



**join the sustainability revolution**

**BUSINESS BRIEF**

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## MISSION

**Empower people to build a sustainable future** - Greenocracy enables individuals to measure the environmental impact of their daily lives on a common platform. It also provides users the opportunity to be more involved in finding easily accessible, yet effective means of change.

## PROBLEM

**A disparity between peoples intentions and actions towards ecological sustainability** - As much as 77% of people cite the environment and global warming as a concern<sup>1</sup> - but individuals are constrained in their ability to participate in solutions. The problem of ecological sustainability is so large, that they feel incapable of being effective on an individual level. For those who do change their behaviors or invest in sustainability, no reward exists. The only measurement that exists today is the carbon footprint- and yet fewer than 5% of people know what their carbon footprint is. Without comparison, there is no social carrot for the do-gooders and inaction is accepted as the norm.

Why don't people know their carbon footprint? One might as easily ask why people don't know the total energy metabolism of their daily existence- it's a complicated calculation. Calculating a carbon footprint requires data from multiple areas of a person's life, it's not enough to track electricity usage (as existing utilities dashboards do) because transportation, consumer goods and food are just as energy intensive.

## SOLUTION





**A common platform for measuring sustainability** - Greenocracy enables users to easily track their Personal Environmental Score (PES) - a set of metrics that includes the carbon footprint, renewable energy percentage and more (**see Figure 1**). Greenocracy's technological backend is a powerful data analytics and aggregation platform that records a user's PES by pulling data from mobile phones, student accounts, utilities accounts and spending reports, all of which are voluntarily provided either directly to us or to our partners. On the site, users have the opportunity to

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<sup>1</sup> Virginia Commonwealth University Life Sciences Survey. May 12-18, 2010.  
<http://www.pollingreport.com/enviro.htm>

increase their PES by purchasing renewably generated electricity, carbon offsets and other sustainable products.

**Figure 1: Personal Environmental Score (PES)**

|                                    |   |                        |
|------------------------------------|---|------------------------|
| <b>Carbon Footprint</b>            |  | <i>tracked Phase 1</i> |
| <b>Renewable Energy Percentage</b> |  | <i>tracked Phase 1</i> |
| <b>Water Usage</b>                 |  | TBD                    |
| <b>Recycled Percentage</b>         |  | TBD                    |

Notes- The PES is a set of metrics that allows users to quantify their sustainability. This set of metrics can be expanded but at Phase 1 launch will include the Carbon Footprint and Renewable Energy Percentage

Greenocracy expands the ways users can get involved by integrating a political platform- encouraging voting, discussion and feedback on large-scale environmental initiatives. Unlike current petition sites, Greenocracy allows users to decide the issues for themselves based on submission from both sides of the argument. It demands a focus on facts and utilizes the PES to frame discussion. Current legislation, proposed legislation, political debates - as users engage with these different environments their engagement is tracked with “**Political Points.**” These points are easily earned by reading an article, taking a verified survey, or voting. By measuring political engagement, people can compete and be proud of it.

These two scores, the PES and “Political Points,” work in conjunction through game mechanics. “Political Points” are easy to obtain and serve as a highscore mark or **experience points**. The PES, harder to improve, is analogous to “leveling up.” Used together, these common social metrics will launch a culture of participation. People will be further encouraged to do things they already want to do - vote and live in conjunction with their environmental values.

Greenocracy will integrate as a Facebook application and allow users to post their actions to that site.

## PRODUCT STRATEGY

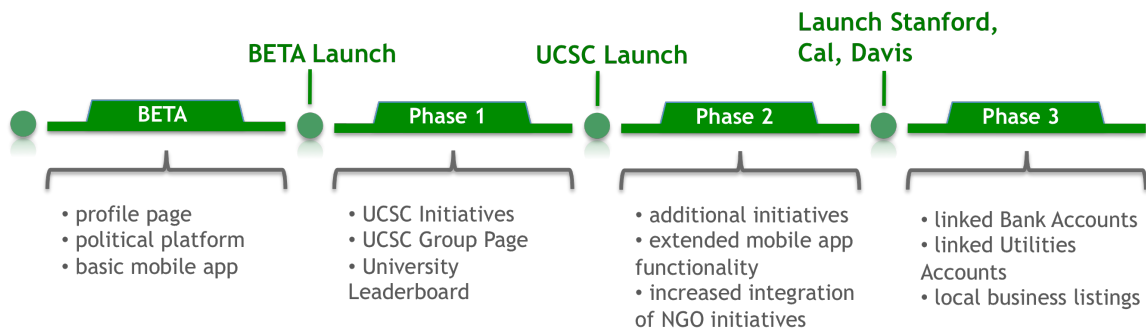
**Phased Development** - Greenocracy will launch in Santa Cruz, CA. Its political platform will be released in the **BETA Phase** for citizens to begin discussing local environmental propositions in advance of the November 2011 ballot. The Personal Environmental Score will be introduced for students and community members at UCSC during **Phase 1**.

UCSC has made sustainability a key part of its identity and outreach strategy. Greenocracy’s domain expert, Robert Singleton already works closely with the University’s sustainability manager, Aurora Winslade. As a result UCSC is anticipated to be a ready partner which can provide Greenocracy dorm specific utility information to help calculate a user’s score. Zipcode based generalizations and user surveys will help fill in additional information about transportation, eating and shopping habits to round out a Greenocracy user’s starting score.

In **Phase 2** of its development cycle, Greenocracy will improve its platform and extend it to other universities, including nearby Stanford, Berkeley and UC Davis.

Greenocracy will undertake greater score automation in **Phase 3** of its product development. By allowing users to link bank and utilities accounts, Greenocracy will be able to calculate a user’s a carbon emissions and other PES factors from Transportation, to Consumer Goods and Food.

