TARGETED INDUSTRIAL POLICIES

The fading luster of 'winning sector clusters'

'Les pôles de compétitivité' - 'Les secteurs avec un avantage comparatif'
'Les grappes' - 'Sector clusters'

Les gouvernements doivent éviter de sélectionner des secteurs dits "prometteurs" et en plus les soutenir pour développer un avantage comparatif supposé pour le pays. Les pouvoirs publics n'ont pas les compétences pour sélectionner les secteurs économiques "d'avenir".
Les capitaux à risque, eux, savent le faire.

Le rôle des gouvernements à l'ère de la mondialisation
Surtout veiller à la qualité des infrastructures de leur pays: l'état de droit, l'enseignement pour tous, les soins de santé pour tous, un filet de secours social, une administration publique efficace et souple, la correction du fonctionnement de marché déficient, les réseaux routiers (de la société de l'information), la recherche fondamentale: des défis, des tâches énormes !

Hereunder abstracts of an older article published in The Economist (17/10/07 **'The fading lustre of clusters'**) augmented with a summary of academic findings on the same subject by a Dutch team of researchers with more arguments against 'Picking winners'. The findings of these articles have been confirmed by the results of recent research published in Harvard Business Review and in The Economist confirms.

Hence the plea that African countries should create an ecosystem that fosters '**Serendipity**' and '**Innovation & Internationalisation'**.

Recent personal discussions with entrepreneurs in Mali, Senegal, Burundi, South-Africa, Morocco and Equatorial Guinea confirmed their eagerness to go after international markets … without waiting for 'aid' programs, for new government policy or for new institutions. They themselves concluded that their mayor obstacle for growth is their own culture of a lack of ambition to go international … and their lack of 'openness' (for partnerships): "Why can Chinese SMEs, and not African SMEs, without the help of deep pockets form outside, suddenly acquire 25% of the worldwide motorcycle market?".

They themselves insisted that their intermediary organizations should organize all over their countries broad awareness creation seminars to demonstrate why and how African SMEs can and should go after international markets (in local languages, based on local success stories).

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ARGUMENTS AGAINST BACKING 'WINNING' CLUSTERS

(I) The Economist "**The fading lustre of clusters"** (Oct 7, 2007)
(II) Research in The Netherlands (2008): ***'Microfoundations for innovation policy'***

Innovation, long the preserve of technocratic elites, is becoming more open.
If you want to see the next wave of consumer innovation, **"look to the slums of South Africa"**

(I) THE ECONOMIST *Oct 11th 2007*

Something new under the sun

- Innovation, long the preserve of technocratic elites, is becoming more open. This will be good for the world
- THE FADING LUSTRE OF CLUSTERS
- The best thing that governments can do to encourage innovation is get out of the way

http://www.economist.com/specialreports/displaystory.cfm?story_id=9928211

EU officials, like government bureaucrats everywhere, are obsessed with creating geographic clusters like Silicon Valley. The French have poured billions into *pôles de compétitivité*; and Singapore, Dubai and others are doing much the same. There are dozens of aspiring clusters worldwide, nicknamed Silicon Fen, Silicon

Fjord, Silicon Alley and Silicon Bog. Typically governments pick a promising part of their country, ideally one that has a big university nearby, and provide a pot of money that is meant to kick-start entrepreneurship under the guiding hand of benevolent bureaucrats.

It has been an abysmal failure. The high-tech cluster in and around Cambridge, England, is the most often-cited counter example. Hermann Hauser, of Amadeus Capital, a leading British venture capitalist (who, curiously, also hails from Vienna), is an optimist: "Silicon Valley is still the lead cow but Cambridge is the best in Europe." Perhaps, but that is faint praise. The main problem, argues Georges Haour, of IMD, a Swiss business school, is that Cambridge suffers from the Peter Pan complex: "**inventors never want to grow up, they are happy with modest success**." One veteran of the city's start-up scene even argues that its success came "in spite of, not because of" government and university support.

