



**Allocution du Maire de Montréal
et président de la Communauté métropolitaine de Montréal,**

Monsieur Gérald Tremblay

**MISER SUR DES GRAPPES FORTES ET COMPÉTITIVES
POUR INNOVER ET PROSPÉRER**

Vendredi le 7 novembre 2003

Madame la Secrétaire générale de l'Association internationale des universités,

**Monsieur le Secrétaire général de l'International Association of University Presidents,
Monsieur le président du Conseil de l'Association des universités et collèges du Canada,
Monsieur le président du Conseil de Montréal International**

Mesdames et messieurs les recteurs,

Chers amis,

C'est avec beaucoup de plaisir, qu'en tant que Maire de Montréal et Président de la Communauté métropolitaine de Montréal, que je vous souhaite la bienvenue dans notre cité et notre grande région métropolitaine. Votre présence à Montréal me réjouit d'autant plus qu'elle a pour objet de faire avancer la réflexion sur un thème qui m'est particulièrement cher, celui des grappes industrielles.

Je suis donc fier que cette conférence internationale ait lieu ici. Je remercie le Comité organisateur et les commanditaires. Comme vous pourrez le constater au cours de votre conférence et séjour parmi nous, il est tout à fait approprié que Montréal en soit la ville hôte.

Cette conférence tombe aussi à point nommé puisque tant la ville que la région amorcent une démarche en vue de se doter respectivement d'un plan de développement économique. Cette conférence nous procurera certainement des enseignements qui nous guideront dans ces travaux.

Ce que j'aimerais faire ce matin, c'est non seulement de partager avec vous l'expérience québécoise des grappes industrielles, mais aussi de vous faire part de mes réflexions sur la pertinence d'appliquer le concept des grappes au développement métropolitain. Tout comme les entreprises qui ne peuvent plus vivre en silo si elles veulent devenir compétitives, voire des championnes mondiales, les villes d'une région métropolitaine doivent adopter les mêmes principes de collaboration, de concertation et d'innovation si elles veulent favoriser l'émergence de la masse critique nécessaire pour faire face à la concurrence mondiale.

CLUSTERS

The last fifty years of history have largely demonstrated that in an increasingly competitive world, the capacity of an economy to face the challenges of international competition cannot rest on its sole

comparative advantage in terms of its endowment of production factors or on its individual successes, which are inevitably random and occasional.

Experience and research demonstrate that obtaining a prolonged competitive advantage on an international level rests on a continual process of improvement and innovation rather than static advantages. As the old adage goes, "The most important sources of prosperity are created not inherited." We also note that the enduring successes experienced by a country or region are generally the result of a cluster of activities rather than isolated companies or industries.

It is with this diagnostic that the government of Québec, in which I served as Minister of Industry, Commerce, Science and Technology, adopted in 1991 the Industrial Clusters approach in order to accelerate the transition from an economy of mass production based on the exploitation of natural resources to an economy of added value. Adding value to our production guaranteed a cumulative transformation of our natural resources, made our products more conspicuous, increased their value, diversified and enlarged our industrial sector, developed our export markets and, above all, created new, quality jobs.

At the time, we retained thirteen industrial clusters, of which five were considered competitive because they included businesses that were already competitive on the international scene and because the networks that existed inside these clusters were already generating significant synergy.

Aerospace, pharmaceuticals, information technologies, electrical power generation, transport and distribution equipment and the processing of metal and minerals made up this first group of competitive clusters thanks to the presence among them of renowned companies such as Bombardier, Pratt & Whitney, Merck Frosst, Northern Telecom, CGI, Bell Canada Enterprises, Hydro-Québec, Noranda, Alcan and others.

A second group included eight clusters were also considered strategic because they had significant growth potential, however, these clusters had not yet reached a level where their exchange of information, internal competitiveness, technological collaboration and operational openness were such that the cluster acquired a life of its own, becoming a source of innovation, encouraging productivity and allowing for an accelerated diffusion of new technologies. Land transport, petrochemicals and plastics, food, housing, fashion and textiles, forestry, environment and culture industries made up this second group.

