Investment mobilized	2,000,000.00
Private Sector	S.A. RED-Nord	Equity	Investment mobilized	1,000,000.00
Other	S.A. Posta Moldovei	Equity	Investment mobilized	100,000.00
Private Sector	Casa Aeterna	Equity	Investment mobilized	650,000.00
			Total Co-Financing(\$)	9,630,000.00

Describe how any "Investment Mobilized" was identified

The co-financing modalities were discussed in details with interested entities, i.e. Ministry of Economy and Infrastructure (MEI), Energy Efficiency Agency (EEA), S.A. Posta Moldovei – a state company, and private sector companies (S.A. CET-Nord, S.A. RED-Nord, Casa Aeterna) prior to and during the PPG phase. In general, cleantech enterprises (start-ups and SMEs) and their solutions, that are to be identified and supported in the framework of this project, are of interest to the above-mentioned entities as potential investment opportunities. More specifically, the private sector and state companies intend to provide equity investment to selected enterprises (start-ups and SMEs) supported by the GCIP Moldova, while these companies also reserve the right to first thoroughly analyze the investment opportunities and to take final investment decisions in line with their respective rules, regulations, and preferences. Prior to and during the discussions

in the PPG phase it was confirmed that enterprises offering cleantech solutions in the following areas are of particular interest to the private sector and state companies: district heating system (with focus on reduction of fuel consumption, increased use of renewables, horizontal heat distribution system in the interior of buildings, domestic hot water supply services), modernization of electricity distribution network, energy efficiency, renewable energy production (incl. e.g. bifacial photovoltaic panels), energy storage (incl. e.g. lithium battery system), energy production data collection, cleantech solutions for efficient and eco-friendly vehicles. With regard to the government co-financing, the MEI confirmed its interest to provide grants to selected cleantech enterprises offering solutions required for the construction of a demonstrative 2.8MW solar PV park in the Criuleni district. [There will be a need to revisit the co-financing commitment by the MEI, as it was initially foreseen to be provided by June 2021].

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNIDO	GET	Moldova	Climate Change	CC STAR Allocation	855,000	76,950
Total Grant Resources(\$)					855,000.00	76,950.00

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required

PPG Amount (\$)

50,000

PPG Agency Fee (\$)

4,500

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)
UNIDO	GET	Moldova	Climate Change	CC STAR Allocation	50,000	4,500
Total Project Costs(\$)					50,000.00	4,500.00

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	63000	0	0
Expected metric tons of CO ₂ e (indirect)	0	315000	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
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Expected metric tons of CO ₂ e (direct)		63,000		
Expected metric tons of CO ₂ e (indirect)		315,000		
Anticipated start year of accounting		2021		
Duration of accounting		10		

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
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Target Energy Saved (MJ)				
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Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female		65		
Male		120		
Total	0	185	0	0

Part II. Project Justification

1a. Project Description

(2)(Changes between the original PFD (and related child project concepts) and the CEO Approval Request

1. From the substantive point of view, the project design proposed in this CEO Approval Request is fully consistent with that presented in the original PFD and related child project concepts (approved by the GEF CEO in December 2019). However, as deemed appropriate and based on additional consultations with relevant stakeholders in the PPG phase: 1) terminologies and wording used in the Project Description Summary (Table B) and accordingly in the Project Description were amended in order to better align this child project to the GEF-UNIDO Global Cleantech Innovation Programme (GCIP) Framework (GEF ID 10408) (hereinafter referred to as GCIP Framework) and to be more gender responsive; 2) selected outputs were merged or split, in particular: a) child project concept Outputs 2.1.2, 2.1.3 and 2.1.4 were merged into CEO Approval Request Outputs 2.1.2 and 2.1.3 to improve the logical structure of the intervention, b) the impact monitoring activities (child project concept Output 3.1.1) were reassigned to be covered by Outcome 3.2, and the child project concept Output 3.1.2 was split into CEO Approval Request Outputs 3.1.1, 3.1.2, and 3.1.3 to improve the logical structure of the intervention, c) child project concept Output 3.2.1 was split into CEO Approval Request Outputs 3.2.1, 3.2.2, 3.2.3 to distinguish between monitoring of the GCIP Moldova implementation progress and its impacts; 3) the budget allocation was moderately adjusted, the amount of co-financing was increased, and the attribution of co-financing was revised. An overview of the main changes is further detailed in the two tables below.

original PFD and related child project concept version	CEO Approval Request version
1 Acceleration, commercialization and investment facilitation for selected cleantech innovations and businesses	1 Transforming early-stage innovative cleantech solutions into scalable enterprises
1.1 National Platform established to conduct Annual Cleantech Accelerator to identify and accelerate promising cleantech innovations	1.1 Early-stage cleantech innovations are accelerated
1.1.1 National Platform to run annual cleantech accelerator competition established	1.1.1 The GCIP guidebooks are adapted for the GCIP Moldova
1.1.2 Promising cleantech innovations are identified through annual cleantech accelerator and supported by National platform	1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Moldova Accelerator
1.1.3 National pool of mentors and judges identified, trained and certified	1.1.3 Three cycles of the annual competition-based GCIP Moldova Accelerator are conducted
1.2 Start-ups and SMEs are supported through advanced business growth and investment facilitation services	1.2 Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services

CLEANTECH INNOVATION ECOSYSTEM	CLEANTECH BUSINESS GROWTH AND INVESTMENT FACILITATION SERVICES
<p>1.2.1 Advanced technical, business advisory and commercialization support for selected SMEs provided for large scale deployment of clean technology solutions</p> <p>1.2.2 Corporate and Public Private Partnership Forums held</p> <p>1.2.3 Investment facilitation and support for selected start-ups and SMEs</p> <p>1.2.4 Innovative financing mechanism to help SMEs leverage funding established</p>	<p>1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization</p> <p>1.2.2 Enterprises (up to 10) are connected to financing opportunities and provided with tipping-point investment facilitation support</p> <p>1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion</p> <p>1.2.4 Investment (up to 4 mln USD) is mobilized to deploy innovative cleantech solutions across various sectors (leading to wide socio-economic and environmental impacts, e.g. up to 45 enterprises with economic gains, up to 50 additional jobs created or retained, up to 10 enterprises with an increase in exports, up to 15 enterprises with increased inclusion in value chains, at least 63,000 CO₂e emissions reduced directly, 15 new technologies adopted)</p>
<p>2 Policy and institutional framework strengthened to foster national cleantech innovation ecosystem</p>	<p>2 Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity</p>
<p>2.1 Policy and institutional framework strengthened to promote and support clean energy technology innovations and entrepreneurship</p>	<p>2.1 The CIEE in Moldova is strengthened and interconnected</p>
<p>2.1.1 Capacity of national institutions and industrial associations to host and support the Cleantech programme built</p> <p>2.1.2 Stakeholder meetings held with EU countries to promote exchange and cooperation and to foster partnerships with other start-up programs, leading institutions, agencies and universities</p> <p>2.1.3 Policy and regulations to promote clean technology innovations in SMEs developed</p> <p>2.1.4 Roadmap for the creation and maintaining of an innovation ecosystem in Moldova prepared</p>	<p>2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)</p> <p>2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed</p> <p>2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted</p>
<p>3 Project coordination, monitoring and coherence</p>	<p>3 Programme coordination and coherence</p>
<p>3.1 Project coordination, coherence strengthened</p>	<p>3.1 Efficiency and sustainability of the GCIP Moldova is ensured through programme coordination and coherence with other GCIP country projects</p>
<p>3.1.1 National impact monitoring established and linked to Global GCIP</p> <p>3.1.2 GCIP community and network maintained, extensive advocacy and out</p>	<p>3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Moldova</p>

reach activities organized and linkages to global forums established	3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Moldova 3.1.3 The GCIP Moldova web platform is operated to maintain the GCIP community
3.2 Project monitoring and evaluation system established	3.2 Impacts and progress of the GCIP Moldova are tracked and reported
3.2.1 Regular monitoring and evaluation of project activities	3.2.1 The GCIP methodology for impact assessment is adapted and applied 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted 3.2.3 External terminal evaluation is conducted

Table 1: Comparison of the Project Description Summary (Table B) between the original PFD (and related child project concept) and the CEO Approval Request version.

original PFD and related child project concept version	CEO Approval Request version
Component 1 budget GEF Project Financing: USD 501,680 Co-financing: €USD 7,078,642	Component 1 budget GEF Project Financing: USD 588,000 Co-financing: USD 7,550,000
Component 2 budget GEF Project Financing: USD 192,860 Co-financing: €USD 361,740	Component 2 budget GEF Project Financing: USD 102,540 Co-financing: USD 1,000,000
Component 3 budget GEF Project Financing: USD 82,733 Co-financing: €USD 127,800	Component 3 budget GEF Project Financing: USD 86,733 Co-financing: USD 800,000
Project management budget GEF Project Financing: USD 77,727 Co-financing: USD 756,818	Project management budget GEF Project Financing: USD 77,727 Co-financing: USD 280,000
Total GEF Project Financing: USD 855,000 Total Co-financing: USD 8,325,000	Total GEF Project Financing: USD 855,000 Total Co-financing: USD 9,630,000

Table 2: Comparison of the budget allocation to project components between the original PFD (and related child project concept) and the CEO Approval Request version.

a) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed

2. The Republic Moldova (hereinafter simply referred to as Moldova) is a landlocked country located in Eastern Europe between Romania and Ukraine, with the area of 33,850 km² and a population of 2,640,438 people in 2020 (51.93% women and 48.07% men), out of whom 56.88% lives in rural areas and 43.22% in the urban areas. Once part of the Soviet Union, Moldova experienced a steep economic decline following independence in 1991. Despite recent and steady recovery, its poverty rate remains high at 36.3%.

3. Moldova is highly vulnerable to climate variability and change which has brought droughts, late spring frosts, hail, floods and severe storms. Increasingly erratic weather patterns have resulted in loss of life and income through rising food and energy prices. The most recent 2018 report by the Intergovernmental Panel on Climate Change (IPCC) notes that, if current trends continue, the global warming will lead to a temperature increase of pass 1.5 °C above pre-industrial levels between 2030 and 2052. The global impact of this is enormous and Moldova already has experienced the adverse consequences of climate change, including an increased number of extreme weather events, such as droughts and floods.

4. The hydrographic net of the of Moldova is represented by over 3200 rivers, 90% of which are less than 10 km long and only 9 have over 100 km. The largest rivers Dniester - 1345 km and Prut - 967, spring from the Carpathian Mountains in Ukraine and for Moldova are border rivers. Poor rainfall and droughts cause periods of low tide or even total drainage of most low flow watercourses.

5. The average annual air temperature varies from 8 to 10 °C across the country, however, the observations showed extreme values of 6.3 °C in the North (1980, MS Briceni) to 12.3 °C in the South (2007, MS Cahul). The maximum temperature is 42 °C and the minimum temperature reaches -35 °C. These extreme temperatures are, however, very rarely recorded, every 45-50 years. The average annual wind speed varies between 2.5-4.5 m/s. The probability of winds at speeds above 10 m/s is 6-10%. Warm periods take about 190 days. During the last 127 years, the climate in Moldova has become warmer and more arid, with an average annual temperature increase of more than 1.0 °C and rainfall of only 54.7 mm.

6. According to the long-term climate scenario, Moldova is likely to be affected by the following types of climate impacts: temperature increases, changes in precipitation regimes and increased climate aridity, increased frequency of extreme weather events such as heatwaves, frost, floods, storms with heavy rains and hail, and severe droughts. The analysis of the national climatic data revealed that the drought frequency in Moldova over a period of 10 years is about 1-2 droughts in the northern part of the country; 2-3 droughts in the central part and 5-6 droughts in the south. Between 1990 and 2015, 12 years (1990, 1992, 1994, 1996, 1999, 2000, 2001, 2003, 2007, 2011, 2012, 2015) with droughts of varying intensity were recorded on the territory of the country. In 1990, 1992 and 2003, droughts continued throughout the growing season (April to September). The most severe and disastrous droughts during the recorded period were in 2007 and 2012, affecting more than 70% of the country's territory.

7. The negative impacts of climate change present challenges for people's health and country's economic growth, directly and indirectly affecting the sectors based predominantly on renewable natural resources (e.g. agriculture, water, and forestry) and other sectors, such as energy, transport, and industry, with adverse consequences for poverty reduction efforts in the country. The increase in the average annual temperature has a negative impact on agricultural production, which plays an important role in the country's economy. The increased temperature is a significant factor that affects the performance and lifespan of asphalt flooring, which in turn affects the transport sector of the country. Large portions of the even newly renovated roads were deformed due to the climatic hazards. According to the World Bank report titled "Reducing the Vulnerability of Moldova's Agricultural Systems to Climate Change", Moldova is

one of the most vulnerable countries in Europe to climate change. According to the Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index, which illustrates countries' vulnerability to climate change and other global challenges in combination with their readiness to improve resilience, Moldova is the 84th least vulnerable country and the 96th least ready country.

8. According to Moldova's Intended Nationally Determined Contribution (INDC) and the third National Communication to the UNFCCC from 2013, the energy sector accounts for 65% of GHG emissions in the country, followed by the agriculture (17%), the waste sector (12%), and the industry sector (5%). The total GHG emissions have dropped from 40 mln CO₂e in 1990 to 9 mln tCO₂e in 2016. However, according to the Emissions Database for Global Atmospheric Research (EDGAR), the CO₂ emissions from fossil fuel combustion in Moldova increased from 6,79 mln ton in 2000 to 8,62 mln ton in 2018, which is due to the growing energy demand.

9. The INDC set an economy-wide unconditional target of reducing GHG emissions by 64-67% below the 1990 level by 2030. Additionally, the country expressed a commitment to reduce emissions by up to 78% below the 1990 level, under the condition that there is a global agreement and effort to address key challenges, including the provision of low-cost financial resources, technology transfer, and technical cooperation.

10. The constant increase in the energy consumption in Moldova is caused by several major factors. First of all, it is due to the old and obsolete equipment installed and utilized in the main sectors and industries, which leads to excessive energy losses (electrical and thermal) throughout the energy transmission and distribution. Also, the increasing energy demand is driven by the residential sector which the largest energy consumer in the country. What is more, the low energy performance of old buildings has not only a negative environmental but also social impact, especially affecting the vulnerable groups. On average, the share of heating costs is from 15% to 50% of the total expenditure of a household. The socio-economic costs of climate change related to natural disasters are significant and both their intensity and frequency are expected to increase further. According to the World Resources Institute, Moldova's GHG emissions are primarily associated with activities in the energy sector (74.6%), including electricity and heat generation and transportation. Moldova's First Biennial Update Report (BUR) to the United Nations Framework Convention on Climate Change (UNFCCC), submitted in 2016, includes a GHG inventory for the period 1990 to 2013, which shows the energy sector as the greatest source of emissions (65.5%), followed by agriculture (16.6%) and waste (12.2%).

11. Moldova currently imports most of its energy supplies, mainly natural gas from Russia, Ukraine and Romania. Not only has this made Moldova vulnerable in terms of energy security, but it has also resulted in increasing domestic energy prices and national debt. In 2017, Moldova's exports amounted to a value of USD 2,96 bln and imports - USD 5,07 bln, resulting in a negative trade balance of USD 2,11 bln. Due to high gas and electricity costs, forests, which cover 11% of the land in Moldova, provide the majority of fuelwood for heating and hot water in rural communities. According to International Energy Agency (IEA), the Moldovan residential energy mix consists of 51% solid biofuels, of which 90% is used for heating. From 2015 to 2016, households in Moldova spent more than EUR 100 mln solely on solid biofuels, demonstrating a strong dependency on natural resources for energy consumption. Electricity is generated from a few combined heat and power (CHP) plants and its interconnections with Ukraine are used to ensure the necessary system reserves and balancing energy. Due to the lack of synchronization, power can only be exchanged with Romania in "island mode". The issue is compounded by the fact that, on the supply side, the energy infrastructure relies on aging inefficient technology, equipment and networks which result in high losses, whilst on the demand side there is limited energy efficiency.

12. Moldova is one of the most energy-intensive economies in the region with energy consumption double the EU average, as well as with limited uptake of renewables and poor energy efficiency. The residential sector accounts for about 50% of the final energy consumption, and the relatively small industrial sector for around 9%. Consequently, the supply of reliable and affordable electricity, and heat, is a key concern for businesses and citizens, and negatively

affects investment decisions and economic growth.

13. The Moldovan Energy Strategy (ES) envisages the diversification of energy supply sources and increased inclusion of renewables in the energy mix. What is more, the National Program on Energy Efficiency (NPEE) 2011-2020 stipulates targets of improving the energy efficiency by 20% by 2020 and of increasing the share of renewables in the total energy mix by 20% by 2020. In 2016, 26.8% of household heating and cooling was generated through renewable energy, largely biomass, whereas only 2% of the country's electricity consumption was covered by renewable energy sources. A decade-long effort to develop a solid biofuel sector led to a successful programme of replacing coal- and gas-fired boilers, as well as basic stoves, with biomass heating units which burn straw, pellets, briquettes, and firewood. Biomass now accounts for more than 45% of heating demand. This has contributed to a reduction of energy imports from 80% in 2010 to 75% in 2016. However, the accelerated deployment of bioenergy resources creates conflict related to land use, water resources, and biodiversity conservation. To address the increase in energy prices and to enable the achievement of GHG emission reduction targets, a broader implementation of renewable energy as well as energy saving technologies is required.

14. Existing government efforts are oriented towards strengthening the newly-created solid biofuel production industry (briquettes and pellets), which has already created about 400 new jobs in rural areas and had an estimated turnover of USD 8 mln in 2017. Other renewables include 27 MW of wind, 4 MW of solar PV and 16 MW hydro installed capacity. Of the 67 GWh of renewable electricity generated in 2019, about 55% was from wind and 43% from biogas.

15. Several reforms carried out in recent years have positively impacted the economy, including the energy sector. These reforms have contributed to a process of gradual integration with European Union (EU) structures, with this process remaining a priority for the country. Despite the economy growing annually by an average 4% (between 2011 and 2017), Moldova remains one of the poorest countries in Europe with a GDP per capita of USD 3,227 (2018). Due to a decrease in industrial and agricultural output following the dissolution of the Soviet Union, the service sector now dominates Moldova's economy and is responsible for over 70% of the nation's GDP. Agricultural output now represents about 12% of GDP with seeds, fruit, vegetables, wine, wheat, and tobacco as the main products. Despite a declining proportion of GDP, agriculture is still dominant in the economy employing nearly a third of the working population and accounting for about 50% of exports. The sector is particularly important in rural areas, but it is also at serious risk related to climate change impacts.

16. Within the sector of agriculture, which after the energy sector is the second most heavily emitting sector, there are three main sources of GHG (mainly CO₂, CH₄, and N₂O), namely enteric fermentation, manure management and agricultural soils. While the agriculture sector has been in a recession since the 1990s, it is assumed that the constant increase in purchasing power in Moldova will lead to a higher meat consumption, which will further trigger an increase in GHG emissions mainly from enteric fermentation. There are several laws and strategies in place in Moldova to mitigate GHG emissions from animal breeding, such as Law on Veterinary Activity (1993), Law on Selection and Reproduction in Animal Breeding (1995), Law on Animal Breeding (1999), Law on Foodstuffs (2004), National Strategy for Sustainable Development of Agro-Industrial Complex of Moldova for 2008-2015. However, further efforts are needed to achieve GHG emission reductions in the agricultural sector, so that the targets set in the INDC are achieved.

17. The emissions from the waste sector have undergone an extensive growth since the 1990s, representing 2% in 1990 and 12% in 2013 of the total GHG emissions. Next to the increase in consumption and related waste generation, the waste sector's inability to decrease GHG emissions is rooted in the lack of appropriate regulatory frameworks, as well as lack of an infrastructure for planning, organizing, and implementing an integrated management system for waste and waste water, and finally lack of sufficient funding. All this stimulates the creation of unauthorized landfills and illegal dumps.

18. The industry sector is responsible for about 14% of GDP with the key sectors being sugar processing, vegetable oil production, food processing, agricultural machinery, electrical equipment, furniture, hosiery, shoes, and textiles. Moldova's industry is characterized by low productivity and competitiveness, with economic growth and export potential limited by a lack of skilled workforce, lack of investment, lack of innovation, lack of integration along value chains and insufficient business linkages.
19. Moldova's economy depends on significant annual remittances (more than 20% of GDP) from the roughly one million Moldovans working abroad. Emigration is particularly pronounced among young people due to lack of opportunities. This is not sustainable in the long run and so there is a need for a more balanced economic model. High levels of youth unemployment and increasing informal employment are also risk factors which might hamper Moldova's economic growth and prosperity. Access to improved education and creating opportunities for productive employment, particularly in rural areas, is a government priority and has the potential to reverse the current brain drain.
20. In its 2030 Strategy, the Government of Moldova sets the direction for a transition towards a green economy in order to achieve sustainable development goals (SDGs) and contribute to climate change mitigation and adaptation targets. As part of its strategy, ten national sustainable development objectives have been established for 2030, including for example guaranteeing quality education, ensuring effective governance, increasing people's access to infrastructure, and improving working conditions. Measures undertaken in the energy sector include the creation of regional energy centers in order to raise energy autonomy at the local level. This occurs through the integration of renewable energy in the energy supply and through the integration of energy efficiency measures in energy demand with the development of financing instruments and by stimulating interest in the production and consumption of "green" energy. Likewise, the shift towards resource efficient technologies for agricultural production and processing is considered as an important contribution towards a green economy approach. Given the current status of Moldova's economy, including its industrial and domestic resource intensity, its vulnerability to climate change, and energy security, the introduction of innovative technologies to mitigate and adapt to climate change whilst minimizing energy imports and creating jobs will play a vital role in the coming years as the country continues on its path focusing on exports, investment and innovation. Companies that can generate clean energy, provide resource efficient technologies or streamline the growth of an environmentally friendly energy market, will play a crucial role in enabling Moldova's transition to a green economy.
21. SMEs and start-ups are the key engines of growth in the cleantech sector in emerging and developing economies. Their understanding of the local needs and most pressing environmental issues places locally grown SMEs and start-ups in a unique position to supply cleantech products and services that meet the actual demand. The increased promotion and adoption of cleantech innovations is expected to further strengthen the resilience of the Moldovan economy to climate change, while also having economic and social benefits.
22. SMEs create a considerable number of jobs and are essential for the overall development of the economy. In 2019, the number of SMEs in Moldova was 55,9 thousand and represented 98.6% of the total number of enterprises. The number of people who worked in SMEs accounted for 61.6% of the total number of people employed in enterprises in 2019. The sales revenues of SMEs in 2019 amounted to MDL 157,335.6 mln or 39.5% of total sales revenues per economy.
23. There are currently about 53,600 registered SMEs in Moldova that are active across different sectors of the economy. SMEs show great potential in developing innovative cleantech products and services which can deliver the much-needed solutions to support Moldova's green economy transition, contribute to a significant reduction in GHG emissions, provide multiple environmental and socio-economic benefits, and provide cost savings in the economy, therefore increasing economic competitiveness. In line with this, one of the key conclusions of a United Nations Development Programme (UNDP) project that

supported SMEs in Moldova between 2014-2017 was that local SMEs have important potential to innovate in terms of designing and delivering new products or services or substantially modernizing the internal business processes. However, it also concluded that unleashing such potential requires a consistent effort in providing not just training, but also finance and mentorship, as well as further development of the infrastructure needed for innovation.

