Urban Renaissance:

Enhancing the Past Inventing the Future Drivers and Obstacles to Innovation and Change

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The European City, "Built Politics": Challenges, Visions and Actions

Cities are first and foremost places of social interplay, confrontation and dialectics. They are theatres of civilisation, schools of abilities and values, and temples of learning about life in society and about rights and negotiation. According to Aristotle, the city is "built politics". Vitruvius stated that cities should be solid, beautiful and useful. Alcaeus, already in the 7th century B.C., had suggested that "cities are not made from their roofs, stone walls, bridges and canals but from men able to grasp opportunities and make the most of them". This latter definition reminds us of the definition given by Geddes: "The city is a dramatic action". Last but not least, Sennet suggests that the differences make a city, the possibility of meeting the unknown, the variety, and the anonymity (Mega 2000).

European cities have been defined as places in which the human genius is being expressed; they have unique aesthetics, culture and ethical values. Braudel called them "greenhouses of civilisation", and Levi-Strauss "objects of nature and subjects of culture" The notions "Euro-aesthetics" and "Euro-culture" do not exist. Each city is a unique civilisation. It is something more than the simple sum of its people and spaces. It consists of relationships and conflicts, convergences and divergences, myths and legends. The art of creating quintessential cities of the future in Europe demands science and art and can only produce prototypes. "Building Eutopia" has become a sustainable planning aim (Mega 1997).

Cities are seen as accelerators of balanced regional development in an increasingly complex and diverse Europe. Studies suggest an increase in the number and size of areas experiencing social and economic difficulty, emergence of new disparities and a risk of accelerated economic concentration and two-tiered development, as a result of the lead taken by a small group of large cities in terms of technological advance. Rifts are deepening both between and within regions. High-speed physical links and electronic highways bring together many regions, but exclude others and lead to the shrinkage of the European space. Cities and regions should engage in concerted actions to achieve greater competitiveness and promote endogenous development, advance environmental sustainability and ensure social solidarity. They should convert themselves into places full of opportunities (Europe 1995).

At the turn of the century, the European constellation of urban systems appears more balanced. Cities have to satisfy many, often conflicting, demands and they often fall far short of the hoped for utopias. They become places of both unmet needs and unrealised opportunities. Environmental problems and social shock waves limit the possibilities of especially large cities for further growth. Urban renaissance is an ambitious aim for European cities, desiring not simply to invest in a better environment, but to be recreated as CIVITAS, places of civilisation. Expressions like the "Martyr City" or even "Urban Genocide" are significant, but the city is the only living organism which has the capacity to renew itself. Urban renaissance may be seen as a re-conquest of eternal values to lay the seeds for a better tomorrow. It is meant to bring back harmony to cities and make them more able not simply to adapt to change, but to meet the threefold challenges of sustainability, globalisation and social cohesion.

The concept of sustainable development has become the most emblematic and numinous, yet controversial and subversive concept of the last decade of the twentieth century. It advocates for an integration and balance between the economic, social and environmental policy objectives, in permanent co-evolution, and between quantity and quality of development (OECD 1999). The principle of urban sustainability launches cities onto the world scene of the future. It is a continuous process and not an end-point, a journey rather than a destination. Like the journey to Ithaca, it may be construed as a struggle between the "Scylla of exclusion and the Charybdis of over-consumption", a navigation under the song of the sirens of growth. It may be a catalyst for social integration and a trigger for economic progress.

These general goals take different trajectories in the very diverse European cities. Gradually but steadily, European cities disappeared from the list of the top mega-cities of the World. None of the 20 largest cities of the world is now in Europe. Only London and probably Paris may have world functions. Potential is increasing for intermediate cities, the "small large" cities, which combine the advantages of small and large cities and offer citizens a more harmonious environment. Urban continuums, like the Randstadt, develop and networking is a must for cities willing to build upon each other's experience. Last but not least, united Europe is not a single Europe. The North-South and East-West divides are also sources of enriched dialectics (Mega 1998).

Globalisation offers many cities the opportunity to become world players, but this global conglomeration might have strong central quarters and weak peripheral ones. It may trigger a process of change which cannot be influenced by local communities but which can reshape them against their will. The strengthening of the social fabric may be the best way of meeting the new challenges emerging with globalisation. The interrelated social dimensions of sustainability and globalisation seem to be of primary importance for European cities, which try to manage change with more determination and understanding of both the competitive pressures and their socio-environmental implications (Mega 1999).

Last but not least, harmonious integration of quantitative and qualitative objectives has to be based on active local democracy and citizenship. The "growing desire of people for a greater say in their government" is recognised by the World Bank's World Development Report 1999/2000, which endorses efforts, by national governments "to reach down to regions and cities as the best way to manage economic and social change" (World Bank 2000). Citizens are increasingly invited to act as partners rather than protesters in local and regional projects. Enlightened

decision-makers bring together traditionally opposed local groups, on "neutral grounds" and on "equal terms", in order to create a vision for the future. Enhancing national and local government accountability is critical if a qualitative leap forward is to be achieved (CLPN 1988).

The cities of the 21st century may have to assume an increasingly dual (global-local) function; they are networks of local networks and, at the same time, constitute the diversified poles of the global networks. Technology, information and markets are global, but people are local. The strengthening of the local dynamics may reinforce cities, as new democratic spaces between the World macro-regulations and the micro-regulations of the local communities. The integration of environmental concerns in territorial socio-economic policies offers governments the opportunity to create innovative bridges between the macro-level of sustainable development and the micro-level of local behaviour (Mega 2000).

Fig. 1. Meeting the three-fold aim of sustainability, globalisation and cohesion: principles, preconditions and axes of action

	ME**ETING THE THREEFOLD AIM OF SUSTAINABILITY, GLOBALISATION AND COHESION**	
	AN ODYSSEY BETWEEN THE SIRENS OF GROWTH, THE SCHYLLA OF OVERCONSUMPTION AND THE CHARYBDIS OF EXCLUSION	
PRINCIPLES		**AXES OF ACTION**
EQUITY (SOCIAL, GEOGRAPHICAL & INTERGENERATIONAL) INTEGRATION BALANCE	——————————>\<——————————	ENVIRONMENT ECONOMY SOCIAL VALUES AND ORGANISATION PUBLIC POLICIES AND MARKET SYSTEMS
	PRECONDITIONS	
	DEMOCRACY-PARTICIPATION EDUCATION AWARENESS CO-OPERATION LONG-TERM HORIZON	

Strategic Utopias and Urban Dramas: Widening the Limit of the Possible

An unusual definition of sustainability is that sustainability is striving for eternal youth. It is a continuous invention of new opportunities, resembling youth itself, a capacity for innovation, itself an inexhaustible resource, a permanent thirst for the unknown. Innovation is "creative destruction", the key to progress. Many urban policies have failed, but failure has to be seen as the birth of a new world. Ancient Greeks always had an altar to celebrate the unknown god. A

European leader declared few years ago that "Innovation is our duty". Cities are still the places where most new goods and services are first created, where innovations expand and develop. Urban problems may inhibit innovation, but may also create a sharper need for it. Success is never a certainty, but inaction is a sure prelude to failure. A journey in innovative urban sites may be an odyssey into tomorrow's world (Mega 1994a).

Innovation and sustainability share a common desire for immortality, a pursuit of perfection. Simple evolutionary change is not sufficient in order to meet the new challenges. With advancing globalisation, shifts in the economy may prove swift and lethal for institutions, which do not innovate. Sustainability demands adroitness in maximising minimal environments, chances and skills. European cities with mythological origins are very complex systems where many new ideas, concepts and products are created, but where difficulties of implementation also abound. All forces emulating innovation try to enhance the past and to project it dynamically onto the future. Approaches require vision and tactics, design of tools and methods, information and communication. They need co-operation andconcerted action. In terms of capacity to change the face of civilisation, the will and effort of people uniting to enhance their opportunities far outweigh any technical invention.

