

Shell.ai Hackathon

Competition Rules 2024



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Organization

Article 0: About the Rules

- (a) It is the responsibility of Contestants to read, understand and abide by these Shell.ai Hackathon 2024 Competition Rules (referred to as “Rules” in this document).
- (b) In this document functions and roles are defined as follows:
 - (i) ‘Affiliate’ - in reference to a Person, any other Person that: (a) directly or indirectly controls or is controlled by the first Person; or (b) is directly or indirectly controlled by a Person that also directly or indirectly controls the first Person. A Person controls another Person if that first Person has the power to direct or cause the direction of the management of the other Person, whether directly or indirectly, through one or more intermediaries or otherwise, and whether by ownership of shares or other equity interests, the holding of voting rights or contractual rights, by being the general partner of a limited partnership, or otherwise. Any Affiliate of Shell plc is an Affiliate of the Sponsor.
 - (ii) ‘Competition’ – the Shell.ai Hackathon 2024 Competition.
 - (iii) ‘Competition Editions’ – refers collectively to the three categories of the Competition, namely:
 - The General Edition;
 - The Special University Edition; and
 - The Special Start-Up Edition.
 - (iv) ‘Concept’ - the plan in the Submission proposed as the solution to the relevant Problem Statement.
 - (v) ‘Contestants’ – refers to individuals who have registered to participate in the General Edition (either as individuals or as a General Edition Team) or Special University Edition. In relation to the Special Start Up Edition, Contestant refers to the Start Up.
 - (vi) ‘General Edition Team’ - a group of individual Contestants who enter the General Edition category in the Competition as a team.
 - (vii) ‘HackerEarth Platform’ – refers to the online platform used for participation in and organization of hackathons operated and/or owned by HackerEarth Technologies Private Limited.
 - (viii) ‘Judges’ - individuals selected by the Sponsor or its Affiliates to assess Submissions and select the winners for the Competition.
 - (ix) ‘Person’ - a natural person or a legal entity, including any partnership, limited partnership, limited liability company, corporation, firm, trust, body corporate, government, governmental body or agency, or unincorporated venture.

- (x) 'Restricted Jurisdictions' – includes Central African Republic, Cuba, Belarus, Eritrea, Egypt, Iran, Libya, Palestine, North Korea, the Crimea Region of Ukraine (including Sevastopol) and non-Government controlled areas of Eastern Ukraine, Russia, Syria, Venezuela and any other country or region which are the subject of sanctions.
- (xi) 'Restricted Party' - any individual, legal person, entity or organization that is (A) resident, established or registered in a Restricted Jurisdiction, (B) classified as a US Specially Designated National or subject to blocking sanctions under Trade Control Laws; or (C) directly or indirectly owned 50% or more, or controlled, or acting on behalf of persons, entities or organizations described in (A) or (B).
- (xii) 'Serviceable Addressable Market (SAM)' – refers to the portion of the TAM that is targeted and served by a company's products or services. It represents the segment of the market that aligns with the company's strategic focus, capabilities, and geographic reach.
- (xiii) 'Serviceable Obtainable Market (SOM)' - refers to the portion of the SAM that a company realistically expects to capture, considering competition, market constraints, and the company's capabilities. It is the subset of the market that the company aims to achieve in the near term.
- (xiv) 'Sponsor' – Shell India Markets Pvt Ltd., which has its office at Level 9A, Two Horizon Centre Golf Course Road, DLF Phase V, Gurugram, 122002 India, and all persons acting on its behalf, including its employees, agents, representatives and legal advisors.
- (xv) 'Start Up' - an entity which is:
 - incorporated or registered as a private limited company, partnership firm or limited liability partnership or otherwise registered as a recognized legal entity in a country which is not a Restricted Jurisdiction; and
 - working with a purpose of bringing technology products or services to market to solve a problem where the solution is unique, can be validated and developed into a repeatable and scalable business model.
- (xvi) 'Start Up Team' – a group of individual Contestants employed by the same Start Up.
- (xvii) 'Start Up Team Manager' – the employee of the Start Up who will act as a single focal point for his/her Start Up Team for the Sponsor, who assumes overall responsibility for the Start Up Team, and who is responsible for their behaviour and compliance with the Rules. This person must be over 18 years old and competent to assume the responsibility.
- (xviii) 'Submission' - See Articles 3 and 4.

