Adaptavate's Breathaboard: Breathing a breath of fresh air into the building materials of the future.

London, United Kingdom Stroud, United Kingdom

Thomas Robinson

https://www.youtube.com/watch?v=10a392OekY4
https://www.youtube.com/watch?v=5M9dddUWVNM

Year Founded:
2014
Organization type:
for profit
Project Stage:
Start-Up
Budget:
$10,000 - $50,000
Website:
http://www.adaptavate.com
Twitter:
https://twitter.com/adaptavate
Facebook:
https://www.facebook.com/adaptavate/

- Eco Products
- Recycling
- Climate change
- Green business

Project Summary

Elevator Pitch

Concise Summary: Help us pitch this solution! Provide an explanation within 3-4 short sentences.

Adaptavate beleive that there is a better way of making building materials. That is why we are focussing our energy on completely re-thinking and re-designing how the new generation of building materials are made. We are developing bio based building materials that are better for people and planet.

WHAT IF - Inspiration: Write one sentence that describes a way that your project dares to ask, "WHAT IF?"

What if we could grow the materials of the future, they were better performing and compostable at the end of their life?

About Project

Problem: What problem is this project trying to address?

Breathaboard provides a solution to damp, mouldy homes that contribute to poor health conditions such as asthma and respiratory conditions. This damp and mould is created by a build up of condensation in the internal environment. Secondly, there is a increasing pressure of plasterboard going to landfill where it is a controlled waste as it emits a hazardous gas. This means that it cost the same to dispose of plasterboard as it does to buy.

Solution: What is the proposed solution? Please be specific!

Breathaboard breathes with the people in the building, reducing the risk of condensation and mould and creating healthier people in healthier buildings. It does this by absorbing moisture at peaks of humidity (bathing and washing) and releasing it when we are sleeping or out at work. This also reduces the amount of energy need to consume to provide a healthy internal environment, which is essential if we consider we spend

90% of our time indoors. Furthermore, Breathaboard is totally compostable - so there is no waste! This is a nutrient at the end of its life, not a pollutant. Whats more, because it is a biocomposite, it means we can grow the materials of the future.

Awards

Climate Launchpad UK Winners and European finalists 2014. Climate KiC Accelerator 2015, Green Alley award 2015, Shell LiveWIRE award June 2015, Nominee for Postcode Lottery Green Challenge, NACUE Varsity Pitch finalists 2015, Centrica Ignite Accelerator

Impact: How does it Work

Example: Walk us through a specific example(s) of how this solution makes a difference; include its primary activities.

Breathaboard is a material of the resource efficient, sustainable future. Because Breathaboard breathes with the people in the building, it helps to create healthier people in healthier buildings. This could have an impact on reducing the £1Bn per year that asthma costs the NHS. Further more, with 15 million tonnes of plasterboard going to landfil each year, we can diver the controlled waste filling our landfill. 75% of Breathaboard can be grown year on year as it is a bi-product of a crop. The crop we use absorbs 1.83 tonnes of CO_2 per tonne of material. This means there is potential to pull CO_2 out of the atmosphere and sequester carbon into the fabric of the building. Breathaboard saves 5.6 $KgCO_2/m2$ in comparison to plasterboard

Impact: What is the impact of the work to date? Also describe the projected future impact for the coming years.

We have had the opportunity to communicate to over 1000 homeowners, architects and specifiers at the Grand Designs Live show. We were selected by Kevin McCloud to be one of his 'Green Heroes' at the show. This enabled us to raise awareness about the issue of moisture in the home and how this can adversely effect health. We also focussed on providing easy to implement solutions for people to reduce the risk of condensation. Form this show we were able to secure 20 firm signatures of purchase of Breathaboard (approx 10,000m2) and 100 expressions of interest in the product. The future impact could be a complete shift in the way we make materials. We believe that we can make materials that are better t=for the health of people and planet, and be better performing.

Spread Strategies: Moving forward, what are the main strategies for scaling impact?