24. Moldova's Small and Medium Enterprise Sector Development Strategy (SMESD) also emphasizes the special importance of SMEs for the economic development of Moldova. The Strategy stresses that competitiveness of the SMEs sector is substantially determined by the level of innovativeness of their activities. Although supportive policies are in place, their implementation does not have the desired impact on SMEs, according to the Strategy. This is due to poor interaction between public authorities responsible for the innovation policy and the private sector and universities. The growth of the SME sector is restricted by limited technical and financial capacity, low levels of innovation and absorption of R&D and lacking access to markets. The Moldovan government has increased its efforts to simplify legislation and administration to help local SMEs to prosper, however the SMEs still find it hard to access finance and enter new markets. In 2015, the EU launched the EU4Business initiative under which the European Investment Bank (EIB) lent the national banks EUR 120 mln to increase the competitiveness of national SMEs and actively promote EU market access. Another USD 130 mln was provided by the European Bank for Reconstruction and Development (EBRD) to support the private sector and develop infrastructure. Although significant funding has been made available to boost Moldova's economy, starting a business remains difficult and early stage start-ups with proof-of-concept technologies face challenges to access these sources of finance due to restricted capacity and lack of maturity in generating the required revenues and profits.

25. According to the OECD Small Business Act (SBA) country profile, progress has been made since 2012 to provide support to raise SME competitiveness. Despite these efforts, public support for SMEs remains limited. Also, access to banking and non-banking finance is still limited and business support services have declined. Although the government has formulated an Innovation Strategy (IS) for 2013-2020, with a vision that 25% of GDP will be generated from innovation activities by 2020, the innovation ecosystem remains weak. According to the OECD, only 11% of small enterprises and 15% of medium-sized enterprises introduced one new or significant improved good to the market between 2012 and 2016. Average SME investment in R&D remains low (at 2% of SME annual turnover). OECD's analysis of the strengths and weaknesses of the SME policy environment are shown in Figure 1 below. In particular, it is to be noted that the links between universities, research institutes, the private sector and SMEs remain underdeveloped. The key obstacles for SMEs to engage in green practices include high costs and poor access to finance, as well as bureaucratic barriers and obsolete technical requirements. Although public expenditure on R&D is relatively high in Moldova in a regional comparison, access by the private sector to R&D funding is very limited. A further obstacle is the lack of policy co-ordination, which jeopardizes the effectiveness of available support services. Although training programmes have been developed, there is a lack of differentiation in training offered to the various segments of the SME sector (such as start-ups and high growth SMEs). The OECD country profile highlights the need for a systematic promotion of entrepreneurial learning and good practices, as well as for the introduction of key competence approaches. Promotion of women's entrepreneurship is also recommended.

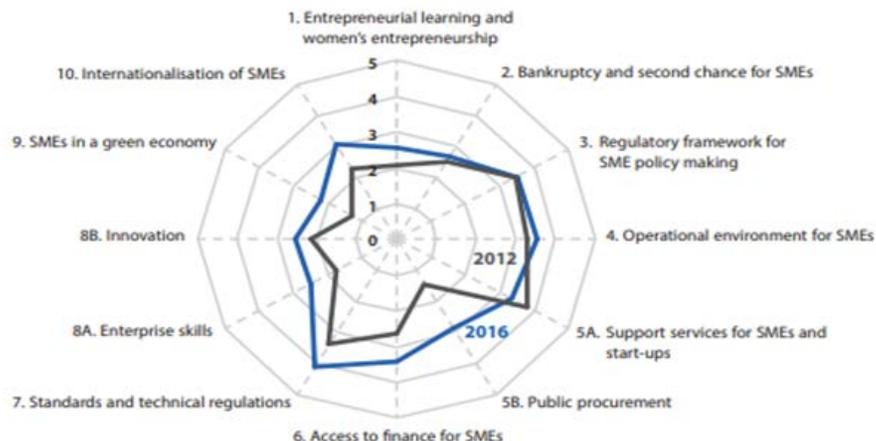


Figure 1: Strengths and Weaknesses in Moldova’s Small Business Policy Design and Implementation in 2012 and 2016: OECD’s Small Business Act country profile scores for Moldova.

26. As a result of the implementation of numerous strategies and action plans to foster investment, innovation and to support SMEs, Moldova has risen from 83rd (of 185) in 2013 to 48th (of 190) in 2020 in the World Bank’s Doing Business rankings. What is more, Moldova ranks 13th (of 190) for the "ease of starting a business" which is one of the indicators of the Doing Business rankings. However, as highlighted above, there is still a clear need to foster a beneficial environment for entrepreneurship through the development of incentives to promote and strengthen cooperation between the public sector, higher educational institutions and private sector.

27. Although Moldova's cleantech innovation and entrepreneurship ecosystem (CIEE) is gradually improving, it is still in an urgent need of support. The following barriers, which have been identified through consultation with government, entrepreneurs, business, academic and civil organizations in Moldova, are indicative of a weak CIEE and represent key limitations to the development, introduction and adoption of innovative cleantech, as well as the development and growth of SMEs.

Barriers faced by cleantech enterprises in developing and scaling-up innovative solutions	
Lack of capacity	The cleantech enterprises face following capacity shortages: lack of key skills and know-how on how to transform a cleantech innovation into a viable enterprise, which leads to high rates of failure for early-stage cleantech enterprises; lack of capacity to develop robust business models, which leads to high risk of failure of established businesses; lack of awareness of new developments and trends related to cleantech innovations (including their manufacturing and distribution - both locally and globally); limited access to international expertise and limited knowledge of markets and potential partners outside the country.
Limited access to finance	Limited access to finance was identified by all stakeholders as a crucial impediment to the growth of cleantech enterprises. For example, there is almost no venture capital and only a few

<p>... to finance</p>	<p>... of cleantech enterprises. For example, there is almost no venture capital and only a few angel investors interested in sectors other than IT. Although crowd funding platforms operate in Moldova, their offerings tend to be more related to agricultural products, fairs, health and creative activities rather than cleantech. Some innovative ideas from previous incubation and acceleration programmes have not taken off due to lack of investment. The limited access to financing, particularly private investment, can be attributed to a number of factors, including:</p> <ul style="list-style-type: none"> a mismatch between enterprise needs and offerings of financing institutions, and a lack of interaction between cleantech enterprises and potential investors; not easily accessible and expensive seed capital for innovative projects which are often associated with high risks; lack of patient capital and advanced business growth support tailored to the needs of early-stage businesses; limited information on financial schemes (including both national and international), and the requirements and procedures associated with them, available for cleantech enterprises, and limited government financial incentives to support uptake of cleantech innovations; limited knowledge of cleantech innovation and investment landscape amongst local investors and their low risk appetite.
<p>Barriers related to the CIEE</p>	
<p>Lack of institutional coordination mechanism</p>	<p>While there are a number of organizations supporting entrepreneurs in Moldova (e.g. Ministry of Economy and Infrastructure, Organization for Small and Medium Enterprise Sector Development, Global Entrepreneurship Network, Start-up Academy, Tekwill, Ecovisio, etc.), there is a lack of established coordination mechanisms between them, which limits the effectiveness of their interventions. In addition, the allocation of responsibilities between different stakeholders is not always straightforward. Therefore, there is a need to create a platform for the CIEE stakeholders to communicate and work with each other in a coordinated manner.</p> <p>In particular, there is an insufficient dialogue and co-operation between public universities/research institutes on the one hand and the private sector on the other hand, which results in a limited uptake of innovative solutions. Also, it is not clear how business/industry priorities and needs are linked to research focus of the universities/research institutes. Further, there is a disconnect between the R&D outputs, focus of technology transfer efforts, and the investor demand.</p>
<p>Suboptimal enabling policy and regulatory framework</p>	<p>The following barriers have been identified with regard to the policy and regulatory framework:</p> <ul style="list-style-type: none"> non-effective policies leading to a weak business environment: although it is relatively easy to start a business in Moldova, there are still several obstacles that limit the enterprise growth and hinder investments in innovative cleantech solutions; although policies are in place to promote competitiveness and market transformation, they have minimal impact on SMEs; the policy incentives for private sector R&D are underdeveloped; in addition, there is a lack of a regulatory framework for the provision of venture capital, which also hampers potential investment in innovation;

	<p>in innovation;</p> <p>lack of cleantech innovation platforms for SMEs: although some innovation infrastructure is established in Moldova, none of it is dedicated specifically to cleantech enterprises; further, it is not clear if the existing institutions have the capacity to support home-grown cleantech innovation;</p> <p>lack of social statistics or monitoring and evaluation frameworks regarding innovation, which makes it difficult to set specific baselines and targets, as well as to monitor progress towards an increased uptake of cleantech innovations in the country, and to decide on the implementation of corrective measures.</p>
Weak and disjointed CIEE	<p>The CIEE in the country is in its formative stages where there are still several discontinuities and asymmetries. For example, the finance sector is not actively involved in supporting early-stage cleantech innovations as they are considered high risk. Furthermore, while the role of cleantech innovations is recognized in general, they are not systematically integrated across key economic sectors. Although some support initiatives are emerging, the weak ecosystem does not allow a systematic transformation of cleantech innovations into enterprises that contribute towards industrial productivity gains and CO2 emission reductions.</p> <p>Moreover, the institutions mandated to promote technological innovation lack capacity and policy guidance. This is further exacerbated by the fact that the concept of innovation is differently understood by various actors, and it is often interpreted in a very narrow R&D sense, merely only in terms of patented technological improvements or scientific discoveries. This affects the directionality of funding flows and policy focus, and also results in the lack of private sector interest to promote home-grown innovations.</p>
Limited public awareness	<p>While there is no doubt that climate change is already affecting the country's economy and population, there is still limited public awareness regarding the fact that cleantech innovation presents not only an economic opportunity, but also helps to reduce GHG emissions. Awareness raising is crucial to enhance the understanding of the society at large of the benefits associated with the use of innovative cleantech products and services.</p>
Limited number of trained experts	<p>There is a shortage of trained experts that could provide mentoring and coaching to cleantech entrepreneurs, including guidance on technology options, best practices, and benchmarks.</p>

Table 3: Barriers to the adoption and large-scale deployment of SME-led cleantech innovation.

28. Ultimately, the above-mentioned barriers constrain innovators to transform their cleantech ideas into viable enterprises that can attract investment at local and global levels, which in turn would allow them to scale and to deliver transformational economic, social and environmental impacts. Therefore, this project will contribute, through continual engagements with the national government, universities, the private sector and other relevant stakeholders, to mitigating the above-mentioned barriers in a holistic manner. Among others, the project will lead to the creation of a platform linking cleantech Moldovan entrepreneurs with investors and commercial partners, potentially resulting in the commercialization of innovative cleantech products and services, as well as

leading to job creation and ultimately supporting Moldova's economic growth. Furthermore, market opportunities will be extended to span across borders, Moldova's CIEE will be connected to other countries, and partnerships will be forged internationally among innovators, entrepreneurs, financiers, and policy makers.

b) the baseline scenario and any associated baseline projects

29. In general, in terms of energy and environment policy priorities, the government aims to facilitate the uptake of renewable energy and to stimulate energy efficiency gains, mainly in the residential, industrial, transport, and agricultural sectors. The modernization of the energy infrastructure and the promotion of energy efficient technologies count among the country strategic priorities. The success in modernization of the energy infrastructure will heavily depend on the government's ability to attract investments. Currently, there is a need to develop a financing mechanism for energy projects, including modalities of involvement of public and private investors.

30. The development of energy policies is undertaken by the Ministry of Economy and Infrastructure (MEI), whilst the Energy Efficiency Agency (EEA), an institution supervised by MEI, is responsible for their implementation. In addition, the EEA also implements energy efficiency and renewable energy grant funded projects (Moldovan and international). The Ministry of Agriculture, Regional Development and Environment (MARDE) is in turn mandated to develop and promote state policies and strategies in the area of agro-industry, regional development, environmental protection, and climate change.

31. The government adopted several laws and action plans on energy and environment (some of which are related to the EU policy and legislative processes), the summary of which is provided below:

- a) Government Decision no. 698 of 27.12.2019 on the approval of the National Energy Efficiency Action Plan (NEEAP) 2019-2021 which guides the achievement of national objectives set for energy efficiency, renewable energy, and climate change.
- b) Law no. 139 of 19.07.2018 which transposes the Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, with the objective to create a national legal framework for promoting energy efficiency. The related energy efficiency policy measures apply to the whole value chain, including primary resources, production, transport, distribution, storage, supply, and final energy consumption. The law regulates activities to streamline the production and use of energy, increase the country's energy security, and reduce the negative impact of energy sectors on the environment by reducing greenhouse gas emissions.
- c) Law no. 10 of 26.02.2016 on promoting the use of energy from renewable sources constitutes a major legal framework for the promotion and use of energy from renewable sources, and sets national targets for the use of renewable energy, in line with the Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources. The law also establishes rules regarding support schemes, guarantees of origin, administrative procedures, access of the renewable energy producers to grids, etc.
- d) Government Decision No. 1470 of 30.12.2016 on the approval of the Low Emission Development Strategy (LEDS) 2030 and the action plan for its implementation. The LEDS sets the country's long-term climate change mitigation objectives. As such, the LEDS strengthens the GHG emission reduction efforts stipulated in other national legal acts, such as the National Development Strategy (NDS) 2030 and the Energy Strategy (ES) 2030. According to the

LEDS, Moldova is committed to reach the unconditional 64-67% of GHG emissions reduction by 2030 compared to the reference year level (1990). The commitment could rise to conditional 78% if low-cost financial resources, technology transfer and multilateral technical cooperation opportunities are provided, access to which is crucial to deal with the global climate change challenges.

e) Government Decision No. 301 of 24.04.2014 on the approval of the Environmental Strategy for the years 2014-2023 and of the action plan for its implementation, with the view to guaranteeing an unpolluted and healthy sustainable environment, in harmony with economic development and social well-being. A general objective of the strategy is to create an efficient environmental management system. More specific objectives include: 1) ensuring conditions for good governance and effectiveness of institutional and managerial potential in the field of environmental protection to achieve environmental objectives, 2) integration of environmental protection, sustainable development, and green economy principles into all sectors of the national economy, 3) raising the level of environmental protection knowledge among pupils, students, and employees and ensuring access to environmental information, 4) reducing the negative impact of economic activity on the environment and improving measures of environmental pollution prevention.

f) Government Decision no. 1073 of 27.12.2013 on the approval of the National Renewable Energy Action Plan (NREAP) 2013-2020 which sets renewable energy targets, including the share of 17% of energy generated from renewable sources in gross final energy consumption.

g) Government Decision no. 102 of 05.02.2013 on the approval of the Energy Strategy (ES) 2030 which defines three general goals for 2013-2030, i.e. 1) achieving energy security, 2) creating competitive markets and ensuring their regional and European integration, and 3) mainstreaming environmental sustainability and climate change mitigation efforts; as well as specific policy objectives for 2013 to 2020 and 2021 to 2030, including implementation measures. The ES also sets a target of 20% for the share of renewable energy sources in energy consumption, with the sectoral targets of 10% for electricity, 10% for transport, and 27% for heating and cooling (some of them represent obligations resulting from the membership in the Energy Community).

32. The National SME Agency (ODIMM) implements SME-related policy, runs a help desk, and offers a number of nationally and internationally funded support schemes for SMEs to improve their competitiveness, including provision of entrepreneurial training (e.g. GEA and PARE1+1), guarantees for loans for SMEs (in case they do not have sufficient collateral), and business consultancy. The ODIMM administers programmes for both male and women entrepreneurs. Currently, these programmes benefit at least 30% women, which is commensurate with the existing representation of women entrepreneurs in the overall economy (27,8% according to ODIMM). To date, ODIMM has administered programmes that have benefitted 100,000 Moldovan business owners, and the achievements so far include: 54,000 business consultations conducted; 24,000 participants in entrepreneurial training; and 2,800 grants, subsidies and financial guarantees provided.

33. The Small and Medium Enterprise Sector Development Strategy (SMESDS) 2012-2020, and an associated action plan for 2012-2020, serves as a major framework for long- and short-term policies aimed at the development of microenterprises and SMEs. Its main objective is to support the country's transition from an economic development model based on consumption towards a new paradigm focused on exports, investment and innovations, while taking into account economic trends and the future prospect of EU integration. Specific objectives include: improvement and development of technical and innovation potential of SMEs; assistance in the formation of SMEs clusters to increase competitiveness; development of business incubators; support in acquisition of intellectual property rights by SMEs; facilitation of access for SMEs to domestic and foreign markets; and implementation of management systems based on international and European standards. The SMESDS includes a section on greening of SMEs, and based on it, a dedicated programme on promoting green economy for the years 2018-2020, and an action plan for its implementation, was approved in 2018.

34. Moldova is ranked 48th in the Global Innovation Index. The innovation activities in Moldova are promoted and regulated by a number of state policies developed by the Ministry of Education, Culture and Research. They include: the Science and Innovation Code (SIC) 2004, the Law on Science and Technology Parks and Innovation Incubators 2007, the Innovation Strategy (IS) 2013–2020 and the National Program for Research and Innovation (NPRI) 2019-2022. The SIC covers a variety of issues, such as accreditation of research organizations, definition and protection of intellectual property rights, information policy on science and innovation, legal status of organizations in science and innovation, and information about the status of researchers. It also stipulates that 1% of GDP should be invested into R&D, but in practice this has remained much lower, at around 0,35%.
35. An evaluation of Moldova's national research and innovation system was carried out in 2015-2016 as part of the EU's Horizon 2020 Policy Support Facility. This review found that Moldova's R&D and innovation system is rather centralized, with the Academy of Sciences of Moldova (ASM), supervised by the Ministry of Education, being the main policy-making institution and the research and innovation funding agency. Nearly all public R&D and innovation funding programmes are managed by the ASM through its subordinated management bodies and agencies. Only research organizations accredited with the National Council for Accreditation and Attestation (CNAA) have access to governmental R&D funding. Private companies and NGOs are not accredited, and are therefore not eligible to receive funding through government R&D programmes. The review also confirmed that statistics on R&D expenses by the business sector are not available for Moldova, however estimates are not encouraging and integration of the enterprise sector into the national innovation system is difficult. The other key finding was that the R&D personnel numbers decreased drastically from 25,200 in 1990 to 5,038 in 2014. This strong decline was due to the very low financing of R&D over the last 25 years, which led to a brain drain abroad and internally to other sectors of the economy. A number of recommendations were made by the evaluators, some of which have been incorporated into subsequent legal acts and into the NPRI.
36. The National Program for Research and Innovation (NPRI) 2020-2023 aims to increase the effectiveness of national research and innovation systems and ensure the optimal conditions in order to generate new knowledge based on fundamental and applied research, and apply this knowledge to increase the competitiveness of the national economy and general welfare level. To achieve the stated goal and priorities, the NPRI sets the following general objectives: 1) improve governance and increase the efficiency of the research and innovation system, 2) competitive human potential involved in research and innovation, 3) infrastructure in line with international standards, 3) research and innovation for the social-economic needs, 4) coherent policy for European and international cooperation.
37. Smart Specialization, being one of the priorities of the NPRI, is a policy that promotes regional economic transformation through investment in innovative activities in specialization domains based on evidence and stakeholder participation. Improved innovation strategies as a result of the Smart Specialization approach have the potential to become the drivers of technology upgrading and broader innovations by providing a basis for developing unique competitive advantages for EU Enlargement and Neighbourhood countries. With support from the EU's Horizon 2020 programme, Smart Specialization started in Moldova with the mapping of the economic, scientific and innovation potential of the different regions of the country. Proxies were used where input data was not available. The results can be seen in Figure 2 which shows where there is a potential in different economic sectors in various regions. Accordingly, the agriculture and food processing have the greatest potential in rural areas, whilst ICT has promising outlooks in Chisinau. The renewable energy was identified in the North, South and in the Gaugizia region as a sector with comparative advantage.

Mapping of the economic, scientific and innovation potential in the Republic of Moldova



Figure 2: Mapping of the economic, scientific and innovation potential in Moldova.

