



**Build-Eco**

*Planet care in play*

## Educational Toys



**Flower Art**



**Colosseum for Gladiators**

**GEE Team 158, 2019**

**Bringing you our first product**

**Clean-Ups**

***Building blocks for our future***

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# 1. Executive summary

One of the biggest global challenges is the ability to separate the level of materials consumed from the growth of the economy. Consequently economic growth is linked to increased waste generated across the planet. Waste management warrants the attention of passionate and co-creative design by people from different levels of living standards. With rural residents seeking the better lifestyle of their urban counterpart's, the United Nations estimates that 80% of South Africa's population will be urbanised by 2050. Poverty in apartheid era townships, inner cities and informal settlements is visibly growing an existing divide between poorer communities and households that generate the bulk of waste in South Africa. The measurement of waste management performance is an important first step as highlighted South Africa's state of waste report (first draft) 2018. Forty two million tons of waste is produced annually and only 11% is recycled

This quote summarises the challenge: "... Narrow the gaps. Bridge the divides. Rebuild trust by bringing people together around common goals. Unity is our path. Our future depends on it," Antonio Guterres, Secretary-General of the United Nations.

Build-Eco, a social-entrepreneurial business dedicated to creating educational toys from waste materials. The driving goal is to implement a global opportunity in response to a global problem. With plastic packaging responsible for 40% of plastic waste, it has a serious impact on environmental health and safety across eco-systems. With minimal capital outlay **Clean-Ups** is a product that provides a bridge between lifestyles across communities. A home industry well suited to individuals seeking self-employment opportunities where they can use their hands and don't have to incur expensive equipment and machinery costs. Ideal for youth, women, immigrants and other marginalised members of communities. With cleaning materials, glue, nontoxic paints, plastic household waste and plastic medication like containers; a business is possible. A key risk is the "quality" locus of control and people skills of each person joining the industry hub. The overall business is scalable and whilst theoretical viable, should be tested through a small scale pilot. The target market is more affluent members of society including young parents, grandparents and business care givers of children that actively invest in useful, educational toys. These care givers want to give children access to classic proven toys, which contribute to caring for the planet.

## 2. Business overview

### 2.1 Issue

Build-Eco provides **Clean-Ups**: *educational building blocks* for children age 5 to 7. Solving two significant problems of reducing plastic waste, and interactively educating young children and their care givers on how recycled waste makes a difference during childhood development, protecting life on our planet and creating meaningful employment.

Sixty years ago plastic manufacturing was initiated and now over nine billion tons has been manufactured (Faulkner & Watson, 2018). Plastic beverage bottles, bottle caps, grocery bags, lids and stirrers are amongst the top 10 items clogging oceans as identified in an ocean clean-up in 2017. Overall, plastic packaging accounts for 40% of plastic waste. In the city of Johannesburg South Africa implementation of effective and sustainable waste management action is an ongoing challenge. Landfills are the majority means of waste disposal in South Africa. Balancing costs and logistics is an imminent challenge for two major cities namely; Johannesburg and Cape Town with only eight and

five years landfill capacity left respectively. Recycling is where waste is turned into something reusable, generating value for users and an income as a result of the collection, sorting and rework process. However, only 10% of South Africa's 59 billion tons of waste has been recycled. With just over five percent of household waste being recycled in 2015.

**Clean-Ups** provides a simple and easy way to protect the planet and stimulate creativity and problem solving in future generations. It also provides anyone who has bought or received medication, supplements or other lifestyle products in small plastic containers to donate plastic and get involved in routine "planet cleaning". Whilst also, stimulating economic opportunities for otherwise unemployed citizens with little hope of obtaining work in South Africa or elsewhere in the world.

## 2.2 Objectives

Build-Eco Educational Toys, is focused on energising child play and creativity with recycled materials, bringing people on a journey of ***planet care in play***:

- Create fun and educational value from recycled waste.
- Provide educational toys that inspire new possibilities for children and caregiving team(s).
- Create self-employment opportunities for people who appreciate how working with their hands gives them a gateway to opportunity.
- Provide a product range that is reproducible and scaleable in as many countries as possible.
- Provide a global quality brand that changes lives.

