

# RULES AND REGULATIONS VERSION 1.0

January 14, 2021

The XPRIZE Rainforest is governed by these Rules and Regulations. **These Rules supersede the Competition Guidelines** originally published November 19, 2019, and updated June 12, 2020. All participating Teams must adhere to these Rules for Competition rounds in which they compete in order to progress through the Competition milestones and be qualified for selection as a winner of the Competition. Failure to adhere to these Rules may result in consequences as detailed in the Competitor Agreement.

XPRIZE may revise these Rules and Regulations at any time during the course of the competition to provide additional information or to improve the quality of the competition. Future versions, amendments, technical notes, or other documents may continue to elaborate on the operation of the competition, including exact dates and locations of events, specific technical thresholds for performance testing, and operational information. Unanticipated issues, including restrictions to travel, may also necessitate modifications to these documents. XPRIZE reserves the right to revise these Rules and Regulations as it, in its sole discretion, deems necessary or desirable. All registered teams will be notified of any revisions in a timely manner. Please send any questions or communications about them to rainforest@xprize.org.

NOTE: Bolded items are defined in Section IX: Glossary.

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# I. COMPETITION OVERVIEW

The XPRIZE Rainforest is a global, five-year, \$10 Million competition challenging innovators to develop novel technologies to rapidly and comprehensively survey tropical rainforest biodiversity and use data to deliver new insights in near real-time that promote the health and conservation of this vital ecosystem.

In alignment with the Convention on Biological Diversity<sup>1</sup>, and ethical standards for data and knowledge collection and usage<sup>2</sup>, successful technologies developed in the competition will demonstrate capabilities that include improved survey speed, autonomous operations, innovative detection methodologies and accuracy, increased spatial survey ability, and rapid data integration to provide new **insights** in unprecedented detail.

Teams will have 24 hours to explore 100 hectares of tropical rainforest and produce: (1) a biodiversity assessment; and additionally in the Finals, (2) Insights from data analyses that communicate the value of the standing forest.

2International Society of Ethnobiology (2006). International Society of Ethnobiology Code of Ethics (with 2008 additions). http://ethnobiology.net/code-of-ethics/

<sup>&</sup>lt;sup>1</sup> https://www.cbd.int/convention/

#### II. ELIGIBILITY

XPRIZE believes that solutions can come from anyone, anywhere. Scientists, engineers, academics, entrepreneurs, and other innovators from all over the world are invited to form a team and register to compete. To participate, a team is required to first create an account in the **Prize Operations Platform** (POP). POP is an online platform through which teams will register for the competition, pay the required registration fee, and submit important documents throughout the competition. Teams are expected to maintain their POP profiles throughout the competition, ensuring their profile is up to date with the most recent team information. A Team may recruit and add additional experts and members at any time throughout the Competition.

Early Registration opened on November 19, 2019 with a registration fee of \$500 (USD). The Early Registration deadline was October, 15, 2020.

The registration fee for teams who register by the Regular Registration deadline of March 15, 2021, is \$1,000 (USD).

There may also be additional opportunities for discounted registration fees as set forth by XPRIZE based on specific criteria and if available will be announced and provided to all interested teams.

XPRIZE has sole discretion to register and qualify additional teams between March 15, 2021 and the Discretionary Late Registration deadline (in Q2 2022). Teams that register during this period must meet all applicable registration and submission requirements and pay a late registration fee of \$1,500 (USD). This is a limited opportunity and potential teams should contact XPRIZE directly for more details.

# III. TEAM DEFINITIONS

Teams are categorized per the following:

• Interested Team: A Team or individual that is interested in participating in the Competition and has created a profile in the XPRIZE internal POP system.

- Registered Team: A Team that has paid the required registration fee, signed the Competitor Agreement and is eligible to submit a Qualifying Submission for Judge review.
- Qualified Team (up to 50 Teams): A Team that has been selected by the Judging Panel from the pool of Registered Teams based on the strength of their Qualifying Submission.
- **Semifinalist Team** (up to 25 Teams): A Team that has successfully completed the Semifinalist Selection and is selected by the Judges to proceed in the Competition.
- **Finalist Team** (up to 10 Teams): A Team that has successfully completed Semifinals testing and is chosen by the Judging Panel to attend Finals testing.

