



JOB DESCRIPTION: R&D DIRECTOR

Company: EarthEnable

Reports to: CEO

Location: Nyamata, Rwanda – with significant time in rural villages

Who We Are

At EarthEnable, we believe that our clients deserve our very best, that morning high-fives are the best way to start the day, and that the best ideas could come from any part of the company. We celebrate each other's wins, learn from our setbacks, and are deeply proud of the impact we make every day. We believe that a clean, dust-free floor means more than living in a healthy home. It means pride and dignity in the place our customers most treasure: their homes. Being a part of our team means more than building floors: it means building an organization and building a better future for rural families

What We Do

EarthEnable is transforming the way people live, by making homes healthier for families across rural Rwanda and Uganda. 80% of Rwandans and Ugandans live in homes with dirt floors which are dusty, unsanitary, and fertile breeding grounds for parasites and germs. While replacing a dirt floor with concrete has significant health benefits (e.g. reducing diarrhea by 50% and parasitic infections by 80%), concrete is unaffordable for many who need it.

EarthEnable addresses this pressing and ubiquitous problem by selling high-quality, earthen floors that are 80% cheaper than concrete with 90% less embedded energy. Earthen floors are prevalent in modern homes in the United States and are composed of natural materials (gravel, clay, sand, and laterite). EarthEnable trains and hires local masons to install the floors which are sealed using a proprietary drying oil that makes them waterproof, strong, and polished.

About the Role

The R&D Director will be the in-house expert and leader on research efforts to improve our existing flooring product as well as innovate and develop new healthy housing products that continue to improve the health and livelihoods of rural communities. He or she will work closely with the Global Director of Sales & Marketing to identify key customer pain points and develop and drive a clear research agenda to maintain EarthEnable's leading edge in the rural flooring industry. The R&D Director will then integrate key learnings and product innovations



into the company's operating model to drive continued growth and success in the long-term.

The responsibilities of this role will include, but certainly not be limited to:

Identify Key R&D Needs

- Meet with clients and analyze other sources of feedback and data to identify product failures and product components or attributes that need improvement
- Work with the Global Director of Sales & Marketing to understand what drives perceived value in clients, in order to prioritize various initiatives in the R&D pipeline

Develop Research Agenda

- Recruit a scientific advisory board to advise and support research agenda development
- Develop research agenda by weighing priorities and considering criteria such as: potential for impact, cost-benefit, and likelihood of success
- Allocate resources from the R&D budget towards this pipeline of research projects
- Create a decision trees to present to management that indicate next steps based on broad research outcomes of every project

Execute Against R&D Agenda

- Hire team of engineers and/or scientists necessary to execute on the research agenda
- Lead and oversee team to ensure quality research methods and outputs
- Create research protocols, and ensure rigorous execution and analysis
- Track and push forward multiple research projects simultaneously
- Develop partnerships with external stakeholders (e.g., partnerships with universities and corporate bio-resin and flooring labs for research we cannot do-in-house) to outsource aspects of our R&D
- Closely manage external partnerships to ensure steady progress, lead innovations to get field tested, and provide feedback on their success or failure

Communicate Across Internal Company

- Communicate findings and tradeoffs effectively to CEO and management team to make decisions about where to invest next (e.g. at specific forks in the road)
- Communicate research agenda to full company and get feedback when appropriate



- Communicate research findings to full company along with accompanying changes to the operation

Transition Learnings to Implementation or Additional Research

- Transition unsuccessful experiments to a new research arm or document reasons for failure
- Transition successful experiments to implementation, partnering closely with Quality Assurance and Operations departments to ensure smooth implementation
- Publish findings that may be helpful or relevant to the scientific community

Qualifications

- 5+ years work experience, preferably having led an R&D department or an R&D team
- Master's degree in chemistry, chemical engineering, materials science, or another applied science (PhD preferred)
- Ability to be creative, strategic, analytical, and think outside the box to solve problems
- Excellent attention to detail, commitment to excellence, and outstanding work ethic
- Flexible and adaptable to changing environments; thrives in a bootstrapped culture
- Optimistic attitude, entrepreneurial spirit, curiosity to learn new things
- Ability to work on a variety of tasks at the same time, and keep track of a variety of workstreams
- Humble and patient team-player with a sense of humor

Apply online at <http://www.earthenable.org/applynow>. In your cover letter, please state what excites you most about this role, and what you think will be most challenging about it.