



« Urbanisation: China and Europe »

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Foreword



China has achieved extraordinary results since its opening-up policy, lifting hundreds of millions of people out of poverty. In 2011 the country also crossed the symbolic threshold of 50% of its total population living in cities. The merging in trends is far from accidental. Looking ahead, urbanisation will remain closely linked with the three objectives of the new Chinese leadership: economic rebalancing, more qualitative growth and better welfare for the people. In many respects the Chinese Dream will primarily be an urban dream. But with 1% of the total population projected to move from the countryside to

cities every year for the next decade, the economic, social and environmental challenges will be enormous.

The EU on its side has a significant interest in a stable and prosperous China. Our economies are closely interconnected and cooperation is essential to promote growth and jobs. Thanks to the Comprehensive Strategic Partnership launched in 2003, strong cooperation ties have already been built in a wide range of sectors, such as macro-economic policies, energy, environmental protection, agriculture, and people-to-people dialogue to name just a few.

At past EU-China summits we have acknowledged this growing interdependence between China and the EU. But the implication is crucial to grasp: we are increasingly becoming part of the solution to each other's domestic challenges. China was a partner in overcoming the euro zone crisis. Conversely, I would contend that Europe is also best placed to be a partner of China in its major domestic challenges. We are exploiting the opportunities offered by the commonalities between the Europe 2020 Strategy and China's 12th Five-Year Plan to focus on new areas of cooperation which not only match Chinese objectives but are also of common interest.

From that perspective a major step was made in Brussels in May 2012 when the then Vice Premier LI Keqiang launched the EU-China Partnership for Sustainable Urbanisation. This new partnership is putting us on a higher level of cooperation towards sustainable cities and integrated urban-rural development. As an open political platform the partnership will address the urban challenges in an holistic fashion. All levels of governance, EU institutions, member states, provinces and cities are mobilised. In parallel with governments, other stakeholders, the business sector, researchers and academics, and civilian society are also invited to contribute.

In that spirit I am pleased with the initiative by the China-Europa Forum to explore this strategic theme. The book "Urbanisation: China and Europe" discusses how the experience of European cities over the past decades could inform China's own transition towards a more sustainable urban future. From the mapping of territorial resource flows to the invention of new modes of local governance, via the rethinking of finance, the authors underline the prevalence of an integrated approach in tackling the challenges of booming cities. A partnership is, of course, a two-way street: because of the scale and speed of change in China the country could well become the laboratory for new urban solutions that will later benefit European cities.

This book will no doubt be a source of interest and inspiration for all the European and Chinese local decision-makers, architects, urban planners and industrial solution providers who will share their experiences every year at the EU-China Urbanisation Forum.

Herman Van Rompuy President of the European Council September 2013

(Note: This foreword was written for the book 《Urbanization: China and Europe》 published in Chinese. The document which follows is a summary (extracts) of three parts of this book on cooperative dialogue, exchanged views and shared experiences between European and Chinese urban experts.)

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Part 1

The Opportunities and Challenges of EU-China Urbanisation Cooperation

1. Promoting Urbanisation, a Profound Social Reform for China

Interview with LI Tie, Director General, China Centre of Urban Development (CCUD), National Development and Reform Commission (NDRC) in China



Question: China's urbanisation is remarkable in terms of both scale and speed. What are your thoughts on the promotion of sound development of urbanisation in China and of the coming challenges?

Answer: By the end of 2012 China's rate of urbanisation had reached 52.6 per cent, with a population of 700 million living in cities and towns. This figure is expected to draw close to

800 million by 2020. China's urbanisation, which implies a huge demand in consumption and investment, will bring about immense opportunities for China and the world. It is worth noting, however, that different stages of development and regional disparities have resulted in diverse needs.

According to the keynote report delivered at the 18th CPC National Congress, "urbanisation is the historical task of China's modernisation and aims at the strategic focus of boosting domestic demand". The rationale of this policy is to improve the quality of public services for the 260 million migrant workers and surplus farmers encouraged to settle in cities in order to help them turn into urban spenders. As a consequence this will lift private consumption and boost investment demand, hence ensuring the steady growth of the national economy. So, I believe that in the next five to 10 years the central government will launch a series of related policies to address issues involved in the process of urbanisation...

In spite of the increasing rate China's urbanisation quality still remains low. That is because local governments have paid much more attention to urban construction than to people coming from rural areas to settle in cities. China's urban population includes more than 200 million migrant workers from rural areas and 70 million people floating between cities and towns, none of whom have access to the same public services that local residents do. Multiple and pressing reforms are needed to deal with these challenges, including the household registration (*hukou*) system, the land system, the administrative system and so on. I therefore regard China's urbanisation as a profound social reform. We should be well aware that the new process of urbanisation in China, which is expected to stimulate domestic demand and become a new engine of economic growth, will not just involve the real-estate industry but also a shift from quantitative expansion to quality development.

The second element is to have scientific and rational urban layout and planning so as to ensure cities and towns of different sizes absorb population in a much more reasonable way. In addition it is necessary to strive towards a process of urbanisation and to follow a sustainable development path.

I would like to emphasise that China will definitely follow a green, low-carbon and sustainable development path. To this end China must make long-term reforms rather than take short-term actions to improve urban governance and planning so as to achieve the transformation of its urban development.

Q: In your opinion what can be done to grant people from rural areas the same rights as city-dwellers and to improve public services for new urban immigrants?

A: The urbanisation of the population is the core of urban development, which means that the transfer and

relocation of rural population to cities is central to it. Many people mistakenly believe, however, that the central government aims to expand real-estate projects and housing demolition, thus forcing the rural population into cities.

As mentioned, promoting urbanisation will be a profound social reform for China. Pressing reforms are expected to involve the following issues: furthering reforms of the household registration system (hukou), the land system and the administrative system; gradually removing barriers restricting free flows of urban and rural elements in the market; and improving public services for immigrants, especially migrant workers from rural areas.

As regards reform of the household registration system, relevant documents issued by the State Council in 2011 specified that the issue was under the control of the central government. Moderate solutions will not work in face of resistance from cities, reactions of urban residents and extremely tough restructuring of interests. As a result, the current reforms concerning urbanisation must be taken in a mandatory approach following the clear guidelines of the central government. Our studies show that the breakthrough for the reform of the household registration system lies in those immigrants who, and whose families, have settled and worked in cities for a long time. Cities should grant them a genuine urban residence identity. Besides, public welfare privileges relating to household identity should be gradually eliminated.

In terms of public services, urban public services should gradually be accessible to immigrants. Meanwhile we should acknowledge the fact that China's urbanisation has been backward, so we should lower the blind development expectations of achievements-oriented governments which not only involve standards of public services provision that are too high, but also the immoderate construction of infrastructure to chase after greatness and resemble foreign styles. It is therefore more important to consider lowering the urban threshold and providing immigrants, especially migrant workers, with appropriate living space compatible with their income and education. It is the duty of the government to strengthen and improve public services while refraining from distributing services that can be provided by the market.

Q: José Manuel Barroso, President of the European Commission, and Li Keqiang, then Chinese Vice Premier, signed a *Joint Declaration on* the EU-China Partnership on Urbanisation on 3 May 2012. What are the starting points for this new political commitment on urbanisation? And what are the specific areas of cooperation you expect?

A: EU-China cooperation on urbanisation is a win-win strategy. The *Joint Declaration* conveys a clear-cut signal to the international community: starting from a new channel of international cooperation, China's leadership will put the strategies of "urbanisation development" into practice... The *Declaration* covers many fields ranging from the public service system, infrastructure investment and financing mechanisms to urban governance. It signals all-round cooperation between the two sides and offers comprehensive learning opportunities for China.

From the Chinese perspective there is a lot to learn from European cities, including preservation of cultural and historical heritage, completeness of the planning system, concepts of city management and operation, etc. It is time for China to bid farewell to the era of cities being developed through short-term decisions and actions. China should promote and implement urban governance and planning through long-term reforms in order to achieve the transformation of its urban development mode.

In order to draw on the experience of European urban development, China needs to abandon many traditional concepts of urban management and work towards the enhancement of public services, the reform of urban governance structures and the use of market mechanisms to boost urban development. The improvement of city dwellers' living conditions, the enhancement of public services and the transformation of urban development mechanisms require us to draw on lessons learned from Europe and carry out reforms to address China's urbanisation shortcomings. This should be the rationale behind the EU-China partnership on urbanisation.

Q: You mentioned at a roundtable that many Chinese cities have tried to draw on European successes or failures but that most of the time results were merely superficial. What do you think are the best ways to learn from the European experience?

A: Over the years a great number of Chinese government delegations (mayors, officials, etc.) have carried out European study tours. Unfortunately, in most cases they have only learned superficial "lessons". For example, having seen beautiful lawns in Paris some decision-makers decided to plant lawns in their own cities, even in areas where water is scarce. It is often the case that we simply imitate the configuration and appearance of European cities without real management expertise. Up until now the Chinese have acquired very sophisticated skills in modernizing above-ground buildings, but underground infrastructure construction is lagging behind; we have developed marvellous road systems but with unscientific management capacity, and roads and urban functions are not well connected yet. All of the above shows that there is a lot to learn from our European counterparts in terms of urban management and public services...

The first dimension should be urban governance. In Europe, every city is as equal as any other, but it is a different story for Chinese cities which fall into a traditional hierarchical system in that large cities have much more administrative power and disposable resources than those of small and medium size. Learning from European planning and urban management systems requires starting with a top-level design and macro-reform basis. Only with substantial follow-up and adjustment in policies, however, will good results be possible.

The second dimension of cooperation will focus on some advanced European concepts and expertise. We have tried to explore different approaches through meetings, training, exchange visits and expert lectures, means of enhancing the partnership and exchanges between China and Europe, thus bringing more substantial and useful cutting-edge technologies, administrative experience and even investment into Chinese cities. In addition, pilot city twinning projects between the EU and China are encouraged. For instance, cities such as Malmo and Hammarby in Sweden and Elvivia in Spain could serve as references for Chinese cities.

After learning from the European experience it is more important to bear in mind what we should do, what we can do and how we will do it rather than just carrying out specific cooperation between the two sides. (By BAI Li)

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2. "EU-China Partnership on Urbanisation" is of High Added Value to EU-China Cooperation on Urbanisation

China and the European Union signed a "Joint Declaration on the EU-China Partnership on Urbanisation" in May 2012. Within this framework, which recognises the challenges and opportunities of mutual interdependence in a globalised world, China has a great market potential for urbanisation while Europe possesses advanced experience in urban planning and governance.

Pedro Ballesteros, International Relations Officer from the DG Energy of the European Union, European Coordinator for the Partnership, agreed to an interview with us.



Min Yan: As coordinator on the European side how do you see this partnership?

Pedro Ballesteros: Promoting a healthy development of urbanisation is not only a long-term economic strategy for China and Europe, but is also in their mutual interest. The initiative to sign the partnership came from China, which is a great honour for the European Union

because it shows that Chinese decision-makers assume that European experience in urbanisation process will bring them experience and benefits. On the European side the partnership is an opportunity to contribute to China's steady development and to the promotion of sustainable Chinese urbanisation. Meanwhile, Europe can also draw interesting lessons from China's urbanisation that can be helpful in its own urbanisation process.

China's urbanisation has great potential – it will stimulate huge domestic demand. We are aware of China's enormous needs in natural resources for its urbanisation. How to promote moderate and more efficient use of these resources in the process of urbanisation is a common necessity and a joint objective for both China and Europe, given that it will also benefit the stability of the whole world.

MY: What kind of assistance is Europe hoping to bring to the Chinese urbanisation process? What experience will be shared?

PB: In fact, this partnership is a comprehensive bilateral framework of cooperation. The fields involved range from the public service system, infrastructure, to the investment and financing system, and other aspects of urban governance. Our bilateral cooperation has no restriction. More particularly, we have to focus on the specific needs of China's urbanisation projects to provide the best suitable support: for example, in projects involving a low-carbon urban model, high quality of life and harmonious society. Europe has a lot of experience to share especially regarding urbanisation of the population. Thus we believe this partnership is a great opportunity.

Moreover we believe that urban governance is also a very important area of cooperation – namely, how to make urban management styles more efficient with efficient public services and infrastructure, enabling every citizen to enjoy urban facilities and services, and to develop their own professional activities. In terms of urban governance, we can say that issues such as immigration, setting up a social security system, solving social inequalities, poverty and education for migrants' children, constitute our top priority.

MY: What kind of cooperation is being carried out between the EU and China in terms of urbanisation? How do you think Europe's advantage in high technology should be used to support a transformation in China's urbanisation model?

PB: Many EU-China cooperation projects are already being implemented. For example, we have launched pilot projects in the fields of urban planning, construction, transportation, etc. I think, however, that within these projects there is a lack of harmonisation and coordination as well as a lack of overall vision. This is really the reason why the EU-China Partnership on Urbanisation is of high added value to our cooperation on urbanisation, and on the basis of previous experience, we hope to develop new creative projects.

In the field of urbanisation the EU has much to share with China in terms of high technology. Technology, however, is not the only solution. We have to understand the concept of "city", and understand the entire meaning of it. High technology should only be one tool among others for solving specific issues relating to cities in matters such as ITC, logistics, infrastructure, public transport and urban governance. It is only with efficient urban governance, urban master plans and a clear vision of the future, however, that such technology can bring about the best results. Yet there is a lack of action in these matters nowadays.

For us, sharing European advanced techniques and experiences in terms of urban governance is very important, but it is even more important to look for the most suitable and efficient solution for both China and Europe. I already mentioned that urbanisation is the core of our concerns...

MY: The scale and speed of the China's urbanisation is without precedent in world history. What are your views on

current Chinese urbanisation

PB: First of all, urbanisation is a way for a country to prosper. Every country in the world that had experienced an urbanisation process became more egalitarian and more prosperous. It is a process that must be carried on and we are willing to provide all the necessary support for the Chinese government to continue on this path.

Second, the creation of wealth often comes from those hard-working people who are both willing and able, and have enthusiasm and dynamism. For this very reason urbanisation should guarantee the same opportunities to all; whether it is in terms of renting a place, healthcare or decent living conditions, everyone must benefit from these basic rights. Today a part of China's population does not benefit from these rights and in addition to being unfair this could become a major obstruction to China's development. In regard to our past experience, the most prosperous European countries have all at some point in their in histories granted equality between citizens and provided society with a great amount of cash flow which gave people the opportunity to enjoy a creative life and develop their own activities.

Third, the scale and pace of China's urbanisation goes far beyond one's imagination. On the one hand it is wonderful and exciting but on the other it is also worrying that every year 12 million to 15 million migrant workers come to cities to work. These figures are quite alarming. We are fully aware that the Chinese government must find an effective method to tackle the issues tied to the urbanisation process and it is a huge challenge.

Fourth, urbanisation must grant everyone the same opportunities, including the current modernisation of facilities and infrastructure – I mean providing tap water, drinking water, building infrastructure, controlling pollution, distributing energy, etc. Moreover healthcare, public service facilities, education for children, all constitute basic human rights. From an economic perspective, any worker should enjoy the same rights as anyone else. If equal rights are not granted to everyone it is ultimately equivalent to strangling the economy and wasting an enormous potential.

Fifth, it has to be said that the 21st century is the era of collective and individual intelligence fusion. Collective intelligence comes from the city and opportunities are created in cities, but cities are also a source of social conflict. Therefore we need to have resources-saving cities, whether energy resources or natural resources. We need to work hard on eliminating the causes leading to inequalities within cities, and we need to give cities a definite space for governance and find a better solution to the urbanisation issue. I do not think that the European urbanisation model can be adapted everywhere; for example, the model in northern Germany does not necessary fit the south of Spain. It is therefore essential to find the best model for each city.

MY: After a year what is the current implementation and progress of the partnership? What are your responsibilities and role?

PB: Europe and China need to know more about each other and find a way of living together. I think that signing this partnership is a long-term vision of high-level leaders from China and Europe and I am convinced that there can be positive outcomes for both sides.

Within this partnership we have a very wide range of fields of cooperation. The DG Energy from the European Union and the NDRC (National Development and Reform Commission) from China are the major coordinating bodies. As far as we are concerned the most important thing is to promote the success of this partnership and maintain a very good level of coordination between all the departments and stakeholders involved.

My role is to coordinate the European institutions, the related sectors from the member states, the private sector, etc.; to provide them with information relative to the development of the partnership; to establish an overall strategy; and to maintain a close relationship with our Chinese partners from the NDRC. This is my responsibility, and

as we go along I have to learn how to carry out a lot of actions in the field of cooperation.

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3. EU-China Urbanisation Cooperation: A Necessary Way

Interview with **Pierre Calame**, *President of the China-Europa Forum Foundation, President of the Charles Léopold Mayer Foundation for Human Progress (FPH)*



Geng Jing: In Brussels in May 2012, Mr Li Keqiang, the current Chinese Prime Minister, signed a partnership on urbanisation with the European Union. What is the meaning of such a partnership for both European and Chinese people?

Pierre Calame: This partnership is key for both China and Europe. It is one of the first times that both governments have omitted economic issues and focused on working together to

deal with what is probably the main challenge of the 21st century.

Why is it the main challenge? First, what do cities in general, and Chinese cities in particular, represent? European society is already 75% urban; in China the process of urbanisation is moving extremely quickly and the proportion of population living in cities already exceeds 50%. How we manage our cities and develop them in Europe as well as how urban growth is monitored in China constitutes the world's most challenging issue. A few years ago, 80% of the working cranes in the world were in China. So, when talking about a global issue and as far as urbanisation is concerned, China is the main problem. Transforming European cities into sustainable cities and ensuring that Chinese cities are designed and managed within the perspective of a sustainable society represents one of the most important problems in the world.

Moreover it is in cities that the struggle to build sustainable societies is taking place. If we look at energy for example, it is known that at least 70% or more of energy efficiency is related to transport and housing, and therefore to the design of cities, and within cities to the design of districts and within districts to the design of housing. When talking about national energy policies, what we mean in fact is the stimulation of urban policies for the transition towards sustainability.

These are the three reasons why urban management lies at the core of the transition towards sustainable societies and why it constitutes an incredible potential for this strategic partnership. I can see that European cities are fully aware of the challenge Chinese cities represent, of the challenges of this new partnership, and that each one of them believes it can bring something to this unique international reflection.

First, globally speaking, it is the European Union that took the issue of a transition towards a sustainable society the most seriously... One can now observe changes and evolution in urban services such as water, waste and public transport management, as well as in the reflections on smart cities. Including techniques and economics, it is in Europe that the most advanced technologies and urban services can be found for the moment.