# IV. ROLES AND RESPONSIBILITIES

The responsible party for each of these activities is listed below. This is not a comprehensive list; please contact XPRIZE if you have any questions about any activity.

Table 1: Responsibilities

Activity	Responsibility
Design and development of the Solution	Team
Coordination of Testing Locations and operations of Field Testing	XPRIZE
Transportation of the Solution to a test location and back	Team
Deployment and setup of the Solution before any test and removal of the Solution after the end of testing	Team
Cost of lodging, travel etc. for Teams	Team
Solution inspection and/or verification before and during testing	XPRIZE + Judging Panel
Collection of test data from Teams for consideration by the Judging Panel	XPRIZE
Evaluation and scoring of Teams' solutions	Judging Panel

# **ADVISORY BOARD**

- **A. SELECTION OF ADVISORS.** XPRIZE has appointed a panel of topical experts and big-picture thought leaders to serve as the Advisory Board for the competition. The Advisory Board will remain in place throughout the competition to advise XPRIZE regarding the scientific and other elements of the competition.
- **B. INDEPENDENT ADVISORY BOARD.** The Advisory Board will be independent of XPRIZE and all teams and team members. No Advisor, nor any member of the Advisor's immediate family, shall participate, nor have any financial or other material interest, in XPRIZE, the Sponsor(s), and/or any team or team member. All members of the Advisory Board shall promptly disclose to XPRIZE any such current, former, or expected future conflict of interest with XPRIZE, the Title Sponsor, or any team or team member.
- C. ROLE OF ADVISORY BOARD. The duties and responsibilities of the Advisory Board may include, but not be limited to: (i) assisting with the establishment of qualifications for prospective Judges; (ii) recommending members of the Judging Panel; (iii) assisting with development of testing protocols and judging criteria; (iv) and providing input toward the development of these Competition Guidelines.

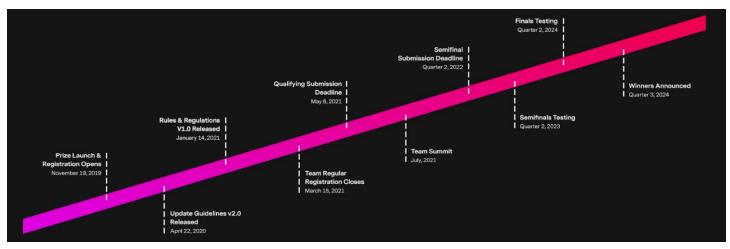
# JUDGING PANEL

- **A. SELECTION OF JUDGES.** The Judging Panel (as defined in the Competitor Agreement) is comprised of highly qualified and impartial Judges with relevant subject matter and technical expertise.
- **B. INDEPENDENT JUDGING PANEL.** The Judging Panel will be independent of XPRIZE, the Title Sponsor, any other prize sponsors, and all teams and team members. No Judge, nor any member of Judge's immediate family, shall participate, nor have any financial or other material interest, in XPRIZE, the sponsor(s), and/or any team or team member. All members of the Judging Panel shall promptly disclose to XPRIZE any such current, former, or expected future conflict of interest with XPRIZE, the sponsor, and/or any team or team member.

