

THE UNFCCC GLOBAL INNOVATION HUB

Concept note



UNFCCC GLOBAL INNOVATION HUB

Identifying, Assessing and Accelerating Innovations for Sustainable Pathways compatible with the Climate Goals





I. Rational for the UN Climate Change Global Innovation Hub

Global warming is one of the biggest challenges ever faced by human social, political, and economic systems. Its impacts are now “playing out in real time”, with the extreme weather we have experienced these last years. Their severity could increase exponentially in the absence of bold responses. The stake is the survival of humankind.

Innovation has been used by humanity to cope with changes and discover new opportunities. Nowadays, its primary application is to help foster competitive advantage and sustain growth, but it is also more and more used to comply with actual and future economic and social regulations. Applied to address climate change and foster sustainable development, it is expected to deliver transformative climate and SDG resource efficient solutions with the capacity to deliver flourishing lives to a world with 11 billion people by 2050. However, there are challenges hindering the mobilization of its full potential to serve climate and sustainable development:

- Innovation is mainly leveraged to achieve incremental improvement in the form of reduction of the carbon footprint of products and services at the supply side.
- Moonshot thinking is not widely shared. Commitments and pledges are based on what is perceived as currently possible and not on what is needed. However, this is precisely the gap, expressed in the form of demand for climate and SDG solutions, between (i) a clear political will to do what achieving the 1.5-degree goal requires and (ii) what is currently possible that drives innovation.
- There are several existing innovation hubs. However, the solutions with significant sustainability impact they collect are very often not implemented because they lack finance and markets.

The UGIH has been initiated to address these challenges. It will promote an expanded innovation agenda with a need-based solution-oriented approach to innovation for climate (see figures in Annex 1) that will enable the development and deployment of solutions to:

- Build new value-chains, products and markets aligned with the climate goals, displacing the existing carbon intensive ones
- Enhance the efficiency of consumption
- Eliminate waste within the entire value-chain
- Encourage business and governance innovation
- Support a new generation of solution providers and an international network of incubators and innovation hubs



For example, replacing coal with natural gas and innovating to produce fuel-efficient vehicles is a sector-based problem-oriented approach to innovation, a low-hanging fruit pathway that will not lead to a deep decarbonization of the energy system. Zero-carbon electricity and electric vehicles charged on the zero-carbon electricity grid or distributed renewables sources integrated in buildings and districts is still sector-based, but it is solution oriented. Indeed, companies innovating to reduce the cost and enhance the autonomy of EV car, go beyond reducing their own emissions. They facilitate the reduction of other entities' emissions. These sector-based approach to climate action are still not enough to achieve the climate goals. Yes, shifting to less carbon intensive source of energy including large scale deployment of renewables is necessary but it does not suffice. We need to enhance the energy efficiency of production processes and use less energy for the making of our current products and services. We need also enhanced consumption efficiency to satisfy our needs with less products and services. For example, carpooling and car sharing will increase the efficiency of EV car use. However, the development of a Mobility as a Service framework, enhancing the quality of car ride and reducing its cost, may lead to a rebound effect, with the efficiency gain not necessarily translating into a reduction of car. Car is needed for mobility and mobility is required to address the core human need of access: access to goods, healthcare, education, municipal services and other products and services. To reduce the demand for a car, it is needed to go beyond car sharing and pooling and develop more compact and complete cities, with most of the services available within walking and biking distance, connected among them with efficient and effective public transportation. And finally, we need to satisfy our needs with alternative products and services generated from value-chains that are aligned with the climate goals and resource efficient to satisfy the human needs in an equitable future world with 11 billion citizens. As an example, the fourth industrial revolution technologies and business models can provide mobility/access in extremely resource efficient ways with solutions like the following:

- telecommuting replacing commuting trips
- Distance learning replacing trips to educational institutions
- Online banking replacing trips to financial institutions
- Social media replacing trips to social events
- Teleconferencing replacing trips to conference venues
- Virtual entertainment replacing trips to event venues
- E-commerce replacing trips to stores
- Electronic documents replacing trips to deliver courier and mails
- Remote sensing replacing trips for onsite verification
- Drone delivery

These will reduce the need for large scale physical mobility at the first place and support a resource efficient system with a new generation of transformative system solutions.



Unlike the incremental improvement approach under sector-based and problem-oriented innovation supporting a low-hanging fruit pathway which does not address the long-term needs, this more profound transformation pursued by the UGIH, offers a secure path to avoid high-carbon trap and a climate failure. But it requires co-innovation on technologies, policies, financial instrument, business model, cooperative action and leadership, by a cluster of climate actors, delivering integrated climate solutions. It also demands the solutions on the digital platform of the innovation hub to be sought or developed based on concrete demand for climate solutions, arising from ambitious commitments and pledges. Leading climate actors should finally go beyond only reducing their own emissions to become solution providers, enabling others to reduce their emissions. To incentivize such a shift, a framework to measure the climate contribution of a solution provider, and those enabling such solutions, is important to implement on all levels in society. Such a framework will build on the previous works of the UNFCCC secretariat on the topic but also on existing initiatives such as Mission Innovations NetZero Compatible Innovation Initiatives.

These climate solutions are defined as any lever, including a technology, a policy, a business model, a financial instrument, a learning activity, a model of cooperation, a leadership style, an information or a combination of these, which contribute in enabling the satisfaction of the core human need through value-chains aligned with the climate goals, by giving to the relevant climate actors:

- Enhanced understanding of the need to address climate change
- The power to act to address climate change
- The capability to act to address climate change
- The willingness to act to address climate change

I.1. Expanding the innovation space

GHG emitters are using incremental and manufacturer-focused innovation to reduce the carbon footprint of their products and services. However, this domain of application of innovation is too narrow to expect climate solutions as defined above, that can, in aggregate, achieve the 1.5 °C goal.

