TOP 25 INNOVATORS WORKING FOR A MORE SUSTAINABLE AND INNOVATIVE TOURISM
Creating local and responsible travel experiences around Guatemala for community development and resilience.

**Date of foundation:** 2016  
**Headquarters:** Guatemala City, Guatemala  
**Other locations of the startup (countries only):** None  
**Main technology(ies) used:** Cloud, Big Data  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech  
**Funds raised (USD):** We started with $30000 of initial investment from our savings. Since then we have been to secure $11315 from different accelerator programs, crowdfunding and grant opportunities.  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 3  
**Contact:** hola@etnicatransal.com

**Description:** Etnica tackles the lack of inclusion and job opportunities for Guatemalans through local empowerment, the co-creation of responsible travel experiences, and fair trade practices. We are breaking the cycle of poverty that affects women and children in rural Guatemala, apart from our travel experiences we focus efforts on:

- Travel gear for good: a line of handmade travel accessories that benefits 54 Maya women artisans, fusing tourism with artisan work in the hopes of providing job opportunities and entrepreneurship training.

- Homestay program: this program provides a direct income to the host families we partner with improving the quality of infrastructure, basic services and access to better education.

- Food safety program: this focuses on agroecology training so that our partners have food sovereignty through family orchards. It enables our partners to have access to better nutrition and the opportunity to share this knowledge with other members of their community and travelers.
Competitive advantage: We build partnerships by going through an integration process, we get to know our local partners, who they are, their culture, how the community works and together define common goals. We are the only travel company in Guatemala that has integrated social impact projects and fused them with tourism.

Market: We focus on students, families, solo travelers, and couples who want genuine cultural experiences, Spanish immersion, and volunteer opportunities. Our clients seek to establish connections through travel and want an insight to life in Guatemala. Most of our market is based in the U.S & Canada.

Business model: Our business model is B2C & B2B. We make revenue selling immersive experiences & handmade travel accessories. Our service is personalized, it adapts to the customer’s needs. Our model is scalable because it provides dignified work and livelihood to poor regions where tourism isn’t resilient.

Founder(s): Pablo Martinez Bauer-Chief Executive Officer and Co-founder
Ana Sofia Godoy- Chief Operations Officer and Co-founder
Use cases:

- Setting homestays as first-choice of accommodation.
- Mangrove reforestation opportunities in the Pacific Coast.
- Reducing use of plastic and using local transportation during tours and experiences.
- Beneficiaries of our food safety program sell their produce as an extra income.
- Creation of handmade accessories using 100% sustainable materials.

Case study:

Francisca Hernandez is one of our partner weavers from Lake Atitlán. She’s president of a women’s association and has worked with us in developing and manufacturing travel accessories. We have supported her and her association by distributing her products for 5 years and she hosts weaving classes for travelers. She’s a beneficiary of our food safety program, she grows over 26 varieties of native crops in her family orchard and now sells her produce in her community’s market.
Ifarm360 is a digital innovation that crowdsources much needed agrifinance and matches it up to smallholder farmers with the goal of powering food security.

**Date of foundation:** 2020  
**Headquarters:** Nairobi, Kenya  
**Other locations of the startup (countries only):** Switzerland  
**Main technology(ies) used:** Agricultural technology, Financial technology, Data Science  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** Agritech, Fintech, Traveltech  
**Funds raised (USD):** 100  
**Investment stage to date (12 March 2021):** Preseed  
**Number of full-time employees at this moment (12 March 2021):** 12  
**Contact:** derrick@ifarm360.com, admin@ifarm360.com  

**Description:** By supporting smallholder farmers with capital, agronomy support and access to markets we are aligning with SDG 2 target 3 which states that by 2030 double the agricultural productivity and the incomes of small-scale food producers, particularly women, indigenous peoples through secure and equal access to productive resources and inputs, knowledge, financial services, markets and opportunities.

**Competitive advantage:** Our competitive advantage is not only in our proprietary innovation, but also in the business model. Unlike traditional agricultural finance, our model is not credit driven. We involve ourselves in the farming activity, supporting our farmers with a 360 approach to increase yields and unlock their potential.

**Market:** We are keen on global impact investors with disposable incomes of at least $500, majority of whom have travelled to Kenya before or are planning to.
Business model: We make our money through fresh commodity trade from our farmers. This is usually +10% margin between farmgate and offtaking (large buyer) price. We also finance mechanization and technologies like rice combined harvester and solar irrigation, which we earn profit on sale as well as interest on sustainable asset financing.

Founder(s):
Milka Owour cofounder and CEO
Derrick Gakuu Cofounder and CTO
Astrid Knoblauch Cofounder and CIO (Investment)
Fredrick Juma Cofounder and Chief Agronomist
Jakob Kisker Director and Chief Product officer
Michael Docherty Director and CFO
**Use cases:**

We encourage investors and organize field trips to the farming communities they have invested in, this way promoting tourism and confidence.
Global participation in sustainable agriculture and food security through foreign direct investments.
Powering thriving local economies that are essential for domestic tourism.
Powering a smart farming revolution that will promote agro-tourism to Kenya and East Africa
Structuring food value chains that will enhance traceability, safety and affordability of food items for the tourism sector.

**Case study:**

Meet Mr. Otieno from West Kano Irrigation scheme who is both a farmer and a chairman of a rice farming group. Through working with ifarm360, he and his group members received support in the form of superior rice variety (Aromatic Basmati), fertilizer, pest management, farm machinery, agronomy support and access to guaranteed markets. Thanks to our collaboration, he improved his yield by over 20 bags per acre, with +150% household income. He was able to improve his livelihood, take his children to school and invest in a small more income generating village hotel.
We guide students, corporate executives, faculty & professionals on study-centric, experiential learning programs in urban and rural India.

**Date of foundation**: 2018  
**Headquarters**: Bangalore, India  
**Other locations of the startup (countries only)**: None  
**Main technology(ies) used**: WordPress, Zoom, Virtual Learning  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** Edtech, TravelTech  
**Funds raised (USD)**: N/A  
**Investment stage to date (12 March 2021)**: pre-seed  
**Number of full-time employees at this moment (12 March 2021)**: 11  
**Contact**: experiences@immersionindia.com

**Description**: Global awareness in a borderless world is becoming imperative. The ability to possess skills to thrive in a multi-ethnic and diverse world environment will be a key differentiator in the days ahead. Mobility for Business, work, and leisure will only accentuate the need for such skills. We at Immersion India want to be the key drivers for the world to understand INDIA in its true sense. We believe experiential learning programs offered to students will motivate them to be globally aware and responsible. Providing Quality education through travel is our focus and we believe India is ideally positioned to be a learning ground for promoting experiential learning.

**Competitive advantage**: INDIA is poised to becoming a $5 trillion economy with tourism being a champion service sector that is key to achieving this milestone. With the emphasis on promoting tourism, India could rank within the top 10 in the world tourism index as well as the Global Student mobility Index. Immersion India aims to be at the forefront by capitalizing on being the early entrants and become the leading experiential travel & learning company that designs study-centric programs in India for the global learning community.
Market: Over the years, there has been keen interest amongst the global learning community (both businesses and Academia) to connect with Asia. To a larger extent, the connect has been very unorganized and has met with very limited success. According to an Open Doors report on Key Study Abroad Destinations published in 2019, Asia receives 14% of the student traffic of which only 1.2% prefer India and a high of 6% prefer China.

Business model: Immersion India guides students, corporate executives, faculty & professionals on study-centric, experiential learning programs in urban and rural India. All programs are customizable and tailored as per the learning objectives with a key element of travel experiences.

Founder(s):
Anand Joseph – Co-Founder & Partner
Vineeth Thomas – Co-Founder & Partner
Use cases:

- Accommodation at eco-friendly hotels
- Introducing to green initiatives across the country
- Showcase innovative solutions from rural India
- Striving for Zero plastic usage while traveling

Case study:

A Group of Postgraduate students from a US university as part of their study abroad program visited a women empowerment center powered by a corporate CSR program. The visiting students got an in-depth view of the various training programs undertaken in the center. The students interacted with the women groups and shared ideas and feedback. The visit to the community training center inspired the women. After the students returned to the US, they collectively donated computers and embroidery machines for the training centers.
Social network that empowers and connects the female traveler to a community just for women (travelers and local hosts) who are willing to support each other and offer travel services among them.