## 3. Product Overview

### 3.1. Product design

#### ***Clean-Ups***

- Made from clean recycled plastic medication, healthcare and alternative medication packaging.
- Labels are removed, each container filled with plastic household trash like grocery bags, plastic packaging, straws and plastic sealant strips off plastic bottles.
- Lids are permanently sealed to proactively maximise safety during play.
- Each **Clean-Ups** is painted with non-toxic water based paints.
- **Clean-Ups** start-up kits are available in 60 and 30 *building blocks for our future*.
  - **Clean-Ups** refills will become available in packs of 10's.
- **Clean-Ups** starter kits are packed in painted recycled shoe boxes, enabling easy storage and carrying of this favourite toy elsewhere.
- Start-up kits will contain **Clean-Ups** of assorted sizes and shapes.

#### **Possible product line extensions**

- **Clean-Ups numbers**, **Clean-Ups letters**, **Clean-Ups magnetise**.
- **Clean-Ups collector**, which are limited addition blocks.

## 3.2. Schematic View Build-Eco Business Model Concept

|   |  |   |
|---|--|---|
| Self-employment made easy                     | <p align="center"><b>Build-Eco Educational Toys<br/>A<br/>Global Social Entrepreneurial<br/>Business</b></p> <p align="center"><i>“Co-Op / Other, suitable structure</i></p> | Build Eco Educational Toys<br>Provides core services      |
| Selection: self-employment driven individuals |  | Recycle plastic supply links: pharmacies, hospital, other |
| Training                                      |  | Product Design  |
| Selling                                       |  | Social networks   |
| Production                                    |  | Marketing tools   |
| Quality assurance                             |  | Training and educational tools, website                   |
| Global brand building service level code      |  | Co-creation design platform                               |

## 3.3. Product creation and distribution

Build-Eco is a home industry business. Each home host is a Build-Eco (**B-E**) brand builder overseeing quality standards, actively promoting and overseeing compliance with the global brand service level code. **B-E Home Hosts** can employ people to fulfil orders or may create a shared production environment. **Clean-Ups** are sold and produced by the **B-E Home Hosts** on an order basis. This direct marketing approach uses three primary channels to start. Local community markets and social networks such as parents, grandparents and the care givers from businesses. In addition, the use of an existing online seller’s platform such as bidorbuy.

The social network includes; **B-E Clean-Ups Mums / Dad**; **B-E Clean-Ups Granny / Grandpa** and **B-E Clean-Ups Ambassador** (care giver businesses). The social network partners host **Clean-Ups** events designed as a fun filled learning experiences, promoting recycling and generating product orders. The **Clean-Ups** concept would be piloted in Johannesburg South Africa. Team 158 founding members will serve as the operational team piloting with five **B-E Home Hosts**.

## 4. Market Analysis

### 4.1. Target market

The toy market in South Africa has two distinct market types, namely urban market estimated at 7 million people, worth US Dollars 342 million per annum and a rural, semi-rural market of 48 million, worth US Dollars 390 million. Urban market sales are via recognised supermarket, online and wholesale brands with rural and semi-rural sales through cooperatives, bazaars and community markets. Handmade products using wood and cloth, ranging from skipping ropes to dolls are sold via

the less formal distribution channels. According to Klosters Retail Panel 2017, construction toys are 15% of the market which is the core offer of Build-Eco Educational Toys (Muller, 2017).

