



Global Cleantech Innovation Programme (GCIP) startups at the 2018 Cleantech Open Global Forum, Los Angeles, California



Saathi Eco Innovations India PVT Ltd. (GCIP-India 2017) *Woman-led Venture

Location: Ahmedabad, India

Saathi's 100% biodegradable and compostable sanitary pads, made from waste banana tree fibre, are healthier for the body, environment and community since they don't contain chemicals and plastic, and therefore they don't cause irritation or rashes. The pads use no water in production, can be upcycled after use, and reduce CO2 emissions since they don't need to be burned upon disposal. Our technology can also be used for other products, which will greatly increase our impact.

Representatives at the Global Forum:

Kristin Kagetsu (CEO) & Tarun Bothra (CTO)

Year Founded: 2016

Number of employees: 22

Website: www.saathipads.com



NavAlt Solar & Electric Boats (GCIP-India 2017)

Location: Kerala, India

We have developed India's first solar ferry that is a commercial product sold to Kerala Government and operating for the past 11 months, carrying over 400,000 passengers, traveling 14,000 km without diesel and saving over \$ 30,000 in fuel. Based on its success we have signed another boat with the same client.

Representative at the Global Forum: Sandith Thandasherry (CEO)

Year Founded: 2013

Number of employees: 35

Website: www.navaltboats.com



Sagar Defence Engineering Ltd. (GCIP-India 2017)

Location: Mumbai, India

The unmanned marine vehicle Trashfin can be used to collect marine debris from the oceans and for rescue operations during any calamities. The solution puts no human life at risk and reduces OPEX by more than 60% and CAPEX by 45%. Comprising of the military grade technology, the same technology can be used in surveillance, search and rescue, disaster management, oil exploration and aerial systems.

Representatives at the Global Forum: Mridul Babbar & Shilpa Parashar

Year Founded: 2015

Number of employees: 12

Website: www.sagardefence.com



Aspartika Biotech Pvt Ltd. (GCIP-India 2017)

Location: Bangalore, India

A clean and green technology that utilizes discarded silkworm pupa to produce Omega-3 fatty acids enriched pupa oil, and production of novel poultry feed supplement for the development of “omega-3 fatty acid enriched- Designer Eggs”.

Representative at the Global Forum:

Dr Mousumi Mondal (co-founder)

Year Founded: 2015

Website: www.aspartika.com



Khepri Innovations (Pty) Ltd. (GCIP-South Africa 2017)

Location: Pretoria, South Africa

We design, implement, and market modular insect bioconversion units for the production of insect based protein and fertiliser from organic waste. Khepri Meal consists of highly nutritious dried and defatted larvae that are ground into a high-protein meal. It can be supplied pelleted, crushed or milled for blending into animal feeds. It is specifically useful for the feeding of monogastric animals including chickens, pigs and fish.

Representative at the Global Forum: Bandile Dlabantu (CEO)

Year Founded: 2014

Number of employees: 7

Website: www.khepri.co.za



SharkSafe (Pty) Ltd. (GCIP-South Africa 2017) *Woman-led Venture

Location: Stellenbosch, South Africa

SharkSafe is the first eco-friendly shark-specific product to protect people and sharks. The SharkSafe Barrier prevents shark attacks by keeping sharks separated from swimmers and surfers. It bio-mimics the visual appearance of a kelp forest and creates an electro-magnetic field, both proven to deter sharks. The alternatives to SharkSafe are designed to protect individual surfers rather than the whole beach or, if protecting the beach, they are not eco-friendly or not shark-specific and have high maintenance costs.

Representative at the Global Forum: Dr. Sara Andreotti (CEO)

Year Founded: 2017

Number of employees: 3

Website: www.sharksafesolution.com



Gracious Nubian (Pty) Ltd. (GCIP-South Africa 2017) *Woman-led Venture

Location: Bloemfontein, South Africa

We design, develop and manufacture a reusable, bio-degradable and hygienic sanitary pad. The problem: 67% of girls in South African rural areas stay out of school during menstruation because they simply cannot afford sanitary pads. Disposable pads can take from 500 – 800 years to decompose.

