



SUSTAINABLE DEVELOPMENT
TECHNOLOGY CANADA™

Partnering for real results.

Canada-California Strategic Innovation Partnership

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- **Defining Cleantech**
- **Innovation and the Canadian Cleantech Landscape**
- **The Financing of Cleantech**
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Defining Cleantech



Clean technologies are innovative products or services that simultaneously reduce financial and environmental costs while driving better performance.

- 1. Economy:** Improved operational performance, productivity or efficiency; reduced input costs.
- 2. Environment:** Reduced energy consumption, waste or pollution.
- 3. Society:** Improved quality of air, water and land.

Clean technologies are one of the primary drivers behind the emerging carbon market.

Investing in clean technologies translates into greater sustainability.



Clean technology products are:

- Lighter, smaller and stronger.
Wind Smart
- Less expensive to manufacture and operate.
Whitefox/Vaperma
- Less carbon-intensive and more energy-efficient.
Quantiam
- Higher in economic value per unit of material input.
Plasco
- Ecologically sustainable, or at least less harmful.
SHEC Labs



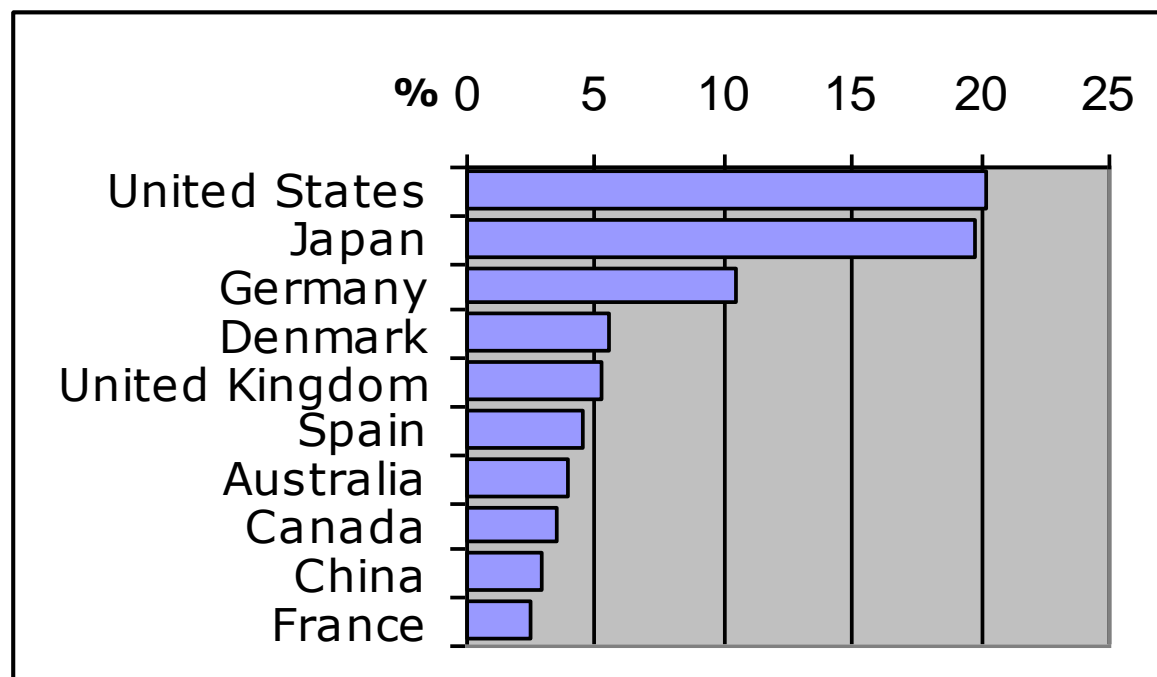
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Innovation and the Canadian Landscape



Top 10 Countries in Renewable Energy Patents, 2005



Source: OECD, 2008

Thanks to the work of our universities and laboratories, Canada performs strongly in the development of global IP.

Intellectual Property Development by Region



Top 10 regions in patents relating to renewable energy, 2003-2005

Region		Renewable energy patents	Share in total
Denmark	DK	161	8.7
Tokyo	JP	88	4.8
New South Wales	AU	79	4.3
Weser-ems	DE	68	3.7
Ontario	CA	54	2.9
Schlewig-Holstein	DE	53	2.9
Aichi	JP	48	2.6
San Jose-San Francisco-Oakland	US	46	2.5
Kanagawa	JP	45	2.4
Osaka	JP	44	2.4

Source: OECD, 2008

At the regional level, Ontario is a strong player in developing renewable energy technologies.

Development of Canadian Cleantech is Strong



Applications to Date (13 Rounds)

1,497 applications (>4400 entities)
88% industry-led
\$3.5 Billion in funding requests
\$14.1 Billion in total project value

Strong Demand

- Number of applications constant over last 4 years (+/-10%)
- SDTC's portfolio of 144 deals is valued at over \$1B

There is significant capability to develop clean technologies and a strong demand in Canada for support from SDTC for the associated companies.

Canadian Cleantech Landscape



Alberta

- Cleaner Fossil Fuels
 - Energy Efficiency
 - Carbon Capture and Storage

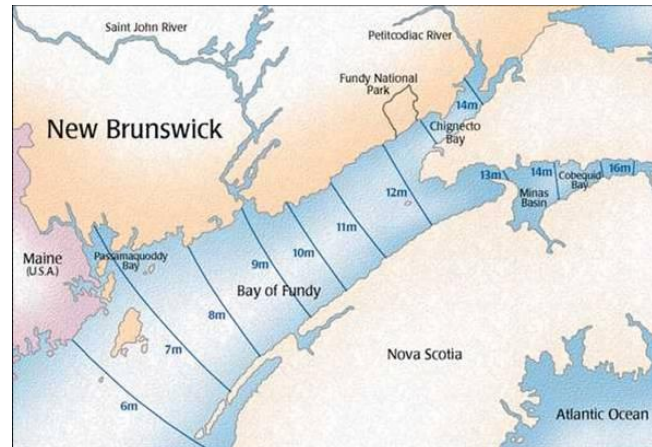
- Energy Exploration and Production
- Power Generation
- Energy Utilization
- Transportation
- Agriculture
- Forestry
- Waste Management

Quebec

- Waste-to-Energy
- Ethanol
- Remote Co

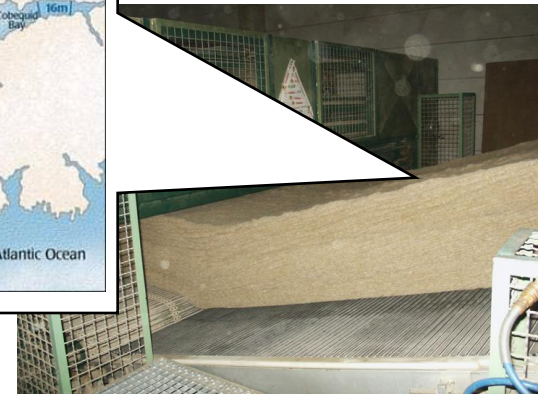
Atlantic Canada

- Tidal Power
- Ethanol



Saskatchewan/Manitoba

• Sustainable farming with food



\$7.7M

\$13

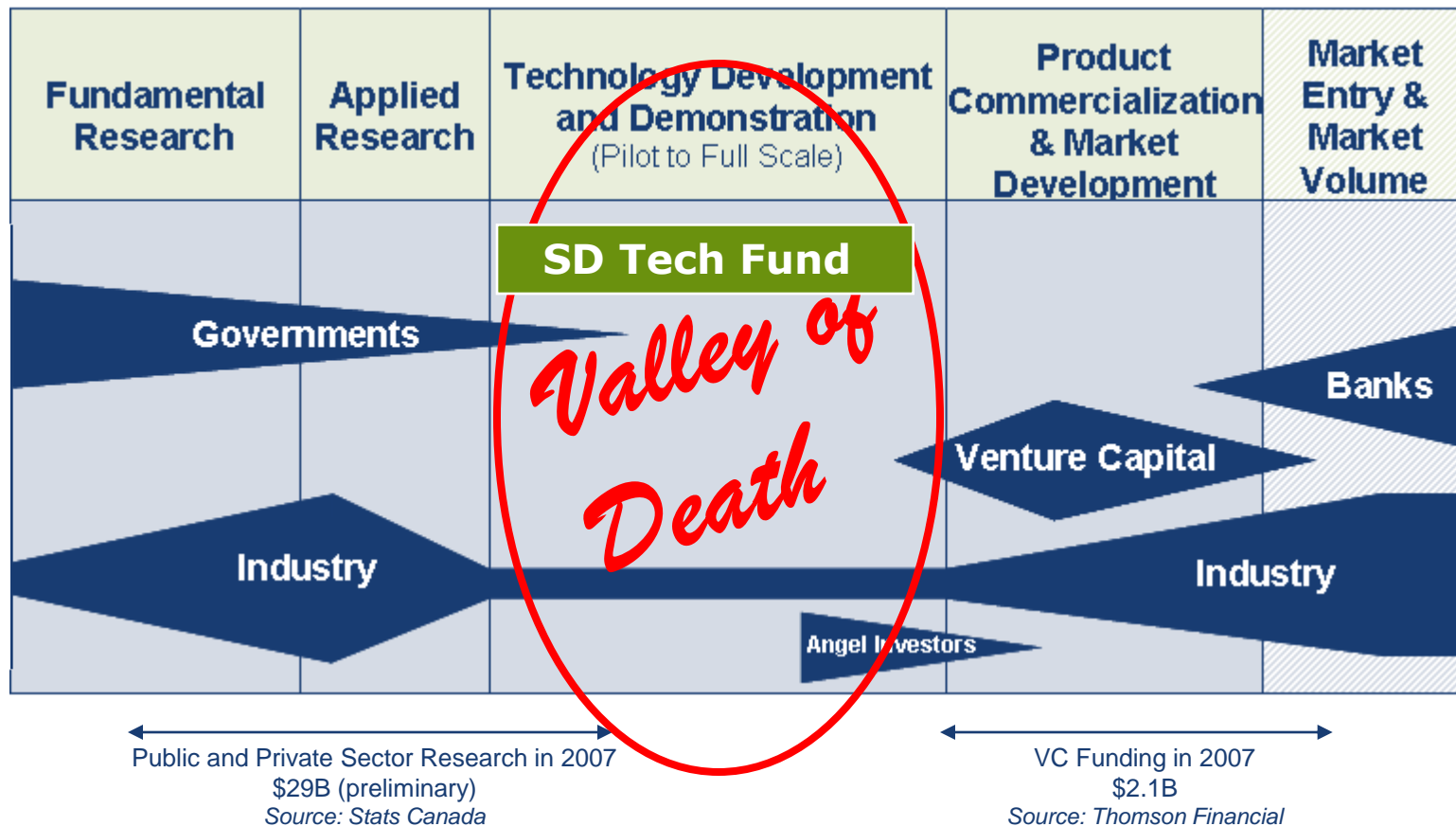


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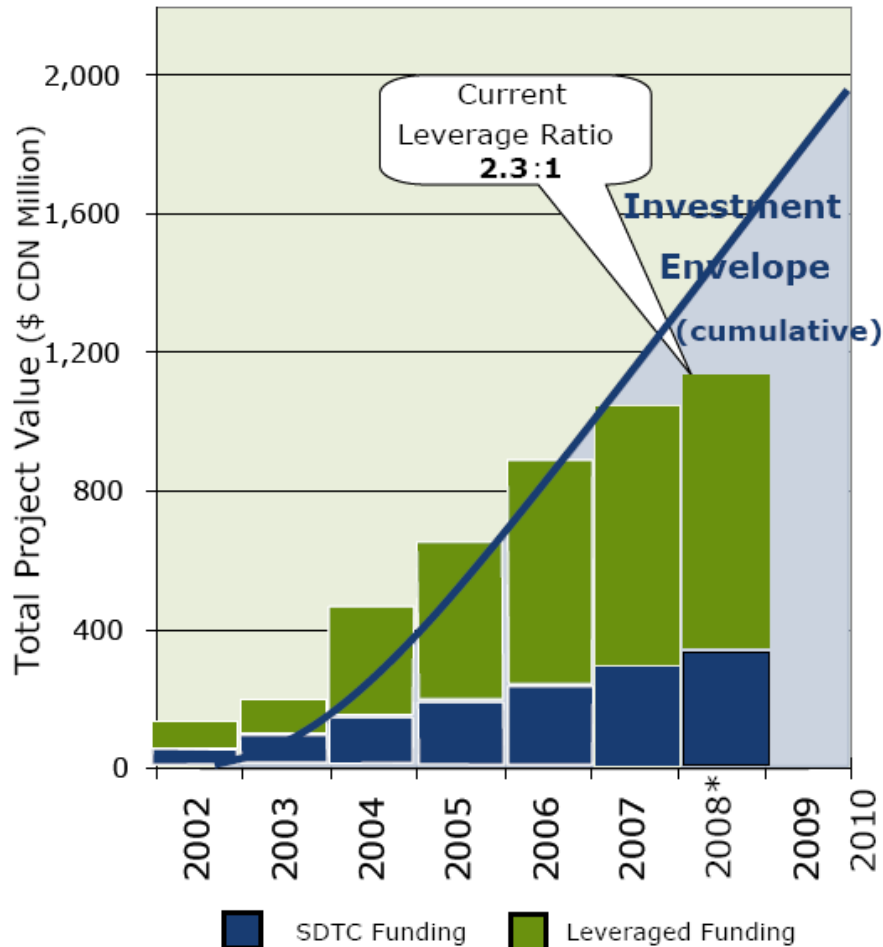
The Financing of Cleantech

Sources of Funding for Technologies



The sources of funding in the Innovation Chain are predominantly available for research and commercialization

SDTC Filling Funding Gap in Canada



- As of June 2008, on a cumulative basis, SDTC has allocated **\$342M**, for a total leveraged value of **\$1.14B**.
- By leveraging the **\$550M** fund 2-3 times with consortia partners, SD Tech Fund will have an investment envelope of between **\$1.6B** and **\$2.2B** by 2010.

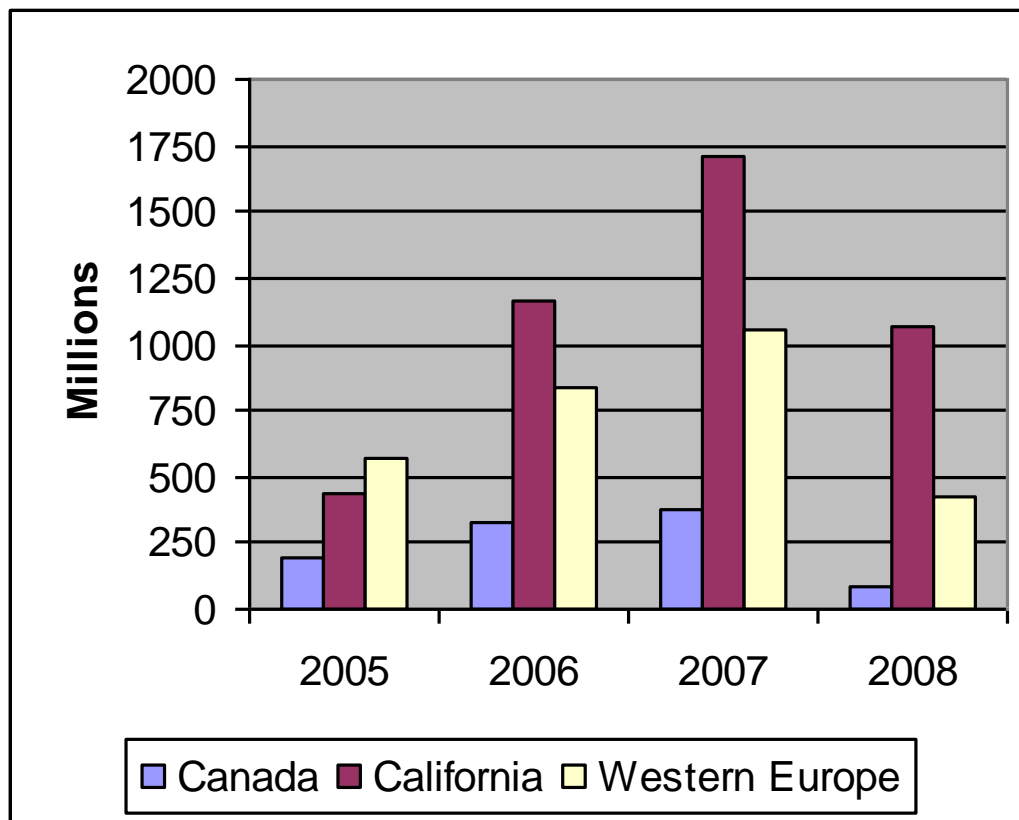
* Includes first half of 2008 only

SDTC will bring to the cleantech market an investment envelope of between \$1.6B and \$2.2B by 2010.

Financing is Critical



Cleantech Venture Capital Funding



Cleantech Group

California outstrips Canada and Western Europe in total cleantech Venture Capital investments.



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The Importance of Partnership to Drive Market Success

Importance of CCSIP Workshops



Canada and California can benefit from early stage cooperation in key areas such as:

Sustainable Biofuels



Carbon Capture and Sequestration



- Numerous policy initiatives driving the agenda in California.
- Canadian technologies currently in development and demonstration can help meet policy goals.

Case Study – Climate Action Team



Agriculture

Cement

Energy

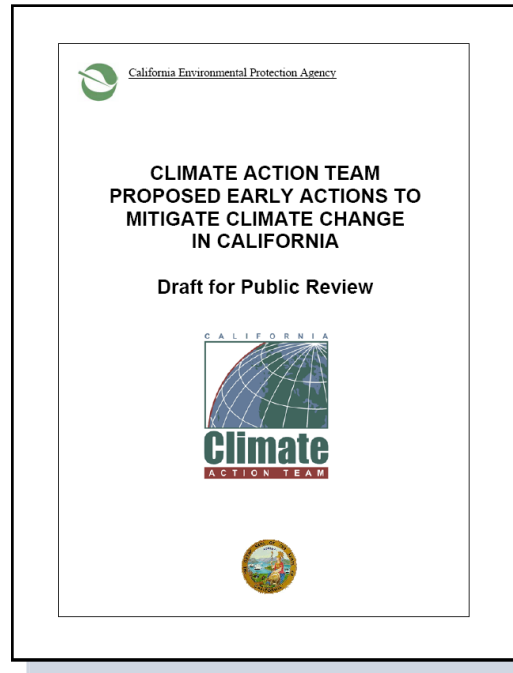
Forestry

Green Building

Water/Energy

State Fleet

Recycling



Case Study – Climate Action Team





- ✓ Canada and California are global leaders in cleantech IP development.
- ✓ Financing is a major component to getting this IP to market - California leads the world in financing cleantech.
- ✓ Two areas that increased collaboration will benefit both jurisdictions:
 - Early technology development
 - Market uptake of technology



For more Information:

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