- (xix) 'Total Addressable Market (TAM)' - refers to the total revenue opportunity available if a product or service were to achieve 100% market share. It represents the maximum demand for a product or service across all potential customers in the market.
- (xx) 'Trade Control Laws' - any laws concerning trade or economic sanctions or embargoes, Restricted Party lists, trade controls on the imports, export, re-export, transfer or otherwise trade of goods, services or technology, anti-boycott legislations and/or any other similar and applicable regulations, rules, restrictions, orders or requirements having the force of law in relation to the above matters and in force from time to time, including without limitation those of the European Union, the United Kingdom, the United States of America or other government laws applicable to either party to the agreement.
- (xxi) 'University' - refers to any institution of higher education that is officially recognized or accredited by a national or regional authority. This includes public and private universities, colleges, and institutes that offer academic degrees, professional certifications or training programs at any level (undergraduate, graduate or postgraduate).
- (xxii) 'Venue' - refers to the KTPO Trade Centre at Whitefield, Bangalore in India.
- (c) Any decision by the Sponsor is final, independent of whether it is explicitly identified in the Rules or not.

Article 1: Acceptance

- (a) Applications to enter the Competition must be made via the HackerEarth Platform.
- (b) By the fact of their entry, all Contestants agree to comply with all provisions of the Rules, which are fully and unconditionally binding in all respects, and agree to comply with all decisions made by the Sponsor. The Sponsor reserves the right to add, modify or delete any Article of the Rules with or without notice to the Contestants. The Sponsor is solely empowered to pronounce in cases not provided for in the Rules.
- (c) The Sponsor reserves the right to modify, postpone or cancel the Competition for any reason including without limitation, for reasons of force majeure, including but not limited to, adverse or extreme weather conditions, the occurrence of a natural disaster, acts of terrorism or safety concerns. No claims for compensation will be accepted.

Article 2: Eligibility

- (a) All Contestants must be:
 - (i) above 18 years of age at the date of entering the Competition;
 - (ii) able to understand and speak English;

- (iii) in relation to the Special University Edition, be studying at, or associated with any University at the date of entering the Competition.
- (b) Subject to Article 2(d) below, to be eligible to enter the Competition and at the date of entering the Competition, the Start Up must:
 - (i) Have a minimum of 2 staff or contractors; and
 - (ii) Not be funded by the Shell GameChanger program at the date of registration for the Competition.
- (c) Contestants who enter the Special University Edition of the Competition may also enter the General Edition of the Competition. Contestants who enter the Special Start Up Edition of the Competition are not allowed to enter any other Competition edition.
- (d) The following Persons are ineligible to participate in the Competition:
 - (i) Persons from Restricted Jurisdictions and Persons who are Restricted Parties.
 - (ii) Start Ups which have existing shareholders as of the date of entering into the Competition that are Restricted Parties and/or are from Restricted Jurisdictions.
 - (ii) Start Ups which are in liquidation, either compulsory or voluntary, or if a receiver, administrative receiver or administrator is appointed in respect of the whole or any part of the Start Up's assets.
 - (iii) Employees and contractors of the Sponsor and its Affiliates, Start Ups funded by the Shell GameChanger program, participating advertising and promotion agencies, prize suppliers, and those entities involved in the preparation of materials for, administration and/or execution of the Competition and their immediate family members (spouse, siblings, children and parents including step-relations) and/or those living in the same household of such employees (whether or not related).

Article 3: General Submission Requirements

- (a) Submissions for all Competition levels and editions must be in English, submitted to the HackerEarth Platform.
- (b) Submissions must not contain, facilitate, reference, or use material that is fraudulent, inappropriate, indecent, lewd, pornographic, obscene, hateful, tortious, illegal, defamatory, slanderous, libelous or otherwise objectionable;
- (c) Submissions must not contain, facilitate, reference or use material that contains prohibited content which shall include, but is not limited to content that promotes, suggests, or encourages:
 - (i) gambling, including without limitation, any content related to online casinos or electronic gaming;

