



EU-ASIA DIALOGUE

*Shaping a Common Future for Europe and Asia –
Sharing Policy Innovation and Best Practices in Addressing Common Challenges*

Conference Report

“Making Sustainable Cities Work in Europe and Asia”

BRUSSELS, BELGIUM, 17 SEPTEMBER, 2013





Brussels, 17th September, 2013

Report

International Workshop

“Making Sustainable Cities Work in Europe and Asia”

On 17 September, 2013, the EU-Asia Dialogue organized an international workshop on “Making Sustainable Cities Work in Europe and Asia” in Brussels, Belgium. This event of the cluster Eco-Cities was attended by 35 participants. These included, among others, representatives from UN-Habitat, OECD, European Commission, Cities Development Initiative for Asia, MAN, Philips, City of Copenhagen, City of Helsinki, International Association of Public Transport, Iskandar Regional Development Authority Malaysia, and researchers from China, Germany, Japan, Netherlands, Singapore, Thailand as well as the United Kingdom. Particular attention was given to the aspects of transport and infrastructure, energy and building as well as financing eco-cities.

In their welcome remarks Dr. Wilhelm Hofmeister, Konrad-Adenauer-Stiftung Singapore, and Dr. Annika Ahtonen, European Policy Centre, Brussels, emphasized the aims of the EU-Asia Dialogue project and this workshop in particular. In times when 70 % of global greenhouse gas emissions are produced in cities, it is essential to decrease land use and plan as well as build carbon-neutral cities. Ways to tackle the emissions include pricing, regulation and information provision.

Session I: State of Play – Towards Sustainable Cities in Asia and Europe

The workshop started with a presentation by **Mr. Joris van Etten**, Cities Development Initiative for Asia (CDIA), Philippines, on “The Situation of Medium-Sized Cities in Asia”. The key challenge for medium-sized cities is that senior servants have a long list of wishes, but lack financial resources and capacities. They require roughly 100 billion USD annually for infrastructure, but can provide only 40 % of this amount. Thus, CDIA tries to bridge this gap by linking the cities to finance infrastructure throughout the whole process from the planning to implementation. One central area of activity is urban transport as this contributes greatly to the pollution. If interfered at an early stage, an efficient public transport system might be set up.

Currently, Asian cities face severe challenges and contradictions. While 80 % of the



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economy is based in cities, there are almost 200 million urban poor. Cities use 85 % of the energy and produce 75 % of the greenhouse gas emissions.

Tools to improve the situation are prioritisation and pre-feasibility studies. Public-Private-Partnerships are seen as a last option as these request a lot of coordination and commitment.

Van Etten concluded by emphasizing that medium-sized cities are the better target group in Asia than the huge metropolitan areas. Firstly, they are expected to grow fast and develop at least secondary functions. Secondly, they are already confronted with severe ecological challenges. But, thirdly, they are still small enough to be managed properly and become more eco-friendly.

The presentation by **Mr. Adam Szolyak**, European Commission DG Energy, Belgium, focussed on "Initiatives by the European Union – the Example of the Covenant of Mayors". He highlighted that the challenges in Europe are similar to those in Asia, but that the EU works within a different framework. The key determiner is the 20-20-20 target for climate and energy set in 2007. In order to achieve these goals, the local governance units play a crucial role, for instance, through building regulations.

The Covenant of Mayors (CoM) is a new approach launched in 2008 with a voluntarily commitment by cities. The initiative tries to empower cities by using a bottom-up mechanism. However, it does not provide funding. At the moment 5000 cities, representing 170 million inhabitants, participate in CoM. As the challenges for urban areas are very complex, local authorities know best what needs to be done. While the approach does not include the industry, it helps to achieve the 20-20-20 goals in cities. Good progress has been made on transport, but other areas, such as noise reduction, have proven to be more complicated, especially with regard to funding. The initiative tries to function as a platform for exchange and bring together leaders with a socio-economic vision. The problem is that such developments in local communities require long investment cycles and political changes, due to election results or budgetary cuts, can hinder the planning security. While the technologies for making cities more resilient are available, attractive business models and social change among the population are needed for a successful transformation. The initiative faces one dilemma with regard to capacity-building. While big cities need to implement eco-friendly measures, they do not require capacity-building. On the other hand, small cities need to develop capacities, but their actions have a severely smaller impact. With regard to the financing, multiplier effects involving a number of stakeholders are important. In addition, public funding can be conditional. For instance if the local authorities are planning to make investments, they will receive a grant and if such investments do not take place, this grant can be transferred into a loan.