The dialogue between Chinese and European cities involves every dimension, including that of being a dialogue from society to society, which is dear to the China-Europa Forum. We are living on the same planet and we have to learn to manage it together, but this will not be possible if we ignore each other. Consequently this partnership can lead up to a considerable number of face-to-face dialogues focusing on the ways of solving common problems. The aim of this partnership is to invent together a transition towards sustainable societies.

GJ: What are the European experiences that Chinese people should benefit from and what should they avoid?

PC: It is very difficult to give advice to a society that does not follow the same path and is moving much faster. But I would say that it is vital for the Chinese people to set up redistribution systems as we did after the War. They absolutely need to create a public health system, a fair tax system, and they have to stop the rural population being thrown out onto the streets by local despots who want to develop their city. They need to provide spaces for dialogue between the main actors so as to solve issues relating to both social disparities and sustainable cities. I think that Europe is in no position to give any lessons; we are in an era where we learn from each other and that perfectly illustrates the spirit of the China-Europa Forum. The length of our urban history, however, means that we have a lot of ideas and suggestions but it is up to our Chinese friends to say: "this is an interesting idea" or "this is an idea that fits with the history of your Judeo-Christian country, but it is different in our Confucian system". There are no universal answers, only trails.

There will be a lot to learn together from a change of the urban model. It is what I call a switch from "mechanical cities" to "biological cities". The urban ideology of the 30s distinguishes itself with the Athens Charter, the modernism of that time. Many Chinese people are familiar with Le Corbusier, at least in name. He was one of these major architects who, confronted with urban issues of their time — unhealthy cities where industrial pollution could cause people to suffocate, where children could be raised without seeing the sun — invented a very mechanical urban utopia in which functions were separated (transport, housing), accommodation moved away from industrial areas and tall apartment blocks built, somewhat like China today.

It is very interesting to observe, for example, that in Europe four or five years ago the Leipzig Charter was published and stated the principles of the 21st century city. These were exactly opposite to those of the city of Le Corbusier and the Athens Charter. It is worth noting that most of our European and Chinese engineers or urban planners are again trained to design mechanical cities. I have often been asked my opinion of Chinese cities, and although I am amazed by the Chinese ability to plan I consider that Chinese cities are boring, sinister and inhumane. Fortunately the Chinese population is there to bring life to them. Once your population grows old, however, you will have ghost cities. To conclude, the ideology of a modern city of the 30s is deadly and harmful; together we need to invent a new urban model.

GJ: As far as social cohesion is concerned in the current Chinese system migrants do not benefit from the same public services as city-dwellers. How did France solve or attempt to solve this problem?

PC: Initially we needed immigration. After the War, France suffered from a scarcity of labour fully comparable to what is now happening in the Pearl River Delta region. There, development is so important that there are insufficient workers available, thus making migration necessary. Immigration of foreign populations is always an issue and integration is never easy. However, during *Les Trente Glorieuses* (the 30 years between 1945 and 1975) in contrast with China, migrant workers benefited from the same social services and the same education system as the French. In this regard and in terms of social justice, the French system is indisputably superior.

Our system gradually declined due to various phenomena. When talking about immigration in the inter-War years, one would think of Italians, Polish, Belgians, some Spanish and some from our former colonies. In a way it can be said that this immigration took place within a common cultural basis. This does not mean that life was easy for immigrants, but on the whole integration was amazingly successful. After the Second World War, immigrants mostly came from Southern Europe - Italy, then Spain, then Portugal. Those countries were experiencing a demographic transition, switching from an old demographic regime — characterised by a high birth rate, a high infant mortality rate, short life expectancy, etc. — to the current European model of a good healthcare system, low infant mortality rate, longer life expectancy, birth control and a lower birth-rate.

While this demographic potential gradually drained away, an enormous alternative one appeared south of the

Mediterranean Sea in the Maghreb and our former African colonies. We encouraged these people to come to France to make up for our lack of labour. From then on the problem became very different because we had to deal with a population whose culture was different. Later we would have to face clandestine immigration.

In 1968 I wrote a book (<u>Sauvons la Démocratie!</u>; Let's Save democracy!) in which I warned public authorities, telling them: "You are still implementing a family policy of assimilation that you invented for Polish and Italian people, but be careful, it will not work now, it is changing, you will have to think differently in terms of cultural difference, you will have to focus more on co-development, on ways of helping the development of the countries migrants are from." Our political elite, however, did not succeed in doing so. As a result there is, in suburban areas, an accumulation of people, mostly Muslim, whose older generation is well integrated but whose children, who are French, cannot find a way to express publicly and collectively their handicap of being a formerly colonised people, which is a source of great frustration for them.

Today almost 70% of young people from these suburban districts have never had a job. We created a social problem of a totally new kind, although lessened in impact by the fact that this population has access to healthcare and education. It is worth noting, however, that boys are more subject to failure at school than are girls, and as the media quite often records there is a problem of juvenile and youth delinquency mostly perpetrated by boys in these districts. As far as they are concerned, girls choose education as a way towards integration. In my opinion the main lesson that can be drawn from our history by our Chinese friends is the following: "You have to be careful with policies that last much longer than the problem they were created to solve" because you will then run the risk of plans and systems being totally inadequate when it comes to the issues they need to solve. From that perspective, the example of immigration policies in France is very interesting.

GJ: Do you think that education could be a relevant tool for facilitating integration? Would it be possible for China to use this tool, considering that migrants' children do not always have access to schools in cities?

PC: Indeed, equal rights are vital. As long as China does not state these principles of equal rights to education for migrants' children, you are creating terrible ticking time bombs with millions of young rebellious people born in the cities but not considered as being so. This problem was clearly illustrated in Shanghai during the economic crisis of 2008: migrants went back to their villages to be supported and helped by their families because there was a lack of work in the cities. The problem here is that there are second-generation children born in Shanghai who have no place to go back to. We are experiencing the same phenomenon in France: you can see young people, children of Algerian immigrants, who were born in France and yet who will wave an Algerian flag during a football match between Algeria and France. But Algeria is a myth to them as they no longer have any connections with their villages of origin, they have no place to go, they have no choice but to stay. And if you do not grant them the same rights as everyone else you make rebellious slaves of them. It is clear that the first thing to do is to grant equal rights.

Second, education is the central question indeed, because what is peculiar to immigrants is that they do not have solutions for their children, they do not know the cultural codes of this new society, they do not know how to behave in the city and they suffer horribly from not knowing what to pass on to their children. Therefore school must be a place where we help children to learn and to become individuals.

I have two recommendations for our Chinese friends: first, education of migrants is absolutely essential otherwise you will create a group of rebellious people that you will not be able to manage; second, you have to consider education as an integration tool for enabling these young people without "cultural capital" to get ready to face tomorrow's society. Do not consider the only objective of schools as passing on knowledge — schools must also pass on values and the means of co-existing.

GJ: Earlier you pointed out that urbanisation constitutes an issue for which multiple answers must be provided in terms of infrastructure, environment, housing, etc. Urbanisation projects, however, often create tensions amongst city-dwellers.

PC: Every city genuinely involved in a transition to a sustainable society is a city that has succeeded in getting political leaders, technicians, business and the population to work together. The key to success is to learn how to work together. There is genuine participation by the population when policies are commonly designed. Energy is a very interesting example that is central to the development of our cities. This is because people should change their behaviour towards energy and ask themselves questions about the temperature of their accommodation; the thermal insulation of their house; the possibility of using solar panels and of investing in new less energy-intensive equipment. It is also necessary to think about carpooling, about planning traffic in such a way that encourages cycling or walking; ways of implementing new local production of energy systems; and to rethink the relationship between heat generated by factories and the heating requirement for housing. From individual behaviour to regional urban planning, every level is involved.

Each time we are able to articulate these various levels, each time we are able to get people to take part in a common project, we go beyond defensive reactions where everyone says "not in my backyard"... Unfortunately, this was the way people reacted to urban projects far too often in the past. In Europe a lot of improvements have occurred: we set up "régies de quartier" (neighbourhood governance) to fight against exclusion; we re-created allotments enabling city-dwellers to take pleasure in growing their own vegetables; and some common workshops have been set up to recycle household electrical appliances resulting in the creation of both jobs and new equipment. City-dwellers' participation in urban projects involves all of this together, and not simply having having them look at urban plans they do not understand. A great positive change occurred in Europe in this field over the last 30 years.

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4. What Kind of Development Mode is Most Applicable to China's Urbanisation?

Interview with **François Gipouloux**, Research Director CNRS (National Centre for Scientific Research), Coordinator of the UrbaChina project



Odile Cornet: You are coordinating UrbaChina research on Chinese urbanisation. What sort of major challenges is China's urbanisation facing in the 21st century?

FG: For the first time in its history, in 2012 the size of China's urban population exceeded that of its agricultural population. Last year an estimated 230 million migrants, the "mingong", had a rural "Hukou" (household registration) and were working in the cities. Enduring tough

conditions to perform hard, low-paid work, they would often live in insanitary accommodation. City dwellers, however, are not all fully fledged citizens. Of a total of 750 million city dwellers, 230 million are second-class citizens. So, in the next 20 years the first major challenge will be to relocate 500 million people from the countryside to cities. China therefore would have two million citizens more every couple of months. The second challenge is transforming the status of these hundreds of millions of migrants to citizens owning the same rights as other city dwellers.

OC: How can the European experience be useful to Chinese people?

FG: The European experience can be very useful in the field of services. In the case of the "mingong" we can mention home ownership programmes for low-income families, social services for the less well off or education for migrants

who do not speak Mandarin, etc.

I could also mention waste management. If you look at a satellite view of Beijing you will discover in the suburban area a belt made of rubbish dumps encircling the city. The majority of these sites do not burn waste but bury it, often causing leakage into the water table. We have waste-sorting centres in Europe and waste is burnt or recycled most of the time.

Another fundamental topic is transport. In China we are witnessing real urban congestion and saturation of the various transport routes. Because of a rapid increase in wealth of some urban categories, the number of personal cars is skyrocketing while infrastructure is still old-fashioned. In Beijing there are three to four million vehicles and appalling traffic jams. And yet, as seen previously in developed countries, China has imposed very tough restrictions on new vehicles.

We are also studying related topics such as car-park management and electric vehicles. There are a lot of electric bikes in Beijing which seem to be environmentally friendly although their batteries are not so friendly. We must then look at the whole system to understand the environmental impact of political choices such as electric vehicles.

OC: The situation looks disastrous.

FG: Indeed, it is quite a dark picture of the urban environment in China but it is not irreversible. Nevertheless, in my opinion the issue remains very complex. To find solutions we need to go further and study the relationship between economic growth, urban sprawl and the role of real estate.

Let's start with urban sprawl. We talk a lot about a "smart city", which alludes to a "compact city" in which people can walk or bike to reach their destination. For 30 years, however, urban population has dramatically increased but less so than the influence of the urban built-up environment. This urban sprawl is very expensive because of the legal status of real estate. Let's remember that after the 1994 tax reform local authorities have had to take on new tasks (education, health) while the central government holds most of the taxes. These new tasks are financed simply by transforming what was originally collective farming land (usually with compensation) into public land, which is then sold by auction to real-estate developers for a good price. Given the important development of real-estate law, we can understand that our Chinese partners are very curious about the status of real estate in Europe, public utility proceedings, etc.

For financial reasons local authorities still also try to attract factories into urban administrative areas factories which enables them to make tax profits leading to a hypertrophy of the manufacturing sector and an atrophy of the service sector, which is vital to well-balanced growth. This entails serious environmental consequences. Many members of the middle-class think conditions in cities are unbearable and become aware of the disasters caused by this all-out industrialisation and urbanisation even though the standard of living is rising. Hopefully this will somewhat soften the current Chinese model of economic growth earlier than was the case in the development model of western countries.

OC: The importance of real estate and the role of the "Hukou" in this urbanisation process are notable. Is there any possible evolution for the "Hukou"?

FG: There have already been changes over the last 20 years and one of the objectives of the XII plan is to integrate gradually a number of migrants into cities. Nevertheless, the "Hukou" is not going to be abolished with the stroke of a pen. But one could imagine a gradual process which would allow two or three million migrants to be integrated each year and benefit from all the rights attached to citizenship. It would be a great improvement.

OC: What will the impact in Europe be in your cooperation project?

FG: The European Union could share some of its expertise with Chinese counterparts who consider it useful. There is a whole range of small European companies positioned in niches with real expertise (urban mobility, smart buildings and cities, etc.). Of course this type of expertise often requires some hardware, but it particularly represents valuable know-how, and of network intelligence, linked to new technology – fields in which the Chinese are highly responsive. Hence there is the opportunity for our partners to buy in Europe but in Japan or the United States as well.

Urban heritage is another aspect of European know-how. The Chinese are very sensitive to a certain European quality of life and to the preservation of urban heritage. Theirs is huge though often "frozen". But there are intermediate solutions between using an excavator to destroy it and freezing it. Hence their great interest in the proceedings and financing modes of this preservation in Europe.

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5. Observations and Reflections on China's Urban Development with Reference to Europe



By ZHAN Qingming, Professor, School of Urban Design, Wuhan University

With more than five years of living and studying in Europe, Professor ZHAN Qingming shares his observations and reflections on European urban development from multiple perspectives, with an attempt to offer inspiration for China's burgeoning urbanisation.

Protection of Historic Neighbourhoods and the Creation of City-Centre Areas

Apart from metropolises such as London, Paris and Berlin, European cities, in comparison to those of China, are much smaller and relatively easier to manage. With marvellous histories of human civilisation and urban development, and a wealth of cultural heritage, European people have a strong sense of protecting traditional culture.

In China we undoubtedly have successful cases of preserving old cities, such as the *Hutong* culture in Beijing, the *Yuyuan* Garden Old District in Shanghai, *Tanhualin* Old Street in Wuhan, *Sanfang Qixiang* in Fuzhou, *Tunxi* Old Street in the Huangshan city, *Yangshuo* West Street in Guilin. It is a shame to see, however, that many Chinese cities — driven by commercial interests and the market — have carried out massive demolition and re-construction of historic neighbourhoods thereby destroying the traditional community layout, wiping out the original cultural atmosphere and traditional way of life, and resulting, mostly through shopping malls and office blocks, in the phenomenon of "thousands of cities with the same face".

The fact that the pace of life has accelerated, that the well-being of citizens is often ignored, that vitality in some city-centre areas has faded, that culture and traditions are sometimes lost in these areas, thereby making cities less appealing, should be carefully examined.

Housing Issues and Social Security

The housing issue is generally regarded as a social issue in Europe: to a large extent it reflects a responsibility of the government and a matter of social welfare, which requires social justice. As part of the social security system, social housing policies and regulations issued by European governments supply those of moderately low-income with affordable housing or subsidies in various forms, including the provision of shelters, rent subsidies for low-income families and support for building accommodation intended for the elderly. In addition the different needs of

individuals are well understood and taken into account. For example, in government-funded public housing, it is organised so that senior people live downstairs while upstairs rooms are rented to young people at a cheaper rate. Those young people are also required to take good care of their elderly neighbours and help them in any possible way.

China has experienced a housing allocation period at the time of the planned economy, a market-oriented housing period before the reform of the housing system, and a public housing system in recent years, which includes social housing, affordable housing and low-rent housing. Reforms of the housing system and of market-oriented housing have created an enormous real-estate industry and improved living conditions for most of the residents. The construction, maintenance and management of public housing are, however, still understandably at an early stage. China should therefore learn more of European experience and practices in this respect.

Urban Mobility and Public Transport Priority

Traffic congestion in large cities is a global phenomenon. Many European cities have solved the problem through public-transport-first policies, from which China could draw lessons. The S-Bahn in Germany and RER in Paris have played major roles in reducing the use of cars and therefore traffic congestion. Amsterdam, a city with a population of around 600,000, has an extraordinary public transport system: a large number of railway stations around the city are available to commuters; subway, trams, extended buses and ordinary buses form a complete transit network; the numerous bus routes constitute a convenient public transport network along with handy and timely transfer possibilities. Moreover there is no need to purchase a new travel pass when transferring from one transport means to another. In fact there are strip bus passes (called *Strippenkaart* in Dutch) available throughout The Netherlands.

A number of European cities have established special bus lanes to ensure that buses travel faster than private cars in rush hours. For instance, functional bus lanes mean that buses in The Netherlands are very punctual or delayed no more than one or two minutes. In some cities bus drivers are even equipped with a secret tool — a remote control to change traffic lights, a true embodiment of bus priority.

Many European cities have launched a number of people-oriented measures to deal with traffic congestion. In Strasbourg, France, large parking areas and supermarkets are available at light-rail stations in order to facilitate access for nearby residents, who receive free rail tickets between the city centre and the station when paying parking fees. This approach greatly reduces the demand for car trips to the city centre, thus relieving the traffic situation. Meanwhile, many 'Park and Ride' areas have been established at the junction between highways and cities, and offer free shuttle services between the parking area and the central city. This low-carbon practice is worth thinking about and learning from.

Europeans care very much about the environment and health, and this is reflected in the widespread use of bicycles. Most Dutch and Danish people, for example, own two bikes — one for commuting and the other for recreation and fitness. Both countries have cycle lanes and put cyclists and pedestrians first at intersections and in traffic rules. Drivers observe the traffic rules and give precedence to these vulnerable road users, a system which is also worth learning from for the Chinese people. In addition Europeans are exploring and implementing new low-energy vehicles and low-carbon mobility — there are charging stations for electric cars on the streets of Paris and public bicycles for which passwords can be obtained via mobile phones in Newcastle etc.

In short, European cities have a wealth of good practices and research in the preservation of historic culture, the construction of liveable settlements, low-carbon mobility, environmental protection and the like, all things from which China can learn and draw lessons. Some can be directly implemented.

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6. China and Europe Urbanisation: Different Past, Same Future



By Pascaline Gaborit, ENTP- European New Towns and Pilot Cities Platform

"Generally speaking Chinese cities are big building sites always waiting for the future, American cities are more static always reminiscing about the past¹." What if Chinese and European cities looked towards the future of sustainable urban development and created better, more balanced and environmental cities while preserving their culture and heritage? We should

highlight the key elements of the current situation of sustainable urbanisation in Europe and China. There are many initiatives in cities and towns aimed at making them more environmental and better places to live in. Their success, however, will depend on the articulation of local and global planning towards more sustainability, the participation of all stakeholders, and the diversification and replication of solutions, but not only through the use of green technologies.