- (ii) the use of firearms/weapons/ammunition, any illegal drugs, prostitution, pornography, nudity, profanity or other adult content, violence, or the use of alcohol or tobacco products;
 - (iii) the taking up of arms against any person, government or entity or otherwise challenge or seek to overthrow any government;
- (d) Submissions must not contain any viruses, spyware, malware, or other malicious components that are designed to alter or adversely affect the functionality of an electronic device in any way;
- (e) Submissions must not contain, facilitate, reference, or use material that promotes bigotry, racism, hatred or harm against any group or individual or promotes discrimination based on race, gender, ethnicity, religion, nationality, disability, sexual orientation, political orientation, citizenship, ancestry, marital status, or age;
- (f) Submissions must not contain trademarks, logos or trade dress owned by others, or advertise or promote any brand or product of any kind without written permission, or contain any personal identification, such as license plate numbers, personal names, e-mail addresses or street addresses;
- (g) Submissions must not contain material that is unlawful, in violation of or contrary to the laws or regulations in any jurisdiction where Submission is created.
- (h) If any Submission fails to comply with any of these Rules, the Sponsor reserves the right, in its sole discretion, to disqualify the Contestant and the Submission will not be eligible to win.

Article 4: Specific Submission Requirements, Competition Format & Judging Criteria for All Competition Levels

- (a) The specific Submission requirements for the General Edition, Special University Edition and Special Start Up Edition for Levels 1 to 3 are set out in Appendix A below.
- (b) The particulars of the judging criteria for all Competition levels and Competition Editions are set out in Appendix B below.

Article 5: Selecting the Winners & Prizes

- (a) There will be a total of up to 3 finalists for each Competition Edition.
- (b) At the end of the Competition finale, the Judges will announce the first, second and third placed winners. The cash prizes that will be awarded are:
 - (i) General Edition
 - USD2,500.00 for the first prize winner.

- USD2,200.00 for the second prize winner.
- USD2,000.00 for third prize winner.

(ii) Special University Edition

- USD1,500.00 for the winner.
- USD1,000.00 for runner up.

The Sponsor or any of its Affiliates has the sole discretion to award the Special University Edition winner and runner up with an opportunity to collaborate with the Sponsor or its Affiliates to enter into a Technical Collaboration Agreement for their Concept. Any commercial relationships or opportunities offered to the Special University Edition winner and runner up are subject to the Sponsor's vetting, due diligence checks, separate negotiations and agreements with the Sponsor or any of its Affiliates. By participating in the Competition, the Special University Edition winner and runner up agrees to negotiate potential commercial opportunities or strategic investments with the Sponsor or any of its Affiliates in good faith.

(iii) Special Start Up Edition

The Sponsor or any of its Affiliates has the sole discretion to award the winning Start Up with an opportunity to collaborate with the Sponsor or any of its Affiliates to develop a proof of concept up to a value of USD\$150,000.00 for the winning Start Up's Submission. Any commercial relationships or opportunities offered to the winning Start Up are subject to the Sponsor's vetting, due diligence checks, separate negotiations and agreements with the Sponsor or any of its Affiliates. By participating in the Competition, each winning Start Up agrees to negotiate potential commercial opportunities or strategic investments with the Sponsor or any of its Affiliates in good faith.

- (c) Decisions of the Judges and Sponsor are final and binding.

Article 6: Intellectual Property

- (a) Each Contestant retains ownership of their Submission and hereby grants to the Sponsor and its Affiliates and designated agents a worldwide non-exclusive, transferable, perpetual, irrevocable, royalty free, unconditional, license and right to post and to make, have made, use, copy, reproduce, distribute, modify, and create derivative works of any materials provided by the Contestant with the Contestant's Submission or otherwise through the Competition.
- (b) Contestants are encouraged to consider all intellectual property created during the Competition as valuable assets, and to seek professional advice for the protection of their intellectual property. Material uploaded will share Contestants' inventions and methods

with the world and Contestants are advised to make it clear that this is their intellectual property.