- C. ROLE OF JUDGING PANEL. The duties and responsibilities of the Judging Panel will include, but not be limited to: (i) the awarding of points and selection of teams that will proceed to each subsequent round of the competition; and (ii) evaluating teams' compliance with the Competitor Agreement as they relate to prize operations, and these Rules and Regulations for the purposes of the competition.
- **D. GROUNDS FOR JUDGING PANEL DECISIONS.** Official decisions made by the Judging Panel will be approved by a majority of the Judges that vote on each such decision after careful consideration of the testing protocols, procedures, guidelines, rules, regulations, criteria, results, and scores set forth in the Competitor Agreement, these Competition Guidelines, Rules and Regulations, and all other applicable exhibits to the Competitor Agreement. If any vote of the Judges results in a tie, then the Judging Panel shall determine, in its sole and absolute discretion, the mechanism to settle the tie. Similarly, if one or more teams are tied at any stage during the competition, the Judging Panel shall have the sole and absolute discretion to settle the tie.
- E. DECISIONS OF JUDGING PANEL ARE FINAL. The Judging Panel shall have sole and absolute discretion: (i) to allocate duties among the Judges; (ii) to determine the degree of accuracy and error rate that is acceptable to the Judging Panel for all competition calculations, measurements, and results, where not specified in the Rules and Regulations; (iii) to determine the methodology used by the Judging Panel to render its decisions; (iv) to declare the winners of the competition; and (v) to award the prize purses and other awards. Decisions of the Judging Panel shall be binding on XPRIZE, teams, and each team member. XPRIZE and teams agree not to dispute any decision or ruling of the Judging Panel, including decisions regarding the degree of accuracy or error rate of any competition calculations, measurements, and results. Teams shall have no right to observe other teams' testing or evaluation. or to be informed of other teams' calculations, measurements, and results, unless such information is made publicly available by XPRIZE.

# V. COMPETITION STRUCTURE

The competition is structured into four rounds over 5 years. Following testing portions of the competition, additional time and resources will be committed to amplifying the impacts of the XPRIZE Rainforest as displayed in Table 2.



These are the milestones that Teams must accomplish in order to progress in the Competition.

Table 2: Competition Calendar

November 19, 2019	Prize Launch:	
	Team Registration Opens and Draft Guidelines	
	Available for Public Comment	
<b>December 22, 2019</b>	Competition Guidelines Public Comment Closes	
April 22, 2020	Competition Guidelines Released	
October 15, 2020	Early Registration Deadline	
January 14, 2021	Rules and Regulations V1.0 Released	
March 15, 2021	Regular Registration and Competitor	
	Agreement Deadline	
	Qualifying Round Begins	
May 6, 2021	Qualifying Submission Deadline	
June 2021	Qualified Teams Announced (up to 50 teams)	
July 2021	Virtual Team Summit	
Q3 2021– Q2 2022	Qualified Teams <b>Solution</b> Development	
Q2 2022	Discretionary Late Registration Closes and	
	Semifinal Submission Deadline	
Q3 2022	Semifinalist Teams Announced (up to 25 teams)	
Q3 2022 – Q1 2023	Semifinalist Teams Solution Development	
Q1 2023	Semifinal Team Verification	
Q1 2023 – Q2 2023	Semifinal Testing and Judging	

Q2 2023	Finalist Teams Announced (up to 10 teams)
Q2 2023 – Q2 2024	Finalist Teams Solution Development
Q1 2024	Final Team Verification
Q2 2024	Finals Testing and Judging
Q3 2024	Final Award Ceremony and Winners Announced
Q3 2024 – Q4 2025	Scaling Impact

**Note**: The above dates are subject to change.

#### QUALIFYING SUBMISSION

Two months after the Regular Registration deadline, each team will be required to submit technical documentation detailing their approach and proposed technologies in the form of a **Qualifying Submission**. This prompt will be released to Registered Teams in Q1 2021, and will include an Executive Summary outlining the team's **Solution**, intended methodologies for data collection and analysis, and other technical details that demonstrate the team's ability to achieve the competition Testing Requirements. The Qualifying Submission will be reviewed by the **Judging Panel** to determine which teams will move forward and compete in subsequent rounds of the competition. This submission is also intended to inform XPRIZE and the Judging Panel of potential operational requirements or risks related to testing for this competition. Subsequent versions of, or amendments to, these Rules and Regulations may incorporate additional technical details based on the types of technological approaches entered into the Competition.

Teams must also include information on how they will use biodiversity data collected during the testing rounds to produce Insights that promote the health and conservation of rainforests. More information about the team requirement to provide Insights throughout this competition can be found in Section VII: Testing Criteria.