Human inventiveness imbues all visions and actions with an extraordinary poignancy. An old world of principles, ideas and practices dies, while a new one is born. The cutting edge is where innovation lies, but it is more a process than an event, including invention, at the one end, and transformation, at the other. Invention is the research and development of a concept, while innovation includes all the politics of its implementation. Their articulation needs planning, foresight and strategic choices, monitoring and evaluation. Innovation involves a dramatic and thorough change that opens up the horizon of capabilities and an organisational restructuring that allows the new idea, concept or product to bring about the desired transformation. Progress in technology extends the limits of the possible. In an increasingly digital world, intrinsically scaleable innovations involve all scales of coalitions and transformations.

Innovation involves the birth of new orders and implies significant change in an organisation's tasks and incentives. The theory of innovation provides many valuable axioms. The more complex and diverse an organisation, the greater the number of innovations that will be conceived and proposed, but the fewer the number that will be adopted. The more established an organisation, the more difficult it is to change. Discipline, hierarchy and conformity are the enemies of change, and resistance increases when innovations touch core vested interests. The most challenging (but potentially most effective)innovation is often to halt an established practice. Finally, any innovation creates the conditions for its own demise; each innovation is born to be surpassed. The "paradigm shifts" of today may be basic innovations of tomorrow and pure routine of the future (MIT 1997).

Creativity is the essential precondition for innovation. Cities are places where creativity is concentrated, since there is no other source of innovation besides human brains and hearts. An innovative city is one which can compose a better future out of the "disorderly order of human interactions" (Jacobs 1969). This presupposes recognition of the resourcefulness of every individual actor. From a new idea to its grafting into a mainstream policy, the birth, growth and death of an innovation depend on a city's creative assets and their mobilisation towards solving urban problems and not only adapting to change, but creating the desired transformation.

Innovation requires commitment and enthusiasm from the actor that conceives it. It also needs intelligent, efficient and effective coalitions. Responsibility has to be shared among all actors. Sterile cities stagnate, fertile cities progress (EF 1997c).

Cities with a long past and rich heritage seem often hermetic to change. They are reluctant to undertake bold leaps into the future. Radical innovation may change irreversibly their cultural status quo. They limit themselves to pure evolutionary change and adaptive responses, within the established rules and procedures. However, in the era of globalisation and sustainability, radical shifts are needed for cities to reject the worst part of them and strengthen their best perspectives. Innovation generates a luminous light, which reflects on the past and radiates out to the vast, yet unshaped and unfathomed territory of the future. Disrespect to the cultural dynamics of the past would be like ignoring the law of gravity.

Change is inevitable; the challenge is to manage change in order to ensure a beneficial outcome. Cities must harness the power of new technologies and social innovation to explore their "truly endless frontiers" and optimise their condensed knowledge and resources. Very often, established administrative and financial structures nullify the possibility of innovations to extend the limits of the possible. Discrimination is the other major prohibitive factor. It leads to an unequal nurturing of creativity and creates flaws; it obstructs the access of non-recognised actors to a fertile field of innovation. Innovations are also needed to overcome the obstacles to innovation. Redressing the imbalances and addressing the inflexibility of structures represents a vast field for innovation and change. Each successful innovation is probably the result of purposeful trials and constructive errors; it might constitute in itself a less fruitful stage of a more successful initiative. Imitation seldom requires as much trial and error as innovation does, but it is a shortcut and, in the long term, it kills the productive seeds and weakens the constructive capacity of cities (EF 1997c).

A city supporting and fulfilling innovations might not be the most efficient in the short term, but this does not mean that innovations are necessarily expensive (EF 1997b). Many innovations are linked to a small initial capital and produce considerable change. Sometimes, the purposeful and knowledgeable use of capital is impossible unless small sums have first been spent on a variety of small-scale new departures. The success of each small experiment is an expression of the creativity that fertilised each small sum and of the conditions that made it happen. The current challenges are highly complex and integrated; efficient and effective innovations need to address simultaneously the economic, social and environmental dimensions of development. "Polyvations" (versus "monovations"), bear witness to the strategic visions in order to meet simultaneously increasing social, economic and environmental challenges, have huge potential for progress.

Nobody holds the monopoly on innovation. It can come from an individual or collective actor, but usually needs a critical mass of actors to ensure its success. Much depends on the maturity and the cohesion of the community, the quality and commitment of human resources and political will and resources. Governments, at all levels, become much more enablers than providers do, but, equally, are initiators of innovation. The private enterprises and the social partners can co-initiate innovations, making them grow, finance unprecedented activities, stimulate other actors, create the social climate for acceptance. They all share the responsibility of sowing the seed of the future.

Models of coalitions that place people at the centre of a genuine, far-reaching development strategy seem to have an unparalleled potential to lead to what J.K. Galbraith calls a good society (1996), a society offering a fulfilling life to everybody. Often, policy analysts are surprised by the major role individuals play in generating and implementing innovations. Charismatic leaders, scientists or simply local citizens/workers are all potential bearers, initiators or adapters of innovations. A common problem or a common perspective often ferments the common ground for the coalition.

Innovations may be both superb and dangerous at the same time. They may bring impressive leaps out of value-creating activities and dramatically and permanently change a city's sense of what is possible. They may also lead to a point of no return and affect the cultural stable equilibrium of a city. A strategy of moderation and co-operation is needed. Adaptation may be difficult. Citizen participation can act as a net, in communicating vision, in sharing the costs and fruits of change and in ensuring that innovation does not become excessive, ignorant of traditions or socially unacceptable.

J. Jacobs shed ample light on the conditions and the consequences of innovations in cities (Jacobs 1969). Nurturing creativity can be contagious;it can create a climate for mobilising more creative potential. No rapid mobilisation of creativity can take place if there is not a permanent environment for the peaceful incubation of genuinely new ideas and unproven goods and services. Education and research may help enormously in this long-term effort with many cultural dimensions and added value. Civic traditions for alliances and coalitions are critical for the implementation process. Innovation may also be the result of a struggle for survival. Environmental degradation, social justice and economic crises may force people to take a hard look at reality and generate a plethora of new ideas. They are both obstacles and drivers of innovation.

The innovations that illustrate this paper are also chosen as able to provide "transferable models". Many cities desire to "export" successful projects to inspire innovations elsewhere, but it is up to cities that "import" the solutions to check them against their own unique conditions. The "replicability" of the models makes them more attractive to policy-makers, but it must be done very carefully with respect to the difference. It would probably be more correct to speak about "transplantation of innovations" and expect the new result to be not only dependent on the relevance of the model, but also on the new local conditions (EF 1993,1997a).

"Our Environment: The Future"

Europe is a land of cornucopia. A European city of one million inhabitants is an omnivorous consumer; it consumes every day, on average, 11,500 tonnes of fossil fuels, 320,000 tonnes of water and 2,000 tonnes of food (EEA 1995a). Stabilising consumption is a major objective. The Charter of European Sustainable Cities and Towns recognises that the objective of decreasing consumption levels in the greedy cities may be over-ambitious (ESCTC 1994). The North, with 25% of the world population and 75% of resource consumption has an ecological footprint (evaluating and aggregating the biophysical capacity of land surfaces needed to produce the resources necessary for cities and to absorb their waste) six times greater than the South. If the South were to increase its consumption by 50%, the North would have to decrease its

consumption by 15%, which would represent a drastic change in habits and patterns. Urban models promoting these changes may lead to the civilisation of eco-society (Mega 1999).

