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## The Newsletter of the French Council of Economic Analysis

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## Creativity and Innovation in France's Territories

Report by Michel Godet, Philippe Durance and Marc Mousli

As we enter into a third wave of innovation in a world where newcomers constantly emerge, we need to keep pace –not only in our high tech sectors, products and services, but also in our organisations, governance, training and management. And the key to innovation is creativity –creativity in the way we use and develop the necessary technologies to safeguard the future of our companies.

The findings in this report stem from the collective analyses of a working group that includes members from the Council of Economic Analysis, the Inter-ministerial Delegation for Regional Development and Competitiveness and the Academy of Technologies. These analyses not only investigate France's production economy and export-oriented competitiveness clusters, but also the residential economies and competitiveness clusters which depend on the quality of life and services of its territories. Drawing on numerous examples, this report seeks to identify and highlight the new forms of innovation which can improve the competitiveness and appeal on which the development of France's territories and regions relies. The report also includes twenty-five original contributions to complete and clarify the main messages it aims to convey.

This report was presented to Mr. Michel Mercier, French Minister for Rural Areas and Spatial Planning on Tuesday 18th May, 2010. This letter was published with the approval of the permanent group and presents the main conclusions drawn by the authors.

### Creativity and innovation

This report provides an original analysis of the competitiveness of the French economy which is primarily dependent on innovation in that it tackles the concept of innovation from a different angle and at a territorial level. Rather than «high tech» innovation, the report focuses on «low tech» innovation which is also a source of growth and which, when the proper attention is paid, can be found everywhere at a territorial level. 'Low tech' innovation notably includes all of the new, high-performance ways in which the internet is used, the tools linked to the new technologies which bolster tourism, soft services and the modernisation of local government services, etc.

France has a role to play at several levels. While its competitiveness clusters are part of an ambitious policy to develop a powerful high tech industry, export-oriented production clusters only account for 20 to 25% of a territory's income. When it comes to the remainder of produc-

tion, there is room for innovation in management, trade, organisation and soft services sectors in order to improve one of the most important assets of a territory, namely the 'quality of life' it is able to offer.

The report introduces the notion of creativity which is particularly useful in analysing the potential for innovation in France's territories. Creativity is the capacity to come up with new ideas and, above all, to structure them in an original way. It calls for 'agile' minds that are able to imagine, reconcile and combine ideas that are sometimes very different, and to structure existing concepts in a new way. It must be encouraged in the early stages of a young person's education through learning techniques than are less lecture-based. At a territorial level, however, several ingredients are needed to allow creativity to emerge and flourish:

- creativity is closely linked to art and general culture, even when it comes to technical and economic issues. All forms of art are springboards for creativity;
- creativity means tolerance, as much within society as within its different institutions. Transgression is akin to creativity;
- culture, sociability, exchange and emulation

bear more weight than indigenous traditions and natural amenities even if they are also needed;

- creativity within a territory depends on its capacity to attract talent which, alongside an atmosphere of freedom and tolerance, means being able to offer a cultural backdrop and opportunities for exchange;
- ensuring creativity can flourish requires financing through 'business angels' from the private or third sectors or access to the public resources of universities or research centres.

### The challenges of innovation for territories

At a national level, innovation is above all associated with state-of-the-art technologies, and while they must never be ignored, today's challenges are also linked to sustainable development, namely the environment, society, economy and politics. France must therefore innovate in its own, even unique way in those areas where it has undisputed assets, namely in terms of the 'quality of life' it has to offer.

While sustainable development obviously has its constraints, it also presents a number of

opportunities for businesses and local authorities. The challenges that go hand-in-hand with recycling, reprocessing and energy savings are new avenues to be explored. The principle of traceability will rekindle the need for proximity services, shorten the channels between producer and consumer, and foster a return to more local production resources. The principle of precaution, however, merits particular attention insofar as its complete or isolated application could be an obstacle for local innovation.

