### INNOVATION SPARKS IN THE CARIBBEAN

Urban Technology Labs for Youth Innovation in Kingston, Jamaica



Citi Foundation

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### BACKGROUNDS AND RESULTS





### **INNOVATIONS**

is understood as the process of making changes to something that is already established by introducing new methods, products, or services through unique ideas. This process is necessary to allow economic communities to thrive and develop. Technological innovation fosters satisfaction, teamwork, and competitive advantages, while encouraging the growth and progression of a population. In Jamaica, such efforts are allowing sustainable development amongst disadvantaged youth in the community of Kingston, where The Trust for the America's program, DIA (Democratizing Innovation in the Americas), is empowering new generations by providing advanced technology and training, collaboration, mentorship and financial support. Currently present in Mexico, Costa Rica, Colombia, Belize and Jamaica, DIA promotes livelihood opportunities and activates the often untapped potential of individuals living in vulnerable situations by combining academia, civil society, governance, entrepreneurship, and young innovation.

## THE TRUST FOR THE AMERICAS

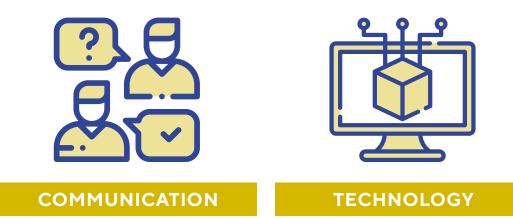
is a non-profit 501(c)(3) organization affiliated with the Organization of American States (OAS). Established in 1997 to promote public and private partnerships, The Trust has implemented projects in 24 countries and worked with over 500 organizations in the region. The Trust's initiatives seek to improve access to economic opportunities, citizen security, and transparency within governance.

In 2016, Citi Foundation and the Trust for the Americas launched the **Urban Labs for Youth Innovation Project**. This project aims to inspire and provide skills to a new generation of Jamaican disruptive innovators and entrepreneurs. Since then, over 1,350 young participants have received training, mentorship and access to state-of-the-arts technology to create low-cost, high impact, innovations that improve livelihood opportunities and solve daily challenges in their communities.

### BACKGROUND

From 2016-2019, DIA's impact was strengthened in the Urban Lab by implementing participation incentives. As a result, PitchTank, Hackathon, and Ideathon challenges were born. These immersive programs provided mentorship and training to young innovators, who then used the knowledge and resources to bring their ideas to life. In high-level competition, judges chose winners based on their ideas and presentation, allowing successful candidates to expand their innovations and invest both more time and money into them. Financial and business literacy courses and lab manuals also became available for eager students to learn and sharpen their abilities, even if they did not place as a contestant in the challenges.

The implementation of DIA in Kingston, Jamaica has **proven to be extremely successful** since its humble beginnings in 2016. Over 1,350 young adults from 42 different communities have used the Urban Lab, the majority of whom have been female innovators. Often, youth focused on projects that **aimed to solve urban challenges**. Most innovations were intended only to create incremental changes; however, many had a much greater impact, positively impacting entire communities. The Urban Lab in Kingston radiated positive effects for all members of the community, and provided cost-efficient, sustainable, and advantageous results. Beyond teaching many of Kingston's youth how to utilize technology to create a profitable business or product, the Urban Lab also taught communication skills, organizational capacity, technological growth, and comprehensive training through mentorship.









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### DIA JAMAICA RESULTS (2016-2019)



Successfully launched the first **DIA Urban Innovation Laboratory** in Kingston, Jamaica



Lab managers and facilitators participated in Training-for-Trainers at the DIA Inclusive Innovation Lab in Monterrey, Mexico



**DIA Innovation** Methodology adapted, translated and expanded to meet participant needs/interests



Organized 4 Ideathon Challenge to explore creative solutions for urban issues



Carried out a virtual 24 Hour Hackathon with DIA Belize to develop solutions on sustainable tourism



513 (46%)

received innovation and technology training



**90** DIA participants created disruptive innovation projects



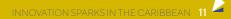
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community members empowered through access  $/ \land O_{\alpha}$ 

female



In Pitch Tank competitions, a total of **88** projects have received start-up funds



### THE INNOVATIONS

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Innovations produced in the Urban Lab often serve a purpose geared towards **problem solving within the community.** Many young innovators choose to create software, products and public services to simplify or address issues in Jamaica. Geared towards improving their communities, many of the innovations can be sorted into categories based on use and purpose. The facilitators at the Urban Lab assigned each of the winning innovations to one of the following categories.