Cities are the main contributors to and victims of anthropogenic global changes. Their development should be carried out with regard to the availability and the distribution of resources. The sustainability journey demands from cities the improvement of their metabolism and, especially in the Northern Hemisphere, the disassociation of the economic activity from resource use and pollutant release. Renewable resources should be managed in a way consistent with the preservation of their reproductive capacity and non-renewable resources in a way that guarantees their ecological functions, within the potential of renewable resources to substitute them. Political and public momentum in support of sustainable development should be enhanced. The private sector could contribute significantly to achieving sustainability commitments in a cost-effective manner. Prevention should be considered an investment and not expenditure (Mega 1996).

Environmental plans and charters are being prepared by many European cities, introducing new types of collaboration and partnership. Implementing Local Agenda 21 is a noble common objective. All 288 Swedish local authorities had already prepared local plans 21 by the deadline fixed in Rio. In Finland, the Lahti Environmental Forum, established in 1993, tries to bring together the different parts of society in order essentially to promote sustainable development in the Lahti area. Commitment of each and everyone is a key concept. In France, environmental charters constitute contracts between the State and each city. The Charter of Mulhouse is a clear example of the strong will to improve the environment and public health. Leicester Environment City created the "Business Sector Network" to bring together ideas from the city's commercial sector and provide assistance to businesses, while "Environ", a non-profit-making company, has been set up to provide local organisations with access to environmental audits and advice (EF 1993, 1996).

Urban ecology offers cities wishing to reconvert themselves new visions and models (Rueda 1995). In The Netherlands, the city of the future is perceived as a liveable city, a well-ordered city, an affordable city and a sustainable city. In Germany, environmental awareness has often been linked to socio-economic change, first and foremost in the cities that have been the scene of many socio-political transformation processes. With the challenges of unification in the city of Berlin, the ecological restructuring concept, introduced as early as 1984, came into prominence. The concept advocates a new sustainable symbiosis between economy and ecology in the urban landscape and places the emphasis on preventive policies to tackle the anthropological origins of environmental degradation.

Many creative projects have made Berlin, European history's fallow city, to get reinvented as a "recycled city". The predominantly derelict space adjoining the former wall has become, once again, a central space for creation and innovation. In Kreuzberg, "Block 103" is an interesting example, highlighting links between social well being and environmental upgrading. Former squatters of the block have been given the opportunity to own the space they occupied and, at the same time, they have been trained in converting the houses into ecological modern buildings. Special emphasis has been given to energy, water, green spaces and new materials and techniques. Another complex, Block 6, has been the field of innovation for alternative water systems. The system is based on a combination of cleaning techniques for the water and

emphasises the learning and communication process. Residents have been trained in "feeling" the process. The system generates 50% savings on water, while the residents' association participates in the technological monitoring (EF 1993).

Creative European cities become laboratories of ecological innovation, with high experimental value. The Understenshöjden ecological village in Stockholm is a good example of improving urban metabolism with ecological self-building and user participation in the design. Schwabach, a small German city, offers an example of the efforts to implement an urban ecology planning strategy. The city has been selected by the Federal Ministry because of its unified, dynamic local government and its ecological achievements to date, especially in waste management. The driving principle is that nothing is impossible and everybody has to participate. The pilot study aimed at introducing ecological concepts and actions to a normal city, under ordinary conditions and with average funding. After the study, the city council issued guidelines for action and translated them into a concrete programme in its 1993-2003 Model Urban Development Strategy, leading to Schwabach Ecological City (EF 1996).

Improving the efficiency of the whole energy cycle from production to consumption is a cardinal priority for sustainability. Successful strategies to reform energy patterns include the move towards cleaner energy systems, integrating new more environmentally sound and renewable energy forms, the conversion of district heating plant to decentralised combined heat and electricity units, the development of local energy provision systems and the improvement of the heating systems. The continual improvements of technology and consumption patterns are of paramount importance. Renewable energy presents a special interest for co-generation and for energy-efficient urban renewal and residential development. The mini-centre for the co-generation of electricity and heating in Milan is trying to develop specific scientific and engineering knowledge in a local context and stimulate the interest of potential users (EF 1993). In the German Länder, energy-saving measures include the introduction of an "energy pass" to optimise the energy conditions of houses. Energy budgets highlight the large contribution of transport to energy consumption and indicate paths for improvement.

Efforts to improve energy cycles are being undertaken by many cities, as consumers, as producers and distributors of energy, and as authorities planning and enabling public and private action. Odense takes action for energy savings in municipal buildings, while Besançon established a tele-management system for the monitoring of the energy cycles. Sabadell achieved a better lighting of better places with 25 % less energy consumption and Amsterdam launched a programme for the diffusion of decentralised co-generation systems already in 1988. In Brescia, half of the demand in energy is satisfied by the local production and supply by the municipal enterprise Azienda Servizi Municipalizzati. Co-generation of electricity and heating is supplying the rest and allows the city to be self-sufficient, while achieving energy savings. A programme for the reduction of the consumption had led to savings of 16 % of the production of the municipal enterprise. In Manheim, the heating of 43 % of households comes from co-generation, while 32 % of them are heated with natural gas and only 4 % of them with electricity. The system became more productive with the planning of zones, within which only one source of energy for heating is allowed. Air quality has considerably improved. In Rennes, energy planning has been on the Agenda since 1981 and linked to the creation of new housing quarters and in Bremen, public campaigns are being organised to favour low-consumption lamps (Friends of the Earth 1995).

If cities do not wish to become like I. Calvino's "Leonia", a city that will be covered by its own waste, waste prevention should be a key element of resource management. Reconsideration of the urban metabolism puts much emphasis on action before the waste is generated, even if investment is still concentrated on the recycling end. Once generated, waste has to be considered as a resource. Everywhere, innovative actions are being undertaken for the prevention of industrial waste and the avoidance, reuse and recycling of domestic waste. In Parma, plastic waste is being transformed into building material and in Rimini, organic waste from hotels into agricultural compost. An ecostation has been created and its management has been entrusted to a centre for the rehabilitation offormer drug addicts. Each citizen contributing to the latter highly environmental process is rewarded with a plant. The Municipality of Oeiras, in the metropolitan area of Lisbon, set up a programme for the backyard composting of organic waste. The project aims at dramatically reducing the amount of waste the municipal services collect, transport, treat and dispose of, thus giving inhabitants themselves the possibility to produce a high quality fertiliser for their gardens and increasing people's awareness of urban environmental problems (EF 1993).

Sustainability management requires new instruments such as sustainability modelling, accounting and reporting, indicators, strategic environmental assessments, sustainability appraisals and eco-auditing (EC 1996). Environmental auditing in the public sector and especially among local authorities is a recent but rapidly expanding phenomenon and an important instrument for assessing the environmental performance of cities. From the internal auditing of the municipality to the external auditing of the community (perhaps an unfortunate distinction), the field is still in a state of flux and it is difficult to provide a well-defined paradigm of hybrid methodologies. Cities and enterprises take many parallel paths when conducting their economic and environmental auditing. It is essential both that the rigour associated with financial auditing is part of the process and that diagnosis is followed by prognosis. The environmental balance sheet of Sundsvall with the accounts of stocks and flows of environmental resources, the auditing of all urban activities in Igualada and the richness of the components of environmental auditing in Kirklees offer a horizon of models and lessons at the forefront of current practice (EF 1996).

