METROPOLIS

World Association of the Major Metropolises

Metropolis

1985-2005

Metropolis

Metropolis:
Participating in global decisions

In 1985, fourteen of the world's major cities convened in Montreal to create Metropolis, the world association of major metropolises.

The growing sprawl of our large urban areas and the necessity of establishing collaborative links between the world's major cities were the driving force behind the creation of this Association. Since it was set up, Metropolis' main objective has remained unchanged: promoting the interests of major cities throughout the world, favouring exchanges and collaboration between the institutions governing them, with the aim of improving living conditions for their inhabitants.

Twenty years after its creation, Metropolis has around 90 member cities, while the number of major cities in the world with over one million inhabitants is steadily increasing: at the moment, there are more than 400 cities in total, representing a total population of 1.2 billion.

Forecasts for the future confirm this trend. According to the United Nations, there will be around 550 major metropolises in the world by 2015, and their population will exceed the threshold of 1.5 billion inhabitants. The astuteness and prescience of Metropolis' founders in 1985 has been proved many times over since then.

The flourishing of the world's metropolises is central to issues of global urbanisation, this being particularly noticeable in developing countries. At the time of writing, in the more developed countries around 75% of the population is concentrated in urban areas as against 43% in the less developed countries. According to forecasts, close to 54% of the population of developing countries will be living in urban areas by 2015. Asia, Africa and South America currently have the strongest rates of urban growth, a trend that is expected to continue into the near future.

However, demographic development is only one manifestation of still more marked development in other domains: territorial expansion, different forms of government, economic development, social evolution, effects on the environment or urban multiculturalism. The issues resulting from these phenomena define the areas in which Metropolis and its members operate, albeit with sometimes differing problems and policies.

Even though local and city governments are closest to the inhabitants of a city, they often lack the human and financial resources necessary to respond to the needs of their populations. Regional and national authorities, as well as international organisations, often have more resources for developing their respective policies. And if local and city authorities are trying to obtain increased representation both nationally and internationally in order for their decisions to carry more weight at the global level, this is because such decisions often affect cities and their inhabitants first and foremost.

On this point, I am rather optimistic. Local authorities are becoming increasingly recognized by the leading international organisations. In May 2004, the local governments (including the cities) started a process of coordination carried out within the framework of the United Cities and Local Government organisation – the UCLG – in order to elaborate a strategy to protect and promote the interests of cities and their inhabitants during international level.
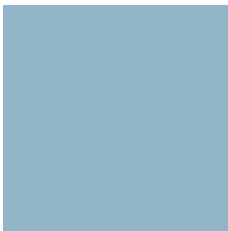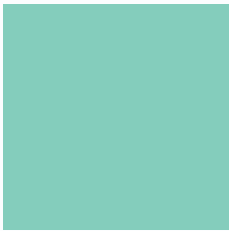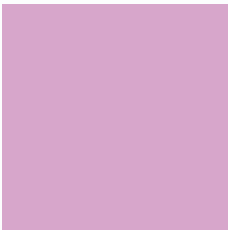
We must continue to encourage the development of a legal framework guaranteeing, at international level, local democracy and the administrative and financial autonomy of local government. Metropolis gathers together the world's major cities and manages the metropolitan section of UCLG's, with which it shares not only the objectives but also the headquarters (in Barcelona), conferring greater visibility to this new centre of local and metropolitan power.

As mayor of Barcelona, Chairman of Metropolis and Vice-president of the UCLG, I would like to invite all elected city employees and authorities of local government working for major cities throughout the world to join this movement so that, in another twenty years time, we will again be able to commemorate the actions carried out by our Association in a world where decentralisation and the role of local and city authorities/government will have broadened considerably.

Joan Clos
Chairman of Metropolis
Mayor of Barcelone

Metropolis

Edito

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1 Metropolis : A network of the major metropolises
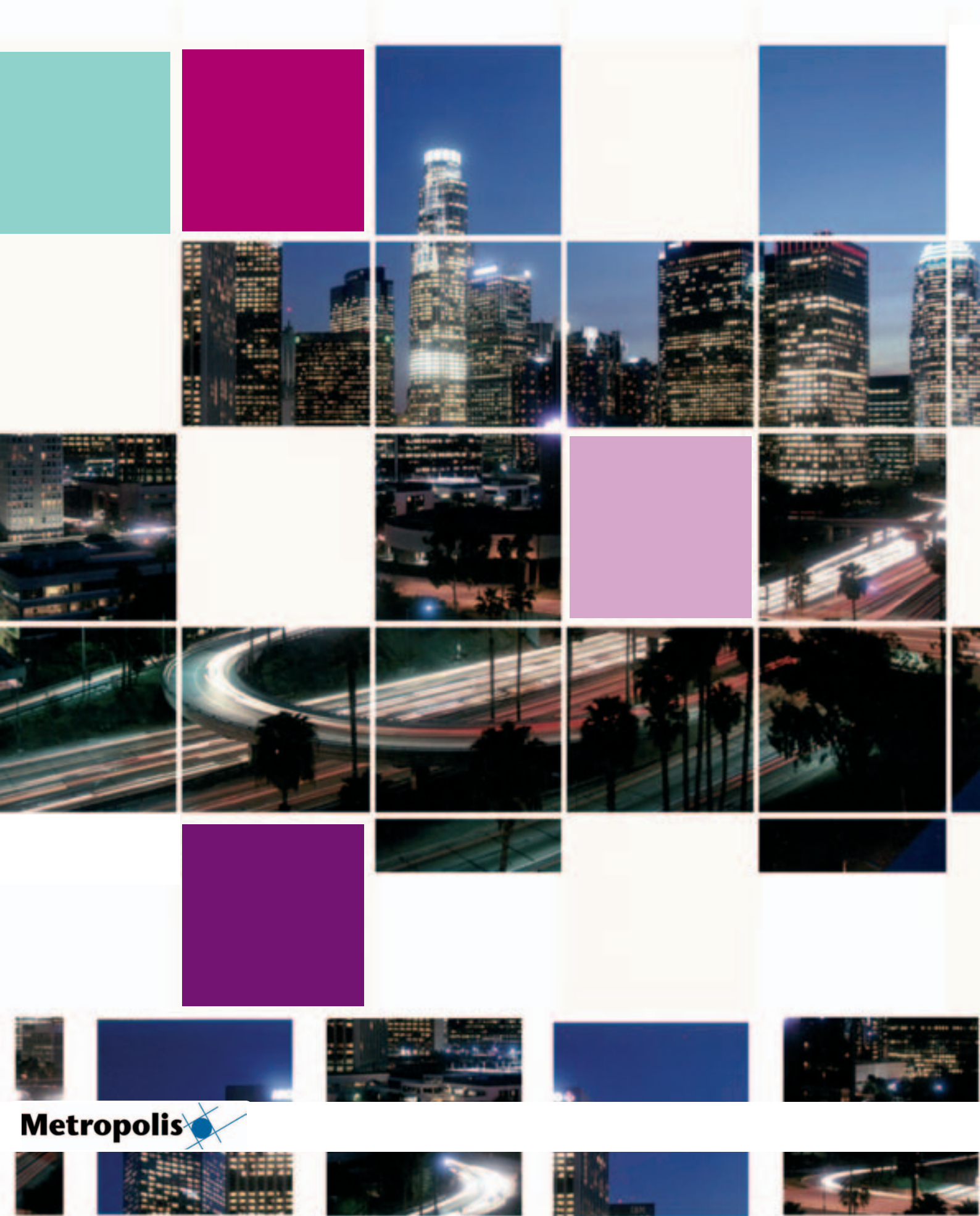
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The Metropolis organisation

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The Metropolis organisation

"**World Association of Major Metropolises, the non-profit Metropolis Association is an international, non-governmental organisation, [...] free of political and religious ties.**

All public institutions having territorial jurisdiction, organisations or bodies that represent "metropolises", whatever the diversity of local administration systems, may be active members of the Association.

The main object of the Association is to foster international cooperation and exchanges between political authorities, administrations and public and private agencies of major metropolises for the purpose of:
• promoting and disseminating knowledge acquired in areas which contribute to the management, planning and development of major metropolises;
• disseminating information about the experiments and policies carried out by those responsible for major metropolises to meet the essential needs and aspirations of their inhabitants;
• encouraging and promoting studies or research designed to contribute to the better organisation of urban space, the improvement of the environment and living conditions of populations of major metropolises and their economic wellbeing;
• strengthening the bonds of solidarity forged among the major metropolises at the "Metropolis 84" congress and extending them to other metropolises in order to foster understanding among peoples and a dialogue among metropolises in different countries.
To achieve these objectives, the Association will offer opportunities for contact and will facilitate or encourage the exchange of information and ideas among organisations or persons directly or indirectly interested in the problems of major metropolises and their future."

(Extract from the statutes of Metropolis, 1985.)

The history of Metropolis

Metropolis was created in 1984 at the initiative of Michel Giraud, then Chairman of the Regional Council for France's Île-de-France region (including Paris, its capital, and the city's suburban and satellite municipalities), and it was he who organised the first Metropolis congress in Paris in that same year. The constitutive meeting of the Association took place in April 1985 in Montreal. Fourteen founder members participated: Abidjan, Addis-Ababa, Barcelona, Buenos Aires, Cairo, Colombo, the Île-de-France region, London, Los Angeles, Mexico, Montreal, New York, Tokyo and Turin.

"Michel Giraud, honorary president of Metropolis, founder and Chairman from 1985 to 1998:
"Friday 12th [October 1984, in Paris]. [...] It is my duty to sum up the proceedings of our Congress [World Congress of Metropolis 84]. Appreciating the interest taken by attendees of the congress and appreciating their regret at having to disperse and go their separate ways, I would like to improvise a suggestion: that of creating, as soon as possible, an Association to formalize relations of collaboration between the leaders of the world's great metropolises". The reaction was spontaneous, one of unanimous and resounding approval. Metropolis was on the threshold of its creation.
This was accomplished in April 1985 when the political leaders of fourteen metropolises of over two million inhabitants from the five continents convened in Montreal to co-sign the statutes of the World Association of which they became cofounders, METROPOLIS." (*Passage taken from Éclats de Vie*, France-Empire, 2001).

Michel Giraud was Metropolis' Chairman from 1985 to 1998, and the headquarters of the General Secretariat was located in the Île-de-France region until 1999. In 1998, Michel Giraud announced his wish to retire from active political life, and the mayor of Barcelona, Joan Clos, was elected as the new Chairman during the Board meeting held in Seoul. He was to be re-elected in Barcelona in 1999 then in Seoul in 2003.

Constitution of Metropolis in Montreal (1985)

During this period, Metropolis became known as the premier international forum for urban issues. The Association spread its influence across all the continents, enabling it to carry out its political and technical initiatives on a global scale. Today, Metropolis has over 80 members, representing countries from all over the world.

These are just a few of the more significant events that have marked Metropolis's already long history:
• 1984: Creation of the provisional commission of the Metropolis Association and first congress held in Paris, "What kind of development for the Major Metropolises at the Dawn of the Third Millennium?"
• 1985: Official creation of Metropolis, World Association of the Major Metropolises, in Montreal.
• 1987: Second Congress held in Mexico City, entitled "A Better Life for All in Metropolises"
• 1990: Third congress held in Melbourne, entitled "Metropolises in Ascendancy". Since 1990, Metropolis has developed its technical or standing commissions (over 31 themes over the years) whose results are presented every three years at the congresses.
• 1992: Participation in the United Nations "Earth Summit" environmental conference in Rio.
• 1993: Fourth congress held in Montreal, entitled "Citizens and Sustainable Development". Metropolis creates its Technical Assistance Schemes.
• 1996: Fifth congress in Tokyo, entitled "Metropolis for the People: Seeking a Solidarity among World Citizens". Metropolis participates actively

in the Habitat II conference , founding an international movement for local authorities with the creation, in Istanbul in 1996, of WACLAC (World Association of Cities and Local Authorities Coordination), during the first world assembly of cities and local authorities.
• 1997: Creation of the Metropolis Training Institute in partnership with Montreal.
• 1998: Joan Clos, mayor of Barcelona, takes over from Michel Giraud as Chairman of Metropolis.
• 1999: Sixth congress in Barcelona, entitled "A Network of Cities for World Citizens". That same year, Metropolis developed its strategic action plan which was subsequently reviewed and approved at each General Assembly meeting.
• 2000: Meeting of the Board of Directors and Special General Assembly held in Guangzhou. Unanimous approval of the modification of the Association's statutes creating vice-presidential posts and regional secretaries. The General Secretariat was transferred to Barcelona.
Joan Clos was elected President of the United Nations Advisory Committee of Local Authorities (UNACLA). Metropolis became member of the Cities Alliance Consultative Group, an initiative of the World Bank and Habitat.
• 2001: Rio de Janeiro became the symbol of local power when it held the Metropolis Board of Directors meeting at the same time as the Second World Assembly of Cities and Local Authorities. Cooperation Agreement between WACLAC and the World Bank.
• The Secretary-General of the United Nations, Kofi Annan, received representatives of the leading international associations of local governments

Creation of WACLAC in Istanbul (1996)

Metropolis

in New York. On June 6, Joan Clos, President of Metropolis, in the name of all the local authorities, spoke before the UN General Assembly. He presented the declaration of the 2nd World Assembly of Cities and Local Authorities to the United Nations. Metropolis organized a parallel event in New York entitled: "The challenges of the Metropolises in the New Millennium".
• Melbourne launches the new Internet site www.metropolis.org, the Association's main communications tool.
• 2002: Seventh congress in Seoul, "Metropolitan Governance in the New Millennium". The first Metropolis prizes were awarded to the cities of Istanbul, Havana, Montreal, Addis-Ababa, Rio de Janeiro and Seoul.
• Participation in the World Summit on Sustainable Development in Johannesburg (Rio+10) and the UN-Habitat World Urban Forum in Nairobi in May 2002.
• The Chairman of Metropolis, Joan Clos, received the Habitat 2002 Honour Prize in Brussels for outstanding commitment and contribution to global cooperation between local authorities and the United Nations.
• 2003: Participation in the Third World Forum in Kyoto, on water management. Summit meeting between the world associations of local authorities and United Nations agencies and programmes. Participation in the US Conference of Mayors in Denver. Collaboration agreement with Mosaicultures International 2003 in Montreal.
• 2004: Metropolis actively participates in the congress founding the new United Cities and Local Government organisation (UCLG) in May 2004 in Paris. Metropolis, in charge of the metropolitan section of the new organisation, is represented by its senior management. The CGLU and Metropolis inaugurate their new headquarters in Barcelona, thus materialising the effort towards unification of local authorities. Participation in the United Nations/Habitat World Urban Forum and the Universal Cultures Forum - Barcelona 2004.
• 2005: Eighth congress held in Berlin, entitled "Tradition and Transformation: the Future of the City". Award of the second Metropolis prizes.

Joan Clos and Kofi Annan (New York, June 2001)

Organisational structure of the Association
The administrative and managerial agencies of the Association are the General Assembly, the Board of Directors and the Executive Committee.

The General Assembly is held by active members. It is convened by the president of the Board of Directors at each Metropolis congress held by the Association or approximately every three years, replacing out-going members of the Board of Directors and Executive Committee at this time.

The Board of Directors is made up of 22 members that meet at least once a year. The Board approves the budget and decides on the Association's activities.

The Executive Committee is made up of the representatives of the five regions approved in 2000 (Africa, North America, South America and the Caribbean, Europe and Asia-Pacific), each currently represented by an Executive Vice-President and a Regional Vice-President.

The permanent Secretariat-General is located in Barcelona. There are five Regional Secretariats whose headquarters are in Abidjan (Africa region), Montreal (North America), Rio de Janeiro (South America & The Caribbean), Paris (Europe) and Melbourne (Asia-Pacific).

Joan Clos takes over from michel Giraud as Chairman of Metropolis (1998)

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Board of Directors/Executive Committee

President

Barcelona: Joan Clos – Mayor of Barcelona, President of Barcelona's Metropolitan Area

First Executive Vice-President for Europe

Paris Ile-de-France: Jean-Paul Huchon – President of the Regional Committee of Île-de-France

Executive Vice-President for Asia-Pacific

Melbourne: Rob Hulls – Minister for Planning/State of Victoria

Executive Vice-President for North America and Treasurer

Montreal: Gérald Tremblay – Mayor of Montreal

Executive Vice-President for Africa

Abidjan: Djédji Amondji Pierre – Governor of the District of Abidjan

Executive Vice-President for South America & The Caribbean

Rio de Janeiro: Cesar Maia – Mayor of the City of Rio de Janeiro

Regional Vice-President, Europe

Berlin: Ingeborg Junge-Reyer – Senator for Urban Development

Regional Vice-President, Asia Pacific

Seoul: Lee Myung-bak – Mayor of Seoul

Regional Vice-President North America

Mexico: Arturo Montiel Rojas – Governor of the State of Mexico

Regional Vice-President, Africa

Addis-Ababa: Arkebe Oqbay – President of the Addis Ababa City Government

Regional Vice-President, South America & The Caribbean

Havana: Juan Contino Aslán – Mayor of the City of Havana

Other members of the Board of Directors

Europe

Istanbul	**Kadir Topbas**	**Mayor of Metropolitan Istanbul**
Moscow	**Youri M. Loujkov**	**Mayor of Moscow**
Brussels	**Guy Vanhengel**	**Government Minister for the Brussels-Capital Region**

Asia-Pacific

Guangzhou	**Zhang Guangning**	**Mayor of Guangzhou Municipal People's Government**
Dubai	**Qassim Sultan**	**Director General of Dubai Municipality**

North America

Toronto	**David Miller**	**Mayor of Toronto**
Monterrey	**Ricardo Canavati Tafich**	**Municipal President of Monterrey**

Africa

Libreville	**André-Dieudonné Berre**	**Mayor of Libreville**
Rabat	**Omar El Bahraoui**	**President of the Municipal Board of Rabat Hassan**

South America & The Caribbean

Belo Horizonte	**Fernando Damata Pimentel**	**Mayor of Belo Horizonte**

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Metropolis in action

Metropolis, advocate for the interests of urban agglomerations

Metropolis is the organisation that represents the world's metropolitan areas and regions. It is also the advocate for the interests of the metropolises in international encounters.

This objective means that it must be represented in all principle instances of regional and global agreement and decision.

Its mission is to represent its members and defend their interests, transmitting their messages and disseminating their ideas and points of view in international forums.

Metropolis' mission is also to foster relations between its members and companies, institutions of higher education and the general public.

In 2004, Metropolis joined forces with United Cities and Local Governments (UCLG) to create a unique representative body for local authorities on the international stage. Metropolis took charge of all metropolitan issues for the UCLG, being represented itself within the UCLG by its top management. Metropolis strives to bring this new organisation the benefit of its knowledge and experience accumulated throughout the two decades of collaboration with its network of metropolitan regions.

Metropolis works with UN-Habitat, whose Advisory Committee of Local Authorities at the United Nations (UNACLA) is chaired by Joan Clos, mayor of Barcelona and Chairman of Metropolis. The Association also participates actively in the World Urban Forum organised by Habitat every two years.

Moreover, the Association also collaborates with the World Bank and its Cities Alliance programme, UNESCO (the United Nations Educational, Scientific and Cultural Organisation), the UNDP (United Nations Development Programme), the UNEP (United Nations Environment Programme) the UMP (Urban Management Programme), the ICLEI (the International Council for Local Environmental Initiatives), the IUPT (International Union of Public Transport), the UNITAR (United Nations Institute for Training and Research), Global Forum, EMI (Earthquake and Megacities Initiative) and Mosaicultures.

Thanks to its Regional Secretariats, Metropolis is forging contacts with economic and political regional groups.

Work of the standing commissions and technical initatives carried out collaboratively by the metropolises

In conformity with priorities set by the three-yearly action plans decided upon at each of the Association's General Assemblies, members of the network have conducted their deliberations and organized their exchanges of information and practical experience through various theme-based standing commissions.

Ideal frameworks for cooperation, these commissions have as their goals the identification of principle areas of difficulty in urban areas and the search for, and subsequent sharing of, the most appropriate solutions to respond to the challenges facing large metropolises.

From 1985 to 2005, 31 commissions (table next page) were thus formed. Each comprised, under collective chairmanship, twenty to thirty members and was able to enhance its actions with contributions from outside sources through the intervention of specialists, universities, NGOs, business enterprises or international organisations.

Joan Clos with Anna K. Tibaijuka, Executive Director of UN-Habitat.

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Standing commissions (1990-2005)

Melbourne '90

- **Contribution of tertiary sector busi-ness in the perspective of an upward swing in the economy**
- **Optimisation of transport in city centres**
- **Management of urban ecosystems: origins and treatment of waste**
- **Committee on major risks**
- **Policies for housing new populations in metropolitan areas**

Montreal '93

- **Policies for enabling low-income individuals to benefit from urban development**
- **Air pollution and health in large cities**
- **City transport**
- **Strategic planning for metropolises**
- **Economic strategies and challenges in large metropolitan areas**
- **Information and education strategies for solid waste management**

Tokyo '96

- **Major structural projects and development of metropolises**
- **Observatories of the environment, appli-cation to the management of the urban water supply**
- **Manufacturing industries in cities: economic and urban aspects**
- **Social integration of young people in situations of precarity**
- **Cars and the city**

Barcelona '99

- **Airports and their areas of influence, catalysts of city development**
- **Policies for the fight against air pollution**
- **Favouring employment opportuni-ties in large cities through attraction and creation of businesses**
- **Social development and culture**

Séoul '02

- **Impact of major sporting and cultural events on development of large cities**
- **Urban poverty reduction strategies**
- **Enhancing and maintaining water quality for metropolises**
- **The information society and the city**
- **Urban indicators**

Berlin '05

- **Metropolitan governance**
- **Urban poverty and the environment**
- **Urban waste management**
- **Urban mobility management**
- **Metropolitan performance measurement**
- **Water and sustainable development in metropolitan areas**

Structured where necessary in sub-commissions and developing their exchanges on the basis of a working programme put forward by each commission president, these forums have been held once or twice in each three-yearly cycle, supported technically and financially by Metropolis' Secretariat-General.

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These commissions have been able to complete exchanges between their members through training courses, technical assistance programmes, the organisation of seminars and the carrying out of case studies.

The commissions have presented interim reports of their activities at each Board of Directors meeting, formalizing the results of their work in a final report submitted to all members of the network at the various Metropolis congresses.

Among the themes discussed are: the urban environment and ecosystems, transport systems, urban renewal and development, major risks, the fight against poverty and social exclusion, economic development, the information society, ur-

of each commission in collaboration with the Secretariat-General of Metropolis.

Also, Metropolis' newsletter and its own internet site give regular information on the progress being made in each commission's deliberations, thus ensuring dissemination of this information.

The members of Metropolis wished to reinforce the Association's communications through the creation of a "Metropolis Prize" in 2002, rewarding the realisation of a project contributing to the improvement of living standards in one of the network's member metropolises. Istanbul was the first city to be honoured by this award.

Finally, besides the activities of the standing commissions, in 2002 Metropolis members also cons-

Barcelone 1999

ban indicators, culture, the impact of large-scale events on the flourishing of metropolitan areas, administrative organisation of metropolises, new forms of governance, etc.

In order to encourage collaboration between the members and to enable follow-up and widespread dissemination of work carried out within the network, each commission now has an internet gateway (opened with the help of the World Bank's "Development Gateway" Foundation) where the experiences and analyses of commission members are laid out, together with working calendars, reports submitted and all of the statistics, studies and contributions connected to the theme in question.

Updating and management of the content of these gateways is carried out by the coordinators

tituted a working group on the theme of development financing, favouring comparison of analyses and working out new action plans in this domain.

Metropolis' international training institute

All urban problems have been aired and discussed several times over, in particular during the major world conferences organised by the United Nations, such as the Earth Summit held in Rio de Janeiro in 1992 and the Human Settlements conference (Habitat II) that took place in Istanbul in 1996. These international conferences concluded that local and regional governments are not unaware of the increase in their responsibilities with the continual addition of new areas of responsibility and the proliferation of applicable laws and rulings.

Metropolis

Moreover, growth and globalisation have made it essential for cities to improve the services offered to their citizens and to increase their competitiveness. Upgrading of skills and expertise has therefore become imperative in order to cope with urban challenges (housing, infrastructures, transport, environment, finance, management, social and economic development).

It is within this context that more and more metropolitan areas and local, regional and national authorities are searching for concrete solutions to the problems they face. They are looking for practical approaches.

Since 1996, Metropolis has been focusing on training as a priority, considering its impact on development and good governance. Within this framework, Metropolis has created an international training institute to respond to the needs of its members, establishing it in Montreal in view of its expertise and international influence.

The Institute provides applied training in urban management. This practical training is destined principally for elected representatives, city employees/authorities and public bodies in general. Furthermore, the Institute offers networking opportunities to leading operators and authorities in the different sectors of urban management. It thus allows such leaders in the urban sphere to network with others who share their preoccupations.

The institute's Main objectives are:

• to offer training and professional development seminars geared to the needs of participants and to those of local and regional authorities;

• to foster the acquisition of practical skills oriented towards problem-solving;

• to update participants' knowledge and management methods;

to enable participants to develop professional relationships that will facilitate the carrying out of projects.

The Institute favours a practical, hands-on approach relying on participants' experience. This interactive method is founded on the study of everyday situations that facilitate the transfer of knowledge and its adaptation to the context of the organisations participating. Thus, throughout the training sessions, experts guide participants through the solving of their problems, using their projects on the one hand and providing, on the other, the best techniques and tools available for optimum learning.

In order to complete this practical training, the Institute organises visits to sites, projects and initiatives of both public and private organisations, relevant to the training programme. These technical visits aim to reinforce the practical dimension of the training course, maximising exchanges with management in the field on the subject of conditions necessary to the success of their projects, and establishing professional relationships with a view to developing strong and profitable partnerships.

Since its creation, the Metropolis International Training Institute has organised numerous training programmes of different duration for several cities in different countries. The accomplishments of the Institute have enabled it to develop in-depth knowledge of local and metropolitan challenges as well as a solid base of experience in the reinforcing of skills and governance. Through these endeavours, Metropolis undoubtedly contributes to the institutional skill and expertise of its members.

**International cooperation
and technical assistance**

International cooperation and solidarity between the member cities is one of the main bases of Metropolis' field of intervention. It is clear that all large cities face the same challenges in terms of the providing of services and infrastructures for their citizens and businesses to enable their socio-economic development and increase their productivity. It is also clear that cities in developing countries are faced with major problems, taking into account their extremely limited financial and fiscal resources.

Within this context and at the end of the Metropolis congress in Montreal in 1993, the Association's General Assembly voted to establish a technical assistance programme for the Association.