The challenge for society is to find innovative solutions to issues such as the social mix of different populations, the integration of immigrant populations and the education of young people from underprivileged sectors – solutions which are sometimes to be found in neighbouring countries. Moreover, the extensive ageing of the population in France means that the search for these solutions is becoming more and more urgent everyday.

The challenge in economic terms, other than the careful use of rare resources, is the instability of a growth model that is too dependent on debt, notably public debt. In fact, the need to find ways to keep a lid on government spending is a major driver in the search for innovative solutions for the authorities and businesses alike.

## Innovation and competitiveness in business

The key to successful innovation for any company depends on the ability of its directors to adapt their management and organisation to technological progress. If they fail, new methods clash with old practices and damage human relations. To efficiently adapt their organisation and structures to enhanced individual skills and facilitate individual learning, companies may find it useful to first pass through an intermediary stage which involves the setting up of ‘communities’, either within their own walls or on wider scale. One example is the communities of experts on Linux that are made up of professionals who exchange their practices and knowledge. Many companies take their inspiration from model communities within their sectors of activity. Although such

practices have already been in place for some time (meetings in convivial surroundings like sushi bars in Japan for example), they have developed tenfold thanks to the internet.

Toyota’s open innovation model is the reference when it comes to participative innovation. Today, numerous industrial companies, particularly within the automobile sector, subscribe to its principles. Within the services sector, the report cites an example in the hotel industry where employees are encouraged to participate in the company’s innovation strategies.

Certain companies have no hesitation in consulting their customers to improve or adjust their production. The report mentions the development of ‘beta’ software as well as the example of a major toy manufacturer.

Organisational innovations can also impact on the legal forms of companies. New structures serve to modernise social links and repair relationships of trust that can sometimes degenerate within structures that have too many hierarchical levels.

One example of alternative legal forms is cooperatives (SCOP)<sup>(\*)</sup>. In five years, their numbers have increased by 23% and their employees by 14%. Having said that, they still only account for 0.2% of trade employment. Two other legal forms have been added to the range of alternative companies: cooperative companies of collective interest (SCIC) which enable employees, volunteers, users, government authorities, companies, associations and individuals to work together on a same project; and business and employment cooperatives (CAE) which provide a common economic, legal and social framework for different joint activities. Extremely useful for those setting up companies, they are a means of sharing resources or functions, and for forging partnerships between different professions.

The report also investigates two break-away innovations: a quaternary economy and a functional economy. Rather than the sale of products, the economy is geared towards the sale of services. A quaternary economy

(\*) Referred to as cooperative and participative enterprises since February 1st, 2010.

regroups those activities intended to meet the needs of consumers through the temporary provision of goods or various categories of persons using information and communication technologies. A functional economy is a means for companies to offer the use of an asset without actually owning it (e.g. free use of bicycles, hiring-leasing contracts in the electronics sector or sale of tyres according to mileage). When it comes to territorial planning, these new practices are forcing companies to constantly adapt their services to suit their customers.

The report reiterates that tourism is a major economic sector in France, and one which could benefit even further from the use of information and communication technologies, GPS systems and referencing techniques in order to offer potential visitors greater visibility with respect to the country’s territories. In doing so, the territories would win on both counts as a region that appeals to tourists will necessarily appeal to professionals, particularly business leaders.

## Territories as ecosystems for innovation

When it comes to debating on the best model for innovation, whether concentrated in large metropolitan areas or broken down into smaller industrial districts, the report gives preference to the latter whilst recognising that it relies on there being a strong dynamic that is endogenous to the territories and on them making the necessary efforts to provide a satisfactory ‘quality of life’.