The demography has declined in recent decades and European countries are faced with new issues such as ageing of the population, stagnation of the economy, economic crisis, unemployment and concerns about possible energy shortages. In this framework, the environment, the creation of harmonious communities and the reduction of CO2 emissions have all become increasingly important for European countries at both local and national levels. One example of this growing concern for the environment is that most of the large and medium-sized cities in Europe have a department dedicated to Environment and Energy that deals with a range of issues such as maintenance of green areas, biodiversity, promotion of soft transport, education about the environment and negotiations with local businesses on how to improve the environment. Local elected representatives have become increasingly active in the course of better environmental solutions, as shown by the success of the Covenant of Mayors signed by more than 1000 cities in Europe as a commitment to reducing CO2 emissions by more than 20% by 2020. Some municipalities develop pilot projects on renewable energy, eco-construction, recycling, etc. In 2010 the European Commission launched the "European Green Capital" prize to award to cities (one per year), which have a consistent record of achieving high environmental standards and can inspire other cities.

Stockholm, in Sweden, was named the first European Green capital for its numerous and ambitious environmental projects² — 100% of the household waste is converted into heating and electricity, and biogas produced in waste water treatment is upgraded for use in public buses and taxis.

There are many examples of local action aimed at achieving more sustainability in Europe. They include municipalities investing in more environmentally friendly solutions and do not only occur in specific large cities... For instance, a number of medium-sized cities in the ENTP network such as Marne la Vallée - Val Maubuée close to Paris (France) and Spijkenisse in the Netherlands have invested in a geothermal system of heating. The advantage of this system is that it provides clean energy that does not contribute to accentuating climate change: geothermal power plants do not have to burn fuels to manufacture steam to turn turbines; consequently, using geothermal energy helps to reduce carbon emissions and provide renewable energy.

The de-carbonisation of cities is only in its infancy and some issues remain unsolved, such as the question of sustainable renovation of older buildings on a large scale and how to make these more environmentally friendly. Indeed, the question of how to retrofit buildings including historic and old buildings and how to finance this remains in the air³. Local European representatives confronted with such challenges are not only concerned about damage to

¹ Su Tong, in Foreign policy, Sept.Oct 2012 p 69

² European commission: http://ec.europa.eu/environment/europeangreencapital/winning-cities/stockholm-european-green-capital-2010/index.html

³ See project Greenov among others: http://www.greenov.net

the global environment but are also worried that energy, heating provision and oil will become increasingly expensive and will thus have an impact on the lives of their citizens (expense of good housing conditions, homelessness, poverty, health issues, social conflicts).

The context in China is markedly different but without doubt both Europe and China share in the hope of finding a path towards more environmentally friendly cities, as testified by the historic 2012 partnership on green urbanisation⁴. The Chinese model of development has been named the "3 S" model, standing for Size, Speed and Scarcity of resources⁵. Each year more than 15 million people leave China's rural areas for the cities⁶.

Air pollution has recently reached record levels in Beijing. This is mainly due to three factors: reliance on coal-fired energy, the presence of industry within the city perimeters with the exception of mega-city centres and the increasing use of cars by individuals⁷. 130 million vehicles are expected on Chinese roads by 2030.

Sharing solutions?

While the contexts are different the existence of a partnership on sustainable urbanisation shows that solutions can be shared, even if sustainability implies adaptation of different solutions for different climates, territories and societies.

Some involved in this have foreseen the appearance of a new industrial revolution based on energy, which would be comparable to transformations made by the large expansion in use of computers and mobile phones⁸. This will create global challenges but also changes requiring cities to adapt energy provision and distribution (smart grids, etc.). In the meantime, as seen in the comparative table below, the solutions lie in investing more effort into planning cities, both existing and new, the development of clean transport systems and the adoption of compulsory standards for the construction of low-energy buildings.

Key factors For sustainable cities	Europe	China	
Reduction of regional And rural/urban disparities	Existence of both growing and shrinking cities losing inhabitants	Strong urban/rural divide in terms of development – arrival of peasant workers – questions of the Hukou system ⁹ .	
Clean transportation	Challenge: hybrid cars, reduction of emission of other cars, density of public transport, good pedestrian access, developing soft modes of transport (tramways, bikes)	Challenge with the rapid increase of private cars. Many cities have invested in clean transport such as Zhuzhou Municipality (rental system with 20,000 bicycles and 1018 bike stations), scientific	

⁴ For more information on EU-China partnerships and mutual expectations see Men J. And Balducci G. (eds) *Prospects and Challenges for Eu-China Relations in the 21st century,* College of Europe Studies, P.I.E. Peter Lang, Brussels 2010. For the partnership on sustainable urbanization, consult the SUN Newsletter from the EC Delegation in China. The aim of this partnership is to tackle the challenges, which are coming up with the urbanisation though cooperative efforts between stakeholders at all appropriate levels, including national, regional and local levels.

⁷ Although these problems are responsible for air pollution, other problems include a bad system of waste management as it was estimated in 2009 that 600 million of solid waste were produced yearly in China including 10 to 15% that could be considered as hazardous in F. Obringer « *Les écovilles en Chine : du rêve nécessaire à la réalité marchande » revue Mouvemzents n°60, October-December 2009, p. 1.*

⁵ P. Ho and E.B. Vermeer (Eds) *Chinas' limits to growth, Greening state and Society,* Blackwell publishing, Malden, Oxford, Victoria, 2006.

⁶ Harry den Hartog, Shanghai New Towns, 2010.

⁸ J. Rifkin in European Energy Review *Leading the way to the 3rd Industrial Revolution* December 2008 pp4-18

⁹ Request of a residence permit for migrants before they have access to city's facilities. Established in 1958 this system establishes indeed a two-tiered population structure of rural and urban citizens

		planning to develop clean transport, use of ICT etc. 10
Public transport	Yes, dense	Yes – In Beijing the metro network alone is expected to reach 442 km by the end of this year making it one of the largest in the world.
Cycle use	Increasing promotion of cycle use in large cities such as Paris and Brussels. Extended cycle use in The Netherlands, Denmark and Germany.	Declining ¹¹ although municipalities such as Zhuzhou are counter-examples.
Reduction of car use	Yes, special additional taxes on car use have been developed in large cities such as London and Stockholm.	Increasing car use. Policies to reduce use of vehicles exist to reduce the air pollution. Pilot projects exist in the city of Shenzen for example 12.
Renewable is a key economic concept (Germany), hydraulic (UK) gas and biogas. The majority of EU member states lack energy resources. Hence their economies are dependent on massive imports of energy. Countries such as Italy and Spain import 80% of their energy ¹³ .		Coal mining is still very important in some regions. Pilot projects exist in Dalong municipality to turn a coal-oriented city into the city of solar energy. On completion, the project anticipates that 100% of urban houses must be inspected to ensure energy efficiency. ¹⁴
Compulsory standards for more ecologically Yes – depending on country regulation. friendly construction Application of P.E.B. Dir (2002)		Less strict than in some European countries such as Sweden. Pilot projects in cities such as Chongqing.
Exemplary eco-cities	Bedzed (London), Vauban neighbourhood in Freiburg, GWL in Amsterdam (car free), Malmö The idea in France and the UK in 2010 of building new eco-cities has been abandoned in favour of a more global approach to the environment.	Old projects: Dongtan (Chongming island, Shanghai) had been designed as eco-city ¹⁵ . The Tianjin eco-city project was developed jointly between China and Singapore. It aims at building a practical and replicable eco-city ¹⁶ . There are other examples such as the low carbon city of Shenzhen

Extract of key elements for sustainability: Comparison of situations in China and Europe

The table above shows that the problems are complex. Solutions therefore need to be ambitious, clear, targeted and adapted to the various situations¹⁷.

In northern Chinese cities the average temperature in dwellings can be 14 degrees in winter whereas it is 20 to 22

¹⁰ EU-China mayors forum, September 2012 Wang Qun mayor of Zhuzhou municipality "Making green transportation to be the essential condition of a liveable city"

¹¹ See also article "smarter than car" Urba China: Sustainable urbanization in China. Mega-Trends towards 2050. Newsletter November 2012

¹² In Speeches by Chinese speakers booklet *EU-China Mayors forum, September 2012* p 7

 $^{^{\}rm 13}$ J.C. Piris "The Future of Europe", Cambridge university press, 2012 p 15

¹⁴ Idem p 23 "Turning Chinese coal capital into the city of Solar energy"

¹⁵ Based on the book of Mac Donought "Craddle to craddle: unamaking the way we make things" 2002.

¹⁶ In Speeches by Chinese speakers booklet *EU-China Mayors forum, September 2012* p 7

 $^{^{17}}$ See Yu Wang Vedrine "The Green urbanization: the local vision under the globalization" in the conference Committee of the region, 19-20 April.

degrees in Europe¹⁸. This question of comfort illustrates the necessity of developing energy-efficient accommodation in which comfort and low CO2 emissions are combined. The keys lie at the heart of cities and their planning. Transport, construction, equipment and infrastructure need to be considered in advance in order to avoid added costs in the future. But success at local level and in planning depends on more global factors and environmental regulations. If better construction standards are not applied at national level, the costs of retrofitting ageing building stock will be higher in the future. If solutions are not found to tackle air pollution, the costs in terms of health will also explode in the long run. Global factors and national policies will impact the development and success of cities. Balanced and harmonious territories for a better city and better life¹⁹ need investment and this is why cities have invested massively for environment. There are many examples of good practice in European and Chinese cities but these have not yet been applied or replicated on a large scale. "Green washing", or the use of environment as a marketing tool rather than a policy, should be reduced by developing key indicators and by raising awareness. A line should be drawn to distinguish "green city" planning (green spaces) and better or more sustainable cities for people. In this context, our EAST project and many more initiatives provide examples of cooperation between Chinese and European towns in the area of sustainable development. Thanks to this project, the Qingpu and Baoshan districts, the municipality of Naya Raipur in India, and European new towns such as Basildon think jointly on how to develop a more sustainable urban development in rapidly changing places. More information can be found at: http://www.pilotcities.eu and http://east-project.org/

(This article was written and updated with assistance from the ENTP Team: Edoardo Guglielmetti and Lauriane Lahery.)

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7. Attention to Detail and Long-Term Planning



By **Harry den Hartog**, *Urban Expert*, *Director of Urban Language (Rotterdam & Shanghai)*

The major problems caused by China's rapid and massive urbanisation cannot pass unnoticed. Emerging "urban headaches", such as questionable building quality, lack of resources, environmental problems and social inequalities are all too obvious.

For centuries the famous painting *Qingming Shanghetu* (City Life) represented urban life in China. The city was controllable within its walls. Today the reality is countless high-rises, massive infrastructure and sprawling developments. Agricultural land is under threat from cities and villages that grow without limits. China's urbanisation has accelerated, particularly over the past decade since it was declared the engine for stimulating economic growth. A city should be more than just a tool for stimulating GDP.

Europe's level of urbanisation is fairly high but compared with the Chinese standard it seems rather tame. Nevertheless, Europe's recent urban history is much broader and there are many common problems to tackle — efficient land use, for example. In Europe the process of urbanisation began to accelerate after the Industrial Revolution (1750-1850) and reached its peak in the post-war period last century. Urban design became an important profession and new specialists began to research and plan for city development, initially with a top-down approach but later with increasing public participation. It became clear in Europe that a city was a complex system that needs efficient long-term thinking, care and continuous maintenance.

¹⁸ Michel Colombier and Jun Li (2012) "Shaping Climate polices in the housing sector in northern Chinese cities" in Chimate Policy 12:4; 453-473

¹⁹ Theme of the urban expo Shanghai

There are therefore plenty of precedents to which Chinese planners can refer, and these provide opportunities for them to work with European experts in fields such as urban design, energy, water management, environmental care and provision of healthcare and education. It is, for example, especially important to create better opportunities for migrant workers to help bridge the gap between urban and rural living standards.

In a country such as the Netherlands there is a tradition of strong social housing policies. over the past few decades there has also been a rise in public participation in urban planning and governance. The Netherlands is viewed worldwide as exemplary in the field of architecture, urban design and social housing. For China there is much to learn regarding care of detail, long-term planning, building on a more human scale, urban-rural links and an integrated multidisciplinary approach.

The reality in contemporary urban China is, however, completely different. Private developers enjoy a great deal of freedom to build whatever they want since there is huge demand. This often led to poorly constructed buildings, short-term thinking or greed. Today there is little market research in China. Self-made new developers are focused primarily on property values and pay little heed to the quality of the living environment. China's housing stock would definitely benefit from serious market research in order to achieve targeted housing supply systems. More variation in housing types (not styles) is essential, with specific types for specific groups; for Shanghai's ageing population, for example. There is a need to shift from housing as a mass product to a more tailor-made solution!

In contemporary China the balance between supply and demand is difficult to find. In the last decade families bought a large share of new housing for speculative reasons. Many of these apartments remain empty afterwards. Simultaneously there is a huge demand for affordable housing with many migrants and new citizens forced to live in dormitories or shared houses. China's new social housing policy is only a first step towards a more healthy balance between government-driven and market-driven urban development.

In search of innovative input from abroad, China happily adopts ideas it finds useful, supplementing them with its own insights where needed. Increasing numbers of western designers are seeking opportunities to realise their dreams in 'the land of unlimited architectural possibilities'. This process has resulted in several surprising projects, but for a substantial number of architects the dream ended in disappointment. The reasons for such negative experiences lie not only in the physical distances or differences in planning cultures involved but especially in an irrepressible building tempo and differences in decision-making procedures. Many western designers complain of a lack of clarity and experience difficulties in acquiring correct information with regard to planning and of having too little control over the overall process. In most cases even the future use of a building is unknown during the construction phase.

In most European countries the spatial and programmatic context is known from the start and affects how the designer shapes the spatial organization of the building in question. The architect or urban designer often acts as a kind of supervisor. But in China this is not the case. Since Mao's Cultural Revolution the profession of architect has fallen in prestige; clients now see architects as suppliers of flashy design sketches which can be used or not used as they wish. In the western world, in contrast, the sketch signifies only the start of an architect's activities. The Chinese building process is in general, extremely flexible. There are no 'fixed conclusions'; everything remains open. The frequently changing programmatic requirements during the planning process and the lack of any direct contact with the future user reinforce the Kafkaesque atmosphere already present. The process seems to be subordinate in importance while only the result counts, especially the outer image. 'Face' is an important issue in China...

It is striking that the contribution by western architects in China often goes no further than the façade, with the western designer typically being used as a 'sauce' to make marketing a product easier. For the new bourgeoisie everything expensive or exotic is deemed good and beautiful, and that finds expression in a grotesque-looking classical idiom of mouldings, arches and the like. The dominant Chinese trend seems to be a burlesque classical

design language, with pastiche copies of classical European styles. This false copying of European styles ignores the essence of architecture and urban design. It also ignores modern developments in Europe. One of the most striking samples is the case of Shanghai's One City, Nine Towns Development Plan which used Western input to create identity at its cores, where the western contribution was often limited to a very thin layer, a façade. Pastiches, like Thames Town, are perhaps commercially successful in terms of 'branding' as a speculative object or as a tourist destination. But this is not the way to create living cities for ordinary people.

Another major problem is that many local construction codes in China are still based on the old system, which was influenced by the Soviet Union in the years following 1949. With the incredible growth of the construction sector today there is a severe shortage of experienced builders, good designers and supervisors in China. But the Chinese learn quickly and know how to adapt and even improve things. In some aspects China lags behind but in many others it is far ahead of the west. The bright new and highly advanced public transport system is an admirable case in point, in combination with building in high densities to save land. The Chinese usually have their homes facing south, with a tolerance of 30°. This time-honoured tradition is, among other things, based on practical considerations such as taking advantage of the sun's warmth and the frequent use of solar water heaters. The creativity of the design, however, is also limited.

China needs to go beyond the copying of architectural styles and learn from European technologies, ideas and management systems. It is shocking to see that many buildings in China fall into decay after just a few years because of lack of maintenance, the wrong choice of building material, little attention to detail and uncoordinated building processes.

There is an urgent need to shift from quantity to quality. Buildings and cities are more than speculative objects. They are living organs. It is important to design buildings in relation to their physical and non-physical context. This integrated approach is largely lacking in contemporary China where individual buildings often seem to bear no relation to their surroundings.

Buildings produce almost half of all CO2 emissions. China could do more to integrate advanced technologies regarding insulation and energy conservation, and also apply modern building standards. By improving existing methods and techniques it should take a lead in building properly sustainable buildings and durable cities. There must be a way, both limiting the consumption of resources and raising efficiency, to improve the quality of life for all. Green building technologies and accompanying evaluation systems, such as the "passive house standard", could be implemented, not just for a single housing unit but for whole cities too...

The trend in China is protective localism with local authorities and local developers in charge and mainly focused on short-term GDP-driven motives or careers. It is clear that there is also an urgent need for cooperation that crosses borders, to formulate a regional integral vision for the long run. Existing institutional barriers therefore have to be reduced to match local interests with regional and even global interests. Problems such as water pollution, air quality and the end of resources won't stop at administrative borders.

China, with its economic power and vigour, is in an ideal position to tackle climate change and realise, for example, real carbon-free development. Nowhere on Earth has a real eco-city been created. If China can do so it will set a milestone.

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8. China's Urbanisation through the Eyes of European Experts

On 31 March 2013 Mrs Yang Yanqing, host of the Urban Chat Room, invited four European guests (**Pedro Ballesteros**, International Relations Officer, DG Energy, the European Commission; **Pierre Calame**, President of the China-Europa

Forum Foundation, President of the Charles Léopold Mayer Foundation for Human Progress (FPH); Maurizio Mariani, President of the Consortium Risteco, CEO of Sotral Spa, Vice-President of the Italian Association for Enterprises Environmental Competitiveness; Marc Glaudemans, Professor of Urban Strategies, Architecture and Planning, European Urban Design Lab in Tilburg, the Netherlands) to discuss the issues concerning China-EU urbanisation cooperation, the problems faced by China on urbanisation and how to share experiences from Europe.



YANG Yanqing: In the context of urban transformation, how can China learn from the experience of European cities? I think that China is facing five challenges: the first is economic transition in the background of urbanisation; the second is the challenge of new immigrants going to cities, and how can we help those new from rural areas live better lives? The third is that China has reached a very high carbon consumption style of economic growth, how can it switch to a low-carbon one? The fourth is the ageing population; and the fifth is the fact that the cyber society does not have a significant role. First, I invite Mr Ballesteros to provide a short response to those five challenges.

