PRESCIENCE INTERNATIONAL

A New Model of Commercializing Innovation

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About PreScience

Focus

- **The Commercialization of science & technology in cleantech & life sciences**

Create and operate

- **Research Centers/Incubators**
  - *San Jose BioCenter*
  - *Environmental Business Cluster*
- **Research Foundations**
  - *InnovateMD*
- **Research Institutes**
  - *UC Berkeley BioExec Institute*
  - *UC Berkeley Cleantech Institute*

Provide corporate and business development for emerging companies

- **International Agencies/Companies**
- **Companies**

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Definition of Cleantech

Cleantech is *new technology and related business models* **that offer** *competitive returns* **for investors and customers** *while providing solutions to global challenges*.

Clean technology represents a diverse range of products, services, and processes, all intended to:

- Provide superior performance at lower costs, while
- Greatly reducing or eliminating negative ecological impact, at the same time as
- Improving the productive and responsible use of natural resources
- Providing an investment return

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Cleantech Sectors

Energy Generation
- Wind
- Solar
- Hydro/Marine
- Biofuels
- Geothermal
- Other

Energy Storage
- Fuel Cells
- Advanced Batteries
- Hybrid Systems

Energy Infrastructure/Smart GRID
- Management
- Transmission

Energy Efficiency
- Lighting
- Buildings
- Glass
- Other

Transportation
- Vehicles
- Logistics
- Structures
- Fuels

Water & Wastewater
- Water Treatment
- Water Conservation
- Wastewater Treatment

Air & Environment
- Cleanup/Safety
- Emissions Control
- Monitoring/Compliance
- Trading & Offsets

Materials
- Nano
- Bio
- Chemical
- Other

Manufacturing/Industrial
- Advanced Packaging
- Monitoring & Control
- Smart Production

Agriculture
- Natural Pesticides
- Land Management
- Aquaculture

Recycling & Waste
- Recycling
- Waste Treatment

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Next Technology Opportunity

SILICON VALLEY / SAN JOSE
Business Journal

Tuesday, May 19, 2009

Cisco Systems sees $100B market for 'smart grid'

Triangle Business Journal

Cisco Systems Inc. sees a $100 billion opportunity in communications equipment for upgrading aging electrical infrastructure to a digital smart grid, CNET reports.

Marie Hattar, vice president of marketing in Cisco's Network Systems Solutions group, told the CNET that the smart grid network will be "100 or 1,000 times larger than the Internet," saying that virtually every home has electricity and many of them don't have Internet access.

Cisco (Nasdaq: CSCO) isn't the only company looking to invest in upgrading the electrical infrastructure – numerous startups as well as Santa Clara, Calif.-based **Intel Corp.** (Nasdaq: INTC) and Armonk, N.Y.-based **IBM Corp.** (NYSE: IBM) are ramping up their efforts.

In the Raleigh-Durham area, several companies are working on various elements of the "smart grid," which would give utilities and consumers more control over electricity use and also help to facilitate advances **such as electric cars**.

IBM and Cisco are two of the cornerstones of Research Triangle Park, where the two companies employ a total of more than 15,000 people.

Progress Energy, which has the highest market capitalization of any Triangle-based public company, is working on **smart grid projects in Florida** and in North Carolina and could stand to **benefit from billions** in federal stimulus money for such projects. PowerSecure (Nasdaq: POWR), Sensus and nonprofit Advanced Energy are among the other local organizations involved in smart grid-related ventures.