We aim to focus on the 'traditional houses' and solid wall properties in the UK. This is where the problem of moisture in buildings is a significant pain. We intend to increase awareness amongst specifiers and practitioners in the industry. We will specifically focus on specifiers (architects) and influencers (surveyors and consultants). We are intending on getting mainstream certification by year 2 to enable us to enter the mainstream market and build trust between our company, the product and the users and installers We will focus on policy specifically within the BRE and construction

Sustainability

Financial Sustainability Plan: What is this solution’s plan to ensure financial sustainability?

We are currently applying for an Innovate UK R&D project and will use grant money from competition winnings and from the Climate KiC accelerator. This R&D project will provide 2 proof points for our potential investor that we have been in conversations with to build the first production facility in 2016. The potential winnings from this competition will contribute towards our R&D project.

Marketplace: Who else is addressing the problem outlined here? How does the proposed project differ from these approaches?

Breathaboard will be the first biocomposite alternative to plasterboard on the market that can breathe with the people in the building. This innovation is made possible by the moisture buffering ability. The biocomposite used in Breathaboard absorbs the moisture created in buildings from cooking and cleaning etc (14 litres produced each day) and then desorbs it when the moisture reduces (when we go to sleep or out to work). The other market players are expensive products with barriers to installation. breathaboard is installed in exactly the same way as plasterboard to reduce this barrier.

Team

Founding Story

Tom was working as a builder when he learnt that the plasterboard is actually a controlled waste that emits a toxic gas when it gets to landfill. Whats more, the equivalent of 5000 London Buses goes to landfill each day! There surely has to be an alternative that is more resource efficient!? On top of this, with Tom specialising in traditional buildings, he saw a lot of problems with damp and mould and became aware that this has a serious effect on the health of our families in homes. He started an MSc in Sustainable Architecture whilst running his building business and during this became interested in biocomposite materials. Breathaboard was the result of his MSc thesis.

Team

Tom Robinson - Founder and Inventor of Breathaboard. Visioneer and MD of Adaptavate. Practical industry background having worked as a builder. Studied MSc in Sustainable Architecture where he developed and tested Breathaboard. Alberto Fernandez - Operations. Building engineer,also studied MSc in Sustainable Architecture where he met Tom. His excellent attention to detail ensure task get completed at Adaptavate to the highest level. Aled Stephens. Part time sub contractor. BSc in Physics and MSc in Sustainable Architecture. Aled has spent many years in the natural building merchant world and brings an industry network with him and has helped secure distributor commitments. We will provide Aled a fulltime role upon being successful in this award. Nick Pennell -Senior Advisor to Adaptavate. Over 20 years' experience of business and growth strategy development across many sectors and geographies. Previously, Partner atBooz & Company, where he ran ran the global low carbon and sustainability team

File attachments:

supporting_info.docx

Background

Please confirm how you heard about the Unilever Awards:

Newsletter from Climate KiC

Please confirm your role in the initiative (eg Founder/co-Founder) and your organisational title:

Founder and inventor

Which of the 8 UN Global Goals (Sustainable Development Goals) pre-selected for this competition does your solution relate most closely to? [select all that apply]

Responsible Consumption and Production, Climate Action.

Leadership and the Unilever Awards

Please provide examples of any previous entrepreneurial initiatives you have pioneered.

I have had small companies before (photography and building) learning the lessons of self management that any sole trader has to understand. Since January 2014 I have been pioneering the use of bio materials in the construction industry and during early 2014 explored funding and support opportunities to support th e development of Breathaboard. Since winning a place on the Climate KiC Accelerator in October 2014 I have been very fortunate to have received a lot of training from the Climate KiC ecosystem. The awards that we have be recognised with have provided extra mentoring and training opportunities for our company and personal growth.

Beyond your existing team, who else are you working with to achieve your objectives, eg partners, advisors, mentors?

We have a Senior Advisor in Nick Pennell (see team answer) and he provides the company (and Tom) with 2 days a month of support in navigating our way through the challenges of starting a company and ensuring the commercial and financial sustainability of the venture. He also provides personal support to me in my position as founder/MD. We also have a mentor working with us on the validation of the business case and the long-term strategy as well as regular training sessions in all areas of business from Climate KiC. this has been a critical part of our success so far.

In addition, we have occasional support from our pre-investment Accelerator from Centrica Ignite to ensure that we are investment ready by mid 2016.