**Date of foundation:** 2019  
**Headquarters:** Brasília, Brazil  
**Other locations of the startup (countries only):** None  
**Main technology(ies) used:** Mobile app, Artificial Intelligence, GPS  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech, FemTech, SocialImpactTech  
**Funds raised (USD):** No investment  
**Investment stage to date (12 March 2021):** Public Grants  
**Number of full-time employees at this moment (12 March 2021):** 2 and 3 part-time  
**Contact:** jussara@sisterwave.com

**Description:** The Sisterwave wants to solve the problem of depriving women of the fundamental freedom of movement and to decrease the fear many women have of traveling by themselves. And to provide more gender equity for women when traveling and offering travel services. According to a research done by YouGov, women are more likely to feel insecure about traveling alone. 76% stated they do not travel alone because they don’t find it safe.

Through our platform, the sisters (this is what we call our community members) can chat with female locals and help each other with tips and information. They can also look for female travel buddies (not focused on dating) and offer travel related services with affordable prices. So, these are powerful tools that allow us to empower women to go further.

All the features we create are made through validation processes with our users. Everything we do is always based on our strong contact with our sisters and their demands. Our focus is user-centered, by using tools of design thinking and customer success.
Competitive advantage: There are some competing platforms around that are also focused on connecting women travelers in a marketplace. However, none of them is a social network, only Sisterwave. In addition, we have a team with expertise in artificial intelligence and user experience to improve the connection between the sisters.

Market: The number of women traveling alone has been growing in the last few years around the world. In 2017 more than 100 million women traveled alone, and in the last six years, the number of female exclusive tourism companies has grown 230% (Forbes). 45% of the researched travel agents found that Europe is the most popular destination for women (Booking).

Business model: The platform works through a subscription model in which the sister can use the travel services, get in touch with local residents and other travelers and use the virtual experiences without any intermediation fee. They can also negotiate terms and discounts with the hostess, and also make exchanges.

Founder(s):
Jussara Pellicano Botelho - CEO
Ellen Cristina Cavalcante Vaz - CXO
André Argolo - CTO
Marina Roriz - CFO
Wesley Almeida - Advisor
Use cases:

- Empower women to travel with more confidence.
- Income generation for women.
- Decentralization of tourism from large companies to small female entrepreneurs.
- More immersive experience at the destination by connecting with a local resident.
- Promotion of cultural exchange, friendships and connections.

Case study:

This was the first trip of a woman who always wanted to travel alone, but was very afraid: "My first experience of traveling alone, first experience with the app: how lucky I am! Very dear, friend, and queen of the blocks. I can only thank you! I felt extremely comfortable and happy to share a short time in my life with her. Thank you! May we share more laughs and moments in the future. Sisterwave introduced me to a friend!"
ECOLOO: a smart, eco-friendly toilet that is odourless, waterless, sewage free, hassle free & environmental friendly; an onsite biological treatment system for sustainable tourism & SDG achievement

**Date of foundation:** 2013  
**Headquarters:** Kuala Lumpur, Malaysia  
**Other locations of the startup (countries only):** Sweden  
**Main technology(ies) used:** Biological Treatment Technology  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** BioTech, CleanTech  
**Funds raised (USD):** USD100,000  
**Investment stage to date (12 March 2021):** Commercial, heading towards Scale up  
**Number of full-time employees at this moment (12 March 2021):** 2  
**Contact:** zuraina@ecoloo.eu

**Description:** ECOLOO is an onsite biological treatment toilet system that employs enzyme to terminate odour, break down human waste into ashes & converts urine into fertilizer that is odour free, rich with nutrients, perfect for garden/farm.

ECOLOO is eco friendly, odour free, water free, sewage free, energy free & hassle free with minimal maintenance cost. It is easy to maintain & saves water from being flushed. There is no sewage created so no septic tank or suction required.

ECOLOO was co-invented in Sweden & mass produced in Malaysia with global presence in 25 countries.  
**Our success stories:**

- biodiversity conservation at UNESCO Heritage Sites in Jordan by implementing ECOLOO at Petra, Wadi & Dibbeen Reserves; it stops open defecation practice & boosts tourism sector  
- greener beach in Chile  
- greener floating chalets & cleaner lake in Malaysia  
**Our customers include UNDP Jordan, UNESCO Heritage Operator, Ministry of Tourism.**  
**ECOLOO contributes to achieve SDG6 directly & SDG3,4,6,9,11,13 indirectly.**
**Competitive advantage:**

Eco-friendly  
Easy to use, install, move, maintain  
Minimal water usage, only for cleaning/hygiene  
Minimal treatment/maintenance cost  
Odourless during/after use of toilets  
No energy demand (solar can be implemented if required)  
No IST/STP/suction required  
Byproduct fertilizer

**Market:**  
The possible market would be tourist attraction areas such as: National Parks, Heritage Sites, Glamping Sites, Rest & Relax/Stop over areas, Islands/Beaches/Rivers/Waterfalls, Camper Vans/Sleeper Buses/Ferries/Floating Houses or restaurants, International Events/Festivals/Conferences/Exhibitions/Sports/Spiritual

**Business model:** ECOLOO business model includes:  
- sales  
- rental  
- lease  
- maintenance of our eco toilets that can be individual or multiple, depending on the needs. The revenues can also be generated from vending machines (toilet & hygiene accessories), advertisements inside/outside toilets & sales of fertilizer.

**Founder(s):**  
Zuraina Zaharin, Co-founder & CEO  
Imad Agi, Co-founder & CTO
Use cases:
- Saving gallons of water from being flushed by public
- Saving maintenance cost of public toilets
- Providing convenience & relief for tourists
- Protecting parks, beaches, islands, river & lakes from pollution
- Preventing ground water from contamination

Case study:

Our preferred case study is the bio diversity conservation of UNESCO World Heritage Sites in Jordan. The operator, UNDP Jordan, decided to deploy ECOLOO at Petra Archaeological Park, Wadi & Dibbeen Reserves due to inadequate/poor sanitation & water scarcity. After installing ECOLOO, tourism boost again & hundreds of tourists queued for the toilets to release. Our customer not only benefited from the circular economy but also from lower maintenance cost & easy maintenance job for the staff.
Source Global, PBC is a sustainable technology company that serves one of humanity’s most fundamental needs: Access to clean, safe drinking water. Our transformational technology can produce perfect drinking water, anywhere in the world and using only sunlight and air.

**Date of foundation:** 2014

**Headquarters:** Phoenix, USA

**Other locations of the startup (countries only):** India, Dubai, Australia, Singapore

**Main technology(ies) used:** our sole technology- THE SOURCE Hydropanel- draws water vapor out of the sky, converts it to safe, clean high quality drinking water. It works entirely off the grid and in dry and humid climates.

**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** SOURCE serves water-stressed and remote communities, homeowners, hotels and destinations, schools, hospitals, sustainable cities and remote worksites

**Funds raised (USD):** we do not disclose financing totals

**Investment stage to date (12 March 2021):** series C

**Number of full-time employees at this moment (12 March 2021):** 125

**Contact:** eduardo.casilda@source.co

**Description:** SOURCE technology makes water and endlessly renewable resource by harvesting pure water vapor from the sky and converting it to clean, great-tasting drinking water regardless of geography or socio economic. We support goal M.12
**Competitive advantage:** our revolutionary patented technology is unlike anything available on the market, with no direct competitors. Our robust IP is protected by multiple patents.

**Market:** Every part of the world is facing water challenges, and SOURCE can solve them. We serve remote communities, bring water to schools, hospitals and cities, support sustainable experiences and empower indigenous communities and women’s and girls.

**Business model:** We sell SOURCE hydropanels directly and through Water Purchases Agreements WPA.

**Founder(s):** Dr. Cody Friesen, Founder and CEO.

**Use cases:** We bring clean sustainable produced drinking water to far destinations, we replace the expensive and environmental impact of plastic bottle and trucked water, for eco-tourisms, we delivery sustainable experiences down to water.

**Case study:** In Bahie Honoita, Colombia, members of the Wayuu tribe on unsafe, backwash water from a local borehole and, without roads or infrastructure they lacked access to piped, bottled or even trucked water. Today an array of SOURCE Hydropanels is providing this community with clean, safe and reliable drinking water.

Indigenous women and girls in Bahia Hondita, Colombia.
Enexor BioEnergy is the renewable energy solution for the world’s organic, biomass, and plastic waste problems.