Tourism is an instrumental aspect of Jamaica's economy. Each year the sector posts the highest levels of foreign exchange receipts (approx. US \$2 billion), and tourism employs the second largest number of Jamaicans (approx. 200,000) both directly and indirectly (The Caribbean Current).

#### Zege ——

Mark Nosworth and Ricardo Watson aimed to create an online platform to connect tourists and craft vendors in Jamaica. Using Zege, tourists would be able to browse markets for craft items without the hassle of shopping at every vendor. In turn, the vendors reap the benefits of expanding their customer base. Zege simplifies the ease of sale transactions between tourists and vendors, bridging the gap between the two parties and creating a network for the sale of craft items in Jamaica.

#### JA Travel Planners —

Bryan Chang and Melissa Mitchell created this mobile application to simplify travel and tourism for cruise ship visitors to Jamaica. The GPS feature on the app allows the user to see all the tourist resorts and specific activities around them, as well as providing information on transportation to and from the destinations. JA Travel Planners also allows in-app booking, with a built-in translator and approved coupon codes from select resorts. This application simplifies the tourist experience in Jamaica, allowing them more time to enjoy themselves and experience the island. JA Travel Planners won third place in the Hackathon competition.



#### Bout Di Place ——

This mobile app is designed to allow users to personalize their cultural experience in Jamaica and optimize their stay. Before Bout Di Place, tourists often did not get to interact with small business operators due to limited information being available about local attractions. Therefore, authentic Jamaican experiences are often lost to tourists. With this app, tourists are able to tailor their likes and interests and receive a customized experience of the island, including attractions, arts, events, dining, etc. Bout Di Place offers a way to optimize travel time and gives a more holistic experience for visitors to Jamaica. Bout Di Place won second place in the Hackathon competition.

#### JamGo

Stephanie Jones and Shakeane Hinds wanted to create a travel app that simplified the overall tourist experience and allowed visitors to make the most of their stay in Jamaica. JamGo provides directions and transportation methods, suggestions for attractions, destinations and experiences, and allows direct payment to be sent through the app to avoid carrying cash or dealing with foreign currency. The app also connects users with rental services and local guides, taxis and busses. Every service can also be contacted directly through the app. JamGo provides an online planning hub for Jamaican tourism and facilitates all the aspects of travelling so that tourists can spend their vacation the way they want. JamGo won first place in the Hackathon competition.



Around the world, two hundred and twenty-five million tons of plastic is produced each year. Jamaica suffers from two issues resulting from plastic waste – ineffectively enforced anti-litter laws, and a growing lack of organized plastic separation, collection, or recycling programs. Jamaica's heavy reliance on tourism demands an unprecedented reliance on plastic. Consequently, plastic and other debris accumulate in drains, contributing to flooding and water stagnation, with the latter leading to mosquito-borne diseases. For these reasons, it is imperative that Jamaica finds a solution to the overuse and dumping of plastic on a massive scale (Jamaica Gleaner).

## 

#### PlastiCity -

PlastiCity was designed to create resalable products from recycled plastic items in an effort to reduce their environmental impact in Jamaica. The team made safety watches equipped with GPS, furniture, bins and jewelry – among many other items – to be sold by craft vendors in Jamaica. PlastiCity placed in the top 3 winners in December 2017, and secured seed funding to continue their efforts after the PitchTank.

#### SPEL

Solar Powered Exterior Lighting was created by Tevin Butler, Roberto Ellis, and Reo Sanders to address the issue of renewable energy technology in Jamaica. SPEL aims to improve exterior lighting and reduce the impact typical, non-solar exterior lighting has had on the energy grid at night. Few other renewable energy technologies like SPEL exist and have been used efficiently. SPEL aims to be the solution by creating all-in-one solar powered exterior lighting.

## 



#### The Monarch Engine –

Jowayne Bartley saw the need for a new source of clean, renewable engines in Jamaica. In this mechanism, pulleys and flywheels are used to multiply mechanical kinetic forces with the help of ball bearings and produce electrical energy. The Monarch Engine doesn't require the use of wind, steam, hydro, solar, or fossil fuels, making it green and completely renewable.