Article 7: Third Party Intellectual Property

By the fact of their entry into the Competition, each Contestant warrants and represents that its Submission is original and does not infringe, defame or otherwise violate the rights and/or property of any third party; does not violate any laws or regulations; and does not utilise, use or infringe the property of any third party including the property and rights of another Contestant or Person without express written permission to do so. Each Contestant further warrants that the possession, exploitation, use or distribution by the Contestant, the Sponsor, the Sponsor's Affiliates and its designated agents of any intellectual property including without limitation patents, copyrights, designs, trade or service marks, whether registered or not, shall not infringe or misappropriate the intellectual property right of any third party. Each Contestant shall indemnify the Sponsor and its parent, Affiliates and subsidiary companies against any costs, loss or damage suffered or incurred by the Sponsor and its parent, Affiliates and subsidiary companies as a result of any claim that the use by a Contestant thereof infringes the rights of any third party.

Article 8: Personal Data

By the fact of their entry in the Competition, each Contestant confirms that it has read, understood and agreed to the [Privacy Policy](#).

Article 9: Confidentiality

The Contestant agrees that the Sponsor does not have any obligation to treat any ideas or other material submitted by a Contestant as confidential even when such ideas or other material are marked as or referred to as confidential, unless agreed otherwise in writing.

Article 10: Export of Technical Data

Many governments regulate the export of certain technical data and information. Before submitting technical details of a technology ("Technical Details") in its Submission, each Contestant is responsible for researching and complying with the applicable Trade Control Laws to ensure that its Submission is export control compliant. By submitting such Technical Details each Contestant represents that such technical information is not restricted for export under any applicable laws.

Article 11: Compliance with anti-bribery and corruption laws

All Contestants must comply with applicable anti-bribery and corruption laws in their participation of the Competition at all times.

Article 12: Internet & HackerEarth Platform

- (a) Each Contestant is solely responsible for ensuring the security, reliability and availability of its internet connection and electronic transmissions in the course of its participation in the Competition.
- (b) The Sponsor is not responsible for electronic transmission errors resulting in omission, interruption, deletion, defect, delay in operations or transmission, theft or destruction or unauthorized access to or alterations of entry materials, or for technical, network, telephone equipment, electronic, computer, hardware or software malfunctions or limitations of any kind, or inaccurate transmissions of or failure to receive information by Sponsor on account of technical problems or traffic congestion on the Internet or at any website or any combination thereof.
- (c) The Sponsor or its Affiliates shall not be held liable for any errors, omissions, failures, malfunctions ("Faults"), or any losses or damages of any kind whatsoever that may occur on the HackerEarth Platform. This includes, but is not limited to, any Faults or damages resulting from the Contestant's access or use or inability to access or use the HackerEarth Platform, unauthorized access to or alteration of the Contestant's transmissions or data, statements or conduct of any third party on the Platform, or any other matter relating to the HackerEarth Platform.
- (d) The Sponsor or its Affiliates shall not be held responsible for any damage, loss, or inconvenience caused by any malicious software ("Malware") that may infect the Contestant's computer equipment, computer programs, data, or other proprietary material due to their use of the HackerEarth Platform or to their downloading of any material posted on it, or on any website linked to it.
- (e) By entering into this Competition, Contestants acknowledge and agree that internet transmissions are never completely private or secure and understand that any message or information you send to the platform may be read or intercepted by others, even if there is a special notice that a particular transmission is encrypted.

Article 13: Release and Limitation of Liability

- (a) EACH WINNING CONTESTANT AGREES THAT BY ACCEPTING A PRIZE, AND EACH CONTESTANT AGREES, BY ENTERING OR PARTICIPATING IN THIS COMPETITION, TO RELEASE, DISCHARGE, INDEMNIFY AND HOLD HARMLESS SPONSOR AND ITS PARENT COMPANY, SUBSIDIARIES, AFFILIATES, WEB DEVELOPMENT COMPANIES, ADVERTISING AND PROMOTIONAL AGENCIES ANY OTHER INDIVIDUALS OR LEGAL ENTITIES PARTICIPATING IN THE DESIGN, ADMINISTRATION OR FULFILLMENT OF THIS COMPETITION AND THEIR RESPECTIVE OFFICERS,