Since 1991, some of these clusters have notably benefited from the industrial policies of the provincial and federal governments. Even 12 years later, we can claim particularly advantageous world rankings in three competitive clusters:

- 9th place in North America in the information technology sector;
- 8th in bio-pharmaceuticals;
- in aerospace, the Montréal region ranks in 4th place.

In 2002, 142,000 jobs were inventoried within the three sectors of high technologies. In Canada, Montreal is considered the high technology conglomeration. This fact is well stated in a report that was prepared in the fall of 2002 for the Ontario Government and the Institute for Competitiveness and Prosperity: Montreal ranked first for the Tech-Pole Index for Canadian City-regions.

Today, the success of these three industrial clusters is a symbol of pride for Quebecers. But personally, what makes me even happier is the feeling of having participated, by having identified these 13 clusters and their key actors, in setting up the most diversified city in Canada. Last week, Statistics Canada published a study that showed that Montreal is the most diversified industrial city in Canada. As the authors noted, diversified economies seem more stable and provide a context that gives rise to stronger and more dynamic economic growth. Moreover, in the United States as in Canada, cutting-edge technology industries tend to set up shop in diversified cities. Jane Jacobs has eloquently illustrated this fact by stating that diversified cities are a "nursery" for new ideas, which can circulate easily from branch to branch.

However, we cannot stop here. We must continue to innovate endlessly. We must resolutely focus on the consolidation of all our industrial clusters in the metropolitan area which are already characterized by a high level of integration. We should not limit our development by favouring certain industries, but rather we should encourage the emergence of each one since all of the industrial sectors are interdependent. In other words, if the success of one cluster is accelerated by the success of another, then the development of all of the clusters will maximize the creation of wealth.

THE RESULTS OF THE INDUSTRIAL CLUSTERS STRATEGY

The industrial clusters strategy that we put in place in 1991 continued to influence our economy throughout the decade. With the passage of time, it is interesting to examine how this strategy changed our economy.

The performance level of the individual clusters, particularly the clusters deemed competitive, was impressive. Montréal, which represents an essential part of the competitive clusters in Québec, can, as a result of its job level in the technology sectors, include itself in the group of cities that includes Seattle, Chicago, Toronto and Philadelphia.

Spin-offs That Benefit Small and Medium-sized Businesses

The development of industrial clusters in Québec and in the Montréal metropolitan area over the last decade hasn't just benefited large corporations that are more prevalent than ever on the international stage, but also and especially the small and medium-sized businesses that benefited from the outsourcing and subcontracting that have proliferated within the various clusters. The aerospace industry illustrates this situation perfectly. Large corporations like Bombardier, Bell Helicopter, Pratt & Whitney, Dowty Messier or Rolls Royce form the backbone of this industry, but they rely on a network of more than 100 subcontractors in the metropolitan region alone. Today, some of these suppliers have become companies of sufficient scope that they must now resort to other subcontractors during their manufacturing process. This is the case, for example, of companies like Héroux Devtek, Marconi and others.

R & D and Training, the Engines of the Development of Clusters

La clé du développement des grappes industrielles au cours de la dernière décennie au Québec aura été l'accent mis sur les budgets de formation et de Recherche & Développement.

Il est clair que la disponibilité de main-d'œuvre spécialisée est un des principaux facteurs de rétention et d'attraction des entreprises, notamment dans le secteur des technologies de l'information et de l'aéronautique.

En 1999, le gouvernement du Québec, en collaboration avec Montréal TechnoVision et le secteur privé, s'était engagé à doubler le nombre de diplômés en technologies de l'information qui sortent annuellement des cégeps et des universités du Québec. En trois ans, avec un investissement public-privé de 62M\$, ce programme a permis à plus de 3000 étudiants additionnels, d'acquérir une formation dédiée sur des équipements de pointe.

Du côté de l'aéronautique, des efforts considérables ont été investis pour améliorer la qualité de notre capital humain. À titre d'exemple, 5 universités se sont regroupées pour offrir un programme de maîtrise en aérospatial. Ou encore, le Centre d'adaptation de la main d'œuvre aérospatial au Québec et Emploi-Québec, ne cessent d'adapter les programmes d'études de l'École des métiers de l'aéronautique, de l'École nationale d'aéronautique et de nos universités pour qu'ils correspondent, le plus adéquatement possible, aux besoins de nos entreprises.