**Date of foundation:** 2016  
**Headquarters:** Franklin, TN, USA  
**Other locations of the startup (countries only):** Ghana  
**Main technology(ies) used:** 1. Micro-Turbine, 2. Direct Combustion, 3. Carbon Capture  
**Funds raised (USD):** USD $12,500,000  
**Investment stage to date (12 March 2021):** series A  
**Number of full-time employees at this moment (12 March 2021):** 22  
**Contact:** RobertG@Enexor.com

**Description:** Enexor BioEnergy complements several SDGs and most closely aligns with SDG 7, “Affordable and Clean Energy” as we have developed an innovative renewable energy solution for the world’s organic, plastic, and biomass waste problems. Enexor’s Bio-CHP is a patented system that can convert almost any organic, plastic, or biomass waste (in any combination) into reliable, renewable power and thermal energy while concurrently offsetting 2,200+ tons per year of CO2. Modular and easily transportable, the plug-and-play design of this powerful system allows for quick deployment and onsite mobilization in most places around the world and can be aggregated as needed. Enexor’s Energy-as-a-Service (EaaS) business model is a major competitive advantage; as we sell the electricity, thermal, and waste diversion generated by our Bio-CHP systems to a customer instead of selling the system itself. In doing so, Enexor delivers on average between 20-50% savings to the customer on their energy, thermal, and waste disposal costs while requiring minimal capital outlay. Enabling cost savings and greater sustainability, Enexor truly benefits tourism and hospitality businesses.
Competitive advantage:

1. Enexor can use a wide range of organic, biomass, and plastic waste (in any combination) as feedstock = numerous applications
2. Low Levelized Cost of Energy (LCOE) (USD <$0.045/kWh) = very cost competitive
3. Patented microturbine technology = maximum efficiency
4. Energy-as-a-Service (EaaS) partnership model = immediate customer savings
5. Carbon Capture technology = huge industrial and carbon credit opportunities

Market: Due to its unique value proposition of solving customer’s waste problems and helping them to achieve their sustainability goals while concurrently providing them affordable onsite renewable energy, Enexor’s market opportunities are tremendous. Currently we have identified our Total Available Market (TAM) to be ~$110B+ and our Share of Market to be $1.65B+. Our initial focus will be hospitality/tourism and business/industrial customers in both developed and developing/island nations. We currently have a Customer Revenue Pipeline of $250M+ despite operating in ‘stealth’ prior to early 2020.

Business model: Enexor’s Energy-as-a-Service (EaaS) business model is a major competitive advantage; as we sell the electricity, thermal, and waste diversion generated by our Bio-CHP systems to a customer instead of selling the system itself. In doing so, Enexor delivers on average between 20-50% savings to the customer on their energy, thermal, and waste disposal costs while requiring minimal capital outlay. Customers see Enexor BioEnergy as a tremendously valued partner and a catalyst for helping them to achieve their sustainability and/or operational improvement goals.
Founder(s):
Lee Jestings, Founder/CEO

Use cases:
1. Lower Energy (electricity and thermal) Costs for hospitality/tourism/travel businesses
2. Lower Waste Costs (reduction in hauling and tipping) and Landfill Diversion Opportunities for hospitality/tourism/travel businesses
3. Increased access to affordable, onsite renewable energy for hospitality/tourism/travel businesses
4. Greenhouse Gases and CO2 emissions reduction, helping them expedite the achievement of their sustainability goals for hospitality/tourism/travel businesses
5. Carbon Credit/Offset creation and purchasing opportunities for hospitality/tourism/travel businesses

Case study:

Enexor is seeing tremendous customer interest both in developed and developing nations as the megatrends of accessing affordable, renewable energy and finding solutions for the world’s organic and plastic waste problems become central societal issues. In the Dominican Republic, Enexor BioEnergy is partnering with the leading sustainable hotel and resort developer on the island, to convert their organic and plastic waste at their hotel resorts and industrial/commercial operations into onsite affordable energy both saving them 30-50% on their energy and waste costs and enabling them to achieve their sustainability goals. Notably, as part of this project, Enexor is converting Sargassum (seaweed) – a critical issue in this region as its inundating their beaches and is unsightly/malodorous and ultimately will turn into methane – into affordable renewable energy, the first company in the world to successfully achieve this feat. Following this success, Enexor plans to then expand this offering of converting Sargassum (seaweed) into affordable renewable energy to the rest of Latin America/Caribbean.
BeFC produce electricity with papers and enzymes. We produce paper biofuel cells as an eco-friendly and sustainable energy solution for low power electronics.

**Date of foundation:** 2020  
**Headquarters:** Grenoble, France  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** biofuel cell, microfluidics, IoT  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** CleanTech, GreenTech, HealthTech  
**Funds raised (USD):** USD8,000,000  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 10  
**Contact:** jules.hammond@befc.fr

**Description:** BeFC produce paper-based biofuel cells as an environmentally-friendly and sustainable energy solution. We combine our clean energy solution with flexible electronics platforms that have been optimised to our energy source. Our technology is metal-free and plastic-free, meaning it can be easily disposed of with minimal or negligible impact to the environment, or even composted. BeFC use bio-sourced and sustainable materials. In fact, the materials used in fabrication of our biofuel cells are simply cellulose and carbon papers, sugars, salts and enzymes.

The technology is based on the use of enzymes to convert glucose (sugar) and oxygen into electricity. BeFC has decades of expertise in optimising the biochemical wiring of enzymes to carbon paper, culminating in a 6-patent portfolio.

We know the future will be smart, but at BeFC we believe it can be smart and sustainable.
Competitive advantage:
BeFC technology is a hybrid energy harvester with supercapacitive behaviour. Our products can provide very high power densities for short pulses of duration, and then slowly self-recharge by harvesting the natural energy from glucose and oxygen.

Market:
BeFC are targeting the next generation of connected devices, from wearable patches in health and medical applications, point-of-care single-use/single-patient tests, to connected packaging and logistics, including monitoring refrigerated pharmaceuticals, to remote environmental IoT sensors.

Business model: BeFC are currently working with several leading global companies via joint development agreements to develop the next generation of connected products. We plan to sell our paper biofuel cells as a B2B model, along with our electronic platforms where necessary.

Founder(s):
Jules Hammond CEO, Jean-Francis BLOCH COO, Andrew GROSS (scientific advisor), Michael HOLZINGER (scientific advisor), Serge COSNIER (scientific advisor), Alan Le GOFF (scientific advisor), Yannig Nedellec (scientific advisor).
**Use cases:**
Contact tracing, point-of-use medical testing, air quality monitoring, luggage tracking, tracking or persons in travel hubs.

**Case study:**

BeFC are currently working with an industrial partner on a connected packaging solution, aimed at ensuring that vital packages have been transported at the correct conditions (temperature, humidity, shock and light), preventing waste and environmental impact related to return transportation.
Swimsol - Providing Small Island Nations with Clean Energy Using the sun and the sea.

**Date of foundation:** 2012  
**Headquarters:** Vienna, Austria  
**Other locations of the startup (countries only):** The Maldives  
**Main technology(ies) used:** Floating Photovoltaics, Rooftop Photovoltaics  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** EnergyTech  
**Funds raised (USD):** USD $9,055,210  
**Investment stage to date (12 March 2021):** Late Stage  
**Number of full-time employees at this moment (12 March 2021):** 3.143  
**Contact:** office@swimsol.com

**Description:** SDG 7, “Affordable and Clean Energy”, aims to ensure access to affordable, reliable, sustainable and modern energy. This is a goal that Swimsol holds dear. Swimsol’s photovoltaic solutions offer green energy at a cheaper price than diesel (a predominant energy source in the Maldives and other Small Island Nations). Harnessing the power of the tropical sun means Swimsol’s solar systems produce a steady supply of renewable energies, allowing its clients to switch off their diesel generators partially or fully during the day. Furthermore, each system is optimally configured to integrate into the pre-existing electrical grid and ensure a reliable and steady supply of energy. By offering several financing options (such as turnkey or power purchasing agreements), Swimsol ensures solar power is affordable and attainable for its clientele – so that SDG 7 can become a reality.
Competitive advantage: Swimsol’s competitive advantage lays in its technical offering and business model. SolarSea is the world’s first solar power plant for the sea which saves valuable land space and provides solar energy at a cheaper price than diesel. Swimsol also offers a zero-investment business model to assure the affordability of clean energy.

Market: Swimsol has installed projects in the Maldives, Indonesia and Malaysia. Currently, Swimsol is expanding its market to include projects in the Seychelles, United Arab Emirates, and Chile. Swimsol technology is appropriate for any coastal area with protected waters.

