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**THE VALUE OF GLOBAL SPORTING EVENTS:
THE BARCELONA OLYMPIC EXPERIENCE 1986-1992 AND THE FORUM 2004
EXPECTATIONS**

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(Provisional Version)

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1. INTRODUCTION: “A SUCCESS STORY OF A PROUD AND A PURPOSEFUL CITY”

The Financial Times (1999) has qualified the Barcelona urban process as a “success story of a proud and purposeful city”; it is probably a good summary of the important effort of a city, and also the region-nation of Catalonia, for improving the quality of life and the economic competitiveness. This qualification comes after the recent RIBA award to Barcelona for the architectural values of the city during the last two decades approximately.

The award was received by the first elected Mayor from 1979 to 1982 (Narcís Serra), the Mayor from 1982 to 1997 (Pasqual Maragall), the Urban Planning Director of the municipality from 1979 to 1983 and the Urban Planning Director from 1983 to 1986 (Oriol Bohigas) and also the Technical Director of the Olympic Holding from 1987 to 1993 (Josep Acebillo), as the main actors of the urban process.

The Metropolitan Agency, Barcelona Regional, was set up in 1993 trying to follow to some extent the example of the Olympic Holding, a joint venture between the Local Government and the Central Government in order to develop, as an ad hoc body, the works under their management and finance. The Barcelona Regional shareholders are institutions and companies of the Local and central Government and its objectives are the planning and the construction, if necessary, of the Barcelona metropolitan infrastructures, especially on behalf of the interests of the Local Government, Josep Acebillo is its Chief Executive. The staff of Barcelona Regional is about 40 persons.

The reference of the investments in Olympic Games is rather important to understand the economic feasibility of the future investment in infrastructure, financed not only by the different public administrations, but also by the private sector. The Olympic Games give the reference to understand the future finance in terms of the past efforts.

L.Millet who was responsible of constructions in the Barcelona Olympic Committee, has written (Millet 1995, pp 208) that “the present Barcelona is the Barcelona of the Games: And it will continue to be during some years more, up to the moment that a new ambition impulses a project of a new change”. And J.Acebillo, technical director of the Olympic Holding has talked about the progressive “change of scale” of the Barcelona urban development since 1980 (Acebillo 1998).

Surely all these observations would not be possible without the 1992 Olympic Games. Some of the consequences on the city and the metropolitan area, for instance the increase in the tourism, are however the results of the “reasonable success” of the Games.

The present paper deals mainly with the economic impacts of the Olympic Games, especially with those associated with the infrastructure project; those were the more immediate economic impact on the city and the metropolitan area. Some of the non tangible benefits due to the so called “map effect” are much difficult to asses for the economic activity attraction, except for the tourism. The main projects are presented in chapter 2 and the figures related to finance and impacts are in chapter 3. The future event designed to concentrate efforts and to project the city from the cultural point of view is summarised in chapter 4. The paper is closed with some conclusions and some doubts about the experience in order to deal with the problem to finance the infrastructure deficits of cities.

2. THE INVESTMENTS ASSOCIATED WITH THE OLYMPIC GAMES: THE INFRASTRUCTURE PROJECT AND THE OBJECTIVES OF THE APPLICATION

It has been said that the Games were an “excuse” to attract and concentrate infrastructure investment in the city and its metropolitan area, in order to counter-attack the 1975-1980 economic crisis with the high unemployment and to reduce the deficit of metropolitan infrastructure (ring road, airport enlargement....) (Clusa 1995). It is also said that infrastructure is a “catalyst” to mobilise investment in the cities.

The application to the Olympics in 1982-84 comes after the first local democratic elections in 1979. The consequences of the world petrol crisis arrived to Spain in 1974-75. The date of nomination (1996) coincides with the Spain entrance in the European Market. The unemployment was more than 20%. Catalonia as an industrial region grows more than the rest of Spain in expansion periods but suffers more decrease in crisis periods.

The 1975-1986 period generated a loss in employment of more than 20% in the Barcelona metropolitan area. However, during the 1986-1991 expansion the employment grew around 25%, with an important increase in the real income. Just some general description of the city of Barcelona and its metropolitan region is the following:

- Barcelona municipality (97 Km²): 1.5 million inhabitants. Barcelona Metropolitan Region for environmental services (585 Km²): 2.9 million inhabitants.
- Barcelona Metropolitan Region (3,234 Km²): 4.2 million inhabitants within a 30-45 Km radius of Barcelona.