Environmental deterioration is due to the incapacity of public policy and the market to manage environmental resources properly. Externalities need to be internalised either through the price system or by establishing property rights. The absence of markets for vital shared resources, as air and water, is linked to the absence of property fees for these goods. The lack of a price of access is at the origin of their unlimited access. Economic instruments act like substitutes of markets that are costly and difficult to organise. The advantage of economic instruments is that they can be applied using the fiscal infrastructure of a city. In some cases, like air, the application of instruments is done indirectly through taxes in charge of the polluters. The passage from the "Command and Control" regulatory approaches to the "polluter pays" principle has been a significant step. The fees imposed directly include pricing of water and waste according to consumption and discouraging the use of the private car. Revenues obtained through environmental taxes or the proceeds of selling the tradable permits may allow governments to reduce other taxes which distort economic behaviour and thereby possibly reap a double dividend in the form of improved economic-environmental performance (OECD 1996).

Environmental problems in European cities do not arise mainly as a result of production; they arise as a result of consumption and mainly from traffic. Transport systems are being criticised everywhere for no longer being able to deliver the expected levels of service. Traffic congestion represents a loss of 3% of GDP in the countries of the EU and traffic infrastructure covers 10-15% of the urban space. In cities such as Athens more than 80% of the air pollution is attributable to traffic. Many of the signs of failure are clearly visible. The great irony is that this situation is virtually the direct result of urban policies in the last decades. Traffic provisions are like arteries, they should facilitate the flow of vitality and not dominate the body of the city (ALFOZ 1995). Renaissance of urban spaces and functions is best illustrated in efforts to decrease unsustainable mobility by favouring public transport over the private car and giving priority to the pedestrian and the bicycle (UITP 1991).

In OECD, one-third of all emissions from fossil fuel is attributable to transport activity. The G8 Environment Ministers concluded, in April 1998, that transport trends are moving in the wrong direction from the standpoint of achieving sustainability. Addressing greenhouse gas emissions from transport requires a fundamentally different approach. There are key gaps in our knowledge about transport trends, underlying factors and environmental impacts. The public must be fundamentally engaged in policy development and debate. Technological, social and political innovation should be promoted, together with demand management and governance. Price is important, and positive incentives are required as well as fiscal penalties (Mega 1998).

Mobility has long been regarded as a cardinal social value, a supreme symbol of freedom for urban dwellers. However, fragmented decisions, in presence of multiple externalities, created serious traffic problems that concentrate in place and time. Mobility patterns depend on both the supply of transport infrastructure and the increasingly complex and unsystematic transport demand. Demand depends on its turn on widely unconstrained location decisions of firms, developers and households. Sub-urbanisation has always been inextricably linked to transport infrastructure. Many metropolitan areas suffer from a vicious circle of road construction and further sub-urbanisation. Commuting times show an extraordinary stability through time, in all territorial systems, and expert suggest that there is an anthropologic constant in the form of a fixed time budget (EC 1992).

The private car is considered to be the single most destructive factor for cities. The study undertaken by the European Commission on "A Car-Free City" suggested reconnecting cities in pedestrian terms. A city without cars could be composed of various small units, accessible on foot from one end to the other, separated by green spaces and united by high-speed public transport. The car-free city seems to be not only ecologically efficient, but also even economically efficient, as it appears to be two to five times less costly. In such a city, enterprise has new local challenges to meet, as job creation is essential for the self-sufficiency of each small urban unit (EC 1992). Following the EC research, the city of Amsterdam, which, following the example of cities like Bologna, has had a recent referendum on the restriction of the private car, organised the conference "Car-Free Cities?"(Municipality of Amsterdam 1994). The question mark is significant, as it expresses reactions and inhibitions.

The human leg is the only truly sustainable transport means. A pedestrian-friendly city is more human. Copenhagen has been a pioneer city in recognising the social value of pedestrian streets. When the main street, Strøget, became pedestrian in 1962 (as one of the very early such systems

in Europe) there was a heated discussion. Many believed that the scheme was contrary to Nordic mentality and culture, but it became a great success almost right away. The creation of pedestrian paths continued over a period of 30 years and the downtown parking policy had as its objective the elimination of 2-3% of the parking spaces per year. With the improvement of the public system and the enlargement of the bicycle network, more and more space has been taken away from traffic and given to people who started returning to the city centre, leaving behind anonymous peripheries. Experiences abound throughout Europe. Oulu, in Finland, is extending its pedestrian zone, which is proving to be very successful, despite temperatures that can reach as low as -30EC. In warmer climates, historic cities have been pioneers in creating pedestrian cultural environments (EF 1996).

In Naples, places like Piazza de Plebiscito have rediscovered their former splendour after the removal of private cars, while Venice remains the archetype of the car-free city. In Perugia, the restriction of private cars in the historic centre started in the early 1970s. Escalators have been constructed in the rock to connect the old city with the modern one and with parking spaces. The passage with the escalators became a gallery of urban archaeology. In Orvieto, the alternative mobility system also has many innovative elements: the system has been created out of the need to improve urban life which had deteriorated because of tourist buses driving in the historic town on top of the hill and the fragility of the rocky morphology. The old funicular railway has been revitalised. Private cars have to be parked in large car parks at the foot of the Orvieto hill, the funicular railway takes all passengers to the top of the hill and a system of minibuses takes them around the city.

Cycling is the other sustainable transport mode, after walking. Is it an urban paradox that both walking and cycling have been more developed in northern, rather than in southern cities where climate allows more outdoor activities? Is culture stronger than nature and climatic conditions? Amsterdam is the European capital with the most elaborate bicycle network, complementing the road and canal routes. In cities like Copenhagen, Münster and Erlangen, 35% of all transport needs are satisfied by bicycle, but in cities of the former RDA, the use of the bicycle is falling. Cities like Basle can be crossed and enjoyed by bicycle, while the cities of Zurich and La Rochelle lend free bicycles to citizens and visitors.

Transport has to meet new challenges in cities with a priceless historic core. In Evora, one of the World Heritage cities surrounded by an ancient wall, the traffic plan is an integral part of the urban regeneration programme supported by the population. Most of the commercial tourist and social services that generate traffic concentrate within the city centre. The number of cars has almost doubled during the last decade. The city prepared a plan to deal with the excess traffic in the historic centre and the chaotic parking situation and to improve the quality of life of citizens and tourists. It was decided that a single company would manage the public transport and parking system. The project includes the creation of large car parks outside the city walls, a high-quality public transport system, with mini- and microbuses adapted to the existing narrow medieval streets, park-and-ride and the creation of pedestrian streets and cycle tracks (EF 1993).

Ecological cities, such as Heidelberg and Freiburg have been pioneers in promoting "short distances" and introducing low-noise vehicles in noise protection districts and eco-tickets for public transport. In France, Nantes, Grenoble and Strasbourg introduced, from 1985 onwards, three technological generations of tramway well adapted to the cultural urban patterns. In

Valencia, the new tramway is promoted as "a tramway named Desire". Moreover, pertinent and systematic combination of transport modes is highlighted in many innovative projects. In La Rochelle, a multi-optional concept (Autoplus) has been introduced through a partnership between municipalities, the semi-public company for public transport, taxi owners, two private bus owners, one ship owner, hotel owners and a bank. Information and consultation campaigns have as their objective the limitation of the use of the private car. In Toulouse, the city, the semi-public enterprise for public transport and the company which has created a smart-pass, work together for the readjustment of the transport services to the real demand.