The UGIH expands the innovation space to cover the transformative solutions leading to deep change in the way the world satisfies its current and future needs. It includes but goes beyond the incremental and manufacturer-focused innovation which is sector-based and problem-oriented with a need-based and solution-oriented approach to innovation, that is disruptive, end-user focused and with a much broader and impactful domain of application. For example, innovation in the design of compact, complete and connected cities to reduce the need for mobility will be encouraged on the UGIH to complement innovation to decrease the cost and increase the performance of EV cars.



The figure 1 below brings out the expansion of the climate related innovation space that will result from the operation of the Innovation Hub. It aims at enabling a broad range of new transformative and impactful types of climate action and at unlocking an important untapped potential of GHG emission reduction as illustrated by the figure below.

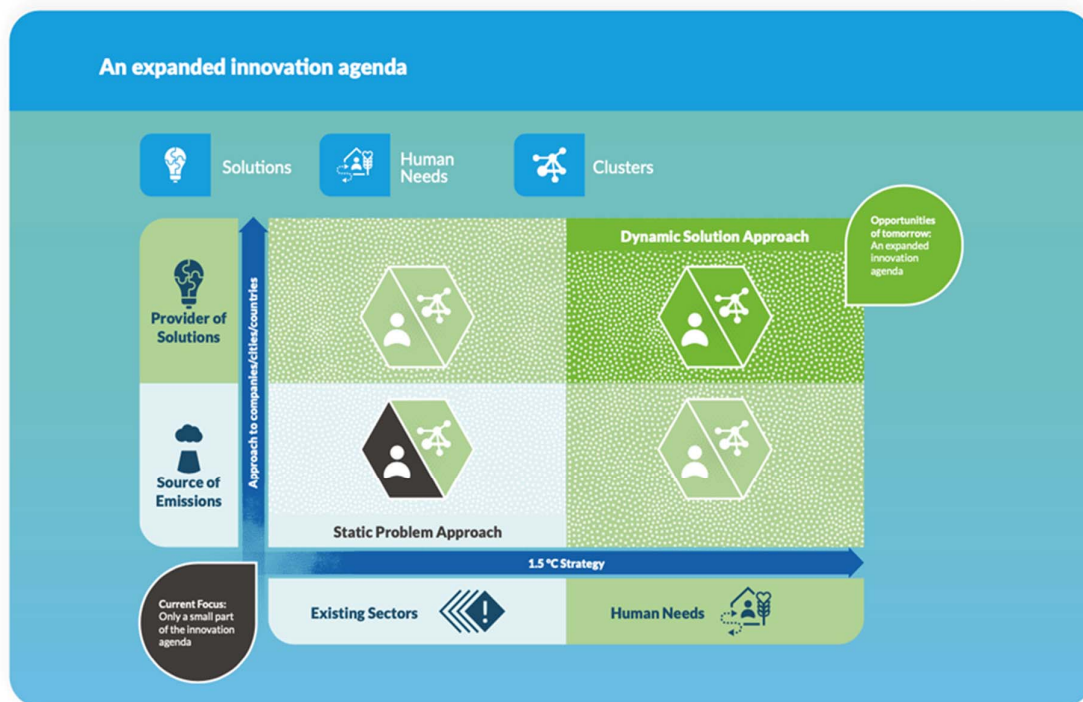


Figure 1: Expanding the innovation space

The figure 2 highlights the difference between a need-based solution-oriented approach to innovation and a sector-based and problem-oriented approach to innovation. And this need-based and solution-oriented approach to innovation also facilitates the mainstreaming of climate innovation into SDG innovation.



Need-based solution-oriented vs Sector-based problem-oriented approaches to climate action on the value-chain to satisfy the core human need of access