DIRECTORS, SOCIAL MEDIA PLATFORM (INCLUDING BUT NOT LIMITED TO TIK TOK, FACEBOOK, X (FORMERLY TWITTER), INSTAGRAM, AND SNAPCHAT) ("SOCIAL MEDIA PLATFORM"), EMPLOYEES AND AGENTS (COLLECTIVELY "RELEASED PARTIES") FROM AND AGAINST ANY AND ALL LIABILITY FOR ANY THREATENED OR ACTUAL INJURIES, LOSS, COSTS OR DAMAGE OF ANY KIND TO PROPERTY AND PERSON, INCLUDING DEATH OR DISABILITY, ARISING IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, FROM PARTICIPATION IN THIS COMPETITION OR ACCEPTANCE, POSSESSION, USE, OR MISUSE OF THE PRIZE, PARTICIPATION IN ANY COMPETITION-RELATED ACTIVITY OR INABILITY TO PARTICIPATE IN PARTS THEREOF INCLUDING, WITHOUT LIMITATION, CLAIMS, SUITS, INJURIES, LOSSES AND DAMAGES RELATED TO PERSONAL INJURIES, DEATH, DAMAGE TO OR DESTRUCTION OF PROPERTY, VIOLATION OF THE RIGHTS OF PUBLICITY OR PRIVACY, DEFAMATION OR PORTRAYAL IN A FALSE LIGHT (WHETHER INTENTIONAL OR UNINTENTIONAL), WHETHER UNDER A THEORY OF CONTRACT, TORT (INCLUDING NEGLIGENCE), WARRANTY OR OTHER THEORY, AND WHETHER OR NOT CAUSED IN WHOLE OR IN PART BY THE NEGLIGENCE OF ONE OR MORE OF THE RELEASED PARTIES.

- (b) THE CONTESTANT AGREES NOT TO BRING ANY CLAIM AGAINST ANY RELEASED PARTY OR CAUSE THEM TO BE SUED REGARDING ANY MATTER RELEASED ABOVE; AND FURTHER AGREE NOT TO DISAFFIRM, LIMIT OR RESCIND THIS RELEASE. A WAIVER BY ONE OR MORE OF THE RELEASED PARTIES OF ANY TERM IN THESE RULES DOES NOT CONSTITUTE A WAIVER OF ANY OTHER PROVISION.
- (c) IN NO EVENT WILL THE RELEASED PARTIES BE RESPONSIBLE OR LIABLE FOR ANY DAMAGES OR LOSSES OF ANY KIND, INCLUDING INDIRECT, INCIDENTAL, CONSEQUENTIAL, OR PUNITIVE DAMAGES ARISING OUT OF THIS COMPETITION. WITHOUT LIMITING THE FOREGOING, SPONSOR HAS NOT MADE, AND SPONSOR IS NOT RESPONSIBLE IN ANY MANNER FOR, ANY WARRANTIES, REPRESENTATIONS OR GUARANTEES, EXPRESS OR IMPLIED, IN FACT OR LAW, RELATING TO ANY PRIZE.

Article 14: Governing Law and Disputes

- (a) By entering the Competition, each Contestant agrees that any and all disputes, claims and causes of action arising out of or connected with this Competition or a prize award shall be resolved individually and any disputes, differences and/or any other matters in relation to and arising out of this Competition and or pertaining to these Rules shall be referred to arbitration under the Indian Arbitration & Conciliation Act, 1996. The venue of arbitration shall be Delhi, India. The Competition shall be governed by and construed in accordance with applicable laws in India and will be subject to exclusive jurisdiction of the courts at Delhi alone. The Rules of Arbitration of Delhi International Arbitration Centre (“**DIAC Rules**”) shall apply to the arbitration proceedings and the arbitration shall be conducted by a sole arbitrator to be appointed as per the DIAC Rules. The award of Arbitration shall be final and binding on the parties.
- (b) In addition to the limitations in Article 14 of these Rules, any and all claims, judgments and awards shall be limited to actual documented out-of-pocket costs incurred, but in no event legal fees. Except where prohibited by law, all issues concerning the construction, validity and enforcement of these Rules, or the rights and obligations of the Contestant and Sponsor, shall be construed and governed by the laws of India, as applicable, without regard to conflicts of law rules.

Article 15: Invalidity & Severability

If any provision of the Rules is determined invalid or unenforceable in any respect, the provision will remain enforceable in all other respects, and all other provisions of the Rules will be given full effect.