Well designed, fast, clean, comfortable, flexible, easily accessible and noiseless public transport is a precondition for persuading citizens to use fewer private cars. Even if Europe seems far away from places like Tokyo, where only 1% of commuters use their private car, there are many innovations in upgrading public transport. Examples at the leading edge include experiences from Swiss cities (Zurich, Basle, Berne) and German cases (Freiburg, Bremen, Aachen). Zurich is one of the few cities that have developed a coherent solution to a problem of traffic build-up at intersections. Preserving and upgrading the tram system and rearranging the bus lines were the key elements of the improvement of the public network. The particularity of the system is its ability to deal with each Public Transport Vehicle individually, allowing it to cross intersections without stopping (IULA 1991).

Despite many notable efforts, the curb of the use of the private car has succeeded in very few places, which provided valuable alternatives, through fast, clean, comfortable, flexible, easily accessible, noiseless and well-designed public transport. Even in pioneering cities that restricted the use of the private car, like Bologna or Freiburg, motorised traffic hardly decreased. An OECD/ECMT project, building upon 18 national policy reviews, concluded that car dependency in cities could only be reduced by integrated approaches, combining measures reinforcing each other. Reducing energy consumption and traffic congestion and advancing towards better local environments require a mix of pricing constraints (road pricing and higher taxes on fuel) and an effective land-use planning (OECD-ECMT 1995). Optimal policy mixes can only stem from consistent national frameworks and local actions.

Sustained Economy For Cities of The Future

The progressive globalisation of the economy and the advancing international division of labour make many European cities control and command centres of the world's invisible production and consumption chains. Cities are the main places where information and economic flows get decoded, condensed, converted and metabolised; the places where decision-makers and entrepreneurs and citizens congregate. Dynamic synergetic effects are much more important than merely accumulative ones. Competition should be a stimulus rather than an impediment. A diversified urban economic basis is considered to be a must for entrepreneurial flexibility and the ability to respond to irregular and fragmented demand. The role of enterprises in the shift from goods- handling to information handling is essential. Large enterprises may lead to the "edge city", but SMEs have potential in creating new employment and revitalising the city which refuses to accept its urban life being organised around mega-malls.

Public-private partnerships should work together like an orchestra (private) with its conductor (public) for the overall improvement of urban functions and life. They are linked to a shift in

public policies from direct interference to indirect (or conditional) policies (incubation and innovation). Industrial, technological and business parks offer a broad array of partnerships for turning deprived industrial areas into healthy spaces and areas of positive environmental and economic profit. Stockley Park, a former derelict rubbish tip, within the green belt to the west of London, gives an inspiring example. A partnership between the developer, the local authority and the university created an international business park and public parkland including recreational facilities. In exchange for the right to construct the business park over 36 hectares, the developer guaranteed the reclamation of the whole site (140 hectares), removal of groundwater pollution, environmental enhancement and landscaping. At all stages of the construction of Stockley, local residents were involved in the process through extensive community consultation (EF 1993).

In Germany, the IBA Emscher Park has been an important pole for urban development and ecological renewal within the northern Ruhr district. European experts, together with the cities and industries of the Emscher region, work for the modernisation of coal mining settlements and the creation of new housing, the development of fallow land and the promotion of attractive locations for industry and services. The preservation and re-use of industrial sites, the landscaping of the Emscher area into a park, the ecological restructuring of the river and the protection of the water environment are leading to a healthy space. New dwellings have been created on fallow land and with new environment-friendly material. High quality locations for industry and services have been established. "Working in the park" is possible through the enhancement of the quality and attractiveness of the area (EF 1997a).

The development of high-quality science and business parks is also expanding in the Mediterranean area. The Technopolis of Bari comprises a research centre, a training centre and international schools and services. Profits derive from the provision of services to business and public administration. The parks are designed to respond to demands for innovation and also to create a new demand for innovation with various stimuli. The IEDA Andalusian Technological Park in Málaga tries to capture foreign and national investment, to attract research centres and to give rise to the creation and development of endogenous enterprises (EF 1993).

Economic development is a precondition for a better sustainable future. Berlin strives to create a new economy out of its emotionally charged past. After the building boom that followed reunification, the city appears like a gigantic construction site with 150 major projects and thousands of smaller ones clustered in the city centre. Flagship projects are being conceived as the venues for significant forms of human endeavour. What is being created is a symbol as well as an urban space, designed for people. Potsdamer Platz, once the hub of social life, the busiest crossroads of Europe and later the broken heart of divided Berlin, is becoming once again a centre of attraction. The Sony Centre has been conceived as a multifunctional complex assembling urban activities within a single spatial structure and as a forum open to the neighbourhood. The whole metropolis aims to become cleaner, greener and friendlier. The prominently located "Regierungsviertel" ("quarter for ruling") appears to have as an objective the activation of all those assets that will project Berlin and Germany onto the scene of a borderless world.

Economic regeneration aims at revitalising the whole urban fabric, its software and its hardware. In Dublin, the objectives were to redevelop dilapidated areas, halt the dramatic decline of the

population in the city centre, strengthen the area as a centre for business and services and create a climate of confidence to stimulate and win back investment. In 1986, a survey highlighted the underused large part of the city's heart. For over 20 years there had been no new private developments on the quays of Liffey. The Dublin City Development Plan was published in 1991, after six years of preparation and consideration of 21,000 representations and objections. It provided a framework, but the City Council had limited powers and resources to implement a programme of that magnitude. The scale of the endeavour required action by the government, which reacted with major initiatives, including the designation of assisted development areas, the establishment of the International Financial Services Centre in a derelict dock area and the Temple Bar project, cultural neighbourhood of artistic creation (EF 1996).

The conversion of waterfront areas, seaside or riverside, in order to host activities of the future is a major feature of several European cities. As a result of economic and technological reforms over the last few years, city-centre ports have disappeared, leaving behind the husk of an infrastructure in need of a new role. Disused dock buildings are being turned into exhibition halls, shops, craft workshops and centres for cultural activities. The Salford Quays development on the Manchester Ship Canal came about through the will to turn derelict space into the ultimate leisure area, respecting the environment and promoting culture. The conversion of the old harbour area in Gothenburg into a mixed-use city, after the closing down of shipyards, transformed 4km of abandoned area into a multifunctional city through a multiple partnership between the city, the architects, the former shipbuilding companies and the public. Industrial buildings were assigned new intelligent functions (EF 1993).

Interesting lessons may also be learned from the rehabilitation of the commercial and waterfront area of Galway. As industrial activities disappeared or have been relocated to sites outside the city, a central area was left abandoned and dilapidated. The 1986 Urban Renewal Act designated this a priority-assisted development area. Economic measures were introduced, promoting rehabilitation as well as new building. The major objective was that any new building should reflect Galway's unique character and atmosphere and promote a mixture of functions considered essential for the vitality of the city centre. By the end of 1992, all derelict space had been rehabilitated and a balance created between shops, services, offices and dwellings. The construction of housing units, much more suited to Irish culture than flats, on the terrace roof of the city's main shopping centre is a good example of mixed functions within one building.

In Turku, the metamorphosis of an old industry and harbour area into a new arts centre is an inspiring example. Factories and warehouses were established on the riverside and their closure left behind unique urban structures. In 1987, the Turku city council announced an open-air competition for their reuse and enhancement. The master plan for the area, based on the winning entry "Despina", envisaged new buildings for educational, museum and office purposes. Two massive former shipbuilding halls and a former rope factory were to form a major fine arts complex, including a conservatory, the Turku School of Art and Communication and the School of Fine Arts. The rope factory was elected, some years ago, as the ugliest building in Turku. The buildings have now been turned into a magnificent mixture of old and new structures in brick steel and glass (EF 1997a).

