

1. ANTECEDENTS OF A VISIONARY PROGRAM

1.1 The Global Context and Competition for Development

Globalization has not only brought along the merging of economic and cultural boundaries, which has encouraged the circulation of goods, services, capitals and people among more countries and regions in the world, but **has also increased the opportunities to create, apply and exchange ideas and knowledge at the international level.** On the other hand, the technological revolution of the end of the last century and the turn of this millennium has also had some influence in the economic and social progress worldwide.

These global trends adhere to the big challenges that all the world economies face in their search for a high level of **international competitiveness.** Thus, **it is a priority to concentrate the regional knowledge conglomerates in different areas of specialization that allow them to outstand and position themselves in the global market, by means of focusing on highly productive activities linked to innovation, science and technology which yield to competition based on Knowledge, its creation, spreading and adequate implementation.** This approach strengthens the regions to differentiate them from those that continue competing based on raw material or industries and services (commodities) highly vied due to their low technological level- which is mostly common knowledge- and that stress out by competing based on salaries, and very low revenues, with which they limit their economic and social development instead of encouraging their evolution in a planned and consented way.

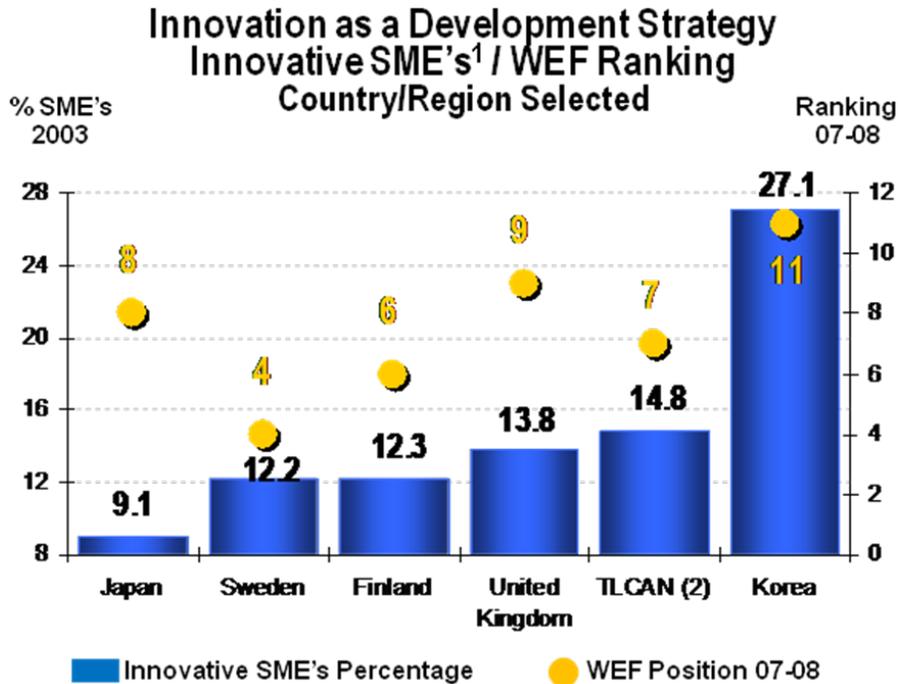
In the transition toward globalization, the competition for product and service markets is, at the end of the day, a fight for development and for a life standard not only among countries and regions, but also among cities. This environment has made governments and world societies **prioritize creation, transfer and application of knowledge,** in its widest sense, **as an excellent option to offer a better path for development to those societies which have decided to make the effort implied in placing their bet on this alternative.**

The knowledge-related activities have ever more frequently been dominated by the economies of developed countries. This change has been described as post-industrialization, highly correlated to the growth in productivity which, in turn, has been associated to the increase in innovation and the use of knowledge¹.

Therefore, these new opportunities and trends have created the emergence of knowledge societies or economies in an increasing number of regions and cities of the world. These forces, particularly the transition of a Knowledge Society and the search for economic and social stability, come together to encourage enormous improvements in the capability to create riches and welfare². The knowledge societies and economies set themselves apart by knowing how to take advantage of the global megatrends to transform themselves and to

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progress solidly in their development at the regional and local levels, increasing their competitiveness decisively.



Source: ITESM. Self-elaboration with data from the OECD (Science, Technology and Industry Scoreboard 2005) and the World Economic Forum.

- 1) Innovative SME's Percentage from the total SME's
- 2) Average EU and Canada. Does not include Mexico

The above chart shows that the top 15 countries in the 2007-2008 World Economic Forum (WEF) global competitiveness ranking display significant percentages of enterprises linked to innovation and technology, especially small and medium enterprises (SME's). The most relevant case is South Korea, which stepped up from the 24th position in the 2006-2007 ranking to number 11th in the WEF 2007-2008 ranking, its percentage of Innovative and Technological SME's within the economy being almost a third (27.1%). **This global context of competition for development has led the regions and cities willing to be part of the group of those that offer the best results for their population to look for better strategies to achieve so. This requires that their leaders (in all sectors, especially in government, colleges and businesses) have the vision, capability and decision to work in teams to choose and implement them.**

1.2 Development through Knowledge: A Good Choice

At present we see how **competition for development** does not only happen in countries or between groups of countries when they work in blocks; but that **even in the same country, there are regions and cities that respond differently to this competition, and thus have better results than others, resulting in benefits for their population.** The above has motivated those in charge of designing and implementing public policies to study and evaluate which strategies have led some regions to become winners in this global hypercompetitive environment for development. Many research studies conducted to learn **the strategies that have led internationally renowned locations to their economic and social progress coincide in pointing out that the systemic, integral bet on knowledge** has been the most successful route, which quickly translates into the welfare of all the sectors in the population.