**Fig. 1. The South Africa Toy Market 2017**

| South Africa Organized Retail Market |              |              |               | 2017                       |                  |                           |                              |
|--------------------------------------|--------------|--------------|---------------|----------------------------|------------------|---------------------------|------------------------------|
| Rand 4.5 billion U.S. \$ 342 million |              |              |               |                            |                  |                           |                              |
| Categories                           | Retail Sales |              |               | Channel and Stores<br>Type | Number of Stores | % Share of Brick + Mortar | Retail Sales<br>Rand million |
|                                      | Percent      | Rand million | US \$ million |                            |                  |                           |                              |
| Infant/Preschool                     | 16           | 720          | 55            | <b>Supermarkets</b>        | <b>4350</b>      | <b>19</b>                 | <b>812</b>                   |
| Construction                         | 15           | 675          | 51            | Shoprite/Checkers          | 2200             | 10                        | 428                          |
| Dolls                                | 12           | 540          | 41            | PickNPay                   | 1300             | 5                         | 214                          |
| Games & Puzzles                      | 12           | 540          | 41            | Spar                       | 850              | 4                         | 171                          |
| Vehicles                             | 12           | 540          | 41            | <b>Warehouse</b>           | <b>20</b>        | <b>1</b>                  | <b>43</b>                    |
| Action Figures                       | 8            | 360          | 27            | Makro (Wal-Mart)           | 20               | 1                         | 43                           |
| Outdoor & Sports                     | 8            | 360          | 27            | <b>Speciality</b>          | <b>n/a</b>       | <b>80</b>                 | <b>3420</b>                  |
| Plush                                | 5            | 225          | 17            | ToysRus                    | 58               | 20                        | 855                          |
| Arts & Crafts                        | 2            | 90           | 7             | Toy Zone                   | 9                | 8                         | 342                          |
| Youth Electronics                    | 2            | 90           | 7             | Toy Kingdom                | 6                | 7                         | 299                          |
| Other Toys                           | 8            | 360          | 27            | CNA/Edgars                 | 565              | 6                         | 257                          |
| Total                                | 100          | 4500         | 342           | Hamley's                   | 7                | 3                         | 128                          |
|                                      |              |              |               | Game                       | 20               | 2                         | 86                           |
|                                      |              |              |               | Others                     | n/a              | 34                        | 1454                         |
|                                      |              |              |               | <b>Grand Total</b>         |                  | <b>100</b>                | <b>4275</b>                  |

Source: Klosters Retail Panel 2017

## 4.2. Target Consumer

The two decision makers for educational toys are family and caregiving environments. Family includes parent's ages 25-34 years old and grandparents. The traditional business or care giving market includes: day care centres, aftercare centres and schools. Those environmentally aware caregivers will be treated as early adopters for the product.

Parents tend to focus on the usefulness of the toy as opposed to the price of the toy. Feedback from one parent: "My child uses all kinds of things to build around the house, I want him to have this toy. I would personally tell him how it was made so he understands this and share his knowledge with other kids."

## 4.3. Promotion strategies

Digital marketing: enables brand awareness and interest. Using Facebook; Instagram and Twitter linked to an online shopping website such as bidorbuy in South Africa. In addition, social media campaigns will be used partnering with influencers in the parenting and educational toy market.

Event hosting by parents, grandparents and care givers is a core promotional activities designed to generate desire for the product and buying action. “Marie Kondo” like challenges for parents and grandparents to promote recycling of plastic and clean up events.

Identification of collaboration partners such as playground vendors in shopping malls and restaurants, primary schools, kindergartens, hospitals, doctor’s waiting rooms and clinics will provide a platform for awareness and desire for the product. These are important partners as not everyone is active on social media and through digital marketing.

Product bundling and reward packages for customers buying in bulk, organising parties and /or events at school is central to building the Clean-Ups brand. Globally attractive limited edition *building blocks for our future* for taking action like hosting events, public posting of the product in social media or customers that buy in bulk.

#### 4.4. Current Competitors

Current competitors of recycled educational toys tend to be focused on recycled moulded plastic toys. Traditional construction toys are wooden blocks or well-known brands such as Lego. These business models tends to focus on value capture as opposed to value creation. There are no other known globally focused social entrepreneurs in the educational toy market. However, the business model (including users, home hosts and collaboration partners) focus on providing quality assured toys is important as the simplicity of this business will hopefully galvanise replication however, this could occur without the same values and desired impact.

### 5. Financials

The pricing strategy is premium priced this more than an educational toy it includes recycling education, quality assurance and self-employment generation in response to a serious plastic waste problem faced by the planet. Sales are estimated at 25% production capacity of **B-E Home Hosts** in year one, 50% in year two and 100% in year three. The model is self-sustaining and can employ the right level of people when reaching 40-45 *home hosts*, as indicated in up scaling financials. Twenty *Home Hosts* are introduced in year two and further twenty in year three. Self-employed *Home Hosts* drive personal income earning capacity based on actual orders.