Metropolis

It should be noted that Metropolis had already previously acquired two valuable experiences through the international cooperation projects with Sarajevo and Havana.

The technical assistance programme, set up in 1995, aimed at fostering exchanges between the Association's member cities and also at enabling the cities to carry out their development and urban management projects.

Thus, any active member of the Association can ask for technical assistance by submitting an official request to the Executive Committee and the Board of Directors for approval. Once approved, the requests are passed on to the other cities whose offers of assistance in satisfying the needs expressed are sought. Metropolis is thus able to ensure an adequate response to the needs of its members on the one hand, and support for the development and follow-up of members' projects on the other. Metropolis only gives its assistance to projects that have already been approved by the political authorities of the metropolis making the request.

The approach to assistance is very pragmatic, i.e. it targets concrete and well-defined projects. Assistance takes the form of technical services offered during the various phases of the project's realisation, and is provided under the responsibility of Metropolis that also offers precious financial aid to cover the international travel of the experts. Metropolis also facilitates their availability and covers their fees in exchanges with the authorities of the city offering the assistance. As for the beneficiary city, it contributes to a minimum extent by paying for the board and lodging of the international experts.

Once these technical questions have been settled, the projects are worked out jointly and developed up to the point of financing. If the city that is being assisted technically does not have sufficient resources to carry out its project, Metropolis will help it to establish contacts with international organisations or sponsors.

This method of action has turned out to be efficient for the cities, particularly those in developing countries, that do not have the specialised skills or sufficiently extensive financial resources. Thus Metropolis has succeeded in helping several of its members, particularly the less privileged, to make progress with their important projects in the different domains of urban management and has clearly shown that the cities are crucial actors in the domain of international cooperation.

Seoul 2002

Guangzhou 1998

Metropolis' statutory congresses and meetings

Every three years, Metropolis organises a congress uniting all of its members and collaborators with the aim of promoting exchanges and cooperation between them, stimulating thought on urban policies and themes and determining future activities.

The Association's 8th congress will be held in 2005, the occasion also marking the twentieth anniversary of the creation of Metropolis. Up until the present day, the following congresses have been organised: Paris 1984, Mexico City 1987, Melbourne 1990, Montreal 1993, Tokyo 1996, Barcelona 1999, Seoul 2002 and Berlin 2005.

The Association's statutory meetings are held during the congresses. The General Assembly is attended by all members: cities that are active members, associate members or honorary members. The Executive Committee convenes to prepare the meetings of the Board of Directors and to monitor the carrying out of its decisions. Finally, the Board of Directors, elected by the General Assembly, votes approval of the annual budget and defines the Association's activities.


Congresses of Metropolis (1984-2005)

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Statutory Congresses and Meetings	CITIES	Dates
Congress '84	Paris	10-12 October 1984
Constitutive Assembly	Montreal	18-19 April 1985
Board of Directors	Cairo	22-23 January 1986
Board of Directors	Buenos Aires	24-25 September 1986
Board of Directors	New York	20-22 January 1987
Congress '87 and General Assembly	Mexico city	19-21 May 1987
Board of Directors	Madrid	27-29 January 1988
Board of Directors	Casablanca	2-4 February 1989
Board of Directors	Los Angeles	31 January -2 February 1990
Congress '90 and General Assembly	Melbourne	19 October 1990
Board of Directors	Dakar	14-16 March 1991
Board of Directors	Barcelone	9-10 April 1992
Board of Directors	Cairo	11 February 1993
Congress '93 and General Assembly	Montréal	24 september 1993
Board of Directors	Tokyo	17 February 1994
Board of Directors	Lisbon	15-17 March 1995
Board of Directors	Paris	12 January 1996
Congress '96 and General Assembly	Tokyo	26 April 1996
Board of Directors	Santiago	16 April 1997
Board of Directors	Seoul	25 April 1998
Congress '99 and General Assembly	Barcelona	19 March 1999
Board of Directors	Paris	18 november 1999
Board of Directors and Extraordinary General Assembly	Guangzhou	2 October 2000
Board of Directors	Rio de Janeiro	7 May 2001
Congress '02 and General Assembly	Séoul	30 may 2002
Board of Directors	Istanbul	29 september 2003
Board of Directors	Mexico city	30 March -2 April 2004
Congress '05 and General Assembly	Berlin	11-15 may 2005

The emergence of metropolises through history

Metropolises' actual trends and perspectives
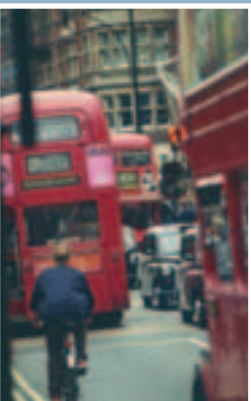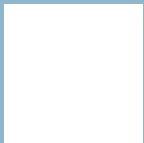
Metropolis

Metropolis

The emergence of metropolises
through history

The metropolization movement marking our era is the fruit of an extremely long process whose origins date back to the very origins of "civilization", and that is to say, in the etymological sense, of the «culture of cities». This evolution of over five thousand years took place in several stages: appearance of the first urban areas, formation of the first urban systems at the time of the first urban revolution, the second urban revolution associated with the industrial revolution, and above all with the advent of motorized transport, and finally the appearance around half a century ago of an increasingly marked dissociation of the polarisation of populations and of production.

Today's metropolises are the product of multiple spatial, economic, social, political, cultural and technological evolutions marked by geographical constraints, the limits of science and those of the human condition. In dealing with the almost daily challenges of our large cities, it is often useful to penetrate into the history they contain within themselves and the perspectives they open up. These are the two facets to this chapter that will highlight the startling contrast between the recent, perhaps brutal, triumph of the trend towards urbanization and the even more recent weakening of intra-urban integration, a result of increasing urban sprawl.

The modern world is so urban in nature that our contemporaries nearly always tend to take the urban phenomenon for granted and to believe that there have always been cities and that human beings were, so to speak, born in an urban context. However, nothing is further from the truth. The urban phenomenon is exceptionally recent in the multi-millennia history of "homo sapiens sapiens". While the latter appeared around 150,000 years ago, the first "urban system" only made its appearance in the Sumerian region around 4,300-3,100 B.C., i.e. around 6,300 to 5,100 years ago. Therefore, for at least 95% of his existence, the

homo sapiens sapiens that we represent had nothing urban about them at all. In fact, just 200 years ago, towards 1800, the rate of global urbanization was in all likelihood around 5%, which is very low (it reached 29.4% in 1950 and 48.2% in 2000). It was not until the beginning of the third millennium that the majority of the world's population became urban dwellers rather than rural, and this for the first time in the history of humanity. Now, the United Nations predict that very soon, around the year 2030, not only 50% but 60% of the world's population will be city-dwelling (UN-Habitat, 2004).[1]

The first urban revolution: from the Sumerian era to 1825

The very first cities, which it is believed included Çatal Höyük, Jericho and Jarmo, were not part of an urban system and consequently were not really "urban". They were too isolated and there were no means of communication between them and other cities. The first real urban system, made up of "urban" cities linked to each other by networks and exchanges, appeared in Mesopotamia in the region of Sumeria around 3500 B.C., during the first urban revolution, with the emergence of the cities of Eridu, Ur, Uruk and their neighbours. The appearance of this first urban conglomeration was followed shortly afterwards by that of the Egyptian settlements (with Memphis and Thebes) then, a thousand years later, by the urban network of the Indus Valley civilization (including Harappa, Mohenjo-daro and Kalibangan) and, finally, yet another thousand years later, by the cradle of urban civilisation in China (with Changan-Xi'an, Luoyang, Zhengzhou and Kaifeng).

The first urban[2] revolution was preceded by the development of agriculture at least a thousand years earlier, but it actually seems to have originated not in agriculture itself but rather through innovations in transport and communications that appeared at more or less the same time as the first "urban" towns: the invention of writing, the wheel, the chariot and the first boats that were more sophisticated that a simple raft or dugout.

From their beginnings, the towns, urban systems and communications networks were in competition with each other. In the Fertile Crescent region, three rivers vied for supremacy: the Euphrates between the Persian Gulf and the Mediterranean, the Tigris between the Persian Gulf and the Black Sea, and the Nile between the Great Lakes of Africa, as yet inaccessible, and the Mediterranean. The Egyptian empire was built on the Nile, the Assyrian empire on the Tigris and the Babylonian empires on the Euphrates. With the blossoming of Babylon, the first real metropolis in history, the Euphrates asserted its importance thanks to the Syrian Corridor linking the Euphrates to the Mediterranean, while the link between the Tigris and the Black Sea was still problematic and that between the Nile and the Great Lakes of Central Africa presented serious difficulties.

The Euphrates axis is one of the most important sections of the Great Corridor[3] and Sumeria's orientation towards the Mediterranean was at the root of the widespread westward shift that marked the birth of the West (see central circle of the Great Corridor on map 2.1). This trajectory ran from Sumeria towards Babylon, Phoenicia, Anatolia, Greece, then towards Italy, Gaul and England. It was accompanied by an urbanization movement (that had been preceded more than a thousand years earlier by the spread of agriculture following the same trajectory) as well as a movement of economic, social and cultural development.

Map 2.1 Topodynamic course of word corridor

Mongolian-American Corridor Great Corridor Asian Corridor

The Great Corridor corresponds to the southernmost limit of the "chain of mountain ranges" dominating the Euro-Asian continent. From east to west, this chain includes the Yunnan Plateau (China), the Himalayas, the Karakorum range (Kashmir), the Souleiman range (Pakistan), the Iranian Plateau, the Zagros range (Iran), the Taurus range (Turkey), the Balkans and the Alps. Many rivers have their sources in these mountains: the Yangzijiang, the Tongkiang (River of Pearls), the Ganges, the Indus, the Tigris, the Euphrates, the Po, the Rhône and the Rhine. All these economically significant rivers constitute, together with the Mediterranean, the Persian Gulf and the Sea of Oman, a transport network that formed the backbone of the Great Corridor. Together, they channelled the great flows of trade that irrigated the Great Corridor within which, for 5,000 years, the majority of the world's economic hubs have succeeded one another: Babylon, Alexandria, Athens, Rome, Constantinople, Antioch, Baghdad, Venice, Genoa, Antwerp, Amsterdam, London, Paris, as well as Delhi, Canton-Guangzhou, Zayton-Chuanchow-Quanzhou, Shanghai and Tokyo.

Until the founding of Constantinople in 330 A.D., there was a clear tendency to move westwards in the Great Corridor to the west of the Persian Gulf, while a tendency towards the east prevailed east of the Gulf; or, in general terms, the urban development to the south of Persia preceded that of India, that of India preceded that of China, and that of China preceded that of Korea and that of Korea preceded that of Japan.

A second corridor also played an important role in the history of economic development and urbanization. This was the Asian Corridor that corresponded to the continental and maritime Silk Route (see map 2.1). This corridor originated with the appearance of urbanization in the Indus Valley. Before the Industrial Revolution, the predominant tendencies inside this corridor were from west to east. In the northern part of the corridor corresponding to the continental Silk Route, the urbanization of the Indus Valley, that appeared around 1,000 years after that of Sumeria, was followed a thousand years later by the emergence of urbani-

[3] *The interpretation of the history of economic development in terms of "topodynamic corridors" was proposed by Tellier (1997, 2001 and 2002).*

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zation in China in the Changan-Xi'an region, then in the 8th century A.D. by the transfer of economic power from the wheat and millet cultivating region of the Yellow River where Changan-Xi'an is located, to the Yangzijiang region relying on the cultivation of rice.

A third corridor, the Mongolian Corridor, played a fundamental role in the evolution of both the Great Corridor and the Asian Corridor. This corridor corresponds to the "Corridor of the Steppes" and links three important cradles of civilisation: the Indo-European (Hellenics, Italics, Celts, Germanics, Slavs and others) to the north of the Caucasus, that of the Urals (Hungarians, Finns and Estonians) in the region of the Urals, and that of the Altaics (Huns, Mongols and Turks) in the Altai mountains. This links the Ruhr valley to Korea following an ideal route for warriors galloping on horseback, while the Great Corridor and the Asian Corridor correspond to routes propitious to the transport of merchandise. During the second, third, fourth and fifth centuries of our era, the barbarian invasions issuing from the Mongol corridor prompted the fall of the western Roman Empire in the Great Corridor and the temporary break-up of the Chinese Empire in the Asian Corridor.

The barbarian invasions from the Mongol Corridor, the rise of Constantinople and the Fall of Rome in 476 A.D. marked the relatively brutal reversal of the westward tendency that had predominated hitherto within that part of the Great Corridor situated to the west of the Persian Gulf. The movement towards the east that resulted was associated with the transfer of Rome's economic and political power towards new metropolises: Constantinople, then Damascus, Cairo and Baghdad. The impact of this movement on European urbanization was radical. The rate of urbanization in western Europe fell from around 6% in the 4th century A.D. to around 1% in the 9th century A.D.

A similar scenario took place a thousand years later. It gave birth to the Mongolian Empire that was the largest continental empire in the history of the world. It caused the conquest of the Chinese Empire by the Mongols and prompted the fall of the Byzantine Empire at the hands of the Turks originating in Altai.

The discovery of America by Christopher Columbus in 1492 and the discovery of the route to India via the southern tip of Africa by Vasco de Gama in 1497 had as many repercussions as the Fall of Rome. These two events relaunched westward movement inside the Great Corridor, movement that the fall of the Roman Empire in the west had interrupted. Subsequently, economic power passed from Constantinople to new metropolises: Venice and Genoa, then in the 17th century, Antwerp (Brabant), Amsterdam (Holland) and finally London.[4] This new movement westwards gave a powerful breath of new life to the urbanization of western Europe that had started to develop again at the dawn of the second millennium.

During the whole of the long-lasting first urban revolution, urbanization had been the product of the modes of tributary transport: by animal traction on land and by sailing or rowing boats on the sea. Inside the cities, the only transport was by animal and movement from place to place was mainly on foot, which explains why the cities were very compact, often being surrounded by walls.

Nevertheless, certain developments happened during these 5,000 to 5,500 years. The cities that appeared before the formation of the first urban systems were cities in uphill locations, such as Çatal Höyük and Jarmo, or in desert areas, like Jericho. On the other hand, the first urban systems could be found in fluvial cities both in Mesopotamia, in the Indus Valley, and in the Yellow River region. Among these fluvial cities are several traversed by canals. On the other hand, in pre-Columbian civilisations, fluvial cities were extremely rare, the urban systems there consisting of high altitude mountain cities such as Teotihuacán, Cuzco and Machu Picchu, or cities in the jungle such as Uxmal, or cities on the plains such as Palenque.

The cities that existed prior to the formation of urban systems were more often than not just shelters, refuges or centres for the replenishment

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[4] This is the period that Braudel particularly studied (1966 and 1979). Concerning urban Europe of the time, see also de Vries (1976 and 1984) and Hohenberg and Lees (1985).

of water such as in the case of oasis settlements. With the emergence of urban systems and fluvial towns, commerce became more and more important and, as methods of fluvial transportation and irrigation techniques became more developed, so the fluvial settlements multiplied, both upstream and downstream of the rivers. This evolution continued until the appearance of real marittime towns that grew considerably in importance, both in the Middle East where the Phoenician, Greek and Italian towns around the Mediterranean took over from the fluvial towns of Mesopotamia, and in China where the fluvial towns of the upper Yellow River were gradually overtaken by marittime towns (Canton-Guangzhou, Zayton-Quanzhou and Hangzhou). To the west of the Persian Gulf, the final outcome of this development was that the first real marittime empire, the Roman Empire, whose triumph had been prepared by Phoenician, Greek and Carthaginian urban networks, succeeded to the continental empires (Babylonian, Assyrian, Egyptian, Hittite, Persian and of Alexander the Great), served by, or in competition with, the Phoenician and Greek marittime networks.

With the development of long-haul marittime trade, the cities on ocean coastlines came to rival those on inland seas (the Mediterranean or the Black Sea). Zayton-Quanzhou and Hangzhou were among the first ocean cities to make names for themselves. However, it was really the discovery of America and of the route to the Indies that enabled ocean cities like London, New York and Tokyo to dominate the world. This development was accompanied by a progressive diminishing in importance of local marittime empires such as those of Venice and Genoa, and of the appearance of world marittime empires: the Portuguese, Spanish, Dutch, French and English.

The second urban revolution

At the beginning of the 19th century, the second urban revolution took place with the appearance of motorized transport. Motorization first affected navigation (Robert Fulton launched the first steamboat that made the crossing from New York to Albany in August 1807). However, it was the inauguration on September 27, 1825, of the first railway between Stockton and Darlington in England, at the centre of the triumphant British Empire, that marked the real beginning of the second urban revolution that made the world urbanization rate climb from around 5% in 1825 to 48.2% in 2000.

In order to better appreciate the impact of the advent of motorized transport, it should be said that the Industrial Revolution associated with this latter was preceded in England by what was called "proto-industrialisation" during which numerous technical innovations were introduced. Now, this proto-industrialisation took place first and foremost in the countrysides and seemed to bring with it a slight lessening of urbanization, while industrialisation marked by motorized transport had quite the opposite effect. It prompted a real urban explosion that, in Great Britain, was reflected in the emergence of new dominant cities (Leeds, Liverpool, Manchester, Glasgow), while in France, the old economically dominant cities (Lille, Lyon, Saint-Étienne) managed to adjust to industrialization without losing their status.

The epicentre of the second urban revolution was London, that metropolis from whence the shock waves of industrialization spread, first to the interior of the Great Corridor touching on Belgium and France, then reaching out within the Mongolian-American Corridor which had taken over from the old Mongolian Corridor, to the United States and Canada to the west and Germany, Silesia and even Russia to the east. The transformation of the Mongolian Corridor (that was limited to Eurasia) into the Mongolian-American Corridor was purely a product of the new transport infrastructures associated with industrialization. The artisans of the Industrial Revolution found in the Corridor of the Steppes, so ideal for horses, an equally suitable terrain for the construction of railways and canals. Thus in Europe the development of the railway network was accomplished more rapidly inside the Mongolian-American Corridor than in the Great Corridor.

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In Eurasia, the Mongolian-American Corridor was structured by the Mittellandkanal, linking the Ruhr Valley to Berlin, and via railway from Berlin to Warsaw, Moscow, Novosibirsk and Vladivostok, the Moscow-Vladivostok section corresponding to the Trans-Siberian route. In North America, the Mongolian-American Corridor was formed from the Erie Canal inaugurated in 1825 (and enabling New York to gain a definite ascendency over the rest of the continent), structuring itself thanks to the transcontinental railway linking New York, Pittsburgh, Cincinnati, Saint-Louis, Kansas City and Los Angeles. The centre of gravity of the populations in the United States has followed this precise trajectory from 1790 to the present day. The rise in power of the Mongolian-American Corridor had a major impact both in America and in Eurasia. It gave rise to an extremely rapid urbanization of the whole Canadian-American territory which had lagged considerably behind South America that was far more urbanized and that had even already experienced urbanization in the past under, among others, the Mayas, the Aztecs and the Incas. South America was already, in 1825, one of the most urbanized regions in the world, while Canada and the United States remained predominantly rural.

In Eurasia, the rise of the Mongolian-American Corridor was reflected, in the Germanic world, by the triumph of Prussia over Austria (more closely associated with the Great Corridor), then, at the borders of Europe, by that of the Russian Empire over the Ottoman Empire. In the Far East, the rise of Japan and expansion of its empire were part of the westward movement taking place inside the Mongolian-American Corridor. The flourishing of the cities of Berlin, Saint Petersburg and Moscow to the west and Tokyo, Osaka and Seoul to the east was also the urban manifestation of this evolution.

From 1825 to the crisis of 1929, the world changed significantly. The industrial cities developed considerably, most often amidst pollution, promiscuity, disease and social tension. The cities began to spread in all directions. Many new cities appeared and many were of a new type: railway cities. Many fluvial and maritime cities became hubs of railway traffic, but many others that had had little reason to exist before the arrival of the railways developed because of them. The Mongolian-American Corridor contains numerous examples of this: cities such as Atlanta, Dallas, Kansas City or Harbin and Moukden-Shenyang. The railway cities and ocean cities (like London, New York or Tokyo) gradually gained in importance over the fluvial cities that were not able to integrate with the railway network. The global empires grew considerably: singularly, the largest of these was the British Empire, whose ramifications spread all over the world, in Africa, Asia, South America, North America and in Oceania.

Although the railway and routes built for motorized transport had usually reinforced existing cities, they had an important impact in restoring new power to cities located upstream as opposed to the cities situated close to the sea or at the mouths of rivers. The tendency that favoured the cities situated lower and lower downstream since the beginning of urbanization was not totally reversed by the appearance of motorized transport; however, the more continental cities upstream lost a large part of their disadvantage, so much so that cities like Chicago, Berlin, Moscow or Peking were able to compete with metropolises like London, New York or Tokyo. Several of our major metropolises today in developing countries are upstream/inland cities like Mexico City, Sao Paulo, Johannesburg, Nairobi, Addis-Ababa, Bhagdad, Teheran, Delhi or Chongqing.

The triumph of the automobile and the apotheosis of urbanization

In 1900, London was still the most powerful city in the world. Fifty years later, this title belonged unquestionably to New York. Moreover, between 1900 and 1950, the Mongolian-American Corridor had clearly supplanted the Great Corridor. In 2000, all the great metropolises dominating the

world politically and financially formed part of the Mongolian-American Corridor: New York, Chicago, Los Angeles, Tokyo, Seoul, Peking, Moscow, Berlin, Paris and London.

The first half of the twentieth century marked the triumph of the automobile that enabled motorized transport to penetrate into the furthest reaches of the developed world and even into the developing world. With the ubiquity of the automobile, urbanization reached its apotheosis. In developed countries, urbanization rates of 75% and more became the norm (the urbanization rate having even reached 95% in Belgium) and in developing countries we found rates as high as 83% (Venezuela) or 73% (Iraq). During the 20th century, while the world population multiplied by 3.6 (going from 1.65 billion inhabitants in 1900 to 6 billion in 2000), that of the cities was multiplied by 15 (going from 193 million to 2.9 billion).

Everywhere the rural world was in retreat. The cities with a rural orientation experienced relative decline. The secondary sector (transformation of primary resources) dominating the cities of the industrial revolution found itself relegated to the background in the cities of developed countries. The big cities lost no time in shifting emphasis to the tertiary (service-producing) sector.

The metamorphosis of the cities

Cities were profoundly metamorphosed throughout history, both from the point of view of their spread, density and circulation network, and from that of the height and features of their buildings. Trying to classify their evolution in a systematic way is far from easy as their forms vary so greatly. However, in very general terms we can distinguish six phases in the evolution of the urban form across history.

The first stage was that of the city-refuges. Their principle usefulness was to protect their inhabitants from strangers, enemies and invaders while at the same time fostering solidarity. These cities were generally but not always encircled by walls, fortifications or palissades and could be situated in isolated spots or places difficult to access. They were very compact, gathered together on themselves. The first stage was soon marked by the setting up of inter-city communications networks. In wet regions, this gave birth to fluvial cities or cities situated on fords, while in the dry zones oasis-cities developed as refreshment and replenishment places along caravan routes. These first commercial settlements were also compact and often fortified. They were of improvised aspect, their passages forming labyrinths like in the souks of the Arab cities.

The first phase was also associated with the emergence of religious or political ceremonial centres. The idea of urban planning progressed considerably in favour of the creation of such cities. Straight lines, axes, plays of light and shadow, sculptures, monuments, sanctuaries, palaces and processional avenues became the means of inspiring respect, piety, adoration, submission and awe.

The second stage constituted a breaking with the first in that it engendered real urban systems. It

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was often the result of the adoption of wheeled transport pulled by animals. This type of transport required the construction of roads, bridges and quays. A road network appeared that gave rise to hub-cities, stopover-cities, bridge-cities and port cities all of which took shape around strategic locations in the networks and loading or unloading points. Within these cities, roads had to be built to allow the transit of wheeled vehicles; public spaces had to be allocated for parking, and the joint management of pedestrian and vehicle traffic made the introduction of a basic system of rules necessary. These cities remained compact and generally fortified, but the public space reserved for traffic to circulate became systematic and occupied a much more important place than in the previous phase.

In some cities, this second phase engendered amphibious cities where the network of roads was superimposed onto a network of canals. Amphibious cities appeared very early on in Sumeria where cities such as Ur very quickly learnt to reconcile canals, paths and roads. Later, several amphibious cities became famous, such as Hangzhou and Tianjin in China or Venice, Amsterdam and Stockholm in Europe. Moreover, several bridge-cities straddling rivers began to appear. Such cities are Rome, Florence, Paris or London. These cities were more difficult to defend and to fortify. Their strength was commercial but their weakness was military. Their openness to the outside world, the superimposition of their traffic networks, their dependence on the circulation flow and more radial than concentric population distribution was a precursor to our modern cities. The second stage in the evolution of urban forms has been studied in depth by Morris (1972, 1994) and by Vance (1990).

The advent of motorized transport in 1825 was documented in a new dynasty of urbanization studies, among others, by Hall (2001) and Vance (1990). It gave rise to the third phase of the urbanization process during which the issue of coordinating road and railway networks was of major importance to all cities, whether industrial or

not, with a railway connection. Superimposition of these networks posed numerous problems, both in vertical and in horizontal terms. Level crossings and viaducts had to be built to coordinate or separate traffic vertically, while horizontally the industrial areas connected directly with the railway became increasingly separated from the residential quarters. The horse-drawn omnibus then the electric tramway made their appearance, increasing intra-urban mobility. Trains then suburban tramways in their turn transformed the outskirts of the cities. A first phase of urban spread resulted, a taste of what the advent of the automobile would later bring about. This phase began in Paris and in London from about 1830 onwards. Considerable public investment was needed for the building of new urban infrastructures, entailing the adoption of multiple measures: expropriations, zoning, regulations, etc. The sewer and aqueduct networks as well as the roads had to be adapted to meet the new needs brought about by city spread. The old fortifications were for the most part destroyed. Boulevards and avenues were created. Haussmann's Paris remains the most classic example of the city of that time. Hohenberg and Lees (1985, p. 391-394) situate at around 1850 the pivotal year from when the density and crowding of European cities began to decline.

Some cities experienced a fourth phase, that of the introduction of the underground train, totally separating two motorized vehicle networks superimposing them at two different levels, with connection from one network to another being made on foot. The underground had two opposite effects. On the one hand, it favoured urban spread as it enabled faster access to the city centre from the suburbs, while on the other hand it encouraged increased density in the centre or at least reduced the space reserved for automobile transit and parking in the city centres.