The Qualifying Submission will be reviewed by the Judging Panel and up to 50 teams will be selected as **Qualified Teams** to compete in the XPRIZE Rainforest. The Competitor Agreement must be signed and submitted to XPRIZE prior to Judge review of any Qualifying Submissions. XPRIZE may provide additional data and resources to Teams when Testing Locations are announced.

# SEMIFINAL SUBMISSION

Qualified Teams will have approximately one year (until Q2 2022) to develop their Solutions and will provide an enhanced technical submission (**Semifinal Submission**), which the Judging Panel will review to verify each team's ability to participate in testing. The prompt for this Semifinal Submission will be provided to all teams advancing in the competition as Qualified Teams. This submission will entail both a written technical document and video demonstration of the team's Solution. The Judging Panel will review these submissions to select *up to* 25 **Semifinalist Teams** to advance in the competition; this is the maximum number of possible teams advancing to Semifinals Testing, and fewer may be selected. Semifinalist Teams will split a Milestone Prize of \$250,000 (USD).

# SEMIFINALS TESTING

Prior to participating in **Semifinals Testing**, teams will be required to submit materials to verify they are prepared to proceed in the competition. The **Semifinals Verification** deadline will be scheduled in Q1 2023.

**Note**: Only Teams whose Insurance and Eligibility Requirements have been fulfilled and confirmed by XPRIZE (per the Competitor Agreement) will be permitted to submit verification materials.

Up to 25 Semifinalist Teams will physically demonstrate their Solutions in Semifinals Testing. During Semifinals Testing, teams must demonstrate that their autonomous Solution can operate in a tropical rainforest and detect biodiversity within a 100 hectare Competition Area. Multiple regional locations will be utilized for Semifinals Testing (Section VI). These will be announced and assigned in advance for teams to secure necessary logistical arrangements. To ensure a fair and level playing field, the exact Testing Location and Competition Areas will not be announced until shortly before Semifinals Testing.

The maximum **Time Limit** for each team to collect data during Semifinals Testing is 24 hours. Teams will have an additional 48 hours to process their biodiversity data and demonstrate pathways for developing and producing Insights from all available data sources. Teams will submit a biodiversity inventory of the rainforest along with information on the anticipated Insights

for the Judging Panel's evaluation (see Section VII: Testing Criteria for additional details).

Exact details for the Semifinals Testing will be released in subsequent versions of the Rules and Regulations, in advance of testing.

Following Semifinals Testing, the Judging Panel will select *up to* ten **Finalist Teams** to split a Milestone Prize of \$2,000,000 (USD) and proceed to Finals Testing.

# **FINALS TESTING**

Prior to participating in **Finals Testing**, teams will be required to submit materials to verify technical readiness and preparation of Solutions to proceed to the final round of the competition. The **Finals Verification** submission deadline is tentatively scheduled for Q1 2024.

During Finals Testing, up to ten Finalist Teams will physically demonstrate that their autonomous Solution can operate in a tropical rainforest and can survey biodiversity within 100 hectares of tropical rainforest at a testing location designated by XPRIZE. The general location for testing will be announced in advance of testing so that teams may coordinate necessary logistical arrangements. To ensure fairness of the Competition, the exact testing location and area will not be announced until shortly before the Finals.

The maximum Time Limit for each team to collect data during Finals Testing will be 24 hours. Teams will have an additional 48 hours to process their biodiversity data and produce Insights developed from data collected and analyzed during testing (see Section VII: Testing Criteria).

Finalist Teams will submit their biodiversity survey along with a report that details methods, results, and Insights for the Judging Panel's review (see Section VII: Testing Criteria for additional details).

Following Finals Testing, the Judging Panel will convene to review the submissions, discuss the results, and determine the winners of the Grand Prize and the **Bonus Prize**. The winning team(s) will be announced at an Award Ceremony hosted by XPRIZE in Q3 2024.