Pedro Ballesteros: The real economic transition you face is the transition of a country that is now being designed according to the needs of other countries. Your country has been designed as a country to produce a lot of things in a competitive way and to sell them to the global market. You and your government can make a lot of money out of this but it has a price, a price that is not economic but environmental, social and so on. Basically you are not designing your own country with your own people in mind, you are designing something that intends to be competitive. By definition, being competitive is a transitional period in which you are either winning or losing. And by definition, being competitive means being cheap, cheaper than somebody else. Maybe the new economic model you decide on can be a model in which you think "I am Chinese, I love my country, I want to design my country with love, with our future in mind, I want to see how I can create an economy that serves China". With these principles and values in mind you can create a lot of economic opportunities. The difficult part may be to shift from a high-carbon economy to a low-carbon economy. You are a high-carbon economy because in this country there is a lot of coal and it is very cheap, very unhealthy; although many people are suffering from this, it is competitive. Once you put your country, your people, first in your mind, in your heart, once you say "I don't want to be mining coal to make unhealthy things, I want to see what I can do in China with my own resources and in return have a much cleaner country", then you go for a low-carbon model. As soon as you start thinking less about being competitive then you can use many more renewable resources but not as the case has been until now, not just by looking at renewable resources as one more industrial sector in which you produce a lot to sell to the whole world, except China. Once again, you should think about your country, not about being competitive, think of your people rather than money and you can find solutions.

This is even more important when you have, as we have in Europe, an ageing population. You are still very young and

very strong, but you will see in 30-40 years' time that when you become slightly more aged you are also less competitive. You will look more for quality than for quantity and then you will have much more interest in having a model of society based less on competitiveness and based more on values, on love.

YANG Yanging: What about the long term?

Pedro Ballesteros: In the long term, the only thing that you can be sure of is that your own life is in your own inner capacity, in your own inner satisfaction, in the quality of the network that you have created by yourself and in the stability and credibility of the systems that are taking control of this. Not about competitiveness or the economy. Your needs are just the food you have, the other things are invented things, and you can be very happy. Many societies can be very rich without entering into so much competitiveness for so many things. If they look much more into themselves, and many are doing this, they are creating jobs... by thinking more about themselves and not looking at others.

YANG Yanqing: Yes, I think it is a very good solution. You talked a little about how young people look at this very tough situation, the fact that the employment rate for young people in Spain is roughly 50%, which means one half of young people cannot find a job.

Pedro Ballesteros: They are having a terrible time because we are in a system that is very much based upon competitiveness. This system does not work, but this can happen in China, this can happen anywhere. And I am stating this honestly with an open heart: this is something that has to stop. This system of competitiveness among enterprises has only generated disgrace all over the world for more than 70 years now... When we are competitive we are animals, fighting against each other. When we are not competitive, when we are cooperative, we are human beings, we are in another dimension, we are in harmony, we are looking for peace, we are looking for values, and we are developing ourselves. I am not saying that we have this in Europe, because we do not have this in Europe; I am saying that I would like to have this in China and in Europe.

Maurizio Mariani: I totally share what Pedro Ballesteros say, but I should add that we really need to shift away from this economic paradigm based on competitiveness and based on extreme 'financialisation' of the economy. We need to maybe rethink our business model, our mode of doing business, and think again about human labour and of human happiness. Of course it is true that we do not have that in Europe but it is a goal we need to achieve, and to achieve this kind of goal we need to share and cooperate with other countries such as China for example. From another point of view, since my field is agribusiness and food-processing supplies chains, I should say that perhaps you could learn something from the experience in Europe and also from the experience of the old occidental countries, including the USA. We waste a lot of food. In Europe we produce 900 kg of food per capita but we will never be able to eat 900kg of food per capita. We waste half of the production because our consumption model is crazy. We have the same problem in the not yet developed countries where a major part of food production is lost through lack of technology. It is often said that maybe as Europeans or Italians we need to export fewer products and more ideas, much more know-how and exchange with our neighbouring countries or a country such as China. It is a way of producing a local economy, of giving value to ideas and of giving back the rightful position of the person.

Another paradox in our food system, for example, is that not only do we waste a lot of food but we also have a major problem that is one of the main medical challenges in both Europe and the USA: it is obesity. Today in Europe around 25% of children are at risk of obesity and 15% are already obese. This costs the system around 7% of total expenditure, so we should find a new balance between real economy, human labour, environment and social inclusion. This is, I think, is a good recipe for building our future.

YANG Yanqing: I think it is very important for people living in developed countries to eat more vegetables and less meat. But China is still a developing country at this moment and hundreds of millions of people cannot have

sufficient to eat, including meat and dairy products. The biggest concern in China now is "how can we eat safely?". We do have poisonous milk, we do have problematic meat, dangerous vegetables. It is a terrible environment for the Chinese people to face, so what kind of experience can you give us for providing a basic food system which is safe for the people?

Maurizio Mariani: You mentioned that you have a problem with both food security and food safety, which are two different things. But for food safety of course, you need to warn people; you have to teach farmers, create a union of farmers. Maybe China's problem today is that you have too many small farms and companies. You need to aggregate them in cooperatives, in consortia, and it should also be the role of the state to give training and, through international cooperation, this should be one of the roles for Europe. Europe should help to create new facilities and new technologies to increase food safety. It is, of course, one of the main issues.

Marc Glaudemans: One of the key terms of the conference was sustainability, and of course the definition of sustainability is to do everything in your power not to impose or transfer the cost to future generations. The long term is very important. It is certain that China is becoming an aged society, so you have to think now and plan the future of China with a relatively older population. This reflects on all the different aspects. It is important to think about Europe's current cities from the perspective of an aged society. Then you will probably see that this very large sprawl, urban sprawl, is going to create a lot of problems in the future. In an aged society you actually prefer to have compact cities that are walkable, where amenities are in close vicinity to where people live. I think you are creating a lot of problems for the future now because of the sprawl of Chinese cities. In general, European cities are very small — usually you can walk from place to place, you can organise your public transport. These are key elements that are important to think about if you are planning. China is now in a position that it can be planned in quite an effective way because of the strong government, the still very strong economic drivers, and because there is money to invest. This is actually the key time for China to make the right decision. It would be wise to carry out the exercise from the perspective of not just the competitive economy but from the perspective of providing cities that will be liveable 20 years from now or 30 years from now. It has to be a balanced urban system and balanced cities, and that is I think the key challenge.

YANG Yanqing: Yes, cities should be better places to stay but will it necessarily be expensive? How could we afford the cost and who will pay for it?

Pedro Ballesteros: We have been educated to think as if the economy was the most important thing in life. Now, if you look at your own life and how important the economy really is, you will realise it is not so important. When we speak about cities we are speaking about basic infrastructure in which human beings will live together for the next hundred years. Second, if you have a city where people can go and see each other by foot, can do their shopping by foot shopping and can have everything at hand, then by definition this is infinitely cheaper than anything you need — a car or a bus or whatever. If you have a city fed by renewable energy resources, in the long term, in the life cycle of 100 years which is the life cycle of a city, this is much cheaper than any coal, oil, natural gas or whatever resources you use. China is now in a cycle in which there is money for investing. Make these investments now in order to save the money over the next 100 years. By definition, by nature, by evidence, the cheapest alternative is the cleanest and having more compact, more human and more liveable cities. Then people will take care of the city and feel the city is theirs. And this will also make it cheaper.

YANG Yanqing: So it is a long-term competitiveness?

Pedro Ballesteros: No, this is not competitiveness, this is liveability, it is just about taking things out of the market. Once your energy is free you are out of the market, you do not care about competitiveness, once you can go shopping by foot you do not care about the price of the petrol.

Marc Glaudemans: I think it is very important that the benefits of this system are invested for the sake of the

people. These long—term investments will pay for themselves over a long period. There are, of course, already a lot of investments in infrastructure going on in China, which is a good thing because these roads and railways connecting the cities will stay. In the USA they made the same investment in the 20th century but they did not really maintain it very well. Now they are facing a big problem because now they do not have the funds to renew the infrastructure and actually people are suffering... So, in terms of both city planning and governance there is a lot to gain in your own tradition.

YANG Yanqing: Did you imply that perhaps China should transit from only several very large megacities to maybe some 20 or 30 cities?

Marc Glaudemans: I think that 20 cities of one million people are better than one of 20 million. But as I said, it is not a one-size-fits-all model. In general people in medium-sized cities have a very high quality of life — they spend less time in traffic and still have access to good amenities. Certainly from the Dutch perspective this seems to work quite well. We do not have large cities, we have a very balanced urban system and this creates quite a high quality of life.

Pierre Calame: I would like to try to broaden this discussion. I have been working with Chinese partners for the last 20 years and was able to see dramatic changes each year. It was fascinating. But let's concentrate on the last five years when I have told my Chinese friends, "you know you are going to the wall". They would answer: "Listen, we are ageing, we need to be rich before getting old otherwise who will pay for the old people?" Lately I have heard something completely different. People say instead: "With what we are doing we'll be dead before getting old because we will hit the wall." So, as I said, "it is not just a matter of Chinese mis-development, it is a matter of a global and sustainable model of development". And we have to address that together.

Second, we all know about the humiliation of the opium wars in the 19thcentury, about China nearly becoming a colony of the west. Since these events the discussion among intellectuals in China has been, "we have missed the steps of technological innovation and then we have to imitate the West". If you look at GDP per capita, you can describe yourself as a developing country but on the other hand you are not. Shanghai is nothing to do with a developing country. Now China will have the wind in its face. You are becoming, together with us, the frontrunners and we have to work together to find new ways. This is changing everything, including the fact that when you wish to imitate a Western style you simply build an imitation which has nothing to do with your culture. I mentioned in our meeting the wonderful words of Jean Monnet, one of the founders of the European Union, which was established just after World War Two. After World War Two can you imagine the resentment the French felt towards the Germans? Then Jean Monnet gathered people from Germany, France, Italy and the Benelux, invited them to sit around a table, and said: "Now, you sit on the same side of the table and you face our common challenges." This is the way we built Europe.

Now this is the way we have to build the world. I was at the Rio+20 conference last year. It was a total failure, why? Because our governments are entrenched in the idea of sovereignty, in the old idea that "we have to confront our national interests". But national interests do not exist in essence, they simply exist because there are states and these states cannot do anything better than confront their interests. But they are part of the problem not part of the solution; you must understand that. We have to sit on the same side of the table, understand that our current model is totally unsustainable and that socially people are not happy.

My third remark is what do we learn from cooperation? I have been involved in international cooperation on every continent and across a range of topics for the last 20 years. I have learned that there is no universal model, there is no such thing as the silly idea of the World Bank concerning good practices and good governance. That does not exist. How useful is international cooperation? International cooperation is absolutely essential in order for any nation or any people to learn and to innovate. What we learn from each other are the major questions we have to solve.

Eventually I learned from my years involved in international cooperation that it is not the solutions which are the same but the questions. Addressing the right questions, listing the priorities from among fewer than 10 questions, this is a strategy. And it could be incredibly helpful to receive suggestions from Africa, or Latin America. These are not lessons from the richest to the poorest but from everyone's experience. For example, if we sit on the same side of the table now, what are the challenges ahead of us? It is the transition toward a sustainable society. And what can we learn from each other? If you look at Stockholm, it is a good eco-city in the Swedish tradition. You must capture from them not the solutions but the way they did it, the process they used. What is very strong in our China-Europa Forum is that we have learned first of all to listen to each other in order to discover the common challenges behind the differences. And second, we learned that talking with each other helps us to think about our own situation, just like a mirror.

Now let me give some concrete examples on how to operate a shift from unsustainability to sustainability. There will be sustainable societies only on two conditions: sustainable supply chains and sustainable cities. These are the key actors in the future. Here's another example of the dramatic changes going-on in China: 10 years ago if you talked about global supply chains and sustainability, Chinese people would say: "Hey! You are trying to build a non-fiscal obstacle to international trade; you are trying to create social clauses, ecological clauses, because now that you are less productive, more aged, you want to change the rules of the game." I do not hear the same thing now. Chinese would rather say: "If we were fighting together with Europeans to define and develop a sustainable supply chain it would help China immensely. Because then we would develop new technologies, we would be confronted with the respect to the people." Indeed, you would be productive, you would be effective and you would stop destroying yourself.

Globally speaking we have to change our economic model. For example, if we do not reach the right balance between natural resources and fossil energy, we will be at war, whether over central Asia, or over the control of natural resources in Latin America or Africa. At a certain point China, which is the third largest consumer of fossil energy and natural resources, will fight. The only solution is a fair sharing of resources. The market cannot play this role because fair sharing implies quotas. One has to understand that the market is extremely efficient but only for one category of good and services. We have to invent a new governmental regime. The market is not efficient with natural resources, not efficient with intelligence, and not efficient with ecosystems because if you try to sell an ecosystem you destroy it. You have to understand that the market is very efficient with a specific category of goods and that this is personal services or industry where you can create a larger range of goods through creativity and work. But with other goods and services it is different.

YANG Yanqing: I have two questions. The first is: What is the weakest link in your view in China? The second: What is the major thing China should avoid in light of the European experience?

Marc Glaudemans: As regards the latter question, your financial system is not as integrated into the global financial system as is that of Europe. So avoid that, because the fact that you are less vulnerable to forces that are actually very difficult to control will help you enormously. The question concerning the weakest link is very difficult to answer. But it is probably also philosophical — the strongest link and the weakest link are probably the same. The strongest link is always people, but of course there is a risk that although China is one country it has a lot of people and they are not all the same.

Pierre Calame: The main weakness is the weight of history and it has two dimensions: resentment and obsession with sovereignty. At present you are becoming a global player and conformist because you have adopted the habit of becoming a follower. But you should become a frontrunner in a new kind of education, training to invent, training to criticise the premises of what children are taught. For example, I am fascinated by the fact that conformism in our market fundamentalism has passed from the USA to China at the very moment when market fundamentalism has become lethal. It is a matter of survival to understand the limit of the market. I am looking at all those wonderful

students here who are taught absolutely stupid things about the economy — just copying what was written in Harvard 40 years ago.

YANG Yanqing: You mean economy or economics?

Pierre Calame: The great English economist Keynes said: "The political leaders are the slaves of economists who are dead for long and whose names they don't even know." Economy is taught as a natural science — I am a mathematician, I am a scientist and I am an economist. But it is not, it is a social science. Each period needs to invent a new paradigm. I wrote a book, which has been translated into Chinese, entitled "From Economy to Oeconomy" to recall the fact that until the 18th century what we call economy was pronounced "Oeconomy" which means "the art of managing your household". But for centuries the question has been "how to ensure the well-being of the family, of the group, of the nation, now of the planet in respect of scarce resources". Because of the specific history of western modernisation, when we could capture the natural resources of the whole world, we have built new assumptions about economics. These assumptions, which were established in the 18 and 19th centuries, are now absolutely wrong. But they are still being recounted because your leaders are "the slaves of economists who are dead for long and whose names they don't know".

We have to re-invent, and that is very stimulating. You, my friends, you will have to invent the world of tomorrow and not just follow the west. We are tired, we need you to invent, and we will have to invent together if we sit on the same side of the table and forget the resentment. We have to manage the world together.

Part 2

Transition Towards Sustainable Societies: A Confrontation of Wisdom and Experiences (Summary of Speeches at the EU-China Urbanisation Roundtable of March 2013 in Shanghai)



Pierre Calame, President of the China-Europa Forum Foundation, hosted the opening of the EU-China Urbanisation roundtable in March 2013 at Shanghai.

In his introduction he said that the transition towards sustainable societies will definitely be the major issue of the 21st century and that four different dimensions could be found:

- 1. Building a global community I call that the "anthropological revolution" because we have to learn how to manage the planet together, we have to learn to share the resources, we have to overcome the issue of national interests. It is a very deep change which will take a long time.
- 2. The "revolution of responsibility" because we have to deal with our impact on the rest of world, whether our individual impact or collective impact, and we have, from our personal conscience through to global governance, to put responsibility at the core of our actions.
- 3. The "revolution of governance" we have to invent a way of managing our societies in order to cope with complexity, in order to build together more unity and more diversity. This is an extremely deep change.
- 4. A new economic model because our present model is unsustainable and cohesion relies on ever-growing consumption far beyond the limits of the planet. We have to invent a way of bringing well-being to everyone through respect of these limits.

In addressing this range of dimensions, such a short roundtable is likely to come down to some sort of shopping list, yet it is certainly useful to take a glimpse at the different entry points for tackling this major transition. So we will try to define the different dimensions of this transition, review some ongoing experiences and prospects, and to think about a working programme for our partnership in the future.

• China's Urbanisation is Faced with Many Problems and Challenges (MA Li, Deputy Inspector, Foreign Affairs Division of the National Development and Reform Commission)



Ms MA Li stated in her speech that in the past 10 years China's urbanisation rate had experienced an average annual increase of more than 1% and urban population increases of more than 10 million people each year. By the end of 2012 China's urbanisation rate had reached 52.6% but from an international perspective it was not only far below the level of the developed countries, such as those of Europe and the United States, but also below the world's average level. Therefore there was a huge development and upgrading space for

China's urbanisation.

She pointed out that urbanisation in China was faced with many problems and challenges. For example, people, in particular migrant workers coming from rural areas, could not have access to the same public services as urban citizens. Urban growth was an extensive pattern and the waste of the environmental resources was quite an acute problem. The urban economy was more dependent on traditional manufacturing industries, rather than on the service sector...

She said that European urbanisation had started with the British Industrial Revolution in the mid-18th century, from which Europe has accumulated a wealth of experience. Today, however, it faced new challenges. Despite its late start, many unresolved problems and the challenges ahead, China's urbanisation was bringing enormous opportunities for development. The EU-China cooperation on urbanisation conformed with the common interests of China and Europe.

European Politics and the Covenant of Mayors: Lessons on the Role of Cities and Territories in the

Success of the European Energy Efficiency Policy (Pedro Ballesteros, *International Relations Officer, DG Energy, European Union*)



Why cities are interesting? Why can Europe provide an interesting experience and contribution to the urbanisation challenge in China? How can we get many mutual advantages out of our cooperation?

"The Covenant of Mayors is one example of what is going on increasingly in the present world where problems turn out to be very complex. We know what our dreams are, what our vision is, but we do not know how to get there. This globalisation, along with market pressure,

environmental pressure and lack of resources is very complex. I do not think any human mind is able to find magical solutions any longer.

"One of the most important problems we face, all of us, is climate change. We have been negotiating for years on climate change and have failed to come up with anything because, basically, governments negotiate with economics in mind while climate change and economics do not fit very well together. At a certain point, the European Union unilaterally decided that it should reduce its CO2 emissions by 20%. We suggested that the rest of the world should follow without conditions and we went for it because it was fair, as we have higher CO2 emissions. Committing to reducing our CO2 emissions entailed a lot of changes in our lives and the European Union very soon realised that this commitment, if it was to be achieved, needed the very active involvement of local authorities. Indeed, most of our energy consumption comes from our houses, our buildings, our mobility, etc., and it was necessary to take that into account. The idea was to try to work in coordination with all decision-making levels. We were simply telling cities: 'Would you like to come up with a compromise to reduce your own CO2 emissions?' We would not pay but simply give a covenant saying: 'I will cut my CO2 emissions by 20% by the year 2020 in these sectors.' And to our surprise many cities said, 'Yes, we'll go for it', and they are going for it, there are some great cases.