Szolyak emphasized that the Covenant is a positive example of an integrated approach



which created spill-over effects. Concrete success stories can be recognized in Copenhagen, Helsinki and Freiburg.

The discussion showed that especially transport is a common challenge for European and Asian cities. An interesting aspect is the concept of elastic infrastructure which allows for adaptations over time. This enables city planners to think in long-term plans since the development of urban areas will not stop. Such innovative systems provide not only improvements to current situations, but possible solutions.

A second crucial aspect is the connection to the business sector. Are eco-friendly cities at the same time attractive to businesses and investors? In order to be successful, these two criteria have to be combined. This can result in innovative regions which can take the major burden of reducing the urban emissions. In this context, Small-and-Medium Enterprises (SMEs) are important as investors. While the big players go to global cities, SMEs invest in medium-sized cities and can create spill-over effects. However, it has to be acknowledged that not each city will be successful as the sustainable development and the attraction of investors is a competition as well.

Session II: Making Transport and Infrastructure Sector more Sustainable

Mr. Stefan Klatt, MAN, Germany, gave a presentation on "Sustainable Transport - A Business Sector's Cooperative Approach" in which he presented key findings of a study conducted by MAN and the Technische Universität München. This study focussed on mobility and asked transport planners what cities need to improve their situation. The results show that transport planning is strongly influenced by the population growth. For instance, the higher the density in a city, the more people use public transport instead of private cars. Important influences on the development of transport are the economic development, administration and municipality budget. In addition, the climate of the city, travel time and quality of the public transport influence the choice of means of transport. When the means of transport is chosen, people in less developed countries do not think about the climate, but how to get from point A to point B.

However, local authorities have recognized the need to limit the share of private cars and shifted from building roads to strengthening public transport. In this planning, buses play an important part. They are more flexible and cheaper than Light Rail Transit systems, though they might face traffic congestions. An idea to avoid this are Bus Rapid Transit Systems where buses have separate lanes to avoid being caught in congestions.

Mr. Jerome Pourbaix, International Association of Public Transport (UITP), Belgium, spoke on "Keeping Cities on the Move – Experiences from Asia and Europe". In 2005, 7.5 billion trips were made in cities every day. Of this roughly 40 per cent took place in Asia



and 17 per cent in Europe. In both regions the use of private motorized transport is much higher than public transport. It is noteworthy, that non-motorized transport was the most popular in Asia accounting for 50 per cent of all trips.

The business-as-usual scenario for 2025 shows an increase to more than 11 billion trips daily and an increase in the use of private motorized transport at the expense of non-motorized transport in both regions. This will have a negative impact on energy consumption, CO₂ emissions and congestions. However, this impact will differ geographically. The global increase in energy consumption for urban mobility will be 27 %. While Europe's share decreases in absolute terms and by 14 %, Asia's portion will increase by 128 %. The decrease in Europe compared to the increase in trips is due to higher energy efficiency. UITP made another projection based on an increase of the share of public transport by 100 % – meaning 30 % in Europe and 34 % in Asia. This would keep the global energy consumption by urban mobility at a stable level and lower the increase in Asia to 68 %. It would also enable the European countries to decrease its share by 21 %; thus, being in line with the 20-20-20 targets.

In order to achieve such sustainable mobility and funding, UITP suggests four necessary steps. Firstly, the cities have to provide lifestyle services targeting specific groups and new segments. Secondly, a new business culture with more customer oriented services has to be developed. Thirdly, visionary integrated urban policies with coordination between public transport and urban planning needs to be put in place. Fourthly, smart demand management, e.g. road tolls and financial incentives, can influence citizen's behaviour to use more public transport.

The third presentation of this session "European Sustainable Cities - The Danish Example" was delivered by **Ms Marie Kåstrup**, City of Copenhagen, Denmark. She stressed that the people of Copenhagen have the common goal to achieve a high life quality. A key role in doing so is the support of bicycles. By now Copenhagen has 36,000 bicyclists which can even cause congestion on the bicycle paths. Similar to other cities the share of private motorized transport increased in the mid-20th century. As a reaction people demanded better conditions for bicyclists in the 1970s. Today the city has 426 km of bicycle infrastructure, 75 % of its inhabitants cycle, own 625,000 bicycles and cycle 1.25 million km. Besides, cycling has a positive effect on health and is spatially efficient. Therefore, cycling is part of Copenhagen's climate, health and social policies.