Assumptions made: time invested by founders is at no cost for the first four years. From year two a program facilitator and marketing intern will run the operations. From year four onwards the model becomes fully self-sustainable, generating reinvest value and a central hub to support other country Hubs. Critical to the model viability is the selection of *Home hosts* and the creation of a **social network** that bridges the divide between *Home Hosts* and users.

Fig. 2. Summarised financials

|                        | Year 1           | Year 2            | Year 3             | Year 4             | Year 5             |
|------------------------|------------------|-------------------|--------------------|--------------------|--------------------|
| <b>Units</b>           | Retail Price     | Retail Price      | Retail Price       | Retail Price       | Retail Price       |
| Starter Kit 1 (60)     | \$20,00          | \$21,00           | \$22,05            | \$23,15            | \$24,31            |
| Starter kit 2 (30)     | \$15,00          | \$15,75           | \$16,54            | \$17,36            | \$18,23            |
| Refill (6)             | \$6,30           | \$5,25            | \$5,51             | \$5,79             | \$6,08             |
| <b>Projected sales</b> | <b>Unit</b>      | <b>Units</b>      | <b>Units</b>       | <b>Units</b>       | <b>Units</b>       |
| Starter Kit (60)       | 200              | 1178              | 2355               | 3925               | 4710               |
| Starter kit (30)       | 310              | 2054              | 4740               | 7900               | 9480               |
| Refills (6s)           | 10               | 20                | 50                 | 1580               | 3150               |
| <b>Revenue</b>         | <b>Year 1</b>    | <b>Year 2</b>     | <b>Year 3</b>      | <b>Year 4</b>      | <b>Year 5</b>      |
| Starter Kit (60)       | 4000             | 24728             | 51928              | 90874              | 114501             |
| Starter kit (30)       | 4650             | 32351             | 78388              | 137179             | 172845             |
| Refills (6)            | 63               | 105               | 276                | 9145               | 19144              |
| <b>Total revenue</b>   | <b>USD 8 713</b> | <b>USD 57 183</b> | <b>USD 130 591</b> | <b>USD 237 197</b> | <b>USD 306 490</b> |

| <b>Expenditure</b>       | <b>Year 1</b>    | <b>Year 2</b>     | <b>Year 3</b>     | <b>Year 4</b>      | <b>Year 5</b>      |
|--------------------------|------------------|-------------------|-------------------|--------------------|--------------------|
| Transportation           | 749              | 1722              | 3518              | 6679               | 8112               |
| Labour                   | 2708             | 5711              | 23990             | 62957              | 79363,5            |
| Utility Bills            | 416              | 865               | 3660              | 5775               | 8080               |
| Website                  | 400              | 420               | 400               | 400                | 400                |
| Marketing                | 300              | 400               | 1000              | 800                | 800                |
| <b>Raw Material</b>      |                  |                   |                   |                    |                    |
| Paints                   | 214              | 2648              | 5676              | 9640               | 11718              |
| Glue                     | 378              | 2648              | 5718              | 10428              | 13266              |
| Waste Plastic<br>Package |                  |                   |                   |                    |                    |
| Staff costs              | 0                | 42700             | 53136             | 64509              | 84834              |
| <b>Total</b>             | <b>USD 5 165</b> | <b>USD 57 113</b> | <b>USD 97 098</b> | <b>USD 161 187</b> | <b>USD 206 573</b> |
| <b>Net Income</b>        | <b>USD 3 548</b> | <b>USD 70</b>     | <b>USD 33 494</b> | <b>USD 76 010</b>  | <b>USD 99 916</b>  |

## 6. Future Outlook

**Clean-Ups** is one of many solutions required to address the serious problem of plastic waste as well as the education of multiple generations on the importance of cleaning up the planet. An opportunity lies in commercialising a solution that will enable core value creation for users, producers and partners. Overall team 158's intention has been captured in this plan and support for the concept exists based on initial interest expressed by parents and grandparents during the program. However, exploring collaboration relationships, compliance and a reliable manufacturing process (safety) are key towards piloting the concept.



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