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Big Investment Requirements

Nanosolar	$300M (closed in March)*	AES, Carlyle Group, EDF, Riverstone Holdings, Lone Pine Capital, Skoll Foundation, GLG, Beck Energy, Grazia Equity, et al.	CIGS solar panels manufactured in a roll-to-roll system
SoloPower	$200M Round C (VW)	Undisclosed. Previous investors include Crosslink Capital, Firsthand Capital, Convexa Capital, et al.	Thin-film CIGS solar cells fabricated with an electrochemical process on a thin, flexible foil substrate in a roll-to-roll process.
Miasolé	$200M (VB)	Unconfimed	CIGS PV cells
Range Fuels	Round B expanded by $66M to $166M (VB)	Morgan Stanley Capital joins Passport Capital, BlueMountain, Khosla Ventures, Leaf Clean, PCG, et al.	Cellulosic ethanol production via a thermo-chemical rather than an enzymatic process
Sulfurcell	$134M	Intel Capital, Climate Change Capital Private Equity, AIG, Demeter Partners, Zouk Ventures, BankInvest	CIS/CIGS PV cells
Optisolar	$132M	Undisclosed	PV modules and large-scale solar farms
SunEdison	$131M PE $30M debt	Greylock Partners, HSH Nordbank, Applied Ventures, Black River Commodity Clean Energy Investment Fund, MissionPoint Capital Partners, Allco Renewable Energy	North America's largest solar energy services provider
eSolar	$130M	Idealab, Oak Investment Partners, Google.org	Solar-thermal developer
BrightSource Energy	$115M Round C	Google.org, BP Alternative Energy, StatoilHydro Venture Black River, VantagePoint, Morgan Stanley, DBL Investors, DFJ, Chevron Technology Ventures	Utility-scale solar energy projects Heliostat / "power-tower" architecture
AVA Solar	$104M	Led by DCM with Technology Partners, GLG Partners, Bohemian Companies, Invus	CdTe-based solar panels

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A Sector with More Risks

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A Sector with More Risks

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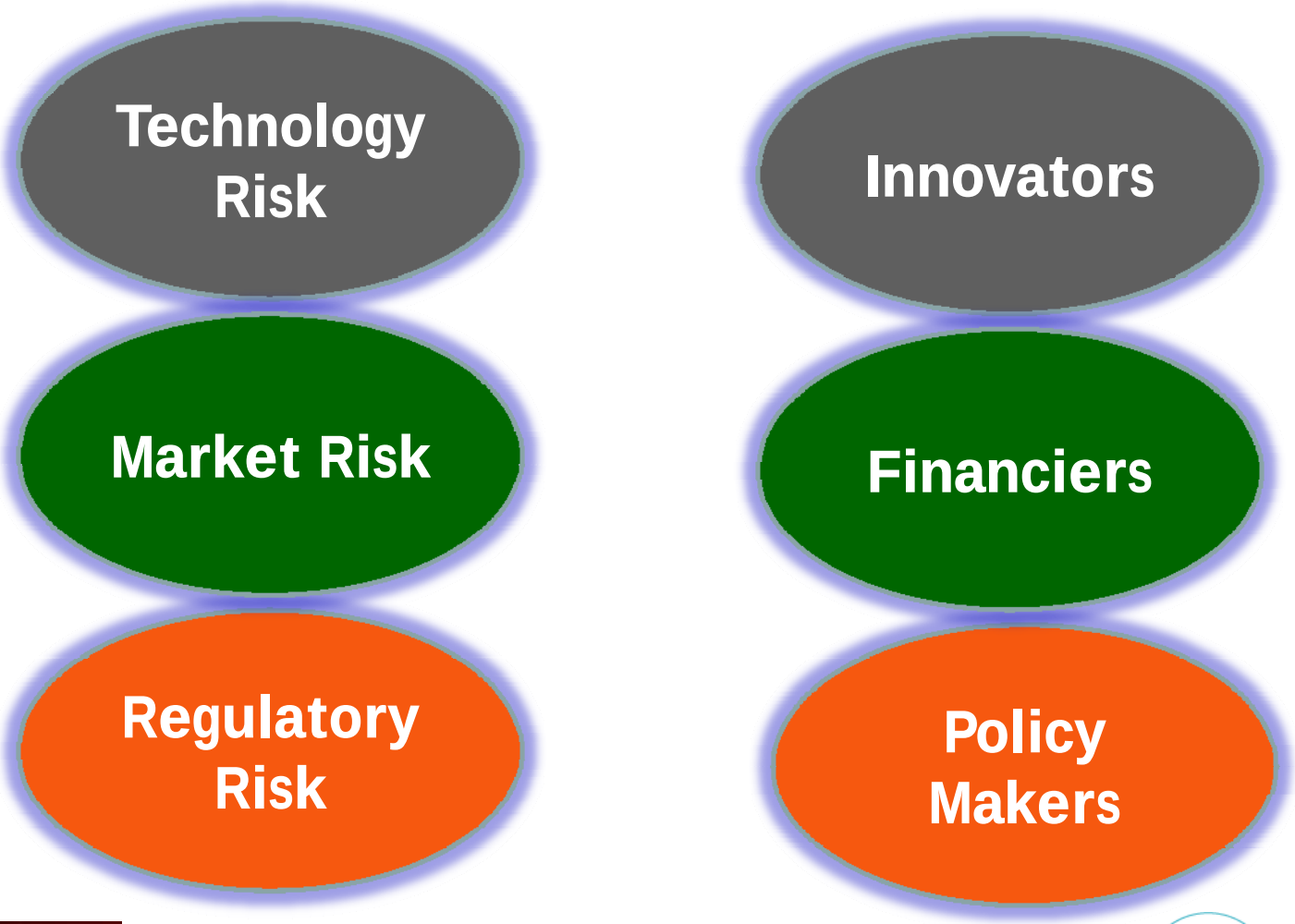
The Need for More Conversations



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Call for Revolutionary Change

- **Current model for innovation is broken**
  - Expensive
  - Slow
  - Inefficient
- **Need innovation from emerging companies**
  - Big ideas and little bureaucracy
  - Risk and reward
- **Emerging companies fail because**
  - Lack resources
  - VCs won't fund: perceive high risk and expense

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Need for Big Company Infrastructure

For Emerging Companies

- **Small flexible lab space**
  - permitted, comprehensive
- **Access to core R&D areas / capital equipment**
- **Management of operations**
- **Management of regulating agencies**
- **Access to "big company" products - services - discounts**
- **Access to capital, to buyers**

FOR CAPITAL: REDUCE

- upfront capital
- upfront operational time
- risk of operations

FOR BUYERS

- Novel, revolutionary innovation
- Thorough research – no cutting corners!
- Opportunities to watch and collaborate early

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The BioCenter
"big company" infrastructure

Shared Facilities

- CORE ChemLab
- CORE BioLab
- Common Equipment Rooms
- Service Alcove
- Cold Room
- 3 plug & play Tissue Culture Facilities
- 4 Conference/Meeting Rooms with AV equipment
- Library
- Kitchen & Break Room
- Reception
- Business Center (photocopier, fax machine, postage machine, document shredding service, etc)
- Shipping & Receiving Area

Individual Wet Lab Suites/Furnished Offices

- Wet Lab Suites, equipped with central DI water and vacuum, fume hoods, emergency showers/eye wash stations, HazMat storage cabinets, 110V, 220V & emergency power outlet…

Individual Dry Lab Suites

Furnished Offices

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Lab & Operations Support

- Baseline orientation/training/registration for security access
- Business Licenses
- HMBP registration
- HM Receipts and Inventories
- EH&S audits
- EPA ID registration
- Safety Training
  - Hazardous Materials Handling/Safety/Communications
  - Annual Emergency Evacuation Training
  - Tissue Culture
  - Autoclave
  - etc
- County, Fire Department Liaison for Inspections and Fix It Tickets
- Permitting and management of regulatory processes for central equipment/processes

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Business & Network Support

"High level and a full range of service and support were as anticipated from the management team of a biotech incubator. However the network and contacts to industry leaders, highly experienced and capable suppliers, dedicated and passionate coaches, and potential customers were way above expectations and truly unique in the industry."

- Urs G. Wiederkehr,
Founder & CEO, Cytolution, Inc.

- **Business Needs Assessment & Individual Coaching**
  - Customized per client – type of business, stage, experience of CEO, type of financing required
  - Executive Director and Mentors in the field
- **Strategy and Presentation Practice**
  - For customers or investors: present
  - Stakeholders brought in to simulates the real audience
  - Feedback on strategy and presentation
- **Investor Introductions**
  - Database of all VCs, Angels, PE firms locally and other
  - Provide regular deal flow and speaking opportunities
- **Specialized Workshops**
  - Term Sheet Negotiations
  - Stock Options
- **Onsite Office Hours (Sponsor-based)**
  - Legal, Banking, Insurance, HR – management and technical staffing, permanent ad temporary, etc.

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Metrics

- 40 companies across life sciences/ cleantech
- Companies placed by VCs, big corporates
- Spinning out units from big companies
- Many CEOs are serial entrepreneurs
- Nearly $1B in capital raised
- NBIA's International Award as Top Global Incubator

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Environmental Business Cluster

- Commercialize the best technologies that can address the global climate crisis
- First and largest environmental incubator in the U.S.
- More than 145 companies assisted since 1994
- Partnerships with
  - San Jose State University
  - National Research Energy Labs
  - California Energy Commission
  - The Cleantech Open (CCTO)

The largest private commercialization incubator for clean technology in the United States

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Network of Support

Coaching

- Commercialization Coaching
- On-site Service Providers
- Mentors

Networks

- Financial
- Policy Makers/Regulatory Agencies
- Government

Education

- Funding (Stimulus/Grant, Angel, Venture, Project)
- Business
- Science & Technology

Infrastructure

- Furnished Offices & Common Areas
- "Corporate" deals
- Business & Ops team
- Community of entrepreneurs

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Network of Support

Coaching

- Commercialization Coaching
- On-site Service Providers
  - ✓Legal
  - ✓Banking
  - ✓Benefits
  - ✓Marketing
  - ✓Regulatory
- Practice Leaders/Mentors

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Network of Support

Networks

- Financial
- Policy Makers/Regulatory Agencies
- Government

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Network of Support

Education

- Funding
  - ✓Stimulus/Grant
  - ✓Angel
  - ✓Venture
  - ✓Project Finance
- Business Development
  - ✓ Corporate Development
  - ✓ Partnering
  - ✓ Regulatory
  - ✓ Marketing & Public Relations

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Network of Support

Infrastructure

- Furnished offices and Common Areas
- Corporate Deals
- Business & Ops Team
- Community of Entrepreneurs

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Program 2009/2010

Financing Series

- Angel and Venture Investing
- The Road to $30M: A Cleantech Story
- Creative Financing
- Project Financing
- Government Financing

Meet with...Series

- Agencies/Research Institutes
  - DOE, EPA, NSF, CEC, CPUC, NASA, SRI
- Venture
  - Physic Ventures, Khosla, Vantage Point, Rockport
- Corporations
  - PG&E, Google, Chevron, Bosch

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Angel & Venture Investing

Panelists

- Neal Dikeman, *Partner, Jane Capital Partners LLC*
- Todd Kimmel, *Partner, Mayfield Fund*
- Alex Kinnier, *Partner, Khosla Ventures*
- Susan Preston, *General Partner, CalCEF Clean Energy Angel Fund*

Cynthia Ringo, *Managing Partner, DBL Investors*

Dan Rubin, *Partner, Alloy Ventures*

Moderator

Susan Roberts, *Vice President, Commercial Banking Group, Citibank*

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The Road to $30M and Beyond

Panelists

- **Bob Cart,** *Founder and Executive Chairman,* ***GreenVolts***
- **Paul Douglas,** *Supervisor, Renewable Procurement and Resource Planning,* ***California Public Utilities Commission***
- **Mike Gravely,** *Manager, Energy Systems Research Office, Energy Research & Development Division,* ***California Energy Commission***
- **Hal O. LaFlash**, *Director, Emerging Clean Technology Policy,* ***Pacific Gas & Electric Company (PG&E)***

Moderator

Melinda Richter, *Executive Director,* ***Environmental Business Cluster***

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Meet With Series

Full Day Sessions/One on One Meetings

VENTURE/FINANCE

- **Alex Kinnier,** *Partner, Khosla Ventures*
- **Andrew Williamson,** *Partner, Physic Ventures*

GOVERNMENT – CUSTOMER/FUNDING/REGULATORY

- **Mike Gravely,** *Manager, Energy Systems Research Office, Energy Research & Development Division,* ***California Energy Commission***
- **Paul Douglas,** *Supervisor, Renewable Procurement and Resource Planning,* ***California Public Utilities Commission***

CORPORATE– CUSTOMER/FUNDING

- **Hal O. LaFlash**, *Director, Emerging Clean Technology,* ***PG&E***
- **Chevron, Bosch, BMW, etc**

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Vision of the Future

- **Further develop that "big company infrastructure" for cleantech commercialization**
  - Decrease capital costs
  - Lower risk of investment
  - Provide feeder material for subsequent investments
- **Physical location becomes gathering forum for**
  - Technologists
  - Financiers
  - Policy-makers

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Contact Details

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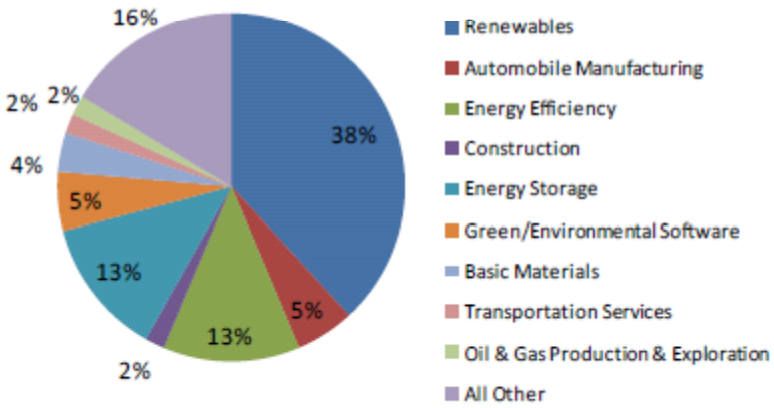
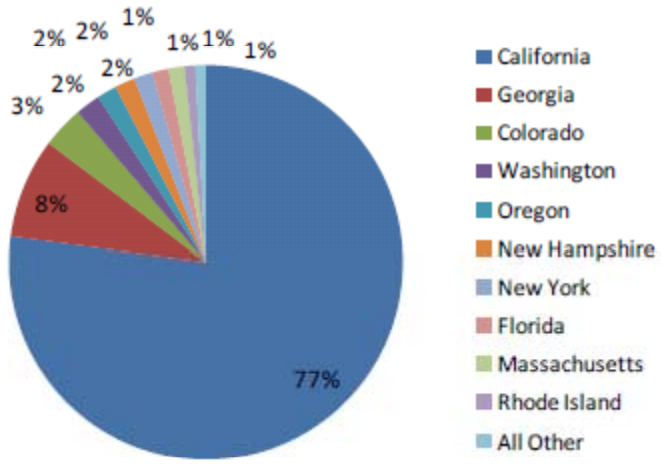
Q3 2009 Investments
Fast Company

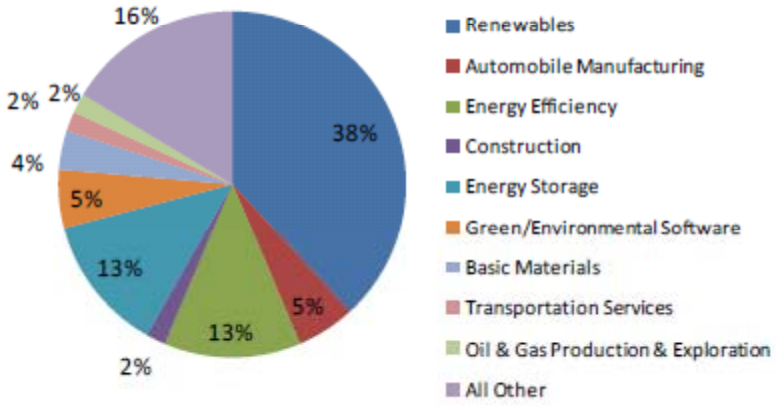
VC Deal Volume (#) in Green by Industry, Q309



VC Investment ($) in Green by State, Q309



VC Deal Volume (#) in Green by Industry, Q309



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