

[RE]verse Pitch Competition – 2020

Terra



**TERRA**

**Executive Summary**

Ride Safe and Sustainable

<p>Team</p> <p>Aadhikesh Boopalam Collin McCloskey Seniru Kottegoda</p> <p><b>Development stage</b> Seed</p> <p><b>Funding Opportunity</b> The prize money will go towards initial funding for the antimicrobial additive, injection molder, and transportation of materials from the provider to our workshop. The expected expenditures will be: 20% of the \$10,000 prize will go towards purchasing the machine, 30% of the prize money will go towards sanitation costs, and 50% will go towards manufacturing costs.</p> <p>As we expand and scale Terra, we will need more money to purchase additional injection molders and self-decontamination powder. We have a commitment for a 10,000 match from an investor if we win this pitch.</p> <p>[If you win, what will you spend your prize money on? Beyond this prize award, how much money do you need to accomplish your goals?]</p>	<p><b>PROBLEM/OPPORTUNITY</b></p> <p>Electric scooters can be found all around Austin and in major cities in the US. Locals, visitors, and students all use these scooters as transportation because they are affordable and efficient. However, they can also be dangerous.</p> <p>Electric scooters rarely have an accompanying helmet. Currently, riders under the age of 18 in Austin must wear a helmet. A study conducted by Austin Public Health found that 190 e-scooter riders were injured in a 3-month period, nearly half suffering from head injuries. In other cities, a helmet is required for anyone who rides a scooter.</p> <p>We believe helmets should be worn on scooters. Cyclists also need to protect themselves. A popular complaint among cyclists is having to carry their helmet around when not riding their bike. What if there was a sleek, eco-friendly helmet that you could lock to your scooter or bike? Enter Terra Helmet.</p> <p>[Describe the problem you are solving and the impact it would have on the Austin community. Avoid technical terms and only focus on explaining the opportunity.]</p> <p><b>SOLUTION/PRODUCT</b></p> <p>Commuting by electric shooter or bicycle should be safe. To ensure this, we have designed a collapsible helmet that each rider can wear and that can be shared. This helmet will protect the wearer from injuries and increase the safety of scooter and bicycle travel in Austin.</p> <p>The Terra Helmet will be manufactured using four materials. It will utilize the byproducts of Gold Rush Vinyl, the Travis County Sheriff's Office, and Austin Creative Reuse and IIDA. The excess PVC trimmings from Gold Rush Vinyl will be melted down and used to create a hard outer shell, a latching mechanism, and the buckles of the helmet. The PVC sandals from the Travis County Sheriff's Office will be melted down in order to form the inner cushion. The fabric samples from Austin Creative Reuse and IIDA will be implemented as straps for the buckle and straps to facilitate the unfolding of the helmet. Because the Terra Helmet is a shareable helmet, antimicrobial pellets will be added to enhance the cleanliness of the interior. This helmet is nearly made from all recycled materials.</p> <p>In order to make the helmet compact, it will have 5 main sections. There will be a middle section, and 2 additional sections on each side. The 2 side sections will have the ability to fold out into a wearable helmet, or fold in to be compact. Once compact, the helmet will have a latching mechanism to attach to the electric scooter or bicycle. There will also be a way to lock the latch. By employing a latching system, an individual does not have to worry about carrying around a helmet until its next use.</p> <p>The Terra helmet tackles problems that have not yet been addressed by the market. It is the first shareable helmet that has the ability to make electric scooter travel safe. The helmet folds to be compact, includes sanitary measures, locks to various types of personal transportation including scooters and bikes, and encourages a circular economy. The Terra helmet can increase rider safety in communities with an eco-friendly, portable spin on the traditional bike helmet.</p>
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## **POTENTIAL RETURN/REVENUE MODEL**

Our goal is to manufacture an affordable, safe, and effective helmet. With over 17,000 scooters in Austin, there is a need to create a cost effective helmet that is protective and simple to use. There are over 120,000 shareable scooters in the US and that number is growing more than 25 percent a year as companies such as Lime and Bird enter new cities. There are even more shareable bike companies.