Last but not least, the cultural heritage of cities may represent the most productive long-term investment. European cities have been marked forever with the uniquely symbolic significance

of its heritage (EF 1995). Ancient and historic sites constitute an immovable, irreplaceable universal capital and a unity of culture and civilisation. They are documents with which history has endowed the urban landscape and they exert an invincible fascination upon the collective consciousness. Heritage is a source of wealth and conservation of monuments is economically and socially profitable for enterprises and workers. The European monumental space, if properly preserved and managed, can be an inexhaustible tourism attraction pole and provide a resource for quality leisure and scope for fulfilment. Cultural tourism provides new opportunities for wedding conservation to economic development. The route to Santiago de Compostella provides a prime example. The development of archaeological parks or cultural itineraries, integrated in urban regeneration programmes and with respect to the tourist capacity of cities, may be very beneficial. It has a high potential for the upgrading of the tourist industry, the provision of better infrastructures and transport interfaces, the strengthening of the educational and recreational role of the monumental space and the creation of new job opportunities (Mega 1997).

Social Exclusion: The Achilles' Heel of European Cities

60 million in the European Union live below the poverty level and most of them concentrate in fragile urban areas, a far cry from the European urban archetype or the great urban utopias. Even in the most prosperous European cities, there are urban islands where environmental degradation and social exclusion go hand in hand. They belong to more or less extended zones in run-down city centres or chaotic peripheral zones, where the disadvantaged are spatially concentrated. They remind us of the third or even the fourth world. They are the lowest depths of the city, where the city secretes an "unknown" city or the sprawling suburbs that have nothing in common with the poetic "tentacular" cities of Verhaaren. They are places of functional impoverishment, with poor housing, delinquency and crime, high unemployment, low mobility, little access to information, education and training (DIV 1995).

Globalisation, economic restructuring, competition and the reform of welfare states are often the causes of the fragmentation of the urban fabric. The cumulative spiral leading to exclusion and distress become an obstacle to the creation and (class, geographical and intergenerational) distribution of urban wealth. Unequal distribution has draining effects on the vitality of urban activities and it is a source of both unsustainable lifestyles and obstacles to cultural change (Parkinson 1998, Young 1990). European cities that are showcases of financial power will never become sustainable if they hide social micro-jungles. Inequality must not be seen as the ransom to pay for success, but as an obstacle to sustainable prosperity. Urban renaissance must regenerate all these micro-jungles, their spatial webs and their social fabric. Social justice must be seen as a basic precondition for sustainable wealth. D. Harvey reminds us that "there is nothing more unequal than the equal treatment of unequals" (1983).

Unemployment and exclusion scar the face of cities and ask for a new social bond to be forged through innovative actions for job creation and social integration. Ireland is committed to reducing the incidence and mitigating the effects of unemployment, while promoting an open, competitive economy. The Dublin inner city partnership represents a local area-based response to long-term unemployment. The "Argilan" employment, guidance and training project in Vitoria-Gasteiz, Spain, aims at the regeneration of the economic web of the city through new professions, the continuous qualification of the labour force, adapting it to the requirements of demand, and the prevention of social exclusion. The world's greatest snow castle in Kemi,

Finland, provides many opportunities for creative new jobs. In Sweden, Rinkeby shows the importance of the merging of social services into a one-stop-shop and the support for "starting working" in a community highly dependent on social welfare. The project includes meaningful training, the establishment of a SMEs incubator for immigrants and creation of new jobs in activities ranging from crime prevention and drug abuse prevention to theatre creation (EF 1997a).

Upgrading home environments should only be second to fostering new, low capital job opportunities. The improvement of the housing environments, the living cells of a city, leads to the coherence of the urban fabric. Mass housing (social and subsidised) has often created social tensions on the urban fringe. It has often been remote, uniform, reactive, and anonymous, devoid of management and it has failed. In many European cities, housing is now beginning to be self-regulated, personal, individualised, proactive, with corporate neighbourhood space and responsive local management. It has to provide proof of vitality of work and enterprise and to allow personal identification. Vibrant local communities are replacing depressed neighbourhoods. Many disadvantaged poor estates are going through a radical rethinking of space and its social significance. A new human face is judged necessary in most of those areas built quickly and cheaply after the war as if they were to house interchangeable people.

Without regeneration of the suburban areas, the places where one does not know if one is "in" or "out", cities will become like I. Calvino's "Pertesilea", the city that is all "urbis", where the "civis" is immersed in social struggles. Efforts for recreating economic diversification, social heterogeneity and cultural diversity in the periphery expand. The Mascagni development in Reggio Emilia shows how a multifunctional urban space can be created from a rigid series of anonymous buildings and the marriage between old and new, with integrated services and support schemes for local business. In Hällefors, the transformation of the housing area Klockarskogen, through selective demolition, provided opportunities for the creation of a sculpture park, to cover empty ground while generating skills. In Finland, the Top Toijla project tried to activate and strengthen tenants' engagement in the improvement of the Rautala housing area. Ambitious renewal has been achieved with a modest budget. A "community theatre" has been created to identify and solve problems and nourish visions and actions.

Urban safety poses a major challenge to cities and governments. While policing still remains essential, community projects in Denmark are being used to prevent crime. Action Plan 10, by involving tenants in successful renovation of their own neighbourhoods, has contributed to crime prevention. Graffiti attacks unrelated to any form of artistic expression seem to be the post-modern way of attacking public spaces and property. One successfully implemented integrated approach to fighting graffiti in Maastricht includes extra means to trace the offenders, conditional or alternative punishment, and education programmes to improve the skills of graffiti "artists" and an anti-graffiti bus with formerly unemployed people specialised in removing graffiti. The city made a wall available to citizens wishing to express themselves using graffiti. Within two years the damage caused by graffiti pollution decreased considerably (80-90% at the railway station), while there was a noticeable effect on preventing recidivism (EF 1993).

Between Heaven and the Earth:

Towards a Human Future for European Cities, Open Democracies

City planning faces the dilemma of opposing impulses: preservation versus new development. Most cities opt for renewal rather than expansion, rehabilitation and redevelopment of brownfield land rather than greenfield development, consolidation of the urban fabric and improvement of the suburbs. The "soft urban renewal" in Vienna includes block improvement schemes, enhancement of public spaces and ecological measures. The social criteria insist on avoiding segregation or gentrification. Soft renewal allows inhabitants to remain in place and avail of a range of resident-friendly measures. In Barcelona, the rehabilitation of the Ciutat Vella, comprising four quarters in the historic centre, is an unprecedented and unique event, in terms of dimension, time and civic spirit. The Olympic games generated "Olympics of ideas". Urban mix is being recreated through selective renovation, rehabilitation, construction, pedestrianisation and greening. Civic centres have been created and have become places of cultural reference. The invisible elements that made everything happen are the strong neighbourhood groups that have been partners with the authorities. They have played a pioneering role in the allocation of new housing and services, after the dismantling of unsound activities and have successfully generated a whole change of climate.

Symbolic landmark projects may help European cities to be recreated as strongholds of civilisation. Often, structural projects linked to some unique events (EXPOs, Olympic Games, etc.), act as catalysts for the future restructuring of the cities and the regions. In order to meet their objectives, the projects must synchronise the long-term potentials for continuity and flexibility. In most projects, the trend is towards guaranteeing an optional multiplicity of land use and good spatial, functional and economic integration in order to enhance the vitality and livelihood of the whole area. Barcelona, the city that has been reconciled with its sea, gives a good example. Following the opening of the city towards the sea and the creation of the Villa Olimpica, the whole urban fabric is changing with the injection of key improvements. Consultation and partnership are important on several levels, vertically and horizontally. The success of the projects greatly depends on a constant and re-affirmed political determination, which can withstand changes in elected representation.