Business model: Swimsol has a production-based compensation programme. Swimsol secures investment for projects, which are paid-back by turnkey purchases or through power purchasing agreements using a special purpose vehicle. Power purchase agreements involve paying back investment costs by purchasing energy.

Founder(s):
Martin Putschek - CEO & Founder
Wolfgang Putschek - CFO & Investor Relations
Use cases:
- Lowering energy costs at hotels
- Providing clean energy alternatives to diesel generators
- Saving valuable land space by installing PVs at sea
- Ensuring reliability of grid-energy supply by integrating batteries

Case study:
Maldivian resorts are all self-sustaining islands, meaning each resort functions as an insular unit which produces its own electricity, potable water, and waste disposal and treatment. For this reason, these resorts consume huge quantities of diesel daily. Swimsol’s photovoltaic solutions offset not only the environmental toll of diesel consumption, but also provides clean energy at a cheaper cost than using diesel. Thus, Swimsol offers green solutions at affordable prices to resorts in the Maldives and elsewhere in the region.
To build a tourism value chain that creates job opportunities and improve livelihoods.

**Date of foundation:** 2017  
**Headquarters:** Lal Durbar Marg, Kathmandu, Nepal  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** N/A  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** N/A  
**Funds raised (USD):** USD$296,000 through Booking.com Grant  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 10  
**Contact:** info@communityhomestay.com

**Description:** In relation to SDG 8, we have been providing communities with an additional income source within their own homes. In 2019, we were able to provide communities with 100 euros additional income and create 768 jobs. In light of COVID-19 we have pivoted our business model towards product development through which we will work with communities to help them leverage their local expertise to develop

**Competitive advantage:**  
CHN works with rural communities which traditionally had very limited or no tourism activities. Our partnerships with some of the big players in the global tourism industry has helped to magnify its impact on the destinations. CHN is different from others as it works directly on a large scale with the homestays at the community level rather than the individual level.
**Market:**
Our market can be divided into B2B and B2C segments. In the B2B segments, we have international and local travel agents who seek to provide the customer base with immersive cultural travel experience and social organizations looking to accommodate their teams to volunteer in rural areas. Within the B2C segment, we have foreign travelers who are keen on exploring lesser known destinations with local interactions.

**Business model:** CHN acts as a liaison between communities and travelers, adding value along the way. Our business model focuses on partnering, collaborating, supporting and reinvesting in the communities to develop and support tourism enterprises and destinations to help them better understand and serve foreign travellers.

**Founder(s):**
Shiva Prasad Dhakal, Founder and Chairperson
Use cases:

1. Stimulate local economies and help create employment opportunities
2. Preserve cultures and enable cultural exchange
3. Women Empowerment
4. Promote personal and community development
5. A hassle free solution provided by a single platform that enables travelers to visit local communities in Nepal

Case study:

CHN’s flagship product is Panauti Community Homestay, which is loved by many global travelers and which has been featured in many global magazines. On the other hand, the community homestay has helped bring an average household monthly income of $197 during tourism seasons and empowers women by providing them with a source of income at their own homes.
Clio Muse enables accredited professionals from culture and tourism to create and distribute self-guided audio / virtual / skip-the-line tours through a network of global online travel agencies and museums.

**Date of foundation:** 2014  
**Headquarters:** Athens, Greece  
**Other locations of the startup (countries only):** Italy, Spain, Netherlands, Germany, Turkey  
**Main technology(ies) used:** Cloud, Augmented Reality / AR, Accessibility  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech, Culture, Tours & Activities  
**Funds raised (USD):** USD $600,000  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 13  
**Contact:** daphne@cliomusetours.com

**Description:** Founded in 2014, Clio Muse enables professionals to create self-guided audio / virtual / skip-the-line tours via our online authoring platform following our award-winning storytelling methodology. Tours are then listed on all major OTAs for travelers to book. For each booking, tour creators get a commission. Museums also use our platform to upload their collections and stories. Tour creators get an extra revenue stream. OTAs get a great product of unlimited availability to offer as an upsell to other products. Museums get access to a vast network of travelers. Travelers find a digital guide for each destination. Currently, we’re offering >300 products for 11 countries. In 2019 we served 50K travelers, reaching YoY 10x revenues (€ 760K), while in Jan ‘20 we saw a 200% YoY increase.
Competitive advantage:
- Our technology is sustainable and scalable.
- We facilitate partnering culture and tourism.
- Our award winning storytelling methodology creates optimal visitor experience.
- Unlimited availability and upsell.
- Low customer acquisition.
- Applicable in any country.
- Several successful partnerships.

Market: The size of the Online tours & activities market is $27B. Self-guided tours were seen as a smart upsell for global OTAs. Now they are seen as the biggest opportunity in the tours & activities market by all kinds of tourism companies because they offer the independence new-age travellers need.

Business model: B2C & B2B2C: audio/virtual tours sold through our eshop & OTAs, as standalone products or packaged with entry tickets for attractions. Prices: €11-€50/traveller (30-70% profit margin).
B2B: content & tech services to Museums to create touristic products. Prices: €5K-€20K (60-90% profit margin).

Founder(s):
Andreas Fatouros (co-founder & CEO)
Yiannis Nikolopoulos (co-founder & CTO)
Daphne Tsevreni (co-founder & CFO)
Use cases:

Providing alternative revenue streams for tourist guides & tour operators.
Connecting highly visited with lesser known areas for a more equal tourism dispersal and economic growth.
Providing museums and attractions a value-for-money platform to digitize their cultural heritage & create innovative touristic products.
Providing OTAs & other distributors an unlimited availability tour, perfect to upsell to non tour-takers & FITs, thus creating a new profitable extra service for their portfolio.
Providing a high-quality self-guided tour to travellers looking to explore new destinations independently at their own pace.

Case study:

Vivre Athenes is a local tour operator in Athens, specializing in French speaking tourists visiting Greece. It is owned and operated by two French entrepreneurs that wished to create self-guided audio tours for their customers. They built 3 tours on our platform without spending any money; just invested their time to create the content (approx. 1 month/tour). In 2019 they sold ~800 tours and made €3K net revenue just from their website! They will now sell their tours through our network of OTAs!
DefinedCrowd is the one-stop shop for AI training data, offering solutions which all focus on making AI smarter. The broad scope of products ranges from off-the-shelf data to customized AI solutions.

Date of foundation: 2015
Headquarters: Seattle, USA
Other locations of the startup (countries only): Portugal and Japan
Main technology(ies) used: Automatic speech recognition, Voice activity detection, Natural language understanding
Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.): Big Tech, Telecoms, Automotive
Funds raised (USD): USD$ 63,000,000
Investment stage to date (12 March 2021): Series B
Number of full-time employees at this moment (12 March 2021): 296
Contact: sales@definedcrowd.com

Description: For artificial intelligence to live up to its promise, it needs to be properly trained with data. A lot of data; annotated and validated for machine learning purposes. But acquiring this data is expensive and time-consuming for companies. That is where DefinedCrowd steps in. We provide the high-quality, prepared data needed to train AI initiatives to become smart, fluent, and natural. Whether it is through our customized data collection or our off-the-shelf data offering. Sourced, annotated, and validated by a global crowd of over 500,000 members and available in over 50+ languages, our world-class data will fuel everything from virtual assistants and chatbots to Interactive Voice Response (IVR) and search and recommendation algorithms. Whether you are aiming to provide more human-like customer service or improve medical reporting, DefinedCrowd will empower your AI initiatives to drive business goals while ensuring unbiased datasets. DefinedCrowd works every day to overcome the language barriers of AI technologies, making this technology available to everyone, in a fairness, unbiased and ethical way, democratizing the access to AI. It is why we’ve been serving Fortune 500 companies since day one. DefinedCrowd is headquartered in Seattle, with R&D offices in Porto, Lisbon and Tokyo.
**Competitive advantage**: DefinedCrowd guarantees 98% data quality, speed, and scale. With a community of over 500,000 crowd members worldwide, DefinedCrowd covers 70+ countries and 50+ languages (and dialects).

**Market**: Potentially any business implementing AI initiatives or in the process of a digital transformation may need our data. From training data to AI, machine translation translation or Evaluation of Experience through testing to fine tune models, there’s endless possibilities to work with us.

**Business model**: DefinedCrowd provides a suite of products based on PaaS that includes an online marketplace of off-the-shelf AI datasets available upon a monthly subscription or as a one-time purchase and project-based data collections/annotations performed by our Neevo community (crowdsourcing platform) and fully customizable and managed by the customer through our Enterprise Portal and API also available upon subscription.