Additional testing information will be updated in future releases of the Rules and Regulations, after XPRIZE has completed selection of testing locations.

Table 3: Testing Limits

Activity	Semifinals Testing Limits	Finals Testing Limits
Maximum Testing Area	100 hectares	100 hectares
Maximum Data Collection Time Limit	24 hours	24 hours
Maximum Data Processing Time Limit	48 hours	48 hours
Production of Insights	*	**

<sup>\*</sup> During Semifinals Testing teams must demonstrate within the 48 hours Data Processing Time Limit how they intend to produce insights

# VI. TESTING LOCATIONS

The **Competition Area**(s) for Semifinals and Finals Testing will be determined by XPRIZE.

Semifinals Testing will take place in multiple locations and regions. XPRIZE intends to establish a minimum of three Competition Areas, likely with one in the Americas, one in Africa, and one in Asia, to increase accessibility of the Competition to teams globally. XPRIZE will determine and assign the Testing Locations and Competition Area for competing Teams. Accounting for different levels of biodiversity regionally, Semifinals evaluation will assess performance ability to prove proficiency, and effectiveness competitiveness for Finals, both within and across Testing Locations. At the release of these Rules and Regulations, international travel restrictions remain complicated due to Covid-19. Competition Area details may be modified and subject to change in accordance and compliance with current health, safety, and travel advisories, recommendations, and protocols. Locations will be announced no later than when teams are notified of successfully advancing to the Semifinals.

<sup>\*\*</sup> During Finals Testing teams must produce insights within the 48 hours Data Processing Time Limit.

Finals Testing will occur in one location, which will be announced no earlier than that of the Semifinals Competition Areas.

Teams will be permitted to arrive at the Competition Areas in advance, in order to test and trial their solutions in a **Practice Area** prior to official testing. Specific timing for permitted arrival will be shared when location details are announced. Teams will be able to enter the communal Practice Area during this time to trial and modify solutions. The Practice Area and Testing Area(s), will be situated in near proximity, however testing will not take place in the Practice Area.

The maximum testing area that teams will be permitted to survey is 100 hectares.

Testing by teams within Semifinals and Finals locations will take place concurrently to avoid temporal biases. Distribution of teams will be strategically coordinated and sufficiently distanced to avoid interference, within a homogeneous, undisturbed lowland tropical rainforest landscape. The extent of overlap between competing teams' Competition Areas, if any, at Semifinals and Finals will be determined upon selection of the Testing Locations. Additional criteria will be provided with the announcement of testing locations, and exact Competition Areas will be revealed and assigned following the conclusion of the Practice Period.

Teams will deploy their Solutions from a **Base Station** located outside of the Competition Area. During testing, Solutions may operate within the forest and up to the maximum altitude at which unmanned aerial vehicles are allowed to operate (under regulations locally coordinated by XPRIZE for the purposes of Testing in the Competition Areas).

During each round of testing, teams may deploy multiple systems, vehicles, and other technologies. Teams may not have any humans within the designated Competition Area. However, teams may employ humans outside the Competition Area and at the Base Station for:

- Assembly and maintenance of Solution in preparation for testing;
- Technology deployment and recovery;
- Remote-controlled operations and/or supervision of completely autonomous operations;

- Recharging, swapping, or refilling power sources;
- Receiving data transmissions and/or downloading data;
- Data analysis, including Species identification and
- Other necessary activities as approved by XPRIZE.

As summarized in Table 3, the maximum Time Limit for data collection within the Competition Area is set at 24 hours for Semifinals Testing and Finals Testing. Data processing Time Limits will be 48 hours for Semifinals and Finals Testing, commencing at the conclusion of data collection.

Once the Time Limit clock starts, it will not be stopped if the Solution leaves the Competition Area for any reason, including returning to the Base Station to refill, exchange, or recharge a power source.