38. The innovation policy gravitates towards targeting research institutes and universities rather than SMEs and start-ups, which can be partially explained by historically poor interaction of relevant public authorities with the private sector. Although there is an effort to address entrepreneurial needs through, for example, incubators, the support is still scattered, small in size, and not sufficiently tailored to cleantech start-ups and SMEs, as well as it lacks links to wider markets and finance. However, with the gradually improved national policy and regulatory frameworks, a CIEE is emerging in Moldova, bringing together several actors, such as government agencies, accelerators, incubators, research institutes, universities, private sector and social enterprises. Nevertheless, it is still disjointed and uncoordinated, as well as lacks a platform for dialogue.

39. An overview of the national innovation infrastructure and initiatives, on the success of which this project will build on, is provided below:

- a) The Moldovan Business Incubators Network (RIAM) includes 8 incubators and ODIMM as members. In total, 202 enterprises are active in RIAM, of which 104 are start-ups, 113 are managed by young people, and 98 are managed by women. In all, 918 jobs have been created, of which 439 for women and 385 for the youth.
- b) There have been scientific and technological parks (such as "Academica") and innovation incubators (such as "Innovator", "Politehnica", "Innocenter", "Inventica-USM", "Antreprenorul Inovativ", "Media Garage", "IT4BA") established in Moldova in 2009-2015. In addition, there is a number of clusters, including an educational-scientific cluster "UniverScience" (established in 2011); cross-border cluster (covering Romania, Moldova, and Ukraine) "Bio Danubius" which is

active in the promotion of organic agriculture; the "Biomass Energy Cluster" (established in 2017); the industrial-scientific cluster of the automotive industry; and several agrotourism clusters, such as the "Armonia Nordului" (Sorooca), "The Road of the Reefs" (Edinet), "VilaDor" (Singerei, Movilă Magura), and "Lunca Prutului de Jos" in southern Moldova (Cahul).

c) The Moldova Eco-Energetica is a competition which aims to support efficiency initiatives in the production, transmission, distribution, and consumption of energy, as well as undertakings related to the implementation, development, and promotion of modern technologies and innovations. It is run by the EEA in partnership with the MEI and national and international financing institutions, and culminates in the Moldova Eco-Energetica Week. Since 2012, 344 applicants have presented their projects. The applications are reviewed in three stages: 1) by Evaluation Panels, 2) during validation field visits and 3) by the Coordination Board which makes the final decisions.

d) Annually, there is a Fair of Ecological Opportunities and Social Entrepreneurship (IarmarEco) and a Social Entrepreneurship Educational program (activEco – sustainability in action) organized by the EcoVisio. Eco-Visio also runs Eco-village Moldova which serves as an experimental lab for cleantech in the field of eco-construction, energy efficiency and renewables.

e) The National Employment Agency (ANOFM) delivers training on entrepreneurship. There are also several hubs offering facilities such as workspace and access to experts for potential entrepreneurs, including for example Dreamup Innovation Campus. They however do not provide structured support and do not focus on cleantech.

40. In addition, synergies are going to be sought with several projects launched in Moldova with support of international organizations, as well as with relevant regional initiatives, as listed below:

a) The EIT Climate-KIC initiated the Climate Launchpad that is the world's largest green business ideas competition with a mission to unlock the world's cleantech potential and address the climate change. In Moldova, the Climate Launchpad is led by the EcoVisio and has so far included 23 Moldovan start-ups offering innovations in the field of solar energy and biomass.

b) The EIC Climate-KIC also conducts a Climate-KIC Accelerator which is an EU acceleration programme focused on cleantech commercialization. Every year, the Climate-KIC Accelerator supports over 150 start-ups in Europe through its three stage support programme that includes coaching, financial support, provision of access to resources and tools, and of linkages to extensive international network. Moldovan enterprises are eligible to apply as part of the EIT Regional Innovation Scheme (EIT RIS). However, few have applied and, to date, none have become finalists. Moreover, Climate-KIC offers an Investor Marketplace which is a platform connecting investors with climate change start-ups across Europe.

c) The Start-up Academy is a practical program dedicated to identifying, stimulating, and multiplying the innovative and business potential of young people in Moldova with a focus on the ICT sector. It is an initiative of the National Association of ICT Companies with the support of the United States Agency for International Development (USAID), the Government of Sweden, United Nations Entity for Equality Gender and Empowerment of Women (UN Women), and the European Fund for South East Europe Development Facility (EFSE DF). The Start-up Academy is run by Tekwill which is hosted by the Technical University of Moldova (UTM). Tekwill regularly gathers local and international tech leaders to empower the development of Moldova's start-up ecosystem by facilitating results-oriented innovation and collaboration. Tekwill provides: education and training, including curricula, lecturers and facilities; associated business development assistance; R&D support; as well as it organizes start-up competitions and manages an angel investor network.

- d) The United Nations Industrial Development Programme (UNDP) implements a “Green City Lab - Moldova Sustainable Green Cities” project (2018-2022) with the aim to support new and innovative solutions for modern and environmentally friendly urban development. With the budget of over USD 2,8 mln, the project focuses on urban mobility, waste management, energy efficiency, renewable energy sources, and sustainable urban planning.
- e) In 2014-2017, the MEI in partnership with UNDP implemented a project titled “Innovative business development for local sustainable economic growth” which focused on supporting SMEs’ capacity to innovate. The project delivered numerous training sessions and involved more than 450 Moldovan SMEs from various economic sectors. Innovation awards were granted through the Moldova Innovation Challenge Scheme (MICS) and a Business Innovation Lab started operation (however, it is no longer active). The sectors most active in generating innovative projects were ICT, energy, high-value added agriculture and some light industry.
- f) The „Junior Achievement Moldova” is an NGO delivering a USAID funded programme providing entrepreneurship training to pre-university youth.
- g) The Vienna Impact Hub Investment Ready programme is a unique 4-month program for entrepreneurs from Central and Eastern Europe creating scalable solutions to societal problems. A cohort of around 15 selected ventures systematically works on their business strategy and builds an attractive investment case. Participants work with experienced mentors, content experts, investors and powerful business tools and are given the opportunity to present their ideas to potential investors. Climate change and sustainable energy are part of the programme but not its focus. Moldovan ventures are applicable to apply but must be able to travel to Vienna.
- h) Finnish EnergySpin - Energy Solutions Business Accelerator - EnergySpin is a multi-corporate accelerator program, supporting start-ups to grow, connecting them to corporates and helping them to challenge the status quo of the industry. In its framework, help is provided in the revision of business models, preparation for meetings with corporates and investors, and market positioning. So far, a few Moldovan companies have applied for this accelerator.
- i) CEE Impact Day is an annual event where more than 250 impact investors, social entrepreneurs and executives from across Central and Eastern Europe meet to shape a more sustainable, inclusive world using social innovation.
41. UNIDO has a successful track record of its engagement in Moldova, which is evidenced by the following undertakings:
- a) Within EU4Environment, a project funded by the EU, UNIDO supports companies in implementing Resource Efficient and Cleaner Production (RECP) patterns and encourages eco-innovative solutions that will unlock opportunities for greener growth and more resilient economies. The main goal is to reduce the environmental footprint of existing industrial activities while stimulating new economic development opportunities, thereby ensuring a stable and resilient development on a national and regional level. In the framework of EU4Environment, UNIDO works with key industries in Moldova, as well as it provides training to locally selected experts who are then able to conduct in-depth analyses of the industry, as well as propose recommendations for resource efficiency (energy, water and materials) and cleaner production.
- b) UNIDO and the Government of Moldova have recently signed a Country Programming Framework (CPF) with an estimated budget of EUR 28,9 mln to contribute to the achievement of the inclusive and sustainable industrial development agenda of the country. Emphasis of the CPF is placed on the development and strengthening of value chains, export capacity building, competitiveness and innovations, entrepreneurship development, rural development

for overcoming rural-urban disparities, as well as on measures to support energy efficiency, the uptake of renewable energy and the promotion of sound environmental management.

c) the proposed alternative scenario with a brief description of expected outcomes and components of the project

42. The proposed alternative scenario will be the implementation of the Cleantech and Innovation Programme for SMEs in Moldova (GCIP Moldova) which forms a part of the GCIP Framework that aims to nurture cleantech entrepreneurs around the world. This project will help cleantech enterprises (SMEs and start-ups) in Moldova, particularly in the sustainable energy sector, to develop and scale up; and to increase market adoption of cleantech innovations, thus leading to a reduction in emissions and fossil fuel consumption. Furthermore, it will facilitate increased investment, job creation and market development.

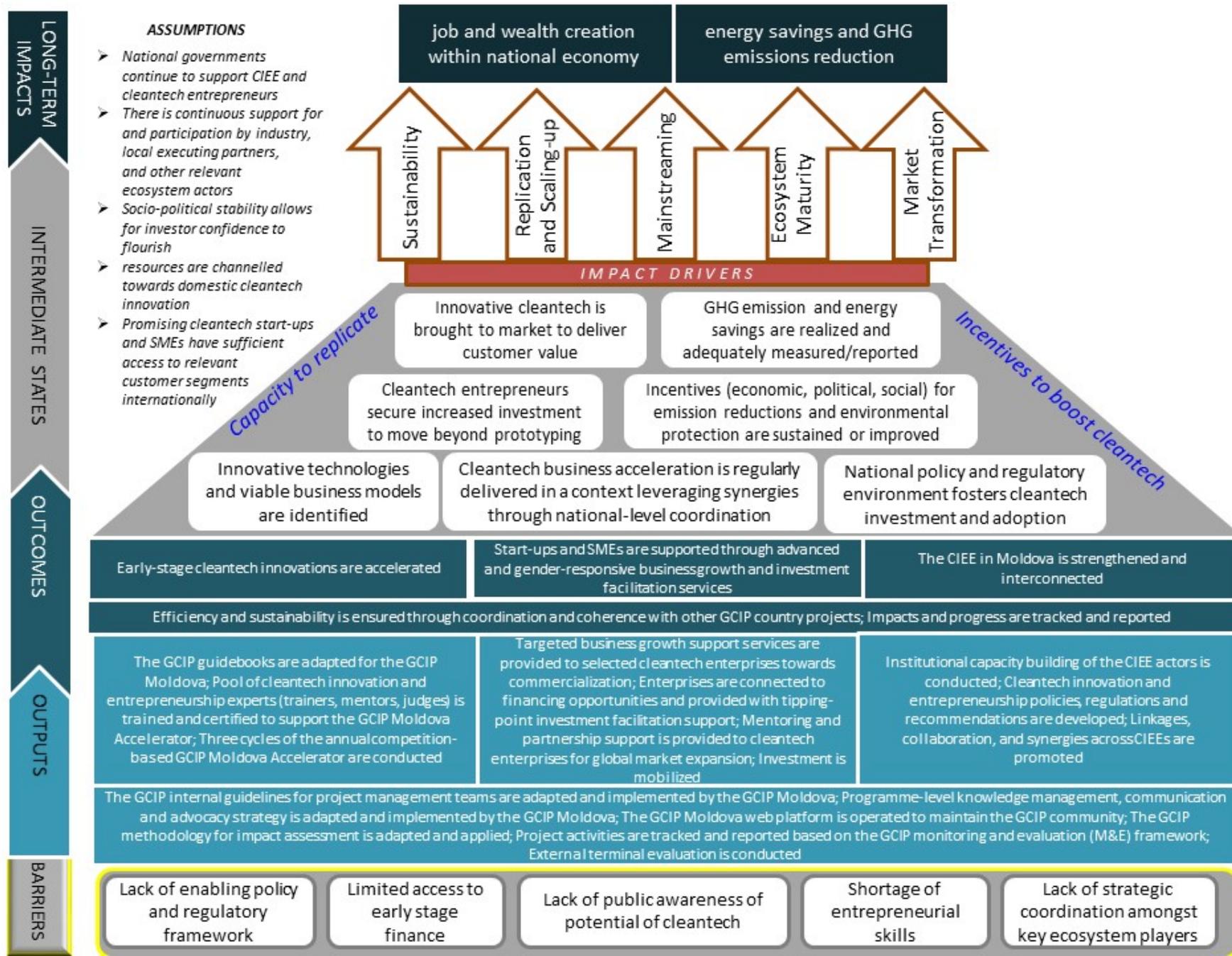
Project Approach

43. This project is developed as a child project of the GCIP Framework. As such, it will link the CIEE of Moldova to the global network of CIEEs in other GCIP partner countries, as well as it will receive support from the GCIP global coordination child project (GEF ID: 10461) (hereinafter referred to as GCIP Global). More specifically, the EEA, which has been selected as the national project executing entity (national PEE), will be supported by two global project executing entities (global PEEs), including Network for Global Innovation (NGIN) and Cleantech Group (CTG).

44. The project has three components, in line with the GCIP Framework, which have been designed based on the current needs of developing countries and GCIP partner countries including Moldova, as well as recommendations from the GEF's independent evaluation of GCIP conducted in 2018, and with feedback from the previous nine GCIP country projects implemented between 2013 and 2019. In particular, the project will 1) transform early-stage innovative cleantech solutions into scalable enterprises; 2) strengthen the capacities of CIEE stakeholders and connect them; and 3) engage with the GCIP Global to ensure programme coordination and coherence. The project's Theory of Change is pictured and described in the Figure 3.

45. The project will adopt an inter-disciplinary holistic approach involving start-ups, SMEs, national ministries and institutions, academia and research centres, business associations, financing institutions, foundations, venture capitalists and utilities within and beyond Eastern Europe. The project will closely coordinate with the GCIP Global, as well as other similar national and international efforts, as it is critical to maximize synergies and share knowledge and best practices that can help in enhancing entrepreneurs' contributions towards climate change mitigation, while increasing productivity and generating growth and wealth.

46. UNIDO's extensive experience in implementing GCIP over the years ensures Moldovan investors' confidence in the quality and chances of success of the cleantech enterprises supported. This is in light of almost 10 years of experience and proven track records, and a brand that is recognized and trusted internationally by investors. Moreover, the project will ensure an immediate integration of the CIEE in Moldova and the supported entrepreneurs in a global network of cleantech developers and investors.



The entrepreneurs (start-ups and SMEs) in Moldova face several barriers, as described in the section a) “the global environmental and/or adaptation problems, root causes and barriers that need to be addressed”. These barriers include: lack of an enabling policy and regulatory framework, limited access to early-stage finance, lack of public awareness of the potential of cleantech, shortage of entrepreneurial skills, lack of strategic coordination among key CIEE players, as pictured on the bottom of the above graph.

In order to alleviate the above-mentioned barriers, the GCIP Moldova focuses on the following lines of intervention (outputs): 1) adaptation of GCIP Moldova guidebooks; training and certification of a pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges); organization of three cycles of the annual competition-based GCIP Moldova Accelerator; 2) provision of targeted business growth support services to selected cleantech enterprises; connection of enterprises to financing opportunities and provision of tipping-point investment facilitation support; provision of mentoring and partnership support to cleantech enterprises for global market expansion; provision of investment mobilization support; 3) institutional capacity building of the CIEE actors; development of cleantech innovation and entrepreneurship policies, regulations and recommendations; promotion of linkages, collaboration, and synergies across CIEEs; 4) adaptation and implementation of the GCIP internal guidelines for project management teams; adaptation and implementation of the programme-level knowledge management, communication and advocacy strategy; creation of the GCIP Moldova web platform; adaptation and application of the GCIP methodology for impact assessment; tracking and reporting of project activities based on the GCIP monitoring and evaluation (M&E) framework; and external terminal evaluation.

IF the above listed outputs are successfully realized; **THEN:** innovative cleantech is brought to market to deliver customer value, GHG emission and energy savings are realized and adequately measured/reported, cleantech entrepreneurs secure increased investment to move beyond prototyping, incentives (economic, political, social) for emission reductions and environmental protection are sustained or improved, innovative technologies and viable business models are identified, cleantech business acceleration is regularly delivered in a context leveraging synergies through national-level coordination, and national policy and regulatory environment fosters cleantech investment and adoption; **BECAUSE:** early-stage cleantech innovations are accelerated, start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services, the CIEE in Moldova is strengthened and interconnected, and the efficiency and sustainability is ensured through coordination and coherence with other GCIP country projects, as well as impacts and progress are tracked and reported.

Ultimately, the project will deliver multifaceted environmental and socio-economic high-level impacts, including job and wealth creation, energy savings, and GHG emissions reductions.

Figure 3: Theory of Change - graphical and descriptive presentation.

Project Description

Component 1: Transforming early-stage innovative cleantech solutions into scalable enterprises

47. Component 1 aims at providing direct support to early-stage enterprises to enhance their capacity and competitiveness, and to leverage market opportunities. More specifically, Outcome 1.1 focuses on entrepreneurial training and business acceleration support, and Outcome 1.2 on investment facilitation services to the cleantech enterprises at growth stages that demonstrate market traction and sales evidence, and can benefit from specialized support.

The diagram below shows the types of assistance required by cleantech enterprises, depending on their stage of growth.

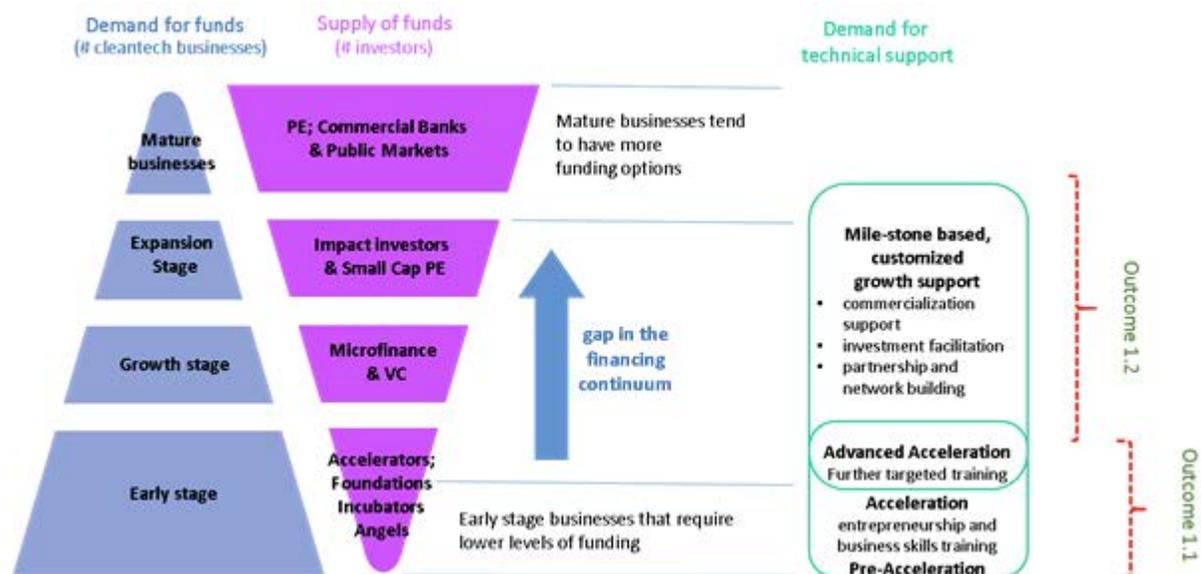


Figure 4: Demand for funds and technical support per development stage.

48. For clarification, a brief overview of the available GCIP business acceleration support is provided in the table below.

<p>The Pre-Accelerator consists of activities that enable formation of early-stage teams, as well as assist them to develop initial concepts and undergo their validation (i.e. proof of concept). This type of support encompasses workshops, hackathons, start-up camps, and mini-competitions. The Pre-Accelerator takes place before the launch of the main GCIP Accelerator, leading to an increased number of high-quality applications.</p>
<p>The Accelerator is a four to six-month curriculum designed specifically to support cleantech innovators to develop viable business models, and thus transform their ideas into fast-growing scalable and investable enterprises. Through the GCIP Accelerator, a cohort of cleantech innovators with a high-impact potential is identified and invited to receive intensive business and entrepreneurship training (as a group training in the framework of the GCIP National Academy), mentoring, and coaching based on the state-of-the-art international expertise, in particular with the aim to a) improve their business skills and investor pitch, b) connect them to potential business partners, financiers, and investors, c) maximize the expected net climate benefits of their solutions.</p>
<p>The Advanced Accelerator is a service offered to selected entrepreneurs participating in the Accelerator and it is focused on providing tailored and needs-based individual support rather than a group training, mentoring, and coaching. The Advanced Accelerator is time-bound and outcome-focused, i.e. there are concrete milestones that need to be achieved within a specific timeframe. The support is provided by one or several Executives in Residence (EIR) that are senior practitioners (executives or entrepreneurs) with hands-on experience in scaling up cleantech enterprises, and it is focused on problem-solving, i.e. tackling very specific operational, financial, and strategic issues.</p>
<p>The Post-Accelerator provides entrepreneurs with assistance in four related, but not necessarily linear dimensions: advanced business growth and commercialization, investment readiness, market readiness, and technology readiness. More specifically, a series of trainings (on corporate partnerships and government relationships, international market entry, mergers and acquisitions, exit strategy, challenges specific for selected industry sectors, etc.); needs-based activities; and technology verification, product development, and testing facility support are offered.</p>

Table 4: Overview of the available GCIP business acceleration support.

49. To ensure coherence and to achieve the highest impact potential of GCIP interventions along the start-up to scale-up journey of a cleantech enterprise, detailed eligibility criteria will be defined for the above-mentioned types of support in the framework of the GCIP Global. These will be related to the proof of concept requirements; level of technology readiness (TRL); business and market readiness levels (BRL/MRL); market potential; proof of evidence of business growth; environmental and social impact potential; and effectiveness of environmental and social risk mitigation measures, among others. The criteria will also include adequate definitions of start-ups and SMEs, as well as they will be in line with the GEF-7 climate change focal area programming directions, e.g. de-centralized renewable power with energy storage; electric drive technologies and electric mobility; accelerating energy efficiency adoption; and cleantech innovation.

Outcome 1.1: Early-stage cleantech innovations are accelerated

50. Early-stage cleantech innovations with high impact potential will receive business acceleration support for increased market and investment readiness. To enable this, the GCIP Moldova will be provided with assistance by the GCIP Global, which will encompass provision of guidebooks for operation and management of the GCIP Moldova Accelerator, Advanced Accelerator, and Post-Accelerator.