In a fifth phase, the automobile was added to the tramway and the metro. This innovation gave rise to a real revolution in urban planning. Motorways

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appeared in the city centres and suburbs. The first among them was built between Philadelphia and Pittburgh and was inaugurated in 1940. The suburbs developed and urban spread became the rule. Public transport was gradually abandoned by users in favour of the private car. City centres had to adapt to the ever growing flow of cars needing more and more parking space. Pollution, congestion and parking costs climbed.

In cities built after the advent of the tramway, in North America among others, the social classes unable to afford automobiles found themselves trapped in the high-density city centres and ghettos began to form. But little by little all the social classes gained access to the suburbs. Rich North Americans led the way as early as the 1830s, followed by the middle classes in the 1880s, the less privileged starting to settle in the suburbs from the 1900s onwards. In the oldest cities of continental Europe and South America, whose city centres had been built before the introduction of motorized transport, the poor found themselves unable to afford to stay in the city centres so were forced to move to the suburbs which became problem zones.

In the end, urban spread lowered the density of residents in city centres. In some countries, particularly in North America, a phenomenon of abandonment and demolition of city centres could be observed. Once elegant central neighbourhoods grew poorer. The suburbs spread almost without limit, and sub-centres grew up to compete with the city centre. In some cases, such as in Los Angeles, this tendency continued without hindrance while in others like San Francisco a return of the population towards the city centre came about and attempts were made to try and check the spread.

In a sixth phase, the spread ended by causing a new form of agglomeration to appear, the linear city. The urban fabric of linear agglomeration was formed from the merging of hitherto separate cities following certain structural lines. For example along the Californian coast from San Diego to Santa Barbara via Los Angeles, urbanization ex-

tends along hundreds of kilometres giving rise to an urban ribbon running along the coast almost without interruption. The same phenomenon can be observed in France along the French Riviera. Also, in the north east of the United States, the Fall Line saw the progressive development of an immense linear agglomeration running from Washington DC to New York passing through Baltimore and Philadelphia. In Europe, the same thing seems to be happening within the American Corridor along the Rhine and the Ruhr, a linear agglomeration taking form from there to Rotterdam and then towards Hanover, passing through Essen and Dortmund.

These six phases did not succeed one another in a uniform consecutive way. Three quite radical changes were brought about by the appearance of wheeled transport, then by that of motorized transport, and finally by the advent of the automobile. Several old metropolises like Paris, Peking, Mexico City, Constantinople-Istanbul, Moscow or London, have experienced most of these six phases but some cities only experienced a few, no city before the emergence of urban systems having given birth to a large modern city. In fact, most modern cities only experienced the most recent phases. The order of the phases was generally respected although there have been cases of regression to an earlier phase.

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Metropolises' actual trends and perspectives

Today's urban world is in full effervescence. The upheavals we can observe are taking place as much at the hierarchical level of world urbanization as at the very heart of each of the agglomerations within it. We will focus successively on the world dimension of current metropolitan dynamics, its continental dimension and its local dimension, at the level of each of the metropolitan regions.

World dimensions of current metropolitan dynamics

The first city to reach a population of over 300,000 inhabitants in history was Babylon, the mother of all metropolises. The first city of a million inhabitants was Rome. The first modern metropolises to reach 3 million inhabitants or over were London, Paris, New York and Berlin. Today, the world urban hierarchy can be presented schematically as follows:-

• 19 metropolitan regions counting over 10 million inhabitants;
• 22 metropolitan regions with between 5 and 10 million inhabitants;
• 370 agglomerations with between 1 and 5 million inhabitants;
• 433 agglomerations have between 0.5 and 1 million inhabitants (UN-Habitat, 2001).

These data are eloquent. However, they are only an imperfect illustration of current upheavals which are bringing about profound modifications in the roster of great world metropolises.

Multi-metropolization and upheaval in the roster of great metropolises.

In 1900, only one urban hub really dominated the world, that of London and the British cities (in 1900, five of the twenty biggest agglomerations in the world were in Great Britain, viz. (in order) London, Manchester, Birmingham, Glasgow and Liverpool). In 2000, three "global cities" (to take up the concept developed by Sassen in 2000) shared economic hegemony of the world: New York, London (twinned with Paris) and Tokyo.

Between 1980 and 2000, Lagos, Dacca, Cairo, Tianjin, Hyderabad and Lahore joined the list of the 30 biggest cities in the world, while it is predicted that in 2010, Milan, Essen and London will have been crossed off this list while New York, Osaka and Paris, although still remaining on the list, will have been outranked by cities in emerging countries (UN-Habitat, 2001). In fifty years, there is everything to indicate that Shanghai, Canton-Hongkong and Bombay-Mumbai will probably have joined New York, Tokyo and Paris-London at the head of the world's urban system and that Los Angeles, Sao Paulo, Mexico City, Seoul, Bangkok, Istanbul and even Johannesburg and Sydney could also be aspiring to join the select club of great worldclass urban hubs (see Tellier 2002).

Globalisation does not therefore seem to be associated with a reduction in the number of dominant hubs. On the contrary, the reverse seems to be more likely. We are witnessing a multi-metropolization movement marked by an introduction into the network of multiple world metropolises that, in contrast to the old capital cities of the colonial empires, will be based more on cooperation between metropolises than on a dividing up of the world into separate compartments.

The dissociation of population polarization from production polarization

Today the world is dominated by three major economic poles: the North American pole with New York at its centre (and also to a lesser degree Los
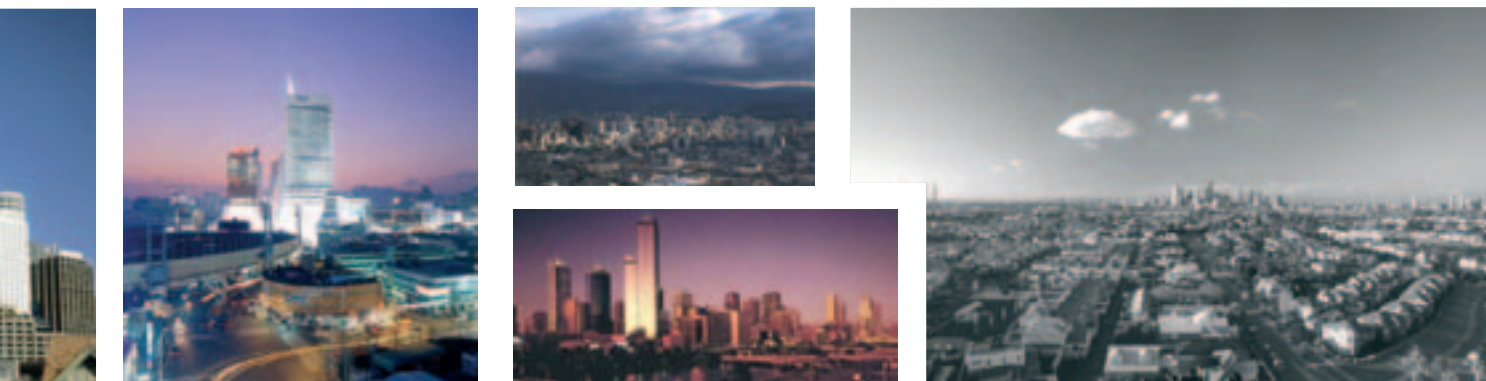
Angeles), western Europe with London and Paris at its centre, and the Far East with Tokyo at its centre (and to a lesser extent Shanghai and Hongkong). Now, these three economic poles correspond to a lesser and lesser degree to the areas of the most intensive population concentration and growth, which is a new phenomenon in the history of the universe. Today, unlike in the past, the centres of world economy (London, Paris, new York, Tokyo, Chicago or Los Angeles) are no longer those undergoing population explosions; this is happening, rather, in the Third World metropolises (Mexico City, Lago, Cairo, Sao Paulo, Calcutta, Bombay-Mumbai). On the other hand, polarization of world production continues to progress starting from the poles that are experiencing the highest demographic growth.

We are witnessing a dissociation of polarization of population from that of production. This dissociation seems to have started at about the time of the disappearance of the last colonial empires around 1960. Urbanization ceased to be synonymous with development, although this does not mean that it was necessarily an obstacle to development.

At a time when urbanization has become a worldwide phenomenon affecting all the countries on our planet, where an urbanization rate of 50% and over will soon be the norm throughout the world and where the polarization of populations is levelling out in the developed countries, economic development is continuing to polarize and to engender, despite the improved position of several

poor countries, an increasing gap between the richest and the poorest.

For a thousand years, as humanity has distanced itself from subsistence level, the gap between rich and poor regions has become wider. In fact, from the year 1000 to today, the gap between the product per capita of the richest region and the product per capita of the poorest region has continued to increase. In 1000, when according to Maddison (2001) the richest region was Asia excluding Japan and the poorest was western Europe, the relationship between the two was 1.13 to 1. In 1820, the relationship between the per capita product of the richest region in the world (Western Europe) and the poorest (Africa) was 3 to 1. This ratio rose to 15 to 1 in 1950; it fell back to 13 to 1 in 1973 and increased again to 19 to 1 in 1998, with the richest region corresponding to the new western countries (United States, Canada, Australia and New Zealand) and the poorest corresponding to Africa (Maddison, 2001, p. 126). This relationship is likely to reach around 26 to 1 in 2060 while the richest region and the poorest, on a per capita basis, will probably remain the same as today (Tellier 2002).

In the very long term, it would be unthinkable for the process of population polarization to continue indefinitely, the rate of urbanization being unable to exceed 100% and the processes of demographic transition (through which increases in urbanization rates and decreases in death rates are followed by a fall in the birth rate) being unable to continue indefinitely. As for production polarization,

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it could evolve between two apparently contradictory situations: on the one hand, it is likely that the gap between income per inhabitant in the richest region of the world and that of the poorest will continue to increase, but on the other hand, everything indicates that the gaps in income per inhabitant between developed countries and emerging countries will tend to diminish.

The most marked phenomenon of our era is without doubt that of the rapid rise of several emerging regions to catch up with more developed regions. In 50 years, the world could become relatively egalitarian if we ignore certain "abandoned" regions in Africa, in certain areas

Between now and the year 2060, the product per inhabitant in Asia, outside of Japan and the ex-USSR, could practically catch up to the world product per capita ratio, while the product per inhabitant of western Europe, Japan and the new English-speaking western countries will diminish (Tellier 2002). The main source of disparity between rich and poor at world level is linked to the fact that Africa and certain other zones have so to speak "opted out", rather as if they had been "abandoned" by the rest of the world. Unless there is a change in evolutionary direction, it is likely that the current backwardness of these zones in terms of income per inhabitant expressed as a percentage of the

of South America or central Asia (we should note that Africa is the only large region in the world where a new industrial economy has not yet taken root). A large part of humanity, situated mainly in eastern, southern and South-East Asia, is currently in a catching-up phase in comparison to the richest countries (North America, western Europe and Japan), at a time when these latter are tending to decline in relative terms.

world product per inhabitant will not be rectified during the next 50 years. In sum, if we ignore the cases of "abandoned" zones in Africa and elsewhere, it would be quite false to claim that we are moving towards a more and more inequitable world, while if we take these same zones into account, the same claim would be true.

Having said this, all of these "abandoned" regions cannot stay abandoned forever. Some abandoned regions might, in their turn, emerge, while other regions that have already reached a certain level of development might sink into future abandonment. The economic world of tomorrow will be a world in constant movement, even more so than it is today.

Over-urbanization in the suburbs

Dissociation of the polarization of populations from that of production is associated with another phenomenon without historical precedent, i.e. the development of "suburban over-urbanization". Over-urbanization characterised by excessive population polarization considering the level of production polarization is not a recent phenomenon: ancient Rome in the 4th century and a city like Naples in the 18th and 19th centuries are classic examples of this. This phenomenon was then associated with dominant cities having attracted an excessively large population then suddenly experiencing a sharp decline.

the Equator, and Moscow, that has declined in importance, is north of London, New York and Tokyo. Among the Asian metropolises currently rising in importance, a good number are situated south of the Tropic of Cancer, such as Hongkong-Guangzhou, Bangkok, Bangalore, Hyderabad or Bombay-Mumbai.

It should be noted that, although the North American pole is showing no signs of ceding its position in the short term at the head of the world's economy, and although in economic terms western Europe is gaining ground to the east, it is in Asia (both in the south and the north) that we are witnessing the strongest growth in the world

The over-urbanization phenomenon currently observable in the economically peripheral regions of the world is not of this type. It is linked to the fact that several third world cities are no longer springboards for their populations but increasingly represent places of refuge, life belts in the midst of the tempest caused by worldwide polarization of production.

However, it has to be added immediately that over-urbanization does not affect all the regions that were economically peripheral in 1960-70, for example. The world changes as does its peripheral zones. Whole areas that were once peripheral are now emerging regions. Examples are South Korea, the eastern part of China, Singapore, Malaysia or even Mauritius or the north of Mexico. In all these emerging regions, urbanization is mostly positive and would not be called over-urbanization.

When the north is not necessarily rich
nor the south necessarily poor

The traditional opposition between the rich north and the poor south is becoming increasingly untenable. Singapore, that is flourishing, is on

since 1950. There is even more reason why this should be highlighted: for a period of 450 years, from 1500 to 1950, Asia stagnated while all the other regions in the world were making progress. In 1500, Asia represented 65% of world's GDP. In 1950, it only represented 18.5%. Today, this proportion has doubled, now standing at 37.2% (Maddison, 2001, p. 142). In 2060, this proportion could reach around 60%, which would almost bring us back to the situation that prevailed in 1500 (Tellier 2002).

The Braudelian framework
called into question

The historian Fernand Braudel (1966, 1973, 1977 and 1979) highlighted that world urbanization was marked by the formation of "world economies" formed from a central core specialized in management, commerce and production, a semi-peripheral area specialised in the elaborate exploitation of primary resources (agriculture and animal breeding) and of a second peripheral area, tentacular and often consisting of colonies, characterised by the pure and simple removal of

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resources (hunting, forestry and mining). This system has been found throughout urban history. In 1914, it still characterised the world's urban system in its entirety while economic and political power was concentrated into three central cores dominated respectively by New York, London and Tokyo.

It is worth questioning the future validity of this framework. With multi-metropolization, the great cities of developed countries are being increasingly overtaken in demographic terms by large cities in developing countries, the centres are multiplying and the semi-peripheral areas and suburbs are undergoing profound transformations. The mutations of city centres are mirrored by equally profound mutations of the suburbs. Thus the boundaries separating the suburbs of one city from the suburbs of a neighbouring city are becoming increasingly blurred. Imperial frontiers and iron or bamboo curtains have become concepts of the past.

The traditional distinction made by Braudel between the semi-peripheral areas based on elaborate exploitation of natural resources and the real periphery based on the pure and simple collection of resources must be replaced by the distinction between the "emerging periphery" and the "abandoned periphery", the Braudelian semi-periphery being either swallowed up by the centre or relegated to the status of one or the other of the two new peripheries. It would seem that the manufacturing activities traditionally concentrated either in the urban centres or in their semi-peripheral areas are gradually having to leave these zones to settle in the "emerging periphery", the "abandoned periphery" only hosting primary resource collection or basic primary resource exploitation activities.

The transition of the "Centre-Semi-periphery - Periphery" framwork to one of "Centre-Emerging Periphery – Abandoned Periphery" is marked by the increasingly clearcut dissociation of population polarization from production polarization. The polarization of population is particularly rapid in the two peripheries, while the polarization of production mainly affects the centres and the "emerging periphery". In the end, this latter will probably be assimilated by the "centre" and will therefore disappear. Certain parts of the "abandoned periphery" could then take over in certain zones of the "emerging periphery", thus emerging in their turn.

The transition of world economies to the metropolis networks

The disappearance of world economy boundaries does not, however, mean that current developments do not have geographical coherence. On the contrary, the regions of the world that are experiencing growth are benefiting from clearly identifiable "topodynamic" tendencies (i.e. linked to localisation forces).

The concept of Corridors or axes of development is still pertinent. It takes on a new sense in the context of the integration of our metropolises of today into networks. The Mongolian-American Corridor dominating the world today must face increasing competition from the other two corridors and perhaps also from new development axes. In America, there is no threat to its dominant position for the moment. On the contrary, within the context of ALENA, the Canadian cities and those in northern Mexico are greatly increasing their links and exchanges with the New York-Los Angeles axis to the detriment of their historical relations with other cities in their own countries. Preservation of the Mongolian-American Corridor's dominance in Euroasia will depend on the maintenance of a leading position by London, Paris and the Essen-Rhine-Rhurgebiet conglomeration as well as a strong return to position of strength of the urban regions of Berlin, Warsaw, Kiev and Moscow, and on the continued growth of the regions of Peking-Beijing, Tianjin and Seoul. Still in Eurasia, the Great Corridor could regain its vigour with an increase in growth of the urban region of Istanbul (destined to become once again the most populated city in Europe, which is what it had been for centuries when it was known as Constantinople) and of Delhi, Canton-Hongkong and Shanghai (the latter being included in both the Great Corridor and the Asian Corridor).

Tomorrow's world is likely to be dominated by the development axes as well as by the hubs. During the next decades, the hub of New York may give way to the New York-Los Angeles axis of the Mongolian-American Corridor while the hubs of London and Tokyo may very likely be replaced by two dominant axes: the London-Paris-Istanbul-Delhi-Shanghai-Tokyo axis of the Great Corridor and the London-Berlin-Moscow-Peking-Seoul-Tokyo axis of the Mongolian-American Corridor. In fact, it is quite clear that the urban areas of Los Angeles, Istanbul, Delhi, Shanghai, Berlin, Peking and Seoul are definitely flourishing and may soon be on a more equal than unequal footing with the traditionally dominant urban regions of New York, London and Tokyo. A fourth more circular axis can be added to these three dominant ones: the Hong Kong-Singapore-Bombay axis in the Asian Corridor.

In America, the New York-Los Angeles axis is clearly predominant and, within this axis, the movement is still from New York towards Los Angeles, although this movement has slowed down over the last dozen years because of the Asian crisis. In Europe, the London-Berlin axis remains predominant although it is to be wondered whether the tendency of this axis to move eastwards may not win the day, despite the current difficulties of several countries in eastern Europe, over the tendency towards the south (the bridge with North Africa taking too long to materialize) or even towards the south-east (as former East Germany, the Czech Republic and Poland are rising more rapidly than Croatia or Serbia).

In Asia, there are three movements and all three are driven by Tokyo. In the Mongolian-American Corridor, a trajectory goes from Tokyo towards Seoul and Beijing. In the Great Corridor, the movement goes from Tokyo towards Shanghai. Finally, in the Asian Corridor, the movement involves Canton, Hongkong, Taiwan, Bangkok, Singapore, Bangalore and Bombay-Mumbai. In all three cases, the movement starts from the north-west.

Outside of these three corridors, two secondary poles are developing: the first, in South America, is dominated by Sao Paulo while the second, in Africa, is dominated by Johannesburg. Outside of the traditional corridors, would it be possible for Africa and South America, among others, to come to "nodding terms" with each other? Perhaps. The part of South America bordering on the United States, i.e. the northern part of Mexico, should experience a higher level of growth than Canada whose weight within ALENA is not very likely to increase and could even decline in favour of Mexico. Concerning South America, Central America and Africa, their fate might well depend on whether a new development corridor, not yet existing, could be made to emerge.

We are discussing hypotheses here rather than documented tendencies. This "trans-tropical" hypothesis would connect the following urban regions: Los Angeles, Mexico City, Bogota, Sao Paulo, Johannesburg, Mauritius, Bangkok, Canton, Shanghai and Tokyo. The links between these last four cities are already strong, as are those existing between Tokyo, Los Angeles and Mexico City. The links between Sao Paulo, Johannesburg and Mauritius have recently undergone some quite amazing developments. Links between Mexico City, Bogota and Sao Paulo, as well as between South Africa and South East Asia, still remain to be consolidated but are not at all unrealistic. If such a corridor were to take shape and emerge, an important part of humanity would be able to rise above a stage of under-development and any hopes would be legitimate.

The rise of medium-sized cities

We often tend to focus excessively on the very large cities. In most of the countries of the world, the rise of medium-sized cities is often greater than that of the mega-cities. If, over the last half century, the urban metropolises with over 5 million inhabitants have multiplied, the number of cities with between 500,000 and 5 million inhabitants has grown at an even greater rate.

To summarize, the triumph of urbanization can be felt more or less all over the world. Although it often results in a drain on the rural regions and some small towns, on the positive side it enables the growth of dynamic medium-sized towns that

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put up a powerful resistance to domination by the big metropolises and that develop complementary relations with the latter rather than ones of subjection. One of the challenges of tomorrow's metropolises certainly consists of estabilishing mutually beneficial relations with the numerous medium-sized cities surrounding them. These medium-sized cities could aid in the balanced and healthy growth of the metropolises by decongesting them and supplying them with indispensable economic support. A dynamic and balanced urban system rests to a large extent on the existence of a network of successful medium-sized cities.

The continental dimension: the emergence of conurbanization

Which will be the successful metropolises of tomorrow and which are those that may lose ground? With the rise of South Korea, Taiwan, China, India and South East Asia, almost half of humanity is currently extricating itself from under-development and is competing increasingly with North America, western Europe and Japan. However, the recovering Asia is not emerging as a bloc. In China and India, for example, vast regions are still on the fringes of development while their hub areas are affirming themselves on the world stage. Thus, the burgeoning economic growth in the east of China contrasts vividly with the relative long term backwardness of the country's western areas.

A traditional analysis of the world in terms of countries is becoming increasingly inappropriate. It is now more pertinent to reflect in terms of "global urban regions" as proposed by Scott (2002) or in terms of "reconstructed territories" and of "functional regions" as proposed by the OECD (2002).

Within the different global urban regions, the emergence of new world hubs often brings with it the marginalization or even satellization of competing regional hubs. Thus, the rise of Los Angeles may pose a problem for San Francisco, that of Toronto could cause a problem for Montreal, that of Sydney for Melbourne, that of Sao Paulo for Rio de Janeiro and Buenos Aires, that of Bombay-

Mumbai for Delhi and Calcutta, that of Zurich for Geneva and Basle and that of Johannesburg for Cape Town, etc.

Another important phenomenon is likely to mark the imminent evolution of world urban systems: that of "conurbanization". Immense conurbanizations are developing at the moment in favour of the pure and simple merging of large existing agglomerations. Thus, the suburbs of New York, Philadelphia, Baltimore and Washington are merging into one another to create an immense uninterrupted linear urban fabric following the Fall Line, that long fault that goes from New York all the way down to Alabama. Similarly, the conurbanizations of the Ruhr and of Holland's Randstad could easily one day merge with the Liege region to form a single immense agglomeration. We can observe the same phenomenon around Hongkong and Canton, at the mouth of the Pearl River, or yet again between Riverside and Los Angeles in California. The emergence of such gigantic conurbanizations is likely to have a marked influence on the metropolization movements currently taking place in our world.

The local dimension: evolution of the urban fabric

The multiplication and reclassification of metropolises at global level are only one of the aspects of metropolization. In fact, this latter transforms the world's metropolitan regions from the inside. This leads us to an examination of the evolution of urban fabric across the world and the challenges entailed by it. We will present our overview distinguishing, as far as possible, the situation of the rich or rising metropolitan regions from that of the poor metropolitan regions.

The case of the rich metropolitan regions

The urban spread resulting mainly from an abusive use of the automobile is particularly pronounced in the rich cities. This translates into a relative lowering of population densities in the centre (that may give rise to a phenomenon known as the "doughnut effect" sometimes seen in North America), by the formation of agglomerations in the suburbs known

as "edge cities" characterised by the emergence of employment hubs at the heart of what used to be dormitory suburbs and also by the merging of the urban fabric of two neighbouring agglomerations. Thus, while metropolitan agglomerations are becoming larger and larger, they are also likely to become more and more amorphous, their centres losing ground to the competition from sub-centres in the suburbs and the merging of hitherto distinct areas of urban fabric. The concept of centrality must be completely reviewed within this next metropolitan context. In economic terms, the competition between municipal areas in the suburbs can rival the rapidly growing competition between city centres and suburbs. Politically speaking, this leads to a new calling into question of the concept of citizenship and of the role of existing municipalities within metropolitan dynamics.

situated some kilometres from the centre of the agglomeration marks the border separating the internal central zone from surrounding, lower density zones where even "doughnut effect" phenomena may be observed. This radius corresponds to the distance from the centre where the centre's forces of attraction are neutralised by forces of repulsion linked, among other things, to pollution, congestion or crime in the centres. The second radius coincides with the "extension margin" of the agglomeration. This radius is such that the zones situated close to the perimeter whose border is marked by this radius, but inside of it, benefit from the phenomenon of urban sprawl, while the zones situated close to the perimeter marked by the radius but outside of it not only do not benefit from urban sprawl but are weakened by the growing competition from the expanding metropolitan agglomeration.
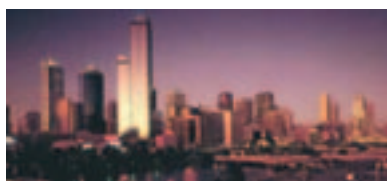
Questions of administrative reorganisation and governance are, in this context, of major importance (OECD 2001). Discussions will revolve around municipal mergers, metropolitan agencies and governments, sectorial intermunicipal agreements, decentralisation and city planning. Fiscal disparities, the creation of municipal tax havens, city planning as well as the management of commuter car traffic, public transport, the environment and public services having a metropolitan dimension often pose problems and require original solutions.
Two radiuses play an important role in understanding the new metropolitan dynamic. A first radius

Some even go so far as to talk about a divorce and a "disconnection" between the "global" cities (with a global vocation) and their surrounding regions, these latter being almost cut off from the centre and its global vocation functionally, economically, socially and politically (Brotchie et al. 1995, Sassen 2001). On the other hand, when the radiuses marking the extension margins of two neighbouring agglomerations meet, a process of merging of the two agglomerations has every chance of developing. We then witness the phenomenon of "conurbanization".

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From a socio-political point of view, in North America, the central zone defined by the first radius is faced with serious challenges (poverty, the development of slums, homelessness, crime, deterioration of infrastructures, pollution, noise, congestion, traffic jams, terrorist threats, etc.), while the fiscal resources level out (particularly in the case of an exodus of the middle classes and businesses towards the suburbs). It should be noted that these problems can be solved successfully provided that the public and private sectors combine their efforts to support or give new life to the city centres by attracting residents and businesses that will form a dynamic living environment.

The second zone situated between the two radiuses enjoys an enviable situation. It attracts industrial, commercial and real estate investment as well as a generally well-off population. This is the zone favoured by young families and real estate development.

Finally, outside of the extension margin, we can observe an intermediate situation marked by a decline that is sufficiently slow as not to be dramatic. This decline is tempered by the fact that the inhabitants of these zones live with the hope of one day seeing the extension margin reach them. On the other hand, a phenomenon of "disconnection" from the city centre is also possible, with all the negative consequences that this can entail (deterioration of infrastructures and historical buildings, exodus of the population, gradual declining of living standards, etc.).