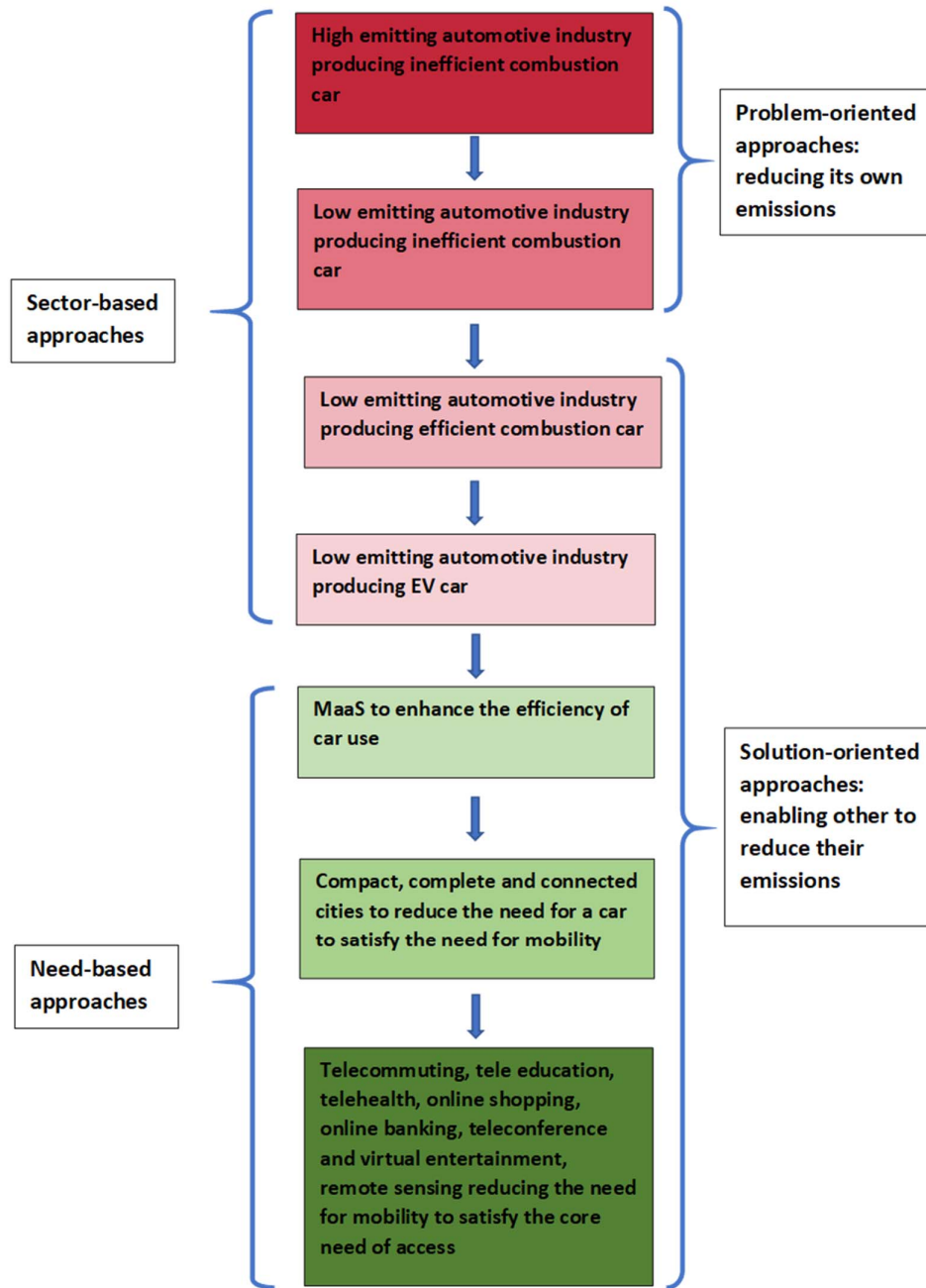


Figure 2: Highlights between two approaches

I.2. Moonshot thinking for transformative climate innovation

The paradigm that governs target setting is also a barrier to the effective application of innovation to address societal issues such as climate change. Indeed, in most cases, targets, pledges and



commitments are based on what is perceived as feasible by the climate actors. This is the second barrier to innovation for climate, the Global Innovation Hub will address. Indeed, it promotes climate ambitions that are commensurate to the scale and depth of the response needed to address the climate goals, regardless of whether they are perceived as currently feasible or not. The gap between what is needed and reflected by the ambitions of climate actors under one hand and what is currently possible on the other hand, is the main lever driving innovation. The UNCC Global Innovation Hub promotes moonshot thinking which is critical to ambitious goals and to the effective application of innovation to climate action.

I.3. Bridging between supply and demand for climate solutions

The third gap filled by the UGIH is the absence of space where demand, financing and supply of climate solutions can meet. Indeed, where the components of an appropriate response to a demand for climate solution exist in the UGIH databases or in the databases of the innovation hubs it will be related to, an Artificial Intelligence powered tool supported by human curation will identify them, integrate them to form a cluster which is then proposed as the appropriate climate solution. Where all or some of the solutions, for a cluster to be effective in addressing a given demand for climate solutions, are not yet available, the UGIH will broadcast the signals of these new market opportunities associated with a low carbon transition, to stimulate the development of the missing climate solutions through co-innovation assisted by digital technologies as indicated in 1.4. below. This approach prevents the platform to be a simple database of solutions, that will not be implemented.

I.4. Clusters for multilateral co-innovation

In the current climate innovation framework, solutions are responses of a single polluter to regulation, in the form of a creative use of an invention, in order to improve the carbon footprint of its products, services or production processes at the lowest cost. This cannot encourage self-disruption, although it could even be necessary for the survival of a company, for example when it must 'disrupt or be disrupted'. Now, to satisfy the needs of a growing population through a 1.5 degree aligned pathway, transformative innovation, fostering the development of new markets and supply-chains that support the climate goals and displacing some of the current carbon intensive ones, is necessary. The current climate innovation framework, dominated by individual polluters, which are looking in silo for incremental climate solutions is not suitable, as it does not create a new market for climate dedicated innovation. It must be reformed, including for the public sector to play a greater role beyond the provision of funds for R&D to enable the required shift toward transformative clusters of climate solutions made out of a combination of innovative technologies but also policies, financial instruments, business models and leadership through resource push, knowledge management, market pull and socio-political support. Indeed, the public sector is in the best position to bear the risks and uncertainties and coordinate holistic and integrated approaches to innovation. But, the scale



of the challenge as well as the global nature of the benefit expected from innovation for the SDGs and for the climate, require multilateral collective actions. National governments will not be able to provide the right response in silo. Active cooperation among nations is required. This is the third barrier addressed by the UNCC Global Innovation Hub. It provides a collaborative platform where policy makers, financiers, corporates, civil society, technology providers across the different regions of the world can form clumps of climate innovators and co-innovate to address holistically the different dimensions of a demand for climate solution. These internal and external networks that act as climate solution cluster in an open platform will undertake integrated actions to innovate for solutions that sustainably contribute to the satisfaction of core needs while producing more effective global public good.