Article 16: Entire Rules

These Rules constitutes the whole and only rules for the Competition and supersede and extinguish any other agreement, rule, document or statement relating to the Competition.

Appendix A

Specific Competition Editions and Levels Submission Requirements

1. For General Edition and Special University Edition

- 1.1. Each General Edition Team shall have a maximum of up to 4 Contestants.
- 1.2. **Level 1:** Each General Edition Team, General Edition Contestant (participating as an individual) and Special University Team can submit up to 100 submissions per day and a maximum of 2000 submissions in total.
- 1.3. Contestants must develop Concepts which consist of mathematical models to optimize fleet decarbonisation strategies and enable fleet owners to make informed decisions that align with their energy transition objectives and business outcomes.
- 1.4. **Level 2:** Shortlisted Contestants must build a functioning prototype of the Concept using any open source online environment, tools and/or software demonstrating the mathematical model which they developed in Level 1.
- 1.5. Submissions for Level 2 must be in a digital format and include:
 - (a) a comprehensive document in PDF format which outlines the model's methodology, assumptions, data sources and limitations;
 - (b) a slide deck which explains the model's functionality, performance, business model and business impact;
 - (c) a web link to the prototype of the Concept;
 - (d) a video screen capture of the executable files in the .mp4 format.
 - (e) The deadline for Level 2 Submissions will be by the end of 4 August 2024 Indian Standard Time and late Submissions will not be accepted.

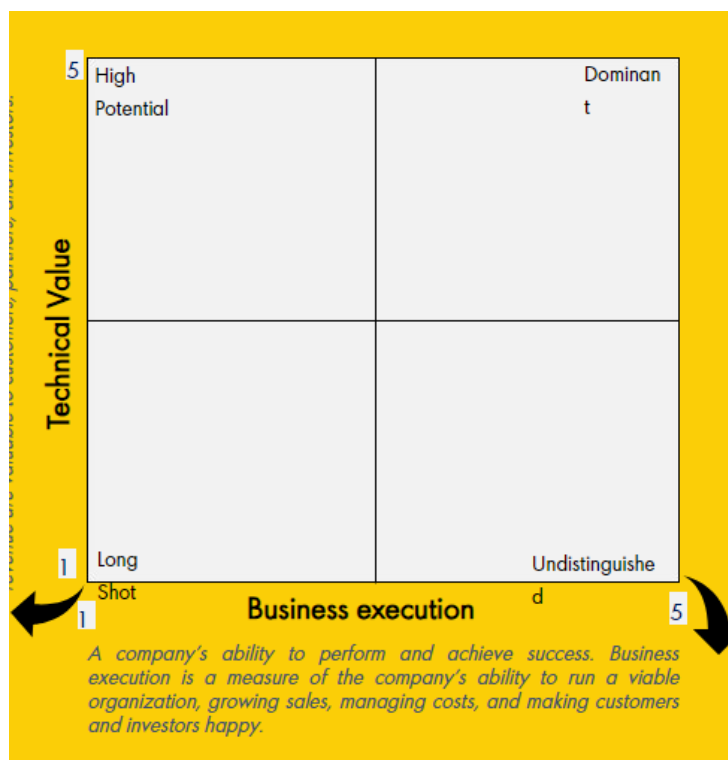
2. For Special Start Up Edition

- 2.1 All Contestants in a Start Up must be employed by the same Start Up at the time of the Competition.
- 2.2 For each entry, the Start Up must designate an employee as the Start Up Team Manager of its Start Up Team.
- 2.3 The Start Up Team Manager is the Start Up's sole official liaison with the Sponsor. All information will be addressed to him/her. For the purposes of the Competition, he/she will be responsible for the Start Up Team, must be able to understand and speak English and on behalf of the Start Up.
- 2.4 Each Start Up is eligible to submit only 1 Submission for the Problem Statement at each level.

2.5 Each Start Up is only eligible to enter 1 Start Up Team for this Competition.

2.6 **Level 1:** Submit to the HackerEarth Platform a slide deck consisting of:

- (a) A summary (maximum 300 words) explaining how and why the Concept is better than existing technologies or practices;
- (b) Brief explanation of how you arrived at the Concept;
- (c) Description of algorithms used;
- (d) Brief explanation of why the chosen algorithm was selected over other algorithms.
- (e) Brief explanation of how the selected algorithm impacted the Concept.
- (f) Brief description of the proposed architecture for the Concept
- (g) Explain the factors considered for the development of the Concept.
- (h) Explain your awareness of the competitive landscape for the Concept using the matrix below.



