East Bay Green Corridor Partnership:  
**Leveraging UCB & LBL Green Start-ups**

Community Innovation Symposium  
College of Environmental Design  
University of California, Berkeley

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Agenda: ~12 Minute Presentation

1. **EBGC Front End: Green Innovations & Start-ups**
   - Highlight of UCB & LBL start-up pipeline & opportunity
   - Model of UCB/LBL start-up-based economic development

2. **EBGC Nexus: Transition out of UCB / LBL**
   - Formation of start-ups based on UCB / LBL innovations
   - Attracting & retaining start-ups in the EBGC

3. **Status: Leveraging UCB / LBL Green Econ Engines**
   - What is working
   - What could help & next steps
Opportunity: \textit{Start-up Pipeline}

- In most years, 10-20 start-ups based on UCB / LBL innovations
- In FY08, over 18* start-ups based on UCB / LBL innovations
  - At least 11 were green tech
    - Now, at least 3 currently located in the 4 EBGC cities
    - At least 6 were located in EBGC, but 3 moved..
- Many communities would covet this econ dev pipeline
  - Establish programs & protocols to attract & retain start-ups
  - Encourage facilities to attract & retain emerging growth companies

* This number is comprised of the start-ups that licensed IP from UCB or LBL;
The number doesn’t include other UCB or LBL spin-outs that didn’t license IP,
nor does it include established companies that licensed IP from UCB or LBL.
**Opportunity:** *Start-up Econ Dev Models*

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<th>Scenario: SQUANDERING the Opportunity (25% attract; 25% retain)</th>
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Formation: 4Ms of Commercialization Innovations From Universities & National Labs

**Pull**
The extent that companies drive the transition from research to product

- **Milked**: Systematically out of research by corporate collaborators
- **Mined**: Opportunistically by entrepreneurs (e.g. MBA students) that periodically scour campus
- **Morphed**: Organically out of research by team member(s)
- **Marketed**: Methodically to industry by campus (e.g. PR, TTO, etc)

**Push**
The extent that universities drive the transition from research to product
Formation: **Green Morphed Examples**

- **Recent Green Examples:** Seeo, CaliSolar, TaoIt, MicroClimates
- **Drivers:** Research + Entrepreneurial mindset & eco-system
- **IP:**
  - Some obtain exclusive license to help attract investors
  - Some ignore IP
  - Some abscond with IP

- **Pull:** Low
- **Push:** Low
- **Morphed:** Organically out of research by team member(s)

High

Low
Formation: Green Mined Examples

- **Recent Green Examples:**
  - Aurora Biofuels, Adura Tech

- **Drivers:** Research + MBAs, Biz plan competitions, marketing

- **IP:**
  - Many obtain exclusive license to help attract investors
  - Some ignore IP
  - Few abscond with IP

- **Comments:**
  - Recent phenomenon with highest growth rate
  - MBAs are similar to EIRs

Mined

Opportunistically by entrepreneurs (e.g. MBA students) that periodically scour campus
Formation: Green Milked Examples

- **Recent Green Examples:** Ecoprene, Analog Devices
- **Drivers:** Sponsored research agreements (with optimized IP terms)
- **IP:**
  - Some jointly own IP
  - Some obtain non-exclusive license to stay legal
  - Some obtain exclusive license to thwart competitors
  - Some ignore IP
  - Some abscond with IP

Systematically out of research by corporate research sponsor
**Formation: Green Marketed Examples**

- **Recent Green Examples:** World Wide Energy, Luminus Devices, Solexel, Solexant
- **Drivers:** Research + IP Licensing offices, University PR programs, Faculty pubs & ppts
- **IP:**
  - Most obtain exclusive license to help attract investors
  - Some ignore IP
  - Some abscond with IP
- **Comments:** Didn’t get morphed, milked or mined because tech or market too nascent when invented