Finalised in 2005, the French government’s policy regarding competitiveness clusters is a major incentive for industrial innovation through the decompartmentalisation of production at a territorial level. Clusters benefit from government funding following the setting up of a Single Inter-ministerial Fund. There are three types of competitiveness cluster:

- ‘business’ clusters that have inherited old local production systems much like the district model in Italy and which have developed their research activities in order to obtain accreditation;

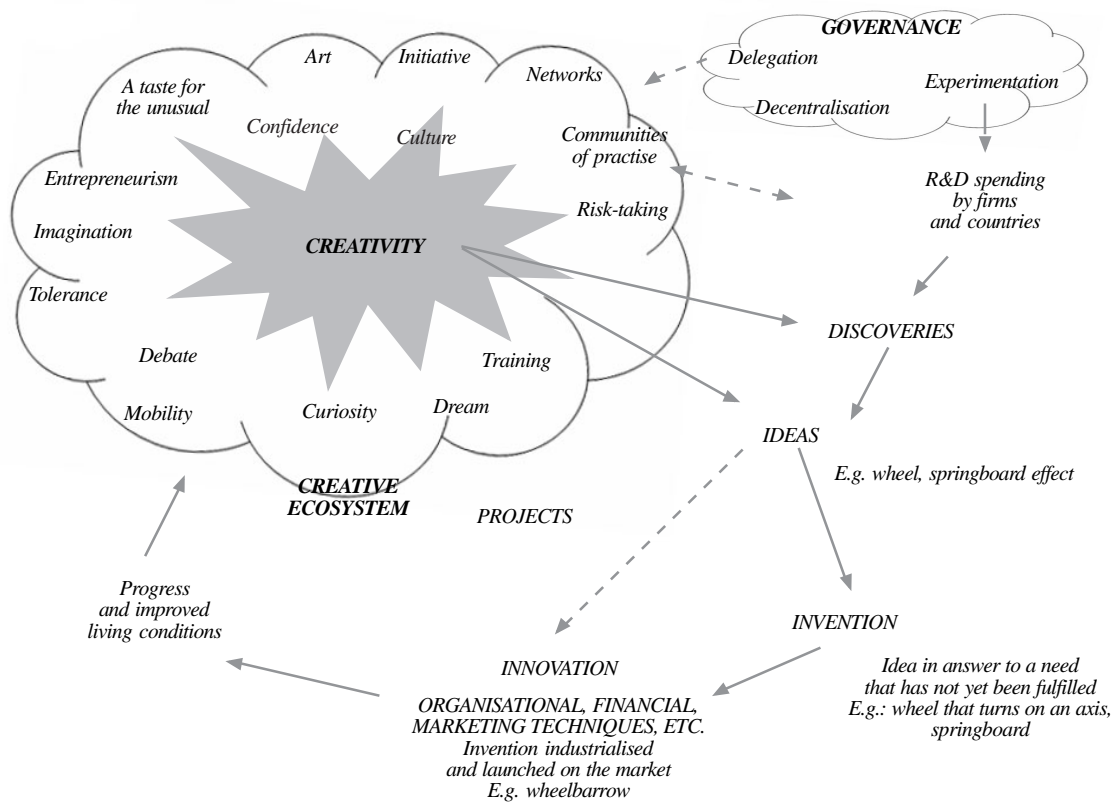
- ‘regional development’ clusters that focus on local development and are sponsored and supported by their local authorities, but whose working partnerships are still recent;
- ‘Silicon Valley’ clusters, where research is the priority and that work closely with university research laboratories and government research centres.

The scope of research and innovation is often different depending on the three groups.

To give small- and medium-sized industries easier access to research resources, the French government has set up the Instituts Carnot whose role is to accredit quality research centres that have formed partnerships with them. Funding for these laboratories is proportional to their research partnerships, and they are present in a great number of regions and territories.

Certain territories find it difficult to develop industries with a global reach. However, if their technical expertise is steeped in tradition and they are home to companies that know how to develop quickly and work together, endogenous development is possible as long as it is supported by government, private or consular institutions that share the same values. One example of this is France’s regional label of excellence, the *appellation d’origine contrôlée* (AOC).

