

2021 Presidential Hackathon International Track Handbook

Supervisor: Presidential Office

Organizer: Executive Yuan

**Supporting Partners: Ministry of Foreign Affairs
American Institute in Taiwan**

Implementer: Ministry of Economic Affairs

Executer: National Association of Small and Medium Enterprises

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I. Background & Introduction

Presidential Hackathon: International Track

A. About the Presidential Hackathon

The Presidential Hackathon is an initiative designed by the Taiwanese government to demonstrate its commitment to employing open data and innovative data in order to address national development and social needs. The event aims to facilitate knowledge exchange and collaborative learning by bringing together data owners, data scientists, and field experts across government, industry, and civil society. Ultimately, it strives to accelerate the optimization of public services and encourage proactive innovation from public servants to upgrade government services by enabling a ‘hacker culture’ therefore creating global partnerships and promoting the well-being of the people.

Launched in 2018 by the Presidential Office as a domestic initiative, it was soon expanded to include an international track in 2019 wherein participants from around the world were invited to propose open data solutions for delivering better and more sustainable infrastructure worldwide. In 2019, the winning teams were MentaDak,¹ a team from Malaysia that developed a red flag tool to identify collusion and corruption at the tendering process of public procurement, and the INFRAS team,² a group from Honduras that created an infrastructure planning tool for safeguarding forests and other environmentally sensitive areas.

This year, the Presidential Hackathon challenges you leverage (open) data in order to develop innovative solutions to climate action issues.

¹ For more information about MentaDak’s project, please visit: <https://www.open-contracting.org/2019/08/23/cartelogy-a-tool-for-fair-competition-and-corruption-free-public-procurement-in-malaysia/>

² For more information about INFRAS’s project: <https://www.open-contracting.org/2019/08/28/build-better-build-right-a-new-tool-for-sustainable-climate-resilient-infrastructure/>



B. Sustainable Development Goals & Climate Action

The 2030 Agenda for Sustainable Development,³ adopted by all United Nations member states in 2015, provides a shared blueprint for peace and prosperity for people and the planet. At its heart are the 17 Sustainable Development Goals (SDGs),⁴ which provide an urgent call for action for all countries.

The urgency of addressing climate change is greater than ever, as worsening climate change caused the loss of lives, jobs, and livelihoods for 39 million people in 2018, according to the Sustainable Development Goals Report 2020 presented by the United Nations.⁵

After rising steadily for decades, global carbon dioxide emissions fell by 6.4%, or 2.3 billion tons, in 2020 due to the reduction in economic and social activities caused by the COVID-19 pandemic. However, hopes for climate benefits from the slowdown are likely to be dashed quickly once the global economy begins to recover from the pandemic.

³ UN SDG knowledge platform: <https://sustainabledevelopment.un.org/post2015/transformingourworld>

⁴ UN SDG menu: <https://sustainabledevelopment.un.org/?menu=1300>

⁵ The Sustainable Development Goals Report 2020: <https://unstats.un.org/sdgs/report/2020/The-Sustainable-Development-Goals-Report-2020.pdf>



II. Challenge Theme

2021's Challenge Theme: Sustainability 2.0 – Climate Action

A. Climate Action

Climate change is affecting people on every continent and disrupting national economies. Saving lives and livelihoods thus requires urgent action to address the climate emergency. The COVID-19 pandemic, despite causing immense worldwide pain, suffering, and hardship, has provided humanity with an opportunity to make meaningful changes on UN-supported SDGs such as climate action.

In this year's Presidential Hackathon, we wish to invite civic hackers around the world to submit ideas for accelerating green recovery, enabling green transition, combating climate change, and building transnational partnerships so as to solve cross-border climate issues.

In particular, we are seeking climate action⁶ proposals that emphasize climate adaptation or mitigation. The following are topics you may be interested in solving:

Climate Mitigation

- How to achieve net-zero carbon emissions?
- How to accelerate clean energy transformation?
- How to improve the effectiveness of carbon capture and storage?
- How to apply negative emission methodologies?
- What are the better ways for building a carbon neutral ecosystem?

Climate Adaptation

- How to increase natural disaster preparedness?
- How to build, or improve disaster early warning systems?
- How to improve existing disaster recovery management systems?
- How to facilitate resilient urban development

⁶ UN SDG 13: <https://www.un.org/sustainabledevelopment/climate-change/>



- What are the better ways for water resource management?

Climate & Other SDGs

- How to promote equality during the green transition?
- How to ensure government transparency during the green transition?