The Knowledge-based development model is founded on the following strategies, which constitute the most important pillars:

- **An educational model:**
 - **One of high quality; in accordance with the vocation chosen for the locality; of wide coverage; and with strict parameters for transparent evaluation for the selection and training of its teachers; and which uses and applies communication and information technologies.**
 - One which leads a higher percent of the population to college education, but linked to those activities that give the population access to a high level and quality of employability or independent professional development,- if that were their decision-, and of high contribution to economic and social development of the region.
 - One which is widely linked to the development needs of the region and which competes successfully in the development of capable and whole people.
- The existence of programs and infrastructure, public and private –mixed in many cases- for **the development of human capital in accordance to the regional vocation** that allows- through the quality of human resources, equipment, methodologies and the adequate mix of face-to-face and virtual broadcasting achieved through communication and information technologies- to offer wide coverage to the population willing to develop their capabilities and skills, in order to get a good job or to develop on their own.
- **The investment, -in quantity, quality and with the right focus- on science, technology and innovation, with the objective of creating knowledge and intellectual capital that encourages the social and economic development of the region.** Nowadays, one of the most successful regions and countries' main strategies is to increase their public and private

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investment in science, technology and innovation up to an important percentage of the Gross Domestic Product (GDP). In some regions, like Stockholm, the investment represents 4.37% of their GDP, which has made them become the leaders, proportionally speaking, in the generation of patents in Europe, with 641.26 patents per million of inhabitants³.

Investment in R+D+i / Patent requests
As GDP % / Per million inhabitants
Selected Regions
2001

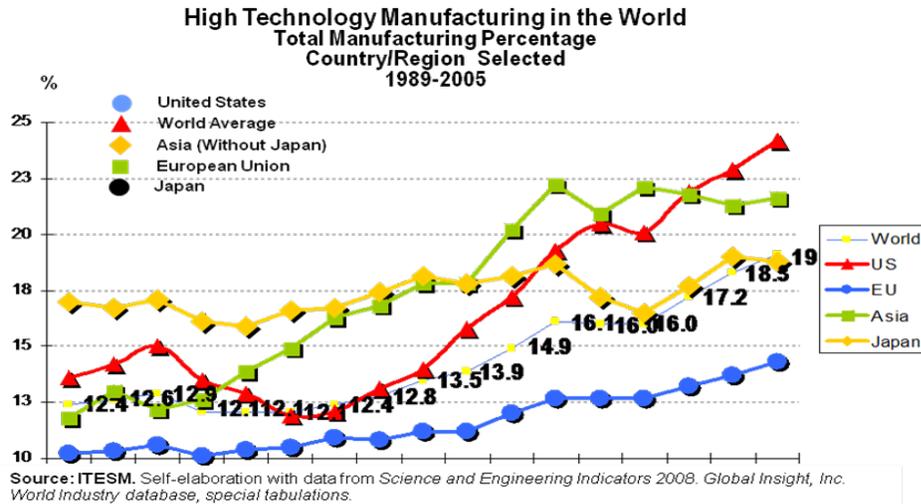
Selected Region	Expenditure in R+D+i (GDP %)	Patent Requests ¹ (Million/Inhabitants)
Stockholm	4.37	641.3
Frankfurt	2.98	510.5
Dusseldorf	1.51	349.4
Paris (Ile de France)	3.36	321.6
Oslo	<i>Not available</i>	282.9
Lyon (Rhone-Alpes)	2.58	250.1
Berlin	4.22	228.0
Hamburg	1.53	225.1
Munich	0.93	217.8
Brussels	<i>Not available</i>	185.9

Source: ITESM. Self-elaboration with data from the document Barcelona Knowledge City. Knowledge Economy, information and communication technologies and new urban strategies.

1) Patent requests before the European Patent Office (EPO).

- **The promotion of an innovation and entrepreneurship culture with a global focus, the objective of which is that an important percentage of the population develop these capabilities and skills**, has been considered truly important, as another link in the chain, for the success of locations that have bet on knowledge-based development. This strategy promotes an ecosystem that enables, from the educational system, to the families and even business organizations to promote innovation and entrepreneurship among the people interested. The mix of capabilities and skills allows the connection with the creation and growth of productive, social and cultural activities linked to Knowledge and technology, to promote a better development. **Such is the case of successful cities and regions which have achieved up to 20% or more of their GDP, linked to activities in medium-high and high technology industry, or intensive Knowledge services (according to OECD classification⁴).**

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- In regards to infrastructure, the larger the investment and the better the selection of projects so that the locality be competitive and offer its inhabitants and visitors the best life standards, the more it will contribute to complement the human and financial capital for development.** The infrastructures that should be considered priorities are those related to education, education of human capital, transportation and people and merchandise mobility, telecommunications and wide band Internet connectivity. All of them should be, as much as possible, competitive, of quality and sustainable. It should include the infrastructure related to medical, cultural and recreational services; urban equipment that contributes to the improvement of quality of life and attractiveness of the city; also, electric power, the more efficient and sustainable it is, the more that it will support the region's competitiveness and development; and the one meant to facilitate efficient housing for industrial, commercial and service companies.
- An efficient and sufficient network of institutions, public and private, social and mixed, is fundamental to articulate and implement successful strategies that differentiate a city or region that wants to found its development on Knowledge.** For the implementation processes to be efficient, the aforementioned institutions must work with trained human resources who have the required profile in each case; they must be supported with enough budget resources for them to comply efficiently with their respective missions, objectives and goals; and they should operate with the strength of institutional back up, legal when necessary, and the credibility of transparent, honest and efficient management.