There are several sources of innovation within the healthcare sector. Faced with the new phenomenon of ‘medical desertification’ (change in the density of medical care and services within regions and territories), new structures are emerging such as regional healthcare networks and multi-disciplinary hospices. Moreover, because these structures regroup several types of speciality, they fit with the professional goals of young people. The new structures should also go hand-in-hand with more prevention campaigns and initiatives, and their financing could be more tied to capitation. There could also be an improvement in the way patients are kept informed and the way in which their files are handled thanks to the use of information and communication technologies, and by giving greater responsibility to employees, employers and social security institutions. An



public sector innovation by also involving its users. They must lay the groundwork for innovation by looking into the transformation of research tax credits into innovation tax credits. In order to stimulate mobility, this report recommends exonerating transfer duties in the event of professional mobility. In order to promote the development of less popular territories by attracting new business and activity, the report proposes that changes in income in line with the cost of living be experimented at a local level.

Entrepreneurs and businesses need to create support networks for new businesses and encourage the existence of ‘business angels’ and managers to act as relays for creative ideas and help transform innovative ideas into innovative projects. The development of new activities linked to sustainable development and new economic models (quaternary, functional, etc.) deserves particular attention and public support, even if funding should be measured to avoid tax-payers having to subsidise activities that only target a minority of users. The new legal forms for businesses (SCOP, SCIC, CAE) should be promoted.

The regions and territories and their players vary according to the innovation projects in place. There is no ideal distribution in terms of government support. In fact, there is a need to break down today’s institutional barriers to ensure that projects find their way to those regions and territories that are most suited to their purpose. The ‘creative disorder’ of certain projects needs to be managed via the appointment of a prefect, namely a civil servant that is able to remove certain legal, administrative or regulatory obstacles.

When it comes to education and training, there is a need to foster creativity and a greater taste for risk by reinforcing the importance given to creative disciplines, even if that means reducing the extent of lecture-based learning. Strong partnerships between learning institutions and companies should not be feared, and recognised professionals should be encouraged to take part in the learning process and examination boards alongside teachers who in turn are recognised for their academic qualifications.

example of this innovation is provided in this report.

Innovation can also be effective in training. Innovation in teaching methods and in the way training is structured has been bolstered by the development of vocational training at a regional level which means it can be adapted to the techniques in place. Employers and trainers dialogue and form partnerships whereby they share technological platforms. Regionalisation is also an opportunity to explore and share in a broad array of experience.

This report describes an original example of ‘open innovation’ whereby a person who is unemployed works in partnership with a company on a sleeper project that will benefit them both. It also examines the ‘shared skills network’ of the French Post Office which is a genuine trading place for knowledge and experience.

### Territories that are forward-thinking, innovative, and creative?

This report distinguishes between productive and residential economies. Numerous regions and territories enjoy a high level of redistribution, but they also suffer from shifting working populations which can transfer easily and quickly thanks to the

availability of the new technologies they need for their work. Another factor is the spectacular increase in the free-time of France’s population which, notably during the holiday period and on retirement, relocates outside of the regions and territories with the highest levels of economic activity. This triggers a new flow of private income to supplement government subsidies and pay-outs. What we see today is a surprising turnaround: income, which is the final output in the creation of wealth has, within the regions and territories, ended up becoming an input on which GDP is dependent. A study by INSEE shows that, alongside those taking their retirement, France’s regions and territories are now also attracting workers and even business leaders who prefer their comparative advantages.

A territory’s appeal depends on its local social regulations and informal coordination mechanisms as well as sound local governance structures. It must have the necessary transport systems, equipment and well-organised public and private sector services. Its overall well-being also depends on its ability to promote and instil its own values and identity in order to prevent the risk of dilution, particularly in light of the competition that

comes from today’s virtual universes.

The cost of living is also a factor when it comes to a region or territory’s competitiveness: a low cost of a living can add to its appeal just as much as, at the other end of the scale, a region or territory that is particularly popular can bump up its rates, starting with property prices. These differences could be reflected in remuneration which could vary according to territory. This would alter the relative competitiveness of the territories, thereby improving the potential for less advantaged regions to attract major business with low labour costs.