This classic scheme in North America is a little different in western continental Europe where traditionally the middle and upper classes are far less likely to leave the city centres and where the suburbs were deliberately designed for the poorer classes. Nevertheless, even in this case there is a certain decrease in density in the city centres and the effects of urban sprawl are comparable to those we can observe in North America on either side of the extension margin.

All this poses the problem of metropolitan governance. How can the common good be fostered within a context where the objective interests of the one and the other are systematically divergent? How can we reconcile the pressing demands of the centre, facing growing problems in a context of shrinking resources, with the satisfaction of suburbanites enjoying their prosperity, their comfortable life and moderate taxes? For the inhabitants of the city centres, life in the city only makes sense if it is lived in the centre while for the suburban dwellers, it is the city centre that ruins family life, life as a couple or even life as a single person. But can the city centre exist as a centre without its suburbs, and can the suburbs enjoy their advantages if the city centre does not play its role to the full? This is the question.

It should be noted that at any moment in the long history of urbanization, this question has never been so topical. It is of such acute importance that the real estate market offers here and there targeted responses based on the segregation of social groups: creation of neighbourhoods for senior citizens, high security districts, ghettos for the rich, municipal tax havens and socio-cultural enclaves. Governments are often forced to accept this and concentrate social housing in certain areas and not in others, tailoring municipal services to the different fiscal revenues in the various areas of the city.

The problems experienced by big cities in rich countries are often complicated by the growing impact of international migration. At the moment, the number of international migrants officially registered is estimated at around 175 million (UN-Habitat, 2004). 77 million of these are in developed countries while the rest live in eastern Europe or in the former USSR (33 million), in Asia and the Pacific (23 million) or in the Middle East and Africa (21 million). In the rich countries, these migrants are mainly concentrated in the big cities and very often in the city centres. Their presence is a huge challenge in terms of multiculturalism, the risk of segregation, integration and social services. The world of rich countries can no longer expect to live in a closed, separate environment and the burden of acting as a bridge between the rich countries and poorer ones is falling increasingly to the great metropolises of the richest countries.

The case of poor metropolitan regions

Discussion of the problems of contemporary rich metropolises is almost embarrassing when we think of the plight of those huges metropolises in developing countries. It has been estimated that the number of citizens throughout the world who do not have adequate shelter total one billion (UN-Habitat 2001). In 2020, estimates are that there will not be one but two billion people living in the shanty towns of developing countries, and that is without mentioning the hordes of homeless among whom can be counted a significant number of children (UN-Habitat, 2004).

Of course, it is also true that a great many jobs, principally in the manufacturing sector but also in the tertiary sector, migrate from rich countries towards those still undergoing development. However, it does not seem likely (in fact it appears highly unlikely) that this will halt the flow of new migrants from the countryside to the cities of these countries. In far too many countries, the modernisation of certain sectors of the economy translates into the spread of shanty towns, an "informal" economy, overpopulation, lack of security and urban violence.

Having said this, ceertain similarities exist between development of the poor cities and development of the rich ones in the world. In both rich and poor metropolises, there is increasing and generalised urban sprawl and an increase in motorized traffic, pollution and congestion as well as a growing difficulty in finding ideal formulae for local and metropolitan governance.

However, all of these problems are so serious in the poor metropolises that the solutions envisaged in rich countries are often beyond the reach of the poor metropolises. This is due to lack of resources, but also to the burden of additional problems posed by the informal character of a large proportion of the economy in poor areas, by the difficulty of setting in place a workable system of local taxation, because of the ethical problems engendered by the low level of remuneration of local public employees having real powers that can be "bought" and by the fact that poverty is a strong incentive to crime.

We find examples of this kind of situation in several South American cities where poverty among a large proportion of the population, and in particular women, has tended to increase over recent years. It is estimated that 40% of the population of Mexico City and 33% of the city of Sao Paulo are currently living below the bread line. These alarming statistics are in no way exclusive to South America. In Bombay-Mumbai and New Delhi, 50% of the population lives in shanty towns and in Lagos and Nairobi, over 60% of households do not have running water (UN-Habitat, 2001).

Moreover, the poor cities suffer much more from ill health than the rich cities. Certain diseases are becoming increasingly widespread, with inadequate waste water management and sanitary conditions that propagate the development of all sorts of diseases. The natural environment is subjected to considerably heavier pressures than those found in rich countries. Deforestation and erosion are the causes of dramatic devastation. Before all these formidable problems, local authorities are often tempted to abdicate their responsibilities. Garbage collection services gradually

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give up. Public transport is left to private initiative (occasionally with positive results). Urban planning leaves scope for improvisation. Police forces become corrupt and political authorities end up lining their own pockets rather than those of their fellow citizens.

All of these phenomena are increased tenfold in a situation of over-urbanization. At the moment, it is in the poorest countries, particularly in Africa, that the growth of urbanization is progressing most rapidly. The urbanization rate in Africa was 14.8% in 1950; it reached 42.2% in 2000. This urban explosion came about while Africa, that has 12.9% of the world's population, only represents 3.1% of the world's GDP and has an economic growth rate below that of the worldwide average (2.74% compared to 3.01% for the whole world, over the period 1973-1998). The urbanization rate in sub-Saharan Africa, that stands at present at 34%, is expected to reach 46% by 2020 (UN-Habitat, 2001). Now, although they produce 60% of the GDP of their region (this mostly in the informal sector), in 2001 the sub-Saharan cities only earned 14 $US per capita on average, which is negligable considering the extent of their needs, linked among other things to the fact that cities in developing countries very often serve as refuges for desperate populations from the countrysides attracted by the economic dynamism of the cities. If we wanted to make a comparison, in that same year, the cities in highly industrial countries earned an average per capita income of 2,906 $ US while their needs were infinitely less pressing (UN-Habitat, 2001).

In the poor countries, just as in the rich ones, metropolization has given rise to a new demand for services of all types (security, protection against fire, management of social precarity and homelessness, health, hygiene, waste management etc.), for infrastructures (underground trains, trams, bus lanes, motorways, commuter trains, sewage, water supply, cable, electric and gas utility networks, etc.) and for local financing (urban tolls, rates, property taxes, consumer taxes, income tax). Major political challenges linked to the need for genuine functioning democratic government,

cost management, budget control, services and infrastructures are associated with the complexity and diversity of these needs. The list of political issues in endless: the determination of investment priorities, interaction necessary between private sector and public sector, private interests and public ones, harmonization of local, municipal, metropolitan, regional, provincial, departmental, national and international endeavours... The metropolization movement breaks up traditional political frameworks. It affects borders of all kinds while remaining tributary. It forces both citizens and governmental bodies to redefine their responsibilities and rethink their methods.

Finally, we emphasize that one of the biggest differences between the world's rich cities and its poor ones is the average age of their inhabitants. Rich cities grow old at an accelerated pace, while the average age of inhabitants in developing countries is particularly low. From this point of view, the future could easily belong to the cities of today's poor countries, and this in spite of all the disquieting economic indicators available today.

Conclusion

Urbanization is neither a problem nor the fruit of a particular policy, but a fact linked to conditions of mobility. It is an unavoidable phenomenon that affects everyone. Attempts to halt urbanization through the employment of authoritarian methods has given rise to atrocities (in Cambodia, Ethiopia and perhaps even China in a given era) without significant results for the long term. Urbanization is a serious trend that must be optimized. Although the city is often a source of social problems and is associated by many with violence, it is also a great and wonderful source of enjoyment, progress, conviviality and social fulfillment. The "civitas" remains the hub of "civilisation" and the "urbs" that of "urbanity".

Urbanization offers magnificent opportunities to those who want to seize them. The city is a source of economic, cultural and social opportunities, which moreover explains why over-urbanization happens. It encourages social mobility. It multiplies the possibilities of finding employment

and increasing earnings. It facilitates education, training, modernization, healthy competition and interaction with the rest of the world. It offers contacts with the complexity of modern living. It is connected to the great transport and communications networks. It carries the future of humanity and there is nothing to indicate that the devopment of new telecommunication technologies will call into question its place in world evolution; on the contrary.

More hope than despair results from this tableau. The theme of globalization is often treated with resignation or in apocalyptical terms. Examination of the statistics and a systematic study of the tendencies can help to put matters into perspective. Besides the shadowy corners, there really do exist vast swathes of light. If so many people rush to the cities with enthusiasm, it is because cities attract and because, if they are well managed, they can offer a multitude of opportunities to realize dreams at both the personal and collective level. Politically, the metropolises are affirming themselves more and more to the point where they are now attributed with a worldwide vocation that transcends national boundaries. Some even see the metropolises of today and tomorrow as entities likely to take over the role of the Nation States of yesteryear. Networks of cities and metropolises are currently being woven that could one day be called to play a determining role in defining the future for all of us.

Competition among the world's metropolises includes emulation, exchange, imitation and civility, and not of war, confrontation or threats. Metropolis and the other networks of cities throughout the world are steadily gaining in importance, also because of the "civility" of the links being forged and of their concrete and pragmatic nature. When it is a question of managing urban infrastructures, urban planning, housing, roads, sewage, water supply, public transport, traffic management, local taxation, the coexistence of different cultural groups and metropolitan structures, everyone sets their ideologies and national rivalries aside to work together towards the efficiency, harmony and wellbeing of the community.

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Governance of metropolises:
necessity, complexity and diversity

"Metropolitan governance is the collective action of numerous political and socio-economic actors seeking, within a complex context, to guarantee sustainable development in a metropolitan area."
Gérald Tremblay – Mayor of Montreal

Overview of the metropolis context

Economic growth, industrialization, the burgeoning of the tertiary sector, urbanization, urban sprawl, the development of new technologies, the crisis of the Welfare State, financial restraints on local authorities and the globalization of the economy place the issue of metropolitan governance in a new light. Moreover, evolving economic conditions have led to the progressive internationalization of metropolises and to their increased influence on a global level, leading to heavy competition. These significant changes and tendencies dictate the need for specific solutions in the research and setting up of appropriate forms of metropolitan institutions to serve as levers for the management and development of metropolitan areas. They also dictate the introduction and mobilization of new players (local government, associations, private sector, trade unions, etc.) to assist in the setting up of metropolitan institutions. Such developments involve complex organization systems and methodologies that will differ from one metropolis to another.

Why do metropolises need coordination structures and mechanisms?

The last decades, marked by demographic and urban growth, have witnessed the consolidation of our great urban agglomerates, highlighting the presence of serious social, economic, environmental, institutional and financial problems. The decision of whether or not to set up a metropolitan coordinating body is first of all a political choice.
The main argument often put forward for constituting such a body is usually based on the necessity of having an institutional system that will correspond to the urban, economic and social development in each particular region.

A metropolitan coordination structure may also be justified as a solution to political-institutional fragmentation or as an instrument of solidarity and social equity.
The arguments for better planning on a larger scale and rational management of urban areas are also often cited. The setting up of a metropolitan structure may often be justified in terms of the generation of economies of scale in the cost of providing services and of the equitable financing of services and infrastructures by inhabitants and businesses in the metropolitan area.

The principle forms of metropolitan organisation and coordination

During recent decades, we have witnessed the appearance of various different models of metropolitan governance in different countries. These models have ranged from the creation of formal procedures with intra-city balancing, to the setting in place of global or sectorial coordination mechanisms or again to the merging of municipalities within a metropolitan area.
There are thus different forms of metropolitan bodies and mechanisms cohabiting in the world. Although infinitely varied, we can group them roughly into three main categories: institutional structures, formal administrative coordination and voluntary inter-municipal cooperation. Certain metropolises have special distinguishing features or have hybrid forms of governance.

The institutional structures

The institutional structures are legally-created entities designed to cope with specific areas of competence and to facilitate collaboration among all the players, responding to the needs of a specific metroplitan area and favouring harmonious development within such an area.
In general, these structures assume global functions of planning, coordination and management. Although the responsibilities of these metropolitan structures vary, they generally include major strategic domains such as transport, environment, regional development, waste management, infrastructures and large-scale facilities. Delivery and

services are carried out by independent companies, specialized agencies or semi-public companies. This type of structure can be found in different metropolises and in different countries, e.g. in Minneapolis-Saint Paul, Montreal, Toronto, Paris, Stuttgart, Manila and London.

Formal administrative coordination

In this case, the metropolitan functions are assumed or shared with a level of existing government (department, region, county or province) that generally intervenes at a higher level than that of the metropolitan area. This situation often leads to the superimposition of several administrative levels having responsibility for the same area. This category includes the metropolises of developing countries where power is wielded directly by central government. This is the case of Bamako, Libreville and Dakar. We also find European metropolises with a fairly powerful intermediate structure where regional governments hold certain responsibilities for coordinating the agglomerations. This is the case of Madrid, Glasgow and Warsaw. Brussels is a special case in that the metropolis is under the control of a ministerial committee.

Some agglomerations have functional coordination mechanisms that do not emanate from any particular governmental structure. Such coordination is assured at the level of the State, the region or the county and is limited to specific functions within well-defined areas to this effect. This approach is practised in Australian cities (Sydney and Melbourne) where metropolitan coordination is enacted at the level of the State. It is also practised if metropolitan agglomerations transcend the administrative limits of a State or a county, as is the case with New York or Chicago.

Voluntary intermunicipal cooperation

This category includes urban agglomerations that have no real formal metropolitan structure, as is the case in Barcelona, Seoul or Mexico City. They have instead a system of intermunicipal cooperation defined according to global objectives or specific functions. In the agglomeration of Munich,

there are several kinds of common associations dedicated mainly to regional planning. The city of Amsterdam has several agreemnts with different municipalities in the area for the development of themes as varied as the promotion of an airport zone and a fire service.

Some concrete examples: diversity and complexity

London

The Greater London Authority (GLA) was created in 1999 and began to function in 2000, organizing the Greater London area with its various boroughs and the central City of London. The GLA and the City of London are partly a form of local government and partly a regional government for a metropolitan area containing 7 million inhabitants. The GLA exercises complete or partial control over service provider agencies that are in fact State-run enterprises. The GLA has authority over transport, the fire service, the police, development and strategy. The boroughs are responsible for housing, waste management, social services and minor road repairs. Decisions concerning large-scale urban planning, including the regulation of major new construction projects, fall under the authority of the GLA. Central government can also intervene in the decision-making process. In the financial field, subsidies granted to the GLA by central government are the main source of revenue. The GLA also receives the Council Tax revenue on properties, a tax imposed by the boroughs. Other taxes on resident-users include the Congestion Charge which is also a source of revenue for the GLA.

London

Montreal

It was in 2001 that a formal metropolitan structure was first seen in Montreal: the Montreal Metropolitan Community (MMC). This legally constituted body covers 64 municipalities (including that of the City of Montreal) comprising a total population of 4.3 million inhabitants. The MMC is responsible for city planning and coordination.

Montreal

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The Metropolitan Community has authority in the following fields: regional restructuring, transport, economic development, environmental protection, waste management, social housing and city infrastructures. The members of the Council are not directly elected through a universal vote but are appointed by member municipalities from among their elected representatives. According to law, the mayor of the central City of Montreal also acts as President of this metropolitan body (the MMC). The Community is financed mainly by quota shares from member municipalities, deducted from property taxes.

Stuttgart

The urban agglomeration of Stuttgart, capital city of Baden-Wurtenberg, has involved itself extensively in reform policies over recent years. The Stuttgart region (Verband Region Stuttgart) is a model of governance operating within a metropolitan area that is oriented towards the standards of living of its citizens. The Stuttgart region was thus founded in 1994 by provincial (Land) law as an independent regional organization. Its aim is to enhance Stuttgart's position vis-à-vis European and international competitors. Representation of its citizens and its democratic legitimacy are ensured by a directly elected regional assembley. Responsibilities entrusted to the region include promotion of the economy and tourism, traffic regulation within the region including responsibility for the commuter train network (S-Bahn), and development of housing and infrastructures according to the principles of regional planning.

São Paulo

The metropolitan region of São Paulo has not yet been set up although provision has been made for it by law since 1973. In 1988, the Federal Constitution transferred the problem of São Paolo to the State that dealt with it in the most general and marginal of terms in the State Constitution of 1989. The objective of the City of São Paulo is not to create a new regional administrative structure but to have a shared and common management system with all of the municipalities, a system

capable of establishing a new relationship with the other levels of government (State and federal). The City of São Paulo wants the powerful municipalities to be able to deliberate on the matter of resources and solutions to regional problems, instead of decisions being centralized by State governments as they are now, in opposition to the best interests of the municipalities.

Brussels

The urban agglomeration of Brussels is situated half-way between the cases of free and restrained authorities. It is under the control of an interministerial committee of central government. Brussels became an agglomeration of municipal districts by law in 1971, with the aim of fundamentally stimulation the coordination of municipal initiatives and the provision of services at local level. Thus the agglomeeration assumes the responsibilities previously borne by the municipalities, such as the collection and treatment of waste, public transport, environmental protection, certain functions relative to partial plans, regulation of housing and ground use, economic promotion, civil protection and certain health services. These responsibilities are in reality distinctly limited by the intervention of other authorities in the agglomeration of Brussels, such as the interministerial commission for regional planning or the transport company that manages all public transport in the the area.

Seoul

The capital city region includes the city of Seoul (metropolitan government of Seoul), the city of Inchon and the province of Kyonggi that surrounds it. The population of the capital region totalled 21.3 million inhabitants in 2000. The city of Seoul (MGS) itself is an autonomous body at a higher level and comprises 25 independent districts divided into 522 administrative sub-units.
An intergovernmental advisory organisation, the Seoul Metropolitan Association of Governments (SMAG) was established to manage problems affecting its member cities and neighbouring provinces. Without legal authority to apply policies or plans, the SMAG has been relatively ineffectual

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considering the dominance of Seoul above the whole region. However, newly elected governors of Kyonggi province and others, the mayor of a large neighbouring city such as Inchon and other elected representatives from municipalities adjacent to the capital city are now insisting on playing a part in political debates that affect their communities. Discussions centre on planning and development in general terms of the metropolitan area, services and public management, industrial and residential development, prevention of environmental pollution, cost sharing, development and maintenance of infrastructures, realignment of the transport system including bus and underground train itineraries, and regional development and administration. The SMAG has become an authority charged with making recommendations to the national government but without having any legal authority to actually put any of their ideas into practise.

Revenues of the City of Seoul come mainly from municipal taxes. The SMAG does not receive any income through transfers from central or any other government. However, it does receive financial assistance from the central government for projects of national scope.

Bamako

The District of Bamako, home to 1.2 million inhabitants, is under the tutelage of the Minister in charge of Regional Government. Divided into 6 municipal areas, the District of Bamako has its own statute, defined by law in 1996.

The District Council is composed of members elected for 5 years at a uninominal secret vote by municipal councils. The District Council regulates, among other things, the following: the budgets and accounts for the District, urbanization and city planning projects, development programmes and projects, environmental protection, the realization and maintenance of certain infrastructures (roads, rehabilitation and education), hospitals and museums and loans.

The resources of the District and the municipalities that belong to it include: contributions from the State and adjustment funds, tax resources,

operating revenues (rates revenues, income from services provided, local revenues) and loans. District revenue derives in the main from patents and licences (30%), traffic and city transport (19%), the four markets (10%) and taxes on cycles (9%).

Barcelona

The Barcelona Metropolitan Area (BMA) currently includes three entities: the Metropolitan Organization for the Environment (Entidad Metropolitana de Medio Ambiente – EMMA), the Organization for City Transport (Entidad Metropolitana del Transporte – EMT) and the Association of municipalities of the Barcelona Metropolitan Area (Mancomunidad de Municipios del Area Metropolitana de Barcelona – MMAMB). The EMMA, representing 33 municipalities, and the EMT, representing 18 municipalities, were created by law adopted in 1987 by the Catalonia Parliament. However, the MMAMB, made up of 30 metropolitan municipal councils, is a voluntary association. The territory covered by all of these three entities comprises 36 municipalities. The metropolitan municiple councils voluntarily created the MMAMB which, since its creation, operates according to the following principles: solidarity, cooperation, plurality and spirit of goodwill, in order to structure and harmonize the region through endowment and investment in infrastructures.

Each of these three institutions is financed in a different way. EMMA has two main sources of revenue, one from city waste disposal and treatment (42%) and the second from the Catalan water utility (38%). The main source of revenue for the EMT is the transport surtax applied to property taxes. The MMAMB is financed to 72% by the contributions from member municipalities.

Mexico City

Coordination of the Federal District and State of Mexico is assured by an executive commission for metropolitan coordination (CECM) created in 1998, tow integral subsidiary bodies (the Federal District's General Coordination of Metropolitan Programmes and the Mexican State's Government Secretariat for Metropolitan Development)

Barcelona

Bamako

Mexico
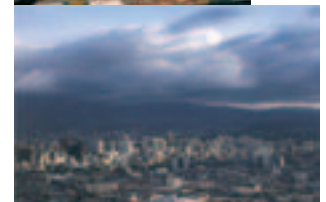
and several commissions with sector-specific responsibilities, such as the Metropolitan Environmental Commission (CAM-1996), the Commission for water and drainage (CADAM-1994), the Commission for transport and roads (COMETRAVI-1994), the Commission for public safety and justice (CMSPyPJ-1998), the Commission for human regulations (COMETAH-1995), the Commission for solid waste disposal (COMDES-1998), the Metropolitan Commission for civil protection (COMEPROC-2000) and the Commission for public health (COSP-2001).

The Metropolitan Executive Commission has the following responsibilites: to define the subjects for the metropolitan agenda, evaluate metropolitan programmes, adopt agreements of a general nature, coordinate relations of collaboration between the State municipal areas and the deliminations of the Federal District and define the mechanisms for joint financing.

In the financial sphere, the metropolitan zone therefore has no legal foundation to collect taxes. The revenues of the Federal District come from the following sources: taxes, improvement contributions, rights, contributions not included in the preceding fractions, accessories, products, utilisations, acts of coordination derived from the agreement of administrative collaboration, financial products, shares in federal revenues, federal transfers, bodies and businesses, debts from preceding tax years and net debts.

Conclusion

This summary and these few examples clearly illustrate the complexity of metropolitan governance and the diversity of models and mechanisms in play.

The level of development of a country, the degree of urbanization of a metropolitan region, its growth rate, the needs of citizens and businesses in terms of infrastructures and the number of players involved all have a significant influence on the type and form of metropolitan organization.

Moreover, the solutions proposed or applied in the metropolises are conditioned by the country's culture, its history, its political currents, its institutions, the leadership qualities of its main players, the urgency of existing problems and the resources available.

Amara Ouerghi
Regional Secretary
Metropolis – North America

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Impact of major events in the development of metropolises

The Olympic Games of Athens have just shown yet again that great world-class sporting or cultural events can metamorphose the cities and countries that host them. Measuring this impact in the short and long terms on the development of metropolises, as was done by Metropolis' Commission N° 1 between May 2000 and May 2002[1], is a complex task. In fact, the success of any event cannot be analysed only on the basis of technical or financial criteria. Each event takes place in quite specific political, cultural, economic and urban contexts and the relevance of indicators varies from case to case. Moreover, the objectives of the metropolises are not always clearly expressed from the beginning. The success of an event in itself is often only a pretext for what is at stake in the economic and media competition engaged in by the metropolises.
Jean-Paul Huchon
President of congre

Image and international reputation: metropolises under the spotlights

Great events enable metropolises to exist on the world stage, displaying their image to advantage before a public that has become planetary since the democratization of television. For example, the Olympic Games held in Sydney in 2000 were watched by an accumulated viewing public of 30 billion across 220 countries.

There are other less risky, less expensive and sometimes just as effective strategies for placing oneself on the map: regular events like the Carnival of Rio or the International Film Festival of Toronto, flagship facilities like Bilbao's Guggenheim Museum, political forums like the 1992 Earth Summit in Rio. And yet the cities and countries offering themselves as candidates for the organisation of great events are continually on the increase. Why? Because it is a unique way of joining the ranks of great world-class metropolises and showing that they are able to carry through a complex project to its end.

In successfully organising the 1988 Olympic Games, then the 2002 football World Cup, Seoul has won a leading place for itself in Asia and in the world (box, page 50). The 2008 Olympic Games in Beijing and the 2010 Universal Exhibition in Shanghai will confirm the advent of China as a planetary economic power open to the rest of the world.

Confirming or transforming the image of a metropolis responds to other strategies. The 1998 World Cup held in Île-de-France (box, page 49) and the 1992 Universal Exhibition held in Seville gave a face-lift and new dynamism to these cities, hitherto better known for their cultural and historical heritage. With its recent Universal Culture Forum in 2004, Barcelona wanted to break with the tradition of holding such events as a competitive move vis-à-vis the other countries, preferring to invent a new type of international cultural event founded on alternative values (box, page 48).

The event can have a vital impact on the image that the city's inhabitants themselves nurture of their own metropolis and their country. The Rio Carnival definitely plays a part in defining the identity of the Cariocas. The enthusiasm and support of the population was also evident in Sydney in 2000 and in Seoul in 2002, often contrasting with controversies during the preparatory phase of the event.

The most recent example: the Universal Exhibition of 2000 in Hanover. Its mitigated success in terms of visitors should not mask the real objective of the city: to consolidate its position on the international market for trade fairs and exhibitions.

Levers for city transformation

The metropolises conceive of great events as authentic catalysts for the transformation of large-scale urban agglomerations: the building of new infrastructures and urban renewal in general play an important part in the development strategies of big cities (boxes, pages 48-49-50).

Lisbon with the Expo'98 and especially Barcelona show that great events are effective for launching ambitious urban projects. They enable the mobilization of huge investments from various sources to be concentrated in time and space. The envi-

[1] Comprising the cities of Abidjan, Barcelona, Berlin, Melbourne, Rio de Janeiro, Seville, Shenyang, Seoul, Toronto and the Île-de-France region, the Commission n° 1 analysed 11 events or projects: the 1992 Olympic Games and the 2004 Forum in Barcelona, Berlin's candidature for the Olympic Games in 2000 and the football World Cup planned for 2006, the Commonwealth Games in Melbourne scheduled for 2006, the 1998 football World Cup held in Paris, Île-de-France, the Carnival of Rio, the 1992 Universal Exhibition and the Worl Athletics Championships of 1999 in Seville, the 1999 International Friendship Month held in Shenyang and the 2002 World Youth Days in Toronto.

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ronmental rehabilitation and urban renewal of deteriorated areas are, today, at the heart of such strategies, as was shown in Sydney in 2000, Seoul in 2002 or Barcelona in 2004.