"We excluded industry in the Covenant of Mayors because industry is something subjected to global competition, to the global market. When you decide to concentrate on industry in a country, you are basically deciding to live according to the wishes of other people, the people who are buying your products. But I want city dwellers to think about their own city, not about industry but about their buildings, their public spaces, their urban transport, about how they live and how would they like to live. When addressing climate change, including industry means investing more because of a potential drop in competitiveness, a rise in unemployment, etc. If you exclude industry then there is no global market, there is no competition; it is only about thinking about yourself and loving your territory. And all mayors said: "Yes! I want to fight climate change, yes I want to reduce CO2 emissions, yes I want clean buildings and clean transport in my city." It is a win-win situation. This is what we did with the Covenant, and we realised it was easier to involve the people that way.

"Money does not matter; it does not matter if it is a rich or a poor city. There are 4,800 cities from 48 countries in the Covenant of Mayor so far. For instance, there is the City of London, a very rich financial centre, and there is the city of Ploiești in Romania, in which there are very few cars and still people riding horses, but both of them have shared objectives... This is what the Covenant is; something we can share because for us a Chinese city that is clean, in which people are smiling, in which people look at each other and have public spaces to eat together, to walk together, in which there are job opportunities, in which the quality of the housing is good, is something that is the best possible thing that can happen in China. It is in our interest to do this. It is not in your interest that China produces iPhones, but it is definitely in your interest that Chinese people living in cities and inter-cities enjoy clean air, have access to clean water, live in good houses and recycle waste. And on top of that we, all of us, need China to have a lower demand for energy, for oil, many resources or other things that are not necessary in order to have more for all of us.

"We have a long experience in urbanisation, whether good or bad, but I do not want to make a value judgment on this. I only say that European cities are interested in sharing these experiences with you. We should consider problems we face now, problems that China faces now with urbanisation, as a golden opportunity to change our perspective and look at it not with a macroeconomic perspective and with a top-down approach, but maybe with a little bit of love. If we can do that in the process of urbanisation, then people will get together. And this is what urbanisation is: people getting together and getting together in the right conditions, with the right context and in a clean environment. I think it is the best thing we can do together. We have done this in several cities in Europe. We paid a lot of attention to indications of what really matters: How many days do you feel well? How many people are smiling in the street? How many opportunities are there for your children in your city? These are the important things."

 China's Urbanisation: Trends, Challenges and Policy Suggestions (QIU Aijun, Deputy Director General, China Centre for Urban Development, NDRC)



Ms QIU Aijun introduced the report *China's Urbanisation: Trends, Challenges and Policy Suggestions*. She analysed economic and urban development of China's different regions, and summarised a several major differences: the regional differences in economic efficiency and educational attainment patterns, the regional distribution of population, the spatial pattern of population, and the regional differences in the rate of urbanisation. She highlighted measures for improving the quality of urbanisation and enabling the migrant population to enjoy the

same rights as other city dwellers.

She said: "China's urbanisation faces many challenges, the largest being the population issue. In 2010, on the basis of resident population statistics, the urbanisation rate was 49.95%, but the proportion of non-agricultural household population accounted for only 34.17%. This gap might be explained by the passive urbanisation or semi-urbanisation mentioned by some scholars. The second challenge is the one of "differentiated" public services; the third, the issue of the extensive use of urban and rural construction lands; and the fourth, the inequality of opportunities for small and medium-sized cities and small towns. In China cities have different administrative levels. Cities at different administrative levels have different levels of power and responsibilities, and the extent of land expansion differs from one to another. Towns are under the governance of the counties, while counties are under the governance of the prefecture-level cities. The higher the administrative level, the more resources the city can control."

To address problems and challenges in China's urbanisation, the report proposed a number of ideas and recommendations. First, one of the priorities was to improve the quality of urbanisation, and focus on the migrant population and migrant workers. Another was the construction of urban infrastructure. How could we combine private capital and public infrastructure construction? The relevant research proposed the establishment of an "investment mechanism of the private sector involvement in public services"; with such a mechanism municipalities would be able to ensure the development and construction of urban infrastructure via sustainable channels.

Another priority was the demand of urban public services. The level of public services for the urban population was higher than that of the migrant population. The solution to this was not to depress the higher part but to improve the lower part, which meant more spending on public services. More attention should be paid to the issue of *where* and *in what way* this expenditure should be provided. In terms of the reform of the household registration system, the most important point was to establish urban and rural integration, and to gradually remove the links between household registration and the urban welfare system, thus making a more integrated urban and rural welfare system. In addition it was also necessary to reduce the intervention of the administrative level on the allocation of resources, especially to make reasonable use of and optimise the allocation of resources among cities and towns at different levels.

It was also necessary to break the barrier of the administrative division. In this regard, the focus was on how to build and use cross-regional infrastructure. The EU had a lot of good experiences including, for example, the EU Structural Funds which provided shared infrastructure among the different countries and cities in the European Union. Such experiences were helpful.

Finally, it was essential to support small and medium-sized cities. Small and medium-sized cities and towns in Europe enjoyed fast development, offering a number of good experiences for China to learn from. With some 20,000 small towns, China also had a great deal of knowledge and experiences to share. This should be an important aspect in EU-China urbanisation cooperation.

 Chinese Urbanisation Can Draw on the Lessons of International Experiences (Pierre Calame, President of the China-Europa Forum Foundation)



"I would like to share briefly with you some lessons driven by international experiences. As you may know, since the first Earth Summit there have been a lot of networks of cities working together on the transition towards sustainable societies. In fact we are still at the first stages of a long march towards real sustainability and we rely on the joint efforts of all the networks that need to strengthen their exchanges. Exchanges of experience already exist but not as much as they should. There is not enough critical thought on mutual experience, which is a

challenge for our partnership between China and Europe on urbanisation.

"First we need to understand the urban metabolism. In fact cities themselves do not know exactly how they function. They have very limited knowledge of their metabolism, of the flows of energy, information and money going in, and how inputs are transformed locally, create or do not create prosperity, or go away. When you look at consumption in Europe you can see there is a focus on the immediate consumption of energy such as in housing or transportation, but very limited knowledge of what the natural resources are, what the energy embodied in the process of creating is for transporting and distributing products that you buy. So the first conclusion is that we need to understand much more about cities' metabolism, we need new institutional arrangements, we need to do much more research to really understand it.

"Second, change cannot be the result of political will only; it has to come from all the stakeholders. All of the success stories we see show that change regarding the issue of sustainability relies on the awareness and the involvement of the population itself. Starting from a top-down process will lead nowhere. It will, of course, create good housing and good transport but there will be resistance emerging from the population. We need a growing consciousness, and many social innovations that we have to coordinate and combine. This is an effort coming from the whole of society, not only from the political body and not only from companies or other things.

"The third point about governance is the following: No issue can be solved at one decision-making level. Unfortunately, according to conventional wisdom on governance, we should know who is doing what and be able to describe exclusive competencies for each level, but this no longer works. The challenge now is to invent what has been well described in the White Paper of the Committee of Region of Europe as multi-level governance. The key issue is how the different levels are coordinated with each other. If you think of anything related to sustainability, ranging from energy to social cohesion, you will realise that you need the joint efforts of all the stakeholders from different levels. This is a great change in the conception of governance, in the conception of the role of the public servants and in the way of reaching more unity with more diversity.

"The fourth point is that next to the multi-stakeholder efforts you need to understand that common good cannot be produced by public services only. Common good is the result of co-construction and therefore many efforts are made nowadays to define co-responsibilities. A very good example is that of children. Children are very conscious of the shortcomings of our present model of development, they want to be responsible but they cannot put themselves in

the local authorities' place and there is not enough room for their participation in the education system. Only if you can define co-responsibility between children themselves (and they want to take responsibilities), the education system and the local authorities, will you make a dramatic move forward. So co-responsibility and co-responsibility charters are extremely important.

"Fifth point is that it is not possible to conceive sustainable cities with unsustainable supply chains because you remain dependent on consumption patterns that are unsustainable. So the two major institutional arrangements needed for the future are cities on the one hand and global supply chains on the other. You will have, during the roundtable, a very concrete example about food supply chain.

"The sixth dimension is that we need to create an appropriate governance regime for energy and for non-renewable resources. Right now we want to hammer in screws and we want to screw in nails, and it is exactly what we are doing with our regulations. They are inappropriate to the very nature of the different categories of good and services. Therefore a major social, institutional and political innovation would be to invent a governance regime for supplies. And we know that in China, there is a dramatic problem regarding water, energy and non-renewable resources. In the next decade conception of money, of currency itself, will change dramatically. We are only at the eve of the invention of this new regime.

"Seventh dimension: We need to realise that long-term decisions are irreversible; once you accept the urban sprawl, once you build huge infrastructure for cars, it will be there for a hundred years. In Europe for example, only 1% of housing stock is new each year. So let's consider the inertia of everything we have built over the last decades, and this is very difficult to transform. When you make a decision today it implies the question of sustainability in 50 years' time. This is the contradiction that European cities are presently facing. On the one hand they really want to move towards sustainability but on the other inherit decisions that have been made in the 1960s and 1970s and it is very difficult to go back. All the evidence suggests that successful cities have overcome the division between political parties because it can take a 10 to 15 year strategy to really move towards sustainability. So if each change in political leadership implies a strategic shift, it leads nowhere and it is a challenge for democracy itself.

"The eighth point is developing a new vision of cities and city planning. We have a mechanical vision of the concept of cities which can be seen whenever you go through the streets. We have to move towards a concept of cities as ecosystems, complex biological systems. We have to make a clear divide between strategy and planning. Planning is rigid, much too heavy, mechanical, so when dealing with resilience, with adaptation, with managing a relationship, then the pattern can be changed.

"And finally the ninth point, which is integrating technical progress in this new vision. Technical progress will be useful, smart cities are useful. We can use a significant amount of data to facilitate the management, mobility or home-heating systems for instance. But this will not be sufficient. Changes have to incorporate new technology in the new vision otherwise you go nowhere. These are the main lines of conclusion drawn from international experience nowadays."

 Qiqihar Could Be the First City in China to Abolish the Household Registration System (TANG Huadong, Vice Mayor, Qiqihqr City, Heilongjiang Province)



Mr TANG Huadong shared his reflections on the creation of a new mode of economic development. He introduced the development of urbanisation in Qiqihar city, an eco-city in northern China with an urbanisation rate of 46.6% in 2012 and said that the relatively low rate was the result of the small population size and the dominance of large-scale agriculture. The city's agricultural population had about 10 acres of land per capita. With no agricultural tax, a good harvest and the increasing prices of agricultural products, the local rural population was

rich...

Qiqihar developed six measures to promote further urbanisation. The first involved reconstruction of the city centre, the expansion of the new urban area and the refurbishment of the old urban area. The second was construction of a satellite city with the county as the satellite city of the central urban area, and as the mother city of the surrounding small towns. Third was promotion of small towns with distinctive features and fourth the provision of industrial support — introducing big companies and large-scale green industries — to promote the overall urbanisation. The fifth measure was the development of rural cooperatives as the vast area of land and the small population of Qiqihar offered good conditions for developing a large-scale operation and the development of rural cooperatives could boost urban development. Sixth involved the provision of a variety security measures including a dynamic development of education, to attract, for example, the rural population, by allowing their children to go to school in the city.

In addition he thought that Qiqihar could be the first city in China to abolish the household registration system or to remove the added value of urban welfare to the household registration system, because the farmers were rich and could afford urban lives, thus not becoming a burden for the city.

 Rethinking Urban Governance: A New Ideology for Cities (Jacques Saint Marc, Deputy Delegate of French Inter-Ministerial Steering Committee)



"In 1800 we were one billion on this planet. Now we are seven billion and in 20 years we will be nine billion, so there is a question about land use. More and more people are going to live in cities, and in 2050 we could have an urbanisation rate of more than 60%. So the question for urban planners is cities or urbanisation? There is a difference. Daily services should be within walking distance and there should be a good transport system. For example, Lyon is involved in a new development model. The city has around one million inhabitants and in the

whole area, including suburbs, there are around three million. The perimeter of the urban community of Lyon, also known as "Grand Lyon", and the studied area is of 30 km.

"Previously in France there was a lot of this kind of housing around big cities and you had to spend a lot of land and, of course, energy on it. We can also observe that the rate of motorisation in this area increased a great deal since 1982. In 1999 the number of personal cars skyrocketed, which is part of the urbanisation process. In these little cities around Lyon there are more than 1.5 cars per family. Now the new pattern of urbanisation is an urban community such as "Grand Lyon" surrounded by a lot of small cities, and a lot of small and medium cities with all daily services. There are projects to build new districts inside the city and to make the city greener by bringing the forest into the city. There is also another public transport project under which the tramway should come into the old part of the city to facilitate access to daily services and facilities.

"What kind of urbanisation do we need to have a high quality of life, a high quality of air and so on? When I was a young urban planner, Brasilia was a model for us as was La Défense in Paris, a neighbourhood separating the working area from the traffic area. Another example is that of a city in Ningxia Province, where the distance between the old city and the suburban area is 50km. In the old city, streets are lively, and in the newest area buildings are very comfortable, but to access other services you need to take a car, or a bus and spend a lot of time, money and energy."

The New Concept of Space in Urbanisation: From "Geographical-Physical-Economic Space" to "Cultural-Psychological-Public Space" (ZHANG Renbiao, Professor, School of Political Science and International Relations, Director, Urban Sociology Institute, Tongji University)

"Cities and towns are two different concepts in China. The country is now stressing the coordinated development of large, small and medium-sized cities and towns (the so-called "new urbanisation in China") proposed by the 18th National Congress of the Communist Party, rather than putting emphasis on the development of cities proposed by



the 17th National Congress.

"The traditional concept of urbanisation takes agglomeration as a symbol, and transfer of population is a kind of agglomeration. In the process of new urbanisation, however, China must pay attention to the issue of quality. Enabling urban civilisation to overcome the rural areas, enabling the vast rural areas to enjoy the achievements of reform and opening up, is the

significance of the new urbanisation. As a result, urbanisation should not be either a movement of destroying the rural area, or an issue of simply changing the agricultural land into urban land. It is also necessary, of course, to consider the psychological changes of the homogenising of the rural society and the heterogenising of the urban society brought by urbanisation.

"What are the features of China's urbanisation? First, the dual structure; second, the pressure from the equalisation of public services; third, the land acquisition and relocation — because China's land is either state owned or collectively owned relocation tends to cause various social conflicts; and fourth, the emergence of new challenges including low-carbon issues, environmental protection and resource conservation. The problems China's urbanisation is facing include its speed and scale; the separation of industrialisation from urbanisation; the gap between regional developments; the disappearance of a city's characteristics; the land waste of small cities and towns; the land shortage of developed cities; an increase of small towns in number but with an overall poor quality; the interference and impact of the administrative system; and so on.

"First, urbanisation should not be launched anywhere, and new cities should not be built everywhere; second, urbanisation should not lead to the similarity of cities, the so-called "thousand cities with the same face"; third, urbanisation should not simply be reduced to a real-estate movement; fourth, urbanisation should go far beyond the reform of household registration.

"Some people considered that there are three problems regarding urbanisation: first, where should the population move to? Second, where should the money come from? Third, how should the land be used?

"I will propose a few simple ideas on urban development. The first is the positioning issue of urban development, and the second is residential segregation. I am particularly concerned about whether people coming to cities can enjoy citizen treatment / can be considered real citizens. "Migrant worker" — a temporary transitional name — seems to have become the eternal symbol of a social status, which is worthy of our consideration. This relates to the settlement issue of the city. In the past, Paris constructed a new city mode in order to settle a large number of Arab immigrants. At present, with an increasing number of low-income people expanding to its outer edge, would Shanghai experience riots similar to those of Paris? **Europe has cultural conflicts, while China has a problem of differentiated places of birth.**

"Modern urbanisation development has three basic principles. First, in terms of physical-geographical space we have to go beyond the technology-oriented solutions and return to people-orientated ones. Second, in terms of economic-political space we have to abandon consumerism and try to achieve sustainable development. Third, in terms of cultural-mental space we have to resolve cultural conflicts before addressing urban and rural issues. This requires our efforts from now on, starting with everyone's individual effort."

• Towards the Designing of Sustainable New Towns and Districts (Pascaline Gaborit, Director, the European New Towns Platform)



"The challenges of urbanisation are tremendous. On the one hand, cities have created better lives for citizens, better work, better housing conditions and better entertainment but on the other they also created and lead to what some international expert schools call "serious urban diseases", namely increasing house prices, traffic congestion, security issues, unlimited city areas

and last but not least, huge air pollution. In this context, some decision-makers wished to create new towns or new districts and through these initiatives want to achieve a more balanced territory and create better areas for citizens. If, however, creating a city or a district from scratch can be seen as a dream for decision-makers and urban planners, it can also sometimes turn into a more difficult issue. Indeed, the risk is of creating ghost cities, empty cities, dormitory cities.

"European new towns were built 60 or 40 years ago. At that time they were pilot cities and we can learn a lot from them. They were built following government decisions and quite quickly for European standards. We can observe that they were built for the use of cars with mainly large roads and not a lot of public transport. Density was not really high because there was this idea of garden city at that time. Times changed and after some decades they began to build a public transport network, take the ageing of the population into account and think about the economy. We have therefore tried to identify some key points about new towns and new districts that are important to take into account. The first is the question of employment and jobs — building new cities is not only about providing housing but also about bringing jobs, or what we call a "housing-job" ratio. It means that when you build one housing unit you need to have one job. But this does not solve the problem because when you build an entire new area, what type of economy are you going to provide on your territory? Will you attract huge industries, raising the question of pollution, the question of use of territory? Will it be retail industries, cultural industries, high-tech industries? All these choices are difficult to make for local authorities.