Methodically to industry by campus faculty & staff (e.g. PR, OTL)
Transition: *Steps Out of UCB / LBL*

- **Virtual Step**  
  (Dorm, Apt, Cafe, Libe, etc)

- **Baby Step**  
  (Free space: Incubator, Garage, etc)

- **Big Step**  
  (Pay for space)

- **Big Leap**  
  (Pay for space with growth)

**Transition out of UCB / LBL**
Transition: Criteria for a New Location

- Customers (proximity / density?)
- Coolness (of space & hood)
- Credibility (proximity to known corps)
- Capital (easy access to VC)
- Colleagues (recruiting)
- Capacity (appropriate space)
- Cost
- Commute (i.e. finishing degree?)
- Collaboration (with UCB people?)

* Priorities & weighting of criteria varies for each start-up, industry, etc

Virtual Step (Dorm, Apt, Cafe, Libe, etc)
Baby Step (Free space: Incubator, Garage, etc)
Big Step (Pay for space)
Big Leap (Pay for space with growth)

Transition out of UCB / LBL
Transition: **Attraction**

### Criteria

- **Customers**
  - (proximity / density?)
- **Coolness**
  - (of space & hood)
- **Credibility**
  - (proximity to known corps)
- **Capital**
  - (easy access to VC)
- **Colleagues**
  - (recruiting)
- **Capacity**
  - (appropriate space)
- **Cost**
- **Commute**
  - (i.e. finishing degree?)
- **Collaboration**
  - (with UCB people?)

### Transition out of UCB / LBL

- **Virtual Step**
  - (Dorm, Apt, Cafe, Libe, etc)
- **Baby Step**
  - (Free space: Incubator, Garage, etc)

### Location

- **Convenient to Campus**
  - 100% Know-How
  - UCB/LBL Contribution
  - 100% IP rights

### Consequence

- **Marketed**
- **Milked**
- **Mined**
- **Morphed**

* Priorities & weighting of criteria varies for each start-up, industry, etc
Transition: Attraction & Retention

- Customers (proximity / density?)
- Coolness (of space & hood)
- Credibility (proximity to known corps)
- Capital (easy access to VC)
- Colleagues (recruiting)
- Capacity (appropriate space)
- Cost
- Commute (i.e. finishing degree?)
- Collaboration (with UCB people?)

Virtual Step (Dorm, Apt, Cafe, Libe, etc)
Baby Step (Free space: Incubator, Garage, etc)
Big Step (Pay for space)
Big Leap (Pay for space with growth)

EBGC (including Berkeley)
Bay Area especially San Francisco & Silicon Valley; but including EBGC

* Priorities & weighting of criteria varies for each start-up, industry, etc
Transition: Making EBGC More Attractive

- Morphed Start-up
  - Need start-up place(s): the no-brainer place with free or subsidized costs, camaraderie, advise, plus shared resources, services & infrastructure, etc.

- Mined Start-ups
  - All of the above
  - Marketing: at Biz Plan Competitions & related events (EBGCstartups.com)

- Milked Start-ups
  - All of the above
  - Off-campus corporate research “lablets” (Intel, Yahoo, Cadence, Starkey)

- Marketed Start-up
  - All of the above
Next Steps:  *EBGC Leveraging UCB / LBL*

- **What’s Working**
  - Relationships (we know each other now; we didn’t a short time ago)
  - Communication (when opportunities arise, we know who to contact)
  - Attracting start-ups (hard to lose even if EBGC does nothing)

- **What Could Help & Next Steps**
  - Attract with “start-up places” (incubators, start-up office buildings, etc)
  - Retain with flexible expansion space (office parks, etc)
  - Wet labs for bio start-ups & emerging growth companies
  - Marketing to attract start-ups (requires a small budget)
  - Smart zoning & development (silent majority versus noisy few)
  - Manage: tract, analyze, strategize, implement, then repeat & improve
EBGC: Leveraging UCB & LBL Start-ups

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