Teams may not leave vehicles or other equipment in the Competition Area without prior written approval from XPRIZE and the Judging Panel. The competition intends to incentivize unmanned and autonomous technologies that will return to Base Camp without direct human assistance. In the event of an accidental loss of a Solution in the Competition Area requiring human-assisted recovery, or inability to recover the Solution within a reasonable timeframe, a team's overall score will be penalized at the Judging Panel's discretion. Unless otherwise stated, teams will be responsible for recovery of any Solution lost in the Competition Area.

Teams will be responsible for processing all data. Autonomous, manual, on-site or remote data processing is permitted within the allotted time. Teams may also transmit and process data during the survey testing if they develop that capability. The Judges, as well as XPRIZE staff and personnel, will be on site to observe the data processing and production of Insights. To verify accuracy and integrity of data and results, teams must transparently and comprehensively disclose and provide detailed information, with full traceability, outlining methodologies, data collection, data analysis, species observations and identifications, and pathways to Insights.

There will be no physical connection between humans in the Base Station and the Competition Area. While the Solutions must function without a physical link to operators, untethered "connectivity" between the Base Station and the systems is welcome.

Each team will be responsible for their own travel and for any costs associated with the transportation of their system, which must be possible to transport to the remote testing location once in country (such as with a single pickup truck). Teams may be required to attend a mandatory rehearsal period, as well as their scheduled testing day(s).

# VII. TESTING CRITERIA

The winning team will survey the most biodiversity contained in 100 hectares of tropical rainforest in 24 hours and produce the most impactful real time insights.

Teams will be evaluated by the Judging Panel based on the species richness recorded, and how teams interpret, extrapolate, infer, and communicate the broader impact of their biodiversity inventory as Insights. In order to be eligible for any Prize Purse during the competition, teams must meet or exceed all Testing Criteria requirements established by XPRIZE and the Judging Panel.

# **BIODIVERSITY SURVEY**

Teams must generate a biodiversity inventory within the designated Competition Area during both the Semifinals and Finals Testing.

Taxonomically, the Competition will focus on the Animalia and Plantae kingdoms, only. Requests to survey additional kingdoms of life may be considered in the Qualifying Submission at the discretion of the Judging Panel, though approaches outside of these constraints are not guaranteed.

Permitted survey methodologies, data collection, and specimen sampling will be taxon specific. XPRIZE will not itemize an exhaustive nor conclusive list of approved methodologies to encompass all tropical rainforest biodiversity. Teams must adhere to conventional, ethical, reputable, and local and international protocols that are accepted and regularly practiced in the relevant taxonomic field of study, and obey local or regional regulations relevant to any proposed methodologies in the Testing Locations. Teams will be required to describe these planned methodological approaches in their Qualifying and Semifinals Submissions for prior approval from the Judging

Panel. Teams must consult XPRIZE pertaining to any methodologies that may cause adverse impacts, harm, or destruction to the Competition Area, and/or those that require specimen collection (See Section VIII: Environment & Safety). Failing to submit, communicate, or seek approval for alterations to methodologies ahead of testing, or the violation of protocols or use of unauthorized methods, may result in deduction(s) from the score of the team in question, or disqualification.

Teams may survey any and all vertical strata of the Testing Area, in both rounds of field testing, up to the UAV height limit for the location. Subterranean sampling up to a specified depth may be allowed with prior approval of methodologies. Teams will be permitted to deploy Solutions within a space up to 100 hectares. Teams exceeding these spatial parameters will be deducted points or disqualified. A minimum survey area is not required.

#### INSIGHTS

Successful teams will use data collected during testing and will combine it with other available data sources to produce new Insights that promote the health and conservation of rainforests. Insights may include, but are not limited to, new ecological relationships or dependencies, biodiversity and climate connectivity, documentation of and solutions for ecosystem threats, anthropological findings, sustainable societal interactions with the rainforest, education, or pathways towards effective conservation action and policy at local, regional and/or international levels. Insights can be large or small scale, for example: from local species specific insights to climate insights of global scope. Teams are encouraged to use artificial intelligence, machine learning, virtual reality, augmented reality, or other means to gain new Insights from and about tropical rainforests.