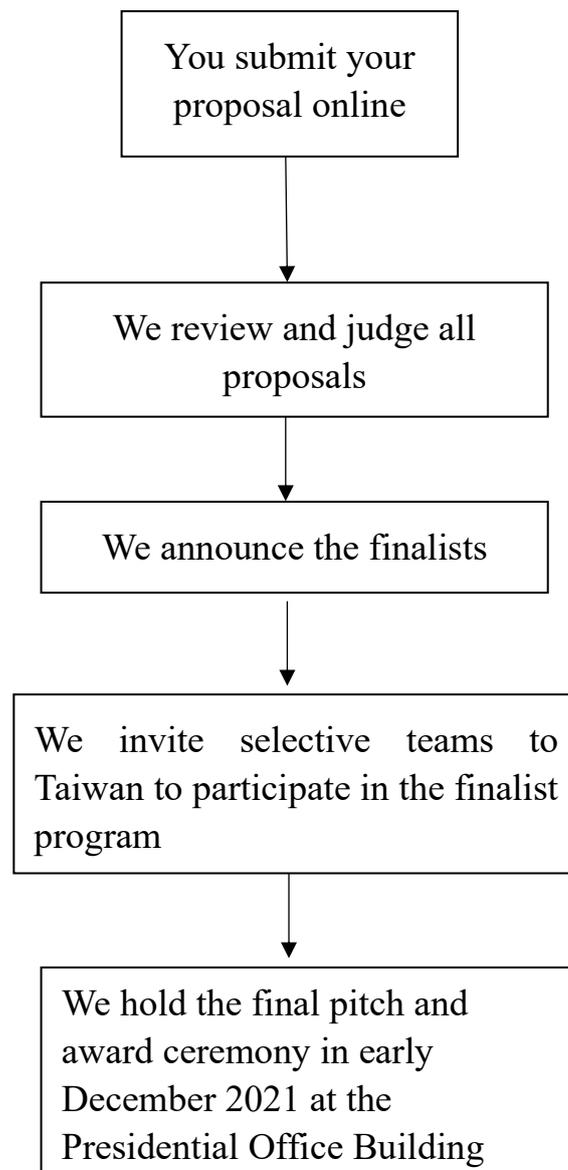
B. Your Mission

We want your best ideas on how to leverage open data and technology to help attain progress on climate action. In your proposals, you should address at least one of the following actions:

- **Generate:** Can you create new or better open data sources for use in climate action?
- **Analyze:** Can you discover new or improved applications of existing open data and tools that support social innovation in climate action?
- **Prototype:** Can you design new or better tools that employ open data to enable climate action?



B. Application Process



Note: The health and well-being of our participants is our first priority. As such, we are constantly monitoring the global response to the COVID-19 pandemic, and we may have to adjust the format of the challenge and events in response to pandemic-related issues. With this in mind, we reserve the right to make changes to the finalist program and award event at any time without prior notice to the participants. In such a case, we will make every reasonable effort to inform participants prior to the event date.



III. Application Details

A. Why Apply?

Through this Presidential Hackathon, you will be able to:

Pursue your technology and innovation ambitions

Create actionable data, analysis, and tools through a dedicated climate change adaptation or mitigation proposal and receive dedicated support that will help you achieve your ambitious climate action goals.

Learn globally, change locally

Become a change agent in the climate action space. Learn from global innovators and practitioners on what works and which mistakes to avoid in generating, analyzing, and prototyping local/global climate adaptation or mitigation proposals.

Join a community of innovators

Connect with experienced peers who have led successful innovation projects and overcome similar challenges. Be part of an active community and network that can help change global, regional, and national norms.

B. Who Can Apply?

The Presidential Hackathon is open to all, and we encourage teams from academia, business, civil society, government, and media. In particular, we are seeking those who have a vision for using open data to solve specific climate change-related problems at the regional, national, or sub-national level.

Your team should consist of 3-5 members, with successful teams consisting of at least three key roles:

- **A Policy Navigator** who understands how government systems, market mechanisms, processes, and reforms work.



- **A Technical Navigator** who can navigate datasets or build tools.
- **A Partnership Builder** who can identify and engage with stakeholders to achieve buy-in (note that this individual does not have to hold a government role).

For teams planning to:

- **Generate open data** – you will need a developer who can combine multiple sources and create machine-readable data;
- **Analyze open data** – you will need a data analyst with data cleaning and analysis skills;
- **Prototype** – you will need a developer who can design the target product on top of your chosen open data.



