COP21 AND INVESTING IN INNOVATION:

Recommendations to accelerate the energy transition

idinvest PARTNERS

ELECTRANOVA CAPITAL

Cleantech Group

DeMeter PARTNERS

ENVIRONMENTAL TECHNOLOGIES FUND

INTRODUCTION

COP 21 has set out to stabilise the climate and reduce greenhouse gas emissions by capping the rise in average temperatures at 2°C. Between 1880 and 2012, the average global temperature (land and oceans combined) rose by 0.85°C.

The threat of climate warming and ocean acidification is becoming more acute as developed and developing economies alike struggle to reduce or even simply control their greenhouse gas emissions.

COP21's stated goal implies changing our development models so that, around the globe, we produce renewable energy and curtail the use of fossil energy.
This change requires us to develop a range of new, more efficient and cleaner technologies, commonly referred to as "***Cleantech***".

The Cleantech sector is booming. Long seen as unprofitable, subsidised industries, Cleantech have burgeoned over the last 10 years and today no-one doubts its potential. The energy transition has changed status. What used to be seen as a marginal issue involving little more than minimum compliance with regulations has now become a major business opportunity. It represents a major opportunity for large industrial groups, who find Cleantech being new and powerful growth drivers. It represents a major opportunity for startups too, who find emerging markets well suited for their innovation. And lastly, it represents an opportunity for public stakeholders too in providing an additional source of local jobs.

As a stakeholder and partner in the energy transition, we believe that structured, ambitious systems must be set up and adapted to the local context, along two complementary lines:

1. **Channel additional private funding into Cleantech**
2. **Encourage the major industrial players and public authorities to support the development and adoption of new technologies**

How the systems will be put into practice will depend on the local context.

Despite representing the solution to a better future, Cleantech companies are still subject to a number of factors that are holding their development back. The most significant factor is the difficulty of reaching an international agreement on the value of the negative externalities associated with the emission of greenhouse gases. Once this hurdle is cleared, simple mechanisms can be set up to accelerate the development and adoption of new technologies for the energy transition.

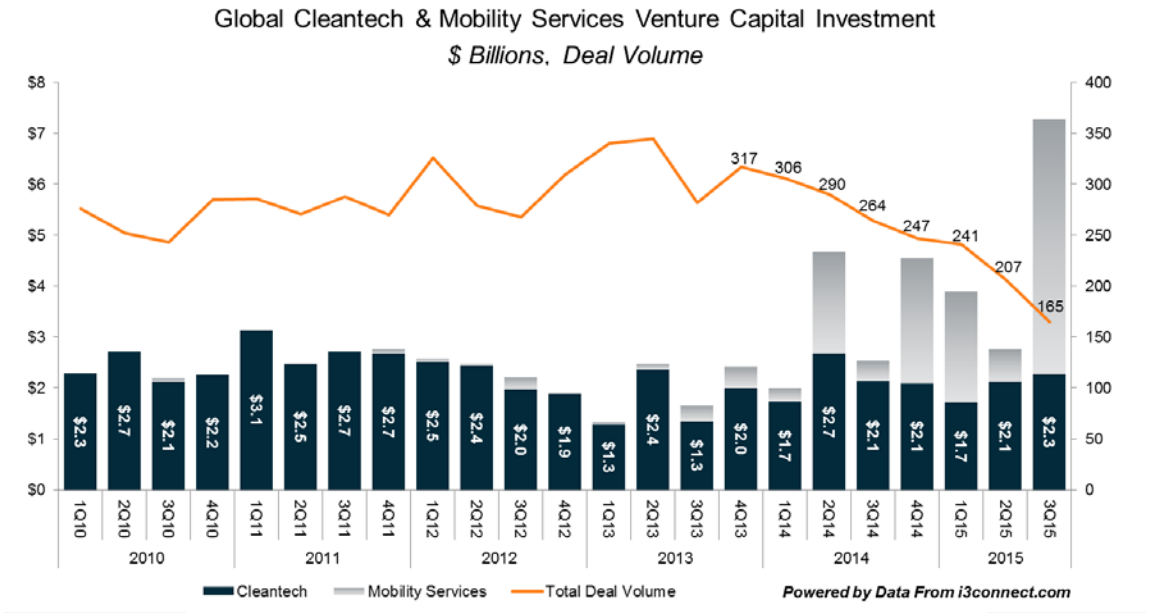
CHANNEL PRIVATE FUNDING INTO CLEANTECH

Between 2007 and 2014, the amount of money invested in Cleantech increased from $175 billion to $310 billion. **This growth is real**, but it is **inadequate** in both its **orientations** and its **volumes**.