1.5. Framework to measure the climate contribution of enablers

Only the impact related to the implementation of incremental climate solutions that reduces the carbon footprint of the polluter's products, can be measured and it can also only be attributed to the GHG emitter as the user of the incremental climate solution. The impact of need-based climate solutions related to consumption in the form of avoided emissions cannot be properly measured. Even for production-based approach to the measurement of the impact of incremental climate solutions, the measurement and recognition of the contribution of the enabling entities (e.g. technology provider, financier) is not possible. As the climate contributions of the consumer, the technology developer, the financier, and the policy maker cannot be measured, they cannot be incentivized. The impact of climate actions by cities as consumption centers and individual end consumers, which are among the most transformative, cannot fully be fully recognized and they cannot benefit from climate incentive instruments. The climate contribution arising from the development and deployment of a given technology is also not addressed by the current GHG accounting framework. Therefore, the effort of climate technology providers investing resources to reduce the cost and increase the efficiency of the climate technology cannot be measured, recognized, and incentivized. This means that neither solution pull policies targeting consumers or financiers nor solution push policies targeting technology providers can be developed. But these are precisely the enablers of the most-needed transformative climate actions. With the current GHG accounting framework, the only actors the policies can target for change of behavior are the polluter. But, without consumers, financier and technology providers, these climate actors can only develop incremental climate solutions. This is the third gap filled by the Innovation Hub. It will measure and attribute the impact related to the implementation of the innovative climate solution to the different member of the cluster contributing to the co-creation, with a coverage of scope 1, 2, 3 and 4 emissions. Both solutions pull and push policies can be used to incentivize the end-consumer, the corporate using a solution as well as the developer of the innovative climate solution.

Figure 3 below brings out the difference between the situation of the current GHG accounting framework that can only address the climate contribution of corporates that are therefore the only entities that can be targeted by policy makers for climate action and the situation under the GHG



accounting framework proposed by the UGIH. As under the UGIH, the climate contribution of the enabling entities (policy maker, consumer, financier and technology providers) can be determined and recognized, it is possible to complement the policies targeting corporates with climate solution pull policies to foster climate actions by consumers (individual end-consumers, cities as consumption centers) and financiers as well as climate solution push policies to incentivize the development of climate technologies.

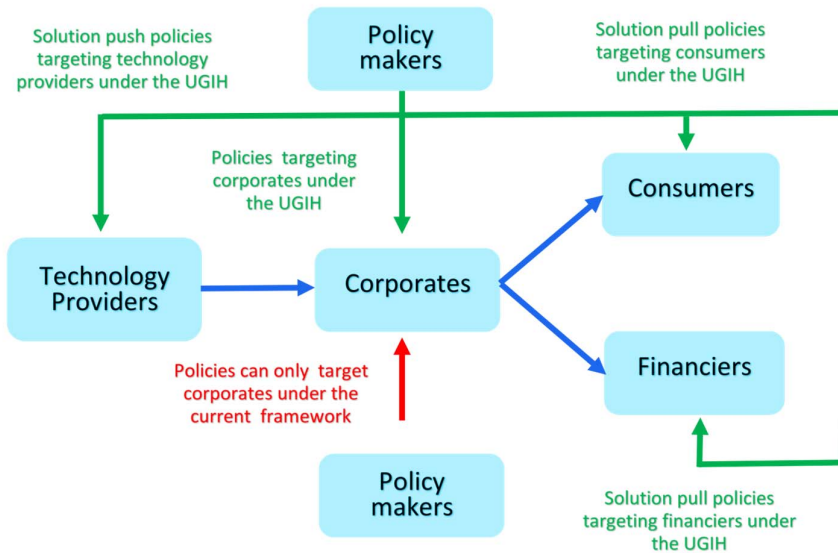


Figure 3: How the current GHG accounting framework and the one that will be developed on the UGIH platform influence the climate policy framework.

1.6. Integrating the green bond and the carbon market for the capital market to serve the climate goals

The UGIH platform will be designed with the capability to host, as an innovative financial instrument, a reformed green bond framework that can support the shift of mainstream finance toward activities aligned with the climate goals. The conceptual framework has been developed by the UNFCCC secretariat supported by partners. The legal and institutional framework will be developed by financial institutions including financial regulators and stock exchanges. This green bond platform will offer to national and city governments the opportunity to issue sovereign or municipal green bonds targeting international or local institutional investors as well as retail investors.

This financial instrument can be very impactful, enabling the deployment of green activities with viability gaps that otherwise would not be implemented while being attractive to mainstream financiers. The proposed reformed green bond introduces a new financial instrument, a Mitigation Outcome Security which is to the green bond what the Renewable Electricity Certificate is to the green electricity. It also proposes an integration of the green bond and the carbon market, with financiers playing a greater role on the later, through the trading of the Mitigation Outcome Securities.



I.7. Facilitating the development of startups in the global south as well as the horizontal transfer of climate solutions north-south, south-north, south-south and north-north

The UGIH will support the development of startups in the global South working on climate solutions. Collaboration with the GCF Regional Innovation Hub will be sought in that regards. The UGIH will collect and broadcast information about existing Venture Capital Fund available to startups from global South and give international visibility to the Initial Public Offering or the Subsequent Public Offering of stocks issued by these startups. It will also give to their climate solutions, access to the international market. Indeed, climate solutions from the global North as well as from the global South will be provided platform for horizontal transfer.