Output 1.1.1 The GCIP guidebooks are adapted for the GCIP Moldova

51. The GCIP guidebooks (for Accelerator, Advanced Accelerator, and Post-Accelerator), that are to be developed under the GCIP Global, will be comprehensive documents that articulate the GCIP approach to promoting cleantech innovation and entrepreneurship in developing countries. As such, they will guide the operation and management of the GCIP Moldova Accelerator, Advanced Accelerator, and Post-Accelerator, in that they will for example include proposed schedules; eligibility requirements and selection criteria for the participants; competition rules; training curricula and handbooks for applicants, experts (mentors, trainers, judges), and EIRs. The guidebooks will be shared with the EEA and appropriate training will be provided on their adaptation and use.

52. The GCIP guidebooks will be reviewed and adapted for the EEA to reflect the context of Moldova's CIEE (i.e. the GCIP Moldova guidebooks will be developed), including for example market conditions, policy environment, development priorities, technology focus, and local examples. In addition, the GCIP Moldova Accelerator, Advanced Accelerator, and Post-Accelerator training curricula and delivery format will be customized to meet national needs, with the support from the GCIP Global. The GCIP Moldova guidebooks will be finalized in consultation with the government, business and civil organizations, and other relevant stakeholders in the CIEE. Moreover, the guidebooks will be translated into the local language. Suggestions for improvement of the GCIP Global guidebook will be shared by the EEA with the global PEEs.

53. With due consideration of the framework conditions developed by the GCIP Global for each type of the available GCIP support, the GCIP Moldova guidebooks will set the final selection criteria for the Accelerator, Advanced Accelerator, and Post-Accelerator. In particular, in line with preferences expressed in the PPG phase by the private sector and state companies potentially interested in investment, the technology focus is expected to be placed on cleantech solutions in, among others, the following areas: district heating system (with focus on reduction of fuel consumption, increased use of renewables, horizontal heat distribution system in the interior of buildings, domestic hot water supply services), modernization of electricity distribution network, energy efficiency, renewable energy production (including e.g. bifacial photovoltaic panels), energy storage (including e.g. lithium battery system), energy production data collection, eco-friendly vehicles.

54. The achievement of the highest possible impact potential of the GCIP Moldova is conditional on the appropriate assessment of the CIEE's strengths and weaknesses, followed by an optimal design of the GCIP Moldova Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, in line with national gaps/needs and advantages identified. While a thorough analysis of the CIEE in Moldova will be carried out under Output 2.1.1, a focused assessment of the landscape and capacities of potential applicants (start-ups, SMEs), experts (mentors, trainers, judges), and other accelerators' alumni will be conducted under this Output.

55. In the first year of the GCIP Moldova, the possibility of incorporating a National Innovation Challenge into the GCIP Moldova Accelerator as from the second year will be investigated by partnering with Moldovan private sector corporations. The aim of the National Innovation Challenge is to design targeted and immediately deployable solutions to challenges faced by the private sector corporations. In joint collaboration with UNIDO's Department of Environment, which is an implementing partner for the EU4Environment project, the challenges could be identified based on the RECP assessments conducted for key industries.

Output 1.1.2 Pool of cleantech innovation and entrepreneurship experts (trainers, mentors, judges) is trained and certified to support the GCIP Moldova Accelerator

56. Developing a pool of cleantech innovation and entrepreneurship experts to act as trainers, mentors, and judges is critical for ensuring the effectiveness of the GCIP Moldova Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The experts are also key stakeholders in the Moldovan CIEE, as well as they are expected to positively influence the cleantech innovation and entrepreneurship initiatives at the global level. What is more, they will ensure the long-term sustainability of the GCIP Moldova.

57. The cleantech innovation and entrepreneurship expert training and certification system, which is to be developed by the GCIP Global, will be shared with the GCIP Moldova. The system will include training curricula/materials, guidance on the training delivery methods, as well as certification requirements, all of which will be tailored to the needs of different expert groups (trainers, mentors, judges). Also, the system will encourage increased participation of the GCIP alumni as experts.

58. The cleantech innovation and entrepreneurship expert training and certification system will be reviewed by the EEA and, with support from the GCIP Global, it will be adapted for the GCIP Moldova with the view to addressing specific national needs and ensuring synergies with other existing training and certification systems. Also, relevant documents will be translated in the local language.

59. The EEA will receive support from the GCIP Global in the operationalization of the training and certification system, including webinars and guidance on the provision of the first training and certification cycle (with some follow-up support in the second year). A total of 30 experts (trainers, mentors, judges) will be trained and certified with at least 35% being women. Where possible, experts active in the framework of other national innovation and entrepreneurship initiatives, that are listed under b), will be also provided with training by the GCIP Moldova.

Output 1.1.3 Three cycles of the annual competition-based GCIP Moldova Accelerator are conducted



Figure 5: The GCIP Accelerator process.

60. Three annual cycles of the GCIP Moldova Accelerator will be conducted, based on the GCIP Moldova guidebooks developed under Output 1.1.1. The timing of the cycles will be guided by the GCIP Global to ensure appropriate coordination across different child projects.

61. During the PPG phase, consultation was carried out with various stakeholders in Moldova and it was agreed that the country would benefit from customized assistance in developing a pool of potential applications prior to the launch of the Accelerator. Therefore, a Pre-Accelerator support will be provided annually to around 50 entrepreneurs that would normally not qualify for the Accelerator, so that a pipeline of suitable high-quality projects is generated. The Pre-Accelerator will be a ten-day (7 days virtual/3 day in-person) programme held each year 6-8 weeks prior to the GCIP Moldova Accelerator application deadline.

62. In general, the GCIP Global will support the EEA in establishing and conducting the first cycle of the GCIP Moldova Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator. The assistance will be phased out in the second cycle, as it is expected that the relevant national institutions will be capacitated in the first year to be fully independent.

63. The outreach and communication activities related to the launch of and calls for applications for the annual GCIP Moldova Accelerator cycles will be led by the ODIMM, with involvement of business associations and universities. It is expected that each GCIP Moldova Accelerator cycle will receive around 30 to 90 applications, with higher numbers of entrants expected in the later cycles. From these entrants, around 10-12 semi-finalists and 5-8 finalists will be selected to receive support each year, and ultimately, winners and runners-up will be identified. The selection of winners, runners-up, finalists, and semi-finalists will be made by judge panels based on their evaluation of the business plans and/or pitches delivered by entrepreneurs with the support from their trainers and/or mentors.

64. As explained in Table 4, the GCIP Moldova Accelerator will be a four to six-month curriculum designed specifically to support cleantech innovators to develop viable business models, and thus transform their ideas into fast-growing scalable and investable enterprises. Through the GCIP Moldova Accelerator, a cohort of cleantech innovators with a high-impact potential will be identified and invited to receive intensive business and entrepreneurship training (as a group training in the framework of the GCIP National Academy), mentoring, and coaching based on the state-of-the-art international expertise, in particular with the aim to a) improve their business skills and investor pitch, b) connect them to potential business partners, financiers, and investors, c) maximize the expected net climate benefits of their solutions.

65. There will be an annual GCIP Moldova Forum conducted in conjunction with the MOLDENERGY exhibition organized by MEI. Appropriate guidance will be provided by the GCIP Global on the successful execution of the GCIP Moldova Forum and on its integration with the annual GCIP Global Forum, including themes and private sector participation.

66. Throughout all cycles of the GCIP Moldova Accelerator, special attention will be paid to gender mainstreaming activities, as outlined in the Draft Gender Mainstreaming Action Plan (Annex H). These include: (i) recruitment of women trainers, mentors, judges; (ii) efforts to ensure that women and men are given equal opportunity to access, participate in and benefit from the project; and (iii) awareness raising. The project will also seek to ensure women empowerment through (i) specific training and mentoring to promote women innovators, entrepreneurs, start-ups; and (ii) design of specific prizes and follow-up support programmes for innovative start-ups that will have a significant impact on women's entrepreneurial development and gender responsive employment creation. What is more, the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP) will be strictly followed.

Outcome 1.1 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Moldova Budget (USD)
Output 1.1.1			
1.1.1a	to review the GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator; to share suggestions (up to 10) for improvement of the GCIP guidebooks with NGIN (feedback loop)	EEA	2,525
1.1.1b	to adapt the GCIP guidebooks (3: 1 for Accelerator, 1 for Advanced Accelerator, 1 for Post-Accelerator) to reflect the context of Moldova's CIEE, including market conditions, policy environment, development priorities, technology focus, local examples, etc. (i.e. to develop the GCIP Moldova guidebooks); to organize information and consultation sessions (2) with relevant CIEE stakeholders	EEA	19,585

	ders (185); to disseminate the GCIP Moldova guidebooks among relevant CIEE stakeholders		
1.1.1c	to conduct an assessment of the landscape and capacities of potential GCIP Moldova applicants (start-ups, SMEs) and experts (mentors, trainers, judges) and to deliver reports (2: 1 on applicants and 1 on experts)	EEA	4,285
1.1.1d	to develop calendars (3 annual) of all planned GCIP Moldova events, and to investigate the possibility of incorporating a National Innovation Challenge into the GCIP Moldova Accelerator (as from 2022) by engaging with corporate partners (up to 7)	EEA	1,025
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: 1) NGIN: to develop GCIP guidebooks for Accelerator, Advanced Accelerator, and Post-Accelerator, including e.g. proposed schedules; eligibility requirements and selection criteria for the participants; competition rules; training curricula and handbooks for applicants, experts (mentors, trainers, judges), and EIRs; 2) NGIN: to develop tools for a) assessment of needs of GCIP Moldova entrepreneurs (applicants, participants, and alumni), b) planning and monitoring of key GCIP Moldova events; 3) NGIN: to develop (including the identification of interested corporate partners) and pilot the Global Innovation Challenge as part of the GCIP Global Accelerator (as from 2022).			
Output 1.1.2			
1.1.2a	to get acquainted with the GCIP cleantech innovation and entrepreneurship expert training and certification system; to share suggestions (up to 10) for its improvement with NGIN (feedback loop)	EEA	2,700
1.1.2b	to adapt the GCIP cleantech innovation and entrepreneurship expert training and certification system to national circumstances, including translation where relevant (i.e. to develop the GCIP Moldova cleantech innovation and entrepreneurship expert training and certification system), and to operationalize the training and certification system	EEA	12,452
1.1.2c	to provide training and certification for at least 30 experts (trainers, mentors, judges) with at least 35% being women (i.e. at least 3 trainings with minimum 10 experts), as well as to conduct the evaluation of experts (based on the NGIN assessment framework) and to support their accreditation (minimum of 15 experts accredited)	EEA	7,456
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: 1) NGIN: to develop the GCIP cleantech innovation and entrepreneurship expert training and certification system for the GCIP Moldova experts (trainers, mentors, judges), including training curricula/materials, guidance on the training delivery methods, and certification requirements; 2) NGIN: to provide training to the EEA employees, with focus on the operational and managerial efficiency and effectiveness required to successfully execute the GCIP Moldova; 3) NGIN: to develop an assessment framework for evaluation of experts (trainers, mentors, judges), as well as to facilitate the expert accreditation at global institutions/initiatives; 4) NGIN: to capture recommendations from GCIP Moldova experts (trainers, mentors, judges) to ensure continuous improvement of the GCIP cleantech innovation and entrepreneurship expert training and certification system.			
Output 1.1.3			
1.1.3a	to deliver the GCIP Moldova Pre-Accelerator as a 10-day (7 days virtual/3 day in-person) programme for around 50 participants annually, around 6-8 weeks prior to the Accelerator application deadline	EEA	14,816
1.1.3b	to deliver three annual cycles of the GCIP Moldova Accelerator (each year for around 10-12 semi-finalists and 5-8 finalists selected from a pool of 30-90 applicants), including the 4-day GCIP National Academy	EEA with support from NGIN in year 1	98,440
		EEA with support from	

1.1.3c	to organize the annual GCIP Moldova Forum (up to 5)	EEA with support from NGIN in year 1	245,072
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Outcome 1.2: Start-ups and SMEs are supported through advanced and gender-responsive business growth and investment facilitation services

67. Experience from previous GCIP interventions has shown that start-ups and SMEs require further assistance – beyond the Accelerator – to be able to scale up. Therefore, building on activities conducted under the Output 1.1.3, additional support will be provided to selected enterprises under the Outcome 1.2. At the same time, the emphasis will be placed away from the competition aspect and efforts will focus on individual case-by-case assistance. Outputs and Activities under this Outcome will have a myriad of synergy points with Outcome 2.1, as engagement of the investor community and customers is crucial for the ultimate success of the GCIP Moldova.

Output 1.2.1 Targeted business growth support services are provided to selected cleantech enterprises towards commercialization

68. There will be Advanced Accelerator service offered to selected entrepreneurs participating in the GCIP Moldova Accelerator that will be focused on providing tailored and needs-based individual support rather than a group training, mentoring, and coaching. The Advanced Accelerator is time-bound and outcome-focused, i.e. there are concrete milestones that need to be achieved within a specific timeframe. The support is provided by one or several Executives in Residence (EIR) that are senior practitioners (executives or entrepreneurs) with hands-on experience in scaling up cleantech enterprises, and it is focused on problem-solving, i.e. tackling very specific operational, financial, and strategic issues.

69. The GCIP Moldova Accelerator alumni will be eligible for the GCIP Moldova Post-Accelerator support (provided in four related, but not necessarily linear dimensions: advanced business growth and commercialization support, investment readiness, market readiness, and technology readiness) if they meet requirements set out in the GCIP Moldova guidebook for the Post-Accelerator (Output 1.1.1). It is foreseen that after the second cycle of the GCIP Moldova Accelerator, the Post-Accelerator support will be offered to a minimum of 3 enterprises annually. After the third cycle of the GCIP Moldova Accelerator, the Post-Accelerator services will be provided to a minimum of 4 entrepreneurs.

70. More specifically, a series of trainings (in form of webinars) will be organized that will cover topics such as: 1) corporate partnerships and government relationships (3-4 virtual training modules of 1-2 hours each); 2) international market entry, mergers and acquisitions, and exit strategy (3-4 virtual training modules of 1-2 hours each); 3) challenges specific for selected industry sectors (3-4 virtual training modules of 1-2 hours each). The trainings will be based on the state-of-the-art international knowledge and best practices.

71. In addition to trainings, selected enterprises will also receive needs-based support in accessing additional sources of finance, market entry, identifying networking opportunities, dealing with technical and administrative issues, accessing IT services, and tax registration, as well as they will be provided with specialized mentoring and courses on cleantech, entrepreneurship, and innovation. The project will leverage on the facilities and expertise already available in Moldova.

72. Moreover, for selected GCIP Moldova Accelerator alumni with high impact potential (minimum 5 enterprises in total throughout the GCIP Moldova duration), there will be technology verification, product development, and testing facility support provided. This may encompass collaboration with research institutions and universities that house relevant expertise, as well as with the industrial sector. In addition, partnerships will be explored with national agencies responsible for standardization and appraisal of product quality. The GCIP Moldova will also provide support in overcoming product related market entry barriers, including protection of intellectual property and product life cycle assessments.

Output 1.2.2 Enterprises (up to 10) are connected to financing opportunities and provided with tipping-point investment facilitation support

73. Identifying investment opportunities for cleantech products and services is a lengthy and iterative process. In many instances, high-impact and high-market potential cleantech innovations/businesses fail due to lack of access to financial resources. Recognizing this need, under Output 1.2.2 support will be provided to early-stage enterprises in addressing the financing gap. The intention is to assist as many GCIP Moldova Accelerator alumni as possible to raise funding, find customers, and build partners within 12 months of completing the GCIP Moldova Accelerator.

74. Taking advantage of various investment and promotion opportunities in Moldova, direct support for the GCIP Moldova Accelerator alumni will be provided to connect them with potential investors, financiers, and tech scouts of large corporations. To this end, half-day Investor Connect events will be co-organized regularly (at least 2 events after each cycle) with partners including corporations and government agencies to highlight opportunities for investment, loans, grants, technology adoption and partnerships. The project will also explore targeted investment/financing vehicles, and connect them with selected GCIP Moldova Accelerator alumni as appropriate.

75. In addition to support services designed to benefit enterprises, specific activities to engage the investment community (e.g. venture capital funds, angel investor networks, impact investors, etc.) will also be conducted. The EEA will establish a robust network with national financial institutions and funds to raise their awareness, as well as to train and sensitize financiers on the opportunities and risks associated with cleantech products and market trends. For example, communication efforts tailored for investors will be made to promote the profitability and impact potential of the cleantech businesses, thereby influencing the investment landscape for the cleantech sector. The intention is to broaden the engagement of impact investors in the country, both in terms of number of investors (i.e. beyond the currently 15 investors involved in an existing angel investor network), as well as scope of their interest (the existing network is focused on ICT). Therefore, awareness raising events and trainings will be provided to the local investor community by specialist financiers with in-depth experience in the cleantech sector (at least 1 event/training after each cycle).

76. What is more, trainings (as half day events) will be conducted for local financial experts. The goal of this activity is also to facilitate cross-fertilization between GCIP and PFAN, in that current PFAN advisors might support the training of financial experts by GCIP on the one hand, and the financial experts trained by GCIP, after provided with project sourcing and investment facilitation skills and tools, may be invited to join PFAN as new advisors on the other hand.

77. In addition, in order to encourage the participation of seed funding providers from the national, regional and global stages in the GCIP Moldova and to leverage on the experience and knowledge of other GCIP countries, a number of suitable regional and international events will be organized or attended by a representative of the GCIP Moldova.

78. Stakeholder consultations in Moldova confirmed that due to the nascent CIEE and significant barriers to financing that still persist, there is a need for a financial mechanism that would enable de-risking and leveraging of public and private investment. Therefore, in the first year of project implementation such a financial mechanism will be designed, i.e. it will be considered to establish a separately operated early-stage development fund that would provide pre-seed and seed financing to selected enterprises supported by the GCIP Moldova. However, if this turns out not to be a viable option, it might be decided that grants are disbursed directly from the GCIP Moldova budget. The process of application for the pre-seed and see financing or grants might be adapted from that used already in the Moldova Eco-Energetica competition.

Output 1.2.3 Mentoring and partnership support is provided to cleantech enterprises for global market expansion

79. It is expected that several GCIP Moldova supported cleantech innovations will have potential for replication in other developing countries. Therefore, international mentors will be assigned in the target country of expansion to facilitate connections and network building. This service will be offered through the GCIP Global, with support from the GCIP Moldova in identifying a suitable mentor with the appropriate expertise. In addition, the GCIP Moldova graduates will be offered curated peer networking opportunities with GCIP alumni enterprises from other countries, as well as cleantech enterprises within UNIDO's partner network. Through peer networking, the enterprises will explore opportunities for technology collaboration, product co-development, joint venture for market expansion, etc. in a business-to-business context.

80. On an ad-hoc basis, as opportunities arise, matchmaking services for the GCIP Moldova enterprises will be provided with interested corporations, investors, and governments. Further, opportunities to showcase cleantech innovations at high-level national and international events, such as the UN Climate Summit, UNFCCC Conference of Parties (COP), Vienna Energy Forum, etc. will be offered. Such high-profile events will be instrumental in enabling the GCIP Moldova alumni to build their global presence and extend their partnerships and networks. In addition, the EEA will nominate a few GCIP Moldova alumni for the GCIP Global Accelerator, and support their participation. What is more, UNIDO will encourage application of GCIP Moldova alumni for PFAN support.

Output 1.2.4 Investment (up to 4 mln USD) is mobilized to deploy innovative cleantech solutions across various sectors (leading to wide socio-economic and environmental impacts, e.g. up to 45 enterprises with economic gains, up to 50 additional jobs created or retained, up to 10 enterprises with an increase in exports, up to 15 enterprises with increased inclusion in value chains, at least 63,000 CO₂e emissions reduced directly, 15 new technologies adopted)

81. The financial mechanism (an early stage development fund providing pre-seed and seed funding; or disbursement of grants from the GCIP Moldova budget) designed under Output 1.2.2 will be operationalized. It is expected that more than six innovative solutions annually (as from 2022) could be supported in this way, and that as a result (due to de-risking) they will be able to mobilize public or private investment.