**Founder(s)**: Daniela Braga, Founder & CEO of DefinedCrowd
Use cases:

- Virtual assistants for Tourism Boards, Museums, Stadiums, etc
- Real-time translations for cultural events
- Chatbots for online services (make reservations, check flights, buy a ticket for an event)

Case study:

A tourism board that wants to improve its capacity to answer any enquiries may implement a virtual assistant for in-store or telephone queries and reduce missed calls up to 30%. Whether developing it internally or with a partner, it will need our training data to expand to larger vocabularies, new languages, improve its domain knowledge, or even analyze conversations by performing sentiment analysis of those calls.

Example of a Tourism Chatbot, DefinedCrowd, 2021
The Intelligent Ways Of Travel

**Date of foundation:** 2015  
**Headquarters:** Hong Kong, Hong Kong  
**Other locations of the startup (countries only):** South Korea, China, Singapore, UAE  
**Main technology(ies) used:** AI Digital Solution, Big Data Processing Engine, Multi-Vertical Inventory and Distribution System  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech, Lifestyle, eCom  
**Funds raised (USD):** USD $13,000,000  
**Investment stage to date (12 March 2021):** Pre-B (CB round)  
**Number of full-time employees at this moment (12 March 2021):** 75  
**Contact:** abel.zhao@travelflan.com

**Description:** FreeD Group is an award-winning Travel and Lifestyle AI Digital and Smart Merchandising Solution provider utilizing Artificial Technology (AI), Big Data and Machine Learning technologies to revolutionise how traditional travel or non-travel companies conducting business today. We empower our partners with multi-vertical inventory and distribution system along with our proprietary AI Digital Solutions to adopt to current fast-changing market demands, particularly during COVID-19. By implementing our solutions, our clients have increased YoY revenue growth by average 30% and improved customer engagement by 60%.

Our signature AI Digital Solutions including Travel Concierge Chatbot and inventory management consolidator effectively increase revenue streams and improves customer engagement through multiple digital channels like social media platforms, official websites, mobile apps and more.

At the back-end, our fast-growing database is powered by 20M+ weekly unique data points with our home-grown Machine Learning capabilities. Our partners include Fortune 500 companies like China Mobile, Samsung Group, Travelport, SITA, Korean Air, Marriott Group, FIFA World Cup Qatar 2022 and more to tackle their revenue and customer experience issues.
Competitive advantage: TravelFlan operates proprietary S2B2C business model, which was evolved from the traditional B2B SaaS and B2B2C business approach. By offering S2B2C solutions to businesses, we provide businesses not only proprietary digitalization and operation software tools but also required inventory and related supporting content & service, which effectively improve our partners’ revenue stream and customer experience.

Market: We connect travel with a untouched area of the market. Instead of traditional travel industry practice, airlines working with GDS, hotels working with OTA, we bring travel content and products to non-travel partners like telecom, eCom platforms and more. Therefore, the TAM is quite significant. Up to day, we are working with major telecom companies in South Korea, Hong Kong, China and more.

Business model: TravelFlan operates proprietary S2B2C business model, which was evolved from the traditional B2B SaaS and B2B2C business approach. By offering S2B2C solutions to businesses, we provide businesses not only proprietary digitalization and operation software tools but also required inventory and related supporting content & service, which effectively improve our partners’ revenue stream and customer experience.

our business model consists of followings,
- R&D / implementation fee (one-time)
- Monthly service fee
- Revenue share (with our partners)
- Advertisement

Founder(s):
Abel Zhao, Cofounder and CEO
Kenneth Lee, Cofounder and CEO
Use cases:

- creating ancillary revenue for airlines, hotels and other travel related service providers by utilising our multi-vertical inventory system. Existing clients include Korean Air and Hong Kong Airlines
- reducing customer service cost for all travel related operations.
- improving customer experience/engagement
- promoting travel providers’ inventories to wider customer bases like via China Mobile and Samsung networks at much lower distribution fee
- understanding customers’ profile by utilising FreeD Big Data analytics and reporting capabilities

Case study:

we’ve developed the entire system (end2end) for one of the districts in Seoul and we just got appointed by the local government and Korean Tourism board to take on the Smart City project for the entire city of Seoul and nation wide later on. in this particular project, we’ve fully utilise typically local travel resources and consolidate with other service components like lifestyle and eCom to further engage with customers. this project was based on our existing Samsung project, which FreeD solutions was pre-installed to all the Samsung smartphones in Korea. So far, our monthly users is approx. 15 million with total registered uses over 32 million. Previously, we’ve worked with local travel service providers like Lotte World and Jeju Island, as well as Jeju Air
Travaxy is solving the disabled/elderly booking problems, B2B APIs/SaaS for travelers with disabilities and senior travelers who need assistance, enabling travel agents/online travel agents to book a worry-free holiday in minutes and ensure a worry-free experience.

**Date of foundation:** 2018  
**Headquarters:** Ramat Yishay, Israel  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** APIs/SaaS expanding the solution to AI  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech  
**Funds raised (USD):** USD$ 500,000  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 4  
**Contact:** lioz@travaxy.com

**Description:** Travaxy enables offline/online travel agencies and travel APIs to get the most accurate services for travelers with disabilities and senior travelers who need assistance by disability type and needs, ensuring a worry-free holiday. Our airline notification and accommodation offers happen in seconds, instead of hours and sometimes days. The best thing about it is that B2B partners don’t need to disconnect from their service providers (hotel and flight APIs). We have a middle layer API to a fast and easy to integrate solution, making them disability experts! B2B travel partners save time, money, and most importantly, get happy and returning customers.

Travaxy offers three unique APIs:

1. Airline assistance notification - Providing airlines with all the accurate disability information about the passenger, the type of assistance needed, and the equipment and documentation. We notify the airline 48 hours before the passengers’ arrival, so the travel agent/traveler won’t have to do it by themselves.
   - Airline service is worldwide.
   - option to get this service as a SaaS.
2. Hotel offers: Travel B2B customers stay with their existing booking process. Travaxy integrates as a middle solution in the process. There is no need to change providers to get our services. Hotel offer by disability type and sub filters for specific requirements - Disability type: Mobility impaired, visually impaired, hearing impaired, older travelers in need of assistance. (Travaxy offers a different set of hotels for a different type of disabilities) Sub-categories: Ex. From the bed’s height, have a lift to get inside the Pool, a hearing Kit, and more than 90 accessibility parameters.

3. Travaxy generates a certificate for each hotel we provide. That way, travel agents/travelers can precisely see the hotel’s public and room areas and know the hotel’s different amenities and measures. Travel agents become accessibility travel experts!

4. Travaxy API tells the existing hotel API provider which hotels to present by the disability type and needs

**Competitive advantage:** Travaxy is the only company worldwide that tackles this problem from a different angle, instead of us being disabled travel agents for people with disabilities, we make the travel experts - accessibility experts by giving them the knowledge they need to close the deal in seconds instead of hours and with zero mistakes.

**Market:**
We’re talking about the biggest and fastest growing minority in the world, 1.2 billion people in the world are disabled. 600 million out of them lives in developed countries and 70% of them travel between 2 to 4 times more than the usual traveler before COVID-19. The booking the planning and the at destination stay are estimated in more than $200 billion every year before COVID-19.

**Business model:** We have two options of business model, one is a retainer based connection, we also have an option to pay by usage without a retainer fee.

**Founder(s):**
Lioz Amar CEO and founder, Michall BenAssiag CMO and co founder
**Use cases:**

Our solution saves time by helping and choosing the right accommodation for the specific disability type, one or more, and also filters by subcategories for better precision, and offered this service in seconds instead of hours of searches.

We also save time on airline notification, travel agents are required to provide information to the airlines about travelers with specific needs and the equipment that they are flying with. We are providing that Service in a simple API/Saas calls and save two / three hours for the travel agents and by that save money for the organization.

**Case study:**

We are now in a pilot with Flying carpet company, there are no holidays reservation at the moment but we do manage to save time and by that show a profit on every order that we take care of. a partner, it will need our training data to expand to larger vocabularies, new languages, improve its domain knowledge, or even analyze conversations by performing sentiment analysis of those calls.
Metrica6 creates eco-efficient solutions for tourism and beyond. Technologies like WAISENSE, an IoT innovation for water and energy saving, improve our sustainability and quality of life/service.