The table 1 in annex highlights the key difference between the innovation framework the Innovation Hub is promoting and the current innovation framework.

With the Innovation Hub, traditional climate actors as well as climate actors that are unusual under the current climate action framework, are expected to collaborate in reinventing the way the world satisfies its needs, with innovation in policy making, in technology development and deployment, in financing and in business model.

The understanding of the need to have the appropriate innovation framework to drive the world journey toward the 1.5-degree goal, prompted the UNCC secretariat to initiate the Innovation Hub, with two ultimate objectives.

II. Objectives of the Innovation Hub

The ultimate objectives of the Innovation Hub are:

- To promote transformative and integrated innovations that can enable the satisfaction of the human needs through low emission economy and society aligned with the climate goals, including by introducing new products, services, business models, markets and value-chains
- To facilitate, through a cluster of climate actors using a collaborative platform, the development, transfer and large-scale deployment of transformative climate solutions, aligned with the climate goal, thus unleashing enhanced climate ambition.

To achieve these objectives, the UGIH will

- facilitate the investigation of alternative low carbon value-chains able to satisfy the core human including how they can be addressed through low carbon innovations that provide alternatives to existing status quo



- facilitate the identification, acceleration and vertical as well as horizontal transfer of innovative climate solutions including in the form of alternative enabling needs, products/services, markets and business model, the targeted cluster of climate actors will have the power, capability, interest and willingness to deploy at scale and replicate and to support the transition of existing businesses towards these low emission markets and business model
- enable the assessment of the impact of not only the deployment of these innovative solutions by the users but also their development by the enabling entities in the clusters
- promote the development and implementation of climate solution push policies that support the climate solution enablers. This will complement current climate solution pull policies that target only the climate solution users.

III. Deliverables of the UGIH

III.1. Deliverable 1: The virtual platform

The virtual platform will operate continually. It will be designed with the following functionalities:

- Capability to build a database of demand for climate solutions obtained from challenges, LT LEDS, pledges, net-zero targets, green post COVID-19 recovery
- Automated specification of the climate solutions on policy, technology, finance and business model required to be part of a cluster of solutions that could be effective in addressing a specific demand for climate solutions
- Deep search in the climate solution database of the UGIH and in the databases of other climate or SDG innovation hub connected to the UGIH via API, with the API call enabling to retrieve climate solutions meeting the specification referred to above
- Curation of the cluster of climate solutions with an Artificial Intelligence tool supported by human curation using a digitized methodology
- Where some climate solutions are missing for a cluster to be effective, the broadcasting of these missing climate solutions as a demand for climate solutions that need to be developed
- Search engine indexing enabling to link a climate solution to one or several clusters of climate solutions and a cluster of climate solution to one or several demand for climate solution and a demand for climate solution to one or several core need. The search engine indexing will not say that a climate solution is the most appropriate one to be part of a cluster or a cluster is the most appropriate response to a demand. It will rather say that these solutions meet the criteria set to be part of a cluster or these clusters meet the criteria set to qualify as a response to a demand for climate solution
- Measurement of the climate contribution of a cluster of climate solutions



- Platform for transactions pertaining to climate solutions and a virtual marketplace for the trading of integrated digital green bond and Mitigation Outcome Securities
- Hosting virtual events

A phased approach will be used to make these different functionalities available on the platform. By COP 26, the functionalities enabling to start populating the databases of climate solutions and demand of climate solutions should be in place. By COP 27, all the functionalities required for the development of the databases should be in place as well as the framework to measure the climate contribution of a climate solution. By COP 28, the platform should be fully operational.

The virtual platform will host:

- The database for demand of climate solutions,
- A database of climate solutions
- The database of clusters of climate solutions addressing a specific demand
- The framework measuring the contribution of a cluster of climate solutions
- An Artificial Intelligence tool supported by human curation through digitized methodologies
- Platform for the transfer of climate solutions as well as a virtual marketplace for the trading of integrated digital green bond and Mitigation Outcome Securities
- Events such as virtual conferences and roundtables and the virtual meeting of the working groups.

III.2. Deliverable 2: The databases of demand for climate solutions

The database of demand will be populated from 3 sources:

- A challenge that will be launched by end of July 2021 addressing all the core human needs
- The outcome of the activities of a working group to be set by end July
- The translation of LT LEDS, NDC, pledges and post COVID 19 green recovery plans into demand for climate solutions

The activity of the working group will focus on identifying demand for climate solutions relevant to the Nutrition/Health core need during the second half of 2021.

III.3. Deliverable 3: The Databases of solutions and cluster of climate solutions

The database of climate solutions will be populated mainly from the challenge the UGIH and Global Pulse will launch together at COP 26. Other sources of climate solutions include:

- The outcome of the activities of a working group



- Deep search in the climate solution database of others climate innovation hub

The database of clusters of climate solutions will be populated from the outcome of the Artificial Intelligence tool.

The working group activities related to the development of climate solutions will start in 2022. By COP 26, the database of solutions will be populated with climate solutions only from the deep search referred to above.

III.4. Deliverable 4: The framework measuring climate contribution of a cluster of climate solutions

The framework will enable the measurement of the impact of need-based climate solutions related to consumption in the form of avoided emissions. It will also address the measurement of the contribution of a cluster of solutions and its attribution without double-counting to the different climate actors involved in the co-innovation (end-consumers, policy makers, financiers, technology providers). The UGIH will bring a transformative innovation to GHG accounting by enabling these measurements. Indeed, the measurement of avoided emissions will require to determine the carbon footprint of the climate solution satisfying a given need as well as the carbon footprint of the product it displaces. The current GHG accounting approach based on carbon footprint is too complex. It uses a Eulerian approach to describe the flow of embodied carbon in products. In means that the observer aiming to account for the GHG emissions related to the consumption of an end-consumer will use it as reference, identifying the products it consumes and trying to figure out their carbon footprint. Availability of data is the main barrier to this approach.