#### The Honeycomb

Adrian Watson was a June 2018 Pitch winner who presented his innovative business idea that dealt with urban beekeeping. The Honeycomb produces bee bi-products such as honey, wax foundations, propolis, and pollen. The core social and environmental solutions are to increase urban biodiversity and to reduce the dust nuisance and provide beekeeping training to urban unskilled/low skilled youth in the area. Adrian recently used his grant funding to purchase an extractor, which is a mechanical device used to extract honey without destroying the comb.

#### PlastiCorp

Dei-Rasi Freckleton, inspired by environmental sustainability, cultivated the idea of PlastiCorp to utilize raw material waste plastics to create millions of tiny pellets to be converted into an alternative to asphalt. This provides a cheap material to repair Jamaican roads and roofs – alongside a host of other applications – while cleansing the environment of plastic waste.

#### **Chamber Repairs**

Nicholas Chambers uses an approach similar to Freckleton's PlastiCorp, instead using recycled plastic waste to repair vehicles damaged in accidents. His efforts have helped reduce plastic waste by using the material for a purpose and profit.



#### BioFuel & Fertilizer (BFF) — JAVAGRI

BFF started with creator Shanroy Dennis' concern about the 1000 tons of methane and CO2 gas expelled annually into the atmosphere by the weekly fires started at the Riverton Landfill in St. Andrew. His solution was to produce methane gas, liquid fertilizer, and soil amendment through the collection and the addition of organic waste. BFF is fixed on solving Sustainable Development goals 7, 9, and 13 dealing with affordable and clean energy, the development of industry, innovation and infrastructure, and climate action respectively.

The JAVAGRI project by Florian Francis focuses on employing engineering systems and management methods to achieve its objectives of a smart and sustainable farm. The overall system aims to regulate water use for irrigation, fertilization, and crop maintenance on farms in addition to regulating energy usage. The farm is a fully self-sustainable system powered mainly by solar energy to provide clean crops.

#### **Hemp Solutions**

Jevaun Johnson, from rural Jamaica, recognized the importance of agriculture in a small community and wanted to profit from a versatile crop that could expand the economy. He created Hemp Solutions based on the growth abundance of hemp and its health benefits. Hemp is a strain of Cannabis sativa that is used for its derived products. It can be refined into a variety of commercial items including paper, textiles, clothing, biodegradable plastics, paint, insulation, biofuel, food, and animal feed. Jevaun aimed to create a cheaper and more durable strain of hemp by mixing it with lime, which when used as a building alternative, strengthens over time, reinforcing the materials it is mixed with.



Agriculture is one of the basic industries of Jamaica. As the island possesses a wide variety of soils and climates, nearly every tropical product can be grown successfully. However, not one of the major crops found on the island is indigenous. Agriculture is an important part of Jamaica's economy and sustainability, and young innovators are exploring ways to make farming more environmentally friendly, cost efficient, and effective (Jamaica Gleaner).

#### **U-Farms**

U-Farms are vertical-like structures which may be utilized for the growth of specialty crops. The end goal is to design a suite of vertical hydroponic farming infrastructures that is easy for households and schools to assemble and use. These designs will benefit from the use of free space, as they can hang from walls, roofs and fences. U-Farms demonstrate that an innovative concept – such as a vertical farm – can be created by someone on a small budget and used to benefit an entire community.

#### Breadfruit Vita Punch -

In Jamaica, ripe breadfruit is wasted on a massive scale, as the average Jamaican does not use breadfruit in its ripened state. Through research, project leader Rojairo Brown decided to use this product to create the delicious and nutritious Breadfruit Vita Punch. This product helps boost the Jamaican economy, making use of a too-often wasted resource. Since the first Pitch Tank, Jairo's Vita punch has gone through the product testing and labeling phase with the help of the Scientific Research Council and Bureau of Standards and is now available in supermarkets in Kingston, St. Andrew, and St. Catherine.



#### The Community Basket Project (TCBP) \_\_\_\_\_

Leader Malyck Malcolm saw a need for innovative and interesting ways to encourage disadvantaged young people to be engaged and passionate about their community. The community basket project was born out of the belief that youth can shift the stigma attached to the practice of farming by becoming farmers themselves while being gainfully occupied. Youth in the program learned about climate change, food security, community, coalition building, and project management as they spearheaded each "community basket."

