



City of San Diego

Sixth Annual Global CONNECT Conference Government Role in Construction of Clusters

December 12, 2008

Agenda

- Defense Conversion Funds
 - EmTek Fund & Emtek II
- Brief overview of the San Diego Cleantech Industry Program
 - Cleantech Initiative (launched in April 2007)
- UCSD William J. von Liebig Center (early-stage commercialization of cleantechnolgy)
- San Diego Biomimicry Hub
 - Partnership with San Diego Zoological Society



Defense Conversion

- **End of Cold War (1990)**
 - California Base Closures Result in Major Job Loss
 - The reductions in the defense budget
- **The San Diego Economic Conversion Program was adopted by the city in July 1991.**
 - It provides layoff assistance, re-employment and training service, entrepreneurial training, other business development assistance and a placement hotline.
- **1994 - The Office of Management and Budget (\$21.6 billion) The President's initiative for Defense Reinvestment and Conversion.**
- **The San Diego Regional Technology Alliance (SDRTA)**



EmTek Fund

- **Government-initiated loan/venture capital program**
 - \$1 million Grant from Economic Development Administration
- **EmTek Fund**
 - Provide seed capital to startup technology companies (emerging clusters)
 - Smaller early-stage growth business (SD County)



EmTek Fund II

- **Funds from Banks** (California Bank & Trust, Wells Fargo Bank, San Diego National Bank, U.S. Bank and Washington Mutual Bank)
 - \$1.5 million (2000)
- **Administered by the City of San Diego**
 - Loan underwriting
 - Loan servicing
- **2004 Privatized by City of San Diego to Jacobs Center for Neighborhood Innovation**
- **Emtek – SD Technology Fund**



Emtek (Con't)

- Legal issue –Equity ownership or royalties
- High risk
- Commercialization value chain
- Non-revolving loans
- Refocused on EDA's original goals
 - Job creation
 - Distress area
 - Self-financed model
 - SD Regional Revolving Load Fund and Small Business Micro Revolving Loan Fund