De façon générale, il existe plusieurs comités sectoriels de main-d'œuvre, de concertation avec les industriels, soutenu par Emploi-Québec. Ces groupes ont comme mandat de surveiller l'évolution et

les tendances de l'emploi et par la suite s'assurer que les formations soient constamment ajustées aux réalités du marché du travail.

In order to stay competitive in a marketplace that has gone global, regions and businesses must innovate endlessly, which means developing and conceiving of new products, adopting new production technologies, renewing management processes, transforming marketing approaches and, especially, absorbing, diffusing and applying new knowledge.

In this respect, attributing significant budgets, from both the private and the public sectors, to Research and Development has become a strategic variable in the effort to adapt our economy to globalization.

The percentage of Gross Domestic Product devoted to R & D is one of the most useful key indicators in measuring the effort expended on fostering innovation. The most recent figures from the OECD, show that Canada invested 1.94% of its GDP in R&D. This level of investment puts Canada in the 12th position among the OECD members who, on average, invested 2.33% of their GDP in R&D.

Québec on the other hand, performs better than the Canadian average by investing 2.33% of its GDP in R&D. It is to be noted, that more than 85% of R&D expenditures in Québec is invested in the Montréal metropolitan area.

The presence of competitive industrial clusters evidently exercises an influence on the scope and nature of the R & D work of a given region, as evidenced in the case of the Montréal area where, in 2000, 63 % of Canadian research spending in the aerospace sector and 41 % of the research spending in bio-pharmaceuticals was concentrated.

The vitality of industrial clusters depends largely on their ability to nurture the milieu's resources and forming alliances with organizations such as universities, research institutes, hospitals and others. In this regard, Québec has successfully developed attractive collaborations between universities and businesses as, in 1999-2000, the financing of university research by the private sector reached 180.5 million dollars. But the most significant aspect of this is not so much the amount, but rather the evolution; in a matter of 10 years, this financing has essentially more than doubled.

A concrete example of the links between research institutions and the development of clusters can be found in the establishment of the DSM company, which can be attributed to the presence of the Institut de recherche en biotechnologie (IRB). Now, with more than 23,000 jobs spread out over 274 private companies, 8,200 jobs in public and para-public research centres and 3.7 billion dollars in manufactured deliveries in 2001, representing 50 % of the Canadian activity in this sector, we can affirm that the life sciences cluster has reached its critical mass. This consolidation of the industry allows today for the attraction of leaders from the scientific community, like Dr. Thomas Hudson, who left the laboratories of the Massachusetts Institute of Technology to come head up the new McGill University and Génome Québec Innovation Center.

Furthermore, in 1999, the Government of Québec created Valorisation Recherche-Québec. An important aspect of the mission of this agency is to financially support Québec universities, hospitals and research centers in order to better commercialize the research outcomes of their researchers. Since its creation, VRQ helped the major universities set up commercialization companies, namely Univalor (Université de Montréal), Sovar (Université Laval) and MSBI (McGill, Sherbrooke and Bishop).

In putting a wealth of knowledge and know-how to advantage and in sustaining research, universities offer entrepreneurs the raw material needed to start up new enterprises and to create employment. But above and beyond the links between universities and businesses, it is also important to favour the links between universities themselves. Montréal is home to 17,000 foreign students from 162 countries who provide the city with economic spin-offs of more than a quarter of a billion dollars, and who also serve to promote our region upon their return to their home countries. In order to better meet the housing needs and in service of this clientele that so enriches the quality of our human capital, the rectors of the Montréal universities decided to unite their efforts in order to build the Cité étudiante internationale in the heart of our city. Here is another beautiful example of dialogue that favoured the development of a common vision.

THE INTERDEPENDENCE OF CLUSTERS

The experience of clusters over the last decade in Québec perfectly illustrates their evolution and life cycle as anticipated by the theory behind them. While the competitive clusters consolidated, the strategic clusters became more competitive and new clusters or sub-clusters emerged, as in the case of printing, automation and media.