- Catalonia (31.895 Km²): 6.1 million inhabitants within an approximately 150 Km radius of Barcelona.
- Central position in a group of six regions in Spain and France (with capitals in Barcelona, Valencia, Mallorca, Zaragoza, Toulouse and Montpellier), which will be served by TGV lines in the near future. The six regions have a combined population of 16.2 million.
- Forms part of Spain (pop. 39.5 million), and the European Union (pop. 370.3 million), which is the world's biggest trading block.
- 6th most populous Metropolitan Region in the European Union, ranking after London, Paris, Randstadt, Ruhr and Madrid. 5th in terms of industrial employment. It ranks 9th when the population in a similar extension of 3.300 Km² is taken into account, after Manchester-Liverpool, Milano and Napols.
- 16 millions foreign tourists in 1997.
- Income: 94% of the average GDP per capita of the 15 EU member states (1996) and 66% of the USA average per capita income (143% of the EU average).

The Olympic event represented an spending of 1.635 million US\$ (Brunet 1995) and the "agreed infrastructure program" 8.012 million \$. The investments could be equivalent to 1.100 Km of motorways, as a term of reference. Some of the main projects, additionally to the Stadium renewal and the new Sports Palace, were the following ones:

- Ring Road of Barcelona (35 Km approximately)
- Additional main roads in 35 Km more approximately, including the Vallvidrera toll tunnel (20 Km) for the access to the central city.
- Near 4.500 new flats in the 4 Olympic Villages (3 in Barcelona), including the renewal of an industrial area as the main athletes village
- Marina in the Olympic Village (athletes) for 1000 boats
- 2 Communication Towers (Norman Foster and Calatrava projects)
- 5 new centrality areas developed in Barcelona, with offices and commercial facilities.
- Airport enlargement
- Leisure Port improvement
- Initiation of four big cultural equipment in the central city

Let us see some more detailed dimensions of the operation.

BARCELONA

PLANO

OLYMPIC OPERATIONS 1987-1992

3. FINANCE AND ECONOMIC IMPACTS: MAIN FIGURES AND THE DISCUSSIONS ON THE EMPLOYMENT IMPACT

The economic figures come especially from Brunet (1993, 1995) and Raymond (1994), and they are the following ones:

- **Total cost:** US \$ 9,376 (1,100,000 million Pesetas)
- **Comparative figures** Other Olympic Games in millions of US dollars: Seoul '88 (3,155); Los Angeles 84 (522); Montreal '76 (3,175); Tokyo '64 (16,826). Only Tokyo spent more than Barcelona.
- **Organisation and holding of the Olympic Games ("event"):** 15% of the total cost (162,000 million Pesetas): 1.8% of GDP over 6 years (10.7% of the 1991 GDP).
- **Olympic Committee expenses:** 196,000 m. Ptas., including 17% spent on sports facilities.
- **Investments in infrastructure and buildings** ("agreed investment"): 85% of total expenditure (957,000 m. Ptas.).
- **Economic importance of total expenditure:** (Catalonia's 1991 GDP: 10,3 bn. Pesetas): 1.8% over 6 years (10.7% of 1991 Catalonia GDP).
- **Sector breakdown of investment: Roads (42%),** including service galleries; Housing and Offices (15%); Hotels (13%); Telecommunications (13%); and others (17%).
- **Publicly managed funds:** 72% of total expenditure (807,000 m. Ptas.)/ **67% of investment in infrastructure** (644,000 m. Ptas.).
- **Public sector funding** (budget general resources): 40% of total expenditure/ **47% of infrastructure investments** (450,000 m. Ptas.). The remaining 53% of investments were funded by proceeds from real estate asset sales, road tolls, etc.
- **Olympic Holding (HOLSA) management.** HOLSA (partnership between the City Council and the Spanish Government) managed 275,000 m. Ptas. – **43% of total publicly-managed expenditure.**
- **Funding from the Barcelona Municipal Budget:** 79,100 m. Ptas. – 18% of total

public funding (23,000 m. Ptas. in the 1987-1992 budgets).

