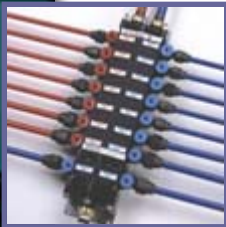


Green is Gold: Financing the Development of Green Building Products



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General Options

- **Public Funding (PF)**
 - not far enough along in the process to attract private funding
- **Angel Investors (AI)**
 - need private funding amounting to no more than one-million dollars (typically)
- **Venture Capital (VC)**
 - need private funding amounting to more than one-million dollars (typically)

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Background

Interviewed VCs for input to assist innovators of green building products with understanding funding options

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Research Context

VCs interviewed fund energy-related, substitution building products that are "green" or "clean"

- **enable efficient use of scarce resources**
- **reduce quantity of embodied energy**

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Examples of Companies funded by VCs Interviewed

Hycrete, Inc.

- **concrete waterproofing that can eliminate the need for external membranes, coatings and sheeting treatments**

Serious Materials

- **drywall that is fully recyclable, using 80% less energy in the manufacturing of its core – resulting in 80% less CO2**

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Innovative Green Building Products & Processes (See ToolBase Website)

- **Adobe, Cob, Soil-Cement & Rammed Earth**
- **Insulated Vinyl Siding**
- **Low- or No-VOC Paints, Finishes and Adhesives**
- **Permeable Pavement**
- **Recycled Content Carpet**
- **Recycled Wood Flooring**
- **Recycled Wood/Plastic Composite Lumber**
- **Residential Green Roof Systems**
- **Wood Flooring From Rapidly-Renewable Species**
- **Wood Preservatives - Low Toxicity**

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VCs' Goals and Advice

Goal:

- **build sizable, valuable, healthy companies**

Advice:

- **partner with someone who knows how to:**
 - **navigate a company through milestones**
 - **raise money**
 - **develop prototype/products**
 - **attain initial sales**

VC Funding Levels

Approximate levels for typical VC investments:

- seed: \$500,000 - \$1 million
- early-stage: \$3 - \$8 million
- mid-range: into the \$20's (million)
- late-stage: “quite large”

Ex. Google funding:

- \$100k from Angel (AI)
- \$25M (12.5M from 2 separate VCs)
 - had to agree to accept external CEO

...Market Needs To Be Worth Billions Of Dollars!

VCs' Perspective

In a typical year:

- **review 1,000+ projects and fund about 10%**
- **requirements for serious consideration:**
 - **referrals**
 - **evidence of:**
 - **understanding your customers' needs**
 - **strategic partnering or other investors**

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Proposing to VCs

Must specify in great detail:

- management team composition
- description of your technology
 - why is it better than the imitators
- “who” and “where” are your:
 - 1) customers and 2) competition
 - professional-level market research
- financing plan

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What Impresses VCs Most?

(not in ranked order)

- **“New technology in a huge market”**
- **“Something that you can kind of put a wall around and defend yourself against competitors”**
- **“If you’ve got people already using the technology -- on any scale”**
- **“Already up and running but need capital infusion to scale up”**

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Role of the VC

Very active in:

- **appointing to the board:**
 - **a venture investor**
 - **an outside director**
 - **a representative of the:**
 - **angel investors**
 - **founding company/technology**
- **recruiting:**
 - **an executive management team**
 - **an executive sales team**
 - **an industry expert**
- **brokering high-level, industry relationships**

VC Ownership Split

At outset, say VC infuses half of agreed valuation:

- **this will acquire VC about half ownership**
 - **15- 20% of this half: executives' packages**
- **angel, managers, and founders retain other half**
 - **this half: equal split (33% each)**

At point of exit, (generally 3-7 years), VCs' goals:

- **increase their ownership to 60-80%**
- **share remaining 20-40% with company/associates**

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VCs' Philosophy

- **retaining only 20-40% understandably is difficult for companies to accept**
- **the ultimate goal is to increase the size of the “pie” for all parties involved**
- **their connections and funding provide the most realistic chance for a technology to actually reach the marketplace**

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Example VC Calculation

“Back-of-the-Envelope”

Assume the following projections for a new company:

- at exit (end of year 5), sales=\$250M, earnings=\$50M
- company competes within an attractive industry:
 - IPO or strategic buyer will pay \$1B at exit
- VC initially invests \$5M for the first 18 months
- VC invests \$30M more at the end of 18 months to establish distribution network
 - estimate other required outlays for next 42 months
 - calculate Future Value (FV) of those funds at exit
- Will 60-80% of \$1B (\$600M-\$800M) cover investment as well as a substantial profit at the point of exit?