The bulk of investment today is going into infrastructure funds involved in proven renewable energies, mainly solar and wind power. They are not fostering the necessary emergence of new technologies (storage, marine energy, new-generation solar or wind power, etc.), nor financing enough of energy efficiency projects.

One of the main ways to develop Cleantech solutions is therefore to **provide greater support for maturing innovative technologies** by diversifying the investment models.

The development cycles of the new technologies in the Cleantech area are admittedly different to those seen in other technology sectors, such as information technology or biotech. However the successes already achieved among the first generation of Cleantech start-ups and the growing involvement of industrial players suggest that there are many great achievements still to come. This should result in attractive returns on investment, provided we can **divert more capital** into these new technology sectors.



Once early-stage financing has been obtained to create and develop the new technologies, further funding is required to rapidly scale the Cleantech solutions.

So-called growth investment funds no longer have sufficient resources to **finance this market expansion phase**. More capital is therefore required from both public and private sources to fund these **growth drivers of tomorrow**.

ENCOURAGE THE MAJOR INDUSTRIAL PLAYERS AND PUBLIC AUTHORITIES TO SUPPORT THE DEVELOPMENT AND ADOPTION OF NEW TECHNOLOGIES

The markets that Cleantech SMEs are trying to break into (energy, waste, transport, building, etc.) are **particularly difficult markets to penetrate**, mainly because major players are already established there, the sectors are very **conservative**, and the markets are very **capital-intensive**, putting small companies at a disadvantage. The main barrier to market penetration lies in perceived **technology risk**, which often means lengthy development timeframes and substantial capital requirements. Cleantech SMEs therefore need to find ways to **collaborate with public authorities and industrial players** more effectively in order to streamline time-to-market for their innovations and reduce or share the capital requirements.

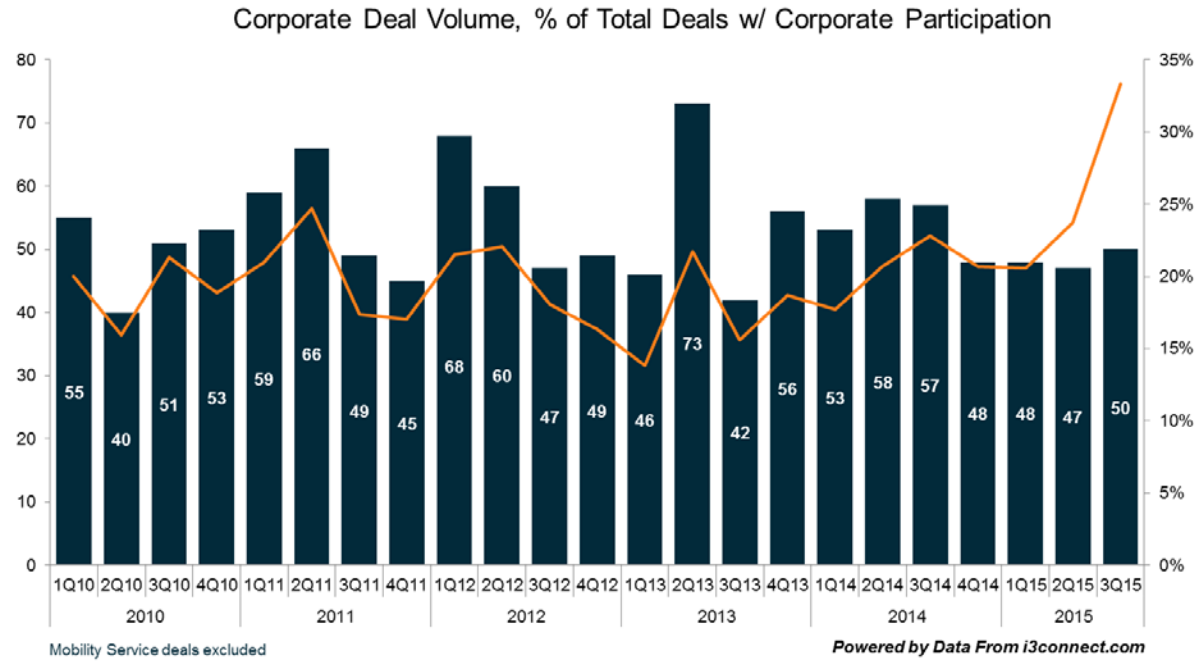
To speed up the deployment of Cleantech on an industrial scale, there are numerous possibilities for cooperating with budding companies: R&D, innovation, designing common product or service ranges, industrial pilot schemes and commercial partnerships. Cleantech SMEs have specific assets (both material and immaterial) that are highly complementary to those of public authorities and large groups. There is huge potential for win-win collaborations.