To address this challenge, the UGIH will use a Lagrangian approach for the description of the flow of embodied carbon. The carbon footprint of product is determined by following the products and their embodied GHG emissions through time and space, along their value chain. It is possible then to keep track of their trajectory and their history. Each ton of embodied GHG emission will carry its own properties, the different products in which it has been embodied changing with time, until its last product carrier is consumed by an end consumer. This tracking will be possible because the UGIH will leverage digital technologies such as Distributed Ledger Technologies (DLT), Internet of Things (IoT), Artificial Intelligence (AI), Global Position Sensors (GPS) and Radio Frequency Identification (RFID).

The development of the framework is expected to start during the second half of 2021 and be finalized by COP 27. Its operationalization is expected before COP 28.

III.5. Deliverable 5: the platform for the transfer of climate solutions and the virtual marketplace for integrated digital green bond and mitigation outcome securities



The platform for the transfer of climate solution as well as the virtual marketplace for integrated digital green bond and Mitigation Outcome Securities will leverage DLT to track the different transactions. The DLT will make it possible for the entire network of climate actors in the clusters of policy makers, financiers, corporates, technology providers, end-consumers to jointly create, evolve and keep track of one immutable history of transactions in the form of transfer of climate solutions or trading of digital green bond and Mitigation Outcome Securities. This facilitates the instant transfer of these assets across the world, with only a minimal transaction fee. It also facilitates the tracking of information associated to these assets that contribute in giving them value.

The development of this platform is expected to start during the second half of 2021 and be finalized by COP 28.

III.6. Deliverable 6: the physical innovation hub at cop

The physical Innovation Hub will be a pavilion at COP where conferences, roundtables, exhibitions on successful implementation of transformative climate solutions, showcasing and match making activities, the physical meeting of the working group as well as an award ceremony will take place. The pavilion will bring together corporate GHG emitters, financiers, policy makers, climate technology developers as well as cleantech companies and other relevant stakeholders, to identify, assess, promote and work on 1.5°C compatible solutions and supporting initiatives with the view to accelerating their uptake and scaled up deployment. The most important products of the working groups will also be presented at the UGIH pavilion.



The first pavilion will be in place at COP 26. The theme of the conferences, roundtables, expositions and engagements will be the satisfaction of the Nutrition and Health core needs through value-chains aligned with the climate goal.

The UNFCCC Innovation Hub

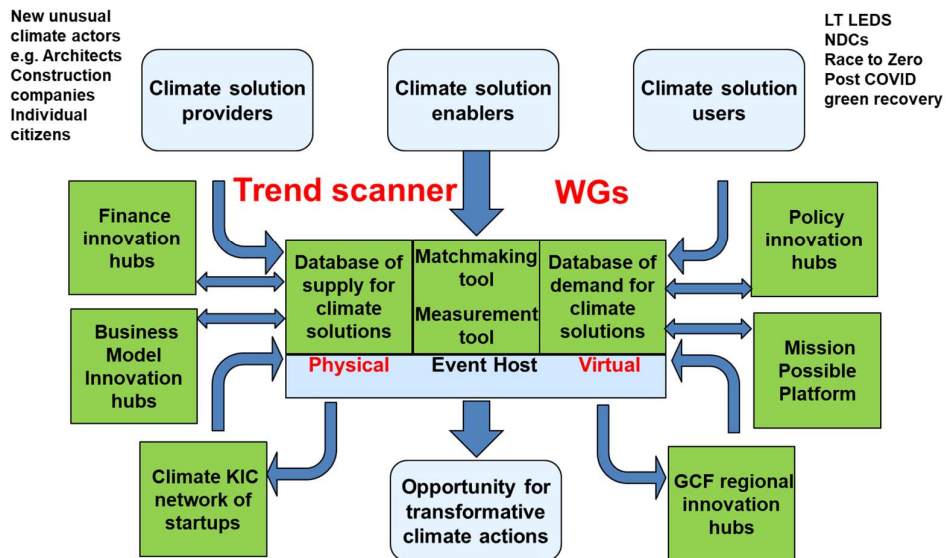


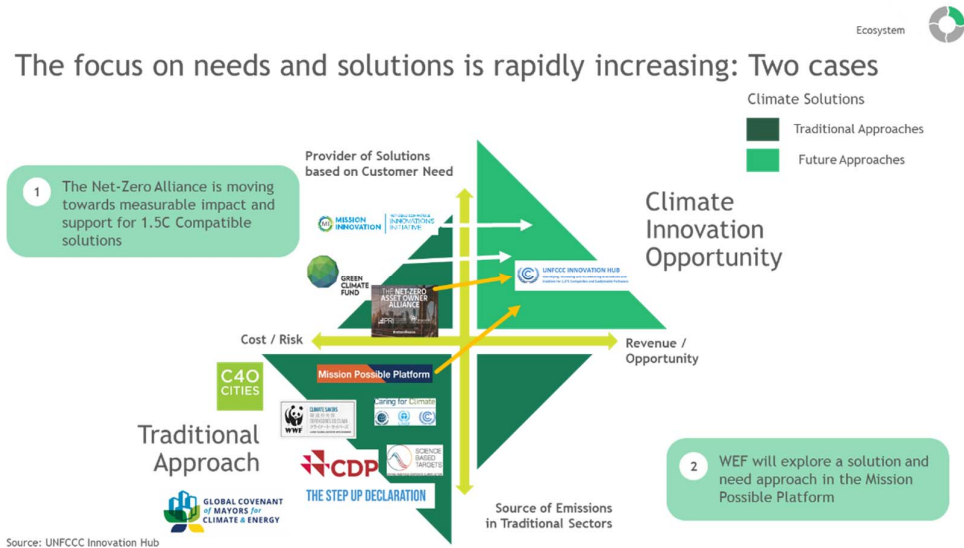
Figure 4: Connection between the UNCC Global innovation hub with other innovation hubs.