Outcome 1.2 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Moldova Budget (USD)
Output 1.2.1			
1.2.1a	to identify Accelerator participants (up to 10) that would benefit from the Advanced Accelerator support from an EIR to tackle specific operational, financial, and strategic issues; and to facilitate this support	EEA	750
1.2.1b	to conduct 3 cycles of the GCIP Moldova Post-Accelerator focused on advanced business growth and commercialization support, investment readiness, market readiness, and technology readiness (based on the GCIP Moldova guidebooks developed under Output 1.1.1) for up to 15 enterprises in total	EEA	7,294
1.2.1c	to provide needs-based support to the GCIP Moldova Post-Accelerator enterprises (up to 10) in accessing additional sources of finance, market entry, identifying networking opportunities, dealing with technical and administrative issues, accessing IT services, and tax registration, etc.	EEA	14,001
1.2.1d	to provide technology verification, product development and testing facility support to enterprises with high impact potential (minimum 5 enterprises in total throughout the GCIP Moldova duration)	EEA	7,500
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: NGIN to deliver a series of trainings/webinars (in the framework of the GCIP Moldova Post-Accelerator) on 1) corporate partnerships and government relationships (3-4 virtual training modules of 1-2 hours each); 2) international market entry, mergers and acquisitions, and exit strategy (3-4 virtual training modules of 1-2 hours each); 3) challenges specific for selected industry sectors (3-4 virtual training modules of 1-2 hours each); as well as to provide a report on best practices for acceleration based on state-of-the-art international knowledge.			
Output 1.2.2			
1.2.2a	to organize national investment facilitation events (Investor Connect) for the GCIP Moldova alumni (at least 2 events after each cycle)	EEA	19,450
1.2.2b	to establish a robust network with national financial institutions and funds (minimum 20 financial institutions/funds), and to manage related communication and outreach activities, including awareness raising events (at least 3) for the local investor community (at least 15 investors participating in total) to increase investor confidence and ensure accurate risk perception with regard to cleantech solutions (at least 1 event after each cycle)	EEA	7,450
1.2.2c	to provide trainings (at least 3) for local financial experts	EEA	10,550
1.2.2d	to organize or attend suitable events (at least 3) in order to encourage the participation of seed funding providers from the national, regional and global stages in the GCIP Moldova and to leverage on the experience and knowledge of other GCIP countries	EEA	1,200
	to design a financial mechanism (an early stage development fund providing pre-seed and seed		

1.2.2e	to design a financial mechanism (an early stage development fund providing pre-seed and seed funding; or disbursement of grants from the GCIP Moldova budget) that would enable de-risking and leveraging of public and private investment, including the process of application for the pre-seed/seed financing or grants	EEA	7,450
Output 1.2.3			
1.2.3a	to nominate GCIP Moldova alumni (at least 5) for the GCIP Global Accelerator and to support their participation	EEA	4,000
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: 1) NGIN: to identify and facilitate cross-border networking and matchmaking opportunities and for start-ups/SMEs supported by the GCIP Moldova with internationally recognized mentors, GCIP alumni enterprises, corporations, investors, and governments; 2) NGIN: to enable the GCIP Moldova enterprises to showcase their cleantech innovations at high-level national and international events (including GCIP Global Forum and other major international events); 3) UNIDO: to encourage applications of the GCIP Moldova alumni for PFAN support; 4) NGIN: to provide application assistance to the GCIP Moldova alumni nominated by the EEA for support by the GCIP Global Accelerator.			
Output 1.2.4			
1.2.4a	to operationalize the financial mechanism designed under the Output 1.2.2 (an early stage development fund providing pre-seed and seed funding; or disbursement of grants from the GCIP Moldova budget) and to facilitate the disbursement of funds (e.g. run calls for applications for pre-seed/seed funding or grants and conduct their technical evaluation) to minimum 6 enterprises (annually from 2022)	EEA	100,000

Component 2: Cleantech innovation and entrepreneurship ecosystem (CIEE) strengthening and connectivity

82. The policy framework and institutional capacity are integral parts of GCIP's "ecosystems approach", and also of strategic relevance in ensuring that the outputs and outcomes of the project are contributing to the national priorities and are sustained after the project closure. Therefore, the objective of the Component 2 is to build capacity of EEA and other key CIEE stakeholders in Moldova to engage in cleantech acceleration and commercialization. Further, the GCIP Moldova will assist the government in improving national policies and regulations that are conducive to cleantech innovation and commercialization.

83. The GCIP Global will provide tools (Global Cleantech Innovation Ecosystem Benchmark; cleantech innovation capacity building framework) for CIEE strengthening and connectivity, which will be reviewed and adapted for Moldova by the EEA. In addition, policy best practices and roadmaps will be identified through desk research and interviews with relevant policy makers by the GCIP Global.

Outcome 2.1 The CIEE in Moldova is strengthened and interconnected

Output 2.1.1 Institutional capacity building of the CIEE actors is conducted (up to 3 capacity building events conducted with up to 90 participants in total)

84. A CIEE assessment is to be conducted by the EEA, which will be instrumental in identifying the capacity building needs (with attention to the needs of women) and deciding on the optimal set of interventions. A kick-off workshop will be held with relevant CIEE stakeholders to discuss drivers and challenges of cleantech innovation in Moldova, as well as to present selected findings of evaluations of CIEEs globally.

85. In addition, a national stakeholder engagement strategy and a cleantech innovation cluster strategy will be drafted, and they will also both encompass an action plan and a progress measurement framework. Subsequently, two engagement workshops (kick-off and a follow-up) will be organized to train up to 10 national facilitators (>35% women) to act as agents of change and support the implementation of both strategies.

86. What is more, there will be tailored training materials developed and capacity building events organized for selected CIEE stakeholders, including national institutions, industry associations, and business platforms on how to support cleantech innovations. The capacity building events will encompass, among others, on-the-job training, as well as workshops on knowledge management, technology benchmarking, and coordination mechanisms. Appropriate efforts will be made to promote gender equality in the framework of the capacity building events, in that the participation of women will be encouraged; gender balance of the training participants, as well as trainers and other experts will be secured; and gender aspects will be appropriately considered in the training materials. The training materials will also incorporate elements relevant in the context of the ESSPP.

87. The universities in Moldova are a potential source of cleantech innovations. Therefore, under the GCIP Moldova there will be at least two cycles of the Entrepreneurship Train-the-Trainer Programme on cleantech entrepreneurship and innovation organized for university professors and teachers. As a result, they will be well equipped to promote cleantech entrepreneurship among their students and to encourage them to engage in innovative activities, to form teams, and subsequently to apply for the GCIP Moldova support. Also, the professors and teachers will be engaged in the development of case studies and co-hosting of student outreach events, as well as in the promotion of the establishment of entrepreneurship centers within universities. To enable this, the GCIP Moldova will work with Tekwill that has already engaged in some work in this space, but does not have sufficient resources to widely extend its efforts.

88. Also, two EEA representatives, that are going to be nominated/employed by the EEA to manage the GCIP Moldova execution, will be offered a workshop on cleantech innovation policy and strategy to be held by the CTG for a cohort of all national PEE representatives. The experience gained by the EEA representatives will enable the sustainability of the GCIP Moldova beyond the project closure, as it is envisaged that the management of the project will be handed over to the EEA post-GEF funding. Necessary financial resources to sustain the GCIP Moldova activities could be mobilized from the private sector companies interested in corporate social responsibility involvement.

Output 2.1.2 Cleantech innovation and entrepreneurship policies, regulations and recommendations are developed

89. There will be a review of existing policies and regulations relating to the promotion of cleantech, innovation, and entrepreneurship carried out by the EEA with support from MEI and ODIMM, on the basis of which a gender-responsive gap analysis report will be prepared. The review will be guided by the approach applied in the evaluation of Moldova's national research and innovation system that was carried out in 2015-2016 as part of the EU's Horizon 2020 Policy Support Facility. Also, the review will encompass interviews with relevant CIEE stakeholders across the country. On the basis of the gap analysis report, as well as of the gender analysis report (Annex H), there will be policy recommendations developed. The gap analysis report and the policy recommendations will be presented to relevant stakeholders during a dedicated workshop. Following a stakeholder discussion, both documents will be amended in line with feedback received.

90. Under the leadership of the EEA, and with support provided by the MEI and the ODIMM, as well as in a process of wide consultations with GCIP alumni and relevant national CIEE stakeholders, a roadmap will be prepared to guide a long-term implementation of the policy recommendations, also beyond the GCIP Moldova timeline.

Output 2.1.3 Linkages, collaboration, and synergies across CIEEs are promoted

91. Under the GCIP Global there will be an annual GCIP Forum organized as an integral part of efforts to ensure connectivity between CIEEs. As outlined under Output 1.2.3, the GCIP Forum will bring selected finalists of the global and national Accelerators together for recognition and awards, and for opportunities to be connected with potential partners, customers, technology scouts and investors from around the world. Importantly, the GCIP Forum will also serve as a platform for innovation showcasing, and investment matching, and will be an important annual milestone for networking, advocacy, and knowledge exchange among CIEE players. The GCIP Forum will not be a stand-alone event, but it will be organized on the margins of highly visible global gatherings, such as for example the UNFCCC COP, Cleantech Group forums, etc.

92. In addition, as part of the global GCIP Framework, Moldova will receive membership in the Network for Global Innovation for the duration of the project. This will provide the EEA and other GCIP Moldova stakeholders with access to international best practices and with opportunities to build cross-border connections with partners in additional countries.

93. In particular, bilateral cooperation will be promoted and formalized between the GCIP Moldova on the one hand, and a) other GCIP CIEEs in the region (e.g. with Turkey and Ukraine) as well as b) the EU countries on the other hand. Moldova has already established close relationships with Germany, Spain, Norway, Finland, Sweden, all of which have their own start-up programmes in place (Germany – Start-up Energy Transition, Spain – Innsomnia Open Innovation Hub, Norway – Oslo Innovation Week, Finland – Finnish Start-up Permit, Sweden – Start-up Sweden). This provides excellent opportunities to network with other stakeholders, to exchange knowledge and best practices, and to support entrepreneurs across borders. For example, Innsomnia will support annual GCIP Moldova winners to attend a one-week event in Spain. There will be also fora set up to share lessons learned with the aim of feeding into Moldova’s policy recommendations developed under 2.1.2.

Outcome 2.1 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Moldova Budget (USD)
Output 2.1.1			
2.1.1a	to conduct analysis of Moldova's CIEE (including consultations with relevant CIEE stakeholders)	EEA	5,300
2.1.1b	to develop relevant tools for CIEE strengthening and connectivity, including a stakeholder engagement strategy and a cleantech innovation cluster strategy (in consultation with relevant CIEE stakeholders); as well as to conduct two engagement workshops (kick-off and follow-up) to train up to 10 national facilitators	EEA	23,300
2.1.1c	to conduct capacity building events (based on the cleantech innovation capacity building framework developed by CTG) for selected CIEE stakeholders, including national institutions, industry associations, and business platforms on how to support cleantech innovations (1-3 events for 30-90 stakeholders in total)	EEA	10,300
2.1.1d	to deliver at least 2 cycles of the Entrepreneurship Train-the-Trainer Programme (to train at least 15 university professors/teachers)	EEA	2,254
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: 1) CTG: to organize a workshop on cleantech innovation policy and strategy for a cohort of all national PEE representatives (including EEA); 2) CTG: to develop the Global Cleantech Innovation Ecosystem Benchmark which will enable comparisons of the Moldovan CIEE with other countries' CIEEs; 3) CTG: to develop a cleantech innovation capacity building framework.			
Output 2.1.2.			
2.1.2a	to review existing policy and regulations relating to the promotion of cleantech, innovation, and entrepreneurship, and to develop a gender-responsive gap analysis report	EEA with support from CTG in year 1	30,500
2.1.2b	to develop recommendations (up to 50) for the cleantech innovation and entrepreneurship policy; and to conduct stakeholder engagement workshops (2 with at least 40 participants in total) to discuss and validate the gap analysis report and the policy recommendations; to prepare and consult (with GCIP alumni and relevant national CIEE stakeholders) a roadmap guiding a long-term implementation of the policy recommendations	EEA	22,886
Output 2.1.3			
2.1.3a	to promote cooperation (in particular bilateral cooperation) and facilitate its formalization between the GCIP Moldova on the one hand, and a) other GCIP CIEEs in the region and b) the EU countries on the other hand, and to sign at least 5 relevant cooperation agreements	EEA	8,000
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: 1) NGIN: to organize the Global Forum; 2) NGIN: to facilitate Moldova's membership in the Network for Global Innovation for the duration of the project.			

Component 3: Programme coordination and coherence

94. The activities under Component 3 are aimed at ensuring that the achievements of the GCIP Moldova are captured and communicated globally, as well as that the GCIP Moldova and other GCIP country projects are implemented in a coherent and coordinated way. To this purpose, EEA is expected to collaborate with the GCIP Global through the global PEEs (PFAN, NGIN, CTG, UNIDO), as well as to contribute to information gathering, knowledge sharing, and dissemination efforts.

Outcome 3.1 Efficiency and sustainability of the GCIP Moldova is ensured through programme coordination and coherence with other GCIP country projects

Output 3.1.1 The GCIP internal guidelines for project management teams are adapted and implemented by the GCIP Moldova

95. To maintain coherence of the GCIP approach across multiple countries, GCIP internal guidelines for project management teams will be developed and disseminated by UNIDO, including 1) operational guidelines for the Project Management Unit (PMU) to be established within the EEA, 2) a sustainability and exit strategy framework (to be developed in the first year of project implementation, and subsequently shared with the EEA for review and adaptation, i.e. for development of the GCIP Moldova sustainability and exit strategy). The operational guidelines will cover: a general introduction to the GCIP Framework, including explanation of organizational roles within it (e.g. of Global Advisory Board and Project Steering Committees); description of communication channels between GCIP Moldova and the GCIP Global; information on risk management and data protection; a list of foreseen support activities to be available from the GCIP Global; introduction to the IT management of the GCIP web platform; environmental/social management principles, as well as gender mainstreaming and ESSPP principles to be applied by the PMU in the course of project management. In addition, annual meetings for national PEE representatives (including the EEA) will be organized to offer a platform for training and exchange of experiences/insights related to the implementation of the GCIP internal guidelines.

Output 3.1.2 Programme-level knowledge management, communication and advocacy strategy is adapted and implemented by the GCIP Moldova

96. The experience so far has shown that an exchange of learnings among national PEEs and PMUs is key for their successful operation. To facilitate this exchange, a knowledge management, communication, and advocacy strategy framework will be developed by UNIDO with a particular focus on: 1) Promoting visibility of GCIP and communicating its impacts achieved at national and global levels; 2) Increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues; 3) Showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility.

97. The knowledge management, communication, and advocacy strategy framework will be shared with the EEA for review and adaptation to the GCIP Moldova needs. As a result, the GCIP Moldova knowledge management, communication, and advocacy strategy will be developed.

98. In line with the knowledge management, communication, and advocacy strategy framework, the EEA is expected to provide briefing sessions, press releases, social media presence and advertising, all of which will be targeted at different audience groups, with a special attention to the needs of women and youth. These activities will be supported by partners, including local entrepreneurs, celebrities, GCIP alumni, relevant service providers (e.g. patent attorneys, accountants), university departments and societies (e.g. engineering, entrepreneurship and energy clubs), organizations that are in frequent contact with cleantech entrepreneurs (e.g. trade groups, entrepreneur groups), and investors (e.g. venture capital funds, angel networks).

Output 3.1.3 The GCIP Moldova web platform is operated to maintain the GCIP community

99. There will be a global GCIP web platform launched to be used as the main vehicle for internal and external communication at the programmatic level, and in particular it will serve four key functions: a) to support project management by the EEA and UNIDO (as a platform for dissemination of relevant documents, e.g. guidelines, guidebooks, frameworks); b) to enable execution of the Accelerator (as a platform for calls for application and their receipt, as well as for submission of assignments and delivery of trainings/webinars during the Accelerator); c) to facilitate the maintenance of the GCIP community at national and global levels (all CIEE stakeholders, e.g. investors, enterprises, including alumni, and experts will be invited to join the online community, and the enterprises will be given an opportunity to showcase their cleantech solutions to increase their visibility among potential investors); d) to provide a knowledge depository for the general public (all relevant knowledge, communication, and advocacy materials will be available on the website).

100. The GCIP Moldova will be assigned a section of the global GCIP web platform (i.e. a GCIP Moldova web platform). The GCIP Moldova web platform will be used from the beginning of the GCIP Moldova Accelerator cycle (call for applications and receipt of applications), during the GCIP Moldova Accelerator cycle (e.g. for webinars/trainings, submission of assignments), as well as after it (e.g. by alumni companies and potential investors for the purpose of matching, progress tracking)

101. On the global GCIP web platform there will be affinity/interest fora created to spur interactions, such as for example self-directed introductions, in specialized groups and to facilitate collaboration, for example between various enterprises from different GCIP Moldova cohorts, between alumni and currently supported entrepreneurs, or between entrepreneurs and investors. Also, there will be a GCIP Moldova alumni network created, gathering GCIP

Moldova Accelerator entrants, and assigned a special section on the GCIP Moldova web platform.

Outcome 3.1 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Moldova Budget (USD)
Output 3.1.1			
3.1.1a	to review and adopt GCIP internal guidelines for project management teams, and to participate in the annual meetings for national PEE	EEA	5,600
3.1.1b	to develop the GCIP Moldova sustainability and exit strategy	EEA	2,500
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: 1) UNIDO to develop and disseminate GCIP internal guidelines for project management teams, including a) operational guidelines for the PMU to be established within the EEA, b) a sustainability and exit strategy framework; 2) UNIDO to organize annual meetings for national PEE representatives (including EEA) to provide a platform for training and exchange of experiences/insights.			
Output 3.1.2			
3.1.2a	to review and adapt the knowledge management, communication, and advocacy strategy framework, i.e. to develop a GCIP Moldova knowledge management, communication, and advocacy strategy	EEA	1,667
3.1.2b	to capture knowledge gathered by the GCIP Moldova through policy briefs, impact reports, brochures, webinars, and other types of promotional materials, and to disseminate this knowledge through briefing sessions, press releases, social media presence and advertising, etc. (at least 250 knowledge products in total, in line with the GCIP Moldova knowledge management, communication, and advocacy strategy)	EEA	1,667
3.1.2c	to seek partnerships that would support implementation of the GCIP Moldova knowledge management, communication, and advocacy strategy (e.g. with local entrepreneurs, celebrities, GCIP alumni, relevant service providers, university departments and societies, organizations that are in frequent contact with cleantech entrepreneurs, investors, etc.) and to sign at least 20 relevant memorandums of understanding/cooperation agreements	EEA	1,667
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: UNIDO to develop a knowledge management, communication, and advocacy strategy framework.			
Output 3.1.3			
3.1.3a	to create and maintain a section for the GCIP Moldova on the global GCIP web platform	EEA	16,000
3.1.3b	to launch the GCIP Moldova alumni network (with at least 90 members) and create a special section on the GCIP Moldova web platform to maintain it	EEA	1,000
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: UNIDO to launch the global GCIP web platform and to deliver training on its use to the GCIP Moldova.			

Outcome 3.2 Impacts and progress of the GCIP Moldova are tracked and reported

Output 3.2.1 The GCIP methodology for impact assessment is adapted and applied

102. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Moldova for review and application. This will ensure a common understanding of estimation, tracking, and reporting approaches amongst all involved stakeholders, and will allow for data aggregation, comparisons, and extrapolation, not only on the national, but also on the global programme level. The methodology will enable assessment of social, economic, and environmental impacts, and at a minimum, it will account for global environmental benefits (GEBs), job creation, gender mainstreaming, and investment leveraged. The data will be sex-disaggregated and gender-sensitive, and youth participation will also be recorded.

103. The EEA will receive an online training on the GCIP methodology for impact assessment from UNIDO, and subsequently the EEA will train (online or in person) all GCIP Moldova Accelerator semi-finalists. The EEA may request further support to provide a training on the GCIP methodology for impact assessment also to other enterprises supported by the GCIP Moldova.

104. The GCIP Moldova enterprises will be expected to periodically provide relevant impact data to the EEA for validation and consolidation. The enterprise impact data will then be used to develop and publish a GCIP Moldova impact report, as well as to create other promotion and advocacy materials (news articles, social media posts, brochure and leaflets, videos, etc.) that are tailored to diverse types of audiences (investors, national government agencies, donors, students, etc.). This will benefit the GCIP Moldova enterprises by providing increased credibility and visibility. The impact data will also be shared with the GCIP Global for consolidation on the programme level.

Output 3.2.2 Project activities are tracked and reported based on the GCIP monitoring and evaluation (M&E) framework, and an external mid-term review is conducted

105. There will be a GCIP monitoring and evaluation (M&E) framework provided by the GCIP Global, based on which the EEA will prepare a GCIP Moldova M&E plan, including time-bound milestones and deliverables. The EEA will also draft progress review reports every six months. There will be an external mid-term review of the project conducted half way through project implementation. The ESSPP considerations, as well as gender dimensions and baseline for gender related targets will be appropriately captured in the GCIP Moldova M&E plan, in the progress review reports, the external mid-term review report, as well as in the collection and assessment of relevant data.

Output 3.2.3 External terminal evaluation is conducted

106. An external terminal evaluation will be started six months prior to the expected completion date of the project. The external terminal evaluation will focus on the assessment of project progress and impact, as well as its long-term sustainability, with due consideration of the ESSPP and gender mainstreaming aspects. As a result of the external terminal evaluation, there will be an evaluation report prepared that will also include recommendations for follow-up activities.

Outcome 3.2 Activities and responsibilities

Activity	Detail	Responsibility	GCIP Moldova Budget (USD)
Output 3.2.1			
3.2.1a	to review the GCIP methodology for impact assessment (including the accompanying tools) and to participate in the training on its use provided by UNIDO	EEA	6,966
3.2.1b	to provide trainings (3) on the GCIP methodology for impact assessment to the GCIP Moldova Accelerator semi-nalists (at least 30 in total)	EEA	4,333
3.2.1c	to validate and consolidate the GCIP Moldova enterprise impact data, and to develop and publish a GCIP Moldova impact reports (at least 4 in total)	EEA	1,333
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: UNIDO to develop the GCIP methodology for impact assessment and appropriate tools for its operationalization.			
Output 3.2.2			
3.2.2a	to prepare the GCIP Moldova M&E plan and regular (every six months) progress reports (6), as well as to conduct an external mid-term review	EEA	20,000
Activities to be carried out by the GCIP Global at no cost to the GCIP Moldova: UNIDO to provide the GCIP M&E framework.			
Output 3.2.3			
3.2.3a	to conduct an external terminal evaluation	UNIDO	20,000

d) alignment with GEF focal area and/or Impact Program strategies

107. The proposed project is fully aligned with the GEF-7 Climate Change Focal Area Strategy. Especially with the “Objective 1. Promote innovation and technology transfer for sustainable energy breakthroughs”. According to the same Strategy, “Technology is key area for the UNFCCC and in Article 10 of the Paris Agreement, and is one of the key means to reduce, or slow the growth in GHG emissions, and to stabilize their concentrations. To that end, technology innovation with the private sector can help create or expand markets for products and services, generating jobs and supporting economic growth. Supportive policies and strategies are fundamental to catalyze innovation and technology transfer for mitigation and enhance private sector investment”.