Public spaces, islands of civilisation in the archipelago of the city, belong, by definition, equally to everyone. R. Koolhas describes them as fortresses of freedom. They should rise to the challenge of being places for cultural fulfilment and for "negotiating" democracy. However, "highly charged" public spaces, with multiple risks of conflicting interests, become often arenas of confrontation and of exclusion. It is not the space "just left" after construction; it should be given major importance as a civic space and shaped as a matter of priority. The unification of the archaeological spaces in Athens and their functional and aesthetic links to green spaces is expected to create a high value public space. Attractive public spaces may foster democracy. Setting up qualitative recommendations for the functional, environmental, cultural and aesthetic character of the spaces, roads and pavements, roadside plantations and public lighting is very important in forging cultural identity. The Manual of Public Spaces in Brussels is a good example.

The recreation of cities as "civitas" highlights the reconstruction of the "urbis" as an area of universality, organised in a given territory, increasingly functional and dynamic. Medium-sized cities are pioneers in this process. The regulatory plan of Siena is an example of creating modern life in an old city where cultural associations (Conrade) have a power parallel to that of the city. The special plan of Toledo aims at clarifying the dialogue between the historic and modern city, enhancing the historic legacy (consisting of historic buildings, vernacular architectural spaces and the fabric of the streets), implementing an accessibility plan, optimising the city's potential (arising out of its physical morphology, as an island anchored on the valley of Castilla), and promoting the coexistence of the historic centre with the socio-economic centre and the mix of university, cultural, administrative and tourist functions.

Citizenship is a precondition for reaping the fruits of globalisation and moving towards sustainable development. It means participation. And permeates every aspect of urban activities. Decentralisation, empowerment and devolution are considered as important factors in the constitution of the European civic consciousness. A non-participatory community is inherently unsustainable and citizen participation is a common denominator for projects initiating the new era. Citizens with conflicting interests come together to prepare environmental laws and charters, they are increasingly invited to act as partners rather than protesters. Very different projects, ranging from the improvement of exceptional vernacular architecture such as Otranto and Bari, to the tracing of the new metro lines in Valencia, have been crowned with success thanks to the active participation of residents. In Brussels, the consultation procedures for planning introduced new participation concepts and challenges. In Reggio Emilia, citizens participate in the drawing up of the city budget (Abbott 1996).

Moving from government to governance is essential for cities which reject the model of I. Calvino's "Zora", a city which is managed artificially as a system and not governed as a social formation. NGOs, Women's associations, universities and the social partners have great energy to invest in the noble aim of improving city and turn aspirations into reality. Cities like Evora, Siena or Galway have hundreds of citizens' associations committed to cultural activities and voluntary action. Efforts for creating citizen-friendly cities expand. Scenario workshops try to bring together different local groups, traditionally opposed, on "neutral grounds" and on "equal terms" to formulate consensus on a vision of a sustainable city. The "charette" method inspires and teaches. Urban regeneration is not just about places, it is about people and these kinds of event liberate creative individuals, articulate a sense of vision and create a momentum, a thrust for the future (Healey 1997).

Institutional innovations, introducing flexible but accountable structures, are needed to provide fertile ground for progress. Urban democracy, representative and direct, is a key element to the existence of cities and their capacity for sustainability. Cities have promoted open democracy since the age of Pericles, well before acid rain destroys the faces of Caryatids. But democracy can be fragile. It needs an everyday reconfirmation of civic values, an ongoing reinforcement of the civic bond. This must precede any gestation of visions and plans and touch the heartbeat of the city. Citizens should be transformed from mere users and consumers into city actors and rise to the new challenges of the urban governance (ENA-Recherche 1996).

The move from government to governance should pay a particular attention to the citizens of the future. The "fifty-fifty" project in Hambourg involves all 423 schools of the city, committed in

reducing by 59% energy and water consumption. In Finland, the "Children as Urban Planners" project in Kitee aims at educating active citizens in environmental awareness and responsibility for their built and natural environment. Nine hundred schoolchildren studied the urban history of Helsinki and then redesigned Helsinki city centre. Hundreds of municipalities are creating "municipal councils of children" to promote civic awareness of the citizens of the future. Cities generate new identities. New visions emerge, towards a human face for the urban environment (Abbott 1996, Mega1999).

On the threshold of a new millennium, European cities are about to reinvent themselves. They may get inspiration from the ancient Greek polices. Constructions respecting the human scale and noble public spaces promoting public life were the main elements of the first urban structures, which promoted democracy. Harmony, proximity, safety, citizenship were inherent in those cities-states, where the Agora, the Assembly, the theatre, the stadium, the sanctuaries had all the noble aim of promoting the physical and mental well being of citizens. True citizenship meant being a member of a city. According to the "Epitaphios", the famous Pericles' speech, the inhabitants not participating in city affairs were "not simply inactive, but useless" (Thucydides). Henry Miller suggested that "the World should become small again, as the ancient Greek world was, small enough to include everybody".

About The Author:

Voula Mega graduated as an engineer from the National Technical University of Athens, and completed her DEA Diploma at the National Geographical Institute in Paris. She continued with a DEA at the French Institute of City Planning, where she was also conferred a PhD. Her post-Doctoratal studies include research on Regional Policy in Oxford Brooks University and Environmental Economics in Harvard University.

She started her career as Special Adviser to the Greek Government and the European Union. She has been official of the European Union, Research Manager at the European Foundation for the Improvement of Living and Working Conditions. She works now on issues of Sustainable Development, at the Organisation of Economic Co-operation and Development, in Paris. (Consultant OECD)

She has written, co-written and edited more than 30 EU publications, and published more than 100 articles in international magazines. Her main subjects include innovation and sustainable development, urban dynamics, regional capital, enterprise and the environment, city and spatial policy and cultural value-added.

1. Note:

This paper draws extensively on the author's previous works and papers, especially the ones linked to the research management of urban innovations, in the framework of her previous duties at the European Foundation, in Dublin. The views expressed here engage only the author and not the organisations she is or has been associated with.

Literature:

Abbott, J. 1996. Sharing the City: Community Participation in Urban Management. London: Earthscan

Alberti, M., Solera, G. & Tsetsi, V. 1994. La Città sostenibile. Milano: Franco Angeli

ALFOZ. 1995. La Ciudad accesible. No. 109. Madrid

Ansay, P. & Schoonbrodt, R. 1989. Penser la ville. Brussels: AAM

Ascher, F. 1995. Metapolis ou l'avenir des villes. Paris: Ed. Odile Jacob

BURA. 1997. The Future of Cities. Conference Report. Belfast

Calvet, L.J. 1994. Voix de la Ville. Paris: Payot

Car-Free Cities Club. 1994. Car-Free Cities Charter. Brussels

Castells, M. & Hall, P. 1994. Technopoles of the World. The Making of Twenty-first Century Industrial Complexes. London: Routledge

CEMR. 1996. Local Agenda 21. In Documents of XX^{td} General Assembly, Thessaloniki

Charbonneau, J.P. 1994. Arts de ville. Paris: Ministère de l'Equipement, du Transport et du Tourisme

CLPN (Conférence des Lauréats du Prix Nobel). 1988. Promesses et menaces à l'aube du 21 ^{ème} siècle. Paris: O. Jacob

Council of Europe. 1992. The European Urban Charter. Strasbourg

DIV. 1995. Territoires urbains et exclusion sociale. Paris

Doxiadis, C. 1975a. Building Eutopia. Athens Publishing Centre

Doxiadis, C. 1975b. Action for Human Settlements. Athens Publishing Centre

ENA Recherche. 1996. La Ville et ses usagers. Paris: La documentation française

European Commission. DG XI. 1992a. The City Without Car. Rome: Tecnoser

European Commission. DG XVI. 1992b. Europe 2000. Brussels

European Commission. 1993. White Paper on Growth, Employment and Competitiveness. Brussels