**Figure 2: Development Stages**



## COMPETITION AND PARTNERSHIPS

A landscape of opportunity - Greenocracy believes that pre-existing energy management dashboards and green social networks have failed because they do not offer easy opportunities for engagement. Turning off your lights and saving electricity are one-dimensional activities that are hard for users to personalize.

But these organizations pre-established specialties are also opportunities for Greenocracy to partner and collaborate. For example, current endeavors in automating energy measurement by Google Powermeter, PGE and others could be incorporated to maximize Greenocracy's effectiveness and time to market.

**Figure 3: Competition and Potential Partners**

| Company           | Type                 | MAUs      |
|-------------------|----------------------|-----------|
| Google Powermeter | Energy Dashboard     | 10,000    |
| Recycle Bank      | Recycling Dashboard  | 471,000   |
| Carbon Rally      | Green Social Network | 7,000     |
| Zerofootprint     | Green Social Network | 6,000     |
| EarthAid          | Energy Dashboard     | 4,000     |
| WattzOn           | Energy Dashboard     | 800       |
| MakeMeSustainable | Green Social Network | 900       |
| Change.org        | Petition Site        | 900,000   |
| Facebook Causes   | Petition Site        | 3,111,000 |
| Petition Spot     | Petition Site        | 96,000    |

Notes: MAUs - Monthly Average Users

## LIABILITIES AND RISK

Greenocracy must tackle the challenges of political legitimacy and ambitious data aggregation. In both cases a non-profit corporate structure is likely aid its goals.

A non-profit must be set up to manage the political functionality and mitigate its growth. This is the only way that legitimacy and un-bias can be maintained in the long run (see also partnership discussion above).

A non-profit corporate structure would also increase the willingness of Utilities, Businesses and other Organizations to collaborate in creating the Personal Environmental Score.

## BUSINESS MODEL

**Buy Now, Data** - Greenocracy will rely on donations and a percentage taken from on-site transactions to support early operations. It may develop this on-site transaction model and sales of its data into fully fledged business units.

- **Buy Now** - Like iTunes, which allows users to manage their music library in the same application that they purchase new songs- Greenocracy will allow users to upgrade their Personal Environmental Score in the same place where it is managed. Greenocracy will take a transaction fee as users purchase renewably generated electricity, carbon offsets and other sustainable products on the site. In cases where a user leaves the site to purchase directly from a vendor (for example a subscription to ZipCar) Greenocracy will still be able to collect a CPA advertising revenue.
- **Data** - In the course of operations, Greenocracy will acquire a valuable cross section of data- personal (age, sex, location, education), political (voting preferences and participation), and sustainable (actions taken, energy use, potential areas for savings). This data will be valuable to political groups, non-profits, and corporations in the green space.

## FINANCIALS

Greenocracy's **BETA** and **Phase 1** development are anticipated to take 6 months and cost \$200,000.

**Figure 4: Use of Investment Funds**

| Expenditures    | Desc.                     |
|-----------------|---------------------------|
| Headcount       | 27                        |
| Senior Mgmt     | 4                         |
| Developers      | 8                         |
| Student Interns | 15                        |
| Office          | 5000 sq ft                |
| Site Hosting    |                           |
| Marketing       | Bus Ads, T-Shirts, Prizes |

## THE TEAM

### **Manu Koenig - Founder, CEO & User Interface Design**

Manu has 2 years of start-up experience, hiring, scaling operations, and managing technology partnerships with Martini Media Network. He gained thorough knowledge of CPM, CPA, video pre-roll, custom opportunities, and data targeted advertising. Manu has worked internationally, leading a website redevelopment project for Deutsche Bahn AG, Berlin. He has additional leadership experience as VP of Marketing for the Stanford Social Entrepreneurship competition and President of the Stanford Polo Club.

- Martini Media Network - General Manager of Partnerships
- Deutsche Bahn AG - Corporate Campaign Manager
- Stanford University, Management Science & Engineering, German Literature '07

### **Robert Singleton - Founder, Sustainability Domain Expert**

Robert is a leader in the Sustainability Program at UCSC. As Chair of the Student Advisory Council and Co-Chair of SSITE (students for sustainability through institutional transformation and education) he has lead student teams in marketing, fundraising, education and outreach programs on Campus. He works closely with Aurora Winslade, UCSC's Sustainability Manager. Before coming to UCSC, Robert perfected his pitch skills as a campaign assistant for Santa Rosa politicians.

- Chair - Student Advisory Council
- Co-Chair - SSITE
- Facilitator - IDEASS (Impact Designs: Engineering and Sustainability through Student Service)
- UCSC, Economics, Political Science, Environmental Studies '12

### **Edolfo Garza-Licudine - Founder, CTO**

Edolfo has 10 years experience programming and 2 years experience managing databases for biophysics research. He is an entrepreneur by nature and participated in the UCSC Business Design Competition 2010. Edolfo started studying computer science at the University of California, Irvine before transferring to the University of California, Santa Cruz and switching to Applied Physics and Computational Mathematics.

- Linux and Windows server management, user computer maintenance, server maintenance, and building a parser/scrapper/interface with Moodle
- Nanopore Analyst. Matlab programming

- C, Java, LATEX, Linux, Mathematica, Matlab, Perl, PHP, Python, SQL
- UCSC Applied Physics, Computational Mathematics '10

**Additional Team Members**

Tan Ha - Project Manager and Domain Expert, UCSC Environmental Science '13

Jeff Ferguson - Developer, UCSC Bioinformatics '10

David Soto - Market Research, UCSC Business Mgmt Economics '11

Shane Keefauvner - Social Media, UCSC Earth Studies '11

Edward Kuang - Research Intern, UCSC Economics '13