

DEAL REVIEW: SKY VEGETABLES

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INSPIRED BY THE SOCIAL CAPITAL INDEX LOCATED HERE ON XIGI.NET, TWO ANALYSTS ARE POSTING THEIR TAKE ON THE ENTERPRISES LISTED IN DEALS IN PLAY MONTHLY. THESE DEAL REVIEWS HIGHLIGHT SOME OF THE MARKET OPPORTUNITIES AND CHALLENGES, AND ARE BASED ON REVIEWS OF PUBLICLY AVAILABLE INFORMATION. THE FOLLOWING IS AN ANALYSIS OF SKY VEGETABLES:

SKY VEGETABLES

The Sky is the Limit for these Urban Farming Enthusiasts

OVERVIEW

Sky Vegetables farms produce vegetables, fruits, herbs, and flowers on the rooftops of supermarkets for retail sale immediately below. Sounds simple enough - but I must admit that as I began to review the details - and learn more about Green Rooftops - I could not help but be drawn in by the touted benefits - economic, environmental, food quality, and energy... There are strong arguments for sustainable, urban farming designs from a cost perspective, an energy perspective - and even an availability perspective (see Paul Roberts and "The End of Food"). Although I haven't seen the details on the numbers (costs, revenue predictions, etc..) for Sky Vegetables — this idea sounds like 'win-win-win-win-win'.... Read on and see if you're as intrigued as I am....

THE OFFERING

Sky Vegetables is a for-profit venture launched in the spring of 2008 that is seeking seed/early stage funding to launch. The founders of Sky Vegetables won the \$10,000 top prize on the University of Wisconsin business plan competition in spring of 2008 with their idea of growing produce through a sustainable and innovative farming model that integrates existing technologies and operates year-round on supermarket rooftops. I recommend a visit to their website to drive through its 'technology section' - an interactive map highlighting the details and benefits of each part of its sustainable operational model. Sky Vegetables will operate on the rooftops of supermarkets - who will benefit through increased access to fresh produce at lower costs, the chance to reduce utility bills and greenhouse emissions and increase its visibility in the community. Consumers have improved access to safer, fresher, and more nutritious fruits and vegetables. The model provides truly triple bottom line impacts - economic, environmental, and social.

- The food is **fresher, better tasting, safely grown** (less chemicals), and more sustainable than the other options at the supermarket; produce will be picked as it ripens, and taken to the sales shelf in less than half an hour (they have research showing this is very attractive to supermarkets)
- Everything is **locally produced** which is better environmentally (saving 'food miles' - the travel from production to stores - which is currently an average of 1500 miles of travel for food) - and economically (about 80% of the cost of fresh produce in the U.S lies in the travel from farm to supermarket shelf) — particularly in these times of rising energy and transportation costs
- The model incorporates **alternative energy sources** - such as Wind Power and solar panels (for store energy) - as well as composting for plant materials and unused produce, and rainwater storage tanks and reduces the rainwater runoff effect (decreased stress on sewer systems).
- Sky Vegetables will create an **Education Section** within the produce department of all stores in which they operate to 'gain consumer trust, educate consumers on the model, and build a strong brand. This could include a live feed from the rooftop farm; facts and samples which illustrate the superiority of Sky Vegetables' environmental impact, safety, nutritional value, taste and freshness; as well as samples and hand deliveries

Their current management team is looking for a CEO to bring them from founding start up stage to become 'VC-ready'

SOCIAL IMPACTS

As noted - Sky Vegetables has the potential to produce several environmental and social benefits - impacts that are intrinsic to the model - including: improved food quality and access, emission reductions and improved energy efficiency, reduced rainwater run off. One other compelling aspect of the model not yet mentioned is that it focuses on increasing urban farming - providing a potential urban solution to food challenges (given that 50% of the world's population currently lives in urban regions - with predicted increase to 80% by 2050 - this is important.). One could truly investigate each of these impacts above to gain further understanding - and provide improved metrics - on the potential social impacts produced. Given the time and scope of this review - I've quickly listed the main ones that are compelling

MARKETS AND CHALLENGES

While in no way comprehensive, some interesting notes on the market and challenges to adopting the model in the USA:

MARKET

- **Europe:** Some countries have been practicing and honing the green roof model for several years - aided in these efforts tremendously by favorable government legislative and financial support, at both the state and municipal level. This support has led to the creation of a vibrant, multi-million dollar market for green roof products and services in Germany, France, Austria and Switzerland among others. In Germany, the industry made 700 million DM in sales in 1997 (up from 500 million DM in sales in 1994). The industry continues to experience growth with 13.5 million square meters of green roofs constructed in 2001, up from 9 million square meters built in 1994.[1]

- **North America:** While Green Roofs have been installed in places such as Chicago City Hall, in general the benefits of green roof technologies are poorly understood and the market remains immature, despite the efforts of several industry leaders. This is a critical gap! For example, if one was to look to Germany to learn from their success with green roofing - it is important to keep in mind that USA roof conditions are substantially different than those in Germany - so while some of the principles can be applied, Americans would need information about our specific conditions.

CHALLENGES

Overall - while information about green roofs is increasingly available, installation specifics are mostly proprietary and performance data are largely anecdotal - and much of the popular semi-technical literature is only written in German, which effectively slows its adoption by Americans.[2]

Sources and Further Research Penn State Center for Green Roof Research

<http://horticulture.psu.edu/cms/greenroofcenter/> Green Roofs for Healthy Cities <http://www.greenroofs.org/>

**** There are other additional and important benefits of green roof models - including decreased urban island heat effect and transportation pollution - which you can find by reading some of the resources below - and on Sky Vegetables own web log - www.skyrooftop.com - which provides resources and conversations on rooftop vegetable farming to all interested.**

[1] Green Roofs for Healthy Cities: <http://www.greenroofs.org/>

[2] Penn State: <http://horticulture.psu.edu/cms/greenroofcenter/>