Buenos Aires Sustainable City

Subject City

Buenos Aires

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The BA 2100/IAPG Project is a research undertaking based on the classical consensed urban strategic planning methodology, to which a specific projection method was added to comply with the 100 year forward look required by the SUSD Competition. Besides, it combines different scenarios: the city itself, the entire country, the region and the World. The final product is an updated diagnosis of the city and its surrounding metropolitan region for 2002, that includes strengths and weaknesses and, based on this, a projection aimed at reaching sustainability by 2100 with the help of three temporal steps in between.

These stages are:

- 2002/2016: The Recovery: Like other countries that were affected by devastating crises, Argentina emerges through the application of a set of remedies: clear priorities, clean and austere management, prudent objectives and a great deal of self confidence. In Buenos Aires, the key to the development of the metropolitan region is the efficient use of its green instertices.

- 2016/2044: The Integration: A new Inter-American integration movement of continental dimension will take place during this second stage. At the same time, a strategic alliance with Australia, New Zealand and South Africa will begin to be defined, based on the agro-business profiles of these nations. In Buenos Aires, the Great Bi-national City of the Rio de la Plata, as a consequence of the urban expansion of the region.

- 2044/2100: The Quality: During the second half of the XXIth Century, Argentina and Buenos Aires will face a double effort: on one side, they will recapture the paradigms of the XXth Century, such as liberty, equality, identity and governability, and at the same time they will acquire que paradigms of the new age, such as multi-culturality, previsibility, environmental sufficiency and equality in diversity. In this scenario, water, energy and habitat will be crucial items.

Each one of these stages requires the accomplishment of certain minimal objectives; therefore, the failure to achieve them complicates the starting point of the next stage.

Eight thematic axles have been chosen for each stage: Urban Development, Environment, Energy, Economic Development, Social Development, City Management and Institutional Framework, Education and Culture. In each case, these are examined in the light of five main factors: Sustainability, Governability, Equality, Identity and Competitiveness. This analysis is supported by descriptive texts and maps.

The BA Project was approached by means of a Progressive, Possible, Encouraging and Universal Projection. It is an intellectual and credible exercise, a contribution from a region of the World that has been open to the most diverse cultural imputs, and is clearly dedicated to strengthen the fraternal bonds.
INTRODUCTION

PROJECT BUENOS AIRES 2100 / IAPG ARGENTINA

The IAPG (Argentine Institute Oil and Gas Institute) represents the Argentine Gas industry in the IGU (International Gas Union), and thus, it is the institution in charge and responsible for the co-finance, supervision and appointment of the Chairman who carried forward this investigation. Once the requirements for the International Competition were known, a research team was created, and an action program including the following stages was drafted:

- Update of the existing information about the basic aspects of the city, such as urban development, environment, energy, economic and institutional development and management, social development, education and culture.

- Implementation of a diagnosis identifying strengths and weaknesses with the aid of “key informants”, experts and professionals, updated to February 2002.

- Drafting of a strategic plan establishing all the transformation objectives for the previously mentioned aspects and the actions that must be taken to fulfill such objectives, through constant consultation with the key informants.

- Drafting of the Entry to participate in the Competition and of the supporting material necessary for its full understanding.

The research team performed the work under the supervision of IAPG’s Steering Committee. Besides the significance of Argentina’s participation in this Competition and the international prestige it provides, we believe that a Project like this can provide an important contribution to the future development of the Metropolitan Area of Buenos Aires. Considering that this initiative, fostered by the private sector, is one out of few of this nature currently under development, it will surely interest the authorities of the Autonomous City of Buenos Aires and the Municipalities of the Metropolitan Area. The IAPG believes this is an opportunity to show the importance of the energy and utilities sectors in a large urban center, the improvement in the standard of living of the community that its development might generate and the elements that constitute an obstacle to development and do not allow the most deprived sectors of the community to access these services in general.

METHODOLOGY

A Consensus Strategic Plan (CSP) is a major undertaking agreed upon by the main players of a region. In order to implement this Project, it is necessary to define the way in which to create a vision of Buenos Aires as a Sustainable City, in harmony with its environment.

Based on the CSP, our aim was to create a space to obtain consensus that would allow us to define a global Project including the physical aspects of urban development as well as other aspects such as: social, institutional, economic, cultural, education and environmental issues. This Project is based on reflection, openness, flexibility and plurality for the drafting of a project showing Buenos Aires as a Sustainable City and emphasizing the importance of the use of energy as a Strategic Line to achieve this City Vision.

In order to rethink and reformulate the city environment, Strategic Planning constructs a global vision and reflects the local characteristics that define the city’s identity, setting a framework that describes its public aspects at different stages, involving the economic and social agents that have an impact on society as a whole. The design of a CSP, allows us to obtain a theoretical-practical result, offering at the same time, material Projects for the transformation of the city, and improving the standard of living of its inhabitants through their implementation. The institutions and individuals participating in the Project commit themselves to work with an unstructured and unbiased vision of the sector so as to come up with a common view of the City’s desires and opportunities. The integration of public and private activity, including the cooperation of both sectors, is of vital importance for the feasibility of the project. Thus the creation of a Plan focused on the construction of a common scenario, halfway between the real and ideal ones and not influenced by individual interests is possible. The aim of the Project was to develop a clear vision of a Sustainable City, suggesting processes to transform the city of Buenos Aires to fulfill that vision. This “Sustainable City” project, calls for a vision that shall clearly incorporate the energy issues integrated to the environment and shows their contribution to the continuous improvements in the standard of living of its inhabitants. The preparation of a Project of this type is generally rests in the hands of the State. However, it is interesting to see an institution like the IAPG perform this research with a most unique vision resulting from the implementation of an innovative methodology. Thus, the Plan incorporates from its very beginning, the vision and knowledge of the members of the IAPG. Its steering Committee and its technical team contribute to develop the strategic guidelines of energy for Buenos Aires, including sustainability issues related to its production, transmission and distribution. Mere physical planning is not enough, given the importance of this work that must include in its development a multidisciplinary perspective.

The creation of a Strategic Plan of Buenos Aires, based on a plural, multisectoral and multidisciplinary space allowed us to:

- Define a vision of the city in a Plan, its STRATEGIC LINES, its Objectives and Projects.

- Contribute to the improvement of the city’s regional positioning, taking advantage of the opportunities and identifying the mentioned threats.

- Create a social and technical opinion base, with a high degree of legitimization in the investigation projection.

- Provide the IAPG and the companies integrating it information for future developments of the sector based on its conclusions.

- Suggest a new way of thinking / planning the city, laying emphasis on energy and on the protection of the environment.

We believe there will be growth opportunities for the project if the Plan can result in a sustainable Buenos Aires, capable of showing its maximum capacity of energy application, thus contributing to the creation of a pleasant environment. This transformation that was the aim of our project at the prognosis stage is not only technological but basically political, social, economic and cultural. Summarizing, a CSP encompasses society’s dreams for a better future, and in the case of Buenos Aires (“Clean Aire” in Spanish), the dream of achieving a clean, unpolluted city that can well live up to its name.

There are two stages for the drafting of the Plan: diagnosis and elaboration of Visions, Strategic Guidelines, Objectives, Projects and Programs (during the first two stages), that is to say, the Projection...
stage. Each of these stages was elaborated using similar methodologies, interviewing “key informants”, experts and professionals.

The following 8 topics constitute the backbone for both the Development of the Diagnosis and the Projection Stage: Urban Development, Environment, Energy, Economic and Institutional Development and Management, Social Development, Education and Culture. Innovative and transparent multisectoral and multidisciplinary aspects have additionally been considered, adding significant qualities of the project. In the context of multidisciplinary aspects, the way in which available information was provided was especially relevant. Furthermore, the concepts of sustainability, governance, equality, identity and competition have been permanently considered.

**DIAGNOSIS**

**Argentina:** Located in South America, in the Southern Hemisphere, has a surface of 3.8 million Km², out of which 2.8 belong to the continent, with approximately 45% flatlands (prairies and savannahs), 23% plateaus and another 23% jagged mountain ranges (sierras) and mountains, and the remaining percentage belonging to the Antarctic Sector. It shares its borders with Uruguay, Brazil, Paraguay, Bolivia and Chile with a borderline perimeter of 9,376 kilometers. The sea front, on the Atlantic Ocean, covers 4.725 kilometers. The main characteristic of its relief is the marked contrast of vast flatlands on the East (La Pampa) and the massive Andean mountain range or “Cordillera de los Andes” on the west. Argentina has a wide variety of climates: warm humid in the Pampas, cold and humid to the west of Patagonia, subtropical in the northern part of Mesopotamia and warm in the northwest. At present, Argentina’s population is over 36 million inhabitants, half of which reside in the Buenos Aires Capital City and Province Buenos Aires. These figures indicate a density of 13 inhabitants per square Km²

**Buenos Aires City:** Located on the western margin of the “Río de la Plata”, on its wet pampa, it is the capital of the Argentine Republic. Its 200 Km² surface, concentrates a population of over 3 million inhabitants. Located 20 meters above sea level, on the same latitude of Cape Town and Sydney. Buenos Aires’ climate is oceanic warm and mild throughout the year. Annual mean temperatures are of about 18˚C. Intense hot and cold days are scarce.

Buenos Aires is not the first city founded in the Argentine territory by Europeans, but the last of a historical period covering all the XVI Century. Buenos Aires was founded out of the need of providing a gateway to the Plata basin, which covers a five million square meter surface. This led Buenos Aires to rapidly become one of the most important cities in the region.

Due to Buenos Aires’ rapid expansion and metropolitanization, its population sharply increased in less than one century, from 250,000 inhabitants in 1880 upon the creation of its Federal Capital and territorial delimitation of 200 km², to a present metropolitan population of 13,000,000 inhabitants that accounts for 35% of total population of Argentina, occupying a territory of over 2,000 km². Buenos Aires’ strategic location as access point to the rest of the provinces of the country and the fact that it is the Capital city and its most important port, have contributed significantly to its development and consolidation. Its vertiginous growth increased its population, first within the capital city and then in the suburban area of Greater Buenos Aires, consolidating municipal jurisdictions. At present, the metropolitan area is an integrated space made up of national, provincial and municipal jurisdictions, all superimposed in a conglomerate that lacks organization and control, but nevertheless constitutes an indivisible functional unit of shared environmental systems, infrastructures and services, with the structuring scheme of a continuous urbanization process that does not acknowledge any special or jurisdictional limits. The city of Buenos Aires, comprising the Federal Capital and its Metropolitan Area, has been the first choice for the drafting of the BA 2100 / IAPG Project, especially when working with regional and global dimensions, where the insertion of Buenos Aires is always considered taking into account its metropolitan dimension. Buenos Aires expanded spontaneously as a dynamic center which is accessed through a radial system of public transport, mainly railways, with stations constituting the main nodes that shaped the growth of local subcenters, located along railroad tracks that extend over 800 km in the metropolitan area. This cluster-like model of public transport resembles the growth model of large European cities and shapes the consolidated historic urban structure of the city. As of the middle of the XXI century, the large concentration of population exceeded the traditional schemes of urbanization, resulting in a proliferation of settlements in the interstitial spaces of the radial diagram and frequently giving way to settlements of deprived sectors that do not fully integrate to society and thus constitute a real “black map” of secluded social sectors, because of their marginal characteristics. In contrast, during the last 20 years, the exponential growth in car production and the construction of highways and freeways, gave way to another type of urbanization, a population of car owners that live in large private neighborhoods that occupy too much space, interrupt the continuity of the urban tissue and overload the existing infrastructure.

The present challenge is to control the expansion of the metropolitan area, sustain a rational growth model, ensure its governance and protect the environmental conditions affected by an excessive growth that did not respect green spaces, occupying ecologically sensitive areas and affecting watersheds and natural spaces. However, of all the cities in Latin America, Buenos Aires possesses one of the strongest city structures, sustained in the urban mass that accounts for the density of its city life and prevalence of its downtown area as a permanent indicator of its cultural activities, contrasts, energy and myths of its city dwellers.

**MAP 1:**

A. Development of settlements along European colonial roads and railroads, using the highest land.
B. After mid XXth Century, peripheral growth without settlement patterns, with limited infrastructure and using wet lowland.
C. Following the construction of highways at the end of the XXth Century, growth of green, socially secluded suburban areas.

**DIFFERENT MODELS THAT INFLUENCED THE GROWTH OF BUENOS AIRES**
PROJECT

Imagining the future of cities means risking hypothesis on the trends as well as on the desirable steps that shall modify harmful processes. The challenge of this investigation was to elaborate visions, strategic guidelines, and objectives and also at certain stages of the investigation process, to draft Projects and Programs with the help of a CSP methodology. This is a unique and unprecedented assessment work, due to the long period it covers. In it, we shall try to achieve the concepts of collective prosperity. Thus BA 2100 IAPG Project is an interpretation of the transformation processes, focusing on the opportunities of change, based on the diversity and dynamism of the present scenarios. (See Map 2)

This project considers Buenos Aires as a combination of elements including the City of Buenos Aires (Capital of Argentina and central area of the conglomerate) and the Metropolitan Region. We have also analyzed Buenos Aires within the system of cities it integrates, known as the “fertile crescent of the SOUTHERN CONE COMMON MARKET”: Rio de Janeiro, San Pablo, Porto Alegre, Curitiba, (Brazil) Asunción (Paraguay), Montevideo (Uruguay), Buenos Aires, Rosario, Santa Fé-Paraná, Córdoba, Mendoza, (Argentina) Santiago, Valparaíso (Chile), lineal run that encompasses more than 70% of the region’s GNP. Buenos Aires must find its role in this System of Cities as: “Buenos Aires City of Culture”; “City of Quality”; “City of Encounters”; “Friendly City”; “Sustainable City”; etc. Therefore, a project defining Buenos Aires for this new century must be definitely designed within this regional and metropolitan context.

SPECIFIC FEATURES

a) BA 2100 / IAPG Project Projection is Progressive: We need to point out that from the methodological standpoint of a traditional Consensus Strategic Plan (CSP); this investigation work did not follow a strict method of consultation. In general, strategic plans do not cover more than ten years. This investigation however, extends over one hundred years, thus the work horizon is drafted on the basis of certainties in the area of temporal proximity and towards its end, it includes the desires and dreams of equality and justice for the whole planet. Its characteristics make it really interesting. Facing this dual challenge, our work includes the update of several diagnoses of the City of Buenos Aires and its Metropolitan Area, divided into Issues to be analyzed that in our opinion, constitute a sustainable basis for prognosis elaboration. Based on investigations and interviews with “Key informants”, experts, academics and professionals, the diagnosis provided us with a platform for the temporary take off of the BA 2100 IAPG Project. The seven year period we had originally considered for the information update, 1995-2002, to elaborate the Base Diagnosis, seemed to be a good time division until the year 2100. However, this time division is arbitrary. It is merely a convention. But projected in progressive divisions or cuts (multiples of 7 years) it makes times and suggested actions coincide. Consequently, we proposed time periods running from the years 2002/2016, 14 years, 2016/2044, 28 years, 2044/2100, 56 years. The further we are from our present times, the closer we get to the desires of achieving a world with more sustainability and equality, a different, more humane world. This is the reason that has motivated us to make this humble contribution: the elaboration of progress and common respect for the city citizens.

b) BA 2100 / IAPG Project work is a possible Perspective: The traditional CSP does not work on the real city; it only elaborates its diagnosis based on the data obtained from the present situation of the city. On the basis of this diagnosis, updated in terms of strengths and weaknesses and through the joint and permanent contribution of its relevant social players, a Plan is proposed as a contribution and description of a certain epoch. However, we are convinced that rather than the development of the Plan, the most interesting aspect is the process leading to its elaboration. The process by which consensus was obtained is the result of the methodological success evidenced in this work. Even though due to the specific characteristics of this investigation, the consultation and research sources were more limited, our objective was the expansion of the thematic issues with specialists and the compilation of views of generalists on the different issues. However, the final result of the Plan does not lead to an ideal city: on the contrary, rather than a product showing a perfect city, it sets a scenario of what a possible city should look like, and establishes the perspectives or aims to achieve that. On this particular occasion, we have focused on this premise and tried to fulfill it. We believe that others will share our optimism as regards Buenos Aires in the next 100 years, since the change we are suggesting is not only possible but it is also vitally necessary.

c) BA 2100 / IAPG Project is an Encouraging look: Whenever we face an investigation work on a particular city, Buenos Aires in this case, we may adopt three types of visions. A pessimistic view, which means that in spite of everything, no matter the joint efforts of transformation on behalf of the city and its dwellers, things shall never change. An optimistic view, because in spite of everything this city and its dwellers may find the common denominators and materialize their collective illusion. The third and last view is the balanced one: in spite of everything, this city and its dwellers with their strengths and weaknesses shall be able to comply with their objectives of progress and development after an enormous joint effort and an important decision making process. In the case of Buenos Aires, those who have worked on this project have not been indifferent towards the future of this city since we are part of it. Probably, since we have been very strict and serious in our investigation, our analysis implies our commitment with the region and with Humanity. We assume this commitment and are interested in it at a local level, but with a conception and analysis of the global context. We think that the efforts made by the cities participating in the competition for a better future is a very important step even though for the time being it is only a project.

d) The aim of BA 2100 / IAPG Project is Universal Aspiration: From the beginning of our investigation, we knew that our statements about Buenos Aires particularities could lose objectivity. Probably, we may have not been able to detach ourselves from the issues that characterize our city (object of study). Nevertheless, our team has permanently tried to focus on the phenomenon of cities in our historical moment; therefore we hope our contributions shall be useful for the whole challenge. Even though our proposal focuses on one city in particular and contains threats and opportunities inherent to it as well as strengths and weaknesses that have constructed its identity, those who live in Buenos Aires are able to enjoy it and suffer in it, however, in the rest of the world there are other communities just like ours that may find some common points in this study. If they contact the BA 2100 Project / IAPG team to help us with their opinion so as to advance on this collective project, our aims shall be achieved.

BUENOS AIRES 2002

DIAGNOSIS SUMMARY

URBAN DEVELOPMENT

STRENGTHS

Territorial Organization: Due to its location, Buenos Aires is a port belonging to the Southern Cone Common Market. The estuaries of the “Río de la Plata” and “Delta del Paraná” are relevant resources. There is an important land stock with free spaces, different landscapes and the opportunity of
implementing mechanisms for their preservation that would improve society’s life quality.

Population: The city of Buenos Aires has a more equalitarian income distribution than that of the rest of the country’s urban conglomerates. The population shows a marked social and economic diversity. Human development is the highest in the region.

Traffic and Transport: Buenos Aires is a nodal center for national and international transport of passengers and cargo, concentrated on the metropolitan port, the metropolitan and international airports and train and bus terminals. Passenger transport has a vast geographic coverage. Nodes are hierarchically organized; there are trains of great seating capacity that service the large trunk corridors. The transport system provides a good general accessibility that determines a positive influence on the value of lands.

Housing: There is a vast offer of materials, labor, technology and technical and organizational capacity. There are a lot of technologically capable construction firms.

Public Works: Many planning processes have been developed. Large infrastructure construction works and successive plans and codes have been elaborated with the aim of guiding growth and improving life quality.

Public Space: Buenos Aires preserves the value of public space as a city of encounters and leisure activities of all types for its heterogeneous population (sidewalks, street corners, parks, squares, etc). It possesses an important system of public spaces of high urban value from the environmental perspective and with an important public and private heritage constructed. A recovery plan of the riverside to integrate it to urban life is being developed.

WEAKNESSES

Territorial Organization: The strong real estate pressures from the private sector on the peri-urban borders and riverside speed up the processes of space consumption and result in more lands assigned by the state to the private sector, without an adequate assessment of the emerging environmental impact and social costs. The North is preferred to the South and West, and the main axes are predominant over the interstitial spaces which are difficult to access and are badly serviced. The pollution of the surface water has driven the inhabitants away from the shores and has impeded the utilization of this resource for recreation and tourism, thus generating a loss and degradation in the relationship between the city and the river.

Population: An appropriate migratory national policy is lacking. The population is distributed among the northern, southern and western sections with marked differences in densities. From the qualitative point of view, urban growth shows a clear tendency towards socio-spatial polarization and segregation that has become more evident during the last years, generating strong socio-economic contrasts.

Traffic and Transport: The increase in the use of car public transport in absolute as well as in relative terms, together with the increase in the production of private cars, has created traffic problems, polluting the environment and raising the noise level above normal values. The Public Transport system in general, lacks inter and intra modal integration, both physical and operational; with unsuitable and unequipped transfer centers. There is no integral planning of the passenger transport network.

Housing: Important housing deficit. Imbalance between the North and the South of the city as far as infrastructure and housing units are concerned. Urban occupation of low floodable areas.

Public Works: Investments in services and infrastructures tend to tune in better with the supply than with the demand. The unplanned and uncontrolled use of superficial resources such as effluent reception systems (sewage or industrial effluents) and the use of the storm drainage system for this purpose have brought about the deterioration of the quality of streams and rivers in the metropolitan region. Public investment construction works have deteriorated and reduced in number. Both public and private investors tend to concentrate on the most favored areas of the city. There is a maintenance deficit of existing public works. A metropolitan hydrometeorological alert network is lacking.

Public Space: The “Río de la Plata” and its local effluents, all of them water supply sources, are used to dump the sewage and industrial effluents and household residues of the metropolitan area. The uses have modified the programs and there are no projects at present, deploying new strategies to integrate green spaces, leisure and recreation, sports and free time. There are a lot of architectonic and urban barriers or obstacles for handicapped people. The demand of the metropolitan space for free areas is not coordinated, there is no totalizing vision. Instead, an exclusively territorial planning or planning of segmented territories is carried out.

ENVIRONMENT

STRENGTHS

Water: The “Río de la Plata” is a water supply source that caters for the needs of the area and allows an adequate water supply at low treatment cost. Drinking water supply is a privately managed public utility that satisfies the needs of over 85% of the population.

Soils: Originally, the city was located in front of the “Río de la Plata”, on a low plain, at the beginning of the Wet Pampa, crossed by streams, with no geological accidents or significant limits towards the north and west. It is located on a territory made up of important basins and environmental reserves: Riachuelo - Matanza basin, “Río Reconquista” basin, “Luján” river basin and the basin of the “Delta del Paraná”. The conditions of the climate, air, water and soil are favorable. There are a lot of underused or inadequately used urban vacuums, especially in the southern and western parts of the city that may contribute to an improvement in the environment.

Air: Its location is geographically adequate. It is a plain with winds and abundant rains that help to reduce localized pollution. 450,000 city vehicles, most of them taxis, use compressed natural gas in their propulsion system. This helps to prevent environmental pollution. Pollution caused by power plants is low due to the fact that they are mainly located on the riverside and are gas fired mainly combined cycles.

Waste disposal: The specifications of waste collection have considered environmental problems as regards noise and gas emission levels of garbage collector trucks and recycling.
WEAKNESSES

Water: The population does not really save this resource. With a few exceptions, this service is not metered.

Soil: The city has grown indefinitely towards the south, north and west, in the classical “oil stain shape” over circulation structures (avenues, routes, trains) and fiscal lands, without discriminating low and deprived areas. The successive processes of occupation, space transformation and change in the use of the soil have set the conditions for the replacement of the original surface land and water ecosystem by rural activities and these in time have been replaced by intense urbanization processes. The city counts with a set of ecosystems that integrate the green spaces of the city with the metropolitan region and are not taken advantage of. There is no continuous policy for green areas and forestation. Inadequate use of land stock (lack of land banks).

Air: The city citizens are not fully aware of the different types of pollution: environmental, visual and noise. There is no policy controlling the environment within the city and in the country as a whole. Neither gaseous emissions nor liquid emissions of water streams are controlled. Passenger and cargo transport use the technology of the 80’s. There are no policies in the city towards the application and control of RUE (Rational Use of Energy) regarding global emission of greenhouse gases. There are no policies to rationalize vehicle traffic, nor the limited use of private transport, nor is there any estimate about the social cost of pollution.

Pollution: The increased problem of pollution of natural resources in the metropolitan area is affecting the life quality of city dwellers. The city lacks control of emissions (except for passenger cars to a certain degree) and of systematic studies on the environmental impact of transport. There is no sanitation or pollution control of tubed streams and rivers. The risk posed by transport of hazardous substances is high. Pollution is mainly produced by carbon monoxide and particulates and the most relevant sources of emissions of the city are private cars, buses and trucks.

Waste disposal: The city is a very limited urban subsystem as regards its capacity to process the waste it produces. The constant increase of household residues implies that in the near future, they will have to travel greater distances for their disposal, increasing both transport and final disposal costs. There are outdoor (clandestine) dumps in the city. Environmental education programs are scarce and no punishment measures are applied. There is an alternative clandestine way of collecting garbage for recycling, including paper, plastics and glass.

ENERGY

STRENGTHS

Gas: There is an established culture established for the safe use of natural gas and its installations, based on economic convenience. Gas penetration in the energy matrix of the city is one of the highest in the world, using the most efficient primary fuel available, since 95% of the energy obtained at wellhead reaches the user without shrinkages. Good reserves/production ratio, enough for mid term planning. Enough growth and supply capacity of the network vis a vis industrial or population shifting. It covers a large sector of the population with natural gas throughout the city area, supplying more than 85% of its dwellers. System maintenance, metering and operation are good. Production of CNG propelled vehicles is significant (more than 850,000 in the country). Buenos Aires owns the largest CNG vehicle stock in the world (50%) in taxis and private cars and counts with abundant and adequate supply of CNG at a lower price than that of liquid fuels. CNG gas filling stations technology is exported.

Electricity: Electricity is provided to a large part of the population in the city area. There are three private power distribution companies that supply over 95% of the population. These companies service all the geographic area, each of them in charge of an exclusive zone and operating under the public services regime. By the end of the decade, the energy price reached its floor, in the industrial sector, tariffs are very competitive and in the residential sector, they are among the lowest in the world. The quality of the electricity service is good. An excellent service management technology has been developed. The electricity tariffs and the quality of the service have remained stable in all the city areas. There are enough growth and supply opportunities for the network vis a vis industrial or population displacements. Power generation systems are modern. There are twelve natural gas combined cycle power stations in the country. There is also a national consensus to foster the use of renewable energy, especially eolic energy. The country has three eolic power production centers and many under construction.

Liquid Fuel: Good reserve/production ratio of local oil, enough to cover mid term fuel supply. Same as with other energies, the production, transport, distribution and commercialization of liquid fuels are in hands of the private sector. In comparison with other countries, the quality of crude is high. The Argentine refining facilities are in good maintenance, control and operating conditions and are privately owned.

WEAKNESSES

Gas: There is no exploration policy for areas of high risk. The marked increase on gas exports calls for the implementation of these policies in the short term. Gas supply fields are located thousands kilometers away from the city. The pipeline network reaches its maximum capacity limit in winter and there are partial gas cuts affecting plants and industrial users. Tariffs are insufficient for the construction of new gas pipelines. No investments are contemplated for the development of natural gas alternative use technologies, such as fuel cells, gas air conditioning, gas dehumidifying and other uses of gas.

Electricity: Power generation in the Buenos Aires area is not enough to cover the demand, and as a result of this, the city imports electric power from the national grid. There are no clear guidelines to transform the electric sector into a sustainable area. People are not fully aware of the rational use of electric power. 40% of the country’s power generation is provided by machines and installations in existence for more than 20 years (limit). This service is characterized by high safety requirements and its technological transformation process is slow.

Liquid fuels: The quality of fuels produced in the refineries is still one of the best in Latin America. There is no exploration policy for high risk areas. There is a strong competition among foreign countries to invest in the oil business. The privatization processes under way generates competition for investing in production rather than in exploration. There are no mechanisms aimed at fostering production of less polluting fuels. The decision to produce them has always been subject to the commercial decisions of the vehicle production sector.
ECONOMIC DEVELOPMENT

STRENGTHS
Buenos Aires is the main center of economic and financial information both at a local and national level, for all national and regional economic activities. It is Argentina’s political Capital and economic center, and serves as an exchange point with the rest of the world and as a scientific and technological innovation center. It is privileged with a central location in the main corridor of the Southern Cone Common Market and with the capacity to play a dynamic role as a business center, based on its strategic location. The industrial, commercial, financial and services sectors constitute the main centers of activity, possessing the largest installations and highest productivity, and with average profits that are higher than those of the country in general. Due to its activity and cultural heritage, Buenos Aires is a very attractive city for tourism, which favors the creation of new jobs. Besides, Buenos Aires is a regional center for conventions, congresses and exhibitions. The Argentine capital market is concentrated in Buenos Aires. The city also provides a higher mean income per inhabitant than the rest of the country. As regards the predominant socio-economic level of the population, Buenos Aires is a privileged space. There is a considerable urban wealth, generated by the accumulation of assets over time.

WEAKNESSES
There are significant limitations in the quality of some public services. This affects the area’s production costs and of life quality. State/private financing and articulation between research and education and their technological application in productive processes is not enough. The city lacks an adequate organization for the reconversion of productive activities, both in the private and public sector (especially in the small and medium sized companies called “PYMES”), so as to be able to deal with the dynamic transformations prevalent in contemporary economy.

INSTITUTIONAL AND MANAGEMENT ISSUES

STRENGTHS
The autonomy of the city of Buenos Aires and its modern Constitution (1996) provide a very solid background for the area’s development. New and very positive interjurisdictional agreements have been signed for the development of projects. City dwellers are aware of the need to develop programs of administrative decentralization at municipal level. Experiences of citizen’s associations involved in issues related to cost allocation and public hearings, are increasingly taking place. Buenos Aires institutional base has been democratic for the last 20 years.

WEAKNESSES
As regards management, there is a low level of institutionality in the Metropolitan Region. There are many jurisdictions and, as a result of ineffective coordination, the following is perceived: lack of regional policies; differences in application standards; lack of updated information about the origin and destination of population displacements and lack of urban planning and control at a regional level. There are no organizations encompassing an entire metropolitan vision, although, there are organizations covering individual sectors and there is certain functional and jurisdictional integration at State level. Jurisdictional fragmentation of the territory has favored the loss of control over territorial, environmental and landscape resources. The city lacks an organization for forecasting and managing urban floods. The existing environmental standards are ignored and the authorities do not exercise any type of control in this respect. Organizations in charge of controlling and supervising public spaces are weak. The city dwellers perceive a constant increase in public insecurity. There is not enough interaction between the police and the community. A police policy needs to be redefined, taking into account the real needs of Buenos Aires dwellers or “porteños”.

SOCIAL DEVELOPMENT

STRENGTHS
The city has an important social solidarity network, both governmental and private. Both in the private and public sector, many good quality services, staffed by excellent professionals are provided in the healthcare area. The public hospital is an institution devoted to assist anybody requiring attention, regardless of whether the person is covered by a medical insurance, and even provides services that are not covered by some HMO’s (mental and infectious diseases, emergencies, etc). The rate of infant mortality is the lowest in the country and in other countries of the region.

WEAKNESSES
Unemployment and underemployment rates are very high. A large part of the population lives below the line of poverty, without the possibility of having to access to health and education systems. There is a housing deficit. The city lacks internal and external immigration policies. There is a deficit in the articulation of social policies with the areas of health and education. The budget allocation needs to be improved so as to attain equality. Policies dealing with children and with the elderly need to be modified based on a more universal vision, leaving focalized policies behind. There is disarticulation and fragmentation in health maintenance organizations, both public and private. Users of these systems are segmented. The geographic distribution of private and public healthcare institutions cannot satisfy the real needs of the population. The quality of healthcare services is not well assessed. The public system finances the cost of training human resources used by the private system. The planning of the local healthcare system is deficient due to loopholes in social action policies, prevention programs and study of risk maps. Healthcare service infrastructure, that is to say buildings and equipment, is obsolete.

EDUCATION

STRENGTHS
The city concentrates most of the scientific, technological and higher education possibilities in Argentina. There are 85 units of the National Council of Scientific and Technological Investigations (Consejo Nacional de Investigaciones Científicas y Tecnológicas) in the Metropolitan area. The level of instruction of the city population, places Buenos Aires among the most important cities in the World. There are a lot of public and private education buildings, in all the educational levels. The city also hosts many public and private, highly specialized Universities and higher studies institutions. As a result of this, a significant part of Buenos Aires population is composed of students that reside in the city to complete their studies. There are also a lot of institutions for postgraduate students in the city. There is an active participation of state school assistance associations (Cooperativas) and this strengthens the bonds between the community and the school. The state school equipment has improved over the last years.
WEAKNESSES

Based on the level of investment, public education does not comply with the required standards. Public education is negatively perceived in its three main levels (higher education and universities do not have such a negative perception, however, as private higher education possibilities have increased, so has the lack of popularity of public education). The result of this is a massive migration from public to private schools. The education system is not able to retain the poorest sectors of society. One of the factors that contribute to this problem is the lack of teachers trained to retain and integrate students at each educational level.

CULTURE

STRENGTHS

Buenos Aires functions as a consolidated cultural center, irradiating towards the country and the region. There is an important cultural heritage that ranges from urban architecture, monuments, books and documentary evidence to a remarkable asset heritage that includes works of art, crafts and assets of artistic/historical interest, and the intangible heritage that includes oral traditions and unwritten languages. There is a high level of cultural production, and a vast supply and demand in the cultural arena. Movie and theatre festivals are periodically organized in the city which also has plenty of oral and written communication media.

WEAKNESSES

There is a lack of balance in the cultural supply among the different areas of the city, both privately and publicly. There is no policy to promote study and cultural investigation. There are no cultural policies contemplating the interests of the public sector, the community and the entrepreneurial sector. There are not enough plans aimed at developing activities integrating recreation, sports, culture and tourism. The city also lacks coordinated policies between City Government and National and Provincial Governments for the protection of its urban and environmental heritage.

BUENOS AIRES SUSTAINABILITY. FIRST STAGE: 2002 / 2016

ARGENTINA 2002 / 2016: THE RECOVERY

Neither Buenos Aires, capital of the Nation nor its Metropolitan area is isolated from the country itself or from its regional context. Before the 2001 crisis, Buenos Aires (central area) per capita income was equivalent to the world’s most developed countries. Argentina’s average per capita income was a little bit less than half of Buenos Aires income per capita. However, this difference between the capital city and the rest of the country is historical. Crises are not casual nor do they happen overnight. It is true that the nineties produced a significant growth in Argentina and the Region; it is also true that the social cost was enormous for a society mainly characterized by a large and a highly educated middle class. The high level of indebtedness and the exclusion of vast sectors of the population from the productive cycle are also the result of this period. This is never due to a unique cause: the diversity of factors would constitute a topic for a specific investigation. We simply want to point out these aspects so as to contribute to the description and understanding of our Vision. Having thus set the scenario, we wish to provide some general answers for the country and the region and some specific ones for Buenos Aires and its Metropolitan area. We have considered the example of other nations that were able to overcome devastating crises, defining their priorities and reshaping their administrations with economic austerity and prudent objectives, regaining an international image of reliability. Therefore, we believe that the collective effort should focus on recovery.

What elements do we possess for the implementation of this stage? First we need to use our resources correctly and organize our potential. There have not been any ethical and/or religious
as the ones faced by Buenos Aires as a central city and therefore, the problem requires a global approach. Buenos Aires’ strong identity shall have to be enriched by integrating the city and the Metropolitan Area, thus constructing a new cultural, social and productive model. At this point, creativity, intelligence and innovation are required to enrich its reconstruction stage. From the projection point of view, our proposal is to take advantage of the interstitial areas between transport axes (roads and railroads) as productive green spaces, offering urban and rural services with adequate technology, with the support of Universities and I&D institutions. This new “productive green space” concept for Buenos Aires shall contribute to re-balance the environmental territorial, social, cultural, economic and educational development of the entire Metropolitan area, taking full advantage of the existing infrastructure networks. Likewise, from a strictly environmental perspective, the above mentioned project shall contribute to the relocation of waste, with their corresponding separation and treatment plants, along these new productive networks, finally achieving a correct waste disposal scheme in the area. (See Map 4)

**URBAN DEVELOPMENT**

**VISION:** the recovery.

**STRATEGIC LINES:** Promote a measure of balance in the urban structure; Buenos Aires Central Area (Capital City) and the Metropolitan Area.

**OBJECTIVES:** 1) Create organic agro industrial productive development polos in the green interstitial areas. 2) Maintain the present transport, services and communication infrastructure. 3) Promote and improve mass public transport 3) Initiate the process of change of the whole passenger and cargo transport system. Promote the global development of the southern and western zones. 4) Initiate the transformation of precarious settlements into urbanized neighborhoods 5) Promote the revitalization of public space and its heritage, favoring local identities. 6) Initiate the recovery of water basins and the improvement of the Buenos Aires- Río de la Plata relationship. 7) Improve urban design and equipment, eliminating architectonic barriers.

**PROJECTS:** Programs: 1) New Settlers. 2) Expansion of subway networks and electric trains. 3) Incorporation of Eco Transport system in Buses 4) Creation of a Corporation for the development of the Metropolitan Area. 5) National Park of the “Río de la Plata”. 6) Intensive plan for the construction of housing units. 7) Investment in maintenance of public spaces. 8) Recovery of water basins. 9) Development of short distance transport.

**ENVIRONMENT**

**VISION:** the recovery.

**STRATEGIC LINES:** Strengthen public- private policies for environmental protection and sustainable growth.

**OBJECTIVES:** 1) Develop a global vision on environmental issues, including air, water, soil and noise pollution. 2) Reorganize waste disposal systems, eliminating outdoor dumps from urban public lands. 3) Promote gas, plastic, metal and paper recycling. 4) Maintain present green spaces and promote new productive recreational initiatives in the interstices. 5) Promote the recovery of tubed streams and rivers of the sewage and water supply network. 6) Develop clean technologies with stricter controls and sanctions. 8) Promote the use of less polluting fuels such as natural gas, both as CNG and
objectives: 1) promote the initiatives of public-private cooperation in the organization and maintenance of the present markets. 2) promote ecoindustry, tourism and cultural industries. 3) promote the settlement of large companies and clean and innovative industries articulating with the services of small and medium sized companies (pymes). 4) favor productive settlements requiring high employment level and exporting capacity with fiscal policies. 5) slow down the process of wealth concentration that has divided society.

projects: 1) new settlers. 2) development of productive quality standards. 3) organic agrarian production. 4) new clean industries. 5) new fiscal policies. 6) public and private construction investment.

institutional and management issues

vision: the recovery.

strategic lines: develop requalification processes of human resources and regulations of the area’s municipal administrations. promote second institutionality.

objectives: 1) create an interjurisdictional coordination institution with the national state, the province and the municipalities. develop a non-elective intermunicipal cooperation and decision making environment. 2) favor deconcentration and decentralization policies and respect the decisions of public organizations. 3) improve the quality of public employees through permanent training. 4) develop flexible legal frameworks to make administrative circuits more dynamic and transparent. 5) implement objective and quality perception indicators.

projects: programs: 1) interjurisdictional or intermunicipal cooperation. 2) new metropolitan management agreements. 3) promotion of associated management. 4) training and promotion by merits for public employees. 5) state reform. 6) analysis of indicators.

social development

vision: the recovery.

strategic lines: revitalize the original social structure, through the creation of job opportunities, incorporating secluded sectors of society and recovering the middle class.

objectives: 1) recompose job conditions, reducing social and economic gaps between rich and poor. 2) give metropolitan dwellers the condition of citizens by providing job opportunities and access to healthcare services and education. 3) generate new jobs based on family, community and youth undertakings. 4) create policies to avoid inferior feminine work and to prevent child poverty. 5) strengthen the technical assistance of the state for the development of productive undertakings located in special areas of the territory. 6) promote training areas for job qualification, aided by educational structures (high schools and universities) located along the metropolitan territory. 7) expand healthcare coverage to all the population and universal assistance plans for the unemployed. 8) promote the construction of housing units for all the sectors of society. 9) consolidate the integration of migratory currents. 10) articulate and balance medical healthcare services and the coverage of public and private healthcare systems. 11) create interjurisdictional environments, improving the equipment and revitalizing basic services. 12) favor the combined work of the state and ngo’s to guarantee that the use of resources is controlled by the community.
PROJECTS: Programs: 1) Creation of job opportunities for productive undertakings. 2) Training focused on qualified labor. 3) Social assistance in public-private networks. 4) New settlers with technical assistance and support in the creation of new family and social productive units. 5) Cooperative management and production, based on the new social networks. 6) Total reform of the healthcare system with special emphasis on childhood and adolescence.

EDUCATION
VISION: the recovery.

STRATEGIC LINES: Recover the educational levels and develop the areas of production and employment.

OBJECTIVES: 1) Revert the rate of dropouts in elementary and high school levels. 2) Strengthen permanent teacher training. 3) Recompose teacher’s salaries. 4) Develop a curricular and administrative reform with the participation of the public and private education community. 5) Promote artistic education, arts and crafts schools. 6) Improve the quality of the state school infrastructure and equipment. 7) Launch a Second University Reform.

PROJECTS: Programs: 1) Recovery of the educational activity. 2) State Reform. 3) Design of new buildings. 4) Purchase and recycling of existing buildings. 5) Promote artistic education and crafts. 6) Permanent quality assessment indicators in education. 7) University Integral Reform.

CULTURE
VISION: the recovery.

STRATEGIC LINES: Public and private policies consolidating the aspects of identity in the intercultural and pluriethnic diversity that characterize us. (South America- Europe)

OBJECTIVES: 1) Promote activities showing our peaceful development in the fields of ethnic, cultural and religious integration. 2) Consolidate and deepen the exchange among the cities of the Southern Cone Common Market. 3) Protect the present historical heritage: cultural centers, monuments, museums, libraries, theatres, conservatories, schools, parks and gardens. 4) Promote communication policies about the quality of our cultural infrastructures. 5) Expand and deepen the development of artistic schools in all the area. 6) Promote creative and innovative expressions of our artists. 7) Expand the cooperation of the social players involved.

PROJECTS: Programs: 1) Theater, films, tango, books, plastic and performing arts and music festivals, exhibitions and fairs. 2) Tourism and culture. 3) Deconcentration of cultural management 4) Street celebrations 5) New Young Art Biennial Exhibition 6) New monumentality. 7) New partnerships with Universities. 8) Buenos Aires to Southern Cone Common Market. 9) New theatre. 10) Buenos Aires television.
SECOND SUSTAINABILITY STAGE BUENOS AIRES 2016 / 2044

ARGENTINA 2016/2044: THE INTEGRATION

Once the Recovery stage, defined as the First Sustainability Stage has been completed (2002/2016), we envisage the beginning of a new process for Argentina. This second stage shall be characterized by the promotion of integration not merely at continental level since we understand that this vision must also include an extra-continental challenge. Evidently, at this point of the XXI century, the idea of regional blocks such as the Southern Cone Common Market, NAFTA, and also the Andean space shall have probably been overcome or shall at least be at a very advanced stage of economic exchange. A larger American institutional block that goes beyond sub-regional zones may have appeared. It is also true that the development matrices of our countries have not changed much since the beginning of the XXI century. Our purpose is therefore to reinforce a concept that we consider significant for the period and that poses at the same time a certain historical rupture in the way in which the countries of the region relate. This idea is that we should achieve a close and substantial relationship with nations that could provide intimate cooperation and help us to establish a powerful hemispheric strategic alliance since their economies supplement ours even though their technological development and quality are different. We are clearly referring to Australia, New Zealand and also South Africa. (See Map 5) It is true that our different origins have not helped us so far to achieve a closer relationship with these countries. However, we believe that in a near future, our condition of agrarian productive consolidated territories shall constitute an enormous opportunity to reach this goal. Since the Northern Hemisphere concentrates almost 90% of the world population, and our Southern Hemisphere less than 10%, it becomes evident that a productive South-South integration would be desirable. In order to achieve expansion on the basis of mutual understanding, we need to find gradual mechanisms that shall lead us not only to productive integration but also to cultural, technological, human resources and energy integration, among others.

We believe that the new knowledge based developments, genetic engineering applied to agribusiness, information technology and robotics aimed at production of goods and services shall induce societies and nations of these regions willing to interact. Additionally, the common need of supplying new markets and new populations such as Eurasia shall generate a selective industrialization process based on the advantages of this South-South region. Our Southern Area will have to make an effort to strengthen its economies, applying standards of quality compatible with those of the rest of the world. We believe that for this Second Stage we shall be able to take advantage of the national and regional gas reserves, since in our opinion, this fuel shall be hegemonic for the described period, besides the national effort for the creation of new infrastructures needed to accompany increased trade.

BUENOS AIRES AND THE METROPOLITAN AREA 2016/2044: THE INTEGRATION

In the specific case of Buenos Aires and its Metropolitan Area, we believe that the City-Region we have named the Great Binational Region or the city of the Río de la Plata shall be consolidated. It shall be integrated by the urban corridor of Córdoba, Santa Fe, Rosario, Zárate, Buenos Aires and its Metropolitan Area, La Plata and Mar del Plata in Argentina, connected with the parallel corridor of Salto, Colonia, Montevideo and Punta del Este in the Uruguayan Republic through the Río de la Plata. (See Map 6) This City-Region shall both concentrate an industrial intensive and a rural production area, offering cultural services and tourism, sustaining these processes with the use of leading-edge non-polluting, organic technologies. Likewise, the city systems of South America shall be connected with the city systems of South Africa, New Zealand and Australia, creating an inter oceanic articulated network corridor. A renewal of the infrastructure and equipment shall be necessary as well as the construction of new ports and airports, transport terminals (trains and eco-buses) and a new expansion of hotel activity. In our opinion, this period of integration requires a serious reorientation work on elementary and high school education as well as on graduate and postgraduate university structure expressed through students, teachers and investigators movements. This period shall possibly require a Third Government Institutionality and/or urban- regional administration. The regional consortium shall be the articulating center in charge of making decisions on strategic issues concerning this “Archipelago of Cities” aiming at integration and participation in international life.

URBAN DEVELOPMENT

VISION: The Integration.

STRATEGIC LINES: Initiate the development and equipping of large infrastructures.

OBJECTIVES: 1) Improve port, airport, railroad, highway and subway systems. 2) Expand social equipment provision at: hospitals, schools, Universities, parks, mass transport stations, etc. 3) Strengthen the new peripheral urban centers and maintain productive interstices with high added value. 4) Reorient the trends of urban expansion corridors. 5) Develop river cargo and tourist recreational transport. 6) Delve deeply into the design of “zero” architectonic barriers.

PROJECTS: Programs: 1) New ports and airports. 2) New subway and railroad networks. 3) Development of urban social equipment. 4) Inter island bi-national bridge. 5) Revitalization of buildings and facades.

ENVIRONMENT

VISION: The Integration.

STRATEGIC LINES: Reach optimal standards for the protection of the environment.

OBJECTIVES: 1) Expand environmental controls and modify the weight of sanctions. 2) Implement social sanctions for environmental pollution. 3) Reach the international standards of air quality. 4) Incorporate efficient and energy sustainable technologies for the treatment of organic waste. 5) Obtain a stable percentage of industries achieving clean production. 6) Complete the recovery process of the city’s waterways. 7) Increase productive and recreational green areas. 8) Consolidate the non polluting car production industry. Reconvert polluting industries.


ENERGY

VISION: The Integration.

STRATEGIC LINES: Replace conventional and energy transport sources by cleaner systems.

OBJECTIVES: 1) Move towards the combined supply of energy services in neighborhoods.
(Electricity/ gas/ heating/ refrigeration) 2) Tend towards the use of high thermodynamic efficiency and low CO2 emission energies and technologies. 3) Promote energy generation using less polluting fossil fuels such as natural gas and hydroelectricity in the future expansion of electric supply. 4) Ensure clean industrial and agricultural production, both in their operation and in the use of energy. 5) Improve the use of energy transmission for the decentralization of the city and to provide services to satellite cities. 6) Promote the rational use of non-polluting transportation in industry and commerce.

PROJECTS: Programs: 1) Production of CO2 reinjected in coal fields. 2) Taxation on CO2 emissions. 3) Continuous education of the population on energetic issues. 4) Direct natural gas fuel cells. 5) Non-polluting generation sources and CO2 capture and disposal. 6) School and civic education about energy and its rational use. 7) Distributed generation based on 0 emissions. 8) Taxation on non-efficient energy consumption.

ECONOMIC DEVELOPMENT
VISION: The Integration.

STRATEGIC LINES: Promote public and private policies that shall integrate us to the hemispheric South-South and American network systems.

OBJECTIVES: 1) Pursue economic deconcentration, diversifying the productive supply and adding value to it. 2) Promote the search for new markets in an associated fashion among city networks. 3) Revitalize scientific, academic, technological and regional activity. 4) Stimulate the economic processes consolidating the expansion of middle class sectors. 5) Stimulate international cooperation and economic activity from the local perspective. 6) Ensure economic and legal certainty.

PROJECTS: Programs: 1) University-Industry/ technological production interface. 2) National and international city networks. 3) New reasonable conditions in the economic and social development. 4) Legal and regulatory framework updating for economic development.

INSTITUTIONAL AND MANAGEMENT ISSUES
VISION: The Integration

STRATEGIC LINES: Strengthen the policies of immediacy and proximity with citizens and city networks. Third Institutionality.

OBJECTIVES: 1) Stimulate different forms of citizen involvement and consensus. 2) Create smaller autonomous management units. Promote cooperation and exchange processes between local and regional administrations. 3) Simplify administrative processes. 4) Consolidate integrated urban-regional management processes.


SOCIAL DEVELOPMENT
VISION: The Integration.

STRATEGIC LINES: Consolidate and expand the new productive models, creating high quality job opportunities.

OBJECTIVES: 1) Promote the growth of new productive undertakings connected with the commercial and social opportunities appearing in the national, binational and international context. 2) Promote the creation of jobs with local identity. 3) Expand and consolidate the social assistance and employment networks throughout the area. 4) Ensure that the entire population is included in the healthcare and education systems. 5) Strengthen the development of the middle class sector. 6) Expand and consolidate employment aimed at maintaining and improving environmental quality (forestation, organic production)

PROJECTS: Programs: 1) Regional exchanges of skilled labor. 2) Fiscal incentives for the employer. 3) New jobs with identity. 4) Comprehensive healthcare system. 5) Comprehensive educational system.

EDUCATION
VISION: The Integration.

STRATEGIC LINES: Promote the scientific, academic and technological exchange programs at regional level.

OBJECTIVES: 1) Establish mandatory high school education. 2) Provide the area with full-day bilingual schools, especially English and Portuguese. 3) Strengthen I&D public-private cooperation at Universities and research institutes. 4) Strengthen the permanent training and requalification of workers. 5) Achieve the target of “zero” (0) school desertion. 6) Diversify postgraduate opportunities, creating an educational center for the regional demand.

PROJECTS: Programs: 1) Strengthening of the social and educational areas. 2) Curricular expansion to include languages. 3) Educational integration. 4) Regional I&D. 5) Assessment of the quality of education II.

CULTURE
VISION: The Integration.

STRATEGIC LINES: Apply public and private policies promoting cultural integration between Argentina and the rest of the American Continent (South, Central and North), and the Southern Hemisphere.

OBJECTIVES: 1) Create cultural associations with other Southern Hemisphere countries (South Africa, Australia and New Zealand). Improve cultural equipment and infrastructure. 2) Fortify the cultural South-South exchange. Promote local artists’ tours around the world. 3) Strengthen the cultural articulation with North and Central America. 4) Constitute the regional subsidiary of a World Forum of Cultures.
PROJECTS: Programs: 1) Permanent Cultural center of the Southern Cone Common Market. 2) New cultural equipment designs. 3) New Art Biennial of the Southern Cone Common Market. 4) Cultural initiatives of South-South integration. 5) Cultural initiatives of American integration.

THIRD STAGE OF SUSTAINABILITY BUENOS AIRES 2044 / 2100

ARGENTINA 2044/2100: THE QUALITY

As we approach the second half of the XXI century, we evidence the efforts made by Argentina to develop at “double pace”. As it complied with the paradigms proposed by the XXth century (freedom, equality, identity and governance), it becomes necessary for it to adapt to the changes experienced by the new paradigms (multiculturality, previsibility, environmentalability and equality in diversity). The excellent natural conditions of the country and the region, must accompany the full integration of the Hemispheric and Global systems. In this sense, a market associated and consolidated through the South-South network shall reinforce our bond with Eurasia. A rational use of natural resources and an excess of productivity shall turn us into a society that will value quality standards. The access to scientific and technologic developments, together with the protection of water, human space and energy (which are values for egalitarian development), shall be decisive components to achieve a balance in our time. It shall be the right time to analyze and debate new forms of knowledge that shall open the doors to collective progress. The internal reparation experience and later objectives of regional and hemispheric integration in order to achieve the desired quality stage will force us to become more involved with reparation and integration and finally with the life-quality of humanity. Otherwise, it would be difficult to consider the “Fourth Sustainability Stage”.

BUENOS AIRES AND ITS METROPOLITAN AREA 2044/2100: THE QUALITY

During this third and last stage of the hundred year development projection challenge posed by the competition, we envisage Buenos Aires fully incorporated to the continental and hemispheric integrated systems. We imagine Buenos Aires as a 4000 Km “Continuous City” united by a flow network (articulating country and city) of high productive value and life quality. In other words, a large integrated interurban and interoceanic corridor connected to other productive corridors in the planet. Thus the materialization of a Fourth Institutionality at a continental and hemispheric level, consolidating multilateral relationships between nations and regions becomes necessary, which at the same time will set development and progress objectives to all the inhabitants of the Planet. This will probably lead to a new expansion of the equipment, infrastructure and maintenance networks. A city with autonomous and self sufficient technology produced in the Region shall find us united in one of the most productive spaces on Earth: food, forestation, water, industries and energies supplied by the solar abundance of the Pampas and from the winds of the Patagonic east coast. Buenos Aires shall nevertheless maintain its identity and the attributes that contributed to conform its personality from its very foundation: the city center and the urban life that make it a cosmopolitan city, its music, the tango, its passion for sports, its coffee talks, its lyric theatre shows and the celebrations of the different communities that dwell in it and have always enriched it. Buenos Aires shall always welcome others with interest, to discover something from them, to make them feel part of it and to renew once again its magical attributes.

URBAN DEVELOPMENT

VISION: The Quality

STRATEGIC LINES: Consolidate the harmonious coexistence of the regional continuum with the development of urban identities.
OBJECTIVES: 1) Initiate the new expansion of infrastructure networks. 2) Initiate the design of large city gaps and new productive spaces. 3) Contribute to the development of new cities to fill the gaps in the bi-oceanic corridor. 4) Promote of new regional and global population migrations and the development of new exchange nodes.

ENVIRONMENT
VISION: The Quality

STRATEGIC LINES: To maintain the standards of environmental quality attained in the previous period.

OBJECTIVES: 1) Maintain a permanent collective awareness on pollution issues. 2) To achieve “zero” pollution levels. 3) Reach a clean air standard. 4) Consolidate the establishment of organic agribusiness and clean transportation. 5) Consolidate the sustainable balance between green and inhabitable areas. 6) Maintain the water resource at international standards, especially in superficial water courses.

ENERGY
VISION: The Quality

STRATEGIC LINES: Use of all the possible clean energy alternatives.

OBJECTIVES: 1) Tend towards the use of zero emission energies and alternative technologies in public and private transport. 2) Use clean individual transport technologies. 3) Promote the rational use of clean energy and tax emission sources at both local and global level. 4) Establish fossil fuels and non renewable resources preservation policies towards the end of the period, reserving them for petrochemicals and plastics, and substituting them by renewable and non polluting energies.

ECONOMIC DEVELOPMENT
VISION: The Quality

STRATEGIC LINES: Maximize insertion in global exchange corridors.

OBJECTIVES: 1) Develop policies aiming at maintaining the economic progress levels achieved previously. 2) Promote an active participation of the city clusters in World Economic forums. 3) Promote new forms of cooperation, especially with Asia and Africa, for the development of new city systems. 4) Stimulate local work through employment with identity. 5) Revitalize the forms of production and economic exchange.

INSTITUTIONAL AND MANAGEMENT ISSUES
VISION: The Quality

STRATEGIC LINES: Promote processes aimed at strengthening supranational organizations. Start Fourth Institutionality.

OBJECTIVES: 1) Agree on new forms of institutional integration with regional and global organizations. 2) Strengthen inter and extra jurisdictional exchange networks. 3) Adapt the citizen’s involvement and right of information to the new management technologies. 4) Consolidate the cities’ right of international life.

SOCIAL DEVELOPMENT
VISION: The Quality

STRATEGIC LINES: To consolidate a stage of collective prosperity and progress.

OBJECTIVES: 1) Maintain a social balance and promote new opportunities. 2) Defend the social cohesion already achieved. 3) Develop a new form of coexistence of high human quality. 4) Develop active policies of defense of the rights of men and women at a global scale.

EDUCATION
VISION: The Quality

STRATEGIC LINES: Design new public and private education policies for the new XXI Century.

OBJECTIVES: 1) Expand elementary education to cover the needs of the widest possible population spectrum. 2) Achieve the best educational standards in the world. 3) Consolidate the image of Buenos Aires as educational city. 4) Create the infrastructure to lodge large number of students seeking high quality education.

CULTURE
VISION: The Quality

STRATEGIC LINES: Public-private policies that shall drive us close to the global cultures, with special emphasis on Asia and Africa (Russia, India, China, Japan and Korea)

OBJECTIVES: 1) Promote the search of meeting points with regions with a significant cultural history. 2) Promote the openness of regional cultural space, with mutual knowledge and exchange. 3) Cooperate in the creation of new cultural paradigms. 4) Contribute to the development of a plural world, tolerant of the expressions of diverse cultures. 5) Deepen high added value cultural production.
CONCLUSIONS

The present investigation contains some aspects that must be pointed out as conclusions. The work structure may be divided into three substantial parts:

• A) Updated Diagnosis of Buenos Aires by the year 2002.
• B) 3 stage Sustainability vision.
• C) 3 stage 100 year plan.

A) UPDATED DIAGNOSIS BY THE YEAR 2002

The updated diagnosis by 2002 summarized in these pages was the necessary basis to find the appropriate method of projection and to sustain our conviction that there is an urgent need to change the vision of a Central City separated from its Metropolitan Area. Throughout the development of our projection, emphasis has been laid on the indispensable articulation of both.

The same method may apply to the Argentine Republic, which in our opinion presents some institutional and scale difficulties. Difficulties of scale, because we may use as a benchmark the two closest development models - with different levels of success - and compare Argentina with them. One of these models is Brazil, with an important internal market, related to a growing population of over 180 million inhabitants and a historical industrial vocation that has transformed it into the eighth most important economy in the World. The other model is Chile, with more than 20 years of exporting activity and compliance with world quality standards, that has slowly but relentlessly improved its social indicators. Argentina does not follow any of these models and must find a point of balance in its association with these nations, as well as others. From the institutional point of view, the long periods of disorder due to an unstable democracy have resented its development capacity. They have also affected the stability of its institutions and created marked institutional weakness in our present times. In spite of the difficulties signaled as weaknesses, there are unprecedented opportunities for Argentina and Buenos Aires to turn into a sustainable country and city, provided they are able to overcome the challenges posed in our diagnosis. Therefore, the recovery of some competitive restrictions that have characterized Argentina and Buenos Aires until the middle of the XXth century, constitute at present, the main target for the XXIst Century. The recovery we refer to, will occur almost inevitably.

B) THE THREE STAGE SUSTAINABILITY PROJECTION.

The three stages suggested by the investigation for the sustainability are presented in the projection as a temporal continuum. However, the analysis should not be interpreted in a linear mode. The three stages may and should be considered situations that shall mark a trend for each period. However, each of these periods overlap at a certain point and it is impossible to determine this pattern accurately in time. We do believe that the growth of Argentina and Buenos Aires should necessarily follow the pattern proposed to recover the historical development matrix we have gradually abandoned during the last 30 years due to perhaps, the institutional ups and downs of the country and the region together with the lack of a strategic vision. Each of these stages also sets a series of objectives that would consolidate sustainability in its real strategic lines, provided they are complied with.

C) OUR 100 YEAR PLAN DIVIDED INTO THE 3 STAGES.

The first two stages of our 100 year plan and its vision, strategic lines, objectives, projects and programs, is a contribution aimed at setting the priorities for each period, synthesizing the critical thinking resulting from long hours of analysis and debate. Its aim is to rationalize the results of the confrontation between different players - with their different “cultures” - so as to provide weight and importance to the challenge posed by the Competition. The aspects related to energy considered throughout the work, forced us to consider science and technology issues. Science is seen as a knowledge producer and technology as a factor of change in the lives of human beings. We have deliberately decided not to refer to unpredictable technological change, not for lack of imagination, but because we want this investigation to act as a contribution to the present time. Considering a technological change that exceeds our present knowledge such as the extension of human life, would incorporate a series of variables that would reduce the credibility of this project and would not allow its discussion considering contemporary parameters. To conclude, our team would like to thank all the national and international parties participating in this competition for the opportunity of being able to work with absolute freedom. Our intellectual commitment is fully evidenced in these 50 pages; regardless of the final result of this competition, Argentina and Buenos Aires shall approach the new Century with a strategic commitment that requires a unification of values to achieve a regional, continental and hemispheric model, giving way to the general ideas of progress and putting behind a delayed collective illusion. Our investigation aims at becoming part of this progress agenda, and we shall attentively follow the experiences and knowledge of other cities participating in this Competition so as to construct the global citizenship we deserve, helping one another as neighbors, since we only have one planet and we all live in it. THERE IS NO OTHER ONE.

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THANKS
We thank IAPG’s staff for supporting this project.

Project Buenos Aires 2100 / IAPG, Argentina