- **SEMIFINALS TESTING:** During Semifinals Testing, Teams must declare what types of Insights are expected to be produced during Finals Testing, and demonstrate how they anticipate producing these Insights using their biodiversity data for the Finals round of the competition.
- **FINALS TESTING:** During Finals Testing, teams must produce actual Insights (such as those identified from Semifinals Testing) within 48 hours following their data collection. Teams must demonstrate traceability from

the Insights they produce to the biodiversity data they collected during testing. Both the <u>number</u> of Insights and <u>amount of impact</u> will be taken into consideration by the Judging Panel when evaluating team Insights.

# SCORING METHODOLOGY

The Grand Prize winning teams will survey the most biodiversity within 100 hectares of tropical rainforest in a 24-hour period and use these data to produce the most impactful Insights after 48 hours.

Teams best positioned to win will maximize performance on both biodiversity surveying and producing Insights. The intent of this Scoring Methodology is to incentivize teams to demonstrate a truly multi-functional platform for biodiversity assessment and utilization of those data to discover new Insights that promote the health and conservation of rainforests.

Insights will be judged on their impact, based on the discretion of the Judges and criteria established by the XPRIZE team. Insights will be evaluated on the overall impact they have to rainforest conservation, Indigenous Peoples and local communities, scientific understanding, noteworthiness, and applicability to other rainforest regions. Proficient autonomous technological approaches that are replicable, affordable, and scalable will be scored favorably.

Teams will be required to provide full transparency and traceability regarding data collection, analysis, and production of insights. Judges must be able to clearly follow the pathways towards species identification and production of insights by teams. Results lacking proof of process will not be considered.

It is within the Judging Panel's purview to consider different or additional criteria that teams present after testing.

Some examples of additional criteria the Judging Panel may consider when evaluating teams include but are not limited to:

- measurements of soil, water, carbon, and/or other materials or abiotic factors from data collected during testing
- consider total area covered by a team's biodiversity survey (i.e., with greater area counting for more points).

All requirements and testing criteria will be finalized and announced to teams well in advance of each round of Testing.

Further details regarding testing criteria, including the collection of Species data, system requirements, and shipping constraints for this competition will be provided in subsequent versions of the Rules and Regulations.

# VIII. ENVIRONMENT AND SAFETY

Safety is a top priority for this competition and to minimize the impact of the competition on the rainforest environment, Solutions must minimize environmental harm and ensure safety of participants and surrounding communities. All teams must comply with the following requirements:

- Teams will comply with all existing environmental, health, and safety regulations in the entire Competition Area including base camp and transit region.
- Site specific regulations will be shared after the announcement of Testing Locations.
- Any emission of acoustic, electro-magnetic, laser, optical or other energy must be compliant with any existing regulations and best practices for the Competition Area.
- Teams may not use nuclear reactor power sources or in any way allow emission of harmful chemical or biological pollutants.
- Teams may not employ any form of life in their approaches to the challenge.
- Teams must minimize harm to any form of life in their approaches to the challenge. If a team's Solution might impact life, this must be declared and accepted by the Judges in the team's Qualifying and Semifinal technical submissions as well as prior to deployment in the Competition Area.
- Document their approach to health, safety and environmental compliance
- Teams must recover equipment that is deployed within the Competition Area. Any disposable portions of the system must be declared and accepted by Judges as causing no harm prior to deployment in the Competition Area.

• Teams must research and obtain any necessary permits for operation in the Competition Area as it pertains to their particular Solution. XPRIZE will collaborate with teams in this activity.

XPRIZE will have the final decision on all above factors and reserve the right to disqualify any Entry, or deny any action, that is determined to be an undue risk. Additional details on Environment and Safety will be provided in future releases of the Rules and Regulations. XPRIZE reserves the right to adjust the Rules and Regulations based on the latest scientific and legal information available at the time to ensure personal and environmental safety. XPRIZE will make all final determinations on safe and acceptable operating conditions, including weather, for Competition operations.

