Profit from Sustainability Innovation

Walter Schindler
Managing Partner
SAIL Venture Partners

Sustainability Innovation Forum
Cambridge, MA
May 28, 2009
The Market: Why 2009 is a Big Year

- Global credit crisis, capital constraints and volatile energy prices
- Competition for scarce energy, water and agricultural resources
- US political transitioning: Obama’s Agenda
  - proposed $150 Billion to invest in cleantech
- Climate change is a top global priority
- The increasing power of emerging economies as buyers and users of clean technologies
New opportunities to profit arise from cleantech:
- Inefficiencies in global markets for intellectual property
- Creating greater efficiencies in energy, water and agriculture
- Rapid global adoption of new technologies

“Climate change is no longer a term associated with economic stagnation, but rather economic opportunity …the opportunity to profit from improving sustainability.”

- Nick Parker, Chairman, The Cleantech Group.
Global Sustainability Challenges

- Energy Demand
- Water Scarcity
- Green Development

Investing in Leaders
Opportunity of Global Challenges

Cleantech:

- **Technology Innovation**
  - Optimize use of natural resources
  - Reduce ecological impact
  - Add economic value

- **Remarkable Growth**
  - World’s fastest growing investment category
  - 3rd largest venture capital investment category: over 14% market share in North America; 18% in Europe

- **Remarkable Profit Potential**
  - “Rapidly growing businesses in need of capital will create opportunities for private equity funds to invest in situations that are not leverage-dependent and which should have lower valuations in the current environment” - J.P. Morgan
How Big is this Opportunity?

Exhibit 5: Potential size – at a glance

$500 billion
Value of low-carbon energy markets by 2050 (Stern)

$100 billion
Demand for projects generating GHG emissions credits by 2030 (UN)

$100 billion
Worldwide investment in clean energy by 2009 (New Energy Finance)

$18.6 to $23.1 billion
Estimated solar industry revenues by 2010 (Solar Buzz)

$15 billion
Global fuel cell and distributed hydrogen market by 2015*

$84 billion
Cumulative net savings from energy efficient products in US by 2012*

*Source: The Climate Group

Investing in Climate Change, Deutsche Asset Management, Oct 2007

Investing in Leaders
Energy Demand

+63.6% Global Average in 2005

The Lamp, ExxonMobil's quarterly shareholders publication. 2005
Water

Projected Global Water Scarcity, 2025

**Physical water scarcity:** More than 75% of river flows are allocated to agriculture, industries, or domestic purposes. This definition of scarcity — relating water availability to water demand — implies that dry areas are not necessarily water-scarce.

**Economic water scarcity:** Water resources are abundant relative to water use, with less than 25% of water from rivers withdrawn for human purposes, but malnutrition exists.

**Little or no water scarcity:** Abundant water resources relative to use. Less than 25% of water from rivers is withdrawn for human purposes.

**Approaching physical water scarcity:** More than 60% of river flows are allocated. These basins will experience physical water scarcity in the near future.

Source: International Water Management Institute.
Green Innovation includes:

- Agriculture
- Natural pesticides
- Organic and biodegradable consumer products
- Materials science
- Green Buildings
- Pollution Control
Clean energy has proven resilient and stands at the center of many governments’ efforts to rebuild their economies.

Approx. €114 Billion

Source: New Energy Finance. NOTE: Asset Financing figure includes a downward adjustment of $3.4bn, reflecting a subsequent reinvestment of VC, PE, and public market funds raised by clean-energy companies. Re-investment assumes a one-year lag.
Clean Energy Investment

Clean tech investments 1999–2006

Source: Cleantech Venture Network 2006.
Note: the data only covers private equity investments; project finance, debt, IPO or other forms of non-venture financing are excluded.

Investing in Leaders
A “CARBON REVOLUTION” NEEDS TO BE THREE TIMES FASTER THAN THE INDUSTRIAL REVOLUTION RISE IN LABOR PRODUCTIVITY

Source: Contours of the World Economy 1 – 2030 A.D., Maddison, 2007; McKinsey analysis
Sustainable Growth

McKinsey Global Institute, McKinsey Climate Change Special Initiative, June 2008

The carbon productivity challenge:
Curbing climate change and sustaining economic growth

REducing emissions and maintaining growth implies carbon productivity must increase by ten times
Index (2008 = 1)

Carbon productivity growth required 5.6 percent per annum
World GDP growth at current trends* 3.1 percent per annum (real)
Emissions decrease to reach 20 GtCO₂e by 2050 -2.4 percent per annum

*Global Insight GDP forecast to 2037, extrapolated to 2050.
Source: McKinsey analysis

Credit: Dave Haygarth
Global Cost Curve

Vattenfall, Climate Map 2030: Mission Possible

Investing in Leaders
Investing in Leaders

Problem Solved: Eliminate peak-power requirements due to air-conditioning by shifting energy consumption to night.

Problem Solved: Stranded gas (methane) from landfills, oilfields and coal mines is a greenhouse gas 23X stronger than CO2.

Problem Solved: Efficient, safe, economical storage of massive amounts of electricity to buffer wind/solar farms, replace peak power plants, load shift buildings from peak.

SAIL I: CAGR of 82%
SAIL II: CAGR of 110%
Investing in Leaders

- **Problem Solved:** Low-cost, light-weight, high-performance batteries needed for industrial and transportation markets.

- **Problem Solved:** Thought leadership in the cleantech sector through building networks of conferences, information, indexes, advisory services and recruiting.

- **Problem Solved:** Globally affordable pathogen-free drinking water conveniently accessible.

*SAIL I: CAGR of 82%
*SAIL II: CAGR of 110%
Managing Risk

- Invest in cleantech companies that focus on solving large global resource challenges
- Focus on the Largest Global Markets: Energy, Water and Green Innovation
- Invest in several stages based on objective performance milestones
- Over time, increase capital amounts as results are achieved
- Maintain a strong buy discipline with favorable entry valuation
- Require strong management teams and boards of directors
- Identify and Exploit Global Market Inefficiencies in pricing
- Identify and Control Strategic Outcomes: Customers, Strategic Partners and Exits
Investment Strategy

- Pursue the largest global markets
- Diversify by subsector within cleantech
- Evaluate technology and markets on a global basis
- Exploit global inefficiencies in pricing IP assets
- Seek out customer-driven companies with rising revenues
- Co-invest with high value add partners
- Back strong management teams and boards of directors
Sustainable Investments

SAIL Venture Partners

California    New York    Washington DC    Boston

For further information or inquiries
Contact: Walter Schindler
wschindler@sailvc.com
(949) 923-1629 (mobile)
www.sailvc.com