Multiplying effects on economic development and tourism

Great events are reputed to have a positive impact on the economy in the short, medium and long terms. The multiplying effect of public and private investments can be considered first: between 1987 and 1992, it is estimated that each peseta spent by the City of Barcelona for the Olympic Games brought in 14. The dynamism of the real estate market can be taken second: the number of square metres built increased by 153% in Shenyang between 1999 and 2000, i.e. 20 points more than in an ordinary year. The setting up of companies, direct or indirect creation of jobs whether temporary or permanent, the income from increased tourism, etc. The development of hotel accommodation and media coverage of the event enable the destination to be promoted in the medium term and to reach out to new markets.

Making a great event a success: advantages

Certain factors can work to advantage in ensuring the success of an event. Strong and clear organization enables mobilization of players from both private and public sector around a recognized leader. The active drive to gain the support of the population through attentive pulse-taking, the management of time as a valuable resource (each minute counts from the very first day) and the anticipation of all problems likely to arise before, during and after the event also figure among the factors likely to enhance the event's chances of success. Enhancement of the value of an event after it has taken place is a key element. Firstly, it means building facilities that are genuinely appropriate to the development of the city, to its inhabitants or its business community. It also means prolonging the dynamism created by the event through a metropolitan development strategy backed by the new relationships forged between players. In order to capitalize from the inside on the experience they

have gained, the metropolises should objectively evaluate the events they organize on the basis of criteria established beforehand. A permanent structure enables the development of real organizational engineering at local level, as was the case with Seville's Bureau for the Promotion of Sport.

Risks linked to the organization of large-scale events

The organization of large-scale events is not without risk: financial risks (deficit of the organization committee, excessive management costs for the facilities, city debts too great, etc.), risks of destabilizing the markets (inflation, real estate bubbles, post-event economic slump, etc.), risks linked to the ambitiousness of the project (oversized facilities, over-optimistic forecasts), environmental, social or political risks, and so on. Accurately anticipating such risks means calling on shared specialist capacity beforehand.

Organizing a great event: a luxury only for rich cities?

The organizing of events has become a powerful generator of development in a civilization that accords an increasing amount of space to leisure pursuits, but the race for such events is not equitable: it mainly concerns the cities in developed or emerging countries. Over recent decades, we have witnessed a relative retreat of South America in favour of candidates from new countries (Korea, China, South Africa, Turkey, Russia, etc.), many of which, however, came to nought. The developing countries of Asia, Africa, the Near and Middle East and the countries undergoing economic transition (eastern Europe) are not well represented on this market so far. So is the organization of a great event a luxury that only the rich countries can afford?

On the national scale, competition is also often unequal between capitals that possess most of the elements necessary to the hosting of an event and secondary cities less well endowed.

Although the phenomenon is difficult to observe, the great events can also sometimes aggravate social and spatial inequalities within the metro-

polises. In fact, they lead to the creation of international scale infrastructures and services aimed at attracting demanding investors and visitors to the exclusion of less privileged populations or regions. The size of the investments that are mobilized leads to financing allocation decisions that can be made to the detriment of other urgent needs. There is also a risk that the city centre will monopolize profits deriving from the event to the detriment of other areas in the agglomeration.

Moreover, the metropolises are judged on their capacity to organize such large-scale events. Before throwing themselves into the adventure, they have to prove beforehand that they have this capacity, particularly when their candidature is submitted to an international body for appraisal, such as the International Olympic Committee (IOC), the International Exhibition Bureau (IEB) or the International Federation of Football Associations (FIFA). The condtions that have to be met cover an increasingly wide field: legal security, financial guarantees, political and economic stability, reliability of the health service, safety of individuals and assets, infrastructures, etc. For developing cities, some of these requirements are discriminatory.

Reinforcing international cooperation
In view of the above, it seems essential that international cooperation and solidarity be reinforced, especially to ensure the passing on of experience. International organizations must involve themselves more in the sharing and dissemination of their competence in organizing such events and in related risk management.
The co-organization of events by several countries or cities is a solution that has been investigated

in recent years and that would enable the sharing of resources. However, it must be recognized that this would complicate organization considerably due to the different rules and practices in each country and a repetition of procedures.
Finally, international cooperation networks such as Metropolis could play an advisory role for member cities thinking of presenting themselves as candidates for the organization of events. In particular, they could help such cities to negotiate with international bodies to raise funds and benefit from the experience of other members.

In fact, although these big events allow metropolises to consolidate their reputations, their dynamism, their creativity and, increasingly, their competitiveness, they should also be occasions for the sharing of experiences in this sphere with the aim of gaining better control over their impact, minimizing risks and guaranteeing the success and fairness of positive results over the long term.
Comprising the cities of Abidjan, Barcelona, Berlin, Melbourne, Rio de Janeiro, Seville, Shenyang, Seoul, Toronto and the Île-de-France region, Commission n°1 analysed 11 events or projects: lthe 1992 Olympic Games and the 2004 Forum in Barcelona, Berlin's candidature for the Olympic Games in 2000 and the football World Cup planned for 2006, the Commonwealth Games in Melbourne scheduled for 2006, the 1998 football World Cup held in Paris, Ile-de-France, the Carnival of Rio, the 1992 Universal Exhibition and the Worl Athletics Championships of 1999 in Seville, the 1999 International Friendship Month held in Shenyang and the 2002 World Youth Days in Toronto.

IAURIF Institute for Urban Planning and Development of the Paris Île-de-France Region.

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Barcelona: from the 1992 Olympic Games to the 2004 Forum

Since the Olympic Games of 1992, Barcelona has become an example to the world of how to use a great sports event as a lever for transforming a city. Strengthened by its success, Barcelona also gave itself another ambitious challenge: that of creating a new event that did not hinge on the idea of competition but on a planet-wide dialogue around values of cultural diversity, peace and sustainable development. The Universal Forum of Culture, backed by UNESCO, the Spanish government and the Catalan authorities, is participating in the reconversion of an abandoned sector of the periphery and a metropolitan city centre. Will they triumph? It is too early to say.

Barcelona was transformed by the Olympic Games. The city opened up to the sea, restructured its public spaces, treated itself to a motorway bypass and a hotel infrastructure of international standard. The Games helped it to become a great European metropolis and a tourist destination. he direct and indirect impact of the Games is estimated at around 25 billion € for a total expenditure of 9.3 billion € (82% for infrastructures and 14% for organisation), two thirds of which was contributed by the public sector, particularly the State.

Situated on an extension of the former Olympic Village, the site chosen for the 2004 Forum has as its aim the continued reconquest of the sea-front on around 200 polluted hectares tainted by health-risk installations. Around the Forum building, a neighbourhood with daring architecture is being erected, oriented towards business (a conference centre and 4-star hotels), commerce and leisure, and that is aiming to be a laboratory of sustainable development (around 3 billion € of investment in total).

Crowd of visitors on the bridge during the 2004 forum.

Forum 2004 that took place on this site from 9 May to 26 September (141 days) was a mitigated success, with a lot of controversy and a disappointing international cover. A few figures help to measure the event: 341 million € in the budget, 49 internaitonal "dialogues", 400 organisations present, hundreds of concerts, shows and solidarity actions, 3.3 million entries into the Forum area, i.e. 2.4 million visitors of whom 21% from outside Spain.

Forum 2004 will have succeeded in adding a new topic of debate to the world agenda: the preservation of cultural diversity as a necessity in the face of globalisation, a theme that suscitates growing interest in particular in the southern countries. But even if it is not certain that the site will become a reference for urban planning in the 21st century, one thing is certain: it will be Monterrey in Mexico that hosts the next Forum in 2007.

The urban projet forum 2004 in an underprivileged area of Barcelona.

The football World Cup organised in France in 1998 was a unanimously acclaimed triumph in spite of delays in starting the project. The event gathered together all French people from all backgrounds, modernizing the region/capital's and the country's image ("a dynamic and welcoming country, a winning country"), particularly in the eyes of the young and of potential tourists from certain countries (Japan, South Africa, the South American countries, etc.). However, no global assessment of results has been drawn up..

Among the 10 stadiums accommodating the Cup, two were located in Île-de-France: the Parc des Princes (49,000 seats) in Paris and, more importantly, the Stade de France (80,000 seats) specially built for the occasion in the municipal area of Saint-Denis just outside Paris.

The France stadium during the 1998 World Cup

Besides the triumph of the French football team, one of the ingredients of success was the decision to build the Stade de France as a polyvalent metropolitan facility, capable of hosting all sorts of events: concerts, sport/shows, athletics (hosting the World Athletics Championships of 2003), business tourism, visits, local animation, etc. Managed by a private Consortium, the stadium is used for more than 300 days a year, which assures its financial profitability.

Sources : IAURIF

The Impact of the 1988 World Cup in the Île-de-France region (Paris and Saint-Denis)

The World Cup venues in the Île-de-France Region: Paris and Saint-Denis.

Through its Urban Project, the city of Saint-Denis seized this opportunity for accelerating the economic and urban restructuring of an old, much deteriorated industrial estate spread over 750 hectares, the Plaine Saint-Denis. Since 1992, this site had been designated by the State and the Ile-de-France region as a priority zone for urban redevelopment.

Thanks to the Stade de France and to the improved accessibility of the site and rehabilitation of public spaces (around 760 million € having been invested by the State, the region and private partners), the World Cup had an immediate impact on the development of the Plaine-Saint-Denis. Since 1998, promoters from both public and private sectors have been investing in this strategic sector that had, up until then, been considered "out of the market": almost 1 million square metres of businesses, office premises and shops plus 3,000 accommodation units have already been built or are scheduled for construction between now and 2010.

For the moment, the beneficial effects of the World Cup have not spread to the underprivileged sectors around the Plaine-Saint-Denis: only the future will tell whether this is the starting block for economic and social reequilibrium on the urban scale.

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From the 1988 Olympic Games to the 2002 World Cup: the Seoul experience

Fourteen years after organising the Olympic Games, Seoul hosted the World Cup for football in 2002, together with 19 Korean and Japanese cities. Conceived in a different context and with a different strategy, these two successful sports events have wrought a profound transformation on the structure of the city. Supported by efficient marketing, they helped position Seoul firstly as a major Asian capital then as a world metropolis. The price of this success, according to certain authors, is the increased disparity between Seoul and the rest of the country and even inside the metropolis.

The 1988 Olympic Games in Seoul sealed South Korea's economic revival and the advent of democracy. But although the economic impact of the Games ont he country and its capital city was considerable, Seoul inherited a sports complex that is extremely costly for the City finances. The main stadium, the Jamsil Sport Complex, only operates 75 days a year.

The choice of site and construction of the stadium for the World Cup caused much controversy in view of the serious economic crisis of the time and also the conflicts between State and metropolitan government. The strategy that was finally adopted was to plan the new Sangam stadium as a profit-generating polyvalent facility capable of changing for the better a very underprivileged district of the city. The challenge was to create a neighbourhood oriented towards new technology and urban ecology: the Sangam New Millenium Town.

Located on a new development axis in the direction of the new Incheon airport, this 500-hectare sector has been remarkably rehabilitated in exchange for a considerable financial investment (around 2.1 billion $US): development of the road network, underground train network, five large city parks (built on an old rubbish dump), construction of an Ecovillage (30,000 short term accommodation units) and, most importantly, a Digital Media City that is just beginning to rise out of the ground.

Besides the mobilisation of Koreans to support their amazing football team, one of the ingredients for the success of the Cup was the setting up of a pro-active urban marketing strategy backed by the 400,000 visitors who came to South Korea (fewer than had been predicted) and above all by the 28.8 billion accumulated television viewers. Studies carried out prior to the event estimated that the Cup would bring an excess added value to the Korean economy of around 4.7 billion $US and 350,000 jobs: it is still too early to assess the results.

Localisation of sites for the 1988 Olympic games and the 2002 World Cup in Seoul

Sources : Seoul Development Institute; Hong-Bin Kang (University of Seoul)

Mobility in metropolises

At the begin of the third millennium, for the first time in human history, a majority of the world's six billion people will live in cities. While cities have always been the engines of economic growth and incubators of civilisation, the challenges they are faced with now are unprecedented. Urban poverty, deterioration of social conditions and health, lack of adequate housing and unimployment are only some of the many risks that lay in rapid urban growth. However, people all over the world believe that cities and their present and future inhabitants have the power, the abilities and the will to form the urban millennium in a way that the hopes put in urban living will not be disappointed. Yet as we live in a world with great diversity, there is no simple answer and no single solution to the problems and challenges facing our cities.

Ingeborg junge-reyer
Senator for Urban Development, Berlin

Mobility and traffic are essential items in each city. There are no good conditions for life quality, commerce and culture in town without a functional traffic system. Good mobility conditions are the basic of each infrastructure. Among a range of urgent actions, the need to develop integrated, environmentally friendly transport systems is certainly one of the most pressing ones. So it is not surprising that since the foundation of Metropolis in 1984 this theme was several times treated in our meetings.
• So during the world congress in Melbourne in 1990 one of the topics of discussions was: Optimization of Transportation in Inner Cities, headed by Montreal.
• Remembering the 1993 congress in Montreal, one subject was Urban Transport.
• And Technical Assistance Scheme exchange from Paris to Bucharest: Assistance for the Reorganisation and Planning of the Bucharest North Railway Station.
• At the world congress in 1996 in Tokio the Transverse Group treated the topic The Car in the City. And in that year there was a Technical

Assistance Scheme from Paris and Melbourne to Guangzhou: A Study on the Improvement of the Transport System in Guangzhou.

• From 1996 to 1999 the Commission 1 worked on the theme Airports with their Surrounding Zones as Catalyst of Metropolitan Development. Its final report was given at the world congress in 1999 in Barcelona.

Activities 2002 – 2005
Realising the huge increase in individual car traffic and the growing road transport of goods the major cities will particularly face the following problems:
• noise pollution caused by traffic
• air pollution
• huge spaces being occupied by cars
• traffic jams caused by supply and disposal trucks.

The imminent consequence of these problems will be:
• A deterioration of the urban environment which in turn will have a negative influence on the local population's living conditions
• Firms and companies will be unsatified with the urban situation since their goods will not be delivered in time due to traffic congestion.

These developments will lead to:
• Well-off residents moving to peripheral areas or setting down in the urban region
• Companies leaving the city to establish their premises elsewhere
• An increase of social segregation in the core city of the region.

So during the Metropolis Coongress in Seoul in 2002 was decided, to form a commission about the theme Urban Mobility Management, to discuss some urgent problems of traffic and transport in our cities and to look for solutions.
Ensuring mobility and guaranteeing that traffic is sustainable and suitable for a city, are common aimes of urban traffic policies in all metropolises.

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Upon close examination it is evident that there are major differences between cities and regions in their respective problems, and in the definition of specific policy goals.

To get an overview about the general mobility situation in the member cities, in summer 2003 we prepared the first questionnary about basic facts on urban mobility. As result we published a brochure with reports of 15 participating cities: Abidjan, Barcelona, Belo Horizonte, Berlin, Brazzaville, Bruxelles, Gwangju, Istanbul, London, Mashhad, Mexico, Omsk, Paris, Rio de Janeiro and Tehran. Later on answered also Montreal, Santiago de Chile and Sofia.

This brochure – published in September 2004 – and sent also via internet, gave a good information and background for our 1. Meeting in Istanbul in September 2004 with the main issues:
• general traffic situation and problems in metropolises
• freight management strategies.

Presentations were made by Paris-Île de France, Rio de Janeiro, Berlin, Barcelona, Gwangju, Mexico, Santiago de Chile, Bogota and Istanbul. Also a meeting of US mayors took place. They discussed traffic policies and strategies.

At the end of the extensive discussions the commission specified four questions for the further work:
• How to master urban mobility?
• How to finance public transport systems in the cities?
• Which approaches are there to restrict the use of private cars in the city (supported by the population)? How to translate this new strategie into policy?
• Which are typical problems and negative developments in our city?

To get representative and concrete informations about these questions, not answered in Istanbul, we started the second questionnary in the end of 2003.
The main topics were:
• typical problems and negative developments
• sustainable financing concepts for public transportation.

• This questionnary was answered by 10 member cities: Barcelona, Belo Horizonte, Berlin, Bruxelles, Lisboa, London, Mashhad, Mexico, Moscow and Paris. The analysis of the survey shows, that each of the cities more or less important transport problems have to be solved.

The problems in Mexico have been clearly estimated as the most severe ones.

In London the transportation difficulties are considered medium severe. The new congestion charge reduced the congestion in the inner city.

In general the increasing freight transportation on the road is the most important problem of nearly all metropolises.

As well environmental problems are judged as crucial in Central Europe and overseas.

About half of the world population lives in cities today, with a rising trend. In industrated countries, mainly in Europe and North America, the present urbanisation rate of 75% and higher is the result of a long process of industrialisation and urbanisation, enabled and driven by processes of economic and political transition as well as innovations in transportation and communication. These cities have grown complex and somehow balanced urban structures, which were partly "exported" into some other regions of the globe. However, these structures are now also subject to tranformation requests as they seem partly inadequate
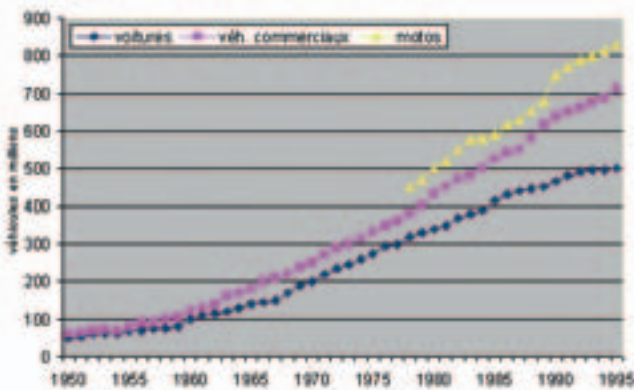
Motorisation worldwide (vehicles in million), source: Bundesministerium für wirtschaftliche Entwicklung und Zusammenarbeit. Transport und Verkehr. Materialien Nr. 124. 2003

to serve "modern" needs and demands. Additionally, their new position in the global network, the emergence of new technologies and shifting demands and expectations based on new forms of social interaction and the emergence of post-modern lifestyles all seem to question the validity and viability of traditional structures.

In all Metropolis cities, social cohesion and the link between mobility and socio-economic development and accessibility is of major concern.

This second survey gave the background for the participants of the second meeting in Paris in May 2004, organized by Metropolis in co-operation with UNESCO and UATI with the three topics:

- mobility and social cohesion
- financing public transport
- examples of best practices and negative developments.

The lectures and discussions showed, that the growing mobility is a challenge for the organisation of transport systems and for the economic and social balance of conurbations. Summarizing the following major topics were noted:
- governance and the relationship between policymakers, operators and consumers;
- systems to evaluate mobility parameters in correlation with technological, financial and social indicators;
- financial transparency; a mobility system costs something and we must have the courage to reveal these costs;
- how to practically go about giving citizens a voice so that society will feel confident that it is making itself heard;
- appreciation of progress, not only technological advances, but also financial and social innovations, to profit everyone, and simultaneous awareness that innovations depend on local contexts.
After the meeting in Paris we asked the member cities about the most important subjects to be discussed during the congress in Berlin in May 2005. So the topics will be the following:
- mobility and urban structure: the interdependent influence between urban structure and

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traffic evolution, respectively modal split, and the danger of desurbanisation and sprawling
• environmental impacts: the effects of traffic systems on environment and health; innercity pollution, noise and toxic gases; consumption of areas, traffic safety;
• mobility planning and public participation
dialog between government, operators and citizens concerning new traffic conceptions.

Additional we are preparing a special seminar on public railway transport planning, to give technical assistance and training especially for african, asian and american cities, where innerurban trains do not exist yet. We will give answers to questions like these: Which are the advantages of rail systems compared with bus nets? Under which conditions they are economical? Caracteristics of light trains. How to finance new projects and the following costs?

In the moment we are preparing the Report of Commission 4 for the period 2002 – 2005. It is planned to present it before the congress in Berlin. It will be published in English, French and Spain language.
There are several further items to be treated respectivly to be discussed more intensivley in the next period 2005 – 2008:
• mobility and social cohesion the relationship between social parameters of the citizens and the urban traffic and transport system
• financing mobility a sustainable financing system is necessary for a good quality of urban mobility, it concerns individual traffic, public transport and goods transport
• urban freight transport management distribution systems causing less pollution are needed.
It is evident that there are a lot of mobility problems to dicuss in the next future. We will look for good concepts and integrated solutions, so that our cities can give us good conditions worthy to live in them.

All well-known developments indicate the emergence of a new significance of mobility and transportation. In order to link the cities and their functions on various levels – from global over national and regional networks to inner-city arrangements and the different areas within the urban agglomeration itself – integrated transport systems that incorporate the entire range of transport modes are required. Moreover, transportation gains additional importance as a means to not only overcome physical distances, but also to improve the accessibility to economic resources and to support the cohesion of the social structure.

Environment in metropolises:
The city as a leader

Dickens description of the nineteenth century city, as a place of massive pollution and social squalor, still has its effect on our current attitudes. Many still see cities as places of environmental degradation generating environmental costs and problems and ignore their huge contribution to human development.

In considering cities as red or orange flags for the environment we must also understand their role in economic growth and social advancement. While this chapter describes the colossal problems faced and caused by rapidly growing urbanization – air and water quality, waste, energy, transport, and the impact of natural disasters - it also points to numerous instances where they have been tackled and overcome.

My theme is to discuss the challenges, give examples of positive action and argue that the city and its leaders should lead, not follow, in finding solutions. Nowhere is this more the case than in combating greenhouse gases and climate change where cities will experience major threats but cannot wait for others to take action.

From its beginning Metropolis has played a leadership role, participating in the Rio and Johannesburg summits, and by creating Commissions to tackle key issues. In 1993, for instance, the Montreal Conference received presentations on air pollution and effects on health, urban transport and the management of urban waste. Currently four of the six Commissions include an environment perspective – urban poverty and environment, urban waste management, urban mobility, and water management.

An excellent example of leadership has been the International Council for Local Environmental Initiatives (ICLEI) which since 1990 has built a worldwide movement of local governments to achieve tangible improvements in global sustainability. Many Metropolis members are active participants in ICLEI's climate change programme.

Because so many of the problems and solutions being addressed by Rio's Agenda 21 have their roots in local activities the participation and cooperation of local authorities is the determining factor in achieving its objectives. Local authorities construct, operate, and maintain economic, social and environmental infrastructure, oversee planning processes, establish local environmental policies and regulations and assist in implementing national and regional policies. As the government level closest to the people they play a vital role in educating, mobilizing and responding to the public in promoting sustainable development.

Cities can be the test bed for new policies and successful policies in one city can be disseminated across international boundaries.

Air Quality
In spite of increasing levels of environmental awareness air pollution levels are unacceptably high in many cities and their surrounds, and add multiple threats to human health particularly in developing countries with much higher levels. More than a billion people globally are exposed to excessive levels of sulphur dioxide, nitrogen dioxide, smoke and particulate matter with potentially 500,000 deaths annually due to outdoor particulate matter. Indoor pollution is also a major killer.

Air pollution is higher in cities of developing countries

Suspended particulates and sulphur dioxyde are mainly related to coal use for heating and energy generation, whereas nitrogen dioxyde is associated with high concentrations of motor vehiles and industry.
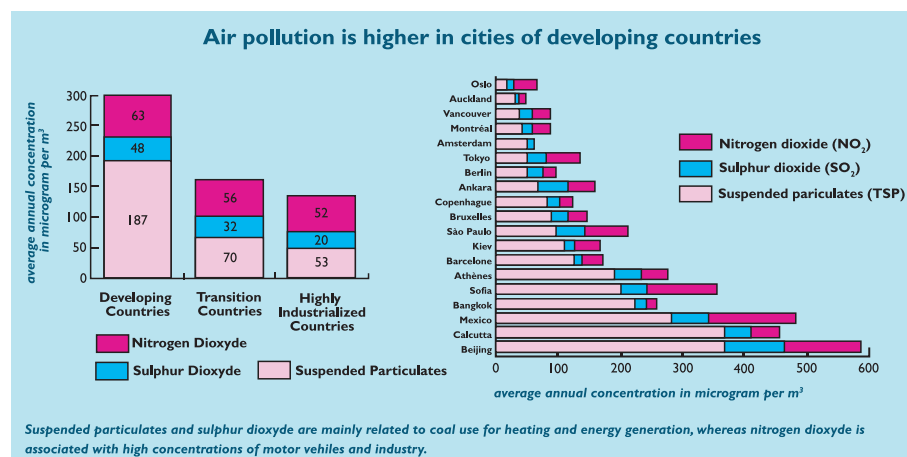
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According to the World Health Organization (WHO 1997) fine particulate pollution, largely from fossil fuels, was responsible for 20% of all child respiratory infections in the most polluted cities of Asia, Africa and Latin America. Twelve cities with populations over nine million had levels well above the WHO guideline contributing to premature death, asthma, chronic bronchitis, respiratory illness and other diseases. For Mexico City and Sao Paulo it was estimated that a cut of 10% in ozone and particulates would by 2020 save 37,000 and 13,000 lives respectively (Economist – March 2002).

As one of the most polluted cities Mexico City, which in 1991 exceeded international norms on 300 days, has experienced the benefit of comprehensive action – real time, publicly available air quality monitoring, the clean up of heavy industry, more stringent motor vehicle emission standards, the use of alternative and cleaner fuels, restrictions on car use, and greater investment on public transport.

Beijing has regulated stationary and mobile sources of air pollution, converted buses and taxis to clean fuels and improved transit services to reduce SO_2 by 40%, NO_2 33% and particulates 34% by 2007. The Olympic air will be much cleaner.

A just released study in the *American Medical Association Journal* concluded that despite all the USA's clean air efforts a reduction in daily ozone level would save 4000 lives annually., and these were at levels already well below the EPA's maximum level and far below those of developing cities.

Water Supply and Sanitation

A billion people don't have access to safe drinking water, 2.4 billion lack basic sanitation with the result that water related diseases affect millions every year with 14,000 to 30,000 dying every day – mostly the young and elderly. The UN Millennium Development Goals sets the awesome target of cutting the number without clean water in half by 2015 – 300,000 connected every day.
Two thirds of pollutants in waterways are from wastewater and raw sewage discharges. In the

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2002 Metropolis Study only ten per cent of properties in Manila were connected to the sewer, in Mexico City with a 94% connection rate only 17% of wastewater was treated and a meagre 1% in Douala.

Quality and waste are only two of the challenges. Commission 6 has identified the need to use what we have more efficiently, protect hydrological basins, reduce loss and examine recycling opportunities. The Kyoto Water Declaration and that from Istanbul balance national and regional responsibilities with the role local authorities must play.

An Asian Development Bank case study of the provision for 800,000 people in rural Pakistan showed a 90% reduction in water-bourne diseases, increased income for 24% 0f households and a major rise in school enrolments, especially of girls.