# **MODIFICATIONS TO ENTRY**

Throughout the competition, except during testing, teams are welcome to continue to develop, iterate, and adapt their Solutions. Judges will approve all Entries participating in the Field Tests shortly prior to commencement of Field Tests.

# INTELLECTUAL PROPERTY (IP) AND PUBLIC DATA AVAILABILITY DURING COMPETITION

The IP and Entries remain the property of the Teams. Details about IP rights are in the Competitor Agreement.

# IX. GLOSSARY

**Advisory Board:** A select group of prominent advisors who contribute their wisdom, knowledge and guidance to various aspects of the prize.

**Base Station:** A camp that teams will use to manage their operations and launch their Solution into the Competition Area during testing.

**Bonus Prize:** There will be a Bonus Prize Purse in the amount of \$250,000 (USD) that may be awarded at the Judging Panel's discretion to one or more Finalist Teams whose Solutions demonstrate groundbreaking achievements.

**Competition Area:** The location selected and/or approved by XPRIZE to conduct testing.

**Competition Guidelines:** Document for the public and for teams that describes the requirements and parameters of the competition.

**Competitor Agreement:** A legal and binding document that details the responsibilities of competitors for the prize.

**Finals Testing:** The last set of testing events for the prize that will determine the Grand Prize winning teams.

**Finals Verification:** This is a mandatory update to ensure teams are prepared to proceed to Finals Testing. This will most likely consist of written and filmed components.

**Insights:** Teams will use data they collect during testing in combination with other available data sources to produce new Insights that promote the health and conservation of rainforests. Insights may include, but are not limited to, new ecological dependencies, biodiversity, anthropological findings, undiscovered threats, climate connectivity, or sustainable societal interactions with the forest.

**Judging Panel:** The subject matter and technical experts who serve as an impartial and independent evaluation team for all aspects of this prize. Judges score the team submissions and make the final award determinations in both the Semifinals and the Finals Competitions.

**Operations Guide:** The Operations Guide will detail the policies and procedures for testing including test scenarios, event operations, logistics, shipping, safety and other details to effectively participate in testing events. There will be separate Operations Guides for Semifinals and Finals Testing.

**Practice Area:** An area at the Testing Location, not to overlap with the Competition Area, where teams will be permitted to trial and troubleshoot their Solutions in the tropical rainforest during a period of time to be determined by XPRIZE immediately prior to Testing.

**Prize Operations Platform (POP):** The standard internal XPRIZE portal for teams to input data for use in this Competition.

**Prize Purse:** This refers to money offered, won, or received as a prize. It also refers to the overall amount of funds allocated to all prizes in this competition.

**Qualifying Submission:** This is a form in POP that must be completed by all Registered Teams. It consists of a series of questions to be answered that outline the expertise, capabilities and plans for the functional Solution that each team will be creating. It will also require an Executive Summary of up to two pages of text, and any supporting images, diagrams, or charts.

**Rules and Regulations:** Document detailing the testing protocols, specific rules, dates/times, and other details that will govern the competition and will be binding on teams.

**Semifinals Testing:** The set of testing events for the prize that will help determine which teams progress to Finals Testing.

**Semifinal Submission:** The process by which Qualified Teams demonstrate they are sufficiently advanced to progress in the competition as a Semifinalist Team. This submission will consist of written and filmed components which the Judging Panel will review to verify each team's ability to participate in testing. This enrollment may include certain steps and questions to be answered by the teams, such as proof of insurance, attending team member lists, and other details about the logistics of Semifinals Testing.

**Semifinals Verification:** This is a team-provided update to ensure teams are prepared to proceed to Semifinals Testing and consists of written and filmed components which will be reviewed by the Judging Panel.

**Solution:** This refers to a team's specific system (including the operator interface, all sensors, software and mechanical parts) that will be used in the competition.

**Species:** A group of related organisms or populations potentially capable of interbreeding in nature, and producing viable offspring. The Species is the principal taxonomic unit, ranking immediately below a genus.

**Time Limit:** The maximum amount of time teams will be allowed to collect data during Semifinals and Finals Testing.