**Date of foundation:** 2013  
**Headquarters:** Málaga, Spain  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** IoT, Big Data, Digital Platform  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** RealEstate/Building, AgriTech, InsurTech  
**Funds raised (USD):** Over 1M$ between public and private funding  
**Investment stage to date (12 March 2021):** Early-Series A (from 350k$-1M$, depending on partners, goals and duration)  
**Number of full-time employees at this moment (12 March 2021):** 10  
**Contact:** eduenas@metrica6.es

**Description:** Metrica6 solutions have a positive impact in several SDGs but, if we had to pick one, it might be #11:

- Related to SDGs 3, 4 and 8: Water efficiency is clearly related to good health and well-being as the most common product for hygiene. The way we offer our solutions is also through advice and training for users, managers and professionals, encouraging equality in opportunities.

- Related to SDGs 6, 13, 14 and 15: it is obvious that water impacts ecosystems for which every services and activity depends on.

- Related to SDGs 9, 11 and 12: Metrica6 bets for local industries, innovation and sustainability, promoting awareness in resources consumption and circularity.

- Finally, related to SDG 17: our team is stronger when more members are committed to the mission. This includes external partnerships with companies and other organizations with whom we share a common philosophy.
**Competitive advantage:** No competitor has WAISENSE’s IoT modularity and all its functionalities. We do have competition for individual features, like smart irrigation, but we know our advantages, detailed in our benchmarking analyses. There are barriers for potential competitors too: patents, efficiency, applicability...

**Market:** Metrica6 focuses on two main markets (smart city and smart agro) and its segments (building industry, irrigation –not only for agriculture–, insurance companies, smart consumers, tourism, and related), mainly in the countries where the technology is patented.

**Business model:** It is a combination of PaaS (product as a service) and traditional. Customers can purchase WAISENSE and its skills directly in a marketplace or wholesaler, as a subscription with a monthly fee, download premium features, renting/leasing, cross-selling, hire services or customizations, etc.

**Founder(s):**
Eduardo Dueñas (CEO) and Marcos Ortega (CTO)
Use cases:

- Upgrading quality of life in homes.
- Improving quality of service in businesses and accommodations (hotels, gyms, hair dressers, etc.)
- Reducing water bills.
- Saving time (and money) in processes due to its automated and programmable features.
- Rising environmental awareness in an impactful and rewarding manner.

Case study:

There is a building site in Madrid for a neighbourhood of over 100 dwellings. The real estate developers want to offer a sustainable and comfortable way of living in this big city, a kind of resort-like feel when you get back home, including a gym, green areas, urban gardens in the rooftops, and other leisure facilities. There, WAISENSE will make the most out of its current implementation: hot water recirculation for each dwelling and shower at the gym and smart irrigation for the green spaces.
ToBadaa, everyone’s good companion

**Date of foundation:** 2019  
**Headquarters:** Giza, Egypt  
**Other locations of the startup (countries only):** Thailand, Malaysia, Italy, Sri Lanka, Indonesia, Morocco, Qatar, UAE, Egypt, Turkey, Azerbaijan, Jordan  
**Main technology(ies) used:** Website, Apps  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech, ecommerce  
**Funds raised (USD):** USD$ 30,000  
**Investment stage to date (12 March 2021):** Pre-seed  
**Number of full-time employees at this moment (12 March 2021):** 4  
**Contact:** info@tobadaa.com

**Description:** ToBadaa helped the society by allowing people to earn more cash by doing things they really love, to be independent, we connecting travellers first to tour guides and locals using their own cars to book tours and activities instead of travel agencies, where the locals can find the opportunity to live better.

**Competitive advantage:** Each of tobadaa guide has his own profile, create his tours and also to set the prices.

**Market:**  
$188B USD, tours and activities.

**Business model:** Commission based, future subscription fee.

**Founder(s):**  
Ahmed hamed, Founder and CEO
Use cases:

- Minimizing the cost of each tour.
- Avoiding the hidden fee and extra commissions.
- People see who they will meet.
- No hidden fee.
- Cutting from the profit to help children hospitals, in achieving profitability.

Case study:

Local and international travellers, professional tour guides and local ones

A divorced female Tour guide in Egypt, Raaha Mohamed, 2020
Lumitics empowers hotels, airlines and large commercial kitchens with data analytics to reduce their food waste, cost and environmental footprint.

**Date of foundation:** 2017  
**Headquarters:** Singapore, Singapore  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** IoT, AI, Machine Learning  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** IoT, AI, Sustainability  
**Funds raised (USD):** USD$ 1,000,000  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 5  
**Contact:** raynerloi@lumitics.com

**Description:** Lumitics mission is to empower kitchens globally to be more sustainable by tackling their food waste. Lumitics is committed to UN SDG #12 to help kitchens half their food waste by 2030.

**Competitive advantage:** Superior AI and image recognition capabilities

**Market:** Global

**Business model:** Subscription model

**Founder(s):**  
Rayner Loi, Co-Founder & CEO  
Adriel Tan, Co-Founder & CTO

**Use cases:**  
- Lowering food waste in hotels’ buffet restaurants and production kitchen  
- Lowering in-flight food waste for airlines  
- Lowering food waste in airline catering facilities

**Case study:** Fairmont Singapore. Help their buffet restaurant reduce their food waste and cost significantly.
Fairmont Singapore using Lumitics’ Insight Smart Food Waste Tracker to track food waste.
Recycling and Transforming CO2 into Chemicals, Materials, and Fuels

**Date of foundation:** 2016  
**Headquarters:** Berkeley, USA  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** CO2 electrolysis  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** Carbon Tech, CO2 Utilization, Clean Tech  
**Funds raised (USD):** USD$ 30,000,000  
**Investment stage to date (12 March 2021):** Series A  
**Number of full-time employees at this moment (12 March 2021):** <100  
**Contact:** info@opus-12.com

**Description:** Opus 12 has developed a technology that converts carbon dioxide into valuable chemicals and fuels that are identical to and cost-competitive with conventional products. Our device bolts onto any source of CO2 emissions, and using only water and electricity as inputs, converts those emissions into critical chemical products. We can reduce the emissions of the world's heaviest emitters, while creating a new revenue stream from greenhouse gases that are discarded freely today as waste.

Opus 12 can ultimately address 2-3 billions tons/year CO2, and create a pathway to displace fossil fuels in existing supply chains, while addressing the root of climate change. Opus 12 can transition the world from a fossil fuel-based economy to a CO2-based economy and shift the chemicals, materials, and fuels industries from extractive to circular by recycling CO2 into high-value chemicals and fuels that are conventionally produced from fossil fuels.

**Competitive advantage:** Opus 12's technology is the only company modifying existing PEM electrolyzers to convert CO2, significantly reducing our scale-up risk and capital requirements. Our reactor architecture is cheaper, simpler, more scalable, more flexible, and has a longer commercial track record than any competing technology.
Market:
At scale, our addressable markets span chemicals, materials, and fuels, a $300 billion petrochemicals sector. Our customer base spans entities with one or more of the following needs: the need to reduce large CO2 emissions, find uses for large scale renewables, or make/use Opus 12 end products.

Business model: Our systems will be installed at customer sites and Opus 12 will earn a recurring revenue stream through licensing. End customers will operate the units themselves, and Opus 12 will monitor the systems remotely.

Founder(s):
Nicholas Flanders, CEO
Dr. Kendra Kuhl, CTO
Dr. Etosha Cave, Chief Science Officer
Use cases:

- Enable the production of carbon-neutral fuels and products, including electronics, running shoes, sunglasses, automotive parts, and suitcases.
- Effectively provide a pathway to electrify aviation using molecules as the energy carrier to produce liquid fuels
- Provide a pathway to displace petroleum in existing supply chains

Case study:

In February 2020, Opus 12 unveiled the world’s first automotive part produced with CO2-derived polycarbonate in collaboration with Mercedes-Benz. This demonstrated the drop-in potential of materials made through the Opus 12 process and commitment from a global brand on sustainable material. In the future, Opus 12 technology can become a platform for the full vehicle, converting CO2 into feedstocks for exterior/interior parts, materials, and fuels.
ClimateTrade, decarbonising the planet

**Date of foundation:** 2016  
**Headquarters:** Valencia, Spain  
**Other locations of the startup (countries only):** USA  
**Main technology(ies) used:** Blockchain, Cloud Computing, API REST  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** TravelTech, Mobility, Fintech  
**Funds raised (USD):** USD $3,000,000  
**Investment stage to date (12 March 2021):** Series A  
**Number of full-time employees at this moment (12 March 2021):** 10  
**Contact:** fran@climatetrade.com

**Description:** ClimateTrade is a cutting-edge solution born to disrupt the traditional carbon markets by providing alternative solutions to help corporations achieve carbon neutrality. ClimateTrade marketplace provides an innovative tool for responsible companies to offset their emissions by purchasing carbon credits directly from mitigation project developers, avoiding unreliable or unaudited intermediaries and allowing project developers to get the right price and promoting, therefore, fair trade practices and honest promotion of sustainability and SDG’s (specially SDG 15 but also other collateral) thus generating a real positive environmental and social impact. Our solution is fully based on Blockchain technology which brings the carbon offsetting process to a new dimension providing transparency, reliability and traceability to any transaction on a peer to peer basis. Besides, we have developed a sophisticated API REST to include carbon offsetting in any commercial transaction done worldwide in order to help our clients offer their own customers carbon neutral products and services.
**Competitive advantage:** We have shaped an excellent solution that solves the current global needs by automating and simplifying the carbon offsetting process with complete transparency and traceability through Blockchain Technology.