108. More specifically, this project will help cleantech enterprises (SMEs and start-ups) in Moldova to develop and scale up; and to increase market adoption of cleantech innovations, thus leading to a reduction in emissions and fossil fuel consumption. Furthermore, it will facilitate increased investment, job creation and market development. This is in line with the guidance from the UNFCCC COP23 which encouraged the GEF to further enhance engagement with the private sector and invited the GEF to support countries in piloting priority technology projects to foster innovation and investment.

e) incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and co-financing

109. The private sector is key to the creation and expansion of the market for cleantech products and services, achieving GEBs, generating jobs, and supporting economic growth. In Moldova, a clear government prioritization is given to promote innovations and start-ups/SMEs and to put the necessary policies and strategies in place. However, significant barriers still exist for cleantech enterprises, leading to their very low success rate. In essence, the CIEE in Moldova is weak, and if the GEF funding is not provided, it is very likely that cleantech innovations will not be adequately developed in Moldova in the near future. This will result in many unrealized opportunities in reducing GHG emissions, in strengthening partnerships with the private sector keen on investing in cleantech, in commercialization of cleantech enterprises, and ultimately in missed momentum for green economic growth and jobs.

110. Moldova is requesting GEF funding to help address the barriers to cleantech innovation, which will lead to positive socio-economic (economic growth, green job creation, attraction of foreign and domestic investment, etc.) and environmental (contribution to the reduction of GHG emissions and to global environmental sustainability, etc.) impacts. What is more, these impacts will be amplified through opportunities for coordination and connectivity with other

GCIP partner countries, and thus for global cleantech innovation scale-up. In total, at least 63,000 (directly) and 315,000 (indirectly) tCO₂e of GHG emissions should be mitigated thanks to the GCIP Moldova, which is expected to translate into cost effectiveness of 5 to 10 USD/tCO₂e.

f) global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

111. The long-term lifetime of cleantech innovations introduced in the market and the strengthened and interconnected CIEE will be reflected in multiple GEBs including, primarily, GHG emission reductions. The GEBs achieved through the implementation of this project will be identified and quantified on the basis of the innovations marketed and their uptake. Given the nature of the project, the low-carbon products and services developed and commercialized will contribute to the GEBs beyond the project life and scope.

i. Background on GCIP's target for avoided GHG emission for the GCIP Framework (GEF ID: 10408)

112. In order to ensure that GCIP supports innovative cleantech solutions with high impact potential, and delivery of GEBs at the programme level, a target approach is applied. To achieve cost effectiveness of GEF funding for GEBs, a value of 5 to 10USD/tCO₂e avoided is targeted (corresponding to an overall cost per tonne at programme level of USD38-76/tCO₂e). This means that, with GEF funding of almost USD 18 million, GCIP Framework aims to deliver between 1.8 million and 3.6 million tonnes CO₂e by 2030. As 10 countries will be a part of the overall GCIP Framework, almost 1000 semi-finalists are expected to be supported through the accelerators in all countries across the programme. Therefore, the target for the minimum projected potential of avoided GHG emissions per enterprise is between 1,800 to 3,600 tCO₂e by 2030.

113. To put this minimum target approach in context, a review of previous GCIP alumni GHG reductions was carried out. The review, looking at three sources of information, shows that the proposed avoided emission target is plausible and quite conservative. It also demonstrates the huge likely variety of emission reductions due to the different country contexts and technology innovations. The review also shows that where an innovation has real market potential, the avoided GHG emissions are very significant and that the GCIP approach has experience in successfully identifying and accelerating such companies. Firstly, a survey carried out by UNIDO of 14 of its GCIP alumni showed that these companies had already generated 600,000 tCO₂e savings by 2017 and projected to generate over 4.8 million tonnes of GHG emission savings by 2020 (or 340,000 tCO₂e/year per company). Secondly, the Independent Evaluation Office (IEO) report of eight GCIP projects included a sample of alumni in its annex with projected avoided emissions between zero (either they had not been estimated yet or the cleantech was not related to CCM) and 5 million tCO₂e per year. A median for emission reductions that were reported (which occurred only for a small proportion of the total alumni, namely 60 out of 900) is 88 tCO₂ per year. If alumni with estimated reduction are included (34) in the calculations, then the median increases to 12,200 tCO₂/year with the interquartile range from 350 tCO₂ to 81,000 tCO₂/year. Thirdly, the Mission Innovation Framework for Assessing Avoided Emissions, in which a number of GCIP alumni (selected as part of Mission Innovation's 100 innovative clean energy solutions in 2019) were included, shows for example that Atomberg Technologies (which manufactures an energy efficient fan) is estimated to avoid 5 million tCO₂e/year by 2030. In turn BEAD, an energy management AI optimization enterprise, is estimated to avoid 319 million tCO₂e/year by 2030. These two companies were also covered by the IEO report mentioned above, but Atomberg had not provided an estimate (so was assumed zero) and BEAD's estimate was 5 million tCO₂e/year.

114. A ten-year horizon was selected for estimating the GHG emission savings. However, assessing a priori the GHG reduction potential of cleantech solutions (products, services) to be identified through GCIP has proven to be difficult, as by definition GCIP encourages open innovation, and the types and categories of cleantech products and services that will be supported can only be determined after the selection of semi-finalists as part of the GCIP

Accelerators. Also, expected difficulties include attribution of the incremental GEBs of the cleantech solutions to the GCIP support. However, the design of past GCIP assumed abatement costs (for GEF funding) of between 0.68 USD/tonne CO₂e in Turkey to 29.77 USD/tonne CO₂e in Armenia. As the targets were exceeded in those countries, and as the proposed benchmarks are within the same range, they are considered realistic and conservative.

115. The target of between 5 to 10 USD/tCO₂e avoided, that is set for the GCIP Framework, translates into avoided GHG emissions per enterprise of between 1,800 to 3,600 tCO₂e. The provided target range will enable the GCIP country child projects to support a mix of technologies with different CO₂ emission reduction potentials, and in particular allow innovations into the GCIP Accelerators that a) have a relatively low CO₂ reduction potential, but a considerable demand and market growth potential (that can lead to amplification of GEBs), as well as b) that create multiple benefits (including socio-economic, such as job creation, gender mainstreaming, etc.). In addition, indirect GEBs facilitated through the CIEE strengthening are also expected. In particular, indirect GHG emission reductions could result from: strengthened capacity of institutions and human resources to support commercialization and uptake of cleantech solutions at large; investments mobilized for cleantech solutions at large due to reduced risk perceptions; as well as longer-term emission reductions from behavioural change. An estimated factor of 5 is chosen to provide a projection for indirect GEBs. Where possible, efforts will be made to verify the indirect GHG emission reductions achieved at national and global levels through terminal evaluations.

116. This target-based approach for the estimation of GHG emission reductions will be applied across all 10 child projects under the GCIP Framework. A GCIP methodology for the calculation and monitoring of GHG reduction potential will be developed by the GCIP Global in the first year of the project implementation, as well as it will be shared with all GCIP partner countries to enable coherent approach. In order to ensure that the desired GEBs are cumulatively delivered by the GCIP Framework, appropriate measures will be applied across the programme. They will entail placing a benchmark for the estimated GEB to be delivered by the cleantech innovations at the GCIP Accelerator application stage, so that only solutions with sufficient impact potential are supported. If the projected GHG emission reduction does not meet the minimum requirement set, the innovation will not be accepted into the GCIP Accelerators.

ii) Estimation of Global Environmental Benefits of the GCIP Moldova (GEF ID: 10457)

117. The three cycles of GCIP Moldova Accelerator are expected to support at least 30 enterprises (semi-finalists), as a result of which the avoided direct GHG emissions over a ten-year horizon are estimated at between 63,000 and 126,000 tCO₂e of direct GHG emission savings and 315,000 and 630,000 tCO₂e of indirect GHG emission saving (based on an estimated factor of 5). The lower range has been used as input to the GEF corporate core GHG indicator target (indicator 6) as a conservative estimation. To facilitate the achievement of GEBs, there will be awareness raising and promotional activities during the call for applications to the GCIP Moldova Accelerator, and also the applicants will be supported in calculating GHG emission reduction potential of their innovations. Additional training on GHG monitoring and calculation will be provided to all semi-finalists. In addition to the substantial mitigation of CO₂ emissions, it is expected that other environmental co-benefits will result from this project. These are likely to include reduction in waste, material use, air pollutants (e.g. NO_x, SO_x, PM and CO), and improved water quality, among others.

g) Innovativeness, sustainability and potential for scaling up

Innovativeness

118. The GCIP Moldova is unique in its multi-tiered and multi-stakeholder approach to fostering the expansion of start-ups and SMEs into innovative cleantech markets. In comparison with other incubator or accelerator programmes, the GCIP Moldova does not only focus on enterprises, but also on strengthening the entire CIEE by building capacity in national institutions, creating strong linkages between the most relevant ecosystem players – such as

EEA, ODIMM, EcoVisio, Tekwill, Insomnia, ASM, TUM – and by raising awareness of the society at large.

119. Importantly, the GCIP Moldova supports entrepreneurs across the whole innovation value chain to develop demand-driven and investment-ready cleantech solutions that will have an extensive positive impact in the global markets. What is more, GCIP enables achievement of not only environmental, but also socio-economic benefits, in that it for example promotes gender equality and women's empowerment.

Sustainability

120. The GCIP Moldova is designed with the view to ensuring self-sufficiency and long-term sustainability of the acceleration and coordination mechanisms established in its framework through: 1) Enhancing the capacity of the EEA to provide the Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator services in a self-reliant manner. More specifically, while the EEA is strongly supported in several activities by the global PEEs in the first year, the assistance is gradually phased out in the subsequent years, so as the EEA is expected to run all activities and coordinate with relevant stakeholders fully autonomously by the end of the project; 2) Building capacity of local experts (trainers, mentors, judges), so that they are able to offer their services on market terms (independently from GCIP Moldova) to entrepreneurs not supported by the project; 3) Linking CIEEs across countries and creating incentives for cleantech start-ups/SMEs, policy makers, industry associations, etc. to formalize their commitments, and in particular to sign bilateral cooperation agreements that would guide their cooperation for the next years, without further involvement of GCIP Moldova; 4) Providing several tools that can be referred to and used by different CIEE stakeholders beyond the lifetime of GCIP Moldova, such as guidebooks, systems, tools, guidelines, website, etc.; 5) Guiding entrepreneurs to incorporate sustainability considerations in their business models, such as meeting the needs of the present generation without compromising the ability of the future generations to meet their own needs; as well as ensuring business resilience to external shocks and stable growth potential (through a thorough analysis of the demand, competition, etc.); 6) Facilitating early-stage investment, and thus enabling the entrepreneurs to bridge the valley of death in their scale-up journey, which in turns mitigates risks for future investors and increases chances for further rounds of finance, including commercial lending; 7) Creating the GCIP Moldova section of the global GCIP web platform to be used also after the project lifetime (as a market place, where entrepreneurs will continue to showcase their solutions, investors will continue to scout for new innovations, policy makers and regulators will continue to interact). In fact, the web platform will catalyze connectivity between different stakeholders in a long term; 8) Working closely together with other GCIP partner countries, and thus enabling GCIP Moldova to be part of a global and recognized brand that is expected to last in the future.

121. A GCIP Moldova sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among others include specific considerations related to a formal project closure process (based on targets achieved by the GCIP Moldova) and long-term sustainability of the achieved results.

Scaling up

122. The GCIP Moldova bears a considerable potential for local and regional expansion in terms of cooperation and networking, as well as sectoral expansion through inclusion of additional cleantech categories. For example, through close relationship with other GCIP partner countries, the GCIP Moldova stakeholders are enabled to form international partnerships and to enter foreign markets. What is more, through continuous extension of GCIP into additional countries, these opportunities are continuously augmenting. With regard to the cleantech categories, while it is foreseen that, in order to tackle the most pressing challenges, at the beginning the GCIP Moldova will focus on energy efficiency, renewable energy production, energy storage, energy production data collection, eco-friendly vehicles, district heating systems, and modernization of electricity distribution network, other cleantech categories may be supported in addition in the future.

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

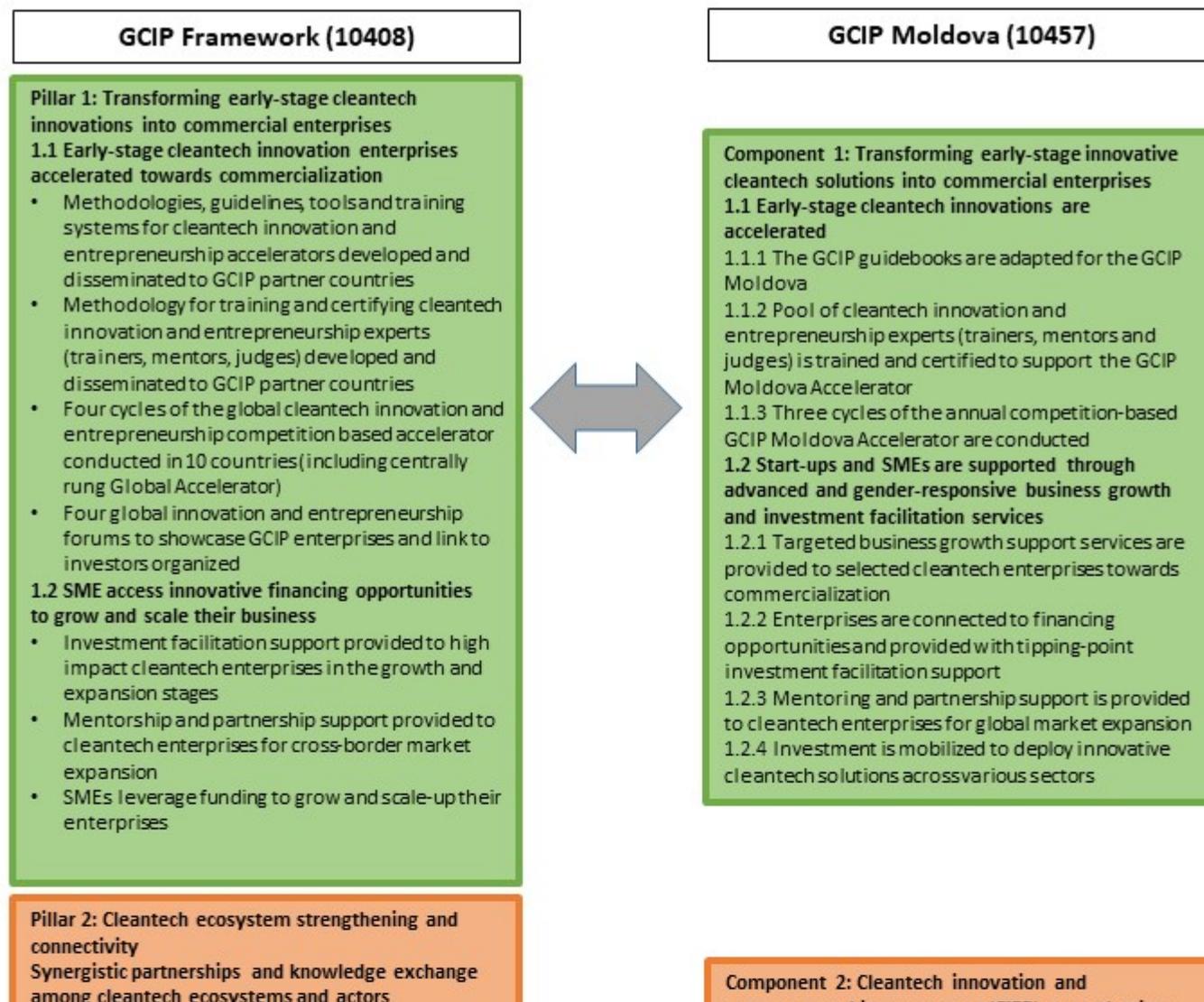
123. While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions) from all over the country, the main project events will be conducted in the capital city of Moldova (Chisinau). This is due to the benefits resulting from a relatively dense concentration of relevant stakeholders there, and well developed infrastructure. The project boundary will not overlap any other country's territory.

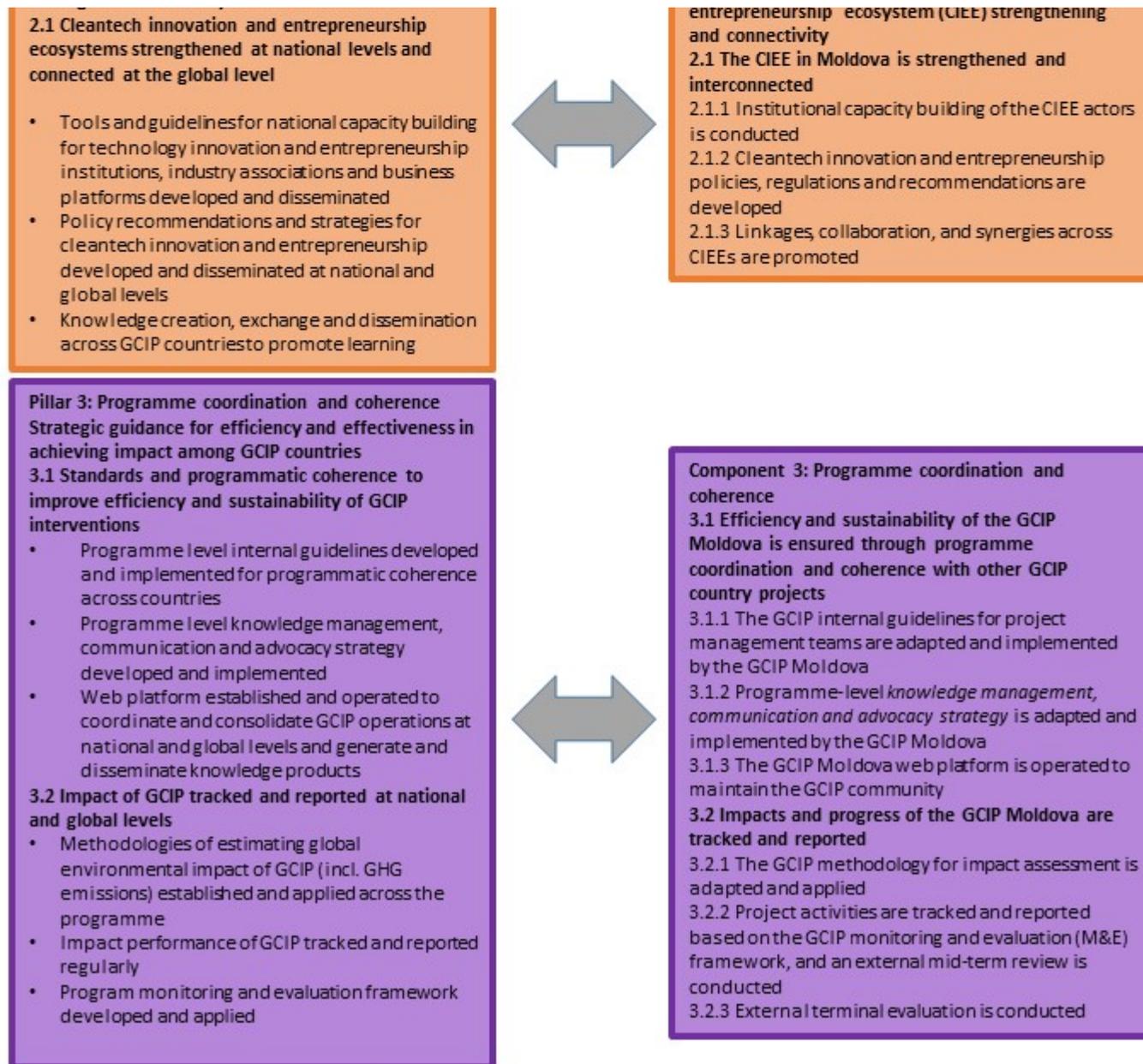
The geo-coordinates for the capital, Chisinau, are: 47° 0' 13.2120" N and 28° 54' 25.5204" E.

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

124. This project is a child project under the GCIP Framework. The following figure shows how the GCIP Framework and the GCIP Moldova are interlinked.





2. Stakeholders

Please provide the Stakeholder Engagement Plan or equivalent assessment.

125. Inclusive stakeholder consultations (the evidence of which is included in Annex K), that took place during the project design period, paved the way for strong involvement and commitment from all relevant actors. This will continue throughout the project, as the facilitation of coordination between all CIEE stakeholders is a key objective of the GCIP Moldova. A Stakeholder Engagement Plan (SEP) was developed (Annex G) to outline the strategy for engaging with stakeholders, including a range of activities and approaches, from information sharing and consultation, to participation, negotiation, and partnerships. The SEP also sets out resources and responsibilities as well as any related monitoring and reporting requirements. In addition, letters of support from relevant stakeholders (Annex J) were secured.

126. An overview of the stakeholders as well as their foreseen roles and engagement modalities in the project is included below.