Representatives at the Global Forum: Euodia Naanyane-Bouwer (CEO) & Clive Bouwer (CLO)

Year Founded: 2015

Number of employees: 2

Website: www.sharksafesolution.com



Episome Biotechnologies (GCIP-Turkey 2017)

Location: Gebze, Turkey

Episome Biotech focuses on industrial enzyme technologies. We aim to provide sustainable and environment friendly products for biogas, textile, leather, paper, starch, detergent, rubber and biofuel industries. Our newly developed technology, Epicellulyse XT, enables use of paper mill sludge in biogas and organic fertilizer production. Previously, paper mill sludge was not suitable for biogas production due to its cellulose content. Epicellulyse XT also helps the companies to reduce their carbon footprint.

Representatives at the Global Forum: Murat Bahadır KILINÇ (CEO) & Murat BALABAN (CTO)

Year Founded: 2014

Number of employees: 7

Website: www.episomebiotech.com



Delphisonic (GCIP-Turkey 2017)

Location: Gebze, Turkey

Delphisonic enables railway operators to detect mechanical problems in advance and in real time to avoid catastrophic accidents, crashes, overturns or derailments. Main customers are railway operators or manufacturers. Customers include CDD (Turkish National Railway Association), UN-RORO (Leading ship manufacturing company) and Mey Icki (The leading alcoholic beverages producer of Turkey).

Representative at the Global Forum: Ali ACUR (CEO)

Year Founded: 2016

Number of employees: 5

Website: www.delphisonic.com



TurBio (Mitos Ltd.) (GCIP-Turkey 2017)

Location: Turkey

We design, develop, test and sell a biomass stove that burns dung-fuel (tezek) clean with nutrients recycling. It provides heat more efficiently (4x), preventing CO formation, treating the fume for PM, hazardous gases and smell by washing the exhausted oxides with steam thereby producing the acid needed in the dissolution of the ashes to end up with phosphorus (P) fertilizer.

Representative at the Global Forum: Dr. Demet SEYHAN (CFO & co-founder)

Year Founded: 2010

Number of employees: 5

Funding requirement: \$ 2 million (Series A)

Website: www.mitosmicrowave.com



Biolive (GCIP-Turkey 2017) *Woman-led Venture

Location: Istanbul, Turkey

Antimicrobial Bioplastic Production Made Of Olive Seeds. Plastics in our daily life are harmful to nature and human health; It can take 450-1500 years for plastics to fully degrade and carcinogens in plastics directly threaten human health. Biolive is an antibacterial plastic made of olive seed powder, which extends shelf life of food, is recycled and quickly biodegrades in 2-3 years after use.

Representative at the Global Forum: Duygu YILMAZ (Chairman)

Year Founded: 2017

Number of employees: 5

Website: www.biolivearge.com



Ecologic Leather / Dermoda Deri (GCIP-Turkey 2017) *Woman-led Venture

Location: Çanakkale, Turkey

Ecological leather is 100% degradable in nature and has no allergic or toxic effects on humans. The sustainable clean leather production method uses 20% less water and chemicals, has 15% shorter operating time and uses 25% less energy. The global leather product market is predicted to reach \$247 Billion in 2019 (BusinessWire), with many markets and products suitable for ecological leather.

Representative at the Global Forum: Sevda KOKSAL DABAN (CEO)

Year Founded: 2014

Number of employees: 3

Website: www.dermodaderi.com



ECOACTIVA (GCIP-Morocco 2017) *Woman-led Venture

Location: Casablanca, Morocco

We offer a service: Performing energy efficiency studies of buildings through a digital platform. The platform is an intelligent modeling tool for the design and sizing of green buildings using the most appropriate solutions in energy efficiency, ecological materials and water saving. The platform is also a Data Provider that lists construction materials and promotes the introduction of green materials in the marketplace, supports their use to architects, and links the community of professionals.