"The second point will be to include the maintenance of buildings. The third point is taking into account changes in society, such as the ageing of population. Concretely, this means having elevators in buildings otherwise old people cannot reach their homes; and accessibility, which means having public services, schools and workplaces close to citizens along with a good transport network. The fourth point is to avoid property speculation and empty buildings, because when you have new town investors will often buy many buildings and wait for prices to go up. In the meantime offices will remain empty and this does not really create a good living environment for the people. We often try to think: what is a successful city? What is a successful new town? What is a town which is good for living? What is a town that provides sufficient services? Only people can answer these questions. When creating a new area, having all these services and all these liveable areas in one place makes it a bit more of a challenge. Another trend is to discuss eco-areas and eco-neighbourhoods. In Europe when we really try to build ecological neighbourhoods, we address cases at a small level most of the time; we do not really have a larger development scale. Achieving real urban sustainability, injecting vitality into the economy and society at a time of economic crisis, creating green belts in our cities that are also the lungs of our urban area is a challenge, even at the European level.

"At ENTP we have an interesting project named the EAST project, Euro-Asia Sustainable Towns, which is a cooperative project between towns in Europe such as Basildon in England and Naya Raipur in India, and various Chinese towns such as Qingpu and Baoshan. We try to discuss what the key factors of sustainability are for these newly developed towns and to identify some of them, such as education, environment, clean transport, urban sprawl and absence of polluting industry, as well as risk analysis for instance, which is very important in the long term. In the end what we promote is trying to have an integrated vision of planning, to take all the aspects into account at the moment of planning. To conclude, there is no magic recipe for creating a new town or a new district — every solution is different. But here are the issues that can be identified: How should these environmental cities be promoted? How should social cohesion issues be addressed? How should the issue of the economy in the city be addressed? And how should the issue of governance and city management be addressed?"

 Public Space Reshaping and Social Reconstruction (ZHANG Jun, Associate Professor, Dr, Department of Sociology, Tongji University)

"In the process of urbanisation, urban cells – communities – should be particularly developed. In particular following the reform and opening-up in 1978, how should we develop urban communities in the process of a transition



towards market-oriented urban management? In the past it was the work unit or *danwei* (a name given to a place of employment in China) that built communities, but now the function of the work unit or *danwei* has been transferred to the hands of the neighbourhood committee. The purpose in the past was to control communities while nowadays it is to provide social services. Communities in Shanghai have established a mode of "two levels of government, three levels of management and four levels of network", which provides good support for our

social services. Nevertheless it is generally believed that communities are still developed by administrative means and influenced by government forces, while resident-based communities are underdeveloped.

"Is there any community in China's cities? At present the average life expectancy in Shanghai is 80 years while the average retirement age is less than 60. There are therefore still 25 to 30 years for those retired people to spend in the community until their death. How should such a long time be spent in the community?

"Urban population density in China is increasing but living space for residents is very limited, thus leading to various problems such as a lack of public space, the decrease of family scale and an increased number of empty-nest families and elderly people living alone.

"After retirement the majority of people no longer belong to any work unit or *danwei*. They have to return to their own residential communities where space is needed as a carrier for their activities, but how do we find such a carrier? Residents have created many different ones — for example it is common to see elderly people in Shanghai dance and sing in public places.

"Why do people need such natural space? We did some field surveys and found out that it was because of the general demand for green space and open space. Chinese cities are very densely populated areas - people do not have much green space to enjoy at home, or enough open space to invite friends home. In response to this reality we proposed Space Reshaping and Social Reconstruction. On the one hand modern communities in Chinese cities lack basic public space and a social mechanism for nurturing communities, while on the other people have a demand for public space. Therefore we have proposed constructing a social network on the basis of public space features in order to promote social development.

"I would like to share a successful case: the one of The Knowledge and Innovation Community (KIC) which is a comprehensive premise near Fudan University and the Shanghai University of Finance and Economics. The surrounding old residential communities have little public space while the new KIC office space lacks popularity, energy and vitality. As a result, the KIC constructed public spaces for nearby residents in its office area. It has thus become a safe and healthy space for social interaction. This practice has offset the problem of the old community's lack of open space. Such a community with a linkage of public space has great vitality."

 The Intersection of Cities and Sustainable Networks: The Example of Food-Processing Networks and Sustainable Supply Chains (Maurizio Mariani, President of the Consortium Risteco, Italy; TAN Xuewen, Secretary-General of the Chinese Society of Foreign Agricultural Economy)



"Should smart cities exist without smart-food policy? Our dialogue with Chinese institutions and organisations started in 2007 and we have now worked together for almost seven years to force sustainability into the food supply chains in China and in Europe.

"First, just a few key facts and numbers in order to better understand big food supply chains and how strategic it is for a city to take these into consideration. In Europe alone, for one meal

eaten outside the home we produce 250g of waste, and in Europe some people are having a meal out almost every day. We are talking only about the food service which, in a total of some 23 million tons of CO2 emissions related to waste, now accounts for 12 million tons. Food consumption is growing everywhere. What we need is a systemic

vision of the food value chains in order to reduce the gas emissions of the entire supply chain. We talked about lifecycle assessment of the food supply chain — we need to reduce needs for water and energy, and base the food system more on seasonal products and vegetable proteins and maybe less on animal proteins. This is one of the necessities for cultural change. These are some key points of the new food paradigm. According to an LCA analysis made of public food services in Europe, we produce from 4.6kg up to 7kg of CO2 equivalent per meal (this is only in logistics terms not ingredients) and we have two vegetarian meals of 2kg of CO2 emissions each. The gap between the worst scenario and the good one is around 5kg of CO2 emissions per meal. This case study is from Italy but the situation is the same everywhere in Europe in the main fields of the agro-food supply chain: namely industry, public food service, wholesale and distribution.

"We carried out research on fish and on the annual catch of fish in the world. This is around 60 million tons and is shared between large-scale fishermen and small-scale fishermen. Regarding human labour, we can assume that large-scale fishermen account for about half a million people working for the same quantity of fish as traditional fishermen, who account for 12 million jobs. We can also observe that traditional fishing uses less fuel.

"Until today, business activities have traditionally been taking into account three different resources: financial, technical and human. We hope that from tomorrow on, human labour will again be put at the centre of the economy. The environment must also be taken into consideration since the first three resources are not endless. Some suggestions include using taxation as a lever to encourage the development of an innovative and sustainable food processing system run by the younger generation and capable of producing healthy and tasty food for citizens in harmony and in symbiosis with the territory itself. There is no smart city without food policy as software and food logistics hubs as hardware for creating this symbiosis between rural and urban area in a clever and sustainable way."

(His Chinese colleague TAN Xuewen gave an overview about what is happening in China.)



TAN Xuewen:

"Eating City Platform is a series of activities we have conducted since 2007. We also published a series of papers and publications which benefited from the support of the China-Europa Forum (CEF). We have conducted research on sustainable food supply chains under the framework of the CEF's WT35 workshop and in China have established more flexible and sustainable research networks. Eating City is actually a new platform evolving from the CEF.

Just now, Mr Maurizio Mariani spoken of the eating problems faced by-cities in developed countries. China also has such problems and, of course, our food safety issues may be more serious.

"I think that in the China-EU comparison on urbanisation, even though both sides have some common features, it is necessary to note that the two sides have different backgrounds. In the specific context of China's rapid urbanisation there are, in fact, a lot of things that could be done for the sustainability of the Eating City Platform, such as how to solve the problem of urban residents' distrust of food safety. I would like to suggest the establishment of a food safety inspection and testing institution with the participation of the government and multiple parties. If a consumer is worried about the safety of a particular aliment, he or she could send the food to this institution and pay a very small amount to have it tested. Most of the cost would be borne by the institution. Perhaps this would exert strong pressure on food production and processing enterprises, and could effectively promote urban food safety.

In addition, what could all of the participants from China and Europe do by working together? Because of the limitations of my organisation — the Chinese Academy of Social Sciences (CASS) — it is relatively difficult to implement a large number of ideas. For example, we believe that it is possible to establish a platform of collective procurement of safe food for cities' primary schools, kindergartens and other important work units that have public canteens, which may help to promote sustainability of urban food. Using the platform of the CEF, if some cities or new towns are willing to participate in the construction of an "urban public eating platform", I think it would be a

very good idea.

 The Contribution of New Technologies to the Transition: The Example of Mobility Management (Hervé Philippe, CEO of LPDA)



"My speech concerns the interaction between urban transition, innovation and new technologies. First, urban transition is highly demanding in new technology and new innovation. Second, new technology and innovation will progressively transform the context in which we are interacting and thinking. It will help us to develop new potential for organisations and populations; it will help us to achieve more sustainable cities and go further towards sustainability. Third, the relationship between urban transition, large cities and

innovation is that the potential, the talents and the organisations which can deliver these technologies are mainly located in large cities, where the universities, research groups, research facilities of large companies and all the networks of small and medium sized enterprises are innovating in order to deliver new products.

"I would like to share experiments of our company. The first of these is an EU-China project in the field of mobility management. Mobility is a concept in urban transport that relies on multi-modality, meaning that we need to develop several transport modes in cities — we need to combine them, even during a single journey, and this is called inter-modality; i.e. walking, taking the bus to the next metro station, and maybe the bicycle to the office and so on. The question is how to combine multi-modality, several transport modes and inter-modality in a single journey? We mainly need to develop information systems to organise the cooperation, the management and the optimisation of the transport offer.

"In the mobility concept, citizens will focus much more on service. They need to go from A to B within a given amount of time and want to find the best way to achieve their target within a given budget and certain constraints. This is a service-oriented concept. Everyone working in this field expects to find, thanks to the mobility concept, the right balance between private transport and mass transport at every level — efficiency, CO2 emissions, environment, comfort and so on.

"We have been working within a European project in Shanghai and had to transfer the European experience from Europe to China. In Europe we have a set of standards to define what is public transport (a trans-model) and we have sub-standards such as "SIRI, IFOP, NETEX" to define real-time communication language, to define the infrastructure of the public transport or to define public transport services. All this has been done in Europe and is available for other countries.

"In Shanghai, thanks to the Shanghai Comprehensive Institute of Transportation and local transport companies, we have implemented a prototype of all these standards. Germany, France, the United Kingdom and many other countries have more than a hundred years of experience in public transport and they have recently decided to set up standards at a European level: "Transmodel, SIRI, NETEXT, IFOP" are the standards which are available and which represent all our accumulated experience.

"Another experience we currently have in China concerns pavement technology. You could say that pavement is not urban development but let's think about supply chains. You need highways to bring goods from rural areas to the cities and you need to develop efficient systems considering that money spent to set up and manage a highway network is not used for hospitals, schools, entertainment and so on. So there is a connection between roading policy in a country and other policies. China urgently needs such technology because traffic is growing, and Chinese authorities, with whom we are working closely, are facing some difficulties in building long-term pavement highways.

"This technology is available and we can transfer it to China. An important point, however, and one of the problems we are facing is that while people are ready to accept the technology it is very difficult to speak of know-how transfer.

This is not because of the European side, which is working with people who are open to transfer. We realise, however, that it is not so easy for our partners to speak about know-how transfer, because people think that by getting the technology they get all the experience. Clearly this is not true.

"We think that standards constitute a good platform for supporting cooperation and technology transfer between Europe and China, but must be careful because, at the same time, standards form barriers between countries. We should encourage cooperation between the standards bodies in Europe and China to keep this communication channel open. The second point is not just about technology transfer, it is about experience and know-how transfer. This requires time for the partners to come to trust each other and thus requires a lot of pedagogy. Third, everyone agrees that on Earth we all have responsibilities concerning climate change and sustainable development but that it is the responsibility of governments and large organisations to provide the right business models. It is not easy for a small company with some technology to have the right environment and right context to come to China. There are other difficulties in transferring this technology. Speaking of urgent challenges, we have no time to lose in this process and must encourage the development of incentive business models for cooperation between small and medium companies, research institutes, and from Europe to China and China to Europe."

 Urban Transport, Mobility and Sustainable Development (PAN Haixiao, Professor, Department of Urban Planning, Tongji University)



"China's urbanisation has recorded great achievements, but at the same time its urbanisation is based largely on high consumption and heavy pollution. The durability of this mode has greatly affected our quality of life.

"Over the past 30 years there have been a number of relevant suggestions about urbanisation development, such as the construction of new districts, new cities and towns, and bigger houses. Those good intentions might not necessarily lead to positive results; a lot

of negative, even wasteful, results have emerged. For example, cities become more and more beautiful but lack energy and vitality, and children are rarely seen in some cities. How can a city without the younger generations be sustained? Having clean water and air is a basic requirement, but pollution caused by China's urbanisation makes almost everyone believe that it is time to rethink our mode of development.

"In the process of urbanisation the lack of effective management would inevitably cause global environmental problems and the deterioration of the urban environmental quality. What should we do in response to this?

"A great number of new districts overly rely on cars, because personal cars are guiding urban development. Many cities are conducting smooth traffic projects in order to facilitate vehicle circulation. Within one or two years the results might be favourable and positive, but unbearable urban headaches of pollution and congestion will emerge eventually. For instance, the Lake Malaren International Conference Centre where our meeting is taking place is a typical new district of China with big houses, large roads, blue skies and green trees, but public transport here is really not satisfactory.

"If we compare an old district with a new district in Shanghai, it can be seen that the construction of a new district implies an increase in personal cars. It is more and more difficult for people to travel on foot. Is it an expected mode?

"It does not matter what kinds of cities are concerned. I think there are three basic parameters. The first is energy consumption — is it possible to consume less energy? The second is heat - is it possible to generate less heat (and that is to say is it possible to reduce the heat island effect)? The third is weight — is it possible to use a light pattern to solve problems, which means reducing the weight of materials consumed in the process of urban construction? If a city is always torn down in order to rebuild or always employs large structures, it would inevitably lead to huge material consumption and increase the weight of the material cycle.

"Why is transport so important? Because it is related to urban spatial structure, housing, office life and activities, and carbon sinks. Urban transport, though related to carbon dioxide emissions, is nevertheless important for urban development. If there is no convenient transport, a city cannot be well developed.

"We have also seen that transport modes such as cycling and walking play a key role in many European cities while many Chinese cities ignore them. It is often observed that urban planning in China rarely considers the role of bicycles while in many foreign cities transport planning would consider first how people travel by foot and bike rather than by car.

"The fundamental change needed in urban transport research therefore is a shift from a "car-orientated" resource intensive city to a "people-oriented" green urbanisation. We are now in the critical period of the establishment of an urban spatial structure and a new transport system — the realisation of green urbanisation needs the overall techniques and strategies."

 Sustainable Societies in Both Ecological and Social Terms: The Role of Urban Public Services (Pierre Bauby, President of the RAP - Reconstruire l'Action Publique)



"What are urban public services? Public services in Europe are services considered as being essential for life, and to which public authorities, national, regional, local authorities and now European authorities define particular roles to guarantee universal service and access in order to build economic, social and territorial cohesion and also to develop sustainability. In Europe there is a very long and strong history of autonomous local authorities, such as the charter of Local Self-government from the Council of Europe, and towns and urban development play an

essential role in this field. There is not a definitive list of urban public services established, but some examples include water, sanitation, solid waste collection and treatment, local public transport, sometimes electricity supply but now also broadband access, social services such as hospitals and nursing, childcare, care for the elderly, etc.

"For 30 years now we have had European integration in the field of urban public services. There are shared competencies between European Union and member states, and when we mention member states it not only concerns national authorities but also regional, local, municipal and European ones as well. I think we have now six main changes to manage in Europe and maybe also to manage in China regarding urban public services, environmental and social sustainability.

"First: Traditionally in Europe local authorities had their own established competence; for example, municipalities were responsible for water and sometimes sanitation. There were historically specific and exclusive competencies. Now it is clear that we cannot manage services only through exclusive competence; we have to define a multi-level competence and governance. It is a revolution in Europe to combine local, regional, national and European levels and try to define the best way for each service. Multi-level governance is the first main change and is not yet over — we have to implement these new rules and these new definitions.

"Second: We have to define and try to combine economic and social tasks for each service. We know, of course, the traditional definition of these tasks but now need to include environmental and ecological tasks in the social and economic ones. We have to define new goals, new tasks and new services.

"Third: In Europe it is necessary to try to define territorial organising authorities, cooperation and relationship. We need to develop cooperation, relationship and partnership with other levels of governance, such as districts, metropolitan areas or European authorities, and combine them.

The fourth change we have to manage in Europe is that multi-level governance is not competition between authorities, it is not competition between national, regional, local or even European authorities — we have to try to organise, combine and bring the different local and national authorities into line with each other by linking levels and

projects. This requires the participation of all stakeholders. We cannot reserve one activity, one service, to a specialist; we have to systematically organise the participation of all stakeholders.

"Fifth: Since the 1980s we have assisted in the development of many kinds of public-private partnerships. There are significant evolutions in this field. I carried out a study that few specialists have done showing that considering one mode of governance as consistently the best is misleading; we have to find the best way for each service and combine their initiatives and means. Hence the main issue in this field is to develop regulation and the democratic participation of all stakeholders. It is not only about defining and asking private companies to do something, but also about organising real public regulation and the participation of all stakeholders.

"The sixth and last change to manage is that multi-level, multi-actor governance is based and always will be based on needs. We therefore have to organise the users' needs (each individual as well as collective, industrial and economic users) and organise the expression of needs and changes of needs. Needs are not defined once and for all. We have to satisfy these needs and, for each sector, find not only one solution, not only the best solution from an economic or environmental perspective, but also alternative solutions through the organisation of public debate, and consider all possible solutions. We also need to evaluate what we have done, what the result of the activity of the service was, so as to have a sort of loop "needs-organising-evaluation" and then combine all of them to have a better answer to social and environmental needs.

On Population Migration and Quality of Urbanisation - Index System of Urbanisation Quality (CHEN Guang, Professor, Dean of School of Public Administration, Southwest Jiaotong University)



"The Study on Population Migration and Quality of Urbanisation is the result of extensive research conducted by our team in recent years. In the study we made the following three theoretical hypotheses: advocacy of social policy and urbanisation rate are positively correlated; urbanisation speed and urbanisation quality are negatively correlated; urbanisation quality and quality of life of the migrant population are positively correlated.

"Since 2003 Chengdu has vigorously promoted the co-ordinated development of its urban and rural areas. Within seven to eight years the city has had a newly added population of 2.71 million, becoming a mega-city with a population of 14 million. According to current government planning, Chengdu would have a newly added population of three to six million in the next 20 to 30 years.

"From the perspective of policy frequency, Chengdu had formulated 28 documents on urbanisation from 2003 to 2011. In 2011 Chengdu's urbanisation rate was 16% higher than the national average over the same period, and 26% higher than the level of the provincial cities. Quality, however, is more important than speed. We proposed an Index System of Urbanisation Quality (ISUQ) with 29 specific indicators from four aspects to measure the quality of urban development, including the quality of economic development, of social development, of resources and environment, and of life.