Stakeholder	Role in Moldova	Envisaged role in the project / engagement
Energy Efficiency Agency (EEA)	The EEA is a 100% state-owned body under the Ministry of Economy and Infrastructure focusing on energy efficiency and renewable energy. Its main objective is to implement the National Energy Efficiency Action Plan (NEEAP 2016-2020).	The EEA is the national PEE with responsibility for the execution of this project, and it is expected to take lead in sustaining and expanding the GCIP Moldova Accelerator after the completion of this project. The EEA will also provide the requisite linkages to other government bodies in Moldova responsible for energy, water, agriculture and other sectors relevant to this project.
Ministry of Economy and Infrastructure (MEI)	The MEI develops and implements the legal and regulatory framework and promotes energy and SME policy.	The MEI will be represented in the Project Steering Committee (PSC), as well as it will be involved in the development of policy recommendations, and in overseeing use of co-finance.
Ministry of Agriculture, Regional Development and Environment (MARDE)	The MARDE develops and promotes state policies and strategies related to the agro-industrial sector, regional development, environmental protection, and climate change.	The MARDE is the GEF OFP and the UN FCCC national focal point leading activities related to climate change adaptation and mitigation. The PSC will be established under the chairmanship of the Moldova GEF OFP.
Ministry of Education, Culture and Research (MECR)	The MECR is responsible for research and innovation policy.	The project will liaise with the MECR on issues relating to research and innovation policy to nurture a supportive CIEE, a

		nd the MECR will be a member of the P SC.
National SME Agency (ODIMM)	The ODIMM implements SME policy and delivers SME support schemes, as well as it manages funding provided by the state and international assistance programs.	The ODIMM will be a member of the PSC, as well as it will participate in the capacity building activities and training delivery, and it will liaise with SMEs. Moreover, it will provide inputs to policy recommendations. The ODIMM will represent the Moldovan Business Innovators Network (RIAM) within the project.
Ministry of Labour, Social Protection and Family (MLSPF)	The MLSPF coordinates occupational safety and health policy.	The MLSPF will be consulted on issues relating to social safeguards.
Technical University of Moldova (TUM)	The TUM teaches and conducts R&D on a number of topics associated with energy and innovation.	The TUM is envisaged to cooperate with the GCIP Moldova in knowledge management, research, and innovation, including engagement of graduate and post-graduate students, for instance, through providing traineeships and topics for theses, as well as facilitating international contacts and exchange of information.
Chamber of Commerce and Industry	The Chamber of Commerce and Industry, together with other business associations, such as Business People's Association of Moldova, and Small Business Association of Moldova (AMB), are already very active in promoting green economy. In particular, it has long-term cooperation with the National Cleaner Production Programme in the implementation of the RECP.	The project will reach out to business associations as a source of potential candidates for the GCIP Moldova Accelerator, as well as for consultation on policy recommendations. In addition, it will encourage their participation in the capacity building activities.
Business People's Association of Moldova		
Small Business Association of Moldova (AMB)		
Centre for Socio-Economic Development and Innovation Support for Entrepreneurship (CDSESAI)	CDSESAI and GEN are NGOs with a mission to provide capacity building for innovative SMEs. Their objectives include: stimulation of Moldovan enterprise participation in R&D funding programs and improvement of national public policies rel	In GCIP Moldova the organizations will help to identify and train mentors and judges, as well as they will engage in outreach activities to encourage entrepreneurs to apply to the GCIP Moldova Pre-Accelerator and Accelerator. When needed, they can also help in operating the GC

Global Entrepreneurs Network (GEN)	ated to development of SMEs. GEN connects entrepreneurs, investors, researchers, policymakers, and other stakeholders.	IP Moldova Pre-Accelerator and Accelerator.
Association Education for Development (AED)	The AED is a non-governmental apolitical and non-profit organization founded in 2017 and it has direct experience in capacity building, teaching and learning.	The AED could support capacity building activities conducted for the CIEE stakeholders.
National Agency for Research and Development (NARD)	The NARD is responsible for the development and implementation of the national research and innovation policy. It is also a focal point for the EU Framework Programme for Research and Innovation Horizon 2020.	The NARD could support outreach and communications activities, as well as capacity building of relevant stakeholders in the CIEE.
Association of Installation Engineers of the Republic of Moldova (AIIRM)	The AIIRM represents professional interests of the installation engineers in Moldova, as well as it seeks to strengthen their role and importance in the economy and society.	The AIIRM is envisaged to promote the GCIP Moldova among engineers and to encourage them to apply for support. Also, AIIRM's role will be to raise awareness about the importance of cleantech for the Moldovan economy and society.
European Bank for Reconstruction and Development (EBRD)	The EBRD has funded a variety of projects with a direct relationship to cleantech innovation. In particular, it offers a product in the Moldovan market called EU4Business-EBRD Credit Line Moldova which aims to help Moldovan SMEs finance investments, which enable them to seize the opportunities presented by the Deep and Comprehensive Free Trade Agreement (DCFTA). The programme consists of loans and leasing finance, provided via local Financing Partner Institution, grant incentives of up to 15% and technical assistance provided by an international team of engineers.	EBRD has expressed interest in this project and has confirmed that it is ready to finance the energy efficiency and renewable energy solutions in Moldova.
European Union (EU)	The EU has a number of support n	It is intended that the GCIP Moldova will

European Union (EU)	The EU has a number of support programmes in Moldova, including the EU4Environment project on RECP.	Global Environment Facility (GEF) Operations It is intended that the GCIP Moldova will work closely with the EU on facilitating the RECP, e.g. the RECP assessments may identify specific industry challenges that the GCIP Moldova Accelerator could address.
European Investment Bank (EIB), InnovFin	Through InnovFin the EIB offers EU finance for innovators (i.e. guarantee and/or equity investment for high growth potential start-ups).	Through GCIP Moldova promising cleantech start-ups will be introduced to InnovFin.
Innsomnia	Innsomnia is a Spanish incubator programme with competition and challenge accelerators covering a range of cleantech sectors.	Innsomnia will partner with this project to support annual winners to attend a one-week event in Spain.
USAID	USAID funds a number of SME support programs in Moldova.	The GCIP Moldova will liaise with USAID to ensure no duplication of efforts and to create synergies between respective activities.
private sector companies: S.A. CET-Nord, S.A. RED-Nord, Casa Aeterna, Lucia Ceban, S.A. Termoelectrica	Private sector companies build the backbone of Moldovan economy, and play a crucial role in spurring innovation. However, this potential is not fully explored and underexploited yet.	The private sector and state companies intend to provide equity investment to selected enterprises supported by the GCIP Moldova, in particular featuring technologies related to district heating systems, modernization of electricity distribution network, energy efficiency, renewable energy production (incl. e.g. bifacial photovoltaic panels), energy storage (incl. e.g. lithium battery system), energy production data collection, etc.
Posta Moldovei (state company)	The Posta Moldovei offers a wide range of postal and financial services across the country, having a network of over 1000 offices, and being the largest operator of this kind in Moldova.	The Posta Moldovei intends to provide equity investment to selected enterprises supported by the GCIP Moldova, in particular offering solutions for eco-friendly vehicles.
cleantech entrepreneurs	Cleantech entrepreneurship sector (including start-ups and SMEs) in Moldova is currently at a relatively nascent development stage.	The cleantech entrepreneurs are potential project beneficiaries (as applicants and participants in the GCIP Moldova Pre-Accelerator, Accelerator, Advanced Acc

		elerator, and Post-Accelerator).
financing institutions (e.g. VictoriaBank, Finance in Motion), venture capitalists, and angel investors	<p>The VictoriaBank is a commercial bank that offers all kinds of financial services to retail and corporate clients.</p> <p>The Finance in Motion is an investment management firm focused on development finance, impact investment, and responsible finance.</p>	<p>The VictoriaBank considers providing accessible credits to local start-ups and SMEs supported by GCIP.</p> <p>The Finance in Motion is interested in contributing to the capacity building activities by providing expert support as well as engaging in awareness raising campaigns.</p>
global PEEs: Network for Global Innovation (NGIN) and Cleantech Group (CTG)	-	<p>There will be significant interaction between the GCIP Moldova and the GCIP Global, in that the GCIP Global will provide the GCIP Moldova with support in execution of several activities, and the GCIP Moldova will feed back to the GCIP Global, as well as it will participate in various events facilitated on the global level.</p>

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body; Yes

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

127. Gender equality is a fundamental human right. While some progress has been achieved towards gender equality and women's empowerment globally, women continue to suffer from discrimination and violence in some parts of the world. Gender issues need to be addressed by creating equal employment and capacity building opportunities, as well as social infrastructure and safe working conditions responding to the specific needs of women. The importance of gender equality and women's empowerment, particularly women's economic empowerment, is at the core of UNIDO's mandate. Commitment of UNIDO towards gender equality and women's empowerment is demonstrated in its policy on Gender Equality and the Empowerment of Women (2019), and the UNIDO Strategy for Gender Equality and the Empowerment of Women (2020-2023). UNIDO has also developed an operational energy-gender guide to support gender mainstreaming within its sustainable energy initiatives.

128. Gender equality enhances economic growth, reduces household poverty, and enables human development. Women's entrepreneurship, that can directly contribute to the economic empowerment of women, is often seen as crucial for increasing the quality of life of women in the developing world, as well as a trigger for changes of the status-quo of women and for re-addressing the balance of power within the family.

129. The focus of dialogue on gender and cleantech is shifting from women being identified as part of the vulnerable groups to them becoming key agents of change as consumers, entrepreneurs, distributors and decision makers across the value chain. Women and their organizations have the potential to play a critical role in contributing to the SDGs. A large number of women are engaged in entrepreneurship, with a women ownership of 30-70% of all SMEs in emerging markets (IFC and McKinsey, 2011).

130. Nevertheless, the enterprises led by women in developing countries tend to be concentrated on a relatively narrow range of activities. Moreover, they are often very energy intensive, rely on biomass fuels and have disproportionately low rates of return compared to the activities undertaken by men. Nonetheless, networks of women entrepreneurs could be leveraged to promote innovative cleantech.

131. The most recent Global Gender Gap Index of the World Economic Forum (2017) ranks Moldova 30th out of 144 countries. The country has close to universal primary and secondary education completion rates that are equal for boys and girls, and a high university completion rate with 58% of university graduates being women. Women make up 49.2% of the total workforce (45% in SMEs). The women participation in firm ownership is high at 47.5% and over 50% for medium sized enterprises, which is above average in comparison to other countries in the region. However, a recent World Bank Gender Action Plan found that inequalities still persist on the labour market, for example there are significantly fewer women than men in higher-earning sectors and positions. The reasons for professional segregation were not explored, but are believed to be largely rooted in social norms perpetuated through the education system, labour market, and media. Women in Moldova are less likely to start a business, and when they do, they are less likely to expand it and employ others. Detailed research and policies on women in business is incipient. However, available data suggests that barriers include social norms, access to productive assets, and the need for skills such as leadership, management, financial literacy, etc. Based on these findings, the GCIP Moldova aims to address the gaps, and foresees that a minimum of 35% of the total number of experts trained and GCIP-supported entrepreneurs will be women.

132. The GCIP Framework overall, including the GCIP Moldova, has been identified as having “significant gender mainstreaming” impact according to the Gender Marker used in categorizing UNIDO projects. It is expected to significantly contribute to gender equality and/or women’s empowerment. These projects possess multiple entry-points for gender mainstreaming activities and/or affirmative action, but do not explicitly state gender equality and/or women’s empowerment as a principal objective. Rather, gender equality and/or women’s empowerment is a secondary objective and the project has corresponding outputs and indicators that measure how gender equality will be advanced.

133. A guiding principle of the project is to ensure that both women and men equally participate in and benefit from the project (UNIDO Gender Policy 2019). Particularly, in the GCIP Moldova Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, gender-responsive activities will be streamlined to ensure the achievement of this goal. Special efforts will be made to promote equal participation of women and men, both at managerial and technical levels, as consultants, participants, entrepreneurs, mentors, etc. in all stages of project implementation. Previous GCIP projects have already shown higher levels of women’s participation than other acceleration and incubation programmes, with 25% of the 900 alumni supported to date being women-led enterprises. This project aims at continuation of this trend and even at an increase of the proportion of women beneficiaries (with a target of at least 35% women beneficiaries).

134. UNIDO’s Guide on Gender Mainstreaming in Energy and Climate Change Projects, as well as a draft gender mainstreaming action plan developed in the framework of this project (Annex H) will serve as a framework for the project implementation, as to ensure that both UNIDO and GEF requirements are fulfilled. Based on the guidelines, attention will be paid to: 1) Gender-sensitive recruitment at all levels where possible, especially in selection of project staff. Gender responsive TORs will be used to mainstream gender in the activities of consultants and experts. In cases where the project does not have direct influence, gender-sensitive recruitment will be encouraged. Furthermore, whenever possible existing staff will be trained and their awareness raised regarding gender issues; 2) Consideration of gender dimensions in all decision-making processes (e.g. efforts to achieve gender balance/representation in such processes), including PSC meetings; 3) Collection of sex-disaggregated data; 4) Consultations with and involvement of stakeholders focusing on gender equality and women’s empowerment issues, such as gender experts and organizations, CSOs and NGOs, e.g. for outreach purposes.

135. A gender analysis was carried out and a draft gender mainstreaming action plan developed (Annex H) in the framework of this project, which also influenced the ultimate project design. In the project design UNIDO has ensured that the gender dimensions are considered, and that the project log-frame reflects key gender dimensions in the respective outputs, activities, indicators and targets. Also, a review of previous GCIP projects enabled insights into how the GCIP Moldova can best contribute to gender equality and women’s empowerment.

136. A summary of some suggested approaches to gender mainstreaming is shown in the table below. A full list and further details are provided in the Gender Analysis Report (Annex H). Upon the start of project implementation, the EEA will review and validate the Draft Gender Mainstreaming Action Plan included therein and incorporate it into its annual work plans.

Stage/Activity	Gender equality measure
Project execution	Gender sensitization workshops will be conducted for all stakeholders involved in GCIP Moldova; A gender training package (material for national capacity building on gender awareness) will be adapted for Moldova from the training package developed by the GCIP Global; Gender focal point will be nominated within the EEA.
Training of GCIP Moldova consultant	Consultants/experts will be required to complete the “I know gender” UN course; Mentors and judges will be provided with training on awareness raising and gender-bias; Consultants will be ex

s and experts	pected to provide evidence on how gender equality is addressed in the material they develop.
Development of GCIP Moldova guide books	Guidebooks will highlight the need to make special effort to encourage women to apply for the GCIP acceleration support, including targeted outreach and gender specific communications material (e.g. videos, success stories) and explicit statements that GCIP encourages applications from women; Training materials for entrepreneurs will include topics on gender awareness; Gender equality will be addressed in the curricula and content of all training material developed for experts.
Application stage for GCIP Moldova Accelerator	Sex-disaggregated data will be collected in application forms; There will be targeted and gender responsive outreach; From the second year of project implementation, it will be considered to organize events specifically targeted at connecting women technicians and engineers with business women; A target of the 35% of women-led enterprise applications is set.
Selection of GCIP Moldova semi-finalists and recruitment of experts	Stringent selection criteria will be defined that provide equal opportunities for both women and men; Women will be involved in the mentoring/training and judging processes so that more role models are created; Efforts will be made to ensure gender balance of judges; Special support will be provided to women to prepare for the competition, e.g. women could receive possibility to select their slot, so it does not overlap with their household responsibilities or could be offered safe transport to the competition venue; Evaluation methodology for selection of semi-finalists will consider the gender balance within entrepreneur's management teams and beneficiaries, as well as gender-responsive policies within their firms.
Special Awards	Special consideration will be given to the creation of a gender related prize (e.g. a prize for the women's entrepreneur of the year and/or a special award for the team with the product/service with the highest gender equality impact potential). Such a prize was offered in a number of previous GCIPs, which led to an increase in the number of women-led innovators applying for support (e.g. in South Africa, Pakistan, and Morocco the number of applications from women entrepreneurs was between 25% and 40%). In sum, the project design will acknowledge the differences between women and men considering distribution of economic activities and social roles.
Provision of support to entrepreneurs participating in the GCIP Moldova Accelerator, Advanced Accelerator, and Post-Accelerator	Where considered necessary, GCIP will seek to remove barriers to ensure inclusion of women (e.g. segregated financial training might be offered); There is a specific training module foreseen as part of the GCIP Accelerator curriculum to address gender-related challenges and barriers; The training material will be gender-responsive (e.g. stereotypes will be avoided); Trainings will be organized at times suitable for both women and men, and recordings will be provided.
Forums/events	Women participants will be encouraged to attend the forums/events through focused outreach activities; It will be ensured that topics of interest to women entrepreneurs are included in the forum/event agendas; There will be a targeted event or panel to discuss women's entrepreneurship; Participant data will be disaggregated.
Investment facilitation	Gender lens investing principles will be applied in all investment decision making processes; Sp

tion	ecic tr aining material and guideelines on gender iens investment will be developed tor nancier s.
Capacity building	Capacity building on gender equality will be mainstreamed throughout the project implementation and with regard to all stakeholders; The existing National Women's Platform will be enhanced; A gender sensitization training for relevant stakeholders will be organized.
Policy support	Gender and youth empowerment policy framework will be developed.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources;

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on private sector engagement in the project, if any

137. The private sector engagement is key for the success of this project, as confirmed in stakeholder consultations in the PPG phase. The GCIP Moldova foresees several areas of interaction with the private sector, as described below.

- a) There will be direct interactions with and support for entrepreneurs (SMEs and start-ups) offering innovative cleantech solutions. The entrepreneurs are considered as agents of change that bear the potential of instigating a market transformation. The SMEs and start-ups will be supported in the framework of GCIP Moldova Pre-Accelerator, Accelerator, Advanced Accelerator, and Post-Accelerator, as described before.
- b) The private sector companies (such as S.A. CET-Nord, S.A. RED-Nord, Casa Aeterna, etc.) intend to provide equity investment to selected enterprises supported by the GCIP Moldova, in particular featuring technologies related to district heating systems, modernization of electricity distribution network, energy efficiency, renewable energy production (incl. e.g. bifacial photovoltaic panels), energy storage (incl. e.g. lithium battery system), energy production data collection, cleantech solutions for efficient, etc.
- c) Corporate partnerships will be formed to connect GCIP Moldova participants with various companies with the aim to create joint venture opportunities across borders, to facilitate market expansion and product co-development. This has already been successfully piloted with the Korean Financing Technology Corporation (KOTEC) with collaborations established between Korean SMEs and GCIP alumni from Morocco, Pakistan, Thailand and Turkey. Similar partnerships are expected under this project.
- d) The GCIP Moldova will also partner with corporations that seek to identify and invest in innovative cleantech. More specifically, the National Innovation Challenge, to be integrated into the GCIP Moldova Accelerator, will connect selected corporations – looking for concrete demand-driven solutions – with GCIP entrepreneurs. It is foreseen that, in joint collaboration with UNIDO's Department of Environment which is an implementing partner for the EU4Environment project, the challenges will be identified based on the RECP assessments conducted for key industries.
- e) Moreover, the GCIP Moldova will target financing institutions (such as VictoriaBank or Finance in Motion), venture capitalists, and angel investors in its communications and outreach activities that seek to raise awareness and strengthen the knowledge of opportunities and risks associated with investments in cleantech. In addition, Investor Connect events will be organized to connect potential financiers with entrepreneurs and to facilitate investments.
- f) The GCIP Moldova will also cooperate with industry and business associations (such as the National Chamber of Commerce and Industry, Business People's Association of Moldova and AMB, etc.) to leverage their know-how, capital and interest in cleantech innovations, as well as to build their capacity.
- g) In addition, industry experts will be engaged as mentors, trainers, judges, and EIRs to support the GCIP Moldova Accelerator, Advanced Accelerator, and Post-Accelerator.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation. (table format acceptable):

General risk analysis

Risk	Risk level	Risk mitigation measures
Institutional Risk – Lack of absorptive capacity by the national counterpart	Low	Capacity building of the EEA will be an ongoing process throughout the project implementation period to ensure that staff are comprehensively trained and sustainability of the programme is ensured.
Institutional Risk – Insufficient administrative and organizational capacity of the EEA for successful execution of the project	Low	An organizational assessment (a micro assessment under the Harmonized Approach to Cash Transfers framework) was conducted during the PPG phase to evaluate potential execution risks. The results showed the risks to be low in all areas under consideration.
Institutional Risk – Insufficient technical capacity of the EEA for successful execution of the project	Low	The EEA was nominated by the GEF OFP in consultation with key stakeholders as the most appropriate national agency to execute the project, and therefore it is assumed that it has the pertinent mandate and technical capacity for successful achievement of the project objective and associated outputs and activities.
Institutional Risk – Lack of effective coordination between various project partners	Low	Proper coordination will be ensured through the establishment of the Project Steering Committee (PSC) and ad-hoc working groups will be formed if necessary.
Operational Risk – On-going global restrictions due to global shocks (e.g. COVID-19)	Medium/High	In case of travel and/or group meeting restrictions, the GCIP Moldova trainings and meetings/events will be organized on-line.
Sustainability Risk – Lack of ownership of project results and inability to source funding to continue the activities in the medium and long term	Low	A GCIP Moldova sustainability and exit strategy will be developed based on a framework delivered by the GCIP Global, and it will among others include specific considerations related to a formal project closure process (based on targets achieved by the GCIP Moldova) and long-term sustainability of the achieved results.
Political Risk – Lack of political support to mainstream innovative cleantech	Low	The project is supported by the Government of Moldova, and different ministries have been involved in the design of the project.
Market Risk – Lack of interest by entrepreneurs and other stakeholders to participate in the GCIP Moldova	Medium	Outreach and communications activities will be a key component of the GCIP Moldova in the lead-up to the opening of application process and throughout the project to attract entrepreneurs, potential sponsors and partners and mentors and judges. More specifically, the GCIP Moldova knowledge

GCIP Moldova		... and mentors and judges. More specifically, the GCIP Moldova knowledge management, communication, and advocacy strategy will be developed to guide these efforts.
Market Risk – Failure of businesses supported by GCIP Moldova	Medium	The GCIP guidebooks (for Accelerator, Advanced Accelerator, and Post-Accelerator) will be comprehensive documents that articulate the GCIP approach to promoting cleantech innovation and entrepreneurship in developing countries. As such, they will help ensure that the businesses supported have real market potential. In particular, the GCIP Moldova guidebooks will define eligibility requirements and selection criteria for the participants.
Financing Risks – Incentive and financial support system are insufficient	Low	The outreach and communications activities will be targeted at, among others, financing institutions, venture capitalists, and angel investors. Moreover, the strong GCIP brand, and the direct involvement of renowned global PEEs are expected to build confidence of national and international financiers. The PSC will include at least one representative of a financing institution or an investor.
Social and Gender Risks	Low	To ensure gender inclusiveness of all project activities, UNIDO methodology for gender assessment and gender responsive communication showing the benefits of gender equality for both women and men will be applied. To mainstream women and youth entrepreneurship, adequate and gender responsive communication strategy will be implemented and sensitization workshops will be organized. A full gender analysis was carried out and its recommendations were incorporated into the project design.
Climate Change Risks	Low	The climate change it is not likely to have severe impacts on this project, with an exception for cleantech innovation dependent on biomass or water supplies. To safeguard against climate change risks, the screening of technologies to be supported by the GCIP Moldova will include an assessment of the climate risks with a time horizon of 30 years, and where a risk is identified it will be necessary for the entrepreneur to propose suitable adaptation or management measures. The GIZ's Climate Expert Tool could be used as a tool available to entrepreneurs in that context.
Environmental Risks	Medium	It is recognized that some technologies that could potentially be supported by the GCIP Moldova, such as the use of block chain, could lead to major GHG emissions, unless powered entirely by renewable energy. Similarly, technologies related to energy storage can have harmful environmental impacts if not managed effectively. Therefore, any cleantech innovation supported by the GCIP Moldova will need to meet strict environmental screening criteria. In addition, an Environmental and Social Management Plan (ESMP) was prepared (Annex I) to mitigate the environmental (and social) risks.

