

# **Silicon Valley Commercialization Strategies**

## **What the Experts in SV are Doing in Hard Times**

**LES National Meeting  
Chicago, IL  
September 28, 2010**

**Craig Smith  
Commercialization and  
Technology Transfer  
Sandia National Laboratories**

# Sandia National Laboratories



- *Largest of the 17 DOE National Laboratories*
- *11,899 full time staff, contractors and postdocs*

*Born out of the Manhattan Project in 1945, Bell Labs took over management of Sandia in 1949 and it is now managed by Lockheed Martin for the DOE.*



*Two Principal Locations:*

*Albuquerque, New Mexico  
Livermore, California (shown)*



# Global Energy Solutions Are Enormously Challenging

## Environment

Land and Water use  
CO<sub>2</sub> Emissions



## Energy Security

Secure supply  
reliability



## Economics

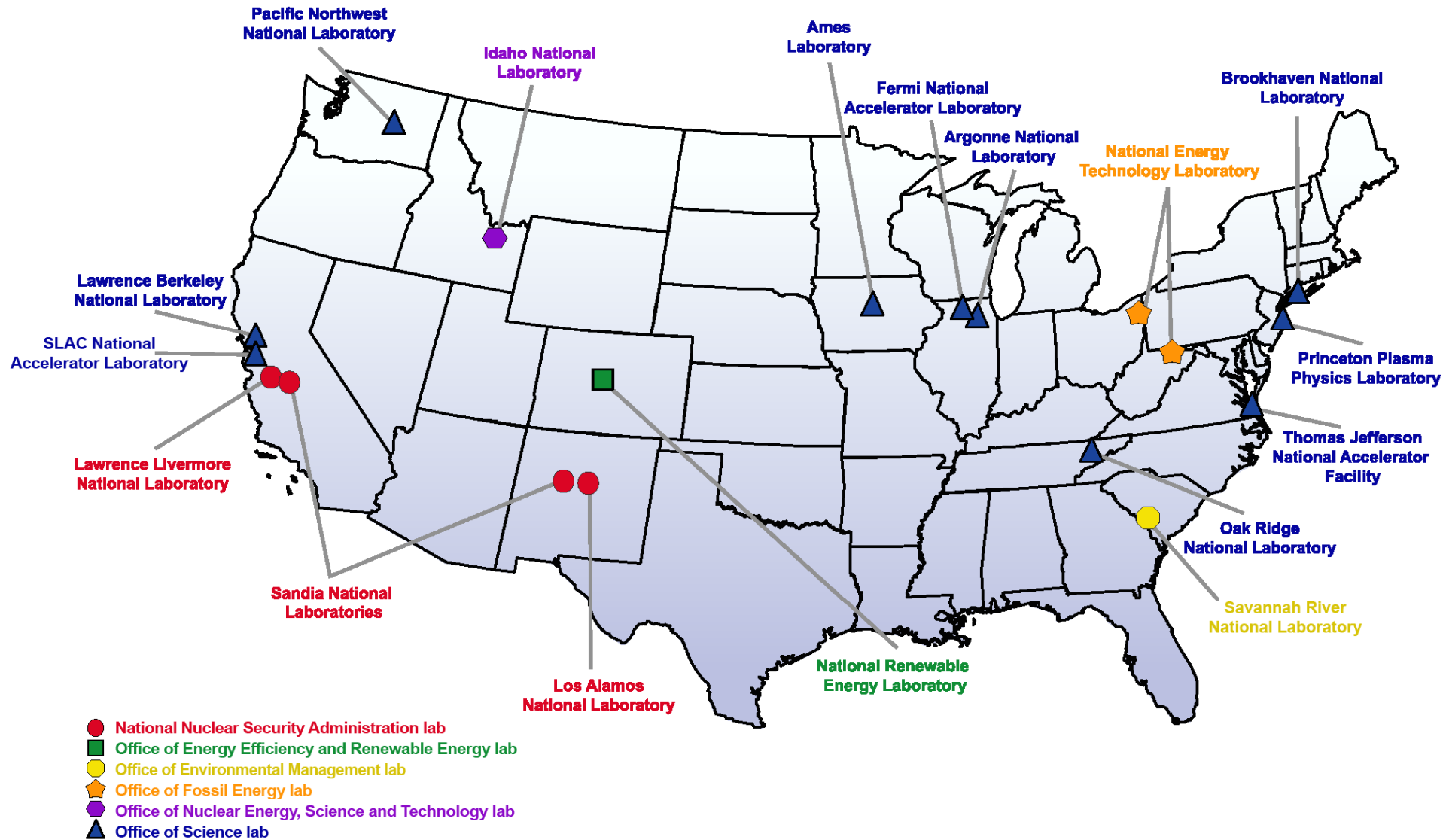
Growth in Demand  
Price Volatility



*Vulnerability  
and  
Opportunity*



# DEPARTMENT OF ENERGY NATIONAL LABORATORIES

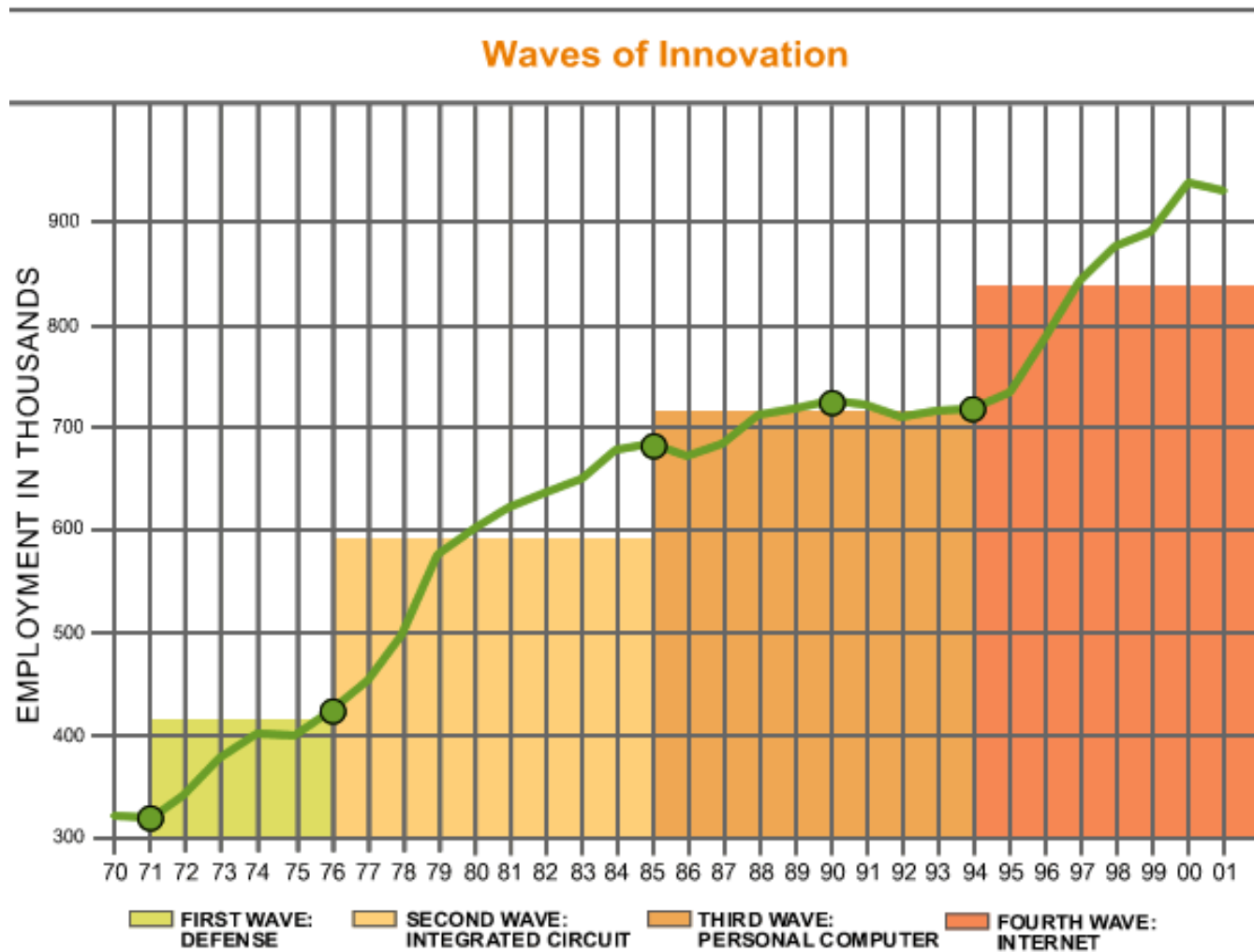




# Silicon Valley – The World's Center of High-Tech Industry and Innovations



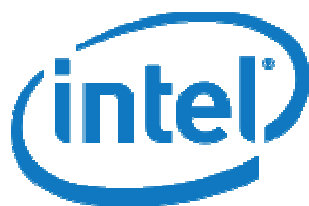
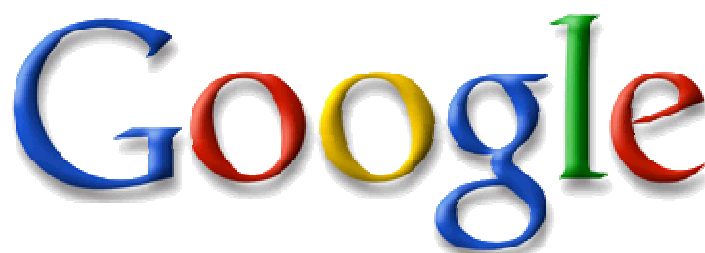