Experts at Insead looked at efforts by the German government to create biotechnology clusters on a par with those found in California and concluded that "Germany has essentially wasted $20 billion—and now Singapore is well on its way to doing the same." An assessment by the World Bank of Singapore's multi-billion dollar efforts to create a "biopolis" reckoned that it had only a 50-50 chance of success. Some would put it less than that.

Diana Farrell, of the McKinsey Global Institute, argues that the real problem holding back innovation in many developed countries is too much government in the form of red tape and market barriers. She points out that planning restrictions have prevented the expansion of Ahold and other highly efficient retailers in France. Closing hours in several EU countries also act as an inhibitor. The institute's studies of Japan and South Korea suggest the heavy hand of government is even more stifling in those countries: outside a small, highly competitive group of export industries (cars, electronic goods and steel), inefficient, coddled domestic sectors are slow to adopt new technologies or business practices.

Pedro Arboleda, of Monitor Group, summarises his consultancy's years of research into this matter thus: **"Companies, not regions, are competitive. So the question for government is: how to attract many competitive firms?" That throws cold water on cluster-mad politicians.** It also points to what are sensible prescriptions to promote innovation.

First of all, stop spreading money around trying to clone lots of Silicon Valleys. Steven Koonin, chief scientist at BP and formerly the provost of the California Institute of Technology, thinks EU countries anyway spread research funds too thinly. American officials, he says, "have no problem making big awards, so they can achieve scale." His own firm has just done that, setting up a $500m research alliance run by the University of California at Berkeley to look into advanced biofuels.

However, there is an even more important factor than money: culture. **Nokia's success** was **not the result of far-sighted planning or subsidy by the government of Finland**. One Nokia executive confides: "The biggest boost to our firm was the deregulation that followed the second world war and the government's avoidance of protectionism." One of the most innovative things Nokia did was to spot that the handset could also be a fashion accessory. **And coming from such a small and open market, it was forced to think globally.**

Secondly, governments keen to promote innovation need to look out for market distortions and over-regulation that can be stripped away. Entrepreneurs can face an uphill battle legally, and not just culturally, in many countries. The bankruptcy code in many places is excessively burdensome, even banning some failed entrepreneurs from running a company for years. Contrast that with America's Chapter 11 bankruptcy proceedings, which quickly re-deploy both the bankrupt firm's physical assets and the creative energies of its leaders.

In India an overbearing system known as the "Licence Raj" choked the creativity out of most sectors of the economy for decades, through a mix of over-regulation, petty corruption and centralised planning. But the bureaucrats in Delhi did not understand computer software well enough to regulate it. And by the time they cottoned on, innovators in Bangalore and other corners of India had created a world-class industry. A similar story may be unfolding in China. Adam Segal, of the Council on Foreign Relations, an American think-tank, has studied high-technology firms in Beijing, Shanghai, Guangzhou and Xian. His research **shows that smaller firms in the private sector are likely to be more innovative than bigger ones reliant on government largesse.**

Even in Africa, where chaotic and corrupt rule can impede growth in myriad ways, extraordinary innovators are starting to flourish wherever they are not choked off by bureaucrats or fat cats. John Dryden, of the OECD, observes that "freedom from legacy" (in the shape of stranded assets, like fixed-line telephony or centralised power grids) has liberated African entrepreneurs and allowed them to leapfrog with technology—from having no electricity to solar cells, for instance.

Stewart Brand, an internet pioneer and co-founder of the Global Business Network, a scenario consultancy, is convinced that **if you want to see the next wave of consumer innovation, "look to the slums of South Africa,** not Japanese schoolgirls." So where does that leave the present Goliath of innovation, the United States?