Waste

Chemical, industrial and human waste not only affects health it also causes significant costs. In OECD countries, from 1980, municipal waste increased 20% to 500 kg per capita – a veritable

trash mountain. A third of solid municipal waste generated in low and middle income countries is not collected. An excellent case study is Mali's Bamako, which despite spending a third of its budget on garbage collection only collected half of its refuse. The Women's Cooperative for Education, Family Health and Sanitation, working with the District Council operates a refuse collection service based on participative collection, income generation and information on family health and awareness raising. Bamako demonstrates that it is possible to reduce poverty, improve the environment and finance jobs.

Energy

While lack of access to energy particularly affects rural communities its cost, pollution and unreliability damages urban living and increases the risk of global warming. Again individual cities set an example. Sao Paulo realized, in the 1980's, that it would be impossible to eradicate its slums and decided to improve conditions by supplying public services including electricity. The poor actually spend a higher proportion of their income on energy, face higher costs and experience more negative health impacts. In the first decade 750,000 people benefited, the number of appliances grew, public security was improved, there were fewer accidents, and it is even claimed that heavy drinking was reduced.

Smarter, Green Development

Good urban planning can reduce the impacts of often ramshackle development. Well planned, more densely populated settlements can reduce poverty, limit the need for land alienation, make service provision cheaper and more efficient, promote waste reduction and recycling, cut transport emissions and gridlock and save energy. It is unacceptable to protect the affluent while forcibly keeping the poor in their slums.

Rio de Janeiro, where 40% of households are 'informal' without infrastructure and urban services has launched POUSO to integrate these shanty

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towns by creating and enforcing specific construction and environmental regulations, legalizing the informal areas by naming streets and developing specific activities linked to day to day problems such as preserving remaining treed areas.

Bogotá, Colombia has set an example by addressing, in the words of the former Mayor Dr. Penalosa; a series of many often ignored small details. Its different city model is based on low motorization, few highways, public transport, the preservation of land for public use and parks, denser but not high rise development, low income quality housing and a pedestrian focus. Amongst the specifics are hundreds of kilometers of sidewalks for pedestrian and bike use including the city centre, pedestrian streets, existing canals as greenways, keeping cars off the street by direct and time

related bans, higher fuel costs, and a quality bus based transit system: "Transport is different from other development challenges such as health or education, because it does not improve with economic development. On the contrary, traffic and transport problems tend to worsen as per capita income increases... public transport success depends on density (UN University, Feb, 2004)."

Climate Change and Cities

The many environmental issues facing metropolises come together in the challenge presented by greenhouse caused climate change which compounds existing risks and vulnerabilities. The effects of global warming include:
• temperature increases of between 1.4 and 5.8 C by 2100;
• a rise of sea levels of between 15 cms and a metre;

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• health impacts including extreme temperatures, disease;
• an increase in the likelihood and intensity of extreme weather events – cyclones, storm surges, droughts and floods.
Sea level rise and extreme weather events threaten thousands of cities. Thirteen of the world's twenty largest cities are situated on the coast and face an increased risk of flooding and storm surge inundation. Notwithstanding the targets set by the Kyoto Protocol greenhouse gas concentrations continue to grow increasing future dangers.

Cities must combine two approaches: reduce their own emissions and take steps to adapt, where possible, to the changes confronting them. With all the economic, social and political pressures on city governments action is not easy to take. Most

have still not altered their planning processes to account for climate change.

Apart from a do nothing policy a combination of three generic responses can be considered:
• planned retreat – relocating as the problem worsens;
• accommodation through land use and development planning by preventing development in threatened areas and/or adapting building design;
• protection with hard solutions such as seawalls, breakwaters and tidal barriers or soft as with beach nourishment.
Most cities have plenty of time to consider options, consult their communities and develop an overall coastal management strategy. More urgently they must plan their response to the potential for extremely destructive flooding, a threat to mega

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cities highlighted at a UN University Forum held in Tokyo last March. While a catastrophic urban flood is a low probability, high consequence event – as seen recently in Japan and Europe – the rapid changes of urbanization increase vulnerability and the areas of a city which might be threatened.

Cities can do much more than just react. As important engines of economic and population growth they are major greenhouse gas emitters – the 50 largest US cities contribute nearly 10% of total world emissions. Although when confronted by the city's day to day problems officials may see global warming as a long way off, there are practical and immediate reasons for action. Many measures aimed at reducing energy and transport emissions lead to cuts in other pollutants with resulting beneficial impacts on health and air pollution.

They can lead in three ways by co-operating with other levels of government, developing community understanding of greenhouse issues and leading by their own actions. A new culture of integrating economic and environment policy can reinforce a commitment to sustainable development and stronger environment management.

An excellent starting point for mayors and councils is to commit themselves to reduce their cities, and their citizens, emissions by joining the 650 municipality members of ICLEI's Cities for Climate Protection Campaign. Key action elements include:

• Develop a scientifically based emissions inventory, a future forecast, a reduction target and an action plan. In 1994 Copenhagen adopted, and has carried out a comprehensive plan to achieve a reduction of 30% by 2005;

• Find opportunities to replace fossil fuel with green energy. Sydney developed its Olympic Village as the world's largest solar powered residential development; Seoul powered its World Cup Soccer Stadium with energy from tip waste;

• Study the city's energy usage and adopt energy efficiency projects. The cheapest, cleanest kilowatt is the one not used. Saarbrucken (Germany) halved CO_2 emissions through 14 programs;

• Encourage businesses and individuals to be energy efficient. The US 'Green Lights Program' efficient lighting systems achieve average savings of 25%. Oslo has established a $100m energy efficiency fund for public and private investment;

• Adopt green purchasing policies and change local supply arrangements;

• Reduce transport emissions by changing trips, vehicles and fuel. Curatiba, Brazil, has invested in public transit, substituted clean fuels and changed land use;
• Improve waste practices with collection, recycling and using waste for power generation;
• Promote smarter development including tackling the "heat island effect" by preserving green spaces and planting trees; and
• Conduct public education and awareness programmes. Toronto has conducted a "Cool School" project, a billboard media campaign, annual events on clean air commuting and provides expert advice and financial assistance to help businesses and families use new technology.

Without public awareness and support the capacity of city politicians and officials to deliver will be limited, particularly when some actions will require economic and social change and even sacrifice. The public must see the immediate, as well as long term, benefits of improving air quality.

Policies must be comprehensive. "Stop Global Warning! Tokyo's Challenge" stimulates active discussion of global warming and puts pressure on the national government to take effective measures. In co-operation with business and NGO's Tokyo wants to become "an advanced energy saving city" with an expanded environment industry. Among the proposals are obligatory reductions for business, establishing a carbon trading market, enforcing the use of renewables and expanding energy efficiency standards.

Cities can get help from growing international assistance such as the Habitat/UNEP Sustainable Cities Programme, the World Bank Clean Air Initiative, the Global Environment Fund/UNDP, and the new Kyoto Clean Development Mechanism. In Shengyang (China) the Sustainable Cities Programme tackled air pollution resulting from coal dominated energy, water shortages and severe water pollution, and solid waste collection and disposal with immediate and long term improvements.

Cities, as key agents for combating climate change and promoting sustainable development, must invest in leadership development, improve their environmental management capacity, promote public and private investment in the environment, environmental information and education and strengthen international cooperation. Only half of all cities have comprehensive environment plans in place. They can assist their surrounding area where they are frequently the source of present and future pollution.

There is great scope, following Metropolis' own example, for promoting city to city information, technical and personnel exchange on a North/South and South/South basis. Better and best practice can be readily transferred, and lessons learned elsewhere quickly adapted and adopted.

The Earth's major cities must take the lead to ensure that their own emissions are first capped, then reduced, and that they then persuade national governments to follow their example.

Tom Roper

Metropolis

Poverty and housing in metropolises

During the last twenty years Metropolis's members have undertaken deep discussions on poverty, its implications and ways to reduce it. There are two main streams of debate: The first is about profiling poverty beyond income and towards realistic indicator systems. The second is about effective state intervention aimed at integrated approaches based on increased participation of all societal stakeholders. Defining and clearly identifying those issues that characterize the urban poor is a priority. The amount of people in need is increasing at a higher rate than their rural counterparts. The living conditions of at least one billion city dwellers, is highly limited due to low income. What is more dramatic is their state of despair, caused by their segregation, and difficulties to generate wealth by themselves. This section tackle the main issues analyzed by our members, seen as a dynamic process, and will provide elements for further discussion and the trends in best practices.

Dynamics of urban poverty and housing

On the global scale, considering both urban and rural inhabitants; 2.8 billion people live with a daily income bellow the "poverty level" of 2 dollars per day. That is approximately one half of the world is poor. From that amount, 1.2 billion people survive with less than one dollar per day[1].

According the International Forum on Urban Poverty held in October 2001 in Marrakech, approximately one quarter of the world poor live in cities. The process of accelerated urbanization, accentuates this condition, since the preeminence of urban over rural will continue growing in the immediate future. Authorities face the challenge of expanding capacity to the right scale, creating the infrastructure, providing the services, and the cash flow to match these and other critical demands.

When the association was created in 1985, the majority of the then largest urban agglomerations were part of the developed world. In the next twenty years of life of the Association, the oppo-

site will occur: The majority will be located in developing countries. Slums in developing countries tend to grow at a higher rate than the rest of the city. That is the case of the "Favelas" in Rio de Janeiro, Brazil, where slums had a 34 % population increase in the 1980's, while the "formal" areas only grew at 8% in the same period.

Poverty in the periphery is a key concern and has to be accounted for future growth. Cities Alliance [2] cited that 1.4 billion people will be added to the world's cities. Nearly half of them (630 million) will settle in peri-urbanising areas of less developed cities by 2020. Peri-urbanising areas demand more resources and planning, otherwise the predominant slum status will be perpetuated.

Central areas sometimes do not evolve to the pace of change and deteriorate leaving the poor behind. The case of Berlin[3] depicts how to counteract this, through an integrated programme called "Social City – Neighborhood Management" where multiple actors participate with a strong supportive framework created by the local authority.

Indicators

Discussion on urban poverty reduction strategies[4] helped the association raise the issue of poverty indicators to the global arena. Multilateral agencies such as the World Bank, the United Nations, and their institutional initiative called "Cities Alliance" provided in-depth information on this issue. The identification of poverty is essential in order to define better policies and efficiently focus on the target population and their needs. In the last decades, simple poverty indicators were substituted with multi-factoral analysis. Income does not reflect the various basic needs of the urban dweller. From this original linear thinking, a holistic view is now being undertaken. The next decades will se the culmination, of integrated systems of indicators. Human development is the goal and the measuring parameters are broad, considering families of indicators like health, shelter, security-

[1] World Development 2000/2001 - Attacking Poverty, World Bank, in "Urban poverty reduction strategies". Rapport de la commission 2 de Metropolis, 2002.
[2] 2004 World Report, Cities Alliance, p. 11, citing Webster, Douglas, Summary of Peri-Urbanisation: The New Global Frontier (Enschede, Netherlands: International Institute for Geo-Information Science and Earth Observation, 2004)
[3-4] "Urban poverty reduction Strategies" Comisión 2, Working paper, METROPOLIS, may 2002.

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safety, access to employment, services and basic urban infrastructure.

Housing provides a sample of the need to take indicators beyond. Access to adequate shelter is key to the quality of life. This "adequacy" partially depends on cultural issues but also incorporates minimum parameters regarding health, safety and economy. Household economics has been simplified to housing affordability. Affordability, has been traditionally measured on the notion that people should not spend more than 25% of their income on housing. This still works on many financial institutions who estimate that families's income should be four to five times the monthly payment on their houses. Affordability is ability and willingness to pay. Such ability is hindered by cost of living, which is becoming more of a burden to poor as the city becomes larger, specially because the underprivileged are more predominant in peri-urban areas. Housing, security of tenure and the potential to generate wealth, are strongly connected. The impoverishment cycle is made or break by measures taken at the neighborhood level, with city and national policies providing a supportive framework.

**Integral intervention against Poverty:
a shared vision with multilateral Agencies**
A habitat in a sustainable, empowering environment is key to poverty combat. Cities Alliance have worked on this issue in two major areas: The first is City Development Strategies (CDS). This effort, strives to generate action plans that more effectively combine physical planning with the infrastructure and the economic and social framework that cities demand for a sustainable development. The second area of work, complements CDS by focusing on urban segregated areas. It is called City-wide and nation-wide slum upgrading[5]. These two initiatives, have spawned collaborating schemes of cities in both rich and poor cities. With this purpose, METROPOLIS organized a Seminar[6], and fostered the exchange of knowledge in this area through the International Institute of Metropolis in Montreal.

The experiences from the collaboration with the World Bank and Cities Alliance along with work on Commissions; points to the need to create integrated and coordinated responses. Integrated in the sense of vertical work with communities, local authorities, and upwardly to state or province and central authorities. Coordinated in the sense of optimal use of sectoral capabilities, in order to achieve a planned interaction of sectors

such as urban development, transport, ecology, employment, social and economic development. The Social Programme for the homeless in Barcelona[7], is a clear example of horizontal coordination where several departments care for the homeless, acting as a single body. A second example is the Toronto homelessness Action plan which aims to provide affordable shelter by vertically integrating efforts of the Canadian Government, the Province of Ontario, the City of Toronto and the Community, including its private sector.

Scale and replicability
Along with a holistic view comes the need to go beyond the project approach and stimulate actions that are able to reach the scale of poverty.

[5]This event attracted the participation of the World Bank, the United Nations and leading specialists in the field.
[6] Internacional Seminar on Slum Upgrading held in Toluca, State of Mexico in september 2000.
[7] "Urban poverty reduction Strategies" Comisión 2, Working paper, METROPOLIS, may 2002. p 48 and p. 58.

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Many projects although probably able to reach the target population, are not feasible covering demand reasonably. Projects in the past were not designed to be emulated and multiplied to such extent as to have a measurable effect. Through the examination of Metropolis's initiatives, found in 20 years of work through Commissions, it was found that Integral programs designed as holistic processes, tend to replicate to a "city-wide" response. "Favela Bairro" in Rio de Janeiro provided interesting elements by recreating a more holistic intervention based on security of tenure, opening the slums to the city in all senses and providing a clear sense of citizenship to the segregated people.

Housing policy reflects the issue of scale and re-plicability very clearly. The project approach in the seventies led initially to huge government-led housing projects, characterized by its high standards and cost, relative to the capacity to pay of low-income population. Eventually in an effort to reach scale, authorities lowered standards and promoted sites and services projects. This last response did reach more people, but did not reach the scale of demand and found difficulties to be replicated by other urban actors. Authorities now recognize the need to create better conditions for the market, promote more stakeholders, particularly those led by NGO's and CBO's. The "partners in development" programme in Naga City, Philippines focused successfully on working with NGO's and CBO's, starting from 9 organizations in 1989 to 70 in 1995. This growth helped authorities reach more people.

State Intervention

State intervention showed a wide variety of responses, from welfare state to more subtle actions through society, particularly NGO'S and CBO's. Central and Local authorities have to deal with poverty with complementing strategies. While the first usually concentrates on creating a macro-environment; the second, has to execute actions that both directly deal with its poor constituents and create and maintain the local framework that fosters sustainable development. Major metropolises have to work on macro and micro policies.

The phrase "Think global, act local" depicts this concept, and leads to a second concept which is fast adaptation and response. If cities do not evolve to the changing environment they will not be able to compete, create jobs and ultimately reduce poverty. The last 20 Years, the Association has experienced globalization and seen how its neighborhoods change at a rate never seen before in history. Unfortunately, many areas have not been able to face the new circumstances, creating major concentrations of the deprived.

Local-global dichotomy and the ability to adapt, forced our members to apply more effective measures with a mixture of policies related to tax reform, economic incentives, job creation and training. Safety-net type actions were also favored, working more on the effects of poverty rather than its causes.

Housing policy has evolved from direct intervention of the market in the seventies and early eighties to improving the general conditions and competitiveness of the market, and strengthening demand. From isolated projects, cities are now striving to design integrated programs and processes based on participative approaches. The sistemic interaction of more stakeholders with more community participation, increased role of local enterprises, is expected to foster housing products that fit more closely the varying housing needs of the underprivileged.

The main issue regarding state intervention is establishing integral holistic programs and processes. Questions that arise are: To what extent direct intervention is effective and adequate? What actors should be involved in the process? How to mobilize resources? Which is our target population? What specific policies, programs, and approaches provide better response to them? For these questions Cities have to rely on their institutional capacity, which has stretched to its limits.

During the last two decades, globalization has combined with trends of privatization, deregulation and retreat of the state. These tendencies have forced local authorities generate more innovative ways to combat poverty, specially those who have less dependency upon government structures or their limited budgets.

**Community participation
and Process approach to Poverty**
Metropolises have found that poverty has to be faced as a process that require a participatory approach, specially thru the marginalized communities. Isolated projects have not been as effective as planned, particularly those originated, planned and executed from the top, having the beneficiaries as the passive recipients of aid.

Current responses seen in the database of Metropolis's best practices show a preeminence of community-led initiatives that underline the need to provide a more supportive framework for participatory approaches. Efforts in Montreal derived city-wide policies against poverty through a local action plan, with full participation of communities and a clear supporting structure through

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the Local Center of Development. Such efforts strengthened the economy of disadvantaged neighborhoods promoted employment and inclusion.

Non Governmental Organizations have also increased their role both in poverty alleviation, housing and local development. CBO's and NGO's initially more obvious in the rural areas, have sprawled in the cities, generating neighborhood associations, with a wide variety of responses to the poor. In the past, these responses were thought to be a monopoly of the State. Nowadays cities recognize the importance of community participation.

Integrating the poor in to the process not only as recipient but as the most important decision maker in his own future, has made a difference. Urban administrators although probably with less institutional apparatus, are now more effective due to the incorporation of a framework that supports communities. This requires better regulatory system along with a critical management of resources and finance. Even in the poorest cities, resources are there, but are not mobilized and allocated according to needs, in a planned fashion.

Role of information and training
Access to information, vocational guidance and training are key poverty combat strategies. When people find alternatives to their otherwise blocked outlook, they initiate new paths.

The Soweto Contractor Development Programme, was very successful by generating local skills and providing contract opportunities, previously taken by large, high-tech contractors that have little impact on the local economy. A true bottom-up program. The self-support programme in Seoul in combination to vocational guidance and training, gave psychological support to the unemployed, generating an environment of social inclusion and emotional relief. Poverty can generate mental states where real segregation is exacerbated.

Finance
Large cities consider finance in its wider concept of efficient allocation and mobilization of resources from and to, all stakeholders. In this sense successful proposals from the Association point to better methods to capitalize household wealth. Micro-finance on one end offers micro-credits for families who want to improve their houses or engage in a small commercial venture. On the other end, Macro-finance is essential to build large infrastructural projects needed by cities. These two extremes define the spectrum of financial requirements, which has to be strengthened.

Micro-Finance Institutions (MFI's) were among the most outstanding proposals in Metropolis's best practices. If cities are able to foster more MFI's particularly those aimed at creating small business, employment would increase and would instigate opportunities to generate wealth,

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unleashing vast resources from the communities. Shelter is the most favored motive for savings in low income population, and yet it is hardly mobilized. The promotion of MFI's that are capable of capturing these resources, will enhance the quality of life of the poor.

The Alexandria (Egypt) business association with funds from USAID (collateral and funding for operation in its first stages), was able to grant 50,000 credits to micro enterprises. Small business are key to employment generation. Micro-credits for housing are emerging in Mexico starting from direct interventions of Federal, State and Municipal authorities. Actions will increase with co-financing arrangements with NGO's. The National objective is to strengthen the market, generate alternatives and stimulate the creation of private MFI's.

On the other extreme, large scale finance aimed at infrastructural projects, is a prime motive for demand of international aid and cooperation between cities. Public finance as a developmental issue, has been the center of debate of the various channels of discussion, opened by the Association. Water and sanitation entails vast investments and the proper flow of resources in the long term (30-50 years minimum). The Programme for the protection and urban environment cleanup in Cotonou (Benin) through increased tax income, has improved the sanitary conditions of the poor, and promoted employment. In order to raise funds, cities also need to have access to local capi-

tal markets. Cities have to become credit-worthy, improve their capacity to collect resources from its constituents and plan their allocations with transparency and efficiency.

Ways forward

The process of urbanization and global change, will increase pressures to concentrate on the urban population segregated from basic human satisfactors and possibilities to create wealth. Evidence shows that Cities are relying more on enabling strategies. Poor communities will better themselves with the integrated intervention of authorities, NGO's and other urban stakeholders who are increasingly more active in creating varied response. Housing policy is evolving towards strategies for the progressive formation of sustainable habitat. Cities are recreating the urban structure needed for communities to thrive. Poverty and its inequities are a governance concern. Isolated projects will leave their place to holistic programs conceptualized as sustainable processes. Slum upgrading executed in City-wide efforts is essential. In this sense Metropolis is also moving, from sharing experiences of isolated efforts to whole methodologies, integrated policies and processes.

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Employment change in cities

Globalisation, Competition and City Change
Cities as problems

It is a decade since the major OECD conference, held in Melbourne, on the Economics of Cities and Globalisation (OECD, 1993). That Conference followed almost two decades of the twin processes of employment decentralisation, from cities to suburbs, and de-industrialisation, from manufacturing to services, which had fashioned problems of decline in city cores, even in growing metropolitan systems. At that time national policy debate about the role of cities in economic development, and indeed the wider consideration of the role of space and place in economic change, had often been minimal and negative. Cities, and especially core cities, were widely regarded as problematic hosts to, and generators of, concentrated, fiscally-draining social disadvantage.

Rob Hulls
Minsitre for planning / Victoria State

Policies for places, whether for regions, cities or neighbourhoods, were often regarded as palliative and re-distributional and imbued with no spirit of the reinforcing dynamics of spatial patterns and interactions. Spatial policy was widely regarded as simply displacement and social policy. Policymakers happily latched onto Paul Krugman's misleading observation that "cities don't compete; firms and households do". And there was much discussion of the "death of distance" and the emerging weightless world that would further erode the salience of agglomeration economies and concentrated city production as economies developed even more dispersed spatial structures.

Cities as opportunities
The Melbourne conference, and indeed the experience at that time of Melbourne, as well as other American and European cities, took a more optimistic view on the potential and economic and social roles for cities, and especially their cores. The pessimistic scenario for cities could be attacked at three levels.

First, new ideas were emerging which drew attention to some of the competitive-cooperative factors in economic development which were place sensitive. For instance it became progressively more apparent that in some innovation centres that proximity of strategic decision takers was important, that face to face contact was relevant in reducing transaction costs. Similarly, on the supply side of the economy, there was an emerging sense that concentrations of unemployment in particular neighbourhoods, for instance, could have negative effects on long term learning capacity and human capital for those who lived in such places. Place and space mattered in economic performance.

Secondly, whilst the emerging paradigm for economic thinking was of global competition the corollary of external competitive change was invariably local economic adjustments. That is, what matters in places is the capacity to create, but more commonly to be adaptive and flexible, in the face of external change. Insofar as cities are more or less aligned to such change capacities, then they can be said to compete globally. The challenge for "place sectors" such as housing, planning and infrastructure sectors, is that in a world of emphasised flexibilities they represent important fixities; much of their business is fixing bricks and mortar and pipes and paths in place. And whilst governments recognised the changing nature of capital and human capital they paid scant regard to how "place" systems could be more flexible and resilient in the face of externally driven change.

The third line of attack was simply to point to the emerging evidence about city change. After the early 1970's the academic fashion had become to talk about the decline of the inner cities. However that description of economic and social change in cities had been too aggregate and crude, and seriously mis-labelled many "inner city" areas as problematic when they patently were not (if analysed at an appropriate neighbourhood scale). It was also already evident that OECD cities could not be described in simple aggregative or "representative"

terms. Simple ring-structured cities were not the norm: history, policy and past choices had produced a complex mosaic of neighbourhoods and economic activity sites in cities. Within that matrix there was already evidence of diversifying patterns of economic development (the airport, the science park, the motorway access point as attractors). Similarly in the residential sector rising real incomes and new demographics had driven significantly different lifestyle, location and neighbourhood choices.

The challenge for academics and policymakers alike was, then, to recognise these new trajectories and their diversity and deal with the opportunities as well as problems they created. There is now an emerging understanding that key economic activities involving key strategic decision dimensions of creativity and innovation processes are likely to favour appropriate city locations. Further, rising real incomes have supported city 'friendly' economic activities, especially related to cultural and leisure activities. So cities are neither inevitable 'basket cases', indeed they may have key linkage roles into the global economy, nor are they now primarily centres of economic decline. Equally there is no guarantee that 'cityness' means success, nor indeed that all of the places in a successful city will prosper. Spatial growth is not inevitable and it is often unbalanced.

There are some answers to the broad questions posed a decade ago in Melbourne, answers that have important local as well as global aspects. There has, in some nations and many cities and regions, also been an evolution of more coherent policies for cities. A number of European nations, such as the Netherlands, France and the UK have undertaken major research reviews and policy developments for cities in the last five years. Australian experience, despite the highly urbanised nature of the country and the clear economic significance of its well-defined metropolitan areas, has recently been bleaker. The Federal government, in contrast to its predecessor of a decade ago, adopt a spatially blind approach to economic development and with no coherent approach at all to spatial thinking and city developments. State governments have, however, promoted more coherent development approaches in their cities (with the dominant metropolitan area in each state commonly embracing more than half of state population).

Changing employment

There have been patterns of demographic and economic change that have been pro rather than anti city in the last decade and pro city policies have also evolved. These changes have both reflected and shaped new metropolitan geographies, of employment, the focus of the remainder of this chapter. Employment levels, growth rates and associated wage and unemployment rates reflect the interaction of labour demand and supply within the metropolitan area.

In open, global economies, externally driven change can shift local demands for labour, through innovation elsewhere, exchange rate changes and the like. But if the challenge in a local economy is always global, the response to that challenge is also local. Cities, and the firms and individuals that comprise their economies, can influence the outcomes from change impetus and affect competitiveness. The labour market is a key system in shaping agility and flexibility locally when change occurs.

A non-reductionist view of city labour, and linked, housing markets, is essential if effective policies are to be designed and delivered at metropolitan and neighbourhood levels. The city labour market is not, as a rule, a single market, but comprises segments defined by location and job types. That is, it is a rather complex local system matching diverse labour demands with the supply preferences of households. The operation and outcomes of the labour market are highly interactive with the education system (the shaping of human capital), the transport system (linking jobs with homes and other activity points) and the housing system. There is also a recognition now

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that labour market outcomes in the present, for instance the overall level of unemployment and the geographic concentration of the unemployed into a few localities, are not neutral for future development but have "endogenous" influences on future growth.

It is with this linked, recursive view of economic development that this chapter seeks to illustrate these changed patterns, their driving forces and policy outcomes. The next section sets out a brief description of employment and relevant, related change in the Melbourne metropolitan area over the last two decades, with emphasis on the last ten years. There is then a discussion of the main shapers of change, in section three, which also draws attention to outstanding issues and new, emerging challenges for cities such as Melbourne.

Changing Employment and Related Patterns

The Melbourne context
Local governments in much of Australia are relatively small and fragmented. The City of Melbourne, as a political entity, is essentially the CBD and attached areas. Discussion of city issues in Melbourne generally uses the metropolitan area as the basis of analysis and strategy, not least as the Victorian State government has key roles in providing infrastructure, services, housing, economic development support and strategic planning. The metropolitan area is the second largest in Australia, has a population of 3.3 million people, and a geographic stretch from CBD to edge of almost 50 miles to the south and east and some 20 miles to the north and west.

Melbourne had high growth rates through the second half of the 19th century, first booming with the nearby discovery of gold, long sustaining a major port function for the primary production of the hinterland, and then growing as Australia's major locus of traditional manufacturing. Immigration and population growth were sustained for more than a century before the population of the

city and its older economic base began to stall in the 1960s.

As in so many other established cities, first decentralisation of homes and jobs, after the 1950's, and then de-industrialisation, after the 1970's, both negatively impacted core growth. In the last decade the continuing erosion of comparative advantage in the older manufacturing sector has resulted in some recent loss of post-war suburban jobs have closed in some poorer, non-central suburbs. However, decline and joblessness into the 1980s were softened as Melbourne kept a significant port function and related manufacturing, not least in the throughput of primary products. However, unemployment did rise significantly in the 1980s and reached 12% in the cyclical downturn of the early 1990's By then the mismatch of where poor households and their job possibilities was well established and spatial concentrations of the unemployed were apparent in both older central neighbourhoods and outer suburbs.

In general, the arrival of new Australians until the 1970s offset the departure of a succession of succeeding households to larger, suburban decentralised homes. Housing policies have produced a dispersed and market-driven outcome. The state sector has never exceeded 6% of provision, is arguably under-provided in some job rich areas of the city, and the private rental sector still provides close to a quarter of homes.

Traditionally newer entrants to the labour market, and Australia, found fast routes through the sector and into home ownership, although since the 1990s there has been evidence that the supply of lower income rentals has been shrinking whilst the population of low income renters has grown in the 1990s. Home ownership was often relatively unsubsidised, and there has been a tendency for poorer households, in the last five years of sharply rising housing prices and rents, to be displaced to less accessible and lower quality suburban homes. These housing tenure, price and quality alternatives, and changes in their availability,

have crucial consequences in the structuring and effective functioning of the metropolitan labour market. In the Melbourne context there have been marked shifts in the outcomes of these interactions in the last decade.

Changing economics and demographics are much evident in residential and employment patterns. By the 1970s, the processes of structural economic change and past housing deterioration meant that the ring of older suburbs in and around the CBD had deteriorated sharply in quality and social status. The pronounced areas of social disadvantage and unemployment were most apparent in such localities. Lower social housing outputs meant that slum clearance was less significant than in most European cities so that a great deal of the older housing stock still survives around the Melbourne CBD.

Change 1981 to 2001

Since the start of the 1990s, the sustained growth of a post-industrial economic base, including tourism, culture and higher education (allied to high rates of new firm formation and substantial R and D) has resulted in a rising number of jobs and a significant reduction in unemployment to 6.0% (in 2003). And the growth rate of GDP and GDP per capita has been higher, for the last decade, in Melbourne than in the rest of Victoria and indeed the Australian average.

Table 1: Melbourne Jobs by Industry 1981-2001

	Labor Force Jobs		Change
ANZIC SECTOR (one digit)	**1981**	**2001**	**(1981-2001)**
Agriculture, forstry and fishing	9 682	11 038	14 %
Mining	1 870	2 320	24 %
Manufacturing	285 085	240 594	- 16 %
Electricity gas and water supply	20 555	6 753	- 67 %
Construction	48 892	68 402	40 %
Wholesale trade	60 603	90 128	49 %
Retail trade	133 090	216 611	63 %
Accomodation, cafes and restaurants	25 386	60 425	138 %
Transport and storage	46 185	56 236	22 %
Communication services	25 073	33 507	34 %
Finances and insurance	36 365	71 078	95 %
Property and business services	65 860	193 327	194 %
Government administration and defence	54 513	43 487	- 20 %
Éducation	64 539	105 058	63 %
Health and community services	84 734	139 129	64 %
Cultural and recreational services	13 689	40 062	193 %
Personal and other services	22 747	47 948	111 %
Not classifiable economic units		6 707	
Not stated	17 592	5 230	
Total	1 016 459	1 438 040	41 %

J.A. Grant and Associates, juillet 2004
* Australia-New Zealand Statistical Industry Code

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The broad shifts in the pattern of employment in Melbourne, by occupation groupings is indicated above in Table 1, for 1981-2001 and, in Table 2, below, for the 1991 to 2001 period, separately for inner and outer parts of the metropolitan area. The Tables confirms sectoral and spatial patterns of change which have been observed in other advanced economies. In relation to sectoral change, as a still growing suburban sector now outpaces a slower declining, smaller central sector. Government employment, defence, and electricity, gas and water have been the main decline sectors. Net job growth in the metropolitan area of 41 percent, or some 400,000 jobs, in the 1981-2001 period has largely been driven by culture and re-creation, property and business services, hotels,

Table 2: Melbourne Jobs by Industry 1991-2001

| Industry | Inner Melbourne | | | | Outer Melbourne* | | | |
| | 1991 | | 2001 | | 1991 | | 2001 | |
	N°	%	N°	%	N°	%	N°	%
Agriculture, Forestry and Fishing	411	0,38	755	0,51	8 259	2,03	9 323	1,73
Mining	332	0,31	466	0,32	1 036	0,26	651	0,12
Manufacturing	13 166	12,29	12 823	8,71	94 193	23,20	116 529	21,66
Electricity, Gas and Water Supply	662	0,62	581	0,39	6 268	1,54	2 925	0,54
Construction	2 609	2,44	4 102	2,79	33 920	8,35	53 635	9,97
Wholesale trade	6 419	5,99	7 766	5,28	36 795	9,06	40 746	7,57
Retail Trade	11 665	10,89	15 440	10,49	71 179	17,53	101 207	18,81
Accomm., Cafes & Restaurants	7 760	7,24	10 888	7,40	12 103	2,98	20 817	3,87
Transport and Storage	4 683	4,37	4 766	3,24	22 061	5,43	26 872	5,00
Communication	2 074	1,94	3 738	2,54	10 405	2,56	12 670	2,36
Finance and Insurance	6 540	6,11	10 334	7,02	25 058	6,17	21 797	4,05
Property and Business Service	14 881	13,89	33 706	22,90	31 341	7,72	58 925	10,95
Government Admin. & Defence	6 576	6,14	4 543	3,09	24 504	6,04	16 288	3,03
Éducation	8 583	8,01	10 740	7,30	28 620	7,05	36 367	6,76
Health & Community Services	12 404	11,58	14 289	9,71	35 247	8,68	52 994	9,85
Cultural & Recreational services	4 476	4,18	7 813	5,31	7 289	1,80	13 033	2,42
Personal and Other Services	3 877	3,62	4 413	3,00	15 859	3,91	21 691	4,03
Total	107 118	100,00	147 162	100,00	464 138	114,32	606 472	112,75

* Englobe Wyndham, Melton, Hume, Whittlesea, Maroondah, Knox, Yarra Ranges part A, Casey, Cardinia, Frankston, Mornington Peninsula
Source : ABS Census 1991, 2001, DSE Time Series Database

the figures reaffirm the continuing absolute falls in manufacturing activity within cities, although the Melbourne experience is that manufacturing employment has increased in the metropolitan area cafes and restaurants and personal and related services. These sectors of change are unsurprising given international evidence.

Nor indeed are the spatial patterns observed and the broad contours of spatial change in the Melbourne metropolitan economy have similarities to changes in UK and USA cities, see respectively Begg (2001) and Katz (2002). In overall terms the key observations are that the absolute number of jobs in the metropolitan core and inner areas had increased. That expansion involved significant growth in new sectors replacing large absolute decline in others, raising the possibility of structural mismatch in labour market supply and demand patterns. It is important to stress that the growth in employment associated with the expansion of business services, hotel and café services was not simply restricted to central locations but was significant in scale across much of the metropolitan area.

The extent to which different (residential) areas contained populations experiencing traditional sector decline and new sector growth is illustrated in Maps 1 and 2 with respect to the manufacturing (decline) and construction (expansion) sectors. It is evident that the scale of job loss was greatest for the localities comprising the ring of suburbs just around the core of the metropolitan area, though its occurrence was ubiquitous. In contrast it was the outer suburban areas where there was the largest growth in the population involved in construction.

The ways in which housing and employment locations are linked in Melbourne have been explored by O'Connor and Healey (2002). They reveal much of the sectoral and spatial complexities of the Melbourne labour market (though does not explore its effectiveness) by assessing the extent to which residents lived and worked within defined zones of the metropolitan area in the 1990's. This allows the identification of the degree of self-containment or openness of labour markets within particular areas. For instance in the small core of the city some 76% of those who live there and work do so within that core area. But at the same time only one third of all those workers employed in the core actually live there, so that commuting suburbanites compete with core residents for core jobs.

Most other zones within the metropolitan area have a lower proportion of their residents who work locally (only three of 16 zones have a score exceeding 50%) but at the same time these local residents working locally are the main source of labour within these areas. Overlap and competition into the suburbs is less than outwards from them. These are strong and stable patterns over time.

Shaping changes
These brief observations make clear how in the space of two decades a new geography of employment has emerged in Melbourne and with it, as discussed below, new problems as well as possibilities. The drivers of this geography require further understanding. The human capital factors underpinning this pattern and their longer-term consequences are explored further below.

A great deal of academic discussion has focussed on the formation of a "new" economy and of the clustering and agglomeration economies involved within it. Robert Reich, with great success, explored the notion that it is more apposite to explore jobs (and products) in relation to their knowledge requirements/characteristics, and that cities often appeared to have attraction to the symbolic analysts rather than routine processors. More recently Richard Florida has extended this argument to claim significance for the creative classes in shaping city change, with both Reich's and Florida's arguments emphasising the importance of place quality as an attractor of high quality and mobile human capital. In relation to agglomeration economies the evidence is mixed. Ian Gordon has argues that agglomeration economies an now be found ubiquitously throughout metropolitan areas and not just in the CBD and core nodes. Other studies stress that creativity, symbolic workers and cluster effects are important in some sectors but matter little in others.
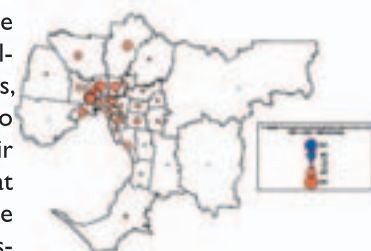
Map 1:   Manufacturing
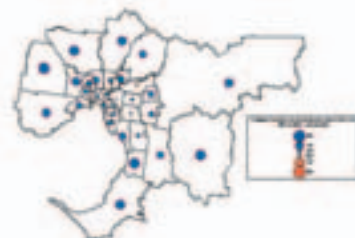
Map 2:   Construction

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The OECD Territorial review of Melbourne in 2002 stressed that such varied influences on location choices currently prevails in Melbourne.

There is also a growing consensus that out-sourcing by large firms and the public sector, the continued high pace of change and new just in time management production systems all generate demands for propinquity to ensure access and familiarity (trust) in making the economy function, and in reducing system transaction costs.

However other changes have been of at least similar levels of significance for cities. The sustained rise in household incomes, and demographics towards more single households, has greatly increased the demand for leisure, recreation and other personal services, and city cores have key place roles in meeting such demands. The city centre is now a potential arena more that at any time in the last century, for commuters and tourists as well as residents. Demand shift has been pro-city. More part time working (encouraging labour supply close to home), more self employment (with more home working) and other features of labour market flexibility have underpinned the shifts observed over the last decade. And many of these changes have raised the demand for labour in the city core and associated suburbs. In general the optimists of a decade ago have been right about the capacity of cities to recreate vital cores.

The figures pertaining to the core areas of Melbourne presented in Table 3, below, indicate that the new economy individuals involved in management, professions and finance/business jobs are disproportionately located in the four central council areas, and it is clear that these structural shifts in employment have facilitated the growing demand for central city living. Flexi working times and presenteeism are great encouragements to shorter commuting.

However these labour market and spatial changes are driven by demographic and housing system changes as well as the economy and the labour market. The overall metropolitan region has experienced steady population expansion

**Table 3: Key Features of Residents in Central Local Authorities
(Population sums to 1.175 Million)**

Local Authority	pc 18-34 years	pc Familles	Speak Only English	Rent Home	Labour Force Particip.	Manager Profess. etc.	Internet User	No motor vehicle	Car to work	Pop' n ('000)
Maribyrnong	30	63	48	33	54	37	33	17	62	59
Moonee Valley	27	69	64	27	60	44	41	13	65	106
Moreland	29	66	53	28	55	40	35	15	60	131
Darebin	29	66	54	31	55	39	35	15	61	123
Banyule	24	74	80	19	62	44	44	8	67	114
Boroondara	24	68	78	24	62	62	57	9	60	149
Stonnington	33	55	74	38	64	62	56	15	54	86
Glen Eira	25	65	70	26	62	51	48	11	63	117
Port Philip	39	47	71	48	67	61	55	18	67	78
Melbourne	48	45	58	55	57	63	60	30	33	61
Yarra	41	52	66	47	66	61	52	20	67	67
Bayside	18	71	85	19	61	58	51	8	66	84
Melbourne Metropolitan Area	26	73	69	23	62	40	41	10	67	3 339

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throughout the post-war period. The core four districts in fact experienced a steady decline in population from 1951 to 1991, falling from just under 350,000 people to just over 200,000. But that long trend has been reversed since 1991, and the 2001 population of just over 250,000 lies close to mid-1970s levels. And even within this core area it is the city centre, the municipality of Melbourne City, which has increased most in the 1990s with population rising from 40,000 to 70,000.

Household numbers are increasing in all of the areas of Melbourne, and most in the city core. Again Table 2 illustrates how these households (in Melbourne City, Port Phillip, Yarra and Stonnington) are relatively young, non-family households, associated with professional and managerial jobs, living in rental housing and commuting to work by public transport.

Unsurprisingly, given the economic and demographic expansions of the last decade there have been significant and spatial shifts in housing prices and outputs. Over the five years to 2002, house prices in the metropolitan area rose by 93%. Moreover price increases have been most marked in the inner area and least expansive in the middle suburbs and this is reflected in the pattern of recent housing approvals, see Table 4. The four inner councils, in 2002/3, received some 20% of residential development applications, roughly double their population share. This Table suggests that there is a significant sustained resurgence of the four inner councils, they have the highest growth rates in properties and prices, but at the same time it is the outer suburbs that are housing the largest share of overall growth. Melbourne is growing in the centre and at the edges and it is relatively static in the middle suburban rings.

The outcomes of these economic, social and spatial processes have created a new pattern and image for Melbourne, few cities have changed their global status more in the last twenty years. Melbourne, and this has important economic

Table 4: Residential Approvals and Existing Household Numbers as a Share of Meropolitan total, 2002/2003

Area	Residential Approvals 2002/2003	Households (2001)
Inner Four	20	10
Other Central	14	28
Inner Four & Other Central	34	38
Rest of Metropolitan Area	66	62

implications in a world of increasing competition for mobile human capital, is now widely reported to be one of the most liveable cities in the world (rating 3rd in the most recent *Economist* place survey). Inner city problems have, in the main, moved from decline to pressures of growth and affordability.

Growing incomes and new household career paths have underpinned the resurgence of central neighbourhoods, at least where these places are seen to have amenity, quality and safety. The suitability of these places for ageing population is an important issue to address for the future; but if the growing elderly have to move to smaller, accessible homes as they live longer on their housing capital, then the implications for the city core are not all negative. Twenty years from now, grey resettling of the inner city may come to rival younger resurgence as a demand source for central city living.

However, the pressure on core city housing markets, allied to the absence of any significant stock of non-profit housing in the central city, means that poorer households are increasingly being excluded from the city centre. The poorest private renters and owners are now in the outer rings. The ways in which households are now sorted by human capital capacity between inner and outer, (see maps 3 and 4), with substantial separation of the skilled and unskilled, not just in economic

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New Contexts, New Pitfalls

Policy interests in cities had already begun to change in some nations (and indeed, many cities) by the start of the 1990's, but in others, the new urban challenges, opportunities and questions still remain unrecognised. Melbourne has progressed despite Federal policy. There is no universal success or failure story to tell about our cities, but complex patterns of growth and decline with different mixes and locality effects in different places. Geography matters, but how it matters appears to differ from place to place. It is important not to replace the policy pessimism of a decade ago with an over-optimistic, uncritical, boosterist view of current city developments. But the shifting experience and policy interest makes a further reappraisal of 'cities' timely. Australia, at the Federal level, has arguably still to start that process, although States have absorbed and implemented (and constructively modified) some good practice from elsewhere.

terms, may come to constitute a substantial problem for growth as well as fairness in the city. The implications of disconnect and disadvantage flowing from any contraction in the demand for unskilled labour would have acute implications for the outer suburbs.

Since 1990 it is planning, infrastructure and market led investment which have largely recreated the new Melbourne core. Now the impressive spatial framework of the Melbourne 2030 statement has to be translated into the infrastructure decisions which will link suburb to suburb and to city, and both to the surrounding network of second order centres. Market and affordable housing solutions will be needed in new forms and at moderate densities to achieve the environmental objectives if the strategy and new policy frameworks will have to link prosperity, place and people policies in the disadvantaged suburbs.

Map 3: People with university qualifications
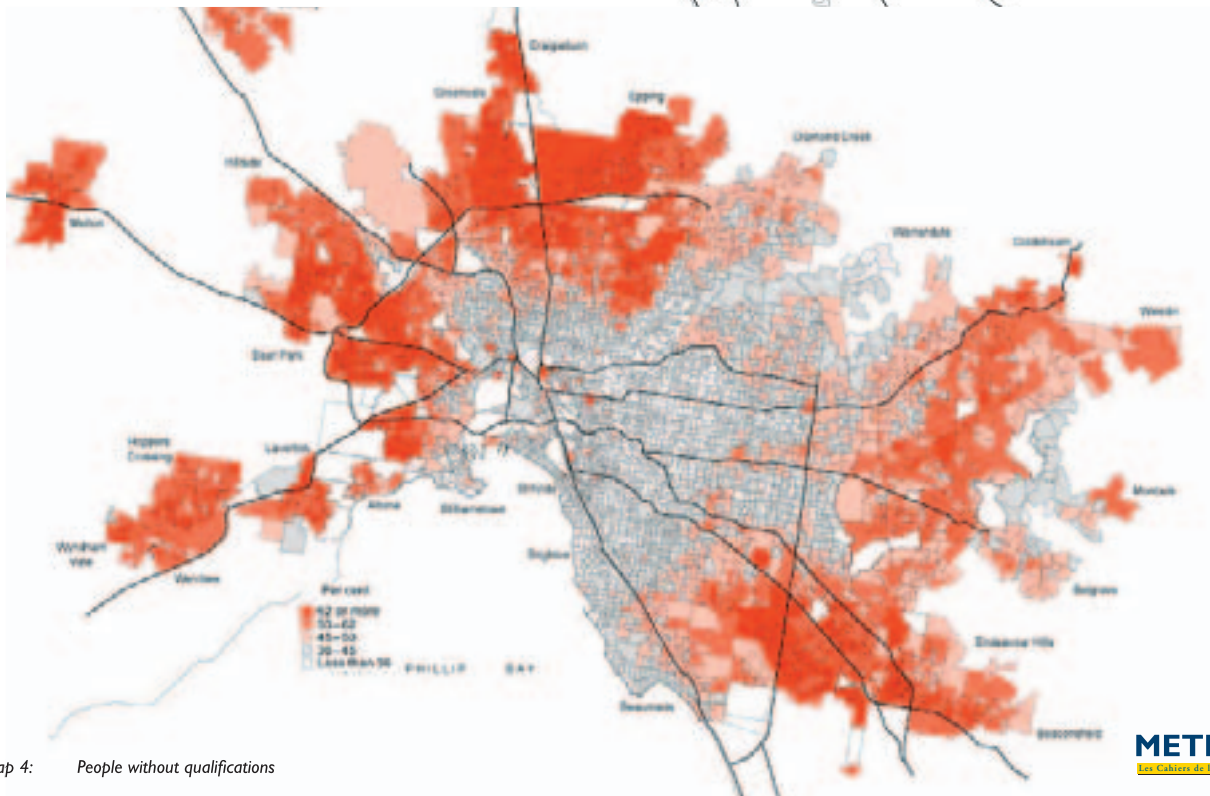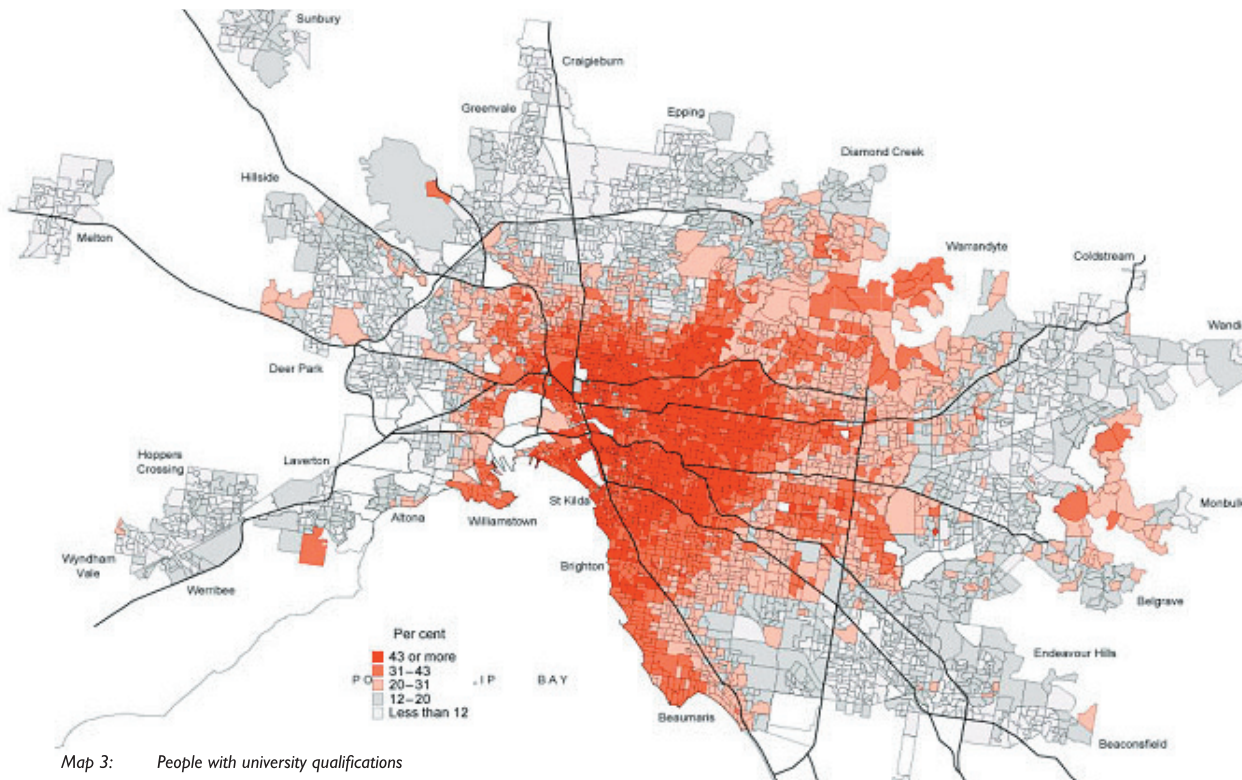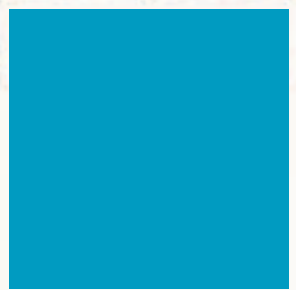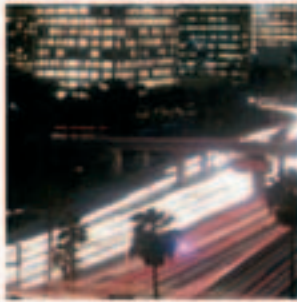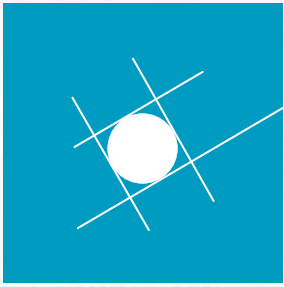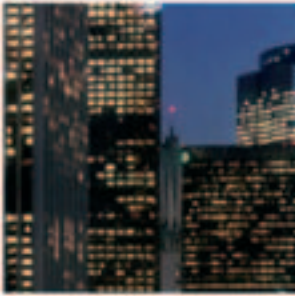
Map 4: People without qualifications

Active members
The regions of Metropolis
A world of metropolis, a word of metropolis
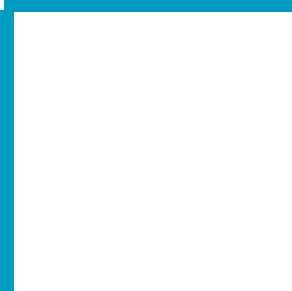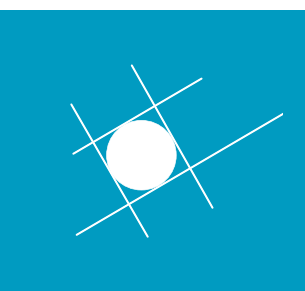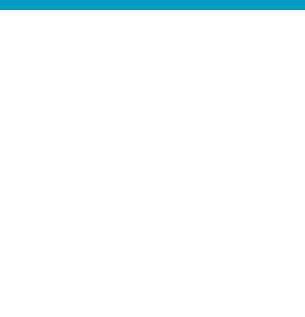
Metropolis

