2019 ECOTHON CAMBODIA

Idea Competition for Sustainable Consumption and Production

FINAL REPORT

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Ecothon is a word that combines '**Eco**' and '**Hackathon**'.

Ecothon is a 2~3 days intensive competition for promising entrepreneurs who has an innovative '**sustainable consumption and production (SCP)**' business idea.

In 2015, the United Nations selected 17 Sustainable Development Goals (SDGs) that countries will work together to achieve by 2030 as a follow-up to the Millennium Development Goals (MDGs).

Among the 17 goals of SDGs, the Ecothon brings to focus SDG 12, responsible consumption and production, aiming at discovering innovative business solutions which concern a 'sustainability' as the most important value.

Ecothon plans to collect innovative ideas on SCP in our region and help develop them into a viable business model, thus establishing Eco-entrepreneurship and further contributing to the achievement of SDGs.

CONTENTS

DOING MORE AND BETTER WITH LESS

WHAT IS SCP?

SCP,

which is the abbreviation for '**Sustainable Consumption and Production**', conceived in the UN SDGs No. 12.

WHAT SCP OFFERS

is that the use of services and products that minimize the use of natural resources and toxic materials, as well as the release of waste and contaminants during the service or product's cycle, so as not to jeopardize the needs of future generations. (UNEP, 2010)
Its implementation helps to achieve overall development plans, reduce future economic environmental and social costs, strengthen economic competitiveness and reduce poverty.

SINCE SCP AIMS AT

"**doing more and better with less**", net welfare gains from economic activities can increase by reducing resource use, degradation and pollution along the whole life cycle, while increasing quality of life.

2019 ECOTHON IN CAMBODIA

1) Date & Venue
- 17th ~ 18th September 2019
- Le Royal Hotel, Phnom Penh

2) Host
- Ministry of Industry and Handicraft, Cambodia
- ASEIC
- Hanns Seidel Foundation

3) Sponsorship
- Ministry of SMEs and Startups, Republic of Korea
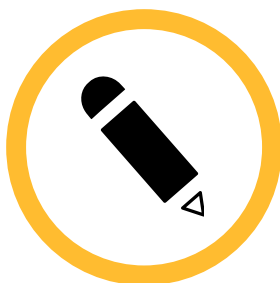- CONTEC.LTD

4) Target
- Promising entrepreneur groups or companies who has an innovative SCP business solution

5) Theme
- Developing an innovative business model for Cambodia's SCP

6) Prizes
- Golden, Silver and Bronze Prize
- All winners will be given the opportunity to participate in **K-Startup ComeUP 2019**

APPLICATION
26th August, 2019 ~ 16th September, 2019

ECOTHON
17th September, 2019 ~ 18th September, 2019

K-STARTUP COMEUP
28th November, 2019 ~ 29th November, 2019

2019 ECOTHON IN CAMBODIA

PROGRAM OVERVIEW

PROGRAM

17 SEP

9am – Noon
Opening Session
Start line ECO-maraTHON
Team Presentation 1

☑ **Lunch**

Afternoon
Solution Development 1
Workshop 1
Product/Service/Package Design in SCP
Solution Development 2

☑ **Dinner**

Evening
Half way point check-up
Team Presentation 2

18 SEP

9am – Noon
Workshop 2
Development of Entrepreneurship
and market-go strategy
Solution Development 3
☑ **Lunch**

Afternoon
Spurt Preparation of Presentation
Final Goal Line Final Presentation
Awards and Completion Ceremony

FINISH

* Experts and mentors will be available for two days.
* Each presentation will be evaluated and provides advises