Knowledge, through the right use of science, technology and innovation, has improved human quality of life and triggered the development of many economies and societies in the world. **The economies that have**

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acknowledged the positive impact of Knowledge-based development have invested great effort to achieve a successful migration from a traditional industry-based economy, highly focused on optimizing the use of natural resources while cutting down production costs, to an economy and society focused on Creativity and Knowledge, based on the maximization of idea generation and innovation, as well as on the integral use and application of science and technology⁵.

The following charts clearly show that those countries that have invested large resources in Research, Development and Innovation (R+D+i), such as South Korea, have outgrown their welfare levels (measured through GDP per capita) in comparison to those whose investment in R+D+i has been more limited (as a percentage of their GDP total).

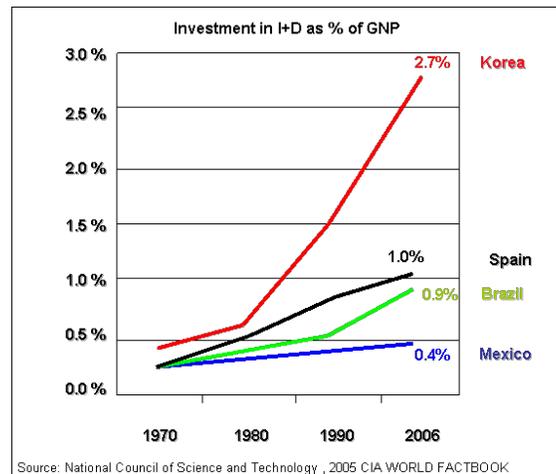


Figure: Investment in I+D and growth⁶

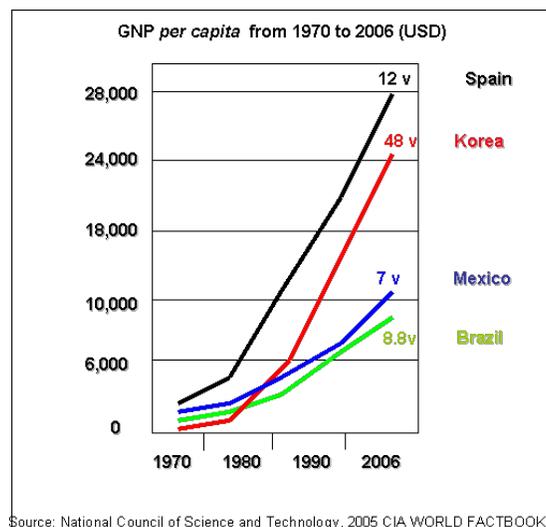


Figure: Investment in I+D and GNP per capita⁷

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Nevertheless, in the “struggle” for competitiveness and development in favor of the population’s prosperity and welfare, these regions and cities have also had to face the challenges of creating homogeneous and fair development that enables the creation of an inclusive social mobility context to benefit the different socioeconomic echelons.

The key to this is the construction of networks or systems that allow the distribution of knowledge and information in an efficient way⁸.

Even if the competitiveness of these economies depends directly on the possibilities and encouragement granted to the generation and acquisition as well as the use of Knowledge in everyday life – through the application of science and technology and the endless innovation of products, services and processes-, in prosperous and fair societies, **it is of utmost importance to achieve democratization and to give universal access to this knowledge and information in all its modalities and applications.**

Therefore, in the knowledge economy, it is indispensable to generate a chain of integral value that brings together education, research, development and innovation, with the individual and group participation of all different actors in society, to create and distribute richness equitably, as well as to solve social problems, in favor of all society sectors, including those less privileged.

To do so, the generation of an economic and institutional framework that encourages development, the use of science and technology, under the interaction and participation of the government, enterprises, universities and individuals is a fundamental aspect for the creation of new development opportunities⁹. Likewise, the economic, technological, social and cultural structures must allow to allot significant economic resources, mainly in the R+D+i activities for the creation of new competitive products and services linked to all economic sectors of the region; to the development of human capital through continuous and high quality education at all academic levels; and to the increase of life quality at all socio-economic levels. These three elements are key factors to sustained and integral growth.

The aforementioned may be achieved under the condition that the strategies, programs, infrastructure and investments, as well as public policies and all other actions designed and implemented within the framework of development of a Knowledge region seek permanently **to foster the creation of an inclusive society, which works in an economic, social and cultural setting favoring all of its members, avoiding to only privilege a few. In the medium and long terms, economic and social exclusion tend to generate serious social conditions and conflicts that manifest in insecurity, violence and the growth of dirty and polluted environments, among other things. As a result, talented, creative, innovative and entrepreneurial people decide to**

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migrate to other cities where the quality of life is higher, more balanced and fairer.

Because of all the above, it can be ascertained that development through Knowledge is a good choice as long as the objective pursued is to achieve integral and sustainable progress in the short, medium and long terms, under the principle of generating and distributing richness to all members and sectors of society.