#### Future Farms -

This innovative approach to agriculture introduces a tower garden which is a vertical, aeroponic growing system that allows the growth of up to twenty vegetables, herbs, fruits and flowers in less than five square feet – indoors or out. The Future Farm uses aeroponics; a plant-cultivation technique in which the roots hang suspended in the air while nutrient solution is delivered to them in the form of a fine mist. A 2017 DIA Pitchtank winner, Future Farms has used some of the seed funding to purchase equipment from overseas to development prototypes of the product.

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#### Veggie Confetti \_\_\_\_\_

Alecia Jones founded Veggie Confetti to produce edible, chemical-free young greens and grains. Microgreens known as "vegetable confetti" grow under a light or sunshine in biodegradable trays and can be harvested within 7-21 days at a miniature stage. She has successfully produced broccoli, cabbage, bok choy and kale.

#### — The Toadstool

Through market research, project representative Jeffrey Smikle realized that the current Jamaican mushroom market is underdeveloped and is driven through expensive importation of the crop. He created The Toadstool, which is a locally based agricultural business in Hatfield, Manchester. The project produces fresh mushroom products that are affordable, healthful, and of the highest quality. The vision is to improve the local agricultural industry through the production and sale of farm-fresh, gourmet mushrooms. Jeffrey used his grant funding to purchase a 3 kva Grid-Tie Inverter, which converts solar energy into electricity and stores power.



#### Jacob's Meats \_\_\_\_\_

In observing his community in St. Thomas for years, Nigel Bryan realized that the closest store to get fresh, clean meats and poultry was more than 10 miles away. To solve this problem, he decided to start his own business raising, preparing, and selling meat and poultry within his community.

#### Mel's Meats —

Shameka Campbell opened a personal business specializing in the sale on meats and poultry to an unsupplied community in Hanover. Similar to Nigel Bryan, Shameka wanted to fill the need for fresh meat and poultry in her small community.

#### McRich Poultry -

McRich Poultry is a livestock farm started by Scottmore Richards to rear chickens to suit all business enterprises and household needs in the community of West Park and the surrounding areas. Scottmore opened his business after recognizing the need for free-range poultry in the community.

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#### **T**sotare

Coming from a long line of hardworking farmers, Yanque Yip created Tsotare to make the cultivation of yam less labour intensive, and more time and cost efficient. Tsotare is a plastic structure that protects the yams from drought, excess rain, praedial larceny from pests and disease, and other possible complications. This innovation also reduced the amount of land space required by 84% using Yanque's rootube system.

#### Soil Checker \_\_\_\_\_

In his volunteer work in the community of Red Hills, project creator Brandon Campbell realized that some farmers experience delays of up to three weeks for vital nutrient information and recommendations, during which time nutrient ratios would have already varied. While some companies currently do offer similar services preparing samples locally, these often require transport overseas for testing and analysis. This undoubtedly contributes to costs and latency in communicating recommendations to farmers. Brandon's Soil Checker is a low cost, modular unit which features interchangeable sensor heads to produce industry standard soil assessments to farmers within minutes of sample preparation. With opensource hardware solutions, data aggregation, analysis, and case-specific recommendations, the device is expected to stimulate increases in crop yield and facilitate the development of a dynamic crop database.

#### Diaper Cakes -

Diaper Cakes is a fresh take on gifts centered around mothers and babies. Project developer Shannen Clarke strives to make the brand unique by providing gifts for mothers and their children. Shannen uses quality items to create one-of-a-kind gifts for special events. The clients targeted are often employed full-time or busy new mothers, and as a result find the ease and convenience of the service very rewarding.



#### TRANSPORTATION

The Jamaican road network consists of almost 21,000 kilometres of roads, of which over 15,000 kilometres is paved. Public transport is often full of working-class people, thus making it difficult for students and the less fortunate to find adequate and timely transportation. Rural students, especially, struggle to find transport to school as they may live up to 5 kilometers from the nearest train or bus (Jamaica Gleaner). It was necessary to develop a solution to navigate the Jamaican transport system more effectively.

#### **Freelance Unit**

Created by Dane Gutzmer, Freelance Unit is an Uber-like mobile application that seeks to bridge the gap between bearer services and companies. Bearer services are in high demand in Jamaica, however when companies use bearers it is often difficult to track their location. Freelance Unit app makes it easier to not only track the location of your bearer, but it also gives the location of others near your workplace and their availability. This service takes away the hassle of having to call and schedule what often ends up being unreliable transportation. This mobile application is currently under development with the intention that will be available to both bearers and clients on the Google Play Store.