Representative at the Global Forum: Fatima-Azzahra Bendahmane (CEO)

Year Founded: 2015

Number of employees: 2



ModulusTech Pvt. Ltd. (GCIP-Pakistan 2017)

Location: Karachi, Pakistan

ModulusTech is hardware startup revolutionizing the affordable housing sector through its innovative flat-packed modular design. The houses take as little as 3 hours to assemble, provide basic utilities while being safe from earthquakes and cyclones. Hence, the houses are perfect for quickly setting up large refugee settlements, disaster response or even labor colonies for industrial projects. The business mainly focuses on B2G and B2B sectors and reaches them through targeted marketing, press releases and personal visits.

Representative at the Global Forum: Nabeel Siddiqui (CEO)

Year Founded: 2017

Number of employees: 7

Website: www.modulus-tech.com



Biotech Fuels (Pvt) Ltd. (GCIP-Pakistan 2017)

Location: Karachi, Pakistan

Biotech Fuels provides efficient, low-cost access to two basic necessities in rural communities: water and flour. We achieve this through the design and construction of water pumps and tube wells with an adjacent flour mill, both powered by a shared solar system.

Representative at the Global Forum: Mustafa Siraj (CEO)

Year Founded: 2014

Number of employees: 7

Website: www.biotechfuels.org



AEROSync (GCIP-Pakistan 2017) *Woman-led Venture

Location: Karachi, Pakistan

Verkios is a kiosk on wheels, which has been specially designed for roadside vendors. It is a versatile solution for street vendors offering adequate accommodation and storage for their goods, and has an aesthetically pleasing display. Some of the exclusively designed features include a shutter that converts into a shade and a foldable serving/display platform. The kiosk is equipped with solar panels, which provides vendors with an alternate form of energy to power their kiosks.

Representative at the Global Forum: Neelum Hassan (CEO)

Year Founded: 2016

Number of employees: 3

Website: www.aerosyncventures.com



PAC Corporation (Thailand) Co. Ltd. (GCIP-Thailand 2017) *Woman-led Venture

Location: Bangkok, Thailand

We design, develop, sell and maintain a commercial water heater that recovers heat from air conditioning systems with an initial focus on low-rise hotels. Current customers include Movenpick Resort and Spa Karon Beach Phuket and the Park Hyatt Maldives.

Representatives at the Global Forum: Atchara Poomee (CEO) & Apichat Poomee (CTO)

Year Founded: 2016

Number of employees: 5

Website: www.pac.co.th



TOM-CASAVA Co. Ltd. (GCIP-Thailand 2017) *Woman-led Venture

Location: Bangkok, Thailand

Manufacturing of activated carbon (TOM-AC) from cassava stump, the valueless waste product from cassava plantation in Thailand. TOM-AC has not only proven to be superior in quality to the convention bamboo and coconut shell activated carbon that are generally used by industries but also is lower in price and contains no chemical residues. TOM-AC has wider applications and is more favorable to be substituted for conventional activated carbon.

Representatives at the Global Forum: Ploychatchanok Viriyathonphan (CEO) & Uthai Kanto

Year Founded: 2016

Number of employees: 10

Website: www.tomcasava.com



GROW - Green Recycle Of Waste (GCIP-Thailand 2017) *Woman-led Venture

Location: Lampang, Thailand

We produce rice straw paper and packaging without toxic acid using 100% of rice straw pulp for the paper making process. Our food packaging uses an edible coating that is greaseproof and has high water resistance. In many areas of Thailand, rice straw is an agricultural waste that is disposed of via open-burning.

Representatives at the Global Forum: Jaruwat Khammuang (CEO) & Nathapol Khammuang

Year Founded: 2014

Number of employees: 12