- **The Olympic debt burden borne by the Barcelona Municipal Budget:** approximately **20% of total investment capacity over 20 years.**
- Up to 1992: 20.3% ($23,000/19,000 \times 6$)
- 1993-2007: 21.4% ($(7,900 \times 15)/(36.877 \times 15)$) (1996:22.9%)
- **Multiplier effects** of municipal investments and plans: 5.7:1 in public investment, 14:1 in total direct expenditure.
- **Spanish Government funding: 185,000 m. Ptas. – 41% of total** public funding. This represented a 35% increase over Central Government investment in Catalonia between 1987 and 1992.
- **Regional Government funding: 143,000 m. Ptas. – 32% of the total** public investment burden: 18% of the Regional Government's total investment between 1986 and 1991.
- **Total impact on the Catalan economy:** 3:1 multiplier, creating

Two sources present some differences on employment impacts. According Brunet the impact "was an annual average employment in 1987-1992 related with the direct spendingof 35.309 jobs....related with the induced impact....of 24.019 jobs...so, the annual average employment was.....59.328 jobs for the period 1987-1992 in the municipality of Barcelona..." (Brunet 1993, page 237). Raymond (1994) indicates the "creation of 160.887 from January 1987 to August 1992a 30.000 of annual average...".

4. THE UNIVERSAL FORUM OF THE CULTURES – BARCELONA 2004 AND THE NEW PROJECTS IN INFRASTRUCTURE AND URBAN DEVELOPMENT

The Forum 2004 is a world-wide event designed as an international meeting in order to debate XXIst century themes related to peace, cultural diversity and environmental sostenibility, in areas located around river Besos mouth. The management Consortium is composed by the State, the Regional Government and the Barcelona Town Hall. It has the UNESCO support. It has a current budget of 10 million \$US, approximately.

Barcelona has built up considerable experience in transforming and rehabilitating blighted urban areas over the last 20 years, ensuring schemes meet very high town

planning and architectural standards.

This accumulated experience allowed new strategic projects to be undertaken in the Barcelona Metropolitan Region in the wake of the 1992 Olympics. These cover the Besòs and Llobregat rivers, which respectively flow through the Northern and Southern ends of Barcelona. The projects for the Besòs area focus on urban and environmental renovation while those in the Llobregat area concern logistics, transport, and productive functions.

A start has already been made on some of these projects:

In the Llobregat river area:

- Enlargement of the airport (construction of a third runway and terminals)
- Development of the “Airport city” (loading, maintenance and service areas)
- Enlargement of the Port of Barcelona, which involves diverting the final stretch of the River Llobregat
- Development of the Logistic Activity Area (ZAL)
- Free Port Consortium Logistic Park (*Consorci de la Zona Franca*).
- Enlargement of the trade fair grounds (Barcelona Fair II)
- Environmental improvements in the Wetland conservation area, Llobregat river Delta, and regeneration of the coast

In the Besòs river area:

Along the Barcelona – Girona – France rail corridor

- New inter-modal station at Sagrera (TGV, regional, suburban, underground rail lines and bus facilities) and new residential, commercial and business areas linked to the rail corridor.

Along the *Avenida Diagonal* (main boulevard running the length of the city)

- Extending the *Av. Diagonal* to the sea. Construction of new residential areas.
- New sea front – residential
- New shopping and business centre

Along the Besòs river: Rehabilitation of the urban stretch of the river, including work to restore the natural river bed.

These projects which are currently underway and will be rounded off by an important new project in the urban area located around the river mouth: “BARCELONA - NEW SHORELINE NEXT TO THE RIVER BESOS”, associated with the Forum Barcelona 2004.

The Town Hall is also developing projects for the renewal of old industrial, especially Poble Nou and Sagrera-Sant Andreu, with a potential of more than 1,5 million of economic activity floorspace, trying to develop the argument "Barcelona, city of the knowledge".

The infrastructure projects (excluding associated real estate operations) represent a total investment of 1.9 thousand million Pesetas in the Barcelona Metropolitan Region. The following aspects should particularly be noted:

- A quarter of the investment required is in the public transport sector, especially for the new underground network (720,000 m. Ptas.).
- The estimate for the high speed rail link includes the pro rata figure for the Sagrera Central Station. The investment in the TGV amounts to 218,000 million Pesetas in the Metropolitan Region alone.
- The extension of the Port and Airport, together with the high speed train project provides the key to realising the potential of Barcelona's logistic industry and improving communications with the rest of Europe. These investments (330,000 m. Ptas.) represent 15% of the total.
- Investment in telecommunications include cabling the Metropolitan Region with optical fibre. This, together with investments by telephone operators, amount to an investment of 323,000 million Pesetas (17% of the total). Telecommunications and transport, are the two fields attracting the biggest investments, amounting to 41% of the public total.
- Priorities set for 2004 represent 60% of total forecast investment.
- 47% of priority investments for 2004 can be financed by cash flows generated by the infrastructure itself (Telecommunications, Power Grid, Airport, Port, and one third of the High Speed Train). The figure would be 43% of the total investment when a grant for the Port is taken into account.
- Total investment will amount to 14.2% of 1998 regional GDP over a ten year period. This is a considerable commitment by both the business community and local and national government. It seems a reasonable burden to assume when one considers organising the Olympic Games represented combined public and private investment equivalent to 10.3% of regional GDP over a 5-6 year period.

However, planned public investment in metropolitan infrastructure for 2004 comes to

1% of Catalonia's GDP, which will mainly be borne by the Catalan and Spanish governments. This has to be set against the backdrop of a progressive fall in public investment which took place from 1991 to 1997. The Central Government invested less in Catalonia (0,92% GDP) than in the whole of Spain (1,73%), the difference (i.e. 0.80% of GDP) being equivalent to 111,000 m. Ptas. at present values.

The precise effect of including regional and local government investment in the difference mentioned above varies according to the data used. According to the Chamber of Civil Engineering Contractors, it amounts to 0.37% of GDP, so that local government's investment would be partially offset by central government investment. However, according to Prof. Núria Bosch, the figure would rise to 1.2% of GDP. According to this second estimate, there would be a negative investment difference between Catalonia and Spain, amounting to 49,000 million Pesetas (some 8000 Pesetas per capita per year).

BARCELONA NEW PROJECTS

PERSPECTIVA

TABLE OF INVESTMENTS

5. CONCLUSIONS: STRONG POINTS OF THE OLYMPIC EXPERIENCE AND SOME DOUBTS FOR THE FUTURE

There is a number of useful Town Planning lessons to be learnt from the management and funding of the Olympic Games in order to assess the global sporting value from the economic point of view. The salient points can be summarised as follows:

- **The big infrastructure deficits** which had to be solved in the “Metropolitan City” of the 1980s concerned the ring roads (B-20 and B-30), the airport, telecommunications, and hotels, as well as the economic development promotion, was the main objectives to be fulfilled with the applications
- **The usefulness of a world event** like the Olympic Games as a means of concentrating public and private investment. The event itself only represented 15% of total expenditure of “agreed” investments (1.1 thousand million Pesetas, equivalent to near 10 billion US \$, of that time). Sports facilities only accounted for 9% of total expenditure.
- **The leading role played by the Barcelona City Council** in planning projects and ensuring that high standards were met in their implementation. Fully 39% of investment was in the Barcelona municipality, 25% in the rest of the Metropolitan Region, 16% in the rest of Catalonia, whilst 20% covered general infrastructure (telecommunications, etc.).
- **Collaboration between the private and public sectors** since public funding would have proved insufficient by itself. In monetary terms, the public sector managed 65% of investment, although its net investment was only 45% of the total since the private sector funded dwellings in the Olympic Villages (all of the 4.100 dwellings were completely sold in 1995, of which 2,500 were in the Olympic Village). The same applied to telecommunications facilities, hotels and offices. The impact of the new flats in the municipality was the 20% of the total new construction 1987-1992, whereas it was the 5% of the total in the metropolitan region.
- **Institutional consensus** on making 450,000 million Pesetas worth of public investments, split between the Spanish Government (41%), the Catalan Government 32%), Barcelona city Council (18%) and provincial and metropolitan administrations (90%).
- **Development of a ad hoc management formula** between the Spanish and Catalan governments which established *Holding Olímpico* (Olympic Holding Company). The holding company managed 43% of public sector investment,

including the Olympic Village.

- **Importance of the economic regional impact of investments.** They was about 1.8% of annual Catalonia's GDP over 6 years, creating 128,000 man-year jobs or approximately 20-25% of total employment created in the city. The employment increase during the high economic cycle 1986-1991 was of about 130.000 jobs in the municipality and 348.000 jobs in the whole Metropolitan Region. The discussion about job creation is between 59.000 per year (Brunet 1993) and 25-30.000 jobs per year (Raymond 1994)
- **Importance of "underground infrastructure",** in the total investment. A great deal of projects was in this kind of infrastructure such as sewers, storm drains, and service galleries along the 35 Km. of the new ring road. Those works are now facilitating the telecommunications cable construction in the city.
- **Integration of the Olympic project with the broader Barcelona 2000 Strategic Plan (1994-1998).** It looked beyond the event itself. Transport infrastructure represented 42% of total investment. Barcelona's historic city centre received at the same time than the Olympics a considerable slice of municipal investment: 38,000 million Pesetas of municipal investment over 6 years, while "Olympic" investments received 79,000 million Pesetas.
- **Some of the benefits from these investments appeared years later.** There were 4.1 million overnight stays by tourists in 1991. This figure rose to about 7 million in 1997, equivalent to some 3 million tourists, with American visitors making up the most important group. The number of three star hotel rooms or more was 10,812 in 1991, which grew to 15,076 rooms in 1995. The cruisers in the Port reached 500.000 passengers in 1997, being the first Port of this kind in the Mediterranean. Although it is more difficult to assess the impact on the attraction of economic activity due to the Games, Barcelona ranks currently in the 6-7th place in Europe for business location interest according Healey & Baker Inquiry, and the first one in "quality of life for employees".
- **Investment in the Olympic Games was set at a "reasonable" level.** The City Council's and Catalan Government's investments together represented 18-20% of their total investment in the period between 1986 and 1992, while the Spanish Government improved on its past investment in Catalonia by 40% over a 6 year period. This additional investment from the Central Government was surely the "incremental public investment" due to the Olympics, because the rest is a **project concentration** (Ring Road, Olympic Villages especially) rather than territorial

concentration. The whole investment of the Central Government was near 1.700 million \$ and financed 50% of the Ring Road (1.000 million \$ approximately)¹.

- **An economic and management summary: every Peseta spent by the City Council during the 5 years period 1987-1992 was effectively matched by 14 Pesetas in total public and private spending.**

Both the effort put in and the circumstances were unique. Some doubts come from the use of the world events, and especially of its availability for the use of many cities. Barcelona however has used along its history extensively of these events, like 1888 and 1929 Universal Expositions, to transform the city.

Now, however, Barcelona is an example of an important decreasing of Central and Regional Government investments from 1993 to 1998 despite the important deficits in Port and Airport enlargement, High Speed train networks and central station, environmental equipment and public transport. This non-municipal finance is the main doubt for the future.

The main strong points of the Olympic experience are the global-cultural effect ("Barcelona in the world map"), the urban transformation through an infrastructure project, the consensus among public administrations and the partnership public-private. The weaknesses (if any!) were the increase in the housing prices, the overestimation of the office demand and the limited public transport investments. The increase in prices has indeed social consequences and territorial consequences for the decentralisation process (MMAMB 1995 and Nel-lo 1998), although it is an analysis going out of the scope of this paper.

The GDP per capita of the Catalonia region was about 83% of the European Union average at the beginning of the eighties (EU12). Despite the important level of unemployment from the 1992-1994 crisis, in 1994, the GDP reached the 94% of the European average. The Games strongly collaborated in that evolution.

Cities need integrated, strategic projects if they are to develop. According van der Berg (1999) cities want and need to be more "attractive" and more "accessible". Future metropolitan infrastructure projects in Barcelona have been estimated IN 1,9 billion Pesetas (11,5 billion US\$) and they are directed to increase the accessibility in the European network and the attraction of economic activity to improve global competitiveness. The Forum of Cultures – Barcelona 2004 aims to collaborate to the fulfilment of these projects.

¹ Millet (1995) evaluated the "Non Games hypothesis" in a delay in investments of 3-3.000 million\$.

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