**THE ENERGETIC CITY**

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**The scientific world has rediscovered the city. Edward Glaeser’s *Triumph of the City* places it at the heart of new economic success, According to UNEP, the world population’s growth to up to 9 billion will involve a wave of urban migration. Cities, no matter where, have been identified by the United Nations as places that could play a key role in the way towards a sustainable world. Policy studies pay lip service to the necessity of having to fit in with ‘agglomeration effects’, or to the necessity of placing the city at the core of a sustainability strategy. These economic and ecological roles of the city sit side by side with the much earlier recognised socio-cultural role: the national concert hall is not located in a small town somewhere in the rural east of the country, and issues of integration predominantly occur within large cities. To put all this into context, we have to explain what we mean by ‘the city’ and how its governance should be regarded.**

**The city, its governance and society**

‘The Netherlands rather than being a densely populated country is a sparsely populated city’. This statement by the late Dutch urban developer Dirk Frieling still gives pause for thought. Cities do not end at the municipal limits. In the Netherlands, cities in fact spread out over regions. This is an important fact to keep in mind; even when we emphasise the face-to-face contacts in large business districts, universities or city centres, we cannot loose sight of the fact that participants often commute on a regional scale. CEOs seldom live on their company’s doorstep. These cities have been constructed from a kaleidoscope of various places. The diversity of these places and activities and their mutual relationships often determine a city’s strengths or weaknesses. The city is therefore more than mere morphology – it also concerns interconnections and spatial structure. Strong cities are also energetic; there is great activity, much of which cannot be traced back to local government initiatives. However, government does have an important role to play in enabling the types of activities that increase a city’s strength and discouraging those that detract from it. The question is which governance philosophy and role divisions would fit such a city?

**Large issues, large governance systems?**

Today, the sustainability of the societal structure should take centre stage in our thinking. Economic growth has slowed down enormously and the ecological issues are mounting. In cities, this has a direct effect on the question of how to refloat area development. In addition, construction development not only needs to be stimulated, it also must be done sustainably.

In general, large issues are thought to require large governance systems. In this case, however, thinking large may not be the obvious answer. The history of urban planning has superseded the era of Le Corbusier. For the 21st century, the strength of the city must be sought in new relationships between government and citizens and the business community. That more progress can be made in collaboration with citizens and businesses sounds self-evident, and yet it is not. All too often, governance bodies alienate themselves from citizens; for example, by pointing to the higher good. The notion of the ‘energetic society’ is that of government making more and better use of the energy that exists within society, and to especially think about government policy in terms of positive and negative incentives, learning abilities and the setting of public goals for both the medium and the long term. Sustainability is one such goal. Between now and 2030, the world and therefore also the Netherlands will have to find a way of decoupling human welfare from the use of the earth’s resources and the environmental effects. The relationship between our residential environments and global issues becomes abundantly clear to anyone retracing the origins of our food, means of transportation or home furnishings. The urban hinterland, these days, covers the globe and includes a great variety of services, materials, and flows of money, people and information. Cargo ships enter the Port of Rotterdam each and every day, delivering flat screens, smartphones and the latest fashion in clothes to the cities and surrounding areas. The production and distribution of our food involves meticulously planned global ‘chain logistics’, supplying us with fresh produce from all over the world. Our highly appreciated and organised daily lives are local in perception, but global in the logistics of production, use of resources and resulting emissions. Both citizens and public administrators seem to realise that liveable, clean cities are likely to be the champions of the future. Not only because of their share in the use of physical resources, but also because cultural change must be induced within cities, in order to continue along the road we are on.

The fossil-fuel era will not end because of a lack of coal, just as the Stone Age did not end because people ran out of stones. The literature on ‘the history of the environment’ shows that major breakthroughs often were attributed to a reorientation of values, with city dwellