



SUSTAINABLE DEVELOPMENT  
TECHNOLOGY CANADA™

Partnering for real results.



**“The Foundation will act as the primary catalyst  
in building a sustainable development technology  
infrastructure in Canada.”**



- SDTC began operations in November of 2001
- Registered as a not-for-profit, non-share capital corporation under the Canada Business Corporations Act
- Operates as an arm's length independent organization
- Funding allocation of \$1.05B from Government of Canada
- Accountable to Parliament through the Minister of Natural Resources
- 15 Directors on the Board, 7 appointed by Canada
- Member Council (15) – proxy for shareholders
- International recognition for this Canadian initiative



- SDTC is a policy instrument of the Government of Canada to deliver environmental and economic benefits to Canadians.
- As a delivery agent, we foster the development and demonstration of technological solutions that address:
  - Clean Air;
  - Climate Change;
  - Clean Water;
  - Clean Land.
- Forge innovative partnerships and build a SD technology infrastructure.
- Ensure timely diffusion - increase number and rate of uptake of technologies into the marketplace across Canada, providing national benefits.



- Increase the pool of available sustainable development technologies
- Fast track technologies to market
- Build private sector partnerships / leverage funding
- Reduce development, market and financial risk
- Build critical mass of sustainable development technology developers



**SDTC operates two funds:**



**SD Tech Fund™**

SUSTAINABLE DEVELOPMENT  
TECHNOLOGY CANADA

\$550 million SD Tech Fund™ was launched on April 4, 2002.



**NextGen Biofuels Fund™**

SUSTAINABLE DEVELOPMENT  
TECHNOLOGY CANADA

\$500 million NextGen Biofuels Fund™ was launched on September 12, 2007.

***The funds are complementary and address different gaps in the Innovation Chain***

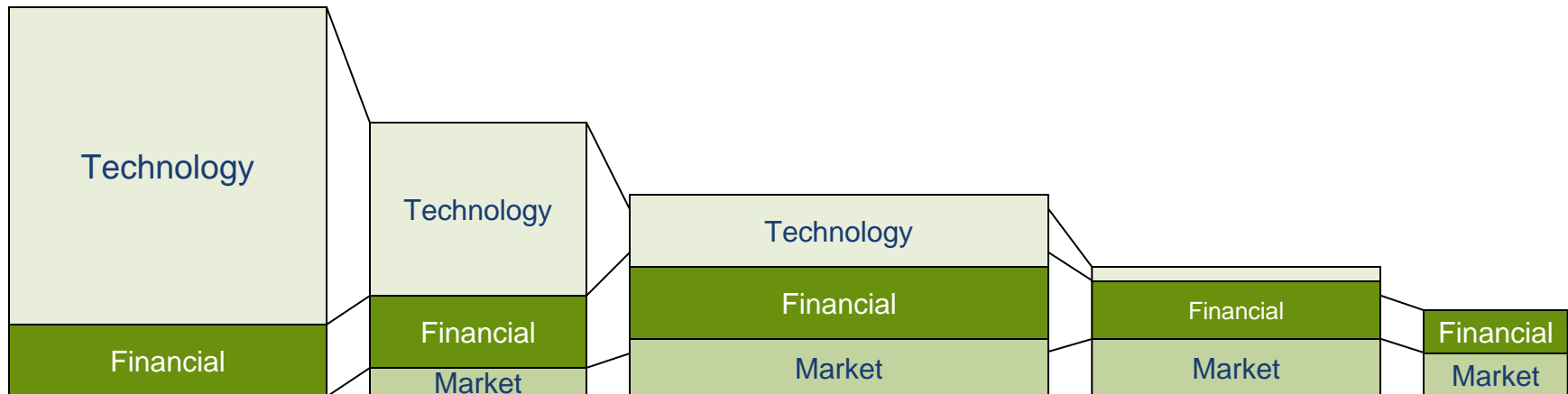
# Innovation Chain



## Stages of Technology Development



## Risk Profile

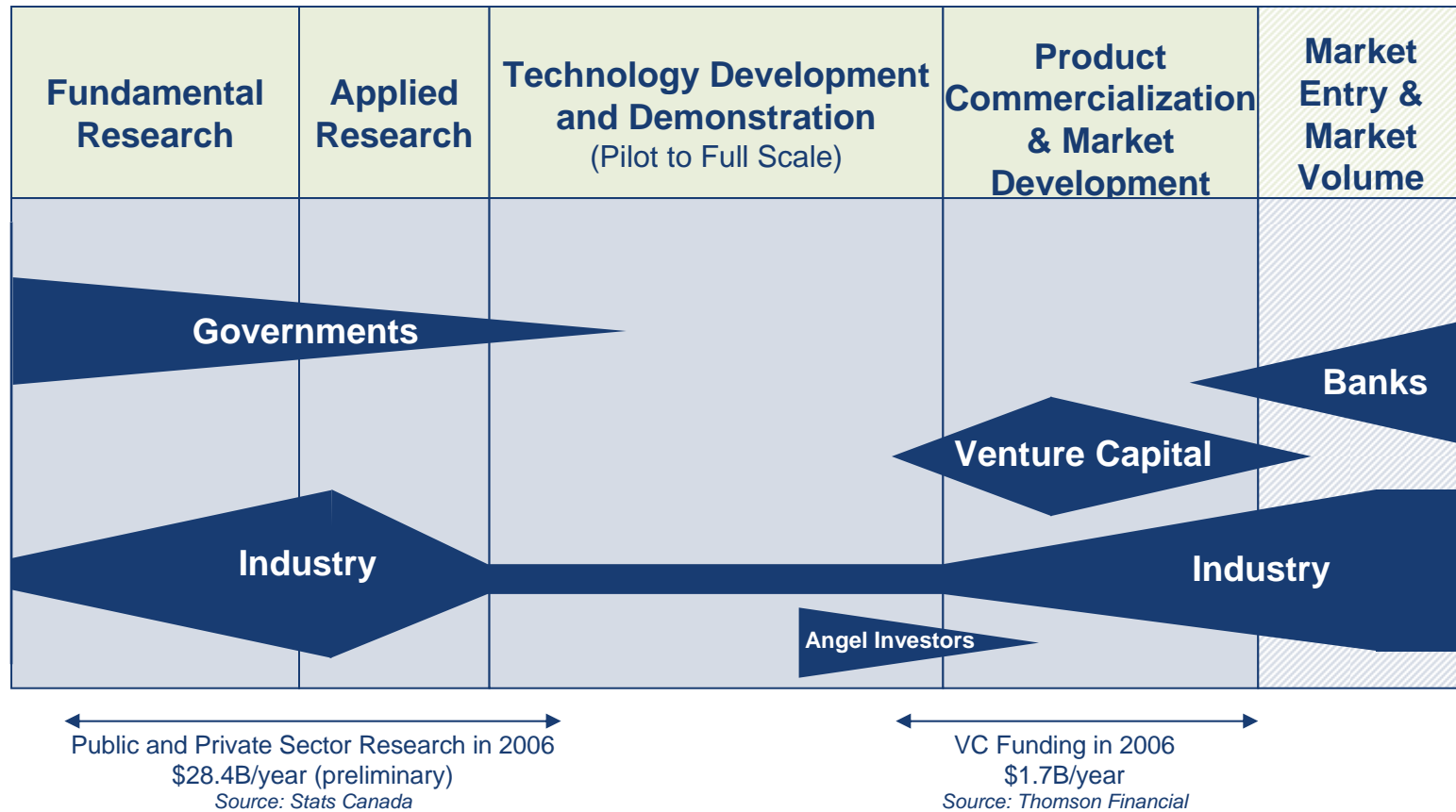




- The SD Tech Fund

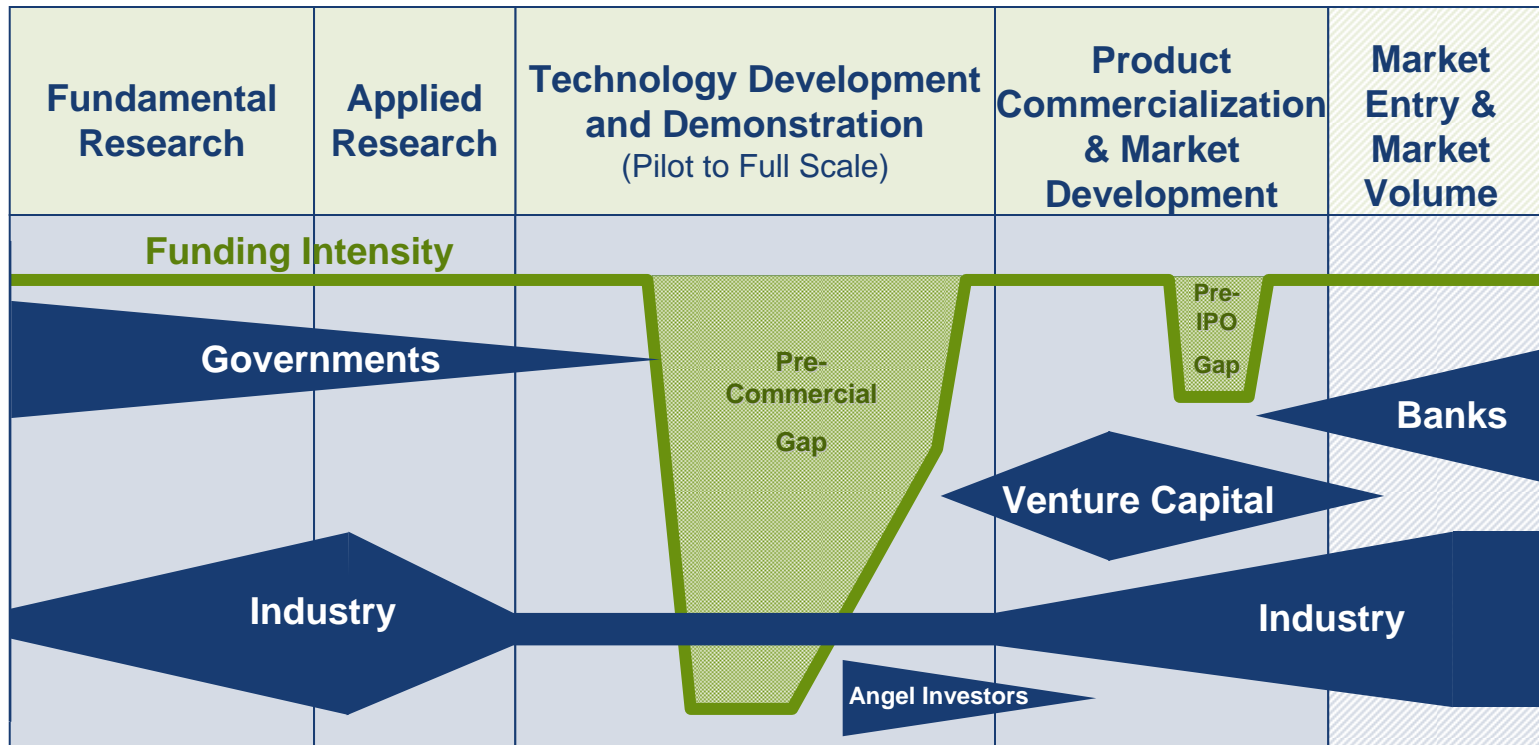


# Sources of Funding



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

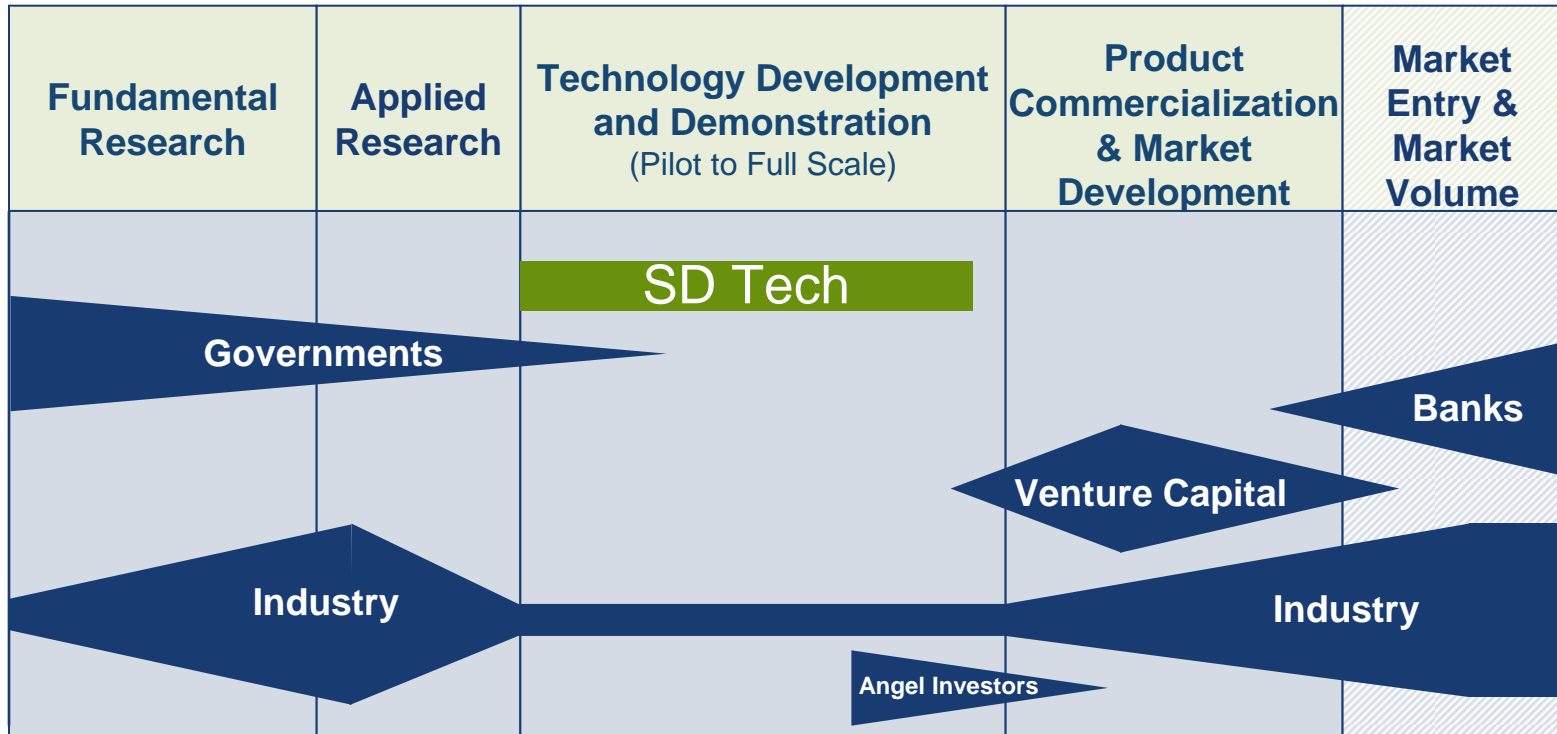
# Funding Gaps



← Public and Private Sector Research →

17 55 66 79  
 seed, start-up, other early stage & expansion  
 # of energy & environment deals by stage from 2000 – Q2 2007  
 Source: Thomson Financial, Aug 2007

***Lack of funding for technology development and demonstration creates a Pre-Commercial Gap in the Innovation Chain***



*The SD Tech Fund is positioned to address the Pre-Commercial Gap in the Innovation Chain*



The purpose of the Fund is to:

- support the late-stage development and pre-commercial demonstration of technology solutions that address climate change, air quality, clean water, and clean soil;
- encourage collaboration between the public and private sector including industry, academia, non-governmental organizations (NGOs), the financial community and all levels of government ; and,
- ensure the dispersion of clean technologies in relevant market sectors throughout Canada.

**The SD Tech Fund is open for Statements of Interest twice per year.**

# SD Tech Fund – Funding Allocation Process



Has two phases for applicants and four decision gates

- Phase I – Statement of Interest (SOI) – not too onerous, it is informative and sufficient to assess
- Phase II – Proposals by Invitation – equivalent to a business plan
- Gate I – SDTC review
- Gate II – technical and business experts
- Gate III – Investment Committee + Project Review Committee
- Gate IV – Board Approval

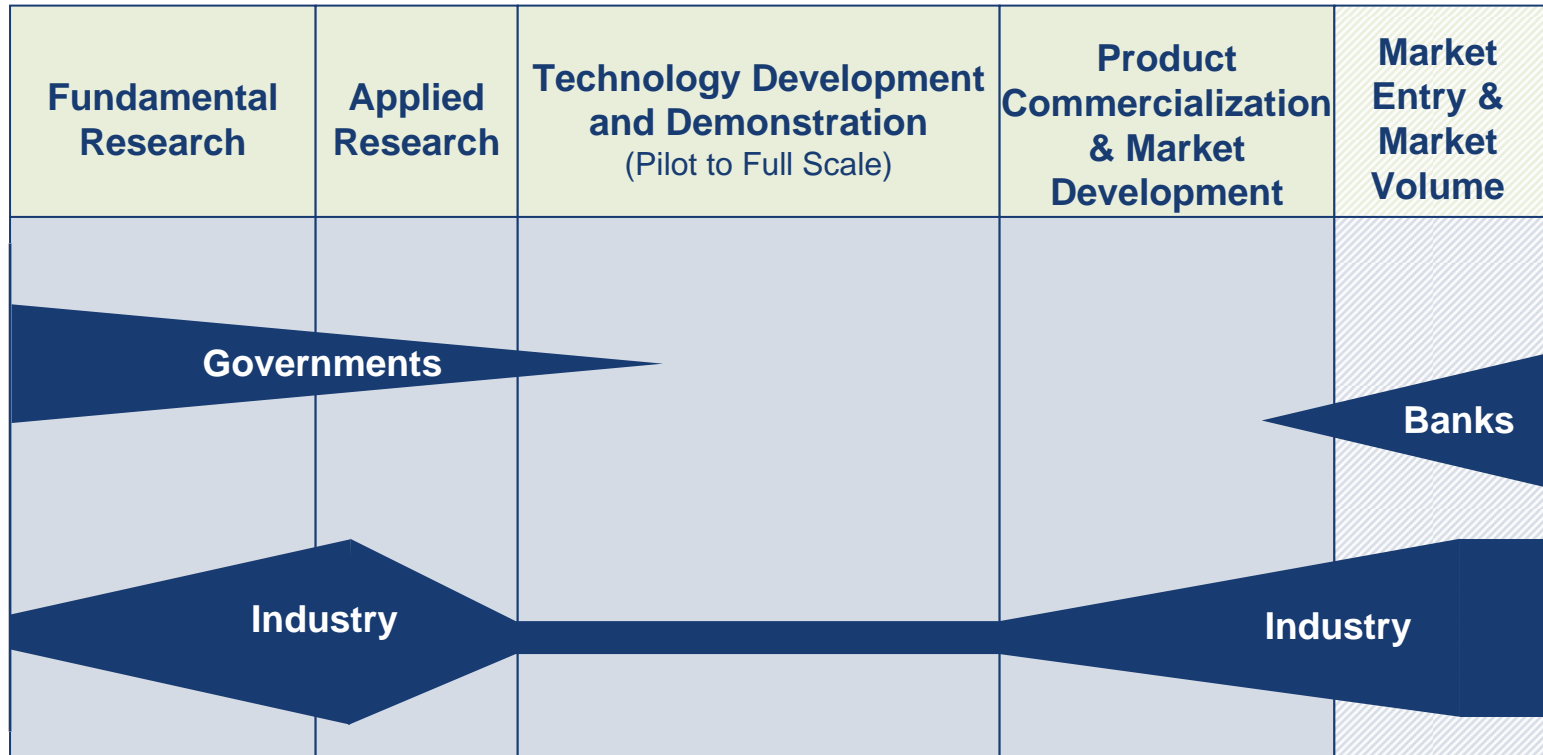
Screening Criteria

- Technical, Market, Business and Environment



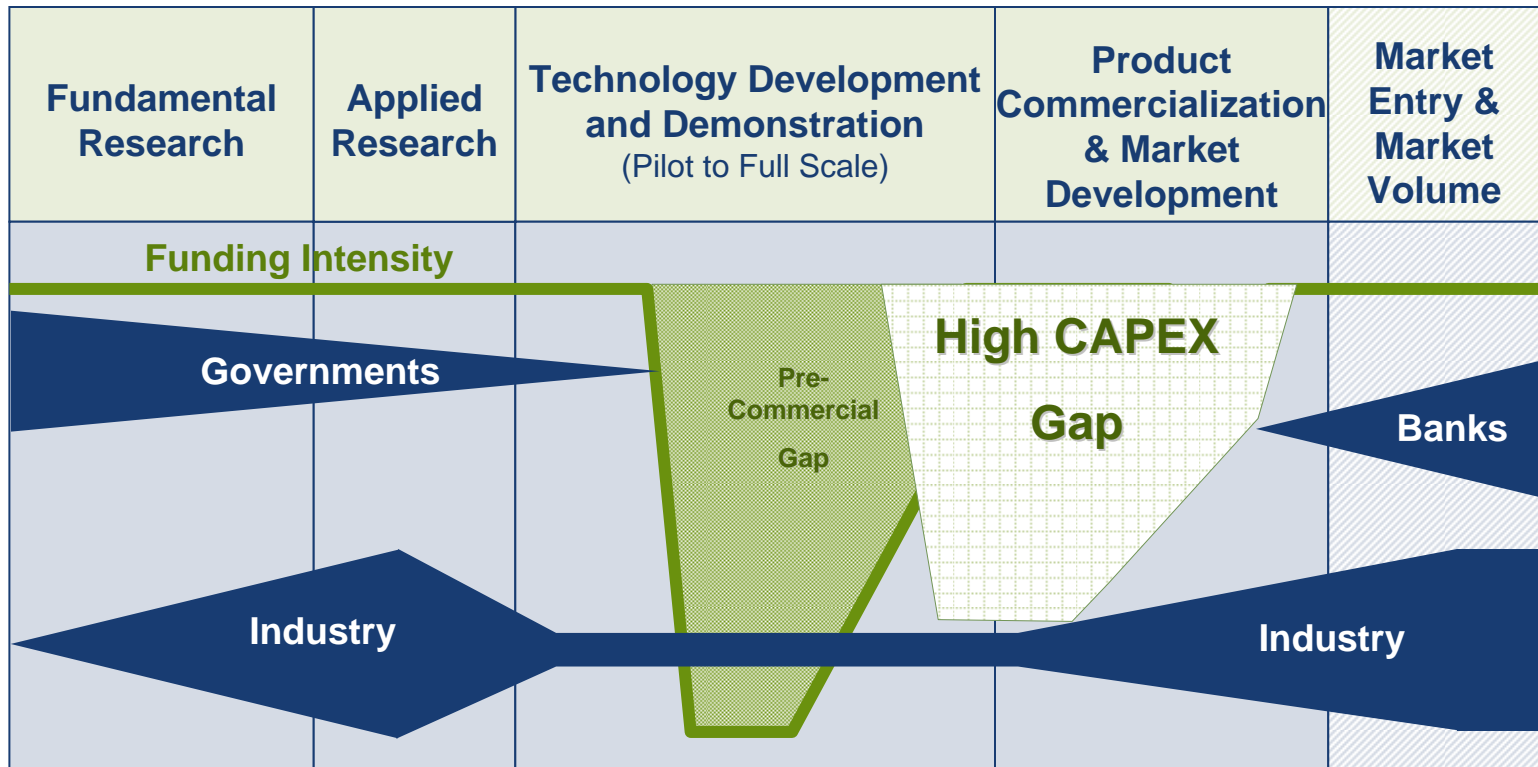
- The NextGen Biofuels Fund

# Sources of Funding – Capital Intensive Projects



*For high capital-intensive, or high CAPEX, projects, the sources of funding in the Innovation Chain are further limited.*

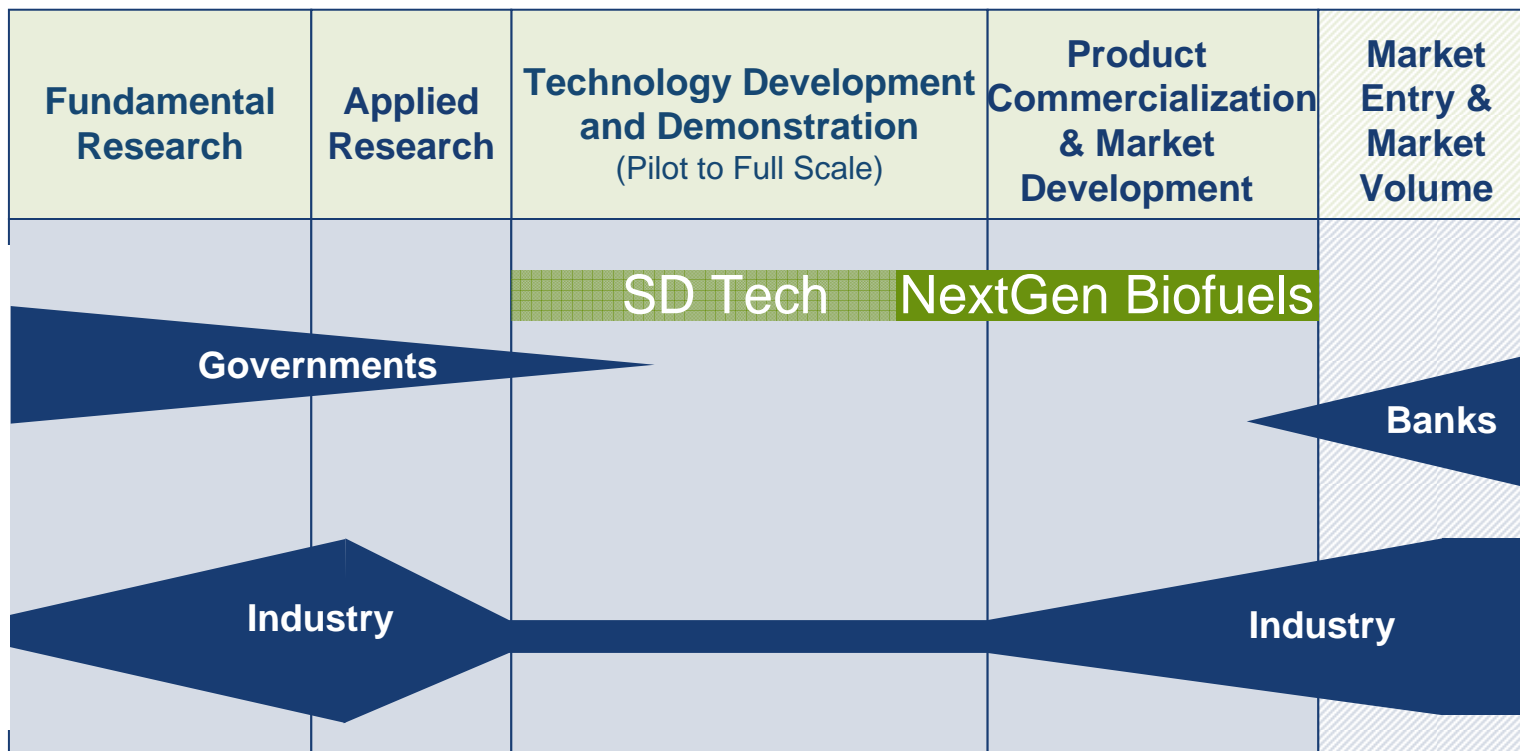
# Funding Gap – Capital Intensive



*The absence of angel and venture capital funding leads to a second gap we call the High CAPEX Gap.*



# NextGen Biofuels Fund



*The NextGen Biofuels Fund is positioned to complement the SD Tech Fund and address the High CAPEX Gap*

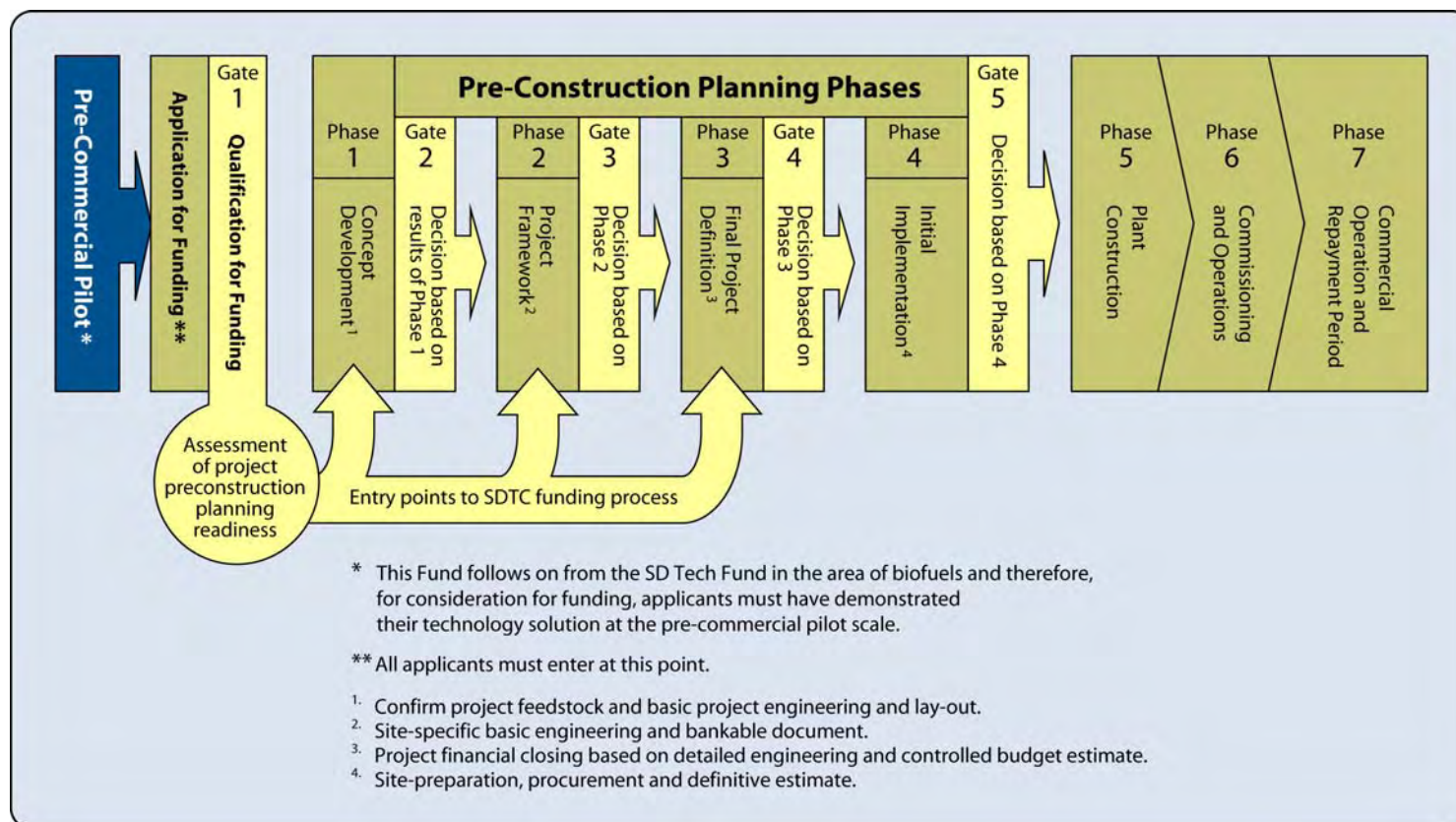


The purpose of the Fund is to:

- facilitate the establishment of first-of-kind large demonstration-scale facilities for the production of next-generation renewable fuels and co-products;
- improve the sustainable development impacts arising from the production and use of renewable fuels in Canada; and,
- encourage retention and growth of technology expertise and innovation capacity for the production of next-generation renewable fuels in Canada.

**NextGen Biofuels Fund is open for applications at any time.**

# NextGen Biofuels Fund – Funding Allocation Process



**Once a project qualifies for funding (Gate 1), there are three possible entry points into the SDTC funding process (Phases 1-3)**



- Results –  
SD Tech Fund

# Results

## – SD Tech Fund

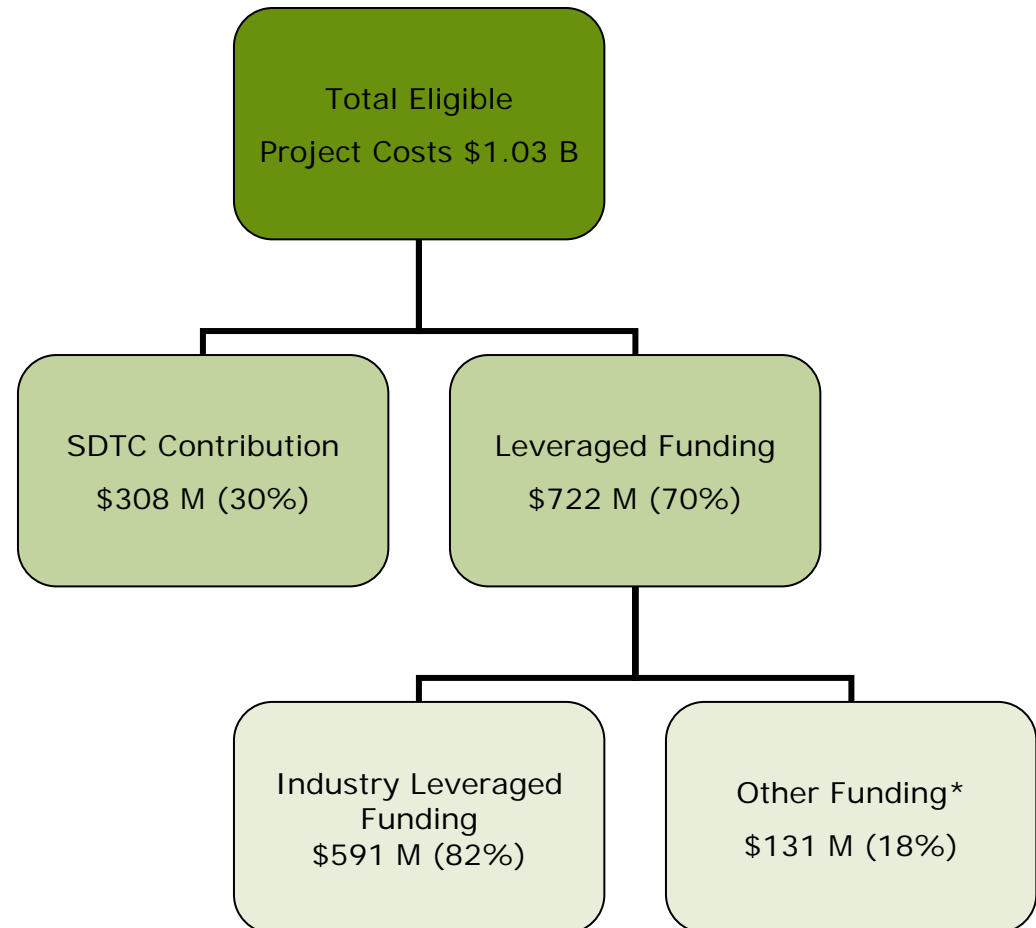


- **Applications to Date (11 Rounds)**

- 1,319 applications (>3,900 entities)
- \$3 Billion in funding requests
- \$12.2 Billion in total project value
- 87% industry-led

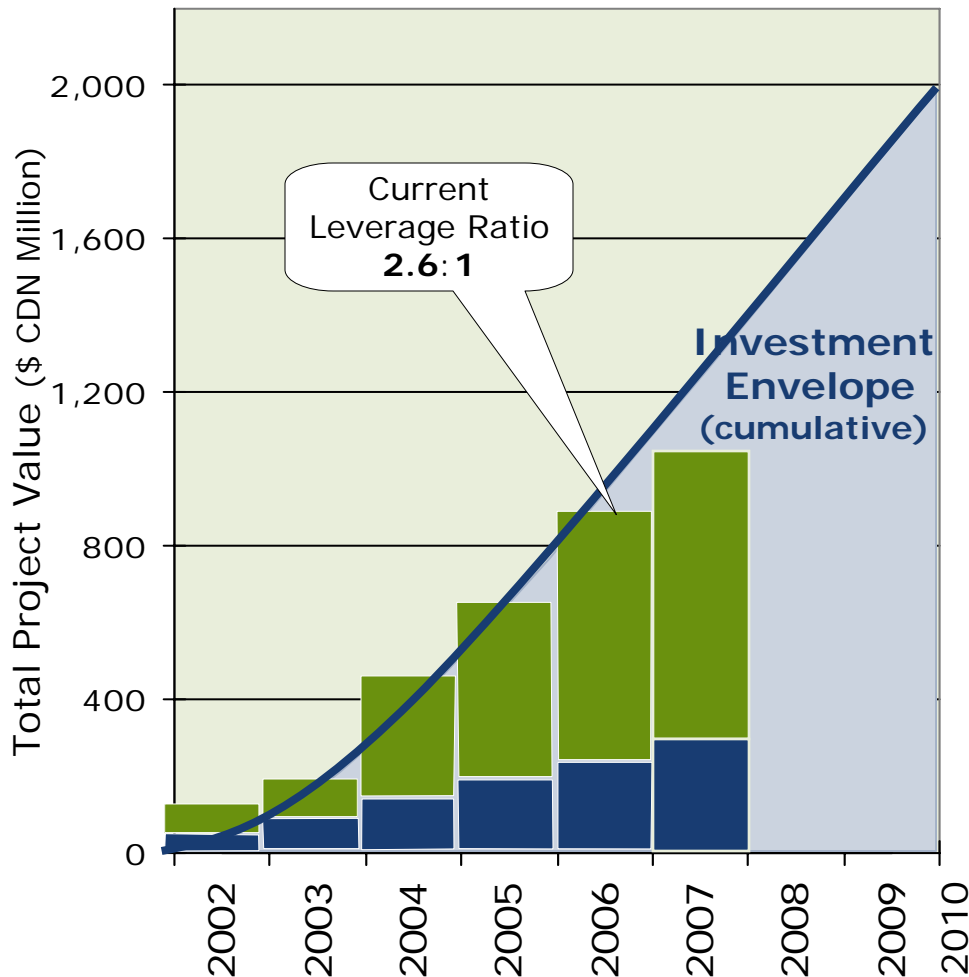
- **Projects Approved (11 Rounds)**

- 137 projects
- \$308 Million from SDTC
- \$722 Million leveraged from consortia members
- \$1.03 Billion in total eligible project value



\* Includes funds from federal departments, provincial governments and academia

# SD Tech Fund Investment Envelope



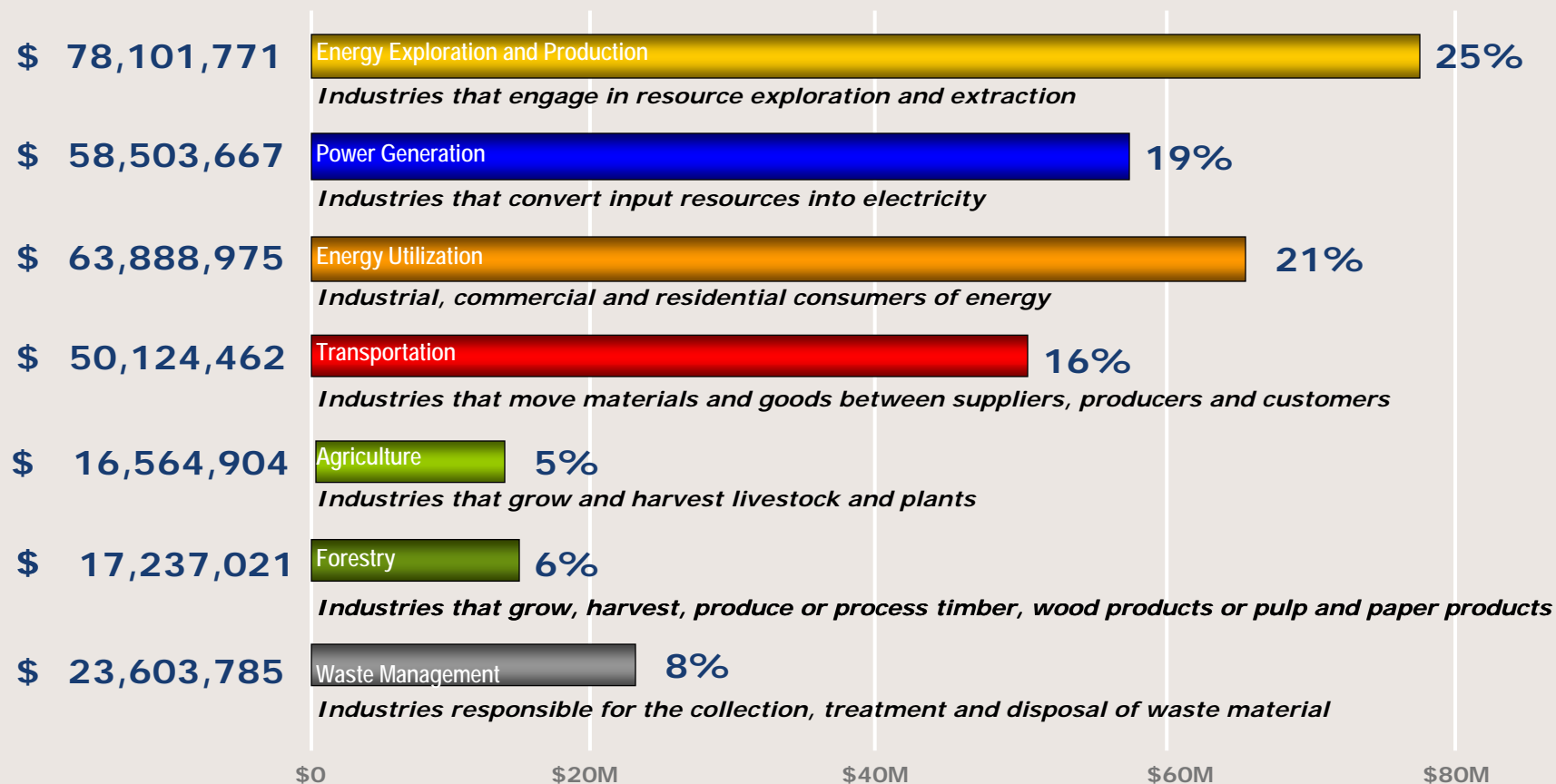
- As of October 2007, on a cumulative basis, SDTC has allocated **\$308M**, for a total leveraged value of **\$1.03B**.
- By leveraging the **\$550M** fund 2-3 times with consortia partners, SD Tech Fund will have an investment envelope of between **\$1.6B** and **\$2.2B** by 2010.
- Strong commitment in Canada to clean technology.

# Investment Portfolio – SD Tech Fund



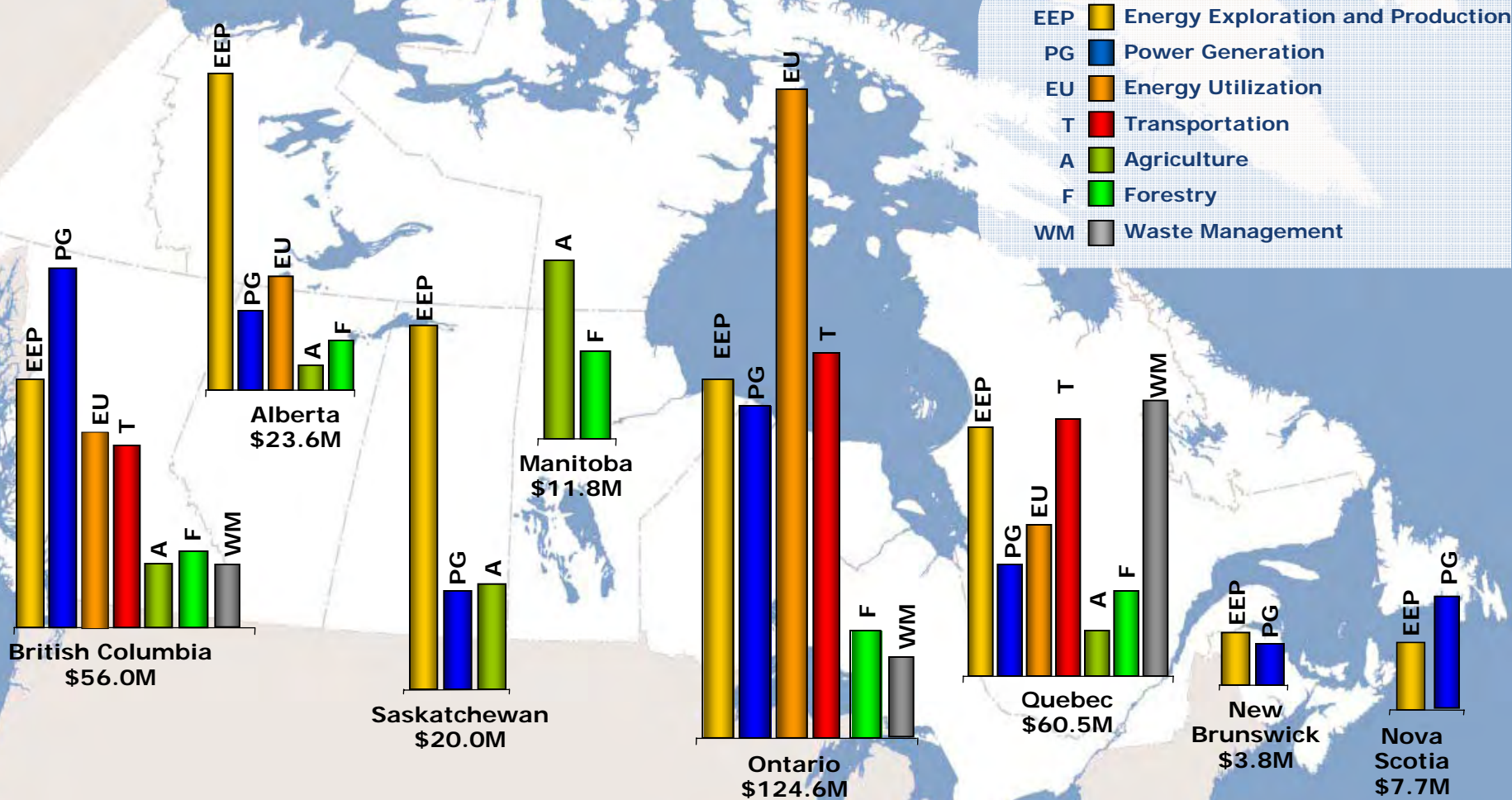
## SDTC Funding Breakdown by Sector (as of October, 2007)

SDTC's current investment  
in 137 projects totals  
\$308 million.





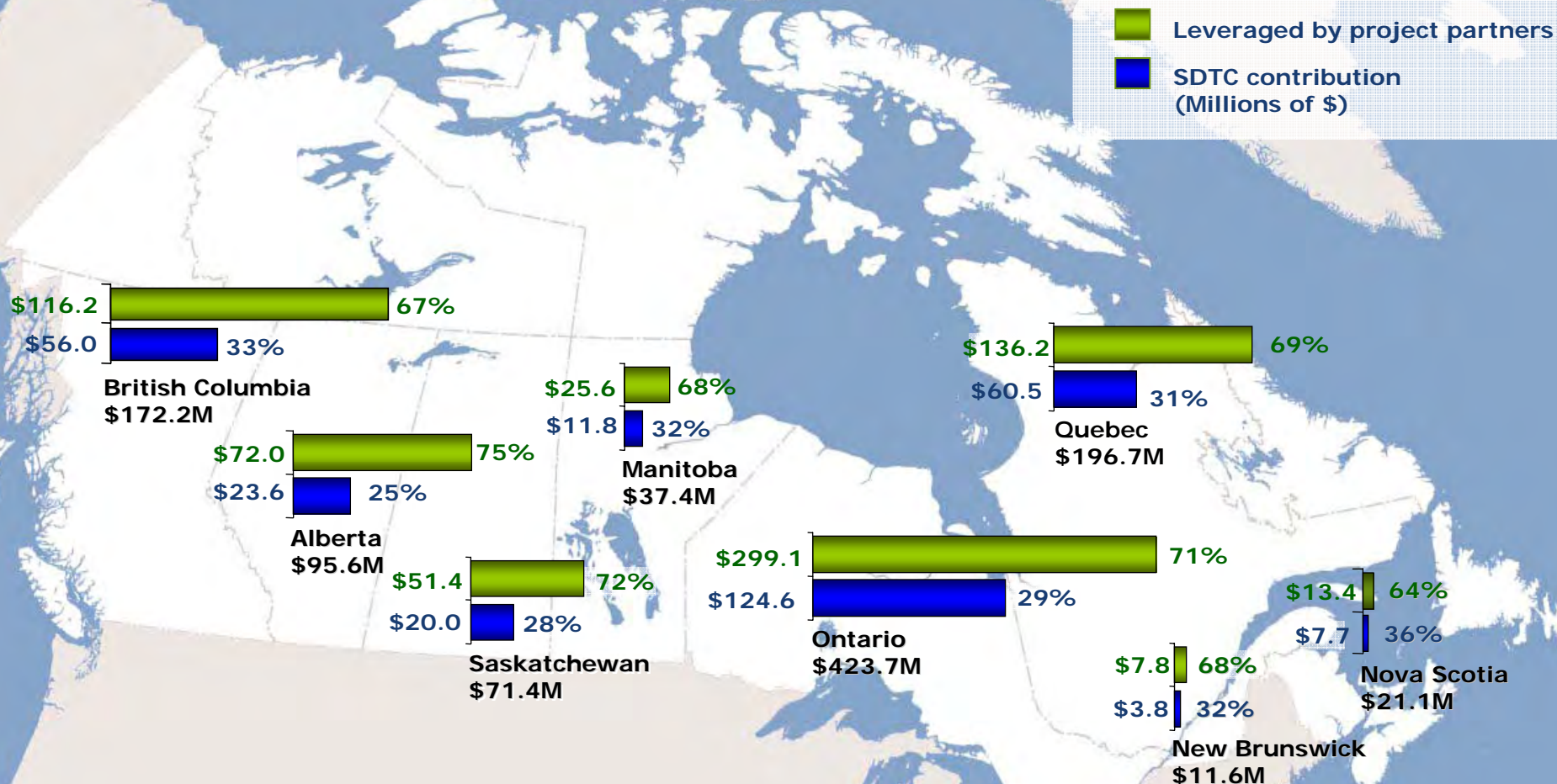
# Investment Portfolio – SD Tech Fund



**SDTC Sector Funding by Province**  
(as of October, 2007)



# Investment Portfolio – SD Tech Fund



## Leveraged Financing by Province

(as of October, 2007)



- Investment Priorities –  
SD Business Case Reports

# Investment Priorities

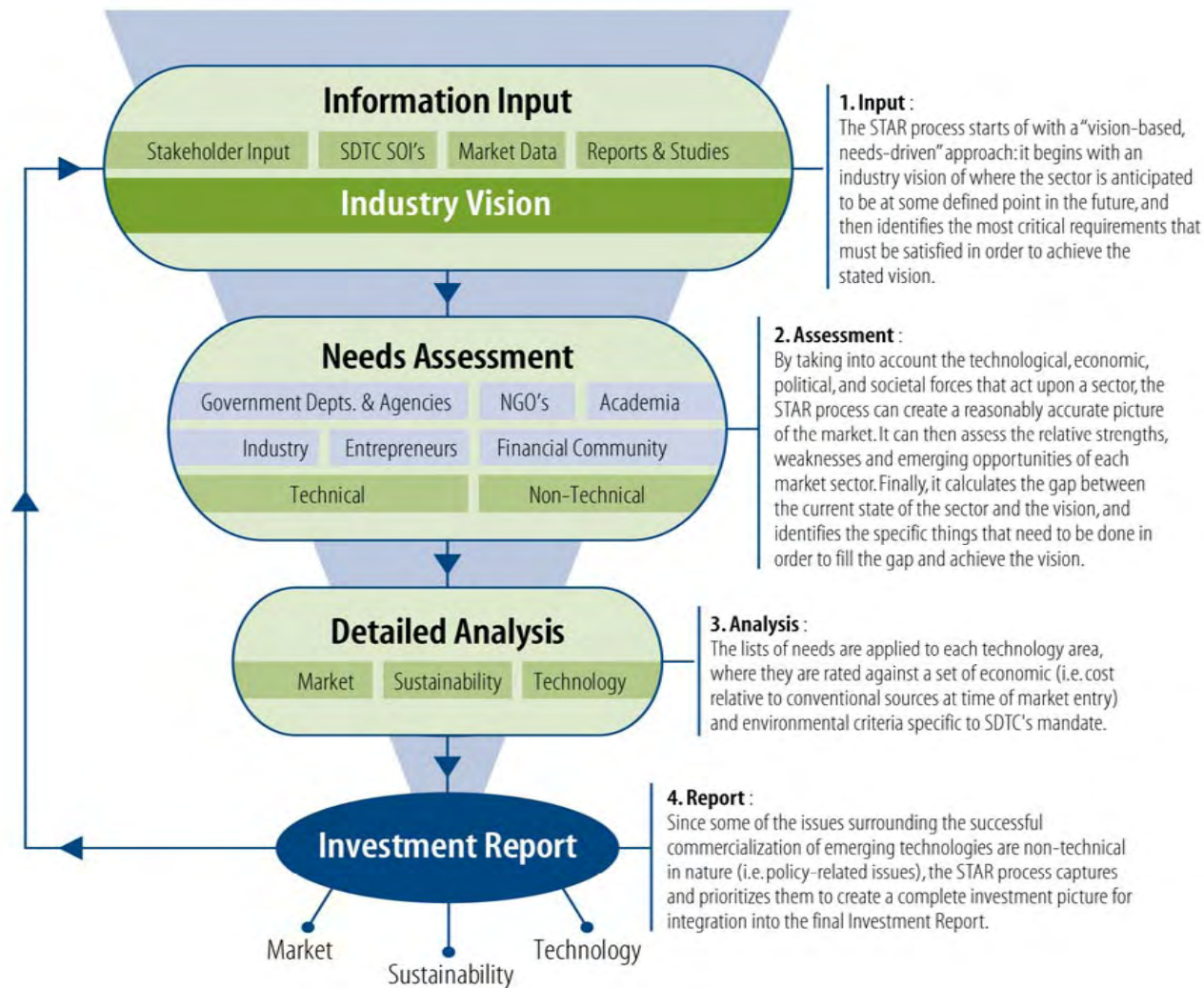


## SD Business Case Reports

Combining comprehensive stakeholder input with objective SDTC analysis, these reports present industry's vision of Canada's future potential and investment opportunities in the technology areas under study.



# SDTC STAR™ Process



The above process is repeated for each area of study, until a complete picture of the market emerges to the satisfaction of SDTC and the key market stakeholders.

SDTC STAR™ is a trade mark of Canada Foundation for Sustainable Development Technology.

# What It Is



A computer-based analysis tool that combines *qualitative and quantitative* information in a common platform that best describes the salient features of selected technologies, within the context of the external forces and circumstances that act upon them.

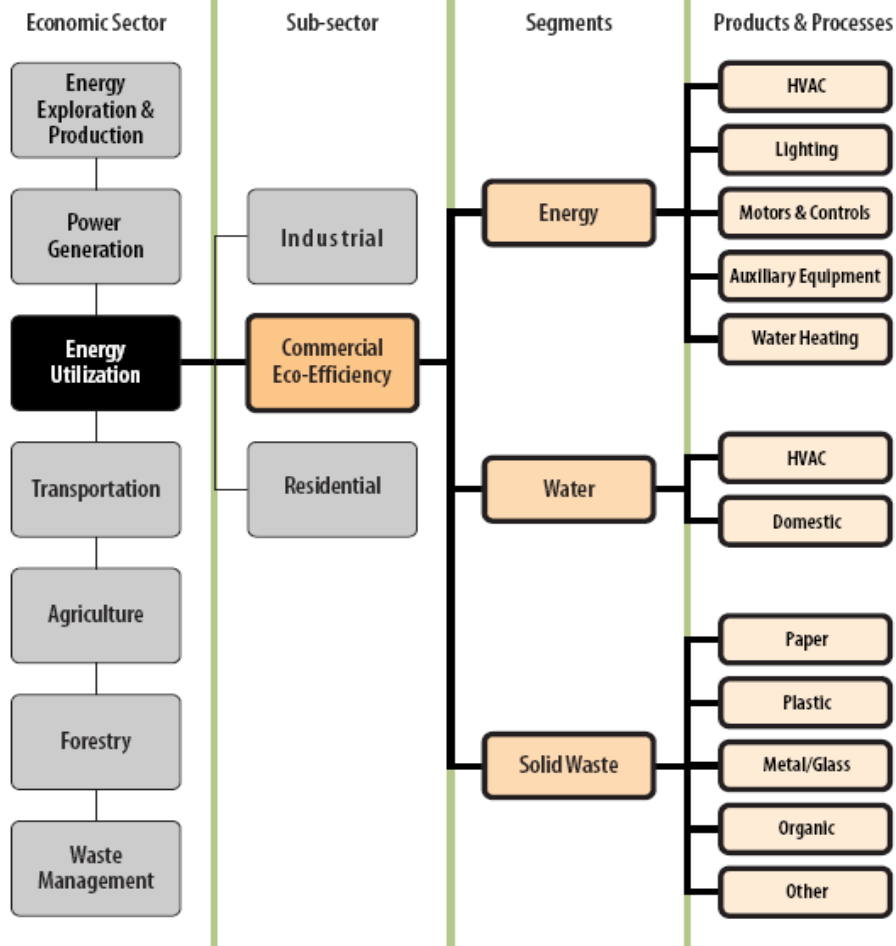
- ***Input:*** Market and technical data, reports and assessments, stakeholder input, and industry intelligence. SDTC also includes the information from its proprietary database of over 1,000 project applications.
- ***Analysis:*** Relevant data and information is compiled and screened to form a highly filtered and refined set of possible investment priorities. The ***vision-based, needs-driven*** process identifies the most realistic vision for the future, describes the technical and non-technical barriers and opportunities facing the market, and identifies the best emerging clean technology alternatives.
- ***Output:*** A set of high potential technological priorities that are used to ***support*** the final investment decision. The output is *not an absolute answer*, and is not used as a definitive decision-making tool to accept or reject individual projects or technologies.



# SDTC Study Areas – Commercial Buildings

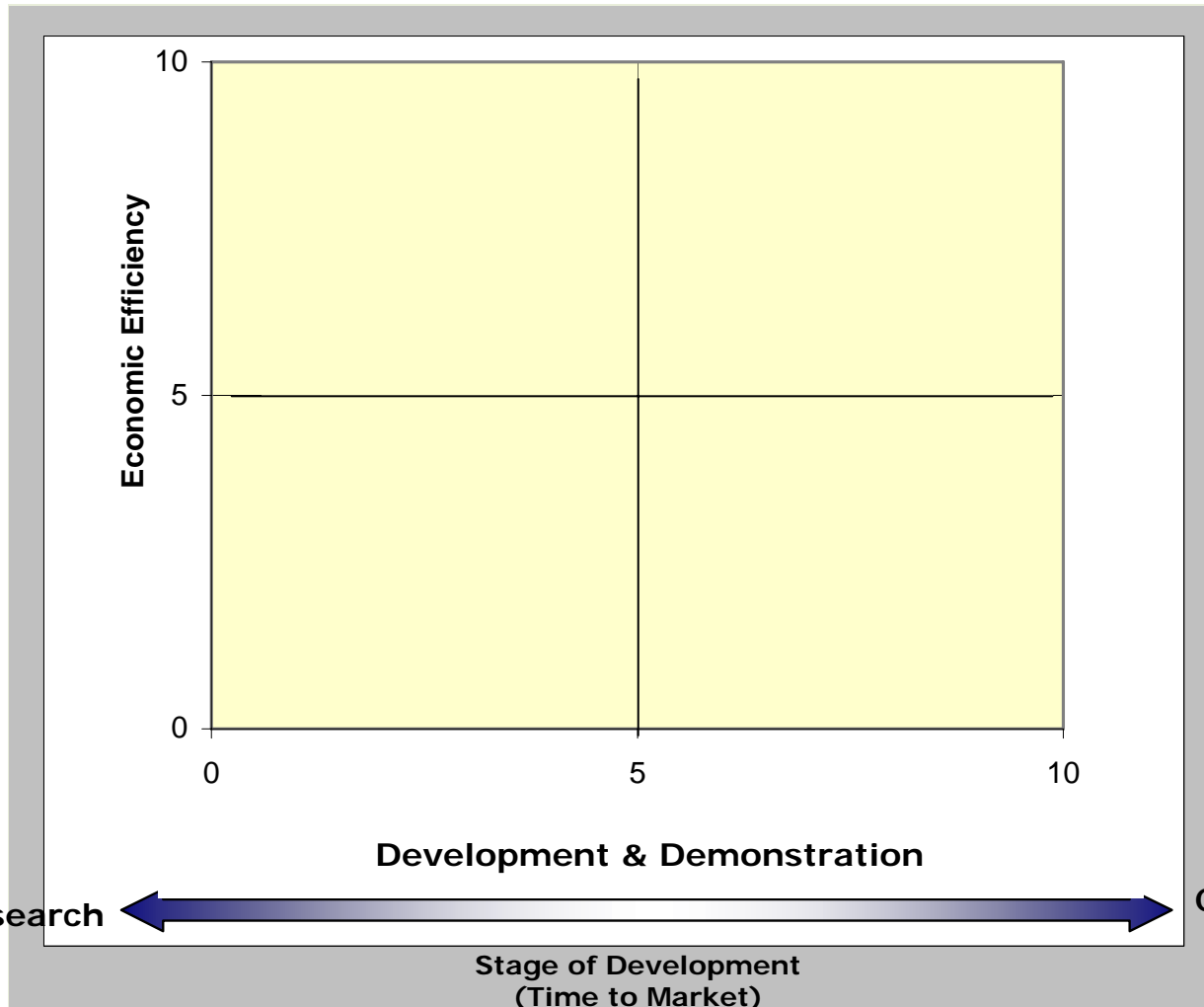


Figure 1: SD Business Case™ Investment Roadmap



SD Business Case™ is a trade mark of Canada Foundation for Sustainable Development Technology.

# Market Plots



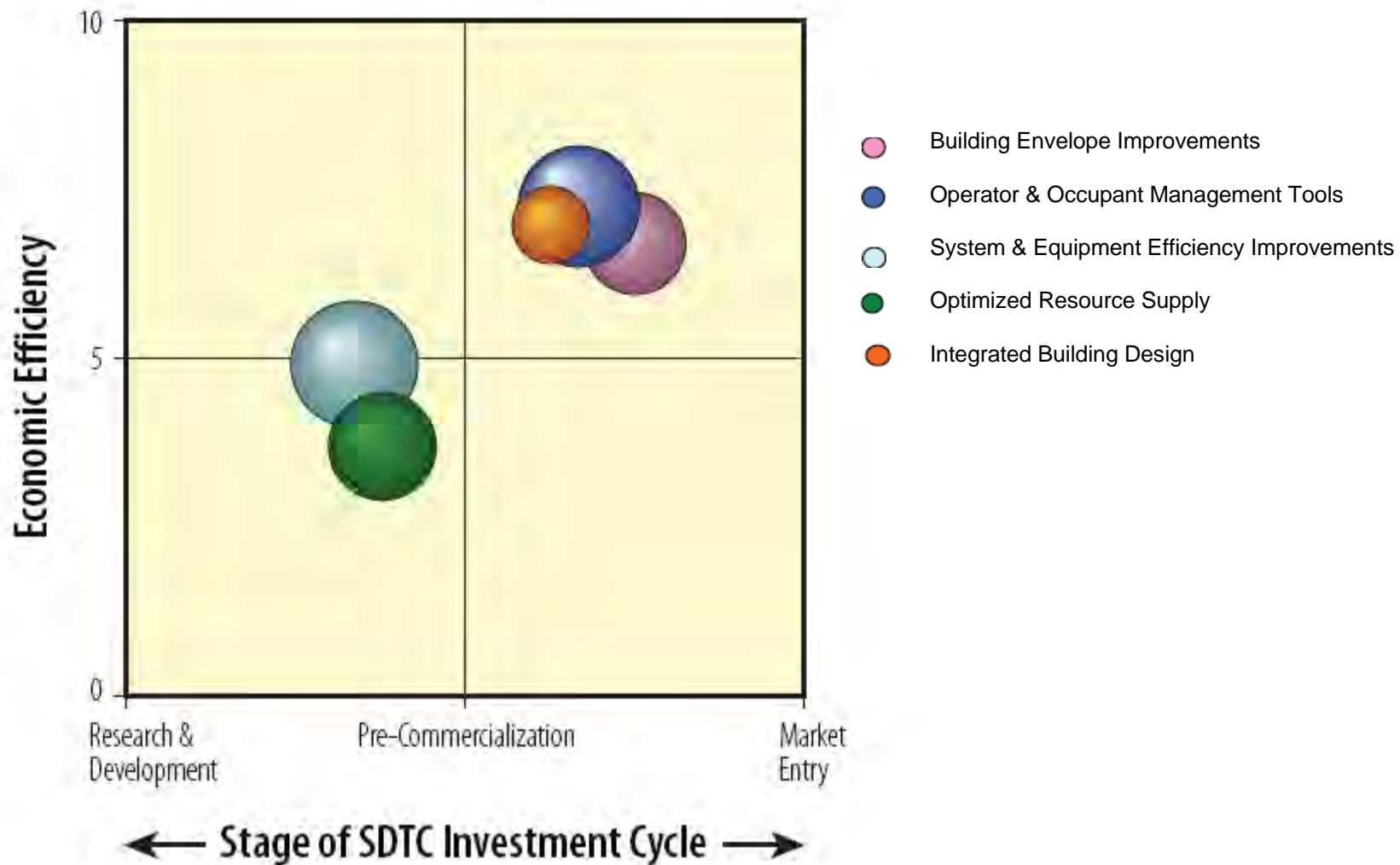
## **Notes:**

*All axis are based on a relative scale of one to ten*

*Point 0,0 = low cost competitiveness and is outside of the "development & demonstration" stage*

*The size of each bubble refers to the relative avoided GHG emissions from fossil generation. GHG in electricity production is also a proxy for clean air impacts.*

# Commercial Buildings Market Plot







## For more Information:

Sustainable Development Technology Canada

45 O'Connor Street, Suite 1850

Ottawa, Ontario K1P 1A4

[www.sdtc.ca](http://www.sdtc.ca)