- (i) Explain how does your Concept compares to other technology alternatives?
- (j) If available, provide a high-level summary of the intellectual property landscape of comparable products in the market and the intellectual property position of your Concept.
- (k) List your current and future competitors for the Concept.
- (l) Provide details of the addressable market.

- (m) Provide Total Addressable Market, Serviceable Addressable Market and Serviceable Obtainable Market.
 - (n) Explain method used to calculate market size.
- 2.7 **Level 2:** Shortlisted Contestants must build a functioning prototype of the Concept using any open source online environment, tools and/or software demonstrating the mathematical model which they developed in Level 1.
- 2.8 Submissions for Level 2 must be in a digital format and include:
- (a) a comprehensive document in PDF format which outlines the model's methodology, assumptions, data sources and limitations;
 - (b) a slide deck which explains the model's functionality, performance, business model and business impact;
 - (c) a web link to the prototype of the Concept;
 - (d) a video screen capture of the executable files in the .mp4 format.
 - (e) The deadline for Level 2 Submissions will be by the end of 4 August 2024 Indian Standard Time and late Submissions will not be accepted.
3. **Level 3 – For All Competition Editions**
- 3.1 Subject to Article 5 in Appendix B below, each finalist Contestant or Team have 3 minutes to present their Concept to the Judges to evaluate according to the following requirements:
- (a) Proof of Methodology: Provide evidence of the Concept's methodology, including data sources, assumptions, and limitations.
 - (b) Innovation: Highlight innovative aspects of the Concept, emphasizing unique features or approaches.
 - (c) Deployment and Scalability: Demonstrate how the Concept can be deployed and scaled, including performance metrics and potential bottlenecks.
 - (d) Impact: Explain the potential impact of the Concept on sustainability and efficiency in fleet decarbonization.
- 3.2 Each finalist Contestant team will appoint a team member to present their Concept.
- 3.3 At the end of the presentation of the Concept by each finalist Contestant team, there will be a question and answer session with the Judges allowing them to probe deeper into the Concept and evaluate its feasibility and potential impact.

Appendix B

Competition Formats & Judging Criteria

Competition Formats

1. There will be 3 levels of the Competition in the following formats for each of the 3 categories of the Competition.
2. For Levels 1 and 2 of the Competition, all Contestants will submit their Submission through the HackerEarth Platform.
3. For General Edition and Special University Edition
 - (a) **Level 1:** There will be 20 shortlisted Contestants for the General Edition and Special University Edition combined which will be determined based on their standing on the HackerEarth Platform's private leaderboard.
 - (b) **Level 2:** Shortlisted Contestants will each have a 15 minute interaction with Judges. There will be up to 3 finalist Contestants for each of the General Edition and Special University Edition respectively.
 - (c) **Level 3:** Subject to Article 5 below, finalist Contestants for the General Edition and Special University Edition respectively will present their Concept to the Judges in person at the Venue.
4. For Special Start Up Edition
 - (a) **Level 1:** Each Start Up Team will present their Submission to a panel of Judges to be evaluated on the HackerEarth Platform.
 - (b) **Level 2:** Shortlisted Start Up Teams will be required to develop a prototype sandbox demonstration based on their Concept, submit it to the HackerEarth Platform and have 30 minutes to present their Concept to the Judges.
 - (c) **Level 3:** A maximum of 3 finalist Start Up Teams will be selected. Subject to Article 5 below, finalist Start Ups Teams will present their Concept to the Judges in person at the Venue.
 - (d) Each finalist Start Up must consent for its business, company name, logo and brand as well any media collected during the Competition, including but not limited to photos, videos and recordings, to be associated with Competition and used by the Sponsor and program partners to promote the Competition or themselves.
5. For all finalist Contestants:
If a finalist Contestant chooses:

- (a) not to be physically present at the Venue for the Competition finale, the Contestant must notify the Sponsor that it will present its pitch live virtually to the Judges within 3 days after being shortlisted at Level 2; or
 - (b) to be physically present at the Venue for the Competition finale, then the Sponsor will arrange and bear the reasonable costs for each Contestant traveling to and from the Venue, accommodation, and meals for 3 days. The Sponsor is not responsible for any travel, accommodation, and meals costs to attend the Competition finale if a Contestant makes their own arrangements for the same.
6. All finalist Contestants must bear all of their own costs to obtain the necessary travel visas to the Venue.

