NETBRAIN*
Les réseaux d'e.fertilisation

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Malmö, Novembre 2004

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* Marque déposée

E.fertilisation

- I - Introduction: Questions on Creation of Value
- II - Netbrain, the key vector networks of e.fertilisation
- III - E.fertilisation, a tool for sustainable development
- IV - Conclusions

I - INTRODUCTION:

Some useful Questions on the creation of combined value …

Ce sont les relations entre les composants d'une chaîne de la valeur qui produisent la valeur immatérielle : un tas de 4 millions de briques ne « vaut » pas autant que le Dôme de Florence.

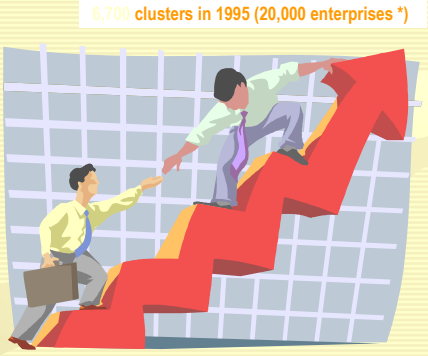
Relationships between the components of a value chain do generate immaterial value: a heap of 4 million bricks " is not worth" as much as the Dome of Florence.

Nous incorporons les savoirs individuels dans les œuvres humaines collectives. Nous créons des chaînes de la valeur à plusieurs: de la valeur ajoutée conjuguée.

We incorporate individual knowledges into collective human works. Several people collectively create chains of value: combined added value.

Companies adapt themselves by getting organized in clusters of networks: Met@organisations

- Global productivity gains shared by partners
- Growing IT demand to facilitate business exchanges
- Development of new services and products pull the demand for cooperative networks
- Development to substitute: to change a supplier is easier than to change organization
- E.fertilisation: Intensive Exchanges of ideas and knowledge
- *1984-1992, isolated PMEs lost 270,000 jobs, while networked companies created 300,000 jobs*



Development of clusters in France

* 37% of SME jobs in France

We expect a fundamental modification of the creative control levers

Labour market Marché du travail	Capital markets Marché des capitaux	Immaterial capital Capital Immatériel
Work Intensity Intensité du stock travail	Capital Intensity Intensité du capital	Knowledge Intensity Intensité des connaissances
Work Productivity Productivité du travail 1950 - 1985	Capital Productivity Productivité du capital 1985 - 2000	Exchange Productivity Productivité des Echanges 2000 - 2020

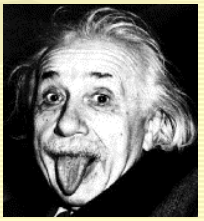
More and more European firms asserted that they did not have to lock themselves into a strategy based only on cost-cutting

Dans un contexte transnational hétérogène, les entreprises européennes ont plus de difficultés pour bénéficier des apports des organisations systémiques.

After productivity gains in production, then in decreasing distribution costs, the future stake for these companies will be to improve their capacity to be innovative and differentiate themselves on world markets.

II -Netbrain: networks as key vectors of "e.fertilisation"

- Everywhere innovation becomes multi-field and comes from team work
- Knowledge went out of schools but also of core businesses
- Meshing collaborative organizations allows companies and researchers to reach a critical mass
- Networks help watching over evolutions of sciences and techniques
- **Cross-fertilisation of ideas and knowledge by networks becomes so important as to make productivity gains**



Professional communities in networks favor the creation of combined added value

- The professional community is a sound-box for " low noises" in the company ecosystem: it allows to anticipate future problems.
- it includes the customers: they are at the origin of most of new ideas
- It implies the staff: most of progress were brought by staff through sharing of experiences
- It promotes the reproduction of interpersonal contacts: the quality of the relations between individuals makes up a valuable qualitative capital

⏭ **All company units have to become producers of ideas and projects for research!**

80 % of « process » innovations come from the inside, 80 % of innovations on products and services come from partners and clients of the company

The objective is to promote an intensification of exchanges, not to promote the use of ICTs!

E.fertilisation: create added value by promoting "cross-fertilsiation" of ideas and knowledge

- Developments of products and co-branded services: 82 % of the promotions of large-scale distribution are alreadyresults from short-lived cooperations (specialized Publications, Group p. Seybold).
- Editorial staff and processing shared by files and documents (editorial staff commercial propositions / technical documentation Clorox-California)
- Electronic discussions: " virtual workshops ": reorientation of CMB purchase policy, co-development at Avon Regional council for the application of new social legislations.
- Valuation of competences: conference call associating customers: Link Compaq, Boeing for its 777.

☞ **Doing everything possible so that relations of the company actors with their ecosystem are made easier thanks to networks**

The IGS / Eurotechnopolis Survey

- The innovative impulse is coming still too often from the head office. Innovations from inside remain less numerous than innovations from outside. This demonstrates the importance of the current"cross-fertilisation" phenomenon which comes from migrations of experiences and ideas between companies via networks especially of Extranet type.
- More than one out of two companies is not aware of the immaterial value of its assets . There is some lack of understanding of the expression " using networks in order to valorize immaterial capital".
- Capitalization of knowledge remains another major action lever for companies which use it rather in a cumulative logic than in an exchange intensification logic.