#### **Tertiary Travel**

Joshua Brow created this project based on his own experiences as a student in University, and how difficult and time consuming it can be finding safe and comfortable transportation to and from campus. Tertiary Travel uses an online application that will allow only University students to schedule pick-ups, drop-offs and deliveries. Each student will register an account on the online portal and payment will be cashless. The DIA Lab assisted Joshua in creating a mobile app prototype highlighting the intended functionality of the finished product.



### EDUCATION

The government has embarked on a program to upgrade secondary schools in Jamaica. The National Training Agency oversees vocational training in Jamaica that is provided by state vocational training centers and private academies. Programs tuned to the nation's needs include agriculture, automotive skills, beauty services, clothing manufacture, commercial skills, information technology, and building and construction skills. When students leave secondary school their education ceases to be free. It is necessary to update programs and lessons in schools to meet the needs of an emerging economy that requires more advanced literacy and mathematics skills.

#### **Super Tutor**

Dadrianne Segree is a 26-year-old who works as a tutor to children and young adults between ages 10-22 years with learning difficulties. With the help of DIA, Segree created this mobile application to offer a range of academic services to children and adults requiring educational assistance. Super Tutor is designed to diagnose an individual's unique learning style. From there, the app places the learner in a stream specific to that person's learning style and offers exercises, resources, and advising to the student to promote academic success.

#### **Buy Access Time**

Buy Access Time is an application which will require youth to answer a number of academic questions prior to accessing the features of the electronic device of their choice. Since youth of this era often develop dependencies on electronic devices, it will position them to give more attention to their academics before entertaining themselves. Each time the electronic device is accessed, it will prompt the user to choose a subject area and the user will be required to type the answer. 

#### Patwaa

Patwaa seeks to enable non-Jamaicans to learn Jamaican creole and to facilitate ease of communication between locals and tourists. 'Patwaa' has reached the prototype stage and has even been presented to the Secretary General of the Organization of the American States, Mr. Luis Almagro, and board member Mr. Michael Lee Chin at the OAS Board of Directors meeting in Washington D.C. in October 2017.

#### Math Aquarium

Project leader Miguel Binns created Math Aquarium in order to address and solve the age-old difficulty of studying mathematics, and how it presents problems for so many students. Math aquarium will create a website to allow students to interact with tutors and content in such a way that will help to change students' perceptions about the subject, working towards improving their performance.

#### #GiveHerProps

This movement is a social awareness campaign and service organized by Te-Lor Woolery-Eugene, designed to educate women about the procedures in property ownership and pair them with resource organizations to further their aims in management and real estate sales.





The DIA program in Kingston, Jamaica has proved to be very successful in generating ideas and innovation; however the lasting component of the program is to implement sustainability. The businesses and products created through the Urban Lab must be able to survive and remain economically sound after the programs come to an end in order for them to continue to generate growth in the economy.

#### ALL NAT's

According to project leader Shaundrice Foster, ALL NAT's vision is to be a reliable provider of healthy herbal cosmetic products to long-term customers, through innovative product generation and distribution solutions in Jamaica. The project seeks to create its own beauty products by using alternatives to chemical-based products to provide clean, healthy and safe cosmetics to its clientele.

#### **Protect U**

Protect U seeks to create a safety device for women, children, and the elderly to eradicate violence against these most vulnerable members of society. It is Trudy-Ann Morrison's vision for Protect U to be a chip that can be installed in any wearable piece of jewelry – for example, a watch that can send out distress prompts when the wearer is in danger or feels threatened. The chip will connect with the wearer using their pulse and heartbeat and will also be built to incorporate a Google locator for easy tracking. This device is intended to make women and children feel more safe and protected at all times.



#### JahScents

JahScents was created by Ariel Wynters as project that uses authentic Jamaican fruits, herbs and spices to create mosquito repellents and scents for the home and office. JahScents has also started a recycling movement as the containers for all the products are made from recycled plastic bottles, helping address Jamaica's ongoing plastic bottle crisis. For every five empty JahScents containers customers return, they receive one JahScents air freshener free of cost. This helps to ensure the use of plastic bottle containers even after the product has finished as a way to reduce the amount of plastic waste that gets returned into the Jamaican environment.