(II) ***BART NOOTEBOOM AND ERIK STAM***, *University of Tilburg (The Netherlands).*

Picking winners *– by governments -* ***is now recognized as going against the unpredictability of future success.*** *One cannot outguess the evolutionary process, and one should as much as possible leave the errors of choice up to private business, in a wide range of experimentation in diverse directions that occasionally, somewhere will yield unpredictable success. ('Microfoundations for innovation policy', Amsterdam University Press, Bart Nooteboom and Erik Stam - January 2008)*

A 'knowledge ecology'
Innovation policy should create and maintain openness, in four dimensions.

1. Openness to uncertainty in the innovation process.
2. Openness for collaboration with others at a fruitful 'cognitive distance'.
3. Openness for new entrants.
4. Openness to the world outside.

This fourfold openness for innovation stands in contrast to much theory, policy and practice of innovation, which in many cases locks up innovation in

- pre-conceived targets,
- established players,
- national programmes,
- isolated activities, and
- relationships at arms length that lack collaboration and openness of communication.

The arguments for backing winners (and the counter-arguments):

- in **proven success** errors and misfits have been weeded out;
- **comparative advantage:** if we are successful in certain areas this reveals comparative advantage, on which we should capitalize; however, who says that present success guarantees future success? we cannot outguess evolution; **success** is often the result of strength developed from challenge and struggle, and **may be weakened rather than further strengthened by support.**
- **concentration**: we cannot afford to spread around money and attention everywhere; for the sake of efficiency we have to concentrate it where it is best spent, and that is where quality is highest; economies of scale do indeed occur, sometimes, for example in transaction costs, but there are also **diseconomies of scale**, and moreover any advantages of scale have to be traded off against **loss of variety**; spreading experimentation over a variety of many smallscale trials increases the chance of breakthroughs while limiting the losses that arise from failure, compared to fewer bets on larger projects;

More arguments against backing winners:

- the question is why they should be backed if they are winners; if they have been proven in the market, they are generating profits for their expansion;
- such policy carries the risk of confirming what exists, in established ideas, technologies, and players, rather than stimulating the emergence of novelty generated by outsiders;
- backing winners may confirm or even raise obstacles to entry of new challengers.
- In our view, priority lies in keeping the system open to outsiders. This entails a priority to give room and incentives to entrepreneurship.
- **On what basis would government make choices**? Part of the problem is that in the design of programmes, networks or clusters, and subsidies, one needs insights from industry, and these tend to be offered and taken from established large business (small firms hardly have the staff to spare, for sitting on committees). Naturally, their suggestions are coloured by their experience and interests. When they slide into positions where they can protect their interests, it would be naive to assume that they wouldn't. In particular, in innovation large incumbent firms are tempted to engage in '**pre-emptive participation**'.
- **Policy bandwagon effects**. If one targets a particular industry or technology in innovation policy, everyone in that area wants to take part, and on what basis would government refuse them? It is not only a matter of whom to admit but also of whom to exclude. On what basis would government separate justified from

unjustified exclusion? Moreover, other areas worth their salt would lobby to also be recognized as a key area, or at least a potential one. Which area would not consider itself a potential key area?
- **Obstacles of bureaucracy**, in government failures. Participation of the government in the funding, facilitation and monitoring of consortia for innovation entails bureaucratic entanglement, with consequent delays, irritations and frustrations among business partners. It is naïve to see this as a simple matter of lack of competence, will or commitment on the part of civil service.

Government: eliminating obstacles

- Policy of backing winners, is better labelled as 'mobilizing unrealized potential', i.e. **eliminating obstacles for the full utilization of proven strengths** e.g. **by breaking down barriers to innovations**: the lack of appropriate infrastructure, skills and education, technical standards, vested interests, problems of high costs due to initial small scale and lack of learning by doing, and systemic complexities. There may be market or system failures, and then there is an argument, in principle, for government intervention, but those barriers then have to be specified.
- Clearly also, there are sectors of activity where for classic arguments concerning public goods and externalities government needs to take the lead, such as health, education, infrastructure, mobility, energy, environment, security, and, increasingly, the provision and control of water.