IV. Positioning the Innovation Hub in the landscape of comparable climate initiative

A mapping of the initiatives working on innovation for climate and a landscape analysis has been conducted. The purpose was to assess the uniqueness of the UGIH and in case comparable initiatives were ongoing, to explore possibilities to consolidate our work to avoid duplication of effort and leverage synergy. The result of the landscape analysis confirms the novelty of the UGIH both in its purpose and in its approach. The need-based and solution-oriented approach is one important element of differentiation, compared to other initiatives (see figure below). However, there are more and more organization interested in adopting it. Another important element of differentiation is that the UGIH will not only propose transformative climate solutions that can, for example, encourage the development of ambitious LT-LEDs, but it will also measure the impact in term of GHG emission reduction expected to arise from the deployment of these climate solutions. This facilitates for



government preparing LT-LEDS, the prioritization of the climate solutions available to them, using cost-benefit approaches.



V. Benefits of the Innovation Hub

- Promotion of higher ambition
- Expansion of the climate related innovation space
- Support the development and successful implementation of ambitious LT Low Emission development Strategies, NDCs, pledges under the Race to Zero campaign and green recovery effort post COVID-19
- Lock in investments and technologies is avoided by moving from an approach promoting only incremental manufacturer innovation to an approach supporting transformative innovation first, and incremental innovation only where transformative is not possible
- Climate solutions are integral part of development solutions and change of the mitigation narrative. It is not about decarbonizing sector but more about developing, but doing it following a low carbon pathway
- Empowerment of unusual climate actors under the current climate action framework that became key climate actors (e.g. architects, construction companies).



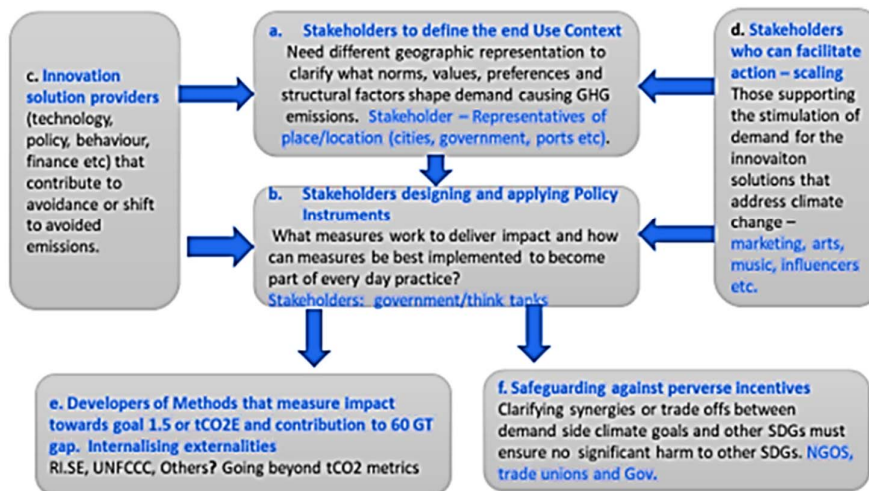
VI. Who could be interested in the Innovation Hub?

The following stakeholders are expected to be interested in the Innovation Hub:

- An organization seeking climate solutions to deploy to meet its climate objectives
- An organization that wants to broadcast mature climate solutions readily usable or looking for financier
- An organization seeking support or partnership for the vertical transfer of an immature climate solutions
- An organization willing to facilitate the vertical or horizontal transfer of climate solutions.

The diagram below identifies the relevant stakeholders as well as their possible interactions:

What stakeholders needed to deliver demand side solutions?



VII. Expected outputs, outcomes and KPIs

Expected outputs 2021

- A digital platform with the databases of climate solutions and demand for climate solutions that are partly populated
- A pavilion at COP 26 where conferences, roundtables, exhibitions will be organized
- The working group is operational and deliver on demand for climate solutions
- The challenge for climate solutions is launched.