"To be frank, while the size and scale of Chengdu has kept expanding in recent years the quality of its social development is worrying. For example, although the social security and social welfare system continues to improve in Chengdu, the newly added population of more than 2.7 million from rural areas cannot enjoy the same education, security and social welfare as urban citizens do. More importantly, while the city is highly developed and maintains a certain size, it would not be a good sign if the urban-rural gap continues to widen. I believe that there is no single city in the world in which the central area is more and more prosperous while its surrounding communities and rural areas are decaying.

"In terms of resources and environment, with the advancement of urbanisation the coverage rate of green areas in developed land and the compliance rate of industrial sewage discharges are lower than the urbanisation rate in

Chengdu; the rate of harmless disposal of household garbage tends to be fluctuant; the urban sewage treatment rate is increasing and arable land per capita is decreasing. Some mayors have said that with the current rate of development, urban land in their cities would soon be depleted. Then what should we do in the future? We have no idea.

"Here are some conclusions. First, China is entering a critical urbanisation period. There are growing concerns over issues such as the speed of urbanisation, population migration scale, survival conditions of the migrant population and urbanisation quality. If there are no systematic measures for urban development in terms of concept, design, construction, monitoring and test of the quality management, then the future is worrying. Second, the migrant population faces problems such as employment, living conditions, childhood education, social security, adaptation and integration into the city life, value conflicts with locals and so on. City governors face problems such as the quality of urbanisation being restricted by an excessively gathered population, the bearing capacity of the population, resources and environment, the economic development capacity, the fair development of people from different social classes, etc. We proposed an *Index System of Urbanisation Quality* to measure the quality of economic development, social development, resources and environment, and quality of life in the process of urbanisation.

 The Swedish Experience and Urbanisation Cooperation between China and Sweden (Matilda Sanden, Second Secretary, Embassy of Sweden)



"I speak on behalf of Mr Anders Wollter, the Minister Counsellor and the Head of the Department for Technology, CENTEC and the CSR centre at the Swedish Embassy in Beijing.

"The CENTEC promotes partner-driven cooperation and exchange in the field of sustainable urban development and environmental technology. It involves both institutional and commercial areas of cooperation even on provincial and local levels, and by doing so we combine the promotion of businesses with development cooperation. The working method is

based on a holistic approach to stimulate and to support the various actors in self-supporting cooperation. The Swedish full-scale implementations for eco-cities are attracting much attention here in China. We receive many high-level delegations wishing to see our leading full-scale solutions such as Hammarby Sjöstad, placed in the outlet of Lake Mälaren in Stockholm, as well as the western harbour in Malmo, a city in the southern part of Sweden. More than once a Chinese delegation has told us while visiting these places that they want to buy this immediately. We say to the Chinese delegation that they cannot actually buy it, but that we can tell them how we have done it and share that lessons learned with them.

"It is all about city planning and the capacity to implement large comprehensive, complementary and cooperative systems. Processes also include involving local stakeholders and eventually the end users. Such solutions cannot simply be bought straight off the shelf in a boutique, but we can promote and share our experience with interinstitutional dialogue and policy dialogues between Swedish and Chinese cities as well as professional in-service training and commercial partnerships.

"The eco-city of Hammarby Sjöstad is a Swedish planning model and project, but the technologies in the final product are distinctly European. A very rough estimate, yet quite a clear indication, is that the hardware in Hammarby Sjöstad might be 10% Swedish with 80% from the rest of the European Union. So the conclusion is that we cannot simply, as we may be tempted to do, talk about competition between different EU countries. It is certainly also a question of combining different technical solutions to large systems. The question is how many different sorts of pulling on the European side could work to the benefit of sustainable urbanisation in China and for increased Sino-European cooperation in different forms. When it comes to establishing partnerships for sustainable urban development in China, we and several other EU countries have experienced that it is relatively easy to get into participation at an early planning stage. Swedish consultants have won a series of contracts in China. That is good,

but we can go further.

"Let us conclude by talking about the challenges, because one challenge in promoting sustainable urbanisation in China is that of going beyond the planning phase into the implementation stage, for example, to cooperate with Chinese system suppliers following the original plans, intentions and system solutions or, as the project progresses, widening sustainable solutions against economies to cut corners or to save money. Saving and cutting corners are not bad; in fact they are often quite good. The European approach today to handling scarce resources still often involves the deployment of advanced solutions that are costly. There is considerable potential for letting European experience be part of the process of implementation in order to benefit China endeavours and the long-term functioning of new urban systems. But it is here that the question arises of how the European Union can best share its experiences with China in the implementation of projects for sustainable and urban development and eco-cities in order to get sustainable final products. Trade promotion is regarded as a national concern by EU member states while in development cooperation it is easier to create multi-national consortia which also involve the European Commission. So the question is here, how do we now work together in the best possible way to create an effective integrated approach at an EU level on the one hand and for member states' actions on cooperation and trade promotion on the other?"

The Articulation Interaction between National and Local Policies in Relation to the Transition Towards
 Sustainable Societies (Jean René Brunetière, French Ministry of Ecology, Energy, Sustainable Development and Spatial Planning)



"My presentation is about the interactions between national policies and local policies to help sustainable development. In France we have five political levels. France is an old centralised state and, in the beginning, mayors and all local authorities were appointed by the central government. Today there is a tendency to decentralisation. The European Union is 27 independent countries in a Union in our diversity, and France has now 22 regions, 100 departments and 36,000 communes, and each level has its own political autonomy...

"We have three modes of relations between public authorities: the grant, the rule and the speech. Each level can give subsidies to lower levels, for example for a sustainable development project. Most environmental rules now come from the European level and involve controls and sanctions. We have indicative planning and recommendations and the three modes can operate simultaneously on an operation. For example, since 2000 a directive from the European Union on the clarity of water compelled member states to meet defined levels of clarity before 2015, and it is a law controlled by the European Union. If the performances are not achieved, the State must pay strong penalties to the European Union. Then the French state has a national plan of action. This is speech, not compulsory, and there is no control and no sanction but the State has the certainty that municipalities will fulfil the performances. Then the State gives subsidies to municipalities to encourage them to build new purification plants and there is a control of the use of the grant.

"Another example in climate change mitigation is that we have a four-year European strategy for sustainable development and, in France too, a French strategy for sustainable development with precise objectives and targets. In climate change mitigation we have to reduce our emission of greenhouse gases by 20% by 2020 and 75% by 2050. We have to develop renewable energy up to 23% of the mix by 2020 (we had only 10% in 2000) and to achieve that in France we make regional plans for climate, air and energy. Each region produced a plan before 2012 for climate, air quality and energy, defining a strategy and operational targets for the region, defining an action plan and defining a system of control and assessment of the result.

"Then we have to take the stakeholders into account. Public authorities are not the only actors in sustainable development as responsibility is shared between public authorities at each level (five levels), economic actors, social

actors, civil society and non-governmental organisations. Each partner has to negotiate with the others, share information and points of view and build solutions that could be admitted by all stakeholders and therefore that can actually be achieved.

"We had a major consultation named "Grenelle" in France because Grenelle Street is historically the area where we negotiate in France. This was a year-long consultation between the State, local authorities, companies, trades unions, and NGOs to think about the future of our planet. Five years later, in 2013, a new consultation of the same form is taking place, dealing with energetic transition to update the orientations and action plans of the Grenelle. At the local level, local authorities cannot act today without discussions with local stakeholders. It is compulsory for each project impacting the environment, because the success of projects for nature, for climate change mitigation or for quality of life depends on acceptance by each citizen and on good coordination between all the actors.

"The governance of sustainable development is a very difficult issue. Sustainable development produces new problems of governance and each actor holds a part of the problem and a part of the solution. In a systemic functioning for the management of the common good, greenhouse gas, or gas mitigation for example, the immediate interest of an individual can be opposite to that of mankind in the future. Public authorities have to enhance a common awareness of rates and means of solution. A lot of consultation and bargaining of various firms between the different levels of governance and between the various stakeholders at each level is needed."

 Migrant Workers Should be Integrated In a New Process of Urbanisation (XIE Yang, former Deputy Director, Department of Rural Economy, Development Research Centre, the State Council)



"Migrant workers refer to people who are registered as a rural household and go to work in cities. In the past the definition was more complex, referring to farmers who owned land in rural areas and went to work in cities. Today, however, many migrant workers born in the 1990s have no land; many college students entering the cities still have contracted land but are registered as a non-rural household. This is China's reality. As a result, we have to consider how migrant workers should be integrated in the new process of urbanisation.

"Intensive, smart, and green development are the three major objectives of the new process of China's urbanisation proposed by many people, but it is necessary to explore whether they can be universally recognised and finally achieved. To address the challenges faced by China's urbanisation, there is no existing solution, international experience or model that can be directly applied to China. Chinese leaders put forward a new concept according to which the progressive promotion of urbanisation would serve as a focal point for speeding up formation of a new development approach and a fundamental way of breaking the urban-rural dual structure. I will illustrate my argument from three aspects.

"First, China's urbanisation must adopt an intensive way of development. In the next 10 to 20 years China must establish a strategic orientation with a main development pattern of metropolitan areas, cities agglomeration and megalopolis, otherwise no existing solutions advocated by experts and scholars will realise a new development mode and ultimately break the urban-rural dual structure. It is a universal rule in the world that medium and small cities and small towns enjoy coordinated development within metropolitan areas, city agglomerations and megalopolis. The coordinated development is not man-made but a product of the combination of industry development law and urban layout. In the past China's urbanisation followed a development zone mode with industries and cities and towns being separated from each other. As a result the development pattern of metropolitan areas, city agglomerations and megalopolis is not simply about further promoting large cities but also finding an industrial adjustment mode within the framework of the existing pattern for the coordinated development of large cities, small and medium-sized cities and small towns. It is also crucial to find key areas for development and reform, and these areas should be the focal point for speeding up the formation of a new development approach and a strategic

breakthrough to break the urban-rural dual structure.

"Second, the international community holds different opinions on so-called smart and green urbanisation. The development pattern proposed by Rifkin in his book *The Third Industrial Revolution* refers to urbanisation based on a new energy revolution and the emerging industrialisation with the theme of the Internet of Things. At present, what could be directly connected to this concept is the urbanisation pattern in Europe which is based on small and medium sized cities. For China, the United States, Japan and other countries, however, whose main urbanisation pattern is with metropolitan areas, city agglomerations and megalopolis, it is obviously necessary to find new paths. There are basically no mega-cities in Europe, and even though there are a few big cities in Europe their sizes are not comparable to those of China, the United States and Japan.

"From the perspective of new energy development, there is still a long way to go for renewable energies to cost less and be a popular market. In those countries with traditional types of energy accounting for an overwhelming proportion, resistance to their acceptance will be great. Because of its stage of development and its status at the primary level, and the low end in the international division of labour, China is in an unfavourable situation which is not conducive to innovation and even hinders the acceptance of innovation in terms of changes in labour costs, resource prices and the pattern of urban development and social benefits.

"For example, the Foxconn suicides in China (the scandal occurred between January and November 2010 when 18 Foxconn employees attempted suicide of whom 14 died) were not the result of individual business owners, but a product of multinational companies in developing countries, especially in China, with the backdrop of the global competitive mechanism of the division of labour. Some 200,000 to 300,000 employees were gathered in an area of 2.3 square kilometres working, eating and resting in the same place. The density itself runs counter to the national standard of the reasonable density of 10,000 people per square kilometre. Who, however, would follow this standard in China's development zone mode? On the contrary, Foxconn is a law-abiding company in terms of labour law, corporate law and labour and social security law, even more in line with the present legal system in China than a number of small and medium sized private enterprises.

"The question now is that if China extensively copied or followed international legal standards in enterprise, labour, company operation, labour and social security and other aspects, its low labour cost advantage would be lost, and the good employment situation and the prospects for industrial development would be reversed. Today major changes have taken place or are taking place in the choice of environmentally friendly and low-carbon green products and technologies, as well as in the resources configuration of the traditional low-end products, the low wage costs, the land and even the financing environment. For example, China's photovoltaic industry suffered heavy losses during this crisis, indicating that with changes in the market, the resources and the environment, new industries would also face serious challenges and the possibility of restructuring. The international community is exploring new modes too, and what kind of mode should China look for?

"Third, the remodelling of demands in the international community differs than that in China. Demand for innovation relies on high-income consumers. If there is strong support from the middle-class this demand would find a vast market, particularly in the convergence between smart and green based innovation demands and the upgrading of consumption and supply. China, however, is currently in a transition stage where a large number of low-income groups are moving towards the middle and high income groups. It is still difficult for such groups to quickly accept the smart and green based innovation demands, thus resulting in consumption discontinuation. A more critical fact is that many low-income people in China (in 2011 the total number was approximately 210 million, accounting for a third of the total urban population, and 19% of the national population) especially the migrant workers are supported by the exports of labour-intensive products; and the basis for maintaining their stable income source would inevitably require the long-term development of traditional industries. This is the difficulty for the adjustment, transformation and upgrading of the industrial structure of all countries. The difference is that one of

the reasons for the formation of a low-income class in developed countries is the export of labour-intensive products produced by the low-cost labour in developing countries, which have a strong impact on industries and the job market in these developed countries.

"This round of financial crisis requires a rebalancing of the global economy. One of its priorities is to deal with the income of the low-income class in different countries and industrial transformation since the previous round of globalisation: the main problem of China's low-income groups is the extreme insufficiency of social security, while the problem of the so-called low-income groups in developed countries is the excessiveness of social security.

"The key to the whole issue is to know whether or not these two types of low-income groups would generate normal convergence of supply and demand in the new round of smart and green based innovation demands. The dilemma faced by China is either to significantly improve the social security of migrant workers or to support technology innovation in emerging industries.

"At present the developed countries' support of low-carbon technology and innovation funds to the developing countries is at the expense of the high-value transfer and the commitment to verifiable emission reduction obligations. This forces those developing countries to conduct independent research, to develop—low-carbon technologies and to deal with problems and challenges in the transition on their own.

"Therefore, in reality, whether it is to export smart and green products to China or to transfer the technologies of these products, or even to make direct investment in China to develop technologies and produce products, it is necessary to take the reality seriously: China has a low-income group represented by a huge number of migrant workers.

"The new process of urbanisation cannot be realised without construction efforts for migrant workers and their income and employment transformation. It is important to make hundreds of millions of migrant workers become the backbone to enrich the new middle-income groups. We need to have not only inclusive growth, but also inclusive innovation."

• The Implementation of Industrial Ecology Principles in Geneva (Edouard Laurent, Project Manager, Swiss Federal Institute of Technology Lausanne)



"I will present briefly Geneva's implementation of the industrial ecology principle as well as the work of a company called "solution for industrial ecosystems". Geneva is a small city of fewer than 500,000 inhabitants but is quite dense, reliant on imports, and a rich city with an economy mainly dependent on services. What is industrial ecology? It is a concept and an academic field, the combination of the scientific study of ecology and industry — industry which relates to all human and economic activities. The goal is to make industrial systems

compatible with natural ecosystems. In practice it means that we will try to use resources more efficiently and try to valorise waste — the waste of one industry will be the raw material of another. This academic field developed in the 1990s and Geneva was the first city to integrate this concept. What did Geneva do to implement this principle?

"The first thing was to better understand Geneva's industrial metabolism, to understand what the material flows are in order to correct them or modify them wisely. We therefore needed a physical accounting of the most important material flows such as energy, food products and water. The second step was to carry out a study on transport, a study to identify the potential industrial symbiosis in Geneva, and to communicate with the public.

"We divided between production, consumption and elimination of waste, and you can observe that water along with building materials and energy are the most important material flows entering the city of Geneva. It is difficult to compare energy with material flows but if we make a simple comparison, we can say that 37 thousand terrajoules of energy that enter the city are almost the same as 870,000 tons of oil equivalent — it is thus the third most important

resource that enters the city. Recycling is only a very tiny part of waste generated by the city. Then, as part of this first idea of industrial metabolism, we must identify major consumers. As you can see from this chart, households are the main consumers of water (42%) and the tertiary sector consumes a lot of resources, 45% of food products. These are the two main sectors for which we need to find solutions to reduce the amount of waste. Another aspect of the industrial metabolism is CO2 or greenhouse gases emission. The second study on the transport of goods in Geneva showed that transport of goods to the city amounted to 10% of the CO2 per capita in the city, a major point if you wish to cope with these problems.

"Another study concerned the potential industrial symbiosis found in the city. An industrial symbiosis is when two different industries try to exchange their waste so the waste of the first industry will be the raw material of the second industry. When realising that kind of symbiosis, the distance between the first industry and the second is crucial. This is the principle which is at the heart of eco-industrial parks. China has developed a lot of eco-industrial parks but in the case of Geneva, since the city was already there and because they did not want to build a new park, they had to find ways of implementing such strategies within the existing industries. One first example with energy — when we talk about energy it is mainly about heat. How can you valorise the heat that is eliminated? How can you use the heat which comes from vapour production or construction materials production (and you need a lot of heat to produce those kinds of products)? We realised that you can transfer this heat to distant heating systems in order to heat, for example, greenhouses, households and so on, thus making this type of energy more attractive.

"The other potential industrial symbiosis would be in the water sector because water is a very widely used resource. We mainly use it for drug manufacturing, food processing or manufacturing construction materials. This water has some impurities or sometimes it is warm water. It can, however, be useful for other industries; for example in the case of agricultural production greenhouses, orchards could be interested. There is also the case of green zones for auto-sport facilities which can use the water to water the green zones, and the case of waste recycling companies which use a lot of water to wash waste prior to recycling it. Both can also be interested in using water used in other industrial processes.

"Another important step in implementing the industrial ecology principle is to communicate and explain to the general public what you can do with that. All the studies are available online for Geneva's citizens and there is also a general presentation of what has been done in English and Chinese on the website."

• The Challenge of Land Issues and Urbanisation of the Population in China's New Process of Urbanisation (SHEN Chi, Director of the Institute of Planning, China Centre for Urban Development, NDRC)



"I will talk about three matters. The first is the challenge of land issues. Urban development requires a space for growth which will occupy farmland. Will China's urbanisation have such space in the future? I think we have to change the development mode with more intensive and smarter approaches to meet the needs of urban space. Will China's urbanisation pose threats to the global food market by occupying farmland and affecting food production? I think we do not need to worry about this issue. Although the past decade witnessed the most rapid

urbanisation development and the fastest urban spatial expansion in China, our food production kept increasing for nine consecutive years. It is noted, however, that in the process of food transport, consumption and so forth, food waste is a very serious phenomenon. Food waste in China is equivalent to the total production of some 32.9 million acres of land each year, equivalent to a year's grain output in Heilongjiang Province. Therefore we have a very large space in food conservation.