#### AMP Entertainment

The primary goal of AMP Entertainment is to prevent vulnerable and impressionable youth in the community from using crime and violence as a means of resolution to make ends meet. The process of making music, from production to performance, has had a positive impact on those who would have been otherwise unoccupied, unemployed, or in the process of engaging in criminal activity. Thanks to DIA in Jamaica, AMP has already started to purchase equipment that can be used to develop and produce music not only keep these youth engaged, but also to unearth the untapped musical talent that may exist.

## 

#### SolCase

SolCase is an on-demand power supply designed to be more convenient than the regular cable charger. It permits mobility and flexibility between charges, allowing users to charge their devices from virtually anywhere. Aduki Ingram created the product to provide mobile device users with freedom and accessibility, while also reducing electric waste. SolCase charge technology produces 65-70% charging efficiency (compared to the 50-60% of a standard wall mounted charger) with a constant flow of 5 V at 600 mah, and a battery reserve of up to 4000 mah.

#### Queritel

Shani Bennett created Queritel as a platform for entrepreneurs and small enterprises to engage in peer-to-peer information exchange. Queritel works to innovate the collection of market data, legal information, and industry knowledge into one location that can be easily accessed by businesses or companies. The product aims to simplify the process of business for up and coming entrepreneurs.

#### Good Samaritan -

Good Samaritan is the first business in Jamaica to not only hire young, mature individuals, but also to include innovation in providing cleaning, nannying and housekeeping services. Giya Richard's business uses a website that customers can easily book appointments through, make purchases, view employees/owner information, view information about the business, explore educational programs/cleaning tips and make secure online payments.

#### Natural Blend

Romeo Mitchell started Natural Blend to take advantage of the underrated spices and herbs found in Jamaica – such as turmeric and rosemary – to create natural medicines and spices. The business proudly boasts a unique mix of products functioning as both medicinal and for cooking purposes.

#### I Want to Make JA

Miguel Francis quit his job at an established banking institution to fully pursue his true passion making beautiful and innovation creations out of wood. With no formal training, Miguel's artistry is self-taught, and his abilities include cabinet making, furniture making, joinery, carpentry and engraving. Before being exposed to the DIA lab in Jamaica in 2018, Miguel created most of his products by hand. However, since becoming a lab beneficiary, Miguel has been a frequent user of his favorite tool, the laser cutter. Today, he is currently making use of his updated woodwork tools he purchased from the grant he received at the DIA Pitch Tank.

#### Ann Clarke

In 2016, Anita Clarke officially started her business, Ann Clarke, which creates apparel primarily made of African prints and coconut shells. Anita first realized that she could use the coconut shells after seeing her community littered with them. As a means of preventing this waste, she decided to put the coconut shells to good use in her designs. Her plan is to further develop her brand, with the aim of introducing handbags and turbans to the market.

#### **Gud Skin**

Peta-Gaye Watson started her small business, Gud Skin, to promote organic acne treatments for people struggling with skin conditions, acne, hyperpigmentation, or sensitive skin. She aimed to create a healthy product using natural ingredients that would gently remove acne without the added harshness of chemicals and additives.

#### **Aire Cosmetics**

Shenelle Stewart's goal for her business was to create value in organic and local products by converting these materials into gorgeous beauty products. For example, her mascaras and brow pomades are made using natural Jamaican Black Castor oil; a product much more natural than what is found in standard mascaras. Shenelle wants to prove that beauty products can and should be organic and can be made using the resources found locally.

#### **Canvas JA**

Founded by Shauna Kay and Cory Anderson, this company creates one-of-a-kind pieces of art that are graphically modified using special technology, resulting in stunning artwork with a variety of styles – modern painting, vintage, dusted effects, etc. The unique pieces are tailored to each customer's desires and reflect their style in art.

#### M.A.F Car Care

This unique car detailing company owned by Michael Ferguson provides quality vehicle care and maintenance to all car owners at their own convenience. Michael understands that everyone has a different schedule, and takes that into consideration, allowing customers to be serviced when they prefer.

#### Truth's Activism

Roshelle Pinnock's Truth Activism is an activism movement that uses creative and technological expressions to raise awareness and influence policy to influence Jamaica's development. It encourages people to speak their mind and let their opinions be known and make use of technological resources to more effectively share their message.