**Market:** There is an evident and urgent need to take action. A wider consciousness is growing in all social and economic sectors and it is crucial to tackle the climate crisis. Our solution is addressed to any corporation willing to voluntarily or mandatorily offset their carbon emissions and move towards carbon neutrality. Our target market, therefore, is potentially wide and global with multiple applications in different verticals.

**Business model:** ClimateTrade platform connects both mitigation project developers and offsetter entities peer to peer. Our company charges a % fee per transaction in the platform. We also charge a fare for the integration of our API and the licence use. We offer consulting services on sustainability matters, carbon footprint calculation and assessment report.

**Founder(s):**
Francisco Benedito. Co-founder and CEO
José Lindo. Co-founder and Head of Impact

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**ClimateTrade Team**

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**Organisational Chart**
Use cases:

Airlines, offsetting flight emissions. Passengers can offset the carbon footprint of their flights in the purchase process.
Melia Hotels. Guests can offset the carbon footprint of their accommodation during the booking process.
Mobility. Offsetting the carbon emissions of taxis and car-sharing companies.
Travel agencies can offer carbon neutrality on their services.
Our solution has many applications in the touristic sector.

Case study:

One of our most successful case studies is our partnership with Iberia. The airline integrated our API into its system to be able to offer its clients the carbon footprint offsetting of their flights during the booking process. Currently, the passengers can offset their flights emissions and instantly get an official certificate ensuring that the offsetting has effectively been completed and that a positive impact has been done in the project Iberia selected from ClimateTrade which is a reforestation project in the Peruvian Amazon.

Local people working in the Brazil nut forest in Madre de Dios in Peru, project supported by Iberia.
OptiFlight - Leveraging flight data towards fuel savings in all flight phases thanks to predictive in-flight guidance.

Date of foundation: 2010
Headquarters: Paris, France
Other locations of the startup (countries only): Thailand
Main technology(ies) used: Machine Learning, Predictive Analytics, SaaS
Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.): CleanTech, Big Data, TravelTech
Funds raised (USD): 3.600.000 €
Investment stage to date (12 March 2021): Series A
Number of full-time employees at this moment (12 March 2021): 31
Contact: nora.serin@safety-line.fr

Description: Paris based Safety Line offers digital solutions that enable airlines and airports to leverage existing data for safer and more efficient operations. The combination of a solid expertise in aviation associated with patented research in data science applications allows Safety Line to offer uniquely innovative and practical solutions, with a focus on better managing risks and reducing fuel and CO2 emissions.

Competitive advantage: The OptiFlight Suite (including OptiClimb, OptiCruise and OptiDescent) is the only predictive in-flight guidance solution allowing airlines to optimize all flight phases including climb thanks to Machine Learning performance models for each tail, accurate 4D weather forecasts, and customized recommendations issued to pilots for each flight.

Market: OptiFlight solutions can optimize fuel burn and emissions for any type of commercial jets. OptiFlight is currently in operation with over 857 aircraft operated by 21 airlines, which already represents 3.8% of the global fleet.

Business model: OptiFlight is offered as a SaaS subscription on a per aircraft per month basis.
**Founder(s):**
Pierre Jouniaux, CEO

**Use cases:**
- Reducing fuel burn and emissions in the climb-out phase with OptiClimb
- Reducing fuel burn, emissions and flight time thanks to in-flight shortcuts with OptiDirect
- Ensuring on-time arrival at best fuel/time ratio with OptiSpeed
- Reducing fuel burn and emissions thanks to flight level optimisation with OptiLevel
- Anticipating on most likely approach thanks to OptiDescent

**Case study:**

In 2015, Transavia France was the test customer for OptiClimb and, in April 2016, they became the launch customer for OptiClimb which was extended to the full Transavia France and Transavia Netherlands fleets by early 2018. Transavia currently saves 82 kg of fuel per flight thanks to OptiClimb, which its pilots are able to apply on 80% of its flights. This amounts to 70 tonnes of fuel saved per aircraft per year, and a reduction of CO2 emissions of 223 tonnes per aircraft per year.
Seven Clean Seas is an Ocean Cleanup organisation mobilizing corporate capital via the innovative and scalable funding mechanism ‘Plastic Offsetting’ in order to invest in plastic waste management infrastructure, river cleanup tech and environmental cleanup projects.

**Date of foundation:** 2018  
**Headquarters:** Singapore, Singapore  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** River Plastic Recovery Technology  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** Ocean Cleanup, Environmental Services  
**Funds raised (USD):** USD $550,000 Equity free grants - No equity investors yet  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 4  
**Contact:** tom@sevencleanseas.com  

**Description:** Seven Clean Seas (SCS) is an ocean clean up organisation with the goal of removing plastic from the marine environment and working with rural / island communities to prevent plastic from entering the natural environment in the first place.

Using a multi-pronged approach, SCS’ goal is building an ecosystem containing environmental plastic recovery, community level interception, river cleanup and sorting infrastructure. To this end, SCS has developed a high volume, low cost River Plastic Recovery System, employs rural waste management and ocean cleanup crews and is building a MRF in Indonesia.

All activity is funded by the world’s first Ocean Plastic Offsetting solution, helping responsible companies first reduce, then offset their necessary plastic footprint against ocean plastic. The beauty of this solution is that it provides both a mandate and funding to clean the ocean, whilst providing value to the offsetter. It’s a triple win!
**Competitive advantage:** We are one of the first movers in the market and already have many clients.

**Market:** When you think of Plastic Offsetting, people usually think products, packaging and supply chain. Whilst these have clear Plastic Footprints which can and should be offset, the solution is much more adaptable and can be applied to travel, events, business operations, services, or even used as a customer reward.

**Business model:** Companies can offset unavoidable plastic use by investing in projects that tackle plastic pollution. Once the plastic footprint is identified, said company can offset it through the purchase of plastic credits from Seven Clean Seas. A Plastic credit is a certificate for 1,000kg of plastic that has been recovered from the ocean or prevented from entering it in the first place.

The client wins and can achieve Net-Zero Plastic in their products or services and benefit from the PR/Comms/Marketing opportunities as well as the environmental benefit.

Seven Clean Seas wins because we get a mandate and funding to clean the oceans.

**Founder(s):**
Tom Peacock-Nazil
Pamela Correia
Ben Moody
Use cases:
- Providing Employment Opportunities to furloughed or unemployed tourism workers (we employ 22 currently in Indonesia).
- Providing environmental conservation / cleanup in areas often shared with the tourism industry.
- Providing waste management solutions to hotels and resorts.

Case study:
Kawal in Bintan, Indonesia is a coastal fishing town in a 1.4 million hectare Marine Protected Area. Many of the residents work in local hospitality but due to COVID19, either lost their jobs or were furloughed.

Seven Clean Seas was able to directly employ 22 of these workers to do environmental cleanup in the area and partnered with Nikoi and Chempedek Private Islands on the project.

The project was a huge success and now we have received US 100k from Microsoft to grow the project, we will be able to increase the size and impact of the project considerably.
IMPULSE creates and operates authentic, immersive tours in Colombia with a focus on supporting local communities and social impact projects, while educating and inspiring empathy in travellers.

**Date of foundation:** 2008  
**Headquarters:** Bogota, Colombia  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** Web development, Email marketing, CRM  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** Direct to consumer, B2B, Corporate  
**Funds raised (USD):** USD $10000  
**Investment stage to date (12 March 2021):** 100% bootstrapped  
**Number of full-time employees at this moment (12 March 2021):** 7  
**Contact:** info@impulsetravel.co

**Description:** IMPULSE offers tours with a positive impact on travelers and locals. We create, operate, and promote tours that let travelers experience the country from a local and authentic perspective while creating meaningful and inspiring connections with our people.