C. Intellectual Property Rights Statement

1. Any intellectual property in the submission must belong to the applicant. Applicants will retain the intellectual property rights to their entry to the prize. Such intellectual property must be clearly marked as proprietary except if you are publishing open-source data. It is the applicant's responsibility to ensure that they are not infringing on the intellectual property of others.
2. Teams guarantee that the information provided, including but not limited to the proposal, graphics, presentation, audio, video, and other materials, does not infringe intellectual property rights and the rights of others, or violate laws and regulations.
3. The shortlisted teams agree to authorize the organizer or co-organizers to use the graphics, presentations, photos, videos and other materials, including but not limited to the names and portraits of the team members, free of charge without the restriction of time, location, and number of times for non-profit purposes, including but not limited to printing, display, promotion, news reporting, publication, and publicizing, and to sublicense third parties to use the aforementioned materials. The teams also agree that the organizer may revise, reproduce, edit, and exercise, on relevant marketing media, all of the rights the copyright owner enjoys under the copyright law without notifying the teams. However, the programs, software, system produced by the teams during the event are not included. The teams and their members also agree not to exercise their moral rights if the aforementioned rights are not compromised.
4. Teams agree to authorize the organizer or co-organizer to take photos, make films, or request the teams to provide relevant photos or videos for the purposes of recording, promoting, and marketing this event or related activities during the course of this event and that the organizer and co-organizer may publish the aforementioned photos or videos in any form.



IV. Selection Criteria

- A. All documents must be written in English.
- B. A team should consist of no more than 5 members.
- C. The proposals must be new or must not have been previously initiated by any entity.
- D. Proposals will be evaluated based on three key criteria:
 - **Innovation (30%)**
 - How unique is the solution in generating, analyzing, or prototyping mitigation or adaptation approaches to attain climate action?
 - Is your approach more effective than existing solutions?
 - Does this unique innovation achieve its goal effectively and efficiently?
 - **Impact (40%)**
 - Does the solution address a high priority area within the SDGs relevant to climate action?
 - Will the solution deliver significant impact?
 - Is the solution replicable or transferable?
 - **Feasibility (30%)**
 - How fully has the idea been developed?
 - Is the use case and solution clear? How complete is the solution?
 - Have all the required documentation and deliverables been provided? (e.g., system architecture, draft data, action plans, etc.)
 - How much has been done to generate buy-in or support for this solution? Have the relevant stakeholders been identified and engaged with?
 - How robust are the post-hackathon project development strategy and action plans?
 - How will this contribute to adoption or implementation?
 - How quickly can it be implemented?



V. What Are the Benefits for You?

A. Rewards

In addition to bragging rights, you also stand to win:

1. For Finalists:

- Access to the Presidential Hackathon Network and community.
- The opportunity to join the Finalist Program, where you can interact with peers, exchange ideas, and learn from others.

2. For the Team of Excellence:

- Trophy for the team.
- The opportunity to present your project at the Presidential Office Building.
- The opportunity to join the International Program in Kaohsiung for future collaborations or project landings. (Note: For terms of the International Program, please refer to Section B. Terms of the International Program.)



B. Terms of the International Program

The Team of Excellence may send 3 team members to join the International Program at Kaohsiung, with the following resources provided:

1. Flight ticket reimbursed up to US\$2,000 per person, and only provided to member(s) outbound from overseas.
 - Upon arrival in Taiwan, each team member shall submit one's ticket payment receipt/certificate of ticket issuance and the (outbound) boarding pass(es) to the organizer, sign relevant papers, and complete the withholding tax procedure in accordance with the laws of Taiwan. Within seven calendar days of return from Taiwan, the (inbound) boarding pass(es) must be posted or scanned back to the organizer, who will then review the documents and transfer the reimbursement to the bank account (no more than one) designated by the team.
2. Shuttle service between the airport and the accommodations for the International Program.
3. 1 bunk bed for free for 30 nights.
4. Per diem for each team member to cover living expenses for 30 days.
 - Each team member shall sign relevant papers and complete the withholding tax procedure in accordance with the laws of Taiwan.
5. Free co-working space for 30 days.
6. Networking services: exchange with accelerators, startups, workshops, gatherings, and related activities.
7. Consulting services: Legal, financial, taxation, and market-development.

The Organizer reserves the right to make changes or substitute any of these Terms and Conditions from time to time as it deems fit.



V. Timeline

Call for application	May 14 – August 4
Review of applications	August 6 – August 12
Announcement of finalists	August 16
Finalists program	August 19 – October 14
Award Ceremony	5 December

[1] The Organizer reserves the right to modify the rules at its sole discretion and without prior notification. Any amendments to these rules will be updated on the official website.

[2] The Organizer reserves the right to cancel the Event at any time without prior notice to the participants. In such a case, they will make every reasonable effort to inform participants prior to the event date.



VI. Resources

Here is a list of resources that might be helpful to tackle the challenge:

➤ **Open data**

Taiwan Government Open Data: <https://data.gov.tw/en>

Dataportal.asia: <https://dataportal.asia/home>

NASA Open Data Portal: <https://nasa.github.io/data-nasa-gov-frontpage/>

NOAA DATA Discovery Portal: <https://data.noaa.gov/datasetsearch/>

NCDR: <https://www.ncdr.nat.gov.tw/>

CHECK MORE DATA PLATFORMS:

https://docs.google.com/spreadsheets/d/14zlye9IhbD_1ewnlQW7rV80IDhDsmdmD_Jc7X18RO6Y/edit?usp=sharing



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