#### Castor Essentials \_\_\_\_\_

Castor oil (Ricinus communis) is a versatile vegetable oil extracted from the seeds of the castor oil plant. It also a nontoxic, biodegradable, and renewable resource and is the only commercial source of hydroxylated fatty acid. Armed with this information, Aduki created a line of castor oil products that will not only expose customers to a plethora of health benefits but to also tap into the US \$1.3 Billion global industry.



#### Impressionz

Britney Graham launched Impressionz as a project that teaches at-risk women living in vulnerable situations and communities basic principles in cosmetics. This project aims to arm these women with free skills to pursue further training and their own entrepreneurial activities, which in the long run, may improve their livelihood and economic situations.

#### Reid's Mobile -

Damani Reid's mobile mechanic shop offers onsite repair service to owners of motor vehicles. The benefit of service at the customer's location is a very attractive option for many vehicle owners in need of repair.



## 

#### Accelerate

Sophia Bryan created a platform for emerging women leaders who are trained and empowered to pursue positions of power in all spheres business, corporate & governance. Her solution is a continuous online 12-week Transformational Leadership Academy for Women Leaders, coupled with weekly coaching. Clients will create a strategy for their upward mobility in their personal and professional lives and will be given the support to implement this strategy, helping diversifying leadership.

#### Help for the Homeless \_\_\_\_\_

The purpose of this project by Tru-sha Dixon is to eliminate Jamaican society's negative perspectives regarding homeless people, shifting mindsets to help them be seen as human beings, capable of making a valuable contribution to national development. What makes this project unique is that not only are care packages and material support distributed for the homeless, but they are also provided with a platform for their voices to be heard and for an opportunity to be rehabilitated and reintegrated into society. Elements of this project include doing background checks, medical and psychological evaluation, short video interviews where individuals are given a chance to tell their stories, and partnerships with various organizations and companies looking to hire these individuals.

#### Jesse's Décor -

The team from Jesse's home décor creates high quality, affordable, personalized pillows and cushions made by youth from disadvantaged communities. Jermore Cowans and Kiddist McCoy employ persons from the HOPE training program from the HEART Trust NTA who are in at-risk scenarios, seeking opportunities for employment. The underlying magic to this project is that it uses high-grade polyester fiber that's HypoAllergenic and the latest embroidery technology.



Software developers and technological application developers are less common in Jamaica, as post-secondary education is expensive and, as we have seen with transportation and housing difficulties in prior sections, and it is sometimes difficult to travel. However, these abilities are highly valued in Jamaica, and software developers can make anywhere from \$21k-\$1.7m based on experience and ability. Having skills like these make an enormous difference in the life of someone less fortunate who, with software and application development training, would be able to quickly earn enough money to support themselves and their loved ones. The DIA program understands this need and trained many disadvantaged youth to get them on this track.

#### **IProduce**

Iproduce's product objective is to create an internet platform that enables third party trading of primary and secondary agricultural productions and facilitates an increase in agro-business registrations. Project leader Jerome Palmer envisions that IProduce will be an E-commerce platform like Amazon but more restricted to primary and secondary level agricultural projects. The project will allow Jamaican Farmers to sell their goods on the internet while still trading at farmer's markets and business outlets.

#### **Rebel Mind-Set**

The issues of crime and violence in small Jamaican communities have led to an increase in incidents of sexual assaults, murder, theft, and fraud. Most of the time, community members are aware of the perpetrators' identity; however, many stay silent to keep themselves and their family safe from becoming a target. It is for this and many other related reasons creator of Rebel Mind-set, Ricardo Burke, decided to use application technology to develop a mobile app that seeks to allow regular citizens to have an avenue to communicate with government and security officials, by relaying problems and solutions faced by their community to the appropriate authorities without the fear of being tracked.

## 

#### **Cy-Reader**

Kemar Robinson created Cy-Reader as a mobile application to convert text to audio by taking a picture of the text. This allows the user to turn any text into an audiobook, allowing the user to listen to documents instead of reading, helping the user study while multitasking. Cy-Reader also has a premium language function that enables users to read between languages by taking a picture of the text, and automatically translating it. This feature will allow the user to navigate the signs of a foreign country and to even read the books, novels, and contracts in an unfamiliar language.