ECOTHON ZOOM-IN

"The event offered mentors who are experts as on the field who help enhance our idea into a practical solution for the society with the possibility to generate the revenue for the sustainability of the project."
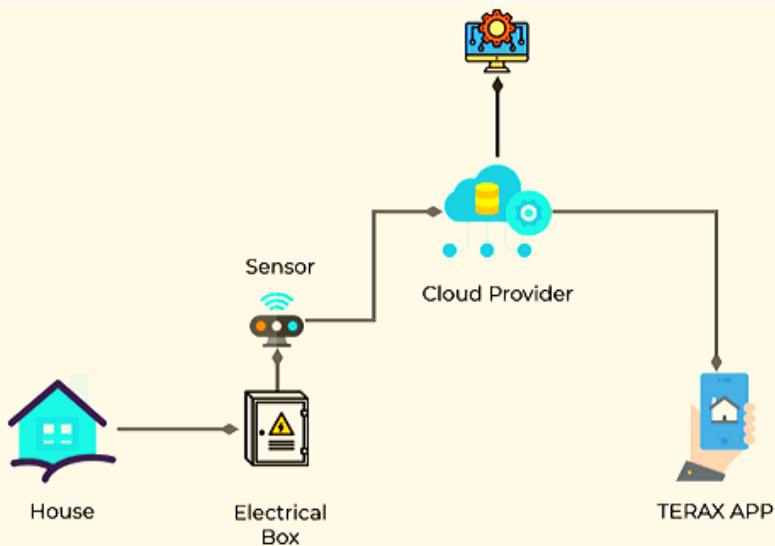
- Sam Mardy,
   a bronze prize's winner

TERAX

Energy Efficient Home IoT System

TERAX

TeraX home IoT system is an intelligent system that provide insights on daily utilities usage, tips and product recommendations to reduce it.

The system consists of 2 main components:
hardware which is the sensor (one sensor for all, achievable by using electronic fingerprint analysis technology) and
software which is the application to connect to the hardware to get the utilities usage data and also have access to tips and product recommendation from our energy efficient experts.

The uniqueness of our product is that it has a ONE SENSOR to identify all appliances (or devices) with Electricity Fingerprint Analysis. We provide simple and effective tips from our experts on how to reduce the daily utilities consumption.

TeraX Sensor captures daily consumption then sends the data to the cloud and process with our algorithm. TeraX Application displays the insights on the overall daily consumption and also the consumption from each and every appliances in the house as well.

We are planning to pivot our target from B2C to B2B, such as apartments or condominiums in the near future.

We believe that our innovative system can save earth resources and bring a better quality of life.
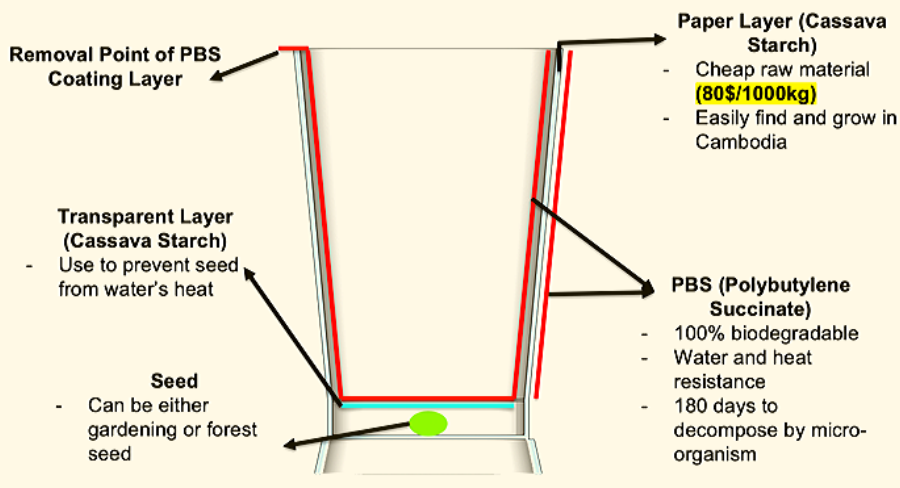
EcoCup

Bio-degradable Paper Cup

What is EcoCup?

Removal Point of PBS Coating Layer

Paper Layer (Cassava Starch)
- Cheap raw material **(80$/1000kg)**
- Easily find and grow in Cambodia

Transparent Layer (Cassava Starch)
- Use to prevent seed from water's heat

Seed
- Can be either gardening or forest seed

PBS (Polybutylene Succinate)
- 100% biodegradable
- Water and heat resistance
- 180 days to decompose by micro-organism

ECOCUP

EcoCup is a bio-degradable and water-proof cup whose uniqueness comes from using *Casava Starch* and able to produce beautiful plants from embedded seeds inside the cups

EcoCup is a sustainable environmental solution which helps to promote resource efficiency and greenery by using bio-degradable materials and cheap raw materials like Casava Starch which can be found in Cambodia.