- **What Cleantech SMEs stand to gain :**

Cleantech SMEs need to meet their market and go through the make-or-break experiences traditionally encountered in the course of their commercial development: public procurement contracts should be a natural outlet for Cleantech SMEs.
Large industrial groups can bring Cleantech SMEs their brand credibility, a large customer portfolio and an understanding of their needs, a distribution network, industry-specific expertise, an international footprint, easy access to capital and a certain influence on the regulatory framework.

- **What large industrial groups stand to gain :**

Large groups face very fast-changing markets in a context where **globalisation** and **competition** are fierce, forcing them to innovate and adapt if they are to retain their market share. Hence, finding the **drive and spirit of innovation** is vitally important. For these large groups, collaborating with **start-ups** opens up their company culture to innovation and brings them far more opportunities than their own **capacity for innovation** could give them.



- **What public stakeholders stand to gain :**

Cleantech SMEs provide Public stakeholders with **innovative solutions** for enhancing quality of life, producing clean energy, managing waste, treating water or introducing eco-mobility, while at the same time creating **local jobs** and value.

France can play a leading role by "Thinking global, acting local"

By adapting our behaviour in our local market, France has an opportunity to play a leading role in developing the Cleantech sector and benefiting from its rapid growth. Specific measures France could take includes :

1. Channelling additional private funding into Cleantech

Private capital could be raised by re-distributing regulated savings (the Livret de Développement Durable and Livret A savings accounts in France represent a substantial share of private funding used for regulated purposes.)

- **Redirecting this capital** into investment funds dedicated to early-stage projects in the Cleantech area to create an "Energy and Ecological Transition " certification scheme.

In France, all too few growth capital funds are dedicated to Cleantech. It is critically important to encourage the flow of private capital towards the green industry. For this to happen, these "green" investment funds must be clearly identified with specific certification. "Green" or "Energy and Ecological Transition" certification is currently being developed and the initiative should be continued.

- **Bringing in financial incentives** to encourage the technology risk-taking involved in financing Cleantech SMEs :

    - **Individual investors**

        - Tax breaks (income tax, wealth tax, exemption in the event of an inheritance or gift) for investing in green start-ups, on the same lines as the incentives for investing in forestry groups introduced in the TEPA and DEFI laws and the Serot-Monichon amendment.

    - **Companies** (according to interviews with leading corporates)

        - Extend the ***CIR*** scheme (R&D tax credit) to direct and indirect minority equity **investments** in innovative start-ups ;
        - Make unrealised losses deductible from taxable revenue, including long-term losses.

2. Encouraging the major industrial players and public authorities to support the development and adoption of new technologies

- Give public procurement officials a **sourcing platform for innovative solutions** offered by Cleantech SMEs in the eco-industry concerned.

- Include a new **criterion - "contributes to the energy and resource efficiency transition"** - in the bid selection process, including such things as the carbon footprint. This would enable bids by Cleantech start- ups to better compete with traditional suppliers.

- Develop **Pre-commercial Procurement Process**. Modelled on the US system, the public procurement award procedure unfolds in three stages:

    - Issue public call for tenders and grant small subsidies to start-ups so that short-listed bidders can demonstrate their project's feasibility ;
    - Award the contract in question to the winning bids selected at the end of the first stage, and finance the R&D ;
    - Conclude the contract with the winning bidder selected at the end of the second stage and launch the innovation on the private market.

- Establish mandatory **reporting** by companies, for example in their annual reports, **on how they address climate change and its solutions**. This would serve a dual purpose:

    - Involving large groups and their stakeholders more extensively in the energy and resource efficiency transition, encouraging the adoption of Cleantech solutions that can provide new growth opportunities ;
    - Establishing best practices of transparency, spurring companies on to better performance and faster adoption of solutions.

By implementing the above suggestions, France has a great opportunity to play a leading role in the development of global Cleantech solutions. Not only will this create significant global environmental benefits, it will also create many new local job opportunities and further economic growth.

Nicolas CHAUDRON
(Idinvest & Electranova Capital)
nc@idinvest.com

Henrik OLSÉN
(Environmental Technologies Fund, ETF)
henrik@etf.eu.com

Sophie PATURLE
(Demeter Partners)
sophie.paturle@demeter-partners.com