We already have interest in our helmet from Lime. Once we have a finished product we would market it directly to other scooter and bike sharing companies. We believe we can sell 10,000 helmets directly to scooter companies. The price would be \$13 per helmet with our cost at about \$6. We would test the concept in Austin in year one which would produce 57% gross profit margins. We would use that success to scale to other markets and to begin targeting consumers.

## **COMPETITION**

We intend to sell the Terra helmet to electric scooter companies and individuals. Selling helmets to e-scooter companies is uncharted territory. We are not aware of any competitors in this market. After consulting experts in the biochemistry field, we are now working with a local biotechnology company to mix in antimicrobial powder to our helmet mold. This makes the Terra helmet shareable, giving us a competitive edge over others. We contacted numerous e-scooter companies in Austin. Lime and others have displayed interest in our helmet design.

To take advantage of multiple revenue streams, we also plan on making the helmet available to individuals. There are competitors in this market. However, one of the biggest complaints for individuals is having to carry their helmet after they finish riding. We are designing a latching system so that individuals can leave the Terra helmet attached to their bikes and not worry about having it stolen.

## **ENVIRONMENTAL IMPACT**

The Terra Helmet uses 3 of the 5 byproducts available, and is almost entirely made of these materials. In this way, we are able to maximize the amount of byproduct circulated back into the economy.

By creating a helmet, we are able to best utilize the PVC and fabric supplied to us to increase the safety of those riding on electric scooters. Not only does this enhance rider safety, but it also encourages the use of electric scooters in Austin. Because of this, other means of transportation that are more harmful to the environment, like cars, will be used less.

The Terra Helmet is made to last. We intend to maximize the life of the helmet by making it shareable, that way it is not discarded after only one use.

## **ECONOMIC IMPACT**

All of the materials used to create the Terra helmet originate from companies in Austin. The three byproducts from Austin Creative Reuse and IIDA, Gold Rush Vinyl, and the Travis County Sheriff's Office will be used to create the helmet in its entirety. Then, self-

decontaminating powder will be mixed with the molding of the parts that come in contact with the rider's head. This powder comes from an Austin biotechnology company.

By reusing the byproducts of other companies, we are promoting a circular economy. The sale of helmets to e-scooter companies could stimulate the scooter business in Austin. This would bring in more money to the city. This also can reduce injuries to people riding scooters. We are starting the business in Austin, but plan to take it nationwide. We believe that just selling to scooter and bike companies can help us build a million dollar a year business with 35-40 percent profit margins.

#### **THE TEAM**

Collin McCloskey - Expertise in engineering. Responsible for external communications with electric scooter companies, design of the buckles and latches for the construction of the helmet, and logistics of bringing helmets to e-scooter companies.

Aadhikesh Boopalam - Expertise in engineering. Responsible for manufacturing and materials, internal communications with materials suppliers, and design of the helmet.

Seniru Kottegoda -Expertise in engineering. Responsible for design and manufacturing of the helmets, maintenance of the injection molder, and development of future projects on the construction of helmets

Billy Moyer - Expertise in business, communications, leadership, and networking. He is our leader and mentor, as the three founders require knowledge in the business sector of running a company.

Building a team for future helmet designs would be essential to developing cost-effective and protective helmets for consumer use.

#### **EXECUTION PLAN/GO TO MARKET STRATEGY**

We have begun reaching out to e-scooter companies. Lime has shown interest in our design and wants to help foster a safer e-scooter community. We plan on reaching out to similar companies like B-Cycle, Lyft, and Bird. We plan to sell 12,500 plus helmets in the Austin area with e-scooter and bike companies being our target followed by consumers. We see the direct to e-scooter company market almost like our wholesale market where we will sell hundreds or thousands at a time.

Some cities passed legislation requiring e-scooter riders to wear a helmet. Reaching out to these communities could bolster sales while keeping riders safe. In the future, we plan to expand operations to prime e-scooter locations including San Francisco, New York, and Los Angeles.

Terra helmets don't stop at e-scooters and bicycles. They can potentially be expanded into new markets such as construction, military, and sports.