By embedding with seeds, it can also use for plantation with purpose of reforestation and gardening.

Our target customers are included: coffee shops and school cafeterias.
It's estimated that there are approximately over 400 coffee shops and 100 private schools alone in Phnom Penh City.
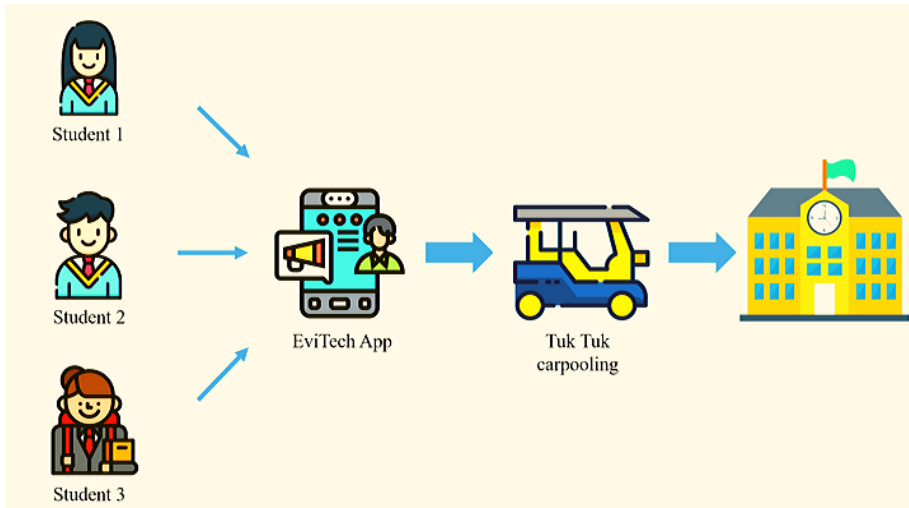
Our revenue model is to moderately sell our cups to those customers then we will further open for advertisement on our cups.

EviTech

Commuting Vehicle Sharing Service

Student 1
Student 2
Student 3
EviTech App
Tuk Tuk carpooling

EVITECH

EviTech proposes a safe and affordable solution that allows the working parents in the same neighborhood to share the *Tuk Tuk* service for picking up their children from home to school.

Our project adopts the concept of collaborative consumption which encourages the city dwellers of the same neighborhood to share the *Tuk Tuk* service. While reducing the family expenses and promoting culture of sharing, this approach can effectively reduce energy consumption and lessen the amount of fossil fuel as well as contribute to the reduction of carbon dioxide emission to the atmosphere due to the drop of the requirement of the vehicles on the roads.

Our target market is the working parents with children at school age. At the first stage, we target Phnom Penh dwellers and we plan to start reaching out from neighborhood to neighborhood.

Our project makes profit from deducting 10% commission from each *Tuk Tuk* driver who is using our service.

We plan to develop a platform, which allows the *Tuk Tuk* drivers to offer the carpooling service to at least two children who are living in the same neighborhood and studying at the same school.

The profile and service information of the registered drivers will be published on the platform. Meanwhile, the parents can go through the *Tuk Tuk* sharing service drivers who are living in the same neighborhood before hiring the trusted one to take their children to and from school.
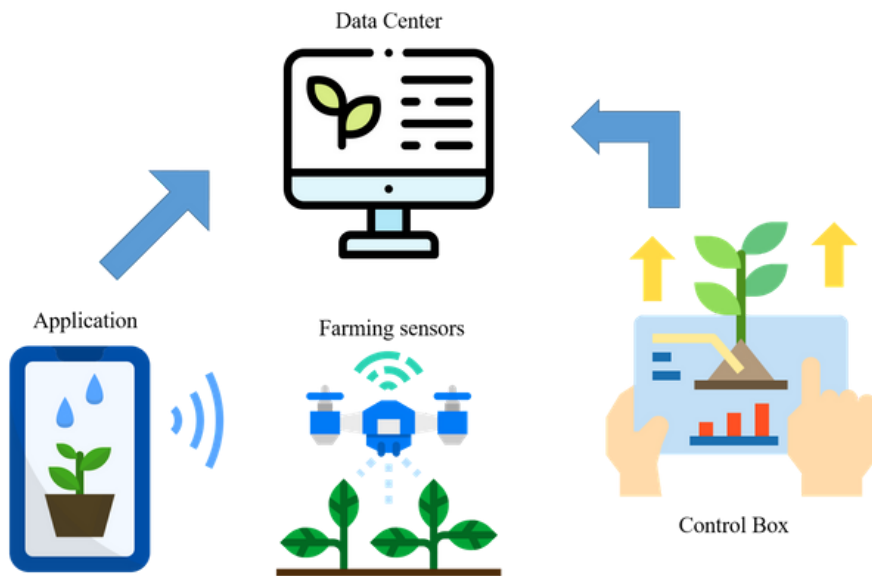
The platform will provide advanced features GPS tracking on the *Tuk Tuk*, video calling, and notification when their children are picked up and dropped off, which enable the parents to be well informed about the current location of their children in real time.

