

Can France Build a Clean Tech Policy?

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The run-up to the G8 summit this week in Germany has thrown into stark relief two approaches to combating global warming. On the one hand, multilateral binding limits on emissions such as the Kyoto protocol and, on the other, reliance on technological solutions to reduce dependence on fossil fuels and their damaging effects on the climate. Despite the recent announcements of President Bush, Europe remains the champion of binding limits on emissions. But the combined weight of the initiatives of individual US states and local authorities (California last year adopted legislation on binding emissions quotas from 2012), a recent decision of the Supreme Court, and pressure from a Democrat-led Congress mean that the US is likely to join Europe in a few years. Convergence in the other direction is less obvious. Despite being invoked by a Bush regime now devoid of credibility, the technology route is far being just window-dressing, and the technology gap could get bigger. On the other side of the Atlantic, a genuine industrial step-change is afoot.

GE, the industrial conglomerate, is one of its more visible exponents, with a doubling in two years of 'green' sales, such as wind turbines and water treatment systems, to reach \$12bn in 2006. IBM has committed to spend \$1bn per year for ten years on environmental projects. The financial community has joined the bandwagon, and some are even beginning to worry about the risk of a speculative bubble. JP Morgan, Crédit Suisse, Citi, Goldman Sachs, Lehman Brothers have all announced renewable-energy projects. 'Clean Tech' is also turning into the US venture capital industry's new frontier, behind information technology and biotech, with total investment doubling in the last two years to reach close to \$3bn in 2006.

The risk for Europe is that it will find itself technologically outpaced by the US. So here's a question for the new French government: can it create an efficient green industrial policy to complement its diplomatic moves on the post-Kyoto regime? The urgent need to tackle climate change and the difficulty in 'internalising the externalities' through effective market mechanisms justify public intervention in order to accelerate technological innovation designed to reduce CO₂ emissions. But in France the fuzzy concept of industrial policy can cover the best and the worst examples: a successful nuclear power generation program, just as much as a failed information-technology plan and hopeless hydrocarbon-research endeavours in the 1970s. Governments can take on risks which private business alone is incapable of assuming, but they also often get it wrong.

Among the initiatives taken by the last government, technology clusters (*pôles de compétitivité*) have triggered promising momentum in many regions. But other moves have been less convincing: the 'Industrial Innovation Agency' set up in 2005 is too state-driven, too inward-looking, too one-size-fits-all to deliver. Too often, industrial policy boils down to industrial meccano. The media is alive with stories about the future of GDF, the state-owned gas giant, and the possible carve-up of Areva. But rather than focusing on the umpteenth restructuring of the public energy sector, business should be given a stable backdrop against which to plan its investment, and new faces be given a chance to come forward, with the market left to choose. Challenges such as carbon sequestration, biofuels, solar panels and low-consumption appliances are likely to be met by start-ups at least as much as by the big incumbents.

In order to be credible, the government will have to rely on entrepreneurs, to open up to European and global markets, and to abandon its old *dirigiste* ways. Foreign experiences such as California's 'Green Wave' program, under which public pension funds CalPERS and CalSTRS have been investing in clean technologies since 2004, or the MIT Energy Initiative, show that such endeavours can rely on a strong public commitment without being exclusively state-driven.

In a nutshell, 'clean tech' confronts Sarkozy's team with a vast field of experimentation, which may soon be one of the key tests of its ability to marry political will and long-term economic performance.