Measures to support the use of bicycles include the development of cycle super highways. These are bicycle lanes with less stops and short-cuts which enable the people to travel long distances faster. Secondly, the city initiated a public bike share system which is part of the public transport and involves the local public train operator. Thirdly, intelligent traffic systems were introduced where cyclist will not have to stop at traffic lights. At the end of her presentation Kåstrup highlighted that the main driving factor is time and



money and not particularly the concern for the environment. Thus, it is important to make public forms of transport more affordable and faster than private motorized traffic.

During the discussion the need to address cultural aspects was highlighted. For instance, in many Asian societies owning a car is an expression of success and a symbol of prestige. This makes it necessary to change people's perception. The implementation of ideas can be a critical point. For example, India has also established separate bus lanes, but they are still used by normal cars. This again requires a change of people's mindset and strong law enforcement. It was mentioned that the public transport used could be even more eco-friendly if it is driven by solar power. Finally, it was suggested to divide Asia into categories. The first group are states with a decreasing population, the second one are strong states and the third group are increasing states with low capacities. While category one and two can be successful in achieving sustainable urban development, especially the third group face the hardest job with an urgent need to tackle these topics.

Session III: Towards more Sustainable Energy and Building Sector

Mr. Clemens Haury, European Commission DG Energy, Belgium, spoke on "The EU's Approach to Energy Efficiency for Buildings". He started by emphasizing why energy efficiency matters. It increases a country's competitiveness, makes it more sustainable and ensures supply security. In order to achieve the 20-20-20 targets the EU has passed several directives and initiatives on energy and building. The 20-20-20 goals are a reduction of the greenhouse gas level by 20 per cent, an increase in renewable energies to 20 per cent and a reduction of the energy consumption by 20 per cent by the year 2020. The first directive is the Energy Efficiency Directive from 2012 and the Energy Performance of Buildings Directive from 2010. The latter includes a cost optimal methodology to balance the energy consumption with the global costs. Another tool is the 'Nearly Zero Energy Buildings' which requires new buildings owned or occupied by public authorities to be nearly zero energy buildings by 2018 and all new buildings by 2020. However, the Member States themselves can define what 'nearly' means, but shall develop national plans to give security to the construction sector. The Build-Up Skills initiative provides training to construction workers and planners on the new techniques these houses require. In order to make the achievements more comparable, the EU develops standardisation rules and certificates. The energy savings require an investment of approximately 850 billion Euros between 2011 and 2020. Thus, the EU currently provides four funding mechanisms – the cohesion policy fund, ELENA facility, European Energy Efficiency Fund (EEE-F) and Intelligent Energy Europe Programme with a total volume of 6.652 billion Euros. Additional funds will be available from 2014 to 2020. However, the involvement of the private sector is needed to achieve the goals. Especially



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the EEE-F provides opportunities for private investors. A calculation shows that a full refurbishment with ambitious criteria is not much more expensive in the investment phase, but cheaper in the long run due to the running costs.

Ms Ifa Kytösaho, City of Helsinki, Finland, gave a presentation on “The Finnish Example”. She highlighted that it is always necessary to see the local context. For instance, buildings in Finland are exposed to much colder temperatures than in Southern Europe and require more heating while having less opportunity to use solar power. As a result, the major part of energy consumption takes place in buildings (80 %). In order to reduce the energy consumption, the city introduced several projects in new settlement areas. The first one was Viikki in 1995 which included ecological features in building. In particular, houses in this area needed 20 % per cent less heating than average projects. In addition, buildings use solar energy for their water management. There were several similar projects over the years which decreased the energy consumption, heating and used traditional methods like wood construction.

Besides these local initiatives, the city cooperates closely with the state through energy saving agreements and building codes. While the state provides subsidies, the main investment is made through the inhabitants. The costs are calculated at 100 Euro per sqm. If the energy price remains the same the investment will pay back in 50 years, but if the energy price increased by 9 % annually, this will decrease to 17 years.

In order to be more sustainable, the city wants to create urban development areas to diversify the location of jobs which will decrease the CO₂ emission through less commuting. Currently, the city experiences an enormous urban sprawl with more than 160,000 commuters each day. In addition, energy efficiency and reduction on energy consumption are the main goals of the 2013-2016 strategy.

The last speaker was **Mr. Walter van Kuijen**, Philips, The Netherlands, who provided a business’ perspective. He started his speech by highlighting that lighting consumes roughly 90 % of all energy worldwide and that 75-80 % of this is non-efficient. Thus, Philips has established a think tank on liveable cities which looks at inclusion, equal opportunities and resilience of cities.