### Recommendations for action

The government and local authorities must promote the success stories seen and encourage the media to grant them the necessary news coverage, thereby bringing a more positive note rather than always being the bearers of ‘bad news’. They could develop this themselves by setting up a steering committee for local initiatives and major awards or national prizes, and by singling out the best examples on a dedicated internet site. They could play a more direct role in prompting and encouraging pu-

## Nine recommendations for action

1. Structure the spread of initiatives and tests across the territories
2. Structure creative disorder: appoint a 'deputy prefect for testing' wherever necessary
3. Develop participative innovation that is co-productive in terms of efficiency and links
4. Evaluate and test the minimum income for each territory
5. Encourage professional mobility
6. Transform all or part of the research tax credit into an innovation tax credit
7. Overhaul structures by country, encouraging those with a genuine project and dynamic and leaving them free to organise themselves
8. Define a barometer for innovation and develop a system to assess the social responsibility of innovation
9. Reinforce links and partnerships between academic, technical and vocational training establishments and business

## Comments

*Pierre Dartout*, who is part of the Delegation for Regional Development and Competitiveness, adheres to the core theme of the report which places regions and territories at the heart of the innovation process. He shares the opinion that those regions and territories that will thrive in the future will be those that are able to develop and combine competitiveness and quality of life clusters, and would like to see the report elaborate more on this last notion of 'quality of life clusters'. He shares the conclusion that there is no universal model for innovation, but rather that there is a need to instil an innovation culture that fosters new ideas and activities as advocated by the Marshall curriculum.

Pierre Dartout remains more circumspect as to the idea of 'all-out' support for innovation, which can lead to the dispersion of government resources. However, he is in favour of the idea of developing regional and territorial indicators which

can be used to analyse different principles and practices regarding innovation. He cites the example of the Midi-Pyrénées region where there are a large number of technological companies and institutes, and Brittany where innovation is also high, but where it is based more on efficient governance structures, several development clusters and the particularly strong attachment of its inhabitants for their region. He concludes by reiterating the role of today's large metropolitan areas which must retain their appeal as their polarisation and the density of their networks provide the conditions needed to nurture innovation.

*Michel Didier* is interested in the report's take on creativity and its link with innovation. Is creativity tantamount to an aptitude for projects? Innovation for its part implies the existence of outside effects: not only does it create value as a result of direct entrepreneurial initiative, but it also brings additional value to the economy as a whole by virtue of its outside effects. This is particularly true when it comes to technical innovation. This distinction is important in defining a legitimate scope for research tax credits that the report argues should be extended. The concept

of creativity is also a valid argument for reviewing the conditions and factors underlying the endogenous development of regions and territories. Michel Didier nonetheless expresses some reservations as to the idea that infrastructures have a small role to play in the development of territories, or that a bottom-up approach to practices and project teams would be more fruitful than the top-down approach of traditional R&D models. Michel Didier regrets that the report gives greater precedence to the numerous examples cited over the use of empirical analyses of the economic value of the arguments presented. He would have liked the report to focus more on the reform of the regional and territorial structures under review and for which economists could propose criteria for their optimal demarcation, organisation and governance when it comes to growth and employment.

*Christian Saint-Étienne* has certain doubts as to the growth factors. While he subscribes to the imminent third wave of innovation underlined by the report, he rejects the importance afforded to the quality

of life and strength of social relations in a residential economy that is dependent on transfers from one productive region to another. In this respect, he considers that the situation in France is remarkable and should ensure it a better ranking than it currently enjoys as a dynamic nation. Contrary to the report's predominant focus on development within each territory, he believes that each metropolitan area is a breeding ground for all types of growth (economic, cultural, social, etc.), and that they serve as a driver for other regions and territories. In his opinion, the 'peripheral' territories that are undergoing rapid growth contribute very little to France's competitiveness. However, when metropolitan areas lose their retired populations and their 'symbol manipulators', their potential within a global economy is damaged. Christian Saint-Étienne particularly appreciates several of the report's appendices. More specifically, he subscribes to the idea that we are currently faced with new technological revolutions such as biotechnologies and 'clean techs' that we risk missing out on as was the case with the digital revolution. He also believes that it is important to go beyond research, and take sufficient interest in the development stages. This can only be carried out by innovating entrepreneurs who master the necessary know-how and empirical expertise to optimise production and the service provided to the end client. ■