"The second matter is the urbanisation of the population, which means the transfer and relocation of the rural population to cities. Urbanisation is an inevitable product of economic development. The stage and level of economic development, the economic structure and the endowment of the natural environment have an impact on the level

and pattern of urbanisation. In the process of urbanisation, migration of people is a critical aspect. Urbanisation and economic development are closely related. If some policies and systems have impacts on urbanisation, urbanisation would in turn affect the sound development of the economy... What we are more concerned about is the issue of the urbanisation of a large number of migrant workers. Undoubtedly migrant workers are a huge group, but I think there are more obstacles in the interregional identity conversion than the conversion from a rural identity to an urban identity in China. For example, the Institute of Planning where I work has been disrupted by the household registration issue when employing new staff members. Even if you are from Shanghai and hold a PhD degree, the Institute can hardly hire you because you do not have a Beijing *hukou*, let alone are a migrant worker. I think the reform in this regard should take the lead.

"Third, how many people can be urbanised? In some parts of China, rural areas have been depleted because a large number of the labour force has left for the cities to make a living. There might be a margin of nearly 20% for China's urbanisation in the future, and it would be a new topic for these people's integration into urban areas."

Part 3
Reflections on European Urban Development in the Past 50 Years

(Pierre Calame)



The development of European cities over the past 50 years shows a number of common features but also plenty of differences. Hence today's European cities represent a vast pool of experiences which later urbanised societies, and especially Chinese society, can tap into: first to draw on what appear to them as the most successful experiences and understand the conditions for success; second to better identify determinants of the different forms of urbanisation being implemented and their consequences; and finally to learn from failures in order to avoid repeating them.

Common factors in the European post-war urbanisation

These factors come in several forms and their combination gives distinctive features to this period.

1. Urbanisation almost always came on top of urban cores already sturdily structured and often ancient. In cities which were not completely razed to the ground by warfare such as Le Havre in France, Dresden in Germany or Warsaw in Poland – and where this ancient urban structure remains, although often reshaped during the 19th century to meet the needs of the first industrial revolution (building of larger roads, construction of train stations and railways, installation of infrastructure such as public sanitation, electricity, gas, etc.) – post-war urbanisation took into account, with varying degrees of success, a pre-existing urban organisation. The mode of articulation, however, between pre-existing urbanisation and new urbanisation, in terms of both city planning and social development (role of ancient urban heritage, impoverishment or gentrification of city centres) has always been a major issue.

Even in the case of cities razed to the ground, urban planners of the reconstruction seldom took the opportunity to replace them by (futuristic) cities as designed by an urban architect such as Le Corbusier for instance.

- 2. In the aftermath of the War, techniques were available, especially iron and reinforced concrete, to design other methods of construction, hence bringing the building sector closer to other industrial sectors. The effective use of these industrialisation techniques, however, varied widely from country to country depending on specific features to which we shall return. It is not surprising that cities structured around industrial construction processes were developed in their "purest" form in the centrally planned economies of Eastern Europe that were very much influenced by Soviet ideology.
- 3. The post-war period, which some economists have called the "Trente Glorieuses" (the 30-year post-war boom with full employment, increase in household material resources, etc.) is the great era of "household equipment": modern cooking stoves, refrigerators, washing machines, central heating, and television. This led first to new requirements in terms of average surface of accommodation (average living space), involving the extension of many floor areas, even in places where population growth was slow.

The concept of "building land", which was once connected to the idea of localisation in urban space, increasingly took on the meaning of "equipped lot". This "urban development of VRD" (voiries et réseaux divers: roads and miscellaneous networks) led to numerous debates on the financial and fiscal arrangements to support these investments in equipment. It strengthened the position of engineering considerations as opposed to the position formerly taken by architectural considerations. Cities were becoming technical objects.

- 4. The advent of the car was the most decisive factor in the evolution of urban forms. The responses were very diverse, and I shall mention a few:
 - Pre-war urban development had been largely dependent on heavy infrastructure, especially on railways and to lesser extent tramlines. This gave rise to what was then called the "Finger Plan"; i.e. cities expanded following the railways (the spreading out of cities around train stations). Because such infrastructure of public transport is heavy, it was almost invariably state-owned.
 - It can be said that urbanisation before the War often "plugged" main accesses to cities since it was based on pre-existing infrastructures. The development of cars suddenly opened new spaces to urbanisation that were poorly served by the traditional system of public transport.
 - The pressure put on old cities by the requirements for adaptation to cars had a significant impact. Public spaces, which had historically structured and formed the pattern of cities, were subjected to continuous pressure in favour of automobile traffic. A French caricature from the 1970s perfectly illustrates this: we can see Notre Dame de Paris with a highway passing through and a sign: "Please do not honk during religious service". The influence of the car enhances the technical and mechanical aspects in the design of cities; from then on, traffic management has outweighed architectural formalism.
 - The dynamic associated with the widespread use of cars changes not only the size and shape of cities but also the relationships between the different spaces and the distribution of social classes in urban areas. To give a few examples: very often, old urbanisation (historical districts of cities) is gradually surrounded by ring roads and wide roadways that divide the urban areas as much and even more than railways do.
 - With cars, travel times are defined by the average speed with which the distance is covered rather than by the distance itself. Because of traffic congestion, this average speed is low in dense urban areas and high in the outskirts. Consequently the advantages offered by suburban areas prevail over their disadvantages, at least as long as energy is available. In most countries, except those where there is a strong tradition in soil monitoring, traditional cities (historical districts) disappear in favour of increasingly extended urban areas, each city merging more or less with the neighbouring one at the level of distant outskirts.
- 5. A genuine vicious circle is then established: the fact of living far from the centre and traffic congestion in urban areas reduces the attractiveness of public transport and thus modifies, in favour of the car, the "modal" distribution of transport means. This increases congestion in dense urban areas and enhances the attractiveness of distant outskirts. Although not reaching the scale of American "urban sprawl", this phenomenon is noticeable everywhere.
- 6. Until the 19th century, city perimeters of political and public service administration often included most of the urban areas, thus simplifying governance issues. In many cases this political perimeter would even include suburban agricultural areas. After the War, urban reality extended beyond political and administrative limits and began to overlap the boundaries of local authorities. In France, for example, it is not unusual for an urban area to extend over several dozens or even hundreds of municipalities (base level of local authorities). Since the 1960s and 1970s and until now, countless debates have emerged on the governance of these new metropolitan areas. Sometimes states have imposed, in an authoritarian way, fusion between old political entities, sometimes they confined themselves to encouraging it, but the question of arbitration between proximity of the local authorities with city-dwellers and adaptation of their perimeters to new realities remains. It is in this context that the concept of "multi-level governance" has gradually appeared. If the concept exists, however, balance and arrangements for cooperation

between the different aggregated local authorities, including in terms of taxation, is often unsatisfactory.

- 7. Due to urban expansion and the unsuitability of traditional political and administrative perimeters, a majority of the population in distant outskirts if of agricultural and rural origin. It is, of course, in the interests of this population, which owns the ground, to establish the highest possible price for land rent because of the new attractiveness of this land for city-dwellers. There is therefore often pressure from suburban municipalities that regional or national authorities are not always able to contain, up to a point where authorities of these suburban areas are dominated by what are called "new rural people" who, on the contrary, defend their situation of citizens benefiting from a rural environment and are, in turn, opposed to the arrival of newcomers. These economic and political dynamics play an important role in the reality of urban development, although it is not always noticeable in urbanisation schemes.
- 8. In any case, the issue of tax equalisation is raised. In general, taxation has been connected to traditional political perimeters. Industrial and business activities, however, have a tendency to look for zones in the urban area where they can benefit from lower tax while keeping the advantages of belonging to the urban area (accessing a wide housing and labour market, and using metropolitan infrastructure). This generates many debates on what are considered the expenses and benefits of urbanisation, and on local taxation.
- 9. From the 1970s onwards, although varying from one European country to another, the development of large distribution sites (supermarkets, hypermarkets) directly linked to the development of cars, changed, in turn, the commercial appeal of old city centres and created new types of suburban centralities directly connected to the use of cars (reproducing to a certain extent the American model).
- 10. None of this would have happened without an ideological domination of functional city planning and hygiene, both of which ideologically justify new forms of urbanisation related to cars. The relationship between western civilisation and cities has been historically ambivalent. Indeed, cities are considered as being both a place of civilisation (the word "citizen" itself comes from "city") as well as a place of moral ruin or danger.

In the late 19th century a strong movement which can be described as fundamentally "anti-urban" emerged in reaction to the misery of the working class, the devastating effect of alcohol and tuberculosis. This movement took many forms:

- Predominance of concerns for hygiene in cities (fresh air, equipment, vertical urban planning which finds its rational expression in the Athens Charter).
- Justification for separating functions (production areas, commercial areas, residential areas) that finds its extreme expression in terms of techniques through the act of separating traffic, typical in "above the street" urban planning for instance. Similarly to sewers and undergrounds, automobile traffic is sent underground, therefore freeing vast "above the street" spaces, often misused.
- The hygienist movement of the "garden-city" hoped to restore balance to working class life through less dense urban planning under which families were also given the opportunity to engage in local agriculture. This typical urban planning of the late 19th and early 20th centuries finds its theoretical justifications with the city planner Howard and his utopia of small urban cores connected to each other.
- Another variation of this utopia has been the one of new cities. Continuous development around infrastructure being considered as one of the origins of the problem, there was an attempt to "build cities in the countryside" in the words of French humorist Alphonse Allais. This model played a main role in England and especially in Greater London.

In many cases real urban panning has been the result of a convergence of this anti-urban ideology — it was only during the 1980s and 1990s that diversity in the use of districts and infrastructure or that traditional streets were renovated for example — with the evolution of building and traffic technical logics which gave rise to forms of "mechanical urban planning", just as the general ideology of the society to which the Taylor model of industrial organisation (division of tasks and functions with a view of an apparent rationality) was a reference. This

convergence explains the striking resemblance between districts built across Europe from the 1950s to the 1970s in very different contexts and urban traditions, providing both in cities and between cities a sense of monotony and paradoxical feelings of lifelessness and congestion all at once. This image of a "mechanical city" as opposed to the "organic city" of the past was enhanced by urban planning methods that stiffened forms and left little room for the exuberance of life and for permanent adjustments so typical of old cities. Districts built all at once and designed on a drawing board gave the impression of having their own obsolescence as their unique future.

11. Post-War urbanisation cannot be separated from the overall demographic and social evolution. In cities of the past, children were present in large numbers and most of the time took over urban public spaces. This was all the more so because the small size of housing made it necessary to develop a greater part of social life outside, in bars for men and in streets and courtyards for children. Simultaneously a demographic transformation occurred: children under 15 represented a declining proportion of the population, family life fell back on the basic family unit (no longer bringing three generations or close family under the same roof), and non-work related activities were confined to the home. In addition this phenomenon was enhanced by the widespread use of television and now Internet.

The process of fall-back to the family contributed to a form of "dehumanisation" of cities that could turn them into drainage channels for cars between mono-functional places which were closed-in on themselves: home, work, shopping areas, leisure places, etc. As for traffic, genuine vicious circles are now arising: the less public spaces are adapted to children and young people the more they turn back to the private sphere. In some cases very specific populations, especially young people and especially in social groups where the youth unemployment rate is high, began a strategy of control over an area deserted by other age and social groups.

12. Almost everywhere in Europe, because of demographic decline, urbanisation was accompanied by migration flows from abroad and particularly from less developed countries: Southern Europe, Eastern Europe, Turkey, Maghreb and sub-Saharan Africa, China, Pakistan (in the case of the United Kingdom), etc. The return of populations of European origin from former colonies went together with a flow of population from these same colonies. The issue of adapting new forms of urbanisation to population often coming from the countryside and used to another way of life remained throughout the 1960s and 1970s, but in general has been poorly solved or not solved at all because of Western societies continuously hesitating between cultural assimilation of the newcomers and more communitarian models.

In the case of France, working-class residential areas built in the 1960s in the form of public rental housing were aimed at a European population which was professionally and socially integrated. In the 1980s a significant part of this population turned to individual accommodation and home ownership. This shift to home ownership was not a general phenomenon in Europe, and the proportion of landlords was different from one country to another, fluctuating between the two extreme values of 20% and 80%. Due to the development of cars, however, social differentiation in most cases was accompanied by spatial segregation gradually giving rise to a well-known outcome: that of "urban districts crisis" and "problematic suburbs".

Very often urban planning itself was held responsible for social problems such as lack of well-being and delinquent behaviour. This even led to the emergence of genuine "lawless districts", such as the slums in some African or Latin American cities, dominated by mafias indulging in all sort of trafficking (drugs mainly) in a context of mass unemployment, and with a police force which instead of carrying out community policing activities has to enter these districts like army commandos.

The above analysis shows that urban forms alone should not be held responsible for these problems, but rather a combination of these different factors as evidenced by the fact that in terms of urban forms some upper middle-class districts are very similar to districts concentrating a professionally and socially not-well integrated immigrant population. Many research projects on European cities and the urban district crisis pointed out a cumulative process:

areas poorly served by public transport, creation of ghettos, negative image of the "district" becoming a hindrance to employment, creation of gangs of teenagers or young adults, desertion of these districts by the middle class that still remained (especially medical and commercial professions) etc.

13. Decades after the war, people were neither aware of fossil energy scarcity nor conscious of the impact of greenhouse gas emission on the climate. Until the first oil shock of 1973 the real cost of the tonne of oil equivalent (TOE) never stopped decreasing from one decade to the next. Not much attention was paid to the energy cost of cities; new accommodation had an increasing surface to heat; new building materials were poor insulators, collective heating methods, especially in Central and Western Europe, did not give a sense of responsibility to inhabitants and often had low returns. The energy used in housing and transport began to increase dramatically and now represents more than two-thirds of energy consumption in Europe, all the more so because "mechanical cities" showed little sensitivity to knowledge and know-how in terms of climatic urban planning of the pre-industrial period: houses orientation, arrangement and place of openings, etc. When concerns about sustainable development began to have a say from the 1990s onwards this urban model as a whole was called into question.

Factors specific to different European countries

Describing the trends above may give the impression that all European cities have developed in the same way and are directed towards the same models. Nevertheless, one only has to wander about in Europe to note significant differences. I shall confine myself to a few, without any claim to being comprehensive.

1. The urbanisation rate in different European countries before the war was very variable from one country to another. The United Kingdom was already 80% urban, whereas France was only 50% urban. Over the last 50 years, however, these rates have tended to get closer to 80%. It is not immediately noticeable in a country however, simply because, as a result of urban expansion, an increasing number of city-dwellers live "in the countryside" in distant suburban areas.

Given that starting points were different, paces of urban growth have been different as well. While in the case of countries formerly urbanised, the process of urban expansion would correspond to a new distribution of urban populations in space, in countries starting from a lower urbanisation rate it is a great migration flow from the countryside to the cities that generated urban growth.

- 2. The role of public authorities in the urbanisation process, whether controlling land use or ownership of the housing stock, varies considerably from one country to another. While, for example, the idea of the right of everyone to live in a decent place, large and sufficiently equipped and hygienic, was widely shared across Europe before the neo-liberal wave broke through from the 1990s onwards, social democracy was the reference of the successive ruling parties the ways of achieving this ideal of housing for all were very different: large housing development operations; public authority ownership of housing in countries of the Soviet bloc and to a lesser extent in France; support for the social use of private ownership or development of housing stocks by third-party financial institutions (banks, insurance companies, etc.). We cannot therefore analyse city layout models and housing operation features disregarding these differences.
- 3. Local authority ability to manage urbanisation and their desire to master it (or not) was highly variable as well. In particular in the 1960s and 1970s when the issue of public ownership of land (the "Stockholm model") which had a twofold objective of managing urbanisation and managing the appropriation by public authorities of the value of the land resulting from urbanisation was central to many theoretical and political debates and varied significantly from one country to another, or even from one city to another.
- 4. Although urban expansion has shattered the old administrative and political management structures almost

everywhere across Europe, situations are not always the same. It should simply be noted that France alone, with its 36,000 municipalities (the base level of local authorities), accounts for half of the local authorities in the European Union. This political and administrative fragmentation meant that local authorities involved in suburban development were technically and administratively unable to master this urbanisation process. It resulted in the centralisation of urban politics in the hands of the State whereas in other countries, such as Germany, it is the Lander or base-level local authorities which were the stirrers of urban development. This centralisation in France enhanced the standardisation of models for districts with the same very rational and functional plans used all across the country.

5. Another decisive factor, although less described and analysed, was the state of the construction sector in the aftermath of World War Two. Historically the task of building cities was entrusted to small or medium sized companies where the main role was played by bricklayers — skilled workers in possession of knowledge passed down from generation to generation, sometimes even owning their tools — and by building and public works entrepreneurs. In places where urbanisation developed in a relatively continuous way throughout the 20th century, the building sector gradually became adapted and could introduce new construction techniques or management techniques while remaining a vast network of small and medium sized companies holding skilled workers in high regard.

France was completely different. In the interwar period, roughly between 1920 and 1945, construction of buildings and housing was slowed by the combination of three factors: demographic decline; proactive policies to maintain population in the countryside fearing that revolutionary forces focus in working-class districts (called the "Méline" policy after the name of the French Minister of Agriculture who theorized it); and the fact that the protection of war widows became rules to freeze rent and resulted in deterring private investment in construction.

The amount of accommodation built in the days after the War was therefore very low (50,000 a year for the whole country) and reached 550,000 at its peak in 1972. For that reason it was necessary to create an entire construction sector from scratch. France no longer had skilled workers. Development of the construction sector has been driven by the central government which focused on a rationalisation of the sector. Planning offices also played an important role; in association with State Administration they gave birth to large building groups that became a distinctive feature of the French construction landscape. These large groups have invested in new forms of industrialisation processes allowing them to do the job without a skilled workforce, which no longer existed in sufficient numbers, and to resort to massive use of foreign labour.

The land issue remaining unsolved and needing to be solved by government, the process of urbanisation focused on large-scale operations through expropriations of land. For practical reasons, this expropriation essentially focused on large farms, thus giving a massive nature to districts of the 1960s, which are very distinctive features of the French urban landscape.

Conclusion: The diversity of experiences and situations from European urbanisation, which took place during the second decade of the 20th century, represents a vast pool of knowledge. In order to bring out this knowledge, however, we should not consider this urbanisation as the production of infrastructure, housing and districts, but rather as an holistic process where political, demographic, economic, administrative, ideological, social and cultural factors become entangled. Only in the light of these different factors can lessons be drawn.

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