COVID-19 risk analysis

Risk	Risk level	Risk mitigation measures
Technical expertise is not readily available due to the pandemic	Low	Necessary efforts will be made to identify alternative technical experts in case it is required. Planning will be flexible enough to reschedule activities onsite that require specific expertise.
Possible re-instatement of COVID-19 containment measures limits available capacity or effectiveness of project execution/ implementation	Medium	The capacity of stakeholders, and especially the beneficiaries, for remote work and online interactions will be strengthened by securing access to commercially available conferencing systems. The current design of the curriculum for entrepreneurs is based on online interactions and deliverables, using webinars and web platforms, and therefore COVID-19 is not expected to pose a significant risk to the conduct of the acceleration cycles.
Some project supporters, co-nanciers or beneficiaries may not be able to continue with project execution/implementation	Low	The situation will be closely monitored in order to find alternate supporters or co-nanciers, or to readjust the list of beneficiaries if needed.
Price increases for procurement of goods/services	Medium	The project team will undertake efforts needed to find alternative providers and make sure that competitive pricing is obtained.

COVID-19 opportunity analysis

Opportunity	Opportunity level	Opportunity optimization measures
New business opportunities created in response to COVID-19 related restrictions and measures	High	Response to COVID-19 restrictions, such as remote working arrangements and no-contact business modalities will require solutions that can be turned into new business models. These opportunities will be analyzed at the national level and shared with the GCIP Moldova entrepreneurs. Examples of former GCIP alumni responding to new business opportunities by providing innovative solutions during the pandemic are summarized here: https://www.unido.org/stories/cleantech-innovators-take-covid-19 .
New business opportunities to build back better for business continuity and economic recovery post-COVID-19	High	By design, the GCIP Moldova engages private sector to promote and scale up cleantech products and services, and business models with resilience to climate change (e.g. circular business models). Information on relevant new business opportunities as well as policy/regulations will be added to the GCIP Moldova curriculum so that the entrepreneurs are fully informed of the market and policy trends.

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

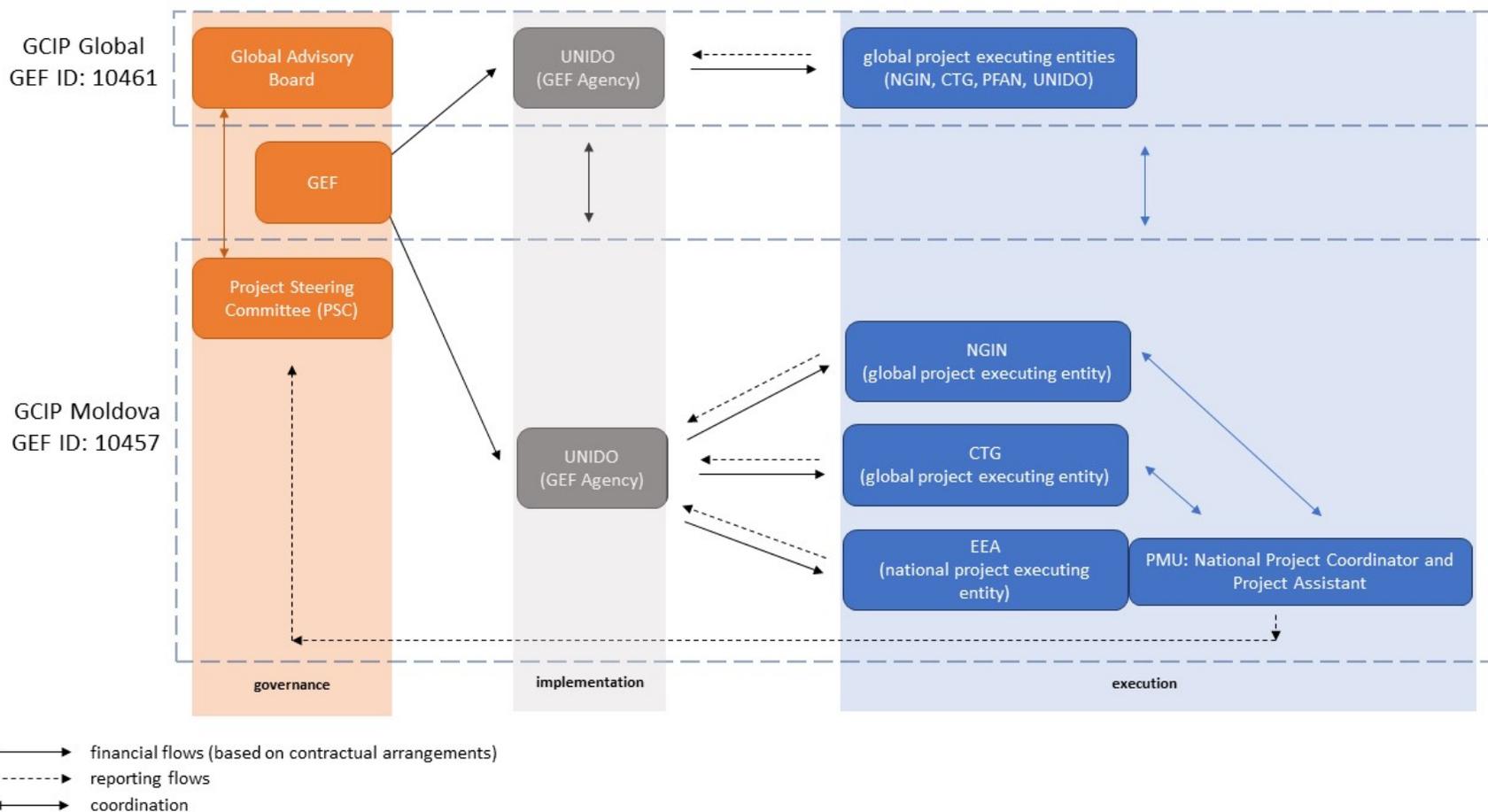


Figure 6: Relationships between project stakeholders under the framework of coordination

Implementation

138. UNIDO as the GEF Agency will be responsible for the implementation of the GCIP Moldova, which entails oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and requirements. UNIDO as the GEF Agency will also be accountable to the GEF Council for the GEF-financed activities, as well as it will be responsible for project cycle management services and corporate activities.

Execution

139. GCIP Moldova will be executed by a national PEE with support from two global PEE. The *Energy Efficiency Agency* (EEA) was nominated by the GEF OFP in Moldova to be the national PEE, and subsequently the EEA successfully underwent a HACT assessment initiated by UNIDO. The EEA will designate internally, or recruit externally, project management personnel to form the project management unit (PMU). The PMU will consist of the National Project Coordinator (NPC) and a Project Assistant (PA).

140. The PMU will be responsible for the day-to-day management, as well as monitoring and evaluation of project activities, as to be specified in the project workplan. The EEA will sub-contract qualified service providers for the execution of certain activities. An open and competitive process will be applied to select the service providers. Also, a number of activities, as outlined in this document, will be delivered by the global PEEs.

141. The global PEEs, that will support the execution of GCIP Moldova, are Network for Global Innovation (NGIN) and Cleantech Group (CTG). The global PEEs will perform several activities - some at no cost to the GCIP Moldova (i.e. covered from the GCIP Global budget) and some covered from the GCIP Moldova budget - as specified in details in the tables outlining "Activities and responsibilities" in the project description. NGIN and CTG were identified and selected by UNIDO through an open competitive process according to UNIDO procurement rules and regulations. There will be a contractual agreement between UNIDO and the global PEEs (NGIN and CTG) detailing the expected outputs and deliverables.

142. With regard to GCIP Moldova, NGIN will be supporting the execution of outputs related to enterprise acceleration, post-acceleration support and investment facilitation (Component 1), whilst CTG will support the execution of outputs related to policy and ecosystem development (Component 2). An integral role of all global PEEs will be to facilitate collective interaction, training, knowledge sharing, and communication with the GCIP country projects through the national PEEs. This includes the development of tools and guidelines for dissemination to the EEA, as well as training and workshops provided to the EEA to strengthen its capacity to adopt and operationalize the tools and guidelines developed.

Project Steering Committee (PSC)

143. To ensure proper oversight and institutional ownership of the project, as well as to provide advisory inputs, a PSC will be established under the chairmanship of the GEF OFP. Representatives from institutions involved in the different project components will be members of the PSC.

144. The PSC will meet twice per year to review the project implementation and execution progress and confirm the workplan for the subsequent year. Any amendments proposed to the workplans and budgets by the PSC are done in accordance with the approved project document, the GEF policy, and UNIDO rules and regulations. Minutes of meetings are signed by UNIDO and the PSC chairperson(s). The EEA forms the secretariat of and reports to the PSC, and it is not a voting member of the PSC.

Global Advisory Board

145. The GCIP Framework is supported through a Global Advisory Board that is to be established under the GCIP Global and that fulfills a role of a PSC. The Global Advisory Board will provide strategic guidance to the GCIP Framework, including the GCIP Global and GCIP country projects, and is the approval body for items of major impact on the programme. It will meet once a year to monitor progress against the objectives of the overall GCIP at the programmatic level,

address potential problems and discuss strategic and policy issues affecting the programme. It will review impact tracking and it will also be responsible for defining strategy and advocacy messages.

Coordination with other projects and initiatives

146. This project will be conducted in coordination with ongoing GEF projects in Moldova, as well as other projects and initiatives identified above in the baseline scenario, as to build upon lessons learned, increase synergies, and avoid duplication of efforts.

147. Legal Context

“The Government of the Republic of Moldova agrees to apply to the present project, mutatis mutandis, the provisions of the Standard Basic Assistance Agreement between the United Nations Development Programme and the Government, signed and entered into force on 2 October 1992.”

148. Transfer of assets

Full or partial ownership of equipment/assets purchased under the project may be transferred to national counterparts and/or project beneficiaries during the project implementation as deemed appropriate by the government counterpart in consultation with the UNIDO Project Manager.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

149. The project's focus on innovative cleantech and supporting SMEs and startups is in line with several national priorities of Moldova, including those set out in the Low Emission Development Strategy (LEDS) 2030, according to which Moldova is committed to reach the unconditional 64-67% of GHG emissions reduction by 2030 compared to the reference year level (1990).

150. Effectively, the LEDS strengthens the objectives related to GHG emissions reductions, stipulated in other national legal acts, including: the National Development Strategy (NDS) 2030 and the Energy Strategy (ES) 2030, as well as laws on renewable energy, energy efficiency, thermal energy and cogeneration promotion, and the National Strategy of Agricultural and Rural Development (NSARD) 2014-2020 and the National Waste Management Strategy (NWMS) 2013-2027.

151. The ES 2030, which is of particular pertinence among the strategies and laws listed above, seeks to stimulate the use of energy produced from renewable energy sources, as well as to increase energy efficiency. Also, the project is in line with the programmes and plans developed to implement relevant policies, including the National Program on Energy Efficiency (NPEE) 2011-2020 and the National Renewable Energy Action Plan (NREAP) 2013-2020.

152. The project's focus is also aligned to national priorities relating to innovation and the development of SMEs, as outlined in the country's Innovation Strategy (IS) 2019-2022 and the Small and Medium Enterprise Sector Development Strategy (SMESD) 2012-2020, with priorities including to develop human capital through promotion of competences and entrepreneurial culture; to increase SMEs competitiveness and stimulation of innovation spirit; and to develop the support infrastructure for innovation.

153. The implementation of this project will also be closely coordinated with other related national and international projects, programmes, and initiatives (which promote cleantech, innovation, and entrepreneurship) ongoing in Moldova in order to create synergies and avoid overlaps. Among others, the project will closely link up with GEF projects, including for example the UNDP's Green Cities Chisinau project. In addition to the PSC, other coordination mechanisms may be established when necessary.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

154. The GCIP Global will institutionalise knowledge sharing and management across country projects by making the structure of the programme accessible and replicable, and bringing selected nationalists from around the world together, among others to showcase their innovations at the GCIP Global Forum.

155. A key element in knowledge management will be the creation of a national pool of experts (trainers, mentors, judges), which will allow for best practices and business knowledge to be shared with participants and stakeholders in a structured manner. The national pool of experts will be created from representatives of universities with business development programs, national banks, investment companies and businesses. All of them will be trained to provide entrepreneurs with the skills needed to participate in the GCIP Moldova, and ultimately to bring their innovations to the market.

156. Knowledge sharing will be conducted through trainings, workshops, roundtable discussions, printed materials, and through the GCIP web platform at global and national levels. A set of carefully designed outreach activities will ensure recognition of and support for GCIP Moldova enterprises at the programmatic and national levels beyond the project duration.

157. The EEA and the PMU will be tasked with ensuring the national and international visibility of the GCIP Moldova and accessibility of key findings through the GCIP Moldova web platform. This will provide an opportunity to reach out to future entrepreneurs and investors, while raising public awareness on cleantech and climate change mitigation. All knowledge management activities will be gender responsive, e.g. gender dimensions will be integrated into publications and it will be assured that women, men, and the youth have equal access to and to the same extent benefit from the knowledge created.

158. Continued networking among entrepreneurs during and after the annual acceleration cycles will be facilitated through the GCIP Moldova web platform. The web platform will be a modern and user friendly information sharing and networking tool that will also equip the EEA with local ownership of data (as described under output 3.1.3).

159. A knowledge management, communication, and advocacy strategy framework will be developed by UNIDO with a particular focus on:

- a) Promoting visibility of GCIP and communicating its impacts achieved at national and global levels;
- b) Increasing awareness of the catalytic role of cleantech in addressing climate change and environmental issues;
- c) Showcasing cleantech innovations from the GCIP alumni and enhancing their visibility and credibility.

The knowledge management, communication, and advocacy strategy framework will be shared with the EEA for review and adaptation to the GCIP Moldova needs, as specified under Output 3.1.2.

160. The GCIP Moldova knowledge management, communication, and advocacy strategy will specify the exact knowledge products to be delivered, along with relevant timelines and milestones. The table below provides a general overview of deliverables relevant for knowledge management.

Deliverable	Timeline
a pool of experts (trainers, mentors, judges) created	by the 6th month of project implementation/execution with regular updates after every half a year
the knowledge management, communication, and advocacy strategy framework reviewed and adapted to GCIP Moldova (Output 3.1.2)	by the 6th month of project implementation/execution with regular updates each year
policy briefs, impact reports, brochures, webinars and other types of promotional materials distributed through brief sessions, press releases, social media presence, advertising, etc. – in line with the GCIP Moldova knowledge management, communication, and advocacy strategy	from the 6th month of project implementation/execution and according to the timeline as to be specified in the GCIP Moldova knowledge management, communication, and advocacy strategy
GCIP Moldova web platform created and operationalized (Output 3.1.3), including a special section for the GCIP Moldova alumni network	by the 6th month of project implementation/execution
GCIP Moldova Forum and GCIP Global Forum, as well as Investor Connect events organized	annually / bi-annually

9. Monitoring and Evaluation

Describe the budgeted M and E plan

161. The monitoring and evaluation (M&E) will be conducted in accordance with established UNIDO and GEF procedures. The overall objective of the M&E is to ensure successful and quality implementation of the project by: i) tracking and reviewing project activities execution and actual accomplishments; ii) providing visibility into progress as the project proceeds so that the implementation team can take early corrective action if performance deviates significantly from original plans; and iii) adjusting and updating project strategy and implementation plans to reflect possible changes on the ground, results achieved and corrective actions taken.

162. According to the M&E policy of the GEF and UNIDO, follow-up studies like Country Portfolio Evaluations and Thematic Evaluations can be initiated and conducted. All project partners and contractors are obliged to (i) make available studies, reports and other documentation related to the project and (ii) facilitate interviews with staff involved in the project activities.

163. The Project Result Framework (Annex A) provides performance and impact indicators for project implementation/execution along with their corresponding means of verification. The actual progress will be reported against the workplan approved by the PSC. In case there are significant deviations between the forecasted workplan and actual implementation, corrective measures will need to be taken.

164. There will be a GCIP M&E framework provided by the GCIP Global, based on which the EEA will prepare a GCIP Moldova M&E plan, including time-bound milestones and deliverables. The EEA will also draft progress review reports every six months. There will be an external mid-term review of the project conducted half way through project implementation. The ESSPP considerations, as well as gender dimensions and baseline for gender related targets will be appropriately captured in the GCIP Moldova M&E plan, in the progress review reports, as well as in the collection and assessment of relevant data. The M&A plan will encompass monitoring of the Environmental and Social Management Plan, the Stakeholder Engagement Plan, the Gender Analysis Report, and a risk analysis.

165. The GCIP methodology for impact assessment will be developed by the GCIP Global and shared with the GCIP Moldova for review and application. This will ensure a common understanding of estimation, tracking, and reporting approaches amongst all involved stakeholders, and will allow for data aggregation, comparisons, and extrapolation, not only on the national, but also on the global programme level. The methodology will enable assessment of social, economic, and environmental impacts, and at a minimum, it will account for global environmental benefits (GEBs), job creation, gender mainstreaming, and investment leveraged. The data will be sex-disaggregated and gender-sensitive, and youth participation will also be recorded.

166. An overview of indicative costs of M&E activities is provided in the table below.

M&E Activity	Timeframe	GEF Budget (USD)	UNIDO in-kind co-financing (USD)	EEA in-kind co-financing (USD)	Responsible Parties
M&E plan	First 3 months after implementation start	2,000	10,000	10,000	EEA
Periodic progress reports	6-monthly	8,000	10,000	10,000	EEA
Mid-term review	at 1.5 years	10,000	10,000	20,000	External evaluator, submission to EEA
External terminal evaluation	started six months prior to the expected completion date of the project	20,000	10,000	20,000	External evaluator, submission to UNIDO
Total		40,000	40,000	60,000	

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

167. The project is expected to result in more cleantech startups and SMEs being identified and supported, thus acting as a catalyst for entrepreneurship development and cleantech investment in Moldova. The GCIP Moldova, as a dedicated national platform for promoting and supporting cleantech innovation, will result in an enhancement of human capital, thereby leading to job creation and poverty reduction as well as to an increased women participation in the entire value chain of technology development. New job opportunities in the country will in turn contribute to stemming the current brain drain. Local development and production of cleantech will very likely result in lower costs benefiting both the technology developers and end-users. It is noteworthy to underline that so far around 84% of startups and SMEs, that have completed the GCIP acceleration program globally, have remained in business for minimum of five years. Finally, the increased use of cleantech innovations supported by the GCIP Moldova will also result in GHG emission reductions.

168. The GCIP Moldova will highlight the need for a stronger support at the national level for cleantech innovations and start-ups/SMEs. In particular, it will provide added value by bridging the gap between cleantech innovators and investors, thereby paving the way for the creation of new businesses opportunities resulting in a value added for the domestic economy. At the same time, through engaging all relevant stakeholders in the national CIEE, and encouraging their cooperation, as well as through linking different CIEEs across countries, the GCIP Moldova will provide opportunities for international business scale-up and exchange of knowledge.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Please refer to the attached Environmental and Social Management Plan (Annex I).

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
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ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Please see attached Annex A.

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Please see attached Annex B.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

The committed funds will be spent in the project start-up phase, i.e. they will be used 1) predominantly to strengthen the capacity of and provide training to the national PEE (EEA) on the project execution arrangements with due consideration of the updated GEF guidelines on the project and programme cycle policy (the training of the national PEE is directly related to project/country preparation and as such its cost is eligible to be financed from the PPG), 2) as well as to fund additional relevant start-up phase activities, such as for example translation of documents in local language, etc.

<i>Project Preparation Activities Implemented</i>	<i>GETF/LDCF/SCCF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
Finalization of project documents (gender analysis, stakeholder engagement plan, ESMP, finalizing co-financing and implementation and assessment of execution arrangements) as well as internal review and approval processes	25,000	25,000	0
Assessment of the project executing entity	10,000	10,000	0
Consultation with country stakeholders	15,000	2,574.78	12,425.22
Total	50,000	37,574.78	12,425.22

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

While the project is targeted at beneficiaries (entrepreneurs and all relevant CIEE stakeholders, such as universities, policy makers, financiers, and R&D institutions) from all over the country, the main project events will be conducted in the capital city of Moldova (Chisinau). This is due to the benefits resulting from a relatively dense concentration of relevant stakeholders there, and well developed infrastructure. The project boundary will not overlap any other country's territory.

The geo-coordinates for the capital, Chisinau, are: 47° 0' 13.2120" N and 28° 54' 25.5204" E.

GCIP Moldova:
location of
main project
activities/events



ANNEX E: Project Budget Table

Please attach a project budget table.

Please see attached Annex F.

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agency is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies' capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