Expected outcomes during 2021

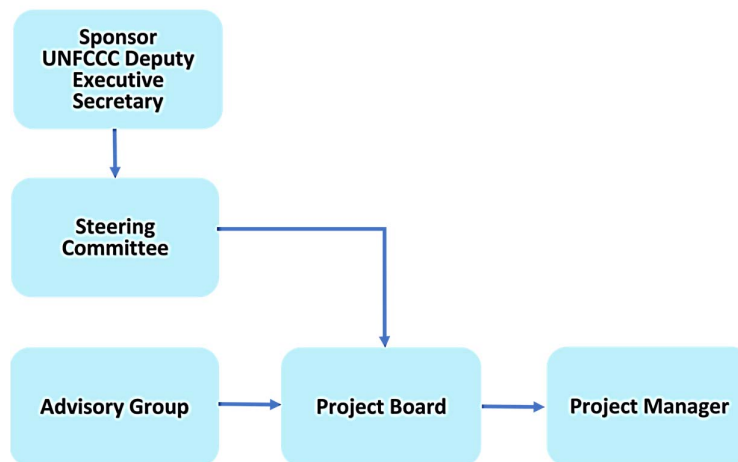


- A shift of focus from problems to solutions, from means to needs and from incremental to transformative is widely shared among climate actors
- Enhanced awareness of existing and potential 1.5 C compatible climate solutions to advance disruptive climate actions
- Committed stakeholders enabling and embracing innovative climate solutions (technology, business model, finance, policy, capacity building, behavior change and leadership)
- Disruptive leaders committed to the creation of global public goods, and that can act to achieve long-term benefits for future generations, putting in place the disruptive policy and regulatory framework targeting finance, education, trade, vertical & horizontal development of innovation.

KPIs

Aggregate GHG emission avoidance that would arise from the implementation of the clusters of climate solutions identified to address demands for climate solutions.

VIII. Governance



The steering committee provides support, guidance and executive oversight to the initiative. It includes the Project Executive and some senior UNFCCC staff who take the responsibility for initiative and its achievements. It approves the budget, the scope and the work programme of the UGIH. It also ensures that the initiative meet the expectations of the stakeholders, including the sponsor. It



reconciles differences in opinions and approaches, monitor progresses toward set objectives and reports to the sponsor on progress.

The advisory group assists the project board and the steering committee. It consists of high-profile stakeholders with specific expert and strategic skill relevant to the initiative. It provides strategic input and advice on content and can be deferred to for specific issues. It evaluates the performance of the Innovation Hub, serve as advocate for the initiative, gather input from users of the UGIH and provide feedback to the Project Board managing the operation of the Innovation Hub.

A Project Board composed by a project executive, a project manager and products owners will manage the development and operation of the UGIH. It is expected to include at least staff from Mitigation, ICT, RMP, CE and adaptation if the scope of the Innovation Hub is expanded to cover adaptation. External partners supporting the UNFCCC secretariat on this initiative, including the Research Institutes of Sweden (RI.SE) and Climate KIC are also members of the Project Board.

IX. Transformative Focus

- Sustainability is addressed by ensuring coherence in the action of all the relevant actors enabling both short and long-term benefits: Action by solution providers, solution adopters, enablers and policy makers/regulators that will be all aligned to make the change happen.
- Scale: learning from successful experiments and experiences as well as failures for the development of a science for inspiration and action that can inform scaling up and replication.
- Systemic change: innovation is understood in its broader sense and is expected to change all the key driver of the world economic activities (which is the system), including technology, business model, finance, policy, capacity building, to shift towards 1.5C compatibility.
- Relevance: 1.5 C climate solutions are embraced by all relevant stakeholders, including enablers which makes the climate actions relevant to the issue and location.

X. Value proposition for the sources of data that will populate the UGIH and for the users of the UGIH

The UGIH will populate its databases with data sourced from other Innovation Hubs, from challenges and from the working groups.



The entities with demands for climate solutions will be eager to share it for the UGIH to look for cluster of climate solutions that can address them. Where all or part of the climate solutions needed in the relevant cluster do not exist yet, they will appreciate the broadcast by the UGIH of these missing climate solutions for climate solution developers to work on them, with the working group acting as bridge.

As the cluster of climate solutions, the UGIH will generate will be demand driven, they will very likely have a market. This will make the UGIH attractive to financiers looking for opportunity to invest in forward-looking activities aligned with the climate goals.

The other Innovation Hubs, sources of data on existing climate solutions, will be eager to share them with the UGIH as this will increase the visibility of these supplies of climate solutions to the demand and to investors, hence making these Innovation Hubs hosting them attractive to climate solutions holders. It is important to highlight that the UGIH will not be in competition with its sources of data but will rather support them. Indeed, apart from data collected through the challenges, the UGIH will not get data directly from climate solution providers but rather through these partner platforms. It will also not broadcast climate solutions to attract investors on the platform but rather cluster of climate solutions.

The UGIH will create value addition to its users by:

- Inspiring the identification and development of climate solutions driven by use cases
- Facilitating ideas sharing – and collaboration to develop effective (informed by the downstream need that is to be addressed), holistic, integrative, synergistic, and optimized climate solutions
- Connecting “solution partners” who can together develop/finance/implement the solution(s)
- Recognition of the climate contribution of enablers and allowing their measurement.

XI. Support expected from partners

Data philanthropy

The UGIH needs data to populate the databases for demand of climate solution as well as the database of solutions. Sharing data sets or providing access to streaming data will support the initiative.

Technology

The platform should have several functionalities and tools. This includes tools for data mining, real-time analytics and data visualization, sharing storage and computing capabilities, AI for the integration of the climate solutions and the matchmaking between demand and supply of climate solutions, digital methodology for the curation of the solutions.

Expertise



To support the UGIH, partners can also make climate expert, practitioner relevant to a value-chain for the satisfaction of a core human need, engineers, data scientists or researchers available to collaborate on the initiative.

Financial resources

For the development, operation, maintenance, and continuous improvement of the UGIH platform, financial resources are required.

---0---

Contacts:

Project Executive: Massamba Thioye

Manager, Mitigation Division, UNFCCC

Email: MThioye@unfccc.int

Project Manager: Carlos Ruiz-Garvia

Programme Officer, Mitigation Division, UNFCCC

Email: CRuizGarvia@unfccc.int