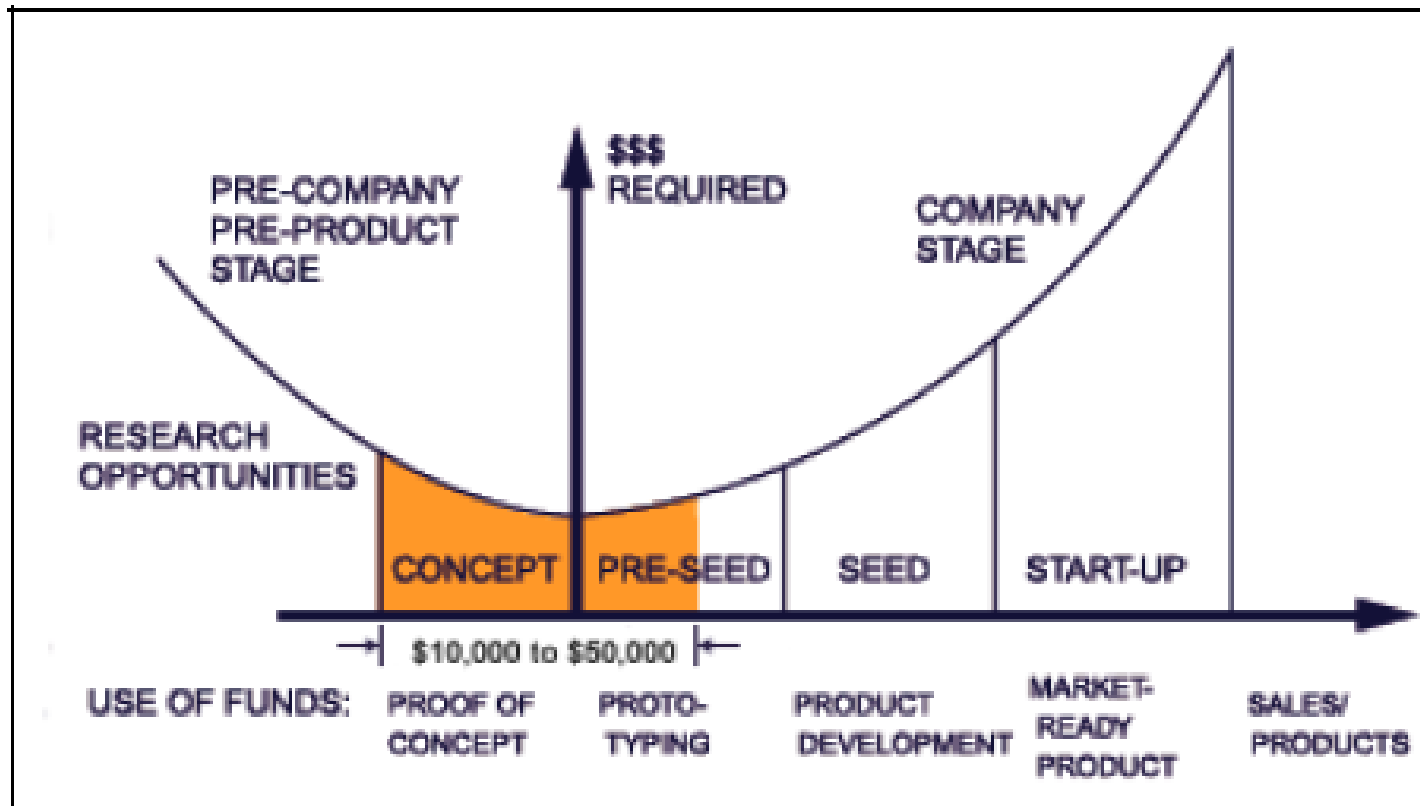


Cleantech Initiative

- **San Diego Cleantech Initiative**
 - The City of San Diego has identified the development of a cleantech industry cluster as the next economic development goal for the region
 - Developing a set of policy recommendations and incentives programs to promote the expansion, attraction and retention of businesses that develop products and technologies that provide environmentally sustainable solutions



Early stage technologies



UCSD von Liebig Center

UCSD William J. von Liebig Center

- The process of commercialization of an idea can be complicated and challenging
- Pre-company development stage have traditionally limited access to financing support due to the inherent risks and uncertainty
- The purpose of the regional collaboration (e.g. UCSD, SDSU, USD) is to provide university faculty members and researchers a funding source for “early stage prove of concept” and to accelerate the transition of an idea to a profitable commercial venture



Clean Tech Innovation Challenge

- **Seed funding from the City of San Diego (\$140K) 2008**
- **Additional funding from Qualcomm Inc (\$100k)**
- **Expanding the funding sources**
- **2008 Recipients (Researchers UCSD and SDSU)**
 - **New solar technologies,**
 - **Convert waste heat to electricity**
 - **Methods of extracting biodiesel from algae**



San Diego Biomimicry Hub

- Biomimicry – Bios meaning life and mimesis meaning to imitate
- Collaborative Partnership with San Diego Zoological Society (SDZS) and Biomimicry Guild
- The San Diego region natural hub for biomimicry
- Education Programs:
 - (K-12, High Tech High, Certification Program and Four-Year degree)
- Commercialization path:
- Partnership with large Fortune 1,000 companies



San Diego Biomimicry Hub

Biomimicry Examples:

- **Natural Ventilation System Termite Mount** (self-cooling designs in the construction of energy-efficient buildings)
- **Qualcomm Mirasol Screen display** (requires no backlighting and can be viewed in bright sunlight)
- **Dirt-and Water-Resistant Paint** (Lotus leaf self-cleaning properties)



Wikimedia



Wikimedia



Qualcomm



Lotusbio.com



Questions?



City of San Diego