Van Kuijen then stressed three major points. Firstly, energy efficiency has to be included in each strategy in the context of smart solutions. Philips is interested to team-up with local authorities to help them incorporate energy efficiency and smart solutions in their strategic planning. This will enable them to spread their investments and be successful. Secondly, three % of all buildings should be renovated each year since they are outdated. This will benefit the energy consumption and will also be cheaper in the long run. In order to do so, more sustainable financial assistance is required from the public through public-private-partnerships. He stressed that directives of the EU also need to be



enforced and not only launched. Thirdly, a platform is needed where the different stakeholders can interact. This will multiply and accelerate the progress.

During the discussion the intention of the business sector was questioned. While companies have to see a financial benefit from its investments, it was highlighted that they make money mostly at the initial stage, but that the products are working longer nowadays and help to improve the lives of people. Some companies also provide so-called energy audits to analyze the situation and give recommendations. In most Asian countries the energy demand will increase over the next years. For instance, it is expected that India's energy production will quadruple in the next 15 years.

Session IV: Meeting the challenges of eco-cities

Prof. Yoshihisa Godo, Meijigakuin University, Japan, discussed the topic „Meeting Current Challenges to Eco Cities in East Asia“. He emphasized that many Asian cities are in disorder due to high population density and fast economic growth which results in speculation. In addition, many governments followed the path of deregulation. The consequences were abolishment of planning, apartments in factory areas, introduction of registration systems, violation of land use regulations and a disproportionate emphasis on landowner's intentions. Another problem is that Asia tries to copy ideas from the Western industrialized countries in an attempt to catch up. However, they lack people's engagement and efficient planning. Thus, more transparency is needed to avoid fallacy of the system.

Tadashi Matsumoto, OECD, France, gave a speech on "Financing Eco-Cities". Financing urban development is one of the key issues when developing sustainable urban areas, especially in times of limited public budgets. Thus, the key role of governments is to provide laws which lay the foundation for further investments. In order to maximise advantages of city-level action, they have to be linked with multiple policy goals. Secondly, as an operator of urban systems (transport, water, energy etc.), they have diversified revenue options and can work on various issues using different funds and tools to acquire more money (tax, fees, charges etc.). They need to set strategic goals, enable policies for green investments, establish financial policies and tools, build capacity and promote green business as well as consumers behavior. Barriers for private sector engagement are lack of investment opportunities, insufficient returns, high risks and lack of available sources of financing. If the local governments provide such framework and opportunities, the private sector will be willing to invest.

The final presentations "The Case of Public-Private-Partnerships" was delivered by **Mr.**



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Hans Martens, European Policy Centre, Belgium. He highlighted that public-private-partnerships (PPP) can balance the lack of financial resources which exists at the local level. The local governments have to provide project assets and a certain guarantee to start the initiative, but from there market financing can take over the majority of the burden. However, the public sector remains a decisive factor as it does the planning and decides what has to be done. Martens named several conditions for successful PPPs. These include a predictable revenue stream, investments in typical areas (digital and energy networks, transport) and investment in new areas (e.g. energy efficient buildings). PPPs on renewable energy might be more difficult as the market is sceptical of the success. Thus, governments have to subsidize them. While PPPs can complement the public funding, they are not the final solution, but offer alternatives where they are applicable. Martens suggested a virtuous circle which means that government should use the pension funds for investments to start PPPs which will then give returns that can be used for the pensions and further investments. An example of such successful PPPs is New York City where it worked to improve the transport system.

The conference was able to discuss key challenges to sustainable urban management in Europe and Asia. The discussion showed that the situation is quite polarized with a number of success stories, but also clear failures due to low level of law enforcement and a lack of responsibility. In addition, there is a strong competition between the countries which explains why not all of them can be successful. Especially medium-sized cities should be the target of eco-friendly management as they are expected to grow in Europe and Asia. This, however, does not mean that efforts on primary cities should be reduced. Depending on the local context, sustainable urban management has to tackle different aspects which is way there will not be one role model to follow. It was shown that there are many initiatives nowadays in Japan which lead to more transparency, accountability, long-term planning, partnerships, empowerment and participation of people, efficiency as well as effectiveness. This is again a good climate for investments and the policies helped to make a difference. An important aspect of sustainable urban management in most cities is public transport. A high share of public transport can decrease the travel time and pollution. This process requires support from the public as they have to accept the change and limitation of private motorized transport. As the example of Copenhagen shows, if the people are convinced of the benefits of public transport, they can even push the government to work in this direction. With regard to PPPs, it was highlighted that the governments have to ensure that the partnerships are economical sustainable and address the issue of vulnerability since the cities are becoming more dependent on the investors. In order to share experiences and solutions from Europe and Asia a forum for constant exchange should be initiated. The Covenant of Mayors could be an example for such voluntary exchange.



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