We are at the intersection of top-notch traveler experience and social impact. Our model has consisted in creating customer-centric experiences that exceed travelers expectations and crafting them in a way that each traveler helps spin the wheels of peacebuilding and collective healing processes at a local level.

We achieve this by identifying grass-roots cultural, productive and artistic initiatives that come from communities that have been affected by violence. We work closely with the leaders of these initiatives to find creative ways to engage them in the tourism value-chain. This way, we foster the connections for social transformation to have an economic engine. One tour at a time.
**Competitive advantage:** The strength and value of the relationships we have developed on the ground allows us to have privileged access to high-touch experiences and places. Thanks to this we have a very differentiated product, which facilitates a diversified commercialization scheme.

**Market:** Strong focus on international visitors who visit Colombia. Acquisition: our website, 300+ listings at OTAs, B2B2C international partners. We are also important players in the local ecosystem since some local competitors buy our experiences because of the leveraged access and uniqueness.

**Business model:** Average tour ticket is $90, and bucket-rate 2.4 tour per traveler. Reseller commission is 15% avg. After commission, we split the revenue 3-ways. One for community projects incorporated in the value chain, one ground for operational costs one for Impulse profit. Proportions may vary per product.

**Founder(s):**
Rodrigo Atuesta  
Camilo Martinez
Use cases:

- Market integration for community driven projects
- Narratives that support collective healing and social transformation
- Aligning partnerships for the advancement of social investment
- Creating access to capital for vulnerable populations
- Fostering empathy and otherness

Case study:

Weaning Peace is a 4-hour gastronomic tour in Bogota to understand Colombia’s complex conflict and the peace agreement. Two of the stops are at community based projects that have made great contributions to peacebuilding by substituting illicit crops with coffee and cacao in regions affected by violence; Pauna (Boyacá) and Tablon de Gomez (Nariño). This way, peacebuilding community efforts are connected to the tourism value chain and are benefited directly by it.
Nibi is a social tech that transforms people’s impact actions, like donations and high impact volunteer experiences, into virtual points they can exchange for discounts in sustainable brands.

**Date of foundation:** 2019  
**Headquarters:** Bogota, Colombia  
**Other locations of the startup (countries only):** N/A  
**Main technology(ies) used:** Software as a Service; Marketplace  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.):** SocialTech; TravelTech  
**Funds raised (USD):** USD $40,000  
**Investment stage to date (12 March 2021):** Seed  
**Number of full-time employees at this moment (12 March 2021):** 5  
**Contact:** nacho@nibi.com.co

**Description:** Nibi is a social tech where people and companies can easily find hundreds of social and environmental programs of nonprofits that are working to contribute to different sustainable development goals. With Nibi people can become real changemakers through (i) high impact travel experiences, (ii) volunteer work and (iii) donations. By doing so, they are being rewarded with nibis, virtual points they can exchange for discounts in Nibi’s network of +60 emerging brands that are selling sustainable products and services (socially and environmentally friendly). In this way, Nibi is creating, connecting, and coordinating the interactions of a high impact digital ecosystem (composed by people, companies, nonprofits and sustainable brands) and promoting sustainable consumption habits in the meantime. With this tech-based solution Nibi enables the partnerships the world needs to achieve a sustainable future.
**Competitive advantage**: Nibi reward people for helping. When they subscribe our nonprofits’ high impact travel experiences, or their volunteer activities, or when they donate, they are rewarded with virtual points they can exchange for discounts in sustainable brands. Our ecosystemic approach, our team and our technology are other of our competitive advantages.

**Market**: According to a BCG study made about the social sector in Colombia in 2018, this is a 2B USD market size, but it has a huge growth opportunity. The United States’ social sector represents 2.1% of its GDP = 410B USD.

**Business model**: Nibi has 2 main revenue streams: (i) Transaction’s fee, (ii) SaaS plans in a freemium model: monthly subscriptions nonprofits, companies, and sustainable brands pay to enable and improve some features in the platform.

**Founder(s)**:
Jairo Pitta - CEO & Cofounder
Juan Ignacio Rubio - COO & Cofounder
Use cases:

- Building capacities in our nonprofits so they can use their volunteer experiences as a high impact touristic tool and as a revenue stream for their sustainability
- Connecting people interested in travel experiences with nonprofits in all Colombia who offer impactful volunteer opportunities so travelers can get to know and transform social and environmental problems when traveling

Case study:

Cumbres Blancas is one of nibi’s nonprofits and is a Colombian NGO that is working to raise awareness and preserve the remaining 6 glaciers in Colombia. With nibi, they offer books with pedagogical content they created and offer volunteer environmental experiences where people go hiking to some of these peaks and understand better the meltdown reality these ecosystems are suffering.
Siliconbali is a marketplace for immersive local experiences themed to take action on the most intriguing topics, solve the most important issues and participate in rising subcultures around the world.

**Date of foundation**: 2021  
**Headquarters**: Lisbon, Portugal  
**Other locations of the startup (countries only)**: Portugal, Brazil, Indonesia, Kenya  
**Main technology(ies) used**: Marketplace & AI  
**Verticals (TravelTech, FinTech, EdTech, AgriTech, etc.)**: TravelTech  
**Funds raised (USD)**: N/A  
**Investment stage to date (12 March 2021)**: We’re raising our Seed round  
**Number of full-time employees at this moment (12 March 2021)**: 3  
**Contact**: sevo@siliconbali.com

**Description**: Imagine helping Lebanese entrepreneurs to rebuild Beirut after the blast, building solar panels to bring back electricity in the Brazilian Amazon, or mastering the century-old tradition of Portuguese pastries with a chef.

SiliconBali is a global marketplace for immersive experiences hosted by local experts, from artisans, entrepreneurs, to organizations. Our platform lets users deep dive into ideas and issues that shape a particular destination, by joining in an activity that goes beyond tourism. Participate in global topics (like Rebuilding Beirut after the blast), choose one of the 17 SDGs (such as the Zero Hunger project in Rio), or experience unique subcultures (like the Creative Balinese or Lisbon Surfing Culture). We promote a longer (3 Weeks Avg.) and more sustainable way to travel that turns tourists into temporary citizens. We align to SDG#17: Partnership for goals, by working directly with local communities to prioritize their visions, needs and mobilize action towards them.

**Competitive advantage**: We call it ASAP. As sustainable as possible. As scalable as possible. As soon as possible.

1) Sustainability: Interactions that positively impact the destination & the World.  
2) Scalability: A tech-enabled marketplace, not a travel agency/ organized trip.  
3) Soon: First-mover advantage to promote sustainable travel at scale.
Market: Thoughtful & conscious global citizens who travel to not only escape and visit, but to engage and build a meaningful connection with the world. They are broken down into these segments:

1) 1.2B travellers who seek new & more sustainable way to travel.
2) 1/3 tourists who wants to immerse deeper in a destination.
3) +70M youths & academic who seek work experiences abroad.
4) >20% remote workers who plan to travel to another city for a medium-long term stay.
5) 60% global talent who are exploring career opportunities overseas.

Business model:
Current: Marketplace commission fee.
Future:
1) B2B: To integrate into hotels and airlines to sell our experiences to guests and passengers that are traveling for the medium-long term.
2) B2G: To partner with destination & tourism boards to promote a longer and a more authentic way for travellers to visit their city. In a way that doesn’t promote over tourism & restart travel more sustainably by prioritizing the local communities needs.

Founder(s):
Sevo Widodo, Founder & CEO

Use cases:
Marketplace
- For travellers: Becoming a temporary citizen of the destination.
- For hosts: Monetizing their local expertise by showing the world what they do.
- For local communities: Prioritizing their needs, vision, and what’s important for them.
Bigger picture
- For tourism: Restarting the industry more sustainably while combating over tourism.
- For the world: Mobilize global action towards the world’s most important topics & issues.

Case study:

Through our pilot in Portugal & Brazil. We validated 5 things:

1) The participants had a meaningful experience.
2) The hosts were happy and received great contributions. 100% want to continue hosting.
3) The experiences drove a positive impact to the destination & its locals. Residents agreed this could be the solution to prevent the return of over tourism.
4) The idea was validated by tourism boards to promote a longer & more sustainable way to attract visitors.
5) The model is globally scalable.
SDGs
GLOBAL STARTUP COMPETITION

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