



## **EWB Long Term Fellowship Kwangu Kwako**

**Role:** R&D and Product Design Fellow

**Venture:** Kwangu Kwako Limited

**Website:** [www.kwangukwako.com](http://www.kwangukwako.com)

**Location:** Nairobi, Kenya

**Start Date:** Full-time Training in Toronto (accommodation provided) beginning October 1st 2017, departure for placement October 22<sup>nd</sup> 2017

**Duration:** 3 weeks of training in Toronto, 12 months in Kenya

**Engineers Without Borders Canada (EWB)** is a Canadian NGO that invests in people and ventures to create a thriving and sustainable world. Bolstered by its network of 40 chapters and 1300 members, EWB provides seed funding, talent and mentorship to social enterprises throughout Sub-Saharan Africa. For more information on EWB, visit <http://ewb.ca>.

### **The EWB Fellows Program**

Now in its 15<sup>th</sup> year, the EWB Fellows Program exists to develop a cadre of Systems Change Leaders by equipping them with the opportunities, competencies and skills needed to build a more thriving and sustainable world. Every year we recruit 25-30 outstanding people for the 12-month Fellowship, placing successful candidates in one of our early-stage Ventures located throughout Sub Saharan Africa. This Fellowship opportunity is with Kwangu Kwako Limited and is based in Nairobi, Kenya.

### **About Kwangu Kwako Limited**

Kwangu Kwako Limited enhance and save lives through providing improved housing to families living in informal settlements. Our product is a simple, modular precast structure made by local people from locally available materials.

Our proposal is different because it benefits all the stakeholders, tenants, the community and also to the landlord/investor. It is our belief that other solutions have been slow to gain significant traction because they were not attractive to the major stakeholders who control 86% of the land – the landlords. Kwangu Kwako provide a solution that is attractive to the landlords AND significantly improves housing for the tenants. In addition



to this, the landlords themselves will be investing in the solution thereby securing buy-in and self-financing of the improvement.

We have completed our prototype phase and are now on the cusp of closing our first sale. This is an exciting time to join Kwangu Kwako but will need a very special person. Being a new company, we have lots of exciting ideas but need to find ways manage and prioritise those, you will need to be flexible as new challenges will arise each day, but also able to manage your own, at times conflicting workload priorities. Almost everything we are doing is new. It will be for you to conceive, design, test and cost it. The main challenge is the target price point the customer base can afford. The ability to innovate new solutions of a quality product at extremely low cost base will be key to your success. We want to be innovative in material choices, at this stage nothing is sacrosanct, you can challenge anything. There will be lots of ambiguity, lots of autonomy, and lots of fun. If the thought of that excites you then let's talk.

We are currently operating out of a chicken shed! (yes literally!). However, we are about to move from prototyping to delivery. We need support with improving our product design and testing facility, developing new products, designing a completely new manufacturing facility with efficient work flows etc, researching automated manufacture and comparing with manual methods, etc etc.. You will almost have a blank canvas to set the landscape for our future in terms of research and development and product design (R&D/PD). We also need help with funding this facility so you will need the ability to support the directors and Technical Team Lead on investor pitches and modelling, etc. Basically everything from designing a concrete panel to a whole new manufacturing facility. Initially you will be the R&D/PD team supporting the Technical Team Lead (2nd year EWB fellow). In time, you will help to source, design and mobilise a Kenyan R&D/PD team, capacity build and then leave a highly functioning group that can take the company to the next level of expansion.

This will be a period of huge transformation for us and the successful candidate will be pivotal in fast-tracking us to success. We need to quickly become an increasingly sophisticated, highly intricate organization with many moving parts. We are about to move from prototype production volumes to full scale commercial production in less



than 12 months. In order to ensure our R&D/PD functions consistently reflect and deliver the demands of production and sales, we will need some very careful R&D management and control.

### **About the role**

Kwangu Kwako seeks a dynamic, experienced and imaginative design mind to develop innovative solutions, to set the standards/processes and long term effectiveness of our R&D/PD to ensure sustainability to impact way beyond the period of the fellowship. You will design, test, and project manage, the implementation of solutions to improve our operations and product range. You will need to be flexible and adaptable to an ever changing business. Your work will have a significant impact on the growth of Kwangu Kwako, not just from a day-to-day perspective, but also in terms of environmental, social and economic impact for residents of informal settlements.

As a Research and Development and Product Design Fellow for Kwangu Kwako Limited, your responsibilities will include:

### **Key Result Areas: (Measurable goals)**

- For a successful fellowship - develop and deliver by the end of the year, as a minimum, the following :
  - Design an affordable two story house solution.
  - Worked with the team to deliver a minimum of \$100k R&D funding.
  - Produce a comprehensive automated manufacturing report and recommendation.
  - Delivered viable solutions to reduce the cost per panel by 20%

Sound exciting? Here's who we are looking for.

### **The Fellow will need the following qualities:**

- Excellent analytical skills
- Project management experience – how to manage projects, break down problems, develop methodologies, frameworks and develop implementation plans



- Human centered design skills – understanding and working with our teams, how to get to the why rather than the what and developing design and process innovations from this information
- Resoundingly pragmatic
- Hold a continuous, restless desire to improve yourself, your project teams, and your organization
- The ability to conceive, design, test, evaluate potential solutions and implement recommendations
- A collaborative mentality
- Deep-rooted empathy and humility
- Powerful communications skills - particularly in presenting ideas

For this specific role, we seek talent preferably with a background in project management, civil or industrial engineering, and manufacturing. More qualitatively, we are looking for people who have the desire to take on a whole new challenge in a whole new context, a tenacity and drive to keep going in the face of frustrations and set-backs inevitable in working in a developing country and in a new company. We believe that we are on the cusp of transformative change and we seek people who believe their skills will deliver that transformation.

### **Educational & Experience**

- Degree in Engineering or similar/applicable field required
- 3+ years of work experience in a similar area required, P. Eng Certification would be an asset but is not necessary.
- Experience managing projects with multiple stakeholders.
- Experience working independently in an unstructured environment.
- Experience in the Africa environment and/or as an independent traveler will be an advantage.

*Please note: You must be a Canadian citizen or permanent resident in order to apply. No exceptions.*



### **Compensation**

All costs relating to the placement are either paid for directly by EWB (airfare, insurance, vaccinations, trainings) or indirectly through a living stipend, which covers food, living expenses, local travel, etc. Fellows also receive an honorarium that can be used to assist with repatriation costs after completion of the contract. The stipend covers basic living expenses for a modest lifestyle in your placement country. You should not expect to save money during this year or use the stipend to cover previous expenses (ex. student loans).

Additionally, EWB offers a range of benefits including insurance, a settlement allowance, professional development opportunities, and more.

### **Application Instructions**

Submitting your application for the EWB Fellowship involves two steps:

Step 1: Under the subject line “[R&D and Product Design Fellow/Kwangu Kwako Limited]”, submit your CV/Resume to [ltfrecruitment@ewb.ca](mailto:ltfrecruitment@ewb.ca)

Step 2: Complete the [following online application form](#).

We **highly encourage** applicants to apply for more than one role as this is a highly competitive program. If you would like to submit your candidacy to more than one role, please fill out separate forms.

Applications will be reviewed, and interviews scheduled on a rolling basis, so please submit your application as soon as possible. If the posting is still on our website, consider the role available.

For further detail about EWB, please read our Fellowship FAQ, [our website](#).