Observation of the clusters also confirms the strategic importance of the interdependent relationships between clusters. In some situations, the growth of industries in a downturn depend on the development of those on the rise. This is the case, for example, with the transformation of metals versus electrical energy. In other cases, the relationship is inverse, as with housing-construction and forestry products, for example. Sometimes, the relationship is of an interdependent type, as with land transport and aerospace, both of which explore the possibilities of metals and new materials. It is clear that this type of research will benefit all the clusters. We can also hope that, in the same manner, the progress made in more horizontal clusters, like information or the environment, will contribute to the advancement of all the clusters.

The clusters are obviously reliant on the research work in the domains that often have much in common between them. The advances in biotechnology, for example, will be useful for the environment, food or pharmaceuticals sectors. New information technologies create possibilities that were heretofore unconsidered in the media, telecommunications, culture and automation fields.

The interdependence of clusters becomes more and more obvious with the advent of a post-industrial economy like Montréal's. Certain cases, like that of telemedicine, are spectacular, but other examples of technological convergence are already at our doors, like nanotechnology, which will have an even more profound impact on how we build, care, research and perform many other tasks.

Rather than operating in a closed environment, we need to work in a network. Taking this reasoning even further, we might even consider that in a productive regional system, there is really just one cluster and that all the actors in the region must work together so that it becomes competitive in a global economy. Let me repeat this: the success of one depends on the success of the other and vice-versa. It is not for the government to decide, but rather for the milieu to act together.

The Importance of Innovation and the Role Played by Clusters in Triggering Innovation

Experience and research over the last few years allows for another important realization: the dynamism of clusters depends on the diffusion of innovation and information, as Stuart Rosenfeld writes, "Innovation is what propels virtually all competitive clusters. While the success of an individual firm may depend on its ability to protect its own technological advances, new products or designs, the success of the cluster in which it operates depends on the opposite – widespread diffusion, access to new innovations and information, and spin-offs of new enterprises. "

He then emphasizes the following in a very pertinent manner: "The porosity of clusters presses competitors within the cluster to continually improve and innovate in order to maintain their advantage over imitators" and, in the same vein, our distinguished speaker Mr. Michael Porter says: "In addition to enhancing productivity, clusters play a vital role in a company's ongoing ability to innovate. Some of the same characteristics that enhance current productivity have an even more dramatic effect on innovation and productivity growth."

The strategic importance of innovation and acquisition of new knowledge and human capital in the development of clusters, through theoretical research as well as practical experience, justifies the formulation of a new statement that can serve as a paradigm: " Striving for innovation, for wealth creation and distribution and for causing change "

From now on, this new paradigm has four pillars: innovation, the creation of wealth, a better distribution of this wealth and change, which must be transposed to the level of the metropolitan regions.

TRANSPOSING THE CLUSTERS APPROACH TO THE METROPOLITAN LEVEL

By combining technology, companies, information, specialized personnel, universities, research centres and other organizations, industrial clusters generate a combination of expertise and knowledge which are different but complementary, as well as interactions that are both competitive and cooperative, which have the effect of increasing productivity and giving rise to innovation.

The strategy of industrial clusters has clearly demonstrated its efficiency as an instrument of economic development, but my experience as Mayor of Montréal has led me to believe this approach could be taken to another level, that of the development of cities and their regions. I submit that the lessons learned from clusters should be applied as well to the governing of a region that relies on innovation and interdependence to create wealth for its citizens.

Countries today require more than ever before from their metropolitan regions in order to stay on the road of growth. But competition is lively, as the responsibility for economic development relies more and more on the performance of the major metropolitan regions.

In its project : Clusters on Innovation Initiatives, The US Council on Competitiveness states that "Future U.S. competitiveness will hinge not just on policies and investments at the national level, but on the capacity to foster clusters of innovation in regions across the country."

The Institute for Competitiveness & Prosperity of Ontario recently acknowledged "One of the key themes that has emerged through our work is the importance of our cities in fostering an environment of prosperous economic activity. Cities are increasingly becoming hubs of commercialization and competition as well as magnets for the skilled workers so necessary for innovation and productivity."

While trying to explain the productivity and prosperity gap of Ontario versus the United States, this organization has identified that "The urban productivity gap is the key challenge to closing Ontario's prosperity gap." I would not be exaggerating if I were to say that, in all likelihood, these facts for Ontario also apply to our own situation.

In this context, it is significant to note that over the last decade, many major regions and agglomerations throughout the world – generally encouraged by their higher governments – have turned to the development of strategic planning exercises in order to redefine the positioning of their territory to better define their assets.

In every case, the calculation is simple: if the region repositions itself advantageously on the chessboard of major metropolitan regions, it is the national space as a whole that benefits.

A More Global Vision of Regional Development

Generally, the process of equipping a region with an integrated vision of its development proceeds from the objective of first generating wealth and then sharing this wealth with all the members of a society. One of the best ways to do this is to favour the participation of all cities, large or small, by reinvesting a part of the wealth generated back into the structural elements of a region, which are:

1. Land development
2. Economic development
3. Transportation
4. Environment
5. Housing

The experience of the past decade has allowed us to better understand that economic development takes place within a scope that is larger than just the economy. Different variables, including the cultural environment, social harmony, the quality and availability of housing, ethnic diversity, the preservation of nature, access to public services and others, are determining factors in the development of a regional economy.

Such a demonstration is given by Dr. Richard Florida, in the Journal of Economic Geography, where he estimated that the presence and concentration of bohemians in an area creates an environment or milieu that attracts other types of talented or high human capital individuals. The presence of such human capital in turn attracts and generates innovative, technology-based industries. I am proud to say the Bohemian index ranks Montréal in the top ten metropolitan areas of North America.

An Integrated Approach Centred Around Five Major Urban Functions

In other words, citizens must see the development of their metropolitan area the way entrepreneurs see the development of their cluster, which is to say, a cluster made up of five components, the five basic functions of a metropolitan area that I mentioned earlier and which must be integrated.

I believe all municipal agglomerations that hope to place themselves on the world stage must ask themselves the following questions:

- Isn't it logical to plan for the entire territory by having an integrated vision of our development?
- Doesn't the creation of new jobs and businesses go hand in hand with the urban form we want to give to our region?
- In developing our land, shouldn't we take into account the protection of our natural spaces and the preservation of agricultural zones ?
- Shouldn't we have a broad view in planning our waste management?
- Shouldn't the planning of public and highway transport be done in concert with economic development and planning?
- In housing matters, shouldn't we be preoccupied with developing quality dwellings throughout the region ?
- Shouldn't all of these functions be undertaken within the framework of sustainable development?

As chairman of the Montréal Metropolitan Community, I am in favour of a region that, through its actions, counts on innovation to create wealth and redistribute it.

I also want to emphasize the fact that the Montréal metropolitan region must perform on several fronts: distinguishing itself in terms of quality of life, offer harmonious land development, an efficient and integrated public and road transportation system, accessible natural areas, a healthy environment, diversified housing offerings and an economic development strategy based on innovation that favors the emergence of new levels of excellence.

Our metropolitan region hopes to put in place a strategy aimed at stimulating innovation and encouraging the development of 15 promising fields of excellence throughout our metropolitan territory:

- agriculture and bio foods
- the tertiary motor, such as business services, financial and professional services;
- tourism, culture and entertainment;
- aerospace;

- information technologies;
- life sciences, such as biotechnologies and biopharmaceutical;
- nanotechnologies, robotic and microsystems;
- metals and metallic products;
- fashion, clothing and textile;
- transport, distribution, logistic and wholesale
- plastics;
- composite materials;
- printing and editing;
- chemical industry;
- environmental industry (equipment, recuperation, transformation).

You can see that these challenges exceed the limits and the competencies of the municipalities that make up the territory of the agglomeration, requiring the grouping of forces and the cohesion of interventions in the metropolitan area. The fact that we have several cities within the Montréal Metropolitan Community allows us to more efficiently use the cluster dynamic if the member cities agree to interact the way businesses do within an industrial cluster.

The cities are in effect essential participants in the development of their region in that they directly assume most of the major functions cited earlier and, if they are part of an elected government, they have a leadership role and the capacity to mobilize. Our cities form a metropolitan cluster and must work together: Montréal, Longueuil, Laval and all the cities that surround them are interdependent.

STIMULATING CHANGE

The role of governments in the clusters strategy is essentially to facilitate communication, transmit information and provoke innovation and change.

Ten years ago, when I was Minister of Industry, Commerce, Science and Technology with the Québec Government, I cooperated with a dedicated team of individuals who helped put together, with the financial support of major Montréal based companies, the Québec Industrial Atlas. Our common goal was to equip Québec firms, and their collaborators, with a single unified information tool of our industrial clusters.

Today, with the possibilities offered to us by information technology, I intend to transform the industrial Atlas into a genuine interactive tool that will not just favour industrial cooperation, but which will also permit us to superimpose in successive layers the principals that compose a metropolitan cluster, which include economic development, transportation, housing, land development and the environment.

This web of clusters will provide industry leaders, site locators and economic development agents, in other words, people sharing common interests, with a privileged source of information that can promote coordination and growth by highlighting potential synergies within each cluster and factors influencing its performance, in particular research and education activities. Furthermore, it will allow the different clusters, industrial or municipal, to better understand their surrounding environment and strive to assure a sustainable growth, for we are bound to succeed together.

The first step is then to build such a tool for the Montréal region in collaboration with our partners from the world of business and the governments. During the second step, partnerships will be established with the other regions of Québec involved in the provincial clusters strategy. After that, these partnerships will be extended to other regions in Canada and ultimately, we contemplate a global site that will be a site of integration, privileged information and promotion of the best practices for all decision makers.

For the metropolitan region, we are acting and we are building the road to growth.

CONCLUSION

Ce dont je souhaitais témoigner aujourd'hui, devant vous, c'est de l'opportunité et de l'efficacité de la stratégie de développement économique basée sur les grappes industrielles.

Si la stratégie des grappes est donc plus pertinente que jamais, il est opportun cependant de prendre note des changements survenus au cours de la dernière décennie et d'ajuster notre démarche en conséquence.

De façon un peu paradoxale, la mondialisation a redonné toute son importance aux agglomérations métropolitaines et son rôle dans le développement économique est devenu aussi stratégique que celui des intervenants nationaux. L'incubation, le développement et la dynamisation des grappes industrielles sont désormais une responsabilité partagée où les gouvernements locaux ont un rôle essentiel à jouer.

L'avènement d'une économie basée sur le savoir et les nouvelles technologies de communication, contrairement à ce qui avait pu être envisagé, n'a pas provoqué une dispersion industrielle et une dissémination des expertises. L'économie du savoir exige en effet un accès rapide à une grande quantité d'informations : elle a besoin d'une concentration très dense de talents et elle s'appuie sur des infrastructures très spécialisées, éléments que l'on ne trouve que dans les zones urbaines.

C'est partant de cette analyse que les grandes villes se sont données comme objectif de promouvoir leur propre développement pour que les stratégies retenues d'une ville à l'autre aient un air de famille. À titre d'exemple, le Economic Development Board of Singapore publiait en janvier 1999 son plan d'action pour assurer la prospérité de la Ville-nation durant le prochain siècle et les grandes stratégies retenues se lisaient ainsi :

- Diversify among and within key industry clusters for sustainable, steady growth;
- Build world-class capabilities and global coverage;
- Promote innovation and entrepreneurship;
- Develop local talent and attract foreign talent;
- Maintain a first-world business environment and world-class structure;

Autre son de cloche : l'OCDE, dans le cadre de ses travaux sur la renaissance urbaine dans les mégapoles, soulignait récemment que : "Sustainable urban land use is crucial to reducing disparities, promoting endogenous development and enhancing the quality of life. The OECD Urban Renaissance Series focuses on efforts in the central areas of cities to reconcile the environmental, economic and social objectives of territorial development."

Ce nouveau courant de réflexion n'est-il pas exactement en ligne avec mon exposé d'aujourd'hui?

Dans un monde de plus en plus sans frontières économiques et où le changement et la concurrence nous obligent à un effort permanent d'amélioration et d'innovation, la seule stratégie efficace pour faire face au changement est de le stimuler. L'approche des grappes a démontré qu'elle pouvait induire la créativité et susciter l'innovation. La mise en place de cette stratégie au niveau des villes et des régions est donc une façon de se doter du bon outil pour stimuler le changement. Et c'est ce que Montréal se propose de réaliser pour prendre sa véritable place parmi les grandes métropoles du monde.

Merci.