European Commission. DG XI. 1994. For a New Development Approach. Workshop papers. Brussels

European Commission. DG XVI. 1995. Europe 2000+. Brussels

European Commission. DG XI. 1996. European Sustainable Cities. Brussels

European Commission. 1997a. L'Europe des villes. Brussels

European Commission. 1997b. Towards an Urban Agenda. Communication to the Council. Brussels

European Environment Agency. 1995. Europe's Environment: The Dôbris Assessment. Copenhagen

European Foundation for the Improvement of Living and Working Conditions. 1993. Innovations for the Improvement of the Urban Environment. A European Overview. Dublin

European Foundation for the Improvement of Living and Working Conditions. 1994. European Conference on Urban Innovations. Reports. Dublin

European Foundation for the Improvement of Living and Working Conditions. 1995. Esthétique, fonctionalité et désirabilité de la ville durable. Dublin

European Foundation for the Improvement of Living and Working Conditions. 1996. What Future for the Urban Environment in Europe: Contribution to HABITAT II. Dublin

European Foundation for the Improvement of Living and Working Conditions. 1997a. European Cities in Search of Sustainability. A Panorama of Urban Innovations in the European Union. Dublin

European Foundation for the Improvement of Living and Working Conditions. 1997b. Micro-projects for Mega-change. Dublin

European Foundation for the Improvement of Living and Working Conditions. 1997c. Innovative and Sustainable Cities. Dublin

European Sustainable Cities and Towns Campaign. 1994. Charter of European Cities and Towns: Towards Sustainability. Brussels

Fortier, B. 1995. L'Amour des villes. Liège: Ed. Mardaga

Friends of the Earth. 1995. Towards a Sustainable Europe. London

Galbraith, J.K. 1996. The Good Society: The Human Agenda. Boston: Houghton Mufflin Company

Garreau, J. 1991. Edge City. Life on the New Frontier. New York: Doubleday

Gillo, B. & Solera, G. (ed). 1997. Sviluppo Sostenibile e Città. Napoli: Clean Edizioni

Girardet, H. 1992. Cities: New Directions for Sustainable Urban Living. London: Gaia Books Limited

HABITAT II. 1996. An Urbanizing World, Global Report on Human Settlements. Oxford: Univeristy Press

Hall, P. 1988. Cities of Tomorrow. Oxford: Basil Blackwell

Hall, P.& Pfeiffer,U, 2000, Urban Future 21: A global agenda for 21st -Century Cities, London: Talor & Francis

Harvey, D. 1983. Social Justice and the City. London

Healey, P. 1997. Collaborative Planning: Shaping Places in Fragmented Societies. London: Macmillan

IFHP. 1993. Cities for Tomorrow. Working papers of the 80th International Congress. Helsinki

Indovina, F. 1993. La Città occasionale. Milano: Franco Angeli

INTA. 1995. Strategies for Cities of the 21st Century. Working papers. Vienna, September

International Institute of the Urban Environment. 1995. Environmental Awareness Workshops. The Hague

Jacobs, J. 1969. The Economy of Cities. London: Penguin

Landry, C. & Bianchini, F. 1995. The Creative City. London: Demos/Comedia

Lefebvre, H. 1996. Writings on Cities. Translated and edited by E. Kofman and E. Lebas. Oxford: Blackwell

Martinotti, G. 1993. Metropoli: la nuova morfologia sociale. Bologna: Il Mulino

Masser, I. et al. 1992. The Geography of Europe's Futures. London: Belhaven Press

Mega, V. 1994a. Improving the Urban Environment: European Challenges. In AMBIO, Vol. XVIII, No. 7. Stockholm: Royal Swedish Academy of Sciences

Mega, V. 1994b. Les Fronts de l'Innovation Urbaine en Europe. Interview in "Urbanisme", No. 276-277. Paris

Mega, V. 1996. Innovazioni per il Miglioramento dell'Ambiente Urbano: Una panoramica europea. In La città sostenibile. University of Parma

Mega, V. 1997. Culture, Villes, Europe: la contribution du patrimoine au devenir européen. In Pierre d'Angle, No. 21/22, Oct. 1997

Mega, V. 1998. Utopias and Eutopias of Urban Sustainability in Quaderns de Tecnologia, Institut Catala de Tecnologia. Barcelona.

Mega, V. 1999. Towards an Eco-society. Dilemmas, Innovations and Urban Dramas. Tokyo: United Nations University

Mega, V. 2000. Innovations for the civilisation of sustainability: Harmonising policy objectives in the European Urban archipelago.Berlin: Procedings of the 3rd Biennial of Towns and town planners in Europe (Herne, Sept. 1999)

METROPOLIS. 1996. Metropolis for the People. Conference documents. Tokyo

M.I.T. 1997. Promoting Innovation. Summer Seminar (organised by S. Weiner). Working papers. Cambridge, MA

Mitchell, W.J. 1995. City of Bits. Cambridge, MA: MIT Press

MOPTMA. 1995. City: Place of Problems and Opportunities. Working papers. Madrid

Municipality of Amsterdam. 1994. Car-Free Cities? Working papers

Municipality of Athens. 1994. From the Organic City to the City of Citizens. Athens

Nijkamp, P. & Perrels, A. 1994. Sustainable Cities in Europe. London: Earthscan Publishers

Nuvolati, G. 1998. La qualità della vita delle città. Milan : F Angeli

OECD. 1994. Cities for the 21st Century. Paris

OECD. 1996. Innovative Policies for Sustainable Urban Development. The Ecological City. Paris

OECD. 1999. The three-year programme on Sustainable Development. Paris

OECD-ECMT. 1995. Urban Travel and Sustainable Development. Paris

Olsen, D. 1987. La città come opera d'arte. Milano: Sena e Riva

O'Sullivan, A. 1996. Urban Economics. Chicago: Irwin

Parkinson, M. 1998. Combating social exclusion : lessons from area-based programmes in Europe. London: Policy Press

Prince of Wales Institute of Architecture. 1993. The Sustainable City. Report on the 1993 Summer School. London

Prince of Wales Institute of Architecture. 1996. Action Planning. London

Rautsi, J. 1993. The European City Today. The Helsinki Round Table on Urban Improvement Strategies. Helsinki: Ministry of Environment

Rueda, S. 1995. Ecologia Urbana. Barcelona: Beta Editorial

Sansot, P. 1973. La poétique de la ville. Ed. Klincksieck. Paris

Sassen, S. 1994. Cities in a World Economy. London, New Delhi: Pine Forge Press

Schoonbrodt, R. 1987. Essai sur la destruction des villes et des campagnes. Liège: Pierre Mardaga

Schumpeter, J. 1976. Capitalism, Socialism and Democracy. New York: Harper and Row

Short, J. 1989. The Humane City. Oxford: Basil Blackwell

Tagliaventi, G. & O'Connor, L. 1992. A Vision of Europe. Firenze: Alinea

Touraine, A. 1997. Pourrons-nous vivre ensemble? (Egaux et Différents). Paris: Fayard

UITP. 1991. Green Light for Towns. Brussels

UNESCO. 1995. Les Libertés de la ville. Passages. Paris

WHO-OECD. 1996. Our Cities, Our Future. First International Congress on Healthy and Ecological Cities. Copenhagen

World Bank. 2000. 1999/2000 World Development Report. Washington DC

Young, I.M. 1990. Justice and the Politics of Difference. Princeton