The IGS / Eurotechnopolis Survey (continuation)

- Companies have difficulties in estimating their position regarding e-fertilisation. If e-fertilisation can be defined as a policy for promoting exchanges of ideas and experiences with the aim of facilitating the " creation of combined added value » (or cross fertilisation) at a lower cost, then, we are still far from it.
- The applications of "Blogs" and Wiki - Real freedom rooms compared to rather formal intranet exchanges - are still little known in most companies. These discussion rooms open to a large number of people call out researchers or individuals who are more attracted by a topic than by " company borders".
- **The interviewed companies are not eager to build on the Internet an attractive pole for exchanging knowledge in order to strengthen their " immaterial capitalization ".**

III. E.fertilisation, a tool for sustainable economic development

- The competitiveness of nations depends on the capacity to better use accessible immaterial capital
- Going from a company logic to a professional community logic : the Canadian example
- Going from a productivity logic to a logic for creating combined added value
- E.fertilisation: being connected with the networks of ideas is one of the first conditions for discerning coming changes
- **Define economic development policies oriented to the network century**

E.fertilisation: from a logic of work productivity to a logic of creation of combined added value

- **There is a shift from a logic of labour and competences pools to a logic of employment and competences chains**
- Obligation to break the isolation of small and medium-sized firms {*ECC*} thanks to the constitution of genuine federations in order to economically access brainpower which makes up 90 % of their investments (Planet)
- Alliances of interest around a pole of competence are on the increase: it is necessary to organize them around networked fields of competences rather than around core business.
- Optimization of networks of expertises in a context of global competition modifies the geopolitics of company development (IBM)
- **Companies shift from of a logic of management of financial capital to a logic of management of immaterial capital**

The Canadian example of the " Networks of Excellent Centres »

- Launched in 1997, The *Networks of Excellent Centres* includes 14 networks specialized in fields like telelearning, concrete technology, wood pulp, robotics and protein engineering. They connect 48 universities, 37 hospitals, 76 governmental bodies, 65 research institutes and 405 companies.
- In 2002, total employment in these networks represented 5,900 persons including 1,400 professors and students for 22 RCE.
- They generated 87 companies through swarming. They took out a high number of patents: 179. Andy they opened up and revitalized an increasing number of different actors who discovered that they could create missing links (companies and employments) by reconciling research with business cases.
- The first results prompted the Canadian Minister of the industrial and scientific policy to launch the Canadian Foundation for Innovation, in charge of getting back capital to increase the number of these networks of excellence in all sectors.
- Through this initiative, Canada officially agreed to consider electronic networks dedicated to " combined added value " (e.fertilisation) as a basis of its economic development policy.
- http://www.nce.gc.ca/indexfr.htm

Creating a network promoting exchanges of ideas allows the company:

- To identify projects' bearers
- To identify experts and places of useful external knowledge
- To strengthen the notoriety of its units around their poles of competence
- Tomake up more or less formal links between centres of training and research
- To provide the capacity of using public research budgets
- **It implies to know how to be opportunist**

- **To make up a visible and attractive know-how pole able to be marked off on its markets**
- To attract and keep their most brilliant staff members (incubators house)
- To revitalize internal projects (General Electric)
- To develop innovative partnerships (Dell, IBM, Intel, Sun)
- To increase one's notoriety (alliances with prestigious universities)
- **But also to win new customers**

The competitiveness of nations depends on their companies' capacity to access brainpower.

- **Combined added value is created by promoting and intensifying exchanges of competences between organizations**
- The "cross-fertilisation" of ideas through networks becomes an objective of the development of advanced economies thanks to a strong culture of cooperation
- Regions have to promote alliance policies between SMALL AND MEDIUM-SIZED FIRM, between training centres and R&D to have combined added value generation
- **The art of collective value creation requires a will to lead partnerships with at least as much energy as for finding productivity sources**

Conclusions: networks promoting e.fertilisation revitalize the economic fabric

- On an opaque market, facing risks of dilution caused by the number of actors, competence networks benefit from a strong professional identity in order to increase their attractiveness for their members
- Questioning territorial management of resources
- New opportunities to have one's competence acknowledged on one's market
- Co-learning and self-regulation of competence chains
- Resources valuation by the "corporate " channel rather than by activities
- The opportunity to create an attractive Network of Competence associated with the company name

To become acknowledged as having a logic of sustainable development, companies should rather constitute networks of competence and share resources while they decrease their operating costs and also widen their notoriety and their geographic influence.

E. Fertilization: promote the development of innovative excellencenetworks

- Encourage big companies and local authorities to sponsor regional excellence networks
- Adapt and promote natural fiscal incentives to encourage collaborations between companies
- Increase specialized services platforms and networks dedicated to incubators and e.collaboration
- Support professional excellence networks means supporting one of the economic control levers which promote sustainable development and the French presence in international business networks

The Americans dominate the Net-economy because their private and financial sectors supported innovations related to on-line services