ITAlab

Urban Smart-farm Technology

Data Center

Application

Farming sensors

Control Box

ITALAB

ITAlab brings and assembles the existing technologies into a single controlled box to make the life of the farmers easier by adding value and knowledge to existing agricultural system to lower the cost of production and increase the yield of the crops.

ITAlab has developed online and offline devices for irrigation, fertilization, nutrient monitoring and feeding to allow users to take control farm effectively. It saves time and money, reduces workload, conserves environment through water, energy and pesticide reduction and enhances economic condition through creating more rooms for farmers to expand their farms or even start new business activity to support the family living.

The data generated from the sensors attached to the control box will be stored in a safe data center controlled by ITAlab. This future big data would serve as knowledge-generating machine for any ITAlab, government, NGOs and other related stakeholders for future research and development purposes related to agriculture industries.

With ITAlab, various types of farms can be our customer segments such as B2B (gardening company, hotel, restaurant and etc.), B2C (home garden, small scale farmer and etc.) and B2G (central government and local government).

ITAlab will sale the products to clients including web-app monthly service, data-mining (future commercial purpose), pre-installing consultancy and agricultural facility installation services.

We have great partners with companies, NGOs, government, association and etc. Our business has started since 2017 and we will expense our experiences to urban gardener, hotel, restaurant and many farms in provinces.

REFLECTION

PARTICIPANTS' COMMENTS

CHHOR MENGHONG (TERAX)

"During the Cambodia ECOTHON 2019, **I was really impressed by the judge's opinion**, before and after is different because judges are advised us based on their experience, **which makes us think that what we have learned or think is not always right**. Basically what we have learned is working as a team especially solving problems with experience under pressure."

KRUY CHANDARA (TERAX)

"What makes ECOTHON different from other startup competition is that **ECOTHON not only focuses on how to make money alone but also how to make the world a better place**. Moreover, there are a lot of experienced and professional judges from different countries that came to give us advice and teach us about the business world."

KIM SOPAGNAPHEA (ECOCUP)

"Our team has faced a lot of struggles in order to meet the deadlines as well as refine our business ideas to fit the reality. At the end of competition, we are able to understand better how we can make our business become possible and receive many feed-backs from mentors. **These experiences motivated me even more to explore other different opportunities and invent more creativities to develop a better startup**."

REFLECTION

PARTICIPANTS' COMMENTS

KEO SOPHANETH (ECOCUP)

"Literally, I really like about this program due to the fact that it does not only focuses much on hard skills regarding to environmental science and engineering but also business skills. **This program provides youth chance who wants to create impacts for society**."

SAM MARDY (EVITECH)

"Cambodia ECOTHON 2019 is a great event that allows me to work with my team to explore the opportunity within the solution in our idea. Moreover, **the event offered mentors who are experts as on the field who help enhance our idea into a practical solution for the society with the possibility to generate the revenue for the sustainability of the project**."

KVIMOIL OURN (EVITECH)

"Cambodia ECOTHON 2019 is an amazing event, and **it opens more opportunities for Cambodian youth to learn and be exposed to an experience with the combination of entrepreneurship and sustainable consumption and production**. The judges were supportive, and they made a lot of contributions on each team's proposal. We learned many things from them."

"We are in business **to save our home planet**"

-Out of the mission statements of Patagonia,
which is a one of the most famous outdoor apparels in U.S.