1.3 Proposal to promote the program “Monterrey: International Knowledge City”.

In Nuevo Leon, particularly in Monterrey’s Metropolitan Area (MMA), the latter recognized for its solid industrial and quality service development (both ruled by high competitiveness); for being the site of important industrial and financial corporations that use top-notch technology; and for its outstanding renowned higher education institutions and certified quality in Mexico and Latin America, **the opportunity and benefits of what knowledge-based development gives to society was identified and recognized.** Above all, the outlook of taking advantage of the juncture of globalization and technological revolution –as well as its transition toward an economy of medium-high and high-tech industry and of intensive services in knowledge- has made possible that Nuevo Leon be creating an important platform that now allows it to develop as a competitive Knowledge city (region) at the international level.

Likewise, the strengths the MMA have were recognized. One of the most outstanding is education, especially college education, which stands for a sector of activity, the demand of which is growing and which, by effectively linking to the productive sector based on knowledge, innovation and technological development, encourages a virtuous circle of productive investment, currency income, creation of employment and economic dynamism of the region together with projecting Nuevo Leon internationally as a city with quality education¹⁰. **Furthermore, other opportunities detected were to take advantage of the unique existing values in the region, such as the natural talent of the Mexicans, their acute imagination, the efforts of Nuevo Leon generations in producing intellectual capital and promoting the development of public and private universities”¹¹, without disregarding Nuevo Leon’s entrepreneurial capability, which has been the development engine for a long time.**

Thus, as related by Dr. Juan Pedro Lacleste, during his presidency at the Mexican Academy of Science in April 2008 “...Governor José Natividad Gonzalez Paras decided -through consensus and strategic alliances- to promote the knowledge-based development of the state...” (under the Triple Helix conceptual model which is explained in detail in Chapter 2) “...and presented, from the beginning of his administration, his ideas about

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making Monterrey an International Knowledge City, as well as organizing cultural and scientific events of international prominence; promoting the establishment of technological parks; making the academic, governmental, industrial and social actors come together for a real promotion of innovation in the State of Nuevo Leon; and improving science education in the state...”¹².

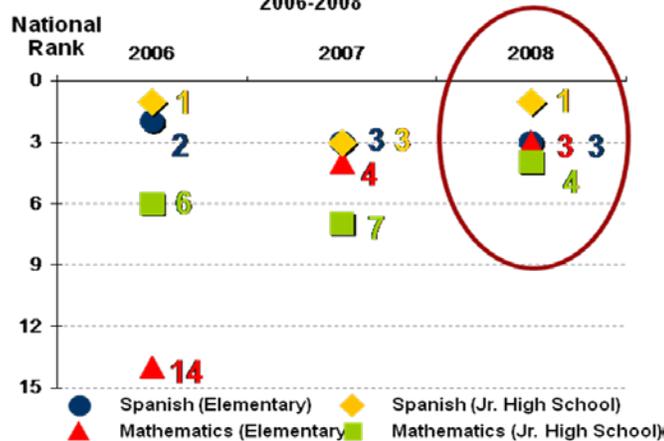
This continuous improvement in education, especially beginning with elementary and Jr. High School education, has been vigorously put into practice since 2004 and has made important progress reflected by the evaluation results of the Program for International Student Assessment (PISA 2006).

**Education Quality in Nuevo Leon
PISA Evaluation 2006
National Ranking**

Scales / Sub-scales	Performance Mean	National Rank
Science (global)	435	4 th
Reading (global)	455	1 st
Mathematics (global)	432	3 rd
Identifying scientific topics	447	3 rd
Explaining phenomena scientifically	430	4 th
Using scientific evidence	428	5 th

Source: ITESM. Self-elaboration with data from the National Educational Evaluation Institute (INEE).

**Enlace Test Results
Excellent-Good Evaluation
State of Nuevo Leon
National Ranking
2006-2008**



National ranking, where 1st is the best position.

Source: ITESM. Self-elaboration based on data published by SEP at http://enlacebasica.sep.gob.mx/cons_bd.html

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In 2008, the *Enlace* Test results also rank the State of Nuevo Leon within the first five places nationally, for those students who achieved a good or excellent score, in Spanish and Mathematics, for elementary and Jr. High.

With this basis, it was sought to place a high bid on the knowledge economy and thus achieve a significant increase in the well being of society¹³, as well as to strengthen the state's competitiveness through knowledge generation and transfer toward market needs to develop new products, processes, services and business models, increasing the added value by means of creation and innovation¹⁴. Ever since, it was determined to promote the program "Monterrey International Knowledge City" (Phase 1), seeking that its process of economic and social development in Nuevo Leon advance more rapidly and stand out more each time, as an internationally competitive region.

Given its priority, the MIKC was presented in 2004 to the then President of Mexico, Vicente Fox Quezada (2000-2006), for its consolidation and decided promotion, and it was determined as one of the five strategic projects in the State Development Plan of Nuevo Leon 2004-2009, where a model of industrial development based on technological innovation, knowledge and competitiveness was determined.

As a basis for the MIKC program, the state government, in coordination with the productive and education sectors of Nuevo Leon proposed to encourage:¹⁵

- An economic and institutional regime that stimulates and grants the needed incentives to promote the efficient use of Knowledge and its transformation into riches for all.
- An educated community with skills to create, share and use knowledge for the benefit of all.
- A dynamic infrastructure to enable communication, spreading and effective processing of information.
- An efficient innovation network, consisting of enterprises, research centers, universities, consultants and other organizations to take advantage of Knowledge, assimilate and adapt it to the local needs to create new opportunities for all.