#### Seizure Guardians (formerly I-Detect)

After suffering from seizures from 10 years, Brynna Chang decided to create a mobile application to assist doctors in accumulating data on seizure patients in an effort to provide them with relief from the disorder. Seizure Guardians project is a medical wearable device and app that will be able to monitor and automatically detect seizures and aid doctors in finding solutions or methods of controlling seizure disorders. The mobile app is able to monitor the user's vital signs and is equipped with GPS navigation and emergency contact information to assist the patient while he or she is undergoing a seizure. Bryanna used the grant she received from the DIA Pitch Tank in June 2018 and purchased a state-of-the-art laptop on which she can complete the coding and programming of the mobile app herself.

#### Simply Media -

Launched by Vin Bailey, Simply Media is an innovative company that specializes in videography and photography, as well as large format printing. This business creates beautiful prints intended as decor or gifts. The company is now located in Clarendon to service their customers.

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#### Billodex -

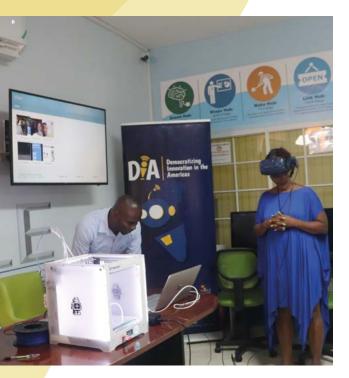
D'Andre Frazer's Billodex allows for the purchasing and redemption of digital tickets via smart phones. It offers great convenience for customers, eliminating the need to spend time and money driving to a specific location to buy or collect a ticket for an event. Customers can also purchase tickets for others, share with their friends, and receive event updates on the go. Billodex eliminates the need to worry about losing or misplacing tickets, simplifying the process of enjoying a show or event.

#### Data Logger —

Nathan Henderson's product is a low cost, modular unit which utilizes interchangeable sensor heads to produce industry standard soil assessments to farmers within minutes of sample preparation. With open-source hardware solutions, data aggregation, analysis and case-specific recommendations, the device is expected to stimulate increases in crop yield and facilitate the development of a dynamic crop database.

#### **PowerPree**

PowerPree, by Kriston Kong and Yekini Bryan, is a smart plug and switch that users can use to control and monitor their electrical appliances from their smartphone or computer from the PowerPree mobile app or website. An appliance or set of appliances are plugged into or wired to PowerPree and after a few short steps of entering WIFI details, users are able to see live and historical energy usage (in not only watts but also JA dollars) while also being able to turn them on or off in real time or by a scheduled timer.



#### **Bulwark**

Creator Melissa Mitchell created a mobile application with the primary focus of protecting women and young girls. Women are always at risk no matter the time of day or where, and because of this, women no longer feel safe; especially in certain places. When a woman is in distress or imminent danger she can tap on the app which will send an email, text message and WhatsApp message with picture, location and audio to pre-configured email addresses and phone numbers of friends and family. Bulwark is intended to be a product and a service that customers can use for personal safety. By using this app, it is expected that women will become more confident in their daily life and can bravely go wherever they choose knowing that with just one tap someone will be there to help.

#### **Taglistings**

A young professional short on time and money, Shemarr Henry created Taglistings to serve as a quick and efficient platform to find rental housing. She found it incredibly difficult to search through the many options for housing within her budget and in a desirable area. Taglistings was designed specifically to work with citizens to find a safe and easy way to find a place to call home. The website features images of the homes, rent rates, amenities, viewing schedules, notable resources in the area, and overall ratings.

#### Patient Diary

After continuous visits to the doctor for the same medical condition, Simone McBean noticed how time consuming and frustrating it was to wait for the doctor to go through her medical history and chart before diagnosing and prescribing her medication and treatment. Dealing with this mess led her to create Patient Diary, an app designed to store personal medical information and have it readily accessible on any mobile device. The app allows users a faster and more secure dissemination of information between patient and doctor in a secure medium, while also maintaining confidentiality.

#### Juju

Creator Judene Bethune saw the need to simplify beauty and cosmetic appointment scheduling. She founded Juju, a mobile application that allows users to make appointments and scheduling for hair, nail and skin care. This application eliminates the need to call a salon or book online, and even allows users to design their own experience by selecting service addons before they even arrive.

#### **Online Jamaica**

Tevon Garrdiner's main focus for Online Jamaica is to simplify the life of the average consumer by using drone technology to assist in the delivery of goods and services. The online platform element of the software allows entrepreneurs to sell their products and use a digital currency payment system for Jamaican clientele.



### INNOVATION SPARKS IN THE CARIBBEAN

Urban Technology Labs for Youth Innovation in Kingston, Jamaica



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