# Silicon Valley's Waves of Innovation



# You Know These Silicon Valley Companies...



ORACLE®



# But have you heard of these....

- Atmel Corporation
- ASUSTeK Computer Incorporated
- Maxtor Corporation
- Foundry Networks
- Zoran Corporation
- Western Digital Corporation
- PlayPhone
- Redback Networks
- Tellme Networks Inc
- Force10

Since 2001, over **27,000** new firms have been created in Silicon Valley



# 3 Factors for Silicon Valleys Success

- **Industry Clusters** - Concentration of companies that share technologies, workers and specialized resources to compete in global markets.

Software, Semiconductors, Computer Hardware, Electronic Components, Biomedical, Innovation Services, Creative Services.

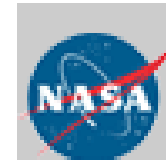
- **Personal Networks** – Dense, flexible networks and relationships among entrepreneurs, VCs, University and Lab researchers, Lawyers, consultants and skilled employees.
- **Exceptional Workforce** – Manufacturing has moved out of SV and replaced with design and engineering for products and processes.

# Silicon Valley Knowledge Base

 **SANTA CLARA UNIVERSITY**  
THE JESUIT UNIVERSITY IN SILICON VALLEY



**Carnegie Mellon**  
**SILICON VALLEY**



- 5 Federally Funded National Laboratories
- 6 Major Public Universities
- 20 Private Universities
- 30 Community Colleges



**Stanford**  
**Linear**  
**Accelerator**  
**Center**

# Federal Lab Research Centers

**Lawrence Berkeley Laboratory**



**Joint BioEnergy Institute (JBEI)**



**Sandia's Combustion Research Facility**



# **Silicon Valley Commercialization Strategies**

## **Hard Economic Times:**

**US National Labs continue to be a major source for Technology-Based Economic Development**

- Incubators and Research Parks**
- Technical assistance**
- Mentoring**
- Prototype design upgrading**
- Educational outreach**



# National Lab Spin-offs

## Incubators and Research Parks

- Incubators help enterprises commercialize technologies

## Small Business Assistance Programs

- Over 1000 projects for firms in California and New Mexico.

## Venture Capital Forums

- Clean Energy Forum, IT Forum, Climate Change Forum

## Commercialization Incentives

- help small companies with grants, introductions and liaison activities, Business Plan competitions.



# Back up slides

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