Judging Criteria

7. For General Edition and Special University Edition
- 7.1 **Level 1:** The shortlisted Contestants for the General Edition and Special University Edition will be determined based on their standing on the HackerEarth Platform's private leaderboard.
- 7.2 **Level 2:** Contestants will be shortlisted based on the criteria below:
- (a) Functionality and Usability:
 - (i) Does the prototype of the Concept effectively demonstrate the mathematical model for optimizing fleet decarbonization strategies?
 - (ii) Is the prototype of the Concept fully functional and does it perform as expected?
 - (iii) Is the prototype of the Concept user-friendly and easy to navigate?
 - (iv) Are there clear instructions or guidance on how users should to interact with the prototype of the Concept?
 - (b) Innovation:
 - (i) Innovation of modelling techniques.
 - (ii) Does the prototype of the Concept showcase innovative approaches or techniques in fleet decarbonization optimization?
 - (iii) Are there unique features or functionalities that set the prototype of the Concept apart from existing solutions?
 - (c) Scalability and Performance:
 - (i) Can the prototype of the Concept be scaled to accommodate larger fleets or different scenarios?
 - (ii) Does the prototype of the Concept demonstrate scalability in terms of computational resources and data handling?

- (iii) How efficiently does the prototype of the Concept execute the optimization algorithms?
- (iv) Are there any performance bottlenecks or limitations encountered during testing?

8. For Special Start Up Edition

8.1 **Level 1** - Contestants will be assessed according to the following criteria:

- (a) Capability: Technical Capability
- (b) Concept: Methodology & Implementation.
- (c) Feasibility: Relevance of the Solution
- (d) Innovation Quotient (Novelty)

8.2 **Level 2** - Contestants will be assessed according to the following criteria:

- (a) Business Model/Go-to Market Strategy:
 - (i) Evaluate the size, growth potential, and accessibility of the target market.
 - (ii) What are the monetization strategies?
 - (iii) What are the channels to reach customers?
- (b) Functionality and Usability:
 - (i) Does the prototype effectively demonstrate the mathematical model for optimizing fleet decarbonization strategies?
 - (ii) Has the prototype (webapp and screen capture video) performed as expected?
 - (iii) Is the prototype user-friendly and easy to navigate?
 - (iv) Does it provide clear instructions or guidance on how to interact with the model?
- (c) Innovation:
 - (i) Does the prototype showcase innovative approaches or techniques in fleet decarbonization optimization?
 - (ii) Are there unique features or functionalities that set the prototype apart from existing solutions?
- (d) Scalability and Performance:
 - (i) Can the prototype be scaled to accommodate larger fleets or different scenarios?
 - (ii) Does it demonstrate scalability in terms of computational resources and data handling?
 - (iii) How efficiently does the prototype execute the optimization algorithms?
 - (iv) Are there any performance bottlenecks or limitations encountered during testing?

- (v) Does it have the potential to expand geographically or serve additional customer segments?

8.3 Level 3 – For all Competition Levels, finalists will be assessed on the following criteria:

- (a) Accuracy: Accuracy and ranking on the HackerEarth Platform leaderboard from previous levels.
- (b) Proof of Methodology:
 - (i) Robustness and validity of the methodology.
 - (ii) Clarity of assumptions and data sources.
 - (iii) Limitations and how they are addressed.
- (c) Innovation:
 - (i) Novelty of the approach and techniques used.
 - (ii) Unique features or functionalities of the solution.
 - (iii) Potential to advance current practices.
- (d) Deployment and Scalability:
 - (i) Feasibility of deploying the solution in real-world scenarios.
 - (ii) Scalability to larger or different contexts.
 - (iii) Performance efficiency and potential bottlenecks.
 - (iv) Sustainability and long-term impact.