Metropolis

Active members

Metropolis	Member institution
Abidjan	City of Abidjan
Accra	Accra Metropolitan Assembly
Addis Ababa	Region 14 Administration
Alexandria	Governorate of Alexandria
Alger	City of Alger
Amman	Municipality of Greater Amman
Antananarivo	City municipality of Antananarivo
Athènes	Municipality of Athens
Bamako	Gouvernorship of the district of Bamako
Bangui	City of Bangui
Barcelona	Mancomunitat de Municipis de l'Àrea Metropolitana de Barcelona
Belo Horizonte	Prefecture of Belo Horizonte
Berlin	Senat of Berlin
Beyrouth	Directorate of Urban Affairs of Lebanon
Brasília	Government of the Federal District of Brasília
Brazzaville	City of Brazzaville
Bruxelles	Région of Bruxelles Capitale – Brussels Hoofdstedelijk Gewest
Bucarest	Town Hall of the city of Bucarest
Buenos Aires	Province of Buenos Aires – Ministry of Government and Justice
Busan	Busan Metropolitan City
Cairo	Cairo Governorate & Ministry of Housing, Utilities and Urban Communities
Casablanca	City Community of Casablanca
Chong Qing	Chong Qing Municipal People's Government
Colombo	Colombo Municipal Council
Córdoba	Municipality of Córdoba
Cotonou	City of Cotonou
Daejeon	Daejeon Metropolitan City
Dakar	City Community of Dakar
Douala	City Community of Douala
Dubai	Municipality of Dubai
Esfahan	Esfahan Municipality
Guadalajara	Government of Guadalajara
Guangzhou	Guangzhou Municipal People's Government
Gyeonggi	Province of Gyeonggi
Gwangju	Gwangju Metropolitan City
Hangzhou	Hangzhou Municipal People's Government
Hanoi	People's Committee of the Hanoi
Harare	City of Harare
Istanbul	Municipality of Metropolitan Istanbul
Jakarta	Jakarta Capital City Administration
Johannesburg	Eastern Metropolitan-Greater Johannesburg
Kolkata	Kolkata Municipal Corporation

METROPOLIS
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Kathmandu	Kathmandu Metropolitan City
Kinshasa	Gouvernorship of Kinshasa
La Habana	Provicial Assembly of the People's Power in the City of Habana
La Paz	Municipal Government of La Paz
Libreville	Munipality of Libreville
Lisboa	Munipality of Lisboa
London	Greater London Authority
Manila	Metropolitan Manila Development Agency
Maracaibo	Munipality of Maracaibo
Marrakech	Urbain Community of Marrakech
Mashhad	Municipality of Mashhad
Melbourne	Department of Sustainability and Environment – State of Victoria
México	Government of the State of Mexico
Monterrey	Municipal Government of Monterrey
Montréal	Ville de Montréal
Moscou	Government of Moscow – Comittee for Architecture and Urban Planning
Niamey	City Community of Niamey
Omsk	Government of Omsk
Paris	Regional Council of Île-de-France
Port Moresby	National Capital District Commission
Quito	Metropolitan District of Quito
Rabat	Municipality of Rabat Hassane
Rio de Janeiro	Prefecture of the City of Rio de Janeiro
Santiago	Regional Metropolitan Government, Regional Council
Sao Paulo	Prefecture of the Municipality of Sao Paulo
Sarajevo	Canton Sarajevo
Seoul	Seoul Metropolitan Government
Shenyang	City of Shen Yang
Sofia	Municipality of Sofia
Stockholm	City of Stockholm
Sydney	Department of Urban Affairs and Planning
Tabriz	Municipality of Tabriz
Teheran	Municipality of Teheran
Tel Aviv	Municipality of Tel Aviv
Tianjin	Tianjin Municipal People's Government
Toronto	City of Toronto
Tunis	Municipality of Tunis
Turin	Turin City Council
Varsovie	City of Warsaw
Wuhan	City of Wuhan
Yaoundé	City Community of Yaoundé
Zagreb	City of Zagreb

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Metropolis

Members of Metropolis (in alphabetical order)

	Metropoles	Country	Region	Population	Member since
1	Abidjan	Côte d'Ivoire	Africa	3.300.000	1985
2	Accra	Ghana	Africa	1.800.000	1997
3	Addis Ababa	Ethiopia	Africa	2.700.000	1985
4	Alexandria	Egypt	Africa	3.700.000	1988
5	Alger	Algeria	Africa	3.100.000	1997
6	Amman	Jordan	Asia-Pacific	1.200.000	1997
7	Antananarivo	Madagascar	Africa	1.700.000	2004
8	Athens	Greece	Europe	3.200.000	2002
9	Bamako	Mali	Africa	1.300.000	1987
10	Bangui	Central African Rep.	Africa	700.000	1998
11	Barcelona	Spain	Europe	4.400.000	1985
12	Belo Horizonte	Brazil	South America	5.000.000	1999
13	Berlin	Germany	Europe	3.300.000	1991
14	Beyrouth	Libanon	Asia-Pacific	1.800.000	1986
15	Brasília	Brazil	South America	3.100.000	1987
16	Brazzaville	Congo	Africa	1.100.000	2003
17	Bruxelles	Belgium	Europe	1.000.000	1993
18	Bucarest	Romanie	Europe	1.900.000	1991
19	Buenos Aires	Argentina	South America	13.000.000	1985
20	Busan	Republic of korea	Asia-Pacific	3.600.000	1996
21	Cairo	Egypt	Africa	10.800.000	1985
22	Casablanca	Morocco	Africa	3.600.000	1986
23	Chong Qing	China	Asia-Pacific	4.800.000	1999
24	Colombo	Sri Lanka	Asia-Pacific	700.000	1985
25	Córdoba	Argentina	South America	1.500.000	1992
26	Cotonou	Benin	Africa	800.000	1998
27	Daejeon	Republic of korea	Asia-Pacific	1.400.000	1996
28	Dakar	Senegal	Africa	2.200.000	1986
29	Douala	Cameroon	Africa	1.900.000	1996
30	Dubai	United Arab Emirates	Asia-Pacific	900.000	2002
31	Esfahan	Iran	Asia-Pacific	1.500.000	1996
32	Guadalajara	Mexico	North America	3.800.000	1987
33	Guangzhou	China	Asia-Pacific	3.900.000	1993
34	Gwangju	Republic of Korea	Asia-Pacific	1.400.000	2001
35	Gyeonggi (Suwon)	Republic of Korea	Asia-Pacific	1.100.000	2003
36	Hangzhou	China	Asia-Pacific	1.900.000	1998
37	Hanoi	Viet Nam	Asia-Pacific	4.000.000	1995
38	Harare	Zimbabwe	Africa	1.500.000	1990
39	Istanbul	Turkey	Europe	9.400.000	1986
40	Jakarta	Indonesie	Asia-Pacific	12.300.000	2005
41	Johannesburg	South Africa	Africa	3.100.000	1999
42	Kathmandu	Nepal	Asia-Pacific	800.000	1997

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

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43	Kinshasa	Dem. Rep. Congo	Africa	5.300.000	1986
44	Kolkata (Calcutta)	Inda	Asia-Pacific	13.800.000	2003
45	La Habana	Cuba	South America	2.200.000	1993
46	La Paz	Bolivia	South America	1.500.000	2000
47	Libreville	Gabon	Africa	600.000	2001
48	Lisboa	Portugal	Europe	2.000.000	1986
49	London	United Kingdom	Europe	7.600.000	1985
50	Manila	Philippines	Asia-Pacific	10.400.000	1993
51	Maracaibo	Venezuela	South America	2.100.000	1996
52	Marrakech	Morocco	Africa	800.000	2002
53	Mashhad	Iran	Asia-Pacific	2.100.000	1992
54	Melbourne (Victoria)	Australia	Asia-Pacific	3.600.000	1988
55	México (Toluca)	Mexico	North America	1.800.000	1985
56	Monterrey	Mexico	North America	3.400.000	2002
57	Montreal	Canada	North America	3.500.000	1985
58	Moscou	Russia	Europe	10.500.000	1990
59	Niamey	Niger	Africa	800.000	1996
60	Omsk	Russia	Europe	1.100.000	1996
61	Paris Ìle-de-France	France	Europe	9.800.000	1985
62	Port Moresby	Papua New Guinea	Asia-Pacific	300.000	2000
63	Quito	Ecuador	South America	1.500.000	1993
64	Rabat	Morocco	Africa	1.800.000	1988
65	Rio de Janeiro	Brazil	South America	11.200.000	1987
66	Santiago	Chili	South America	5.500.000	1995
67	São Paulo	Brazil	South America	17.900.000	2004
68	Sarajevo	Bosnia & Herzegovina	Europe	600.000	1995
69	Seoul	Republic of korea	Asia-Pacific	9.700.000	1987
70	Shenyang	China	Asia-Pacific	4.900.000	1998
71	Sofia	Bulgaria	Europe	1.100.000	1999
72	Stockholm	Sweden	Europe	1.700.000	2003
73	Sydney	Australia	Asia-Pacific	4.300.000	1993
74	Tabriz	Iran	Asia-Pacific	1.300.000	1996
75	Teheran	Iran	Asia-Pacific	7.200.000	1992
76	Tel Aviv	Israel	Asia-Pacific	2.900.000	2000
77	Tianjin	China	Asia-Pacific	9.300.000	2004
78	Toronto	Canada	North America	4.900.000	1987
79	Tunis	Tunisia	Africa	2.000.000	1997
80	Turin	Italy	Europe	1.200.000	2002
81	Varsovie	Poland	Europe	2.200.000	1991
82	Wuhan	China	Asia-Pacific	5.700.000	1998
83	Yaoundé	Cameroon	Africa	1.600.000	1996
84	Zagreb	Croatia	Europe	700.000	2002

METROPOLIS
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Metropolis

Members de Metropolis (ranked by population)

	Metropolis	Country	Region	Population	Member since
1	São Paulo	Brazil	South America	17.900.000	2004
2	Kolkata (Calcutta)	Inda	Asia-Pacific	13.800.000	2003
3	Buenos Aires	Argentina	South America	13.000.000	1985
4	Jakarta	Indonesia	Asia-Pacific	12.300.000	2005
5	Rio de Janeiro	Brazil	South America	11.200.000	1987
6	Cairo	Egypt	Africa	10.800.000	1985
7	Moscou	Russia	Europe	10.500.000	1990
8	Manila	Philippines	Asia-Pacific	10.400.000	1993
9	Paris Île-de-France	France	Europe	9.800.000	1985
10	Seoul	Republic of korea	Asia-Pacific	9.700.000	1987
11	Istanbul	Turkey	Europe	9.400.000	1986
12	Tianjin	China	Asia-Pacific	9.300.000	2004
13	Londre	United Kingdom	Europe	7.600.000	1985
14	Teheran	Iran	Asia-Pacific	7.200.000	1992
15	Wuhan	China	Asia-Pacific	5.700.000	1998
16	Santiago	Chile	South America	5.500.000	1995
17	Kinshasa	Demo. Rep. Congo	Africa	5.300.000	1986
18	Belo Horizonte	Brazil	South America	5.000.000	1999
19	Shenyang	China	Asia-Pacific	4.900.000	1998
20	Toronto	Canada	North America	4.900.000	1987
21	Chong Qing	Chine	Asia-Pacific	4.800.000	1999
22	Barcelone	Spain	Europe	4,400.000	1985
23	Sydney	Australia	Asia-Pacific	4.300.000	1993
24	Hanoi	Viet Nam	Asia-Pacific	4.000.000	1995
25	Guangzhou	China	Asia-Pacific	3.900.000	1993
26	Guadalajara	Mexico	North America	3.800.000	1987
27	Alexandria	Egypt	Africa	3.700.000	1988
28	Busan	Republic of korea	Asia-Pacific	3.600.000	1996
29	Casablanca	Morocco	Africa	3.600.000	1986
30	Melbourne	Australia	Asia-Pacific	3.600.000	1988
31	Montréal	Canada	North America	3.500.000	1985
32	Monterrey	Mexico	North America	3.400.000	2002
33	Abidjan	Côte d'Ivoire	Africa	3.300.000	1985
34	Berlin	Germany	Europe	3.300.000	1991
35	Athénes	Greece	Europe	3.200.000	2002
36	Brasília	Brazil	South America	3.100.000	1987
37	Johannesburg	South Africa	Africa	3.100.000	1999
38	Alger	Algeria	Africa	3.100.000	1997
39	Tel Aviv	Israel	Asia-Pacific	2.900.000	2000
40	Addis Ababa	Ethiopia	Africa	2.700.000	1985
41	Varsovie	Poland	Europe	2.200.000	1991
42	La Havane	Cuba	South America	2.200.000	1993

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

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43	Dakar	Senegal	Asia-Pacific	2.100.000	1986
44	Mashhad	Iran	Asia-Pacific	13.800.000	1992
45	Maracaibo	Venezuela	South America	2.100.000	1996
46	Tunis	Tunisia	Africa	2.000.000	1997
47	Lisbonne	Portugal	Europe	2.000.000	1986
48	Hangzhou	China	Asia-Pacific	1.900.000	1998
49	Douala	Cameroon	Africa	1.900.000	1996
50	Bucarest	Romanie	Europe	1.900.000	1991
51	Accra	Ghana	Africa	1.800.000	1997
52	Beyrouth	Libanon	Asia-Pacific	1.800.000	1986
53	México (Toluca)	Mexico	North America	1.800.000	1985
54	Rabat	Morocco	Afrique	1.800.000	1988
55	Stockholm	Sweden	Europe	1.700.000	2003
56	Antananarivo	Madagascar	Africa	1.700.000	2004
57	Yaoundé	Cameroon	Africa	1.600.000	1996
58	Córdoba	Argentina	South America	1.500.000	1992
59	Esfahan	Iran	Asia-Pacific	1.500.000	1996
60	La Paz	Bolivia	South America	1.500.000	2000
61	Harare	Zimbabwe	Africa	1.500.000	1990
62	Quito	Ecuador	Amérique Sud	1.500.000	1993
63	Daejeon	Republic of korea	Asia-Pacific	1.400.000	1996
64	Gwangju	Republic of korea	Asia-Pacific	1.400.000	2001
65	Tabriz	Iran	Asia-Pacific	1.300.000	1996
66	Bamako	Mali	Africa	1.300.000	1987
67	Amman	Jordan	Asia-Pacific	1.200.000	1997
68	Turin	Italy	Europe	1.200.000	2002
69	Omsk	Russia	Europe	1.100.000	1996
70	Brazzaville	Congo	Africa	1.100.000	2003
71	Sofia	Bulgaria	Europe	1.100.000	2003
72	Gyeonggi (Suwon)	Republic of korea	Asia-Pacific	1.100.000	2003
73	Bruxelles	Belgium	Europe	1.000.000	1993
74	Dubai	United Arab Emirates	Asia-Pacific	900.000	2002
75	Cotonou	Benin	Africa	800.000	1998
76	Marrakech	Morocco	Africa	800.000	2002
77	Niamey	Niger	Africa	800.000	1996
78	Kathmandu	Nepal	Asia-Pacific	800.000	1997
79	Bangui	Central African Rep.	Africa	700.000	1998
80	Zagreb	Croatia	Europe	700.000	2002
81	Colombo	Sri Lanka	Asia-Pacific	700.000	1985
82	Libreville	Gabon	Africa	600.000	2001
83	Sarajevo	Bosnia & Herzegovina	Europe	600.000	1995
84	Port Moresby	Papua New Guinea	Asia-Pacific	300.000	2000

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Metropolis

The regions of Metropolis

Metropolis is a decentralized network devoted to a common action plan. The setting up of the Secretariat General in Barceona and of the regional secretariats in Abidjan (Africa), Montreal (North America), Rio de Janeiro (South America & the Carribbean), Melbourne (Asia-Pacific) and Paris (Europe) has given real momentum and vigour to decentralization.

World Metropolis

Region	Number of Metropolises	% of total	Population (million)	% of total
Africa	38	9,3 %	101,1	8,8 %
Asia-Pacific	207	50,6 %	590,0	51,1 %
Europe	66	16,1 %	149,9	13,0 %
South America	45	11,0 %	142,0	12,3 %
North America	53	13,0 %	171,4	14,8 %
World Total	**409**	**100,0 %**	**1 154,4**	**100,0 %**

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

Members of Metropolis

Region	Numbers of active members	% du total	Population (million)	% du total
Africa	23	27,4 %	56,2	17,8 %
Asia-Pacific	28	33,3 %	116,6	36,8 %
Europe	17	20,2 %	61,7	19,5 %
South America	11	13,1 %	64,5	20,4 %
North America	5	6,0 %	17,4	5,5 %
World Total	**84**	**100,0 %**	**316,4**	**100,0 %**

Metropolis is the World's leading network of major metropolises

- 21% of the world's 409 metropolises (over 1 million inhabitants) are active members of Metropolis. Their population represents 27% of the total world metropolises.

- 61% of African metropolises are active members of Metropolis (56% of the total population of African metropolises).
- 14% of metropolises in Asia-Pacific are active members of Metropolis (20% of the total population of Asian-Pacific metropolises).
- 28% of European metropolises are active members of Metropolis (41% of the total population of European metropolises).
- 24% of South American metropolises are active members of Metropolis (45% of the total population of South American metropolises).
- 9% of North American metropolises are active members of Metropolis (10% of the total population of North American metropolises).

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AFRICA

	Metropolis	Country	Population	Member since
1	Abidjan	Côte d'Ivoire	3.300.000	1985
2	Accra	Ghana	1.800.000	1997
3	Addis-Abeba	Éthiopia	2.700.000	1985
4	Alexandria	Égypt	3.700.000	1988
5	Alger	Algéria	3.100.000	1997
6	Antananarivo	Madagascar	1.700.000	2004
7	Bamako	Mali	1.300.000	1987
8	Bangui	Central African Rep.	700.000	1998
9	Brazzaville	Congo	1.100.000	2003
10	Cairo	Égypt	10.800.000	1985
11	Casablanca	Morocco	3.600.000	1986
12	Cotonou	Benin	800.000	1998
13	Dakar	Senegal	2.200.000	1986
14	Douala	Cameroon	1.900.000	1996
15	Harare	Zimbabwe	1.500.000	1990
16	Johannesburg	South Africa	3.100.000	1999
17	Kinshasa	Dém. Rép. Congo	5.300.000	1986
18	Libreville	Gabon	600.000	2001
19	Marrakech	Morocco	800.000	2002
20	Niamey	Niger	800.000	1996
21	Rabat	Morocco	1.800.000	1988
22	Tunis	Tunisia	2.000.000	1997
23	Yaoundé	Cameroon	1.600.000	1996

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

ASIA-PACIFIC

	Metropolis	Country	Population	Member since
1	Amman	Jordan	1.200.000	1997
2	Beyrouth	Libanon	1.800.000	1986
3	Busan	Républic of korea	3.600.000	1996
4	Chong Qing	Chine	4.800.000	1999
5	Colombo	Sri Lanka	700.000	1985
6	Daejeon	Républic of korea	1.400.000	1996
7	Dubai	United Arab Emirates	900.000	2002
8	Esfahan	Iran	1.500.000	1996
9	Guangzhou	Chine	3.900.000	1993
10	Gwangju	Républic of korea	1.400.000	2001
11	Gyeonggi (Suwon)	Républic of korea	1.100.000	2003
12	Hangzhou	China	1.900.000	1998
13	Hanoi	Viet Nam	4.000.000	1995
14	Jakarta	Indonesie	12.300.000	2005
15	Katmandou	Nepal	800.000	1997
16	Kolkata (Calcutta)	India	13.800.000	2003
17	Manille	Philippines	10.400.000	1993
18	Mashhad	Iran	2.100.000	1992
19	Melbourne(Vitoria)	Australia	3.600.000	1988
20	Port Moresby	Papua New. Guinea	300.000	2000
21	Séoul	Républic of korea	9.700.000	1987
22	Shenyang	China	4.900.000	1998
23	Sydney	Australia	4.300.000	1993
24	Tabriz	Iran	1.300.000	1996
25	Téhéran	Iran	7.200.000	1992
26	Tel-Aviv	Israel	2.900.000	2000
27	Tianjin	China	9.300.000	2004
28	Wuhan	China	5.700.000	1998

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

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Metropolis

NORTH AMERICA

	Metropolis	Country	Population	Member since
1	Guadalajara	Mexico	3.800.000	1987
2	Mexico (Toluca)	Mexico	1.800.000	1985
3	Monterrey	Mexico	3.400.000	2002
4	Montréal	Canada	3.500.000	1985
5	Toronto	Canada	4.900.000	1987

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

SOUTH AMERICA AND THE CARIBBEAN

	Metropolis	Country	Population	Member since
1	Belo Horizonte	Brazil	5.000.000	1999
2	Brasília	Brazil	3.100.000	1987
3	Buenos Aires	Argentina	13.000.000	1985
4	Córdoba	Argentina	1.500.000	1992
5	La Havane	Cuba	2.200.000	1993
6	La Paz	Bolivia	1.500.000	2000
7	Maracaibo	Venezuela	2.100.000	1996
8	Quito	Ecuador	1.500.000	1993
9	Rio de Janeiro	Brazil	11.200.000	1987
10	Santiago	Chile	5.500.000	1995
11	Sao Paulo	Brazil	17.900.000	2004

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

EUROPE

	Metropolis	Country	Population	Member since
1	Athens	Greece	3.200.000	2002
2	Barcelona	Spain	4.400.000	1985
3	Berlin	Germany	3.300.000	1991
4	Brussels	Belgium	1.000.000	1993
5	Bucarest	Romanie	1.900.000	1991
6	Istanbul	Turkey	9.400.000	1986
7	Lisboa	Portugal	2.000.000	1986
8	London	United Kingdom	7.600.000	1985
9	Moscou	Russia	10.500.000	1990
10	Omsk	Russia	1.100.000	1996
11	Paris Ile-de-France	France	9.800.000	1985
12	Sarajevo	Bosnia Herzegovina	600.000	1995
13	Sofia	Bulgaria	1.100.000	1999
14	Stockholm	Sweden	1.700.000	2003
15	Turin	Italy	1.200.000	2002
16	Warsaw	Poland	2.200.000	1991
17	Zagreb	Croatia	700.000	2002

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

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Members on focus

Evolution of the world's metropolises: 1985-2015 (in millions of inhabitants)
Number of metropolises, population and percentage of urban population (by size, class of city and development group).

Development group and size class of cities	Number of metropolises			Population (millions inhab.)			% of total urban population		
	1985	2005	2015	1985	2005	2015	1985	2005	2015
World									
10 million or more	9	20	22	127,4	292,1	358,4	6,4	9,2	9,3
5 to 10 million	20	29	39	146,8	194,8	268,5	7,4	6,1	7,0
1 to 5 million	242	381	480	450,2	726,3	913,7	22,7	22,9	23,7
Total metropolises	**271**	**430**	**541**	**724,4**	**1.213,2**	**1.540,6**	**36,5**	**38,2**	**40,0**
More developed regions									
10 million or more	4	5	6	66,6	87,9	101,1	8,5	9,7	10,6
5 to 10 million	5	9	10	38,8	58,9	62,0	4,9	6,5	6,5
1 to 5 million	93	107	109	184,3	211,6	217,9	23,4	23,4	22,9
Total metropolises	**102**	**121**	**125**	**289,7**	**358,4**	**381,0**	**36,8**	**39,6**	**40,0**
Less developed regions									
10 million or more	5	15	16	60,7	204,1	257,3	5,1	9,0	8,9
5 to 10 million	15	20	29	107,9	135,8	206,5	9,0	6,0	7,1
1 to 5 million	149	274	371	265,9	514,6	695,7	22,2	22,7	24,0
Total metropolises	**169**	**309**	**416**	**434,5**	**854,5**	**1.159,5**	**36,3**	**37,7**	**40,0**

More metropolises, with extraordinary increases in less developed regions:

• In 1985, there were 271 metropolises with a population of 724 million inhabitants.
• Two decades later, there are more than 400 metropolises in the world, and their population is over 1,200 million inhabitants. The figures will rise to 1,540 million in 2015.

• In the world's most developed regions, the population of the metropolises increased from 289 to 358 million inhabitants between 1985 and 2005, which represents a 24% growth, and is expected to increase by a further 6% between now and 2015.
• In the world's least developed regions, the population of the metropolises has increased from 434 to 854 million inhabitants between 1985 and 2005, which represents a 97% growth, and is expected to increase by a further 36% between now and 2015.

• When Metropolis was founded in 1985, 62% of the world's metropolises were located in less developed regions.
• In 2005, 72% of the world's metropolises are located in less developed regions.
• In 2015, 77% of the world's metropolises will be located in less developed regions.

• In 2015, 40% of the world's urban population will live in metropolises.

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

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Metropolis

Evolution of the World's 10 major metropolises: 1950-2015 (Million inhabitants)

Megalopolises are metropolises with more than 10 million inhabitants. Today, there are 20 megalopolises around the world. 40% of the them are active members of Metropolis.

1950		1975		2000		2015	
1. New York	12,3	1. Tokyo	26,6	1. Tokyo	34,4	1. Tokyo	36,2
2. Tokyo	11,2	2. New York	15,8	2. Mexico City	18,0	2. Bombay	22,6
3. London	8,3	3. Shanghai	11,4	3. New York	17,8	3. Delhi	20,9
4. Paris	5,4	4. Mexico City	10,6	4. Sao Paulo	17,0	4. Mexico City	20,6
5. Moscou	5,3	5. Osaka-Kobe	9,8	5. Bombay	16,0	5. Sao Paulo	19,9
6. Shanghai	5,3	6. Sao Paulo	9,6	6. Calcutta	13,0	6. New York	19,7
7. Rhein-Rhur	5,2	7. Buenos Aires	9,1	7. Shanghai	12,8	7. Dhaka	17,9
8. Buenos Aires	5,0	8. Los Angeles	8,9	8. Buenos Aires	12,5	8. Jakarta	17,4
9. Chicago	4,9	9. Paris	8,6	9. Delhi	12,4	9. Lagos	17,0
10. Calcutta	4,4	10. Beijing	8,5	10. Los Angeles	11,8	10. Calcutta	16,7
Top 10	**67,3**	**Top 10**	**118,9**	**Top 10**	**165,7**	**Top 10**	**208,9**
Pop. megalopolises	*23,5*	*Pop. megalopolises*	*64,4*	*Pop. megalopolises*	*250,1*	*Pop. megalopolises*	*358,0*
WORLD	*2.555,3*	*WORLD*	*4.086,1*	*WORLD*	*6.079,6*	*WORLD*	*7.187,0*

More and larger metropolises, with extraordinary increases in Asia, South America and Africa:

• In 1950, the average population of the world's 10 largest metropolises was 6.7 million inhabitants.
• In 2015, the average population of the world's 10 largest metropolises will be 20.8 million inhabitants.

• In 1950, 1% of the world's population lived in megalopolises (metropolises with 10 million inhabitants or more).
• In 2015, 5% of the world's population will live in megalopolises (metropolises with 10 million inhabitants or more).

• In 1950, 40% of the World's largest metropolises were located in Europe, followed by Asia (30%), North America (20%), and South America (10%).
• In 2015, 56% of the largest metropolises will be located in Asia, to be followed by North America (15%), South America (13%), Europe (11%), and Africa (5%).

Source: Population Division, United Nations Department of Social and Economic Affairs (2004)

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