Among the main priorities of the "Monterrey International Knowledge City" Program (MIKC) are the promotion of research, the technological design and development of 10 strategic economic sectors through 5 technological areas, for both, enterprises and universities. The five technological areas for which were proposed the concentration of priorities and efforts to encourage the existing businesses and to attract new enterprises focused on applied research, the development of new products and processes, the testing and the manufacturing of high technology, are as follows:¹⁶

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**“Monterrey: International Knowledge City” Program
Strategic Sectors and Technological Areas**

Strategic Sectors	Technological Areas
<ul style="list-style-type: none"> ● Computing ● Automotive ● Health ● Household appliances ● Aerospace ● Metal-Mechanic ● Plastics ● Ceramics ● Agro-business ● Food Industry 	<ul style="list-style-type: none"> ● Biotechnology ● Health Sciences ● Nanotechnology ● Mechatronics: <i>(Mechanics + Electronics + Software)</i> ● Advanced Information and Communication Technologies

Source: I²T². Reference Terminology for MIKC Program Master Plan Proposals Phase II (January 2008).

To develop these five technological areas, the MIKC Program originally defined the following seven basic strategies:¹⁷

1. Redesign the Nuevo Leon educational system agenda.
2. Attract new research centers and technological enterprises.
3. Promote innovation among existing enterprises, universities and research institutions.
4. Create new innovation enterprises.
5. Broaden the urban and cultural infrastructure.
6. Spread the new enterprise culture
7. Improve a whole set of financial instruments, fiscal incentives and risk capital to support innovation.

In addition, the government of Nuevo Leon proposed to call for– through the Strategic Project Corporation, which has the mission of contributing to the achievement of established goals for the government of Nuevo Leon and its State Development Plan 2004-2009- the diverse sectors to jointly engage in and define specific objectives and concrete goals to promote the new economy of knowledge in the State.¹⁸

Another of the fundamental purposes included in the MIKC Program is its humanitarian philosophy and emphasize the development of social sciences, homeland culture and social responsibility.¹⁹

As a departing point for all of the above mentioned purposes, in September 2004, the officer for the “Monterrey: International Knowledge City” Program was

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appointed and, on November 19, an agreement was signed between the government of the State of Nuevo Leon, represented by the Corporation of Strategic Projects, and the three most important universities in the State of Nuevo Leon, the Nuevo Leon Autonomous University (UANL), the Monterrey Institute of Technology and Higher Education (ITESM) and the Monterrey University (UDEM); the *Regiomontana* University (UR) would join later²⁰.

This agreement set the legal and institutional bases to use Knowledge as the axis for the development of a community suitable to compete and benefit from the global context²¹. Thus, the focused participation of such institutions of high quality higher education, engaged in joining efforts and in working jointly with companies, generators of knowledge, supported by the government of the State, to implement programs and projects geared to the development and consolidation of a Knowledge society²².

The MIKC Program was one of high priority, from its beginning, to the State government. This is reflected in the message by Governor Jose Natividad Gonzalez Paras (2003-2009): “...*MIKC was considered from the beginning of my administration as a strategic program; that is, as a State Program with a capital S, and the capital S is society and government and, in this specific case, it is particularly the scientific community, the academic institutions, the business sector and the Federal, State and Municipal governments, with a special promotion from the local context because it is a federal entity, the State of Nuevo Leon...*”²³; furthermore: “...*there are three important priorities in Nuevo Leon: one oriented toward social development, with social equity; one oriented toward education and knowledge; and one oriented toward culture...*”²⁴.

1.4 Building Alliances

The MIKC Program was defined as a great alliance among the different sectors of the Nuevo Leon community to trigger an economy in which knowledge is created, transmitted, acquired and used more effectively by its citizens and organizations with the objective of promoting the economic and social development of their own community²⁵. Additionally, for MIKC, to promote knowledge-based development is team effort. Thus, people from the State of Nuevo Leon have understood this alliance and, therefore, governments, universities and citizen organizations work jointly to achieve a common goal²⁶.

Under this agreement, as from the first stages of the MIKC Program, the government of the State of Nuevo Leon has granted great value and importance to collaboration and alliances among the different sectors of the community, since it is considered as one of the keys to success for the development of Monterrey as a Knowledge City/Region.

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The first great alliance made in favor of this type of development was, as stated in section 1.3 of this chapter, the one made between the State Executive and the main universities of Nuevo Leon. Another alliance of great impact for the MIKC Program development was to promote the creation of the first Knowledge Park called **Technological Investigation and Innovation Park (PIIT)**.

In accordance with what was established in the agreement of June 2005, between the government of the State of Nuevo Leon, represented in this event by its Governor, the National Council of Science and Technology (CONACYT); the Nuevo Leon Corporation of Strategic Projects; the “Monterrey: International Knowledge City” Program; the UANL, the ITESM and the UDEM²⁷, the participants and the signatories committed to joining efforts and resources to create this technological park, which has the purpose of integrating technological research and innovation by means of linking universities, enterprises and the R+D+i centers to promote the five strategic areas defined in the MIKC Program²⁸.

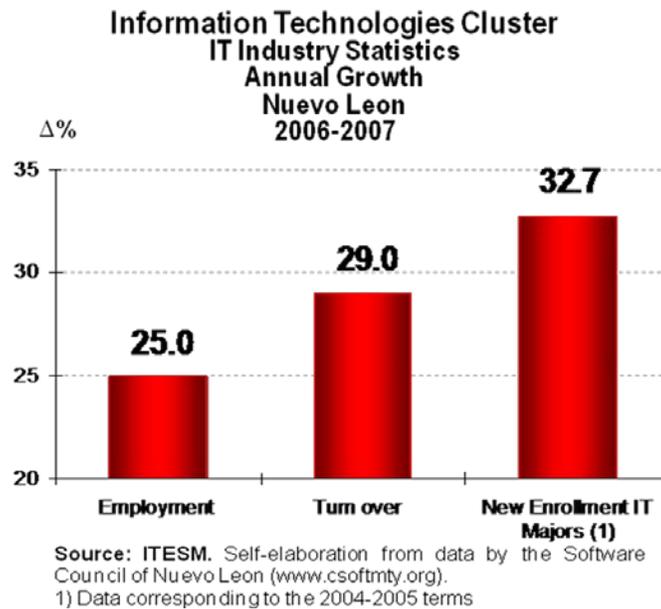
The responsible and joint participation of the productive sector of Nuevo Leon was also an important step to begin its road towards a knowledge economy. The businessmen/businesswomen, understanding their responsibility in this development model, had the initiative and leadership to organize strategic groups of enterprises called clusters. The clusters seek to work under the new concept of “**coopetence**”, understood as the collaboration in competency²⁹. In accordance with this concept, global, local and national companies of the same productive sector will work jointly among them and in collaboration with the academic and governmental sectors. They should be able to develop greater synergies, scale economies, and supplier networks to further promote productivity and competitiveness in the sector –for the benefit of all participants before global competition. Furthermore, it should give a practical sense to scientific research to accelerate technological transfer to the productive sector.

On the other hand, these clusters also seek to foresee the needs in regards to high intellectual level and specialized education of human capital, according to their requirements, to attract a greater investment in the region. Therefore, all the higher education institutions were included in making up each one of the clusters. They are key actors in educating human capital in support of the corresponding productive sectors.

The clusters, which have so far been integrated, are the Automotive, Aerospace, Household Appliances, Biotechnology, Nanotechnology, Specialized Medical Services, Information Technologies (Software) and Agribusinesses³⁰. It is worthwhile mentioning that the Information Technologies (Software) cluster, coordinated by the Nuevo Leon Citizen Council for Software, outstands for its success both for the growth of its main economic indicators (from 2006 to 2007, employment grew 25%; turnover, 29%; and the students

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enrolled in majors related to information technologies, 32%), and for its national and international prestige.



Among the main actions related to the creation of alliances and citizen integration and inclusion in the MIKC Program, State Governor (2003-2004) Jose Natividad Gonzalez Paras, in coordination with the productive, educational and social sectors, promoted the creation of spaces and structures for active participation through the establishment of Citizen Councils and the Nuevo Leon Citizen Participation Coordination.

These Councils have increased interaction between citizens and government and other actors in the public sector. They have the objective of pursuing the active and responsible participation of the civil society through their contributions and project proposals and the measures related to seeking improvements in government management and administration.

These Citizen Councils are defined as plural groups, meaning they include participants from different affiliations and interests, such as business chambers, professional associations, universities and other higher education institutes, unions and political parties. They are also defined as inclusive since they encourage the participation of people from all social conditions and diversity such as women, youngsters, the elder and people with special abilities. These councils are also defined as groups of honorary character, since they are made up of people renowned for their moral quality and professional experience, who try to collaborate with the State of Nuevo Leon with proposals that benefit society in general, without expecting remuneration for their participation³¹.

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For Mr. Jose Natividad Gonzalez Paras “a *participative democracy is now an underlying concept in public life*”³²; therefore, it is also necessary to “*complete and perfect the several fronts of innovation we have been opened to strengthen a participative democracy*”³³. Nowadays, there are 30 Councils in Nuevo Leon distributed as follows: six (6) are from the State Government; twenty (20) belong to the private/state owned sector and four (4) belong to specialized programs. Among the State Government Citizen Councils are those related to justice, public safety, education, salaries and compensations, information through the Nuevo Leon portal and health. Among the Citizen Councils of the private/state sector are those related to science and technology, education, labor relations, productivity, urban development and public works, transport and traffic, tourist development, culture and arts, fitness and sports, social development, agricultural sector and social diversity such as women and the young.

On the other hand, the function of the Citizen Participation Coordination is to strengthen and consolidate the participative democracy, and capitalize work and tasks performed by the citizens in such Councils. In addition, the Coordination has the objective of promoting functional continuity and a system of impact measurement that enables the generation of collective results and benefits.

With the creation of alliances, the MIKC Program has had, from its beginning stage, the intentions of attributing great value to the joint work of all sectors of the community, achieving multilateral and unified advances and generating positive synergies.

1.5 The IDB, its interest and support based on knowledge

The Inter-American Development Bank (IDB) has traveled a long way supporting projects of different scopes in Mexico. Among these projects are those related to the fields of science and technology, information and telecommunication technologies, education, development of the private sector and urban and housing development.

In its increasing interest to support Knowledge-based development, the IDB has started to finance projects in this field. Such is the case of the MIKC Program, which –with support of the Korean Fund for Technology and Innovation, and jointly with the Government of Nuevo Leon- decided to support the elaboration of a Master Plan proposal to promote Phase 2 of the “Monterrey: International Knowledge City” Program.

The long term objective is to accelerate the growth of the GDP in Nuevo Leon, by means of promoting a knowledge-based economy. On the other hand, as informed in the IDB portal, in its news section, the purpose of the Phase 2 of the Program is to prepare and achieve consensus to fulfill continuity and sustainability of the program through time, and to recommend the appropriate

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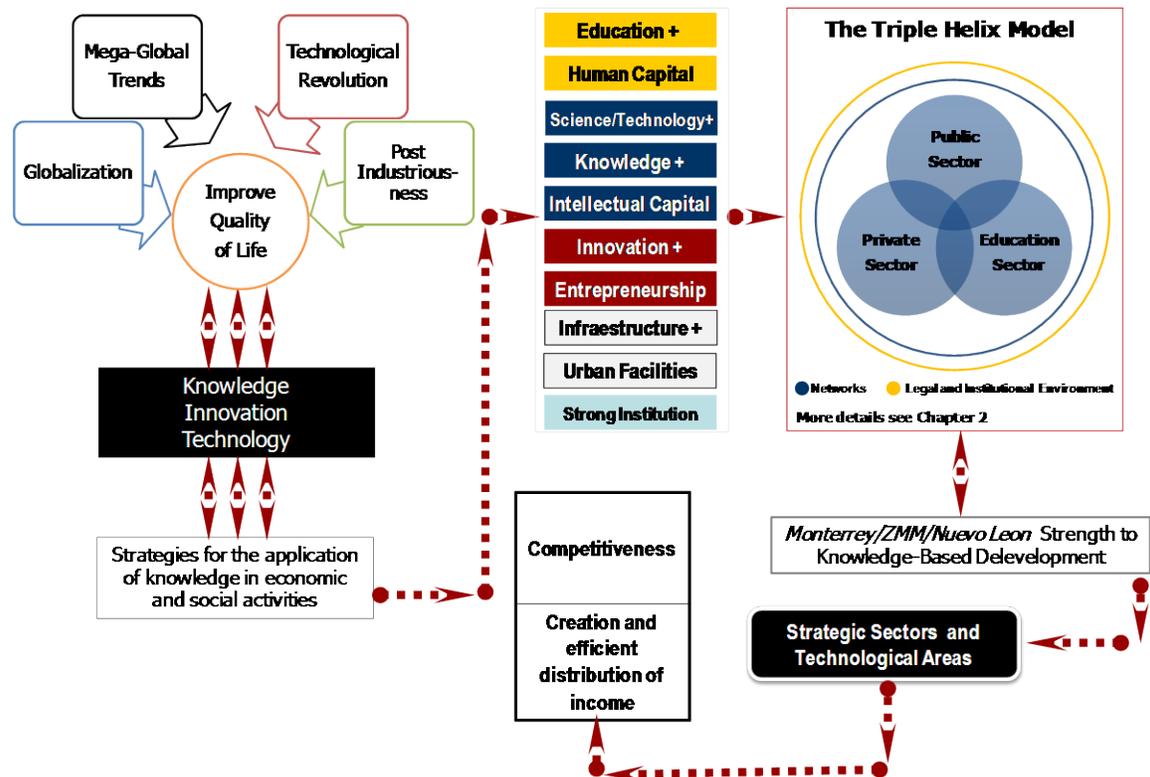
international experiences and optimal practices. In accordance with what Pedro Saenz, Chief of the DIB Project, “... the master plan will serve as the route plan for Nuevo Leon during the following eight years, from 2008 to 2015...”³⁴

On the other hand, **Hyunghwan Joo**, Director of the Korean Fund for Technology and Innovation, stated that “...this project has a great potential to be reproduced in other interested Mexican regions and other countries of Latin America and the Caribbean that wish to build a regional innovation system and/or sector as well as a national one...” Therefore, the Korean Fund for Technology and Innovation will continue supporting this kind of projects in the future”³⁵.

At the international level, the IDB has also supported initiatives such as “Panama, the City of Knowledge” which is still in its execution phase, and it is planning to participate in the project of developing a Scientific and Technological Park in Chile, in collaboration with the Catholic University of that country, among other important projects. Additionally, the IDB is writing an article about the good international practices in knowledge-based development.

1.6 Summary chart

To conclude this chapter, the following chart synthesizes the subjects covered.



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- ¹ Byung-seon, Jand Jung-tae, H (2002). Knowledge Intensive Service Activities (KISAs) in Korea's Innovation System. Available at: <http://www.oecd.org/dataoecd/63/57/15715398>.
- ² Organization for Economic Co-operation and Development (1999). The Future of the Global Economy – Towards a Long Boom? OCDE. Available at: <http://www.oecd.org/dataoecd/42/0/35394025.pdf>
- ³ Elaborated from the INE and Eurostat (2004) with 2001 data, published in Barcelona, Knowledge City: Knowledge Economy, information and communication technologies and new urban strategies. Department of Applied Economics of Barcelona's Autonomous University (Rafael Bois) (2005). Available at: http://www.bcn.es/publicacions/pdf/ciudad_conocimiento.pdf
- ⁴ Ideopolis: Knowledge City-Regions. The Work Foundation Alexandra Jones (Coordinadora)
- ⁵ Organization for Economic Co-operation and Development (2006, October). Conference on "Globalisation and the Knowledge Economy". Available at: <http://www.oecd.org/dataoecd/45/53/37591293.pdf>
- ⁶ Consejo Nacional de Ciencia y Tecnología, 2005 CIA WORLD FACTBOOK
- ⁷ Consejo Nacional de Ciencia y Tecnología, 2005 CIA WORLD FACTBOOK
- ⁸ Organization for Economic Co-operation and Development (1996). The Knowledge-Based Economy. Available at: <http://www.oecd.org/dataoecd/51/8/1913021.pdf>
- ⁹ Elaborated by the *Fundación Este País*, based on Messner, Dirk, "Latinoamérica hacia la Economía Mundial: condiciones para el desarrollo de la competitividad sistémica", Work material No. 5, Friedrich Ebert Stiftung, y Organización para la Cooperación y el Desarrollo Económicos (OCDE), Territorial Reviews Mexico City, 2004. Available at: Economía del conocimiento y zonas metropolitanas. Este País (November 2005).
- ¹⁰ Monterrey Ciudad Internacional del Conocimiento (2008). Informe de Avances. Available at: <http://www.mtycic.com.mx/avances.html>
- ¹¹ Governor José Natividad González Parás address at the Monterrey, International Knowledge City Program: Origin, achievements and fate (28.08.07). Available at: <http://preportal.nl.gob.mx/?Article=58478&ArtOrder=ReadArt&P=leerarticulo&Page=1>
- ¹² Portal del Gobierno de Nuevo León (2008, abril 30). Mensaje del C. Presidente de la Academia Mexicana de Ciencias, Dr. Juan Pedro Laclette, durante la Ceremonia de Entrega de Reconocimiento que hace la Academia Mexicana de la Ciencia al Lic. José Natividad González Parás. Available at: <http://www.nl.gob.mx/?P=leerarticulo&ArtOrder=ReadArt&Article=61379>
- ¹³ Monterrey Ciudad Internacional del Conocimiento (2008). Informe de Avances. Available at: <http://www.mtycic.com.mx/avances.html>
- ¹⁴ Monterrey Ciudad Internacional del Conocimiento (2008). Acerca de MTYCIC, Propuesta. Available at: http://www.mtycic.com.mx/acercade_lapropuesta.html
- ¹⁵ Agreement to promote the International Knowledge City Program
- ¹⁶ Agreement to promote the International Knowledge City Program
- ¹⁷ Información obtenida from I²T².
- ¹⁸ Convenio que celebran el Gobierno del estado de Nuevo León, representado por la Corporación de Proyectos Estratégicos, y la Universidad Autónoma de Nuevo León, el Instituto Tecnológico y de Estudios Superiores de Monterrey y la Universidad de Monterrey, para impulsar el Programa: Ciudad Internacional del Conocimiento (2004).
Convenio celebrado para impulsar el Programa: Ciudad Internacional del Conocimiento
- ¹⁹ *Ibidem*.
- ²⁰ *Ibidem*.
- ²¹ *Ibidem*.
- ²² *Ibidem*.
- ²³ Portal del Gobierno de Nuevo León (2007, August 07). Mensaje del C. Gobernador José Natividad González Parás, en el Programa Monterrey Ciudad Internacional del Conocimiento, Origen, Logros y Destino. Available at: <http://preportal.nl.gob.mx/?Article=58478&ArtOrder=ReadArt&P=leerarticulo&Page=1>

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²⁴ *Ibidem*.

²⁵ Convenio que celebran el Gobierno del Estado de Nuevo León, representado por la Corporación de Proyectos Estratégicos, y la Universidad Autónoma de Nuevo León, el Instituto Tecnológico y de Estudios Superiores de Monterrey y la Universidad de Monterrey, para impulsar el Programa: Ciudad Internacional del Conocimiento(2004).

²⁶ Monterrey Ciudad Internacional del Conocimiento (2006, agosto 16). Un proyecto que todos estamos construyendo. Available at:

http://www.mtycic.com.mx/avances_quesehahecho.html

²⁷ Convenio que celebran el Gobierno del Estado de Nuevo León, representado en este acto por el C. Gobernador Constitucional del Estado, el Consejo Nacional de Ciencia y Tecnología, la Corporación de Proyectos Estratégicos de Nuevo León, el Programa de la Ciudad Internacional del Conocimiento, la Universidad Autónoma de Nuevo León, el Instituto Tecnológico y de Estudios Superiores de Monterrey, y la Universidad de Monterrey, para impulsar la creación de un Parque de Investigación e Innovación Tecnológica. (November 2004)

²⁸ *Ibidem*.

²⁹ Governor José Natividad González Parás address at the Monterrey, International Knowledge City Program: Origin, achievements and fate (28.08.07). Available at:

<http://preportal.nl.gob.mx/?Article=58478&ArtOrder=ReadArt&P=leerarticulo&Page=1>

³⁰ *Ibidem*.

³¹ Anatomía de los Consejos Ciudadanos. Revista Contacto Ciudadano (February – April 2008)

³² Gobernador José Natividad González Parás in Anatomía de los Consejos Ciudadanos. Revista Contacto Ciudadano (Journal) (February – April 2008)

³³ Gobernador José Natividad González Parás en Anatomy of Citizen Councils. Revista Contacto Ciudadano (Journal) (February – April 2008)

³⁴ Banco Interamericano de Desarrollo (2007, July 13). A impulsar una ciudad de conocimiento. Available at: <http://www.iadb.org/news/articledetail.cfm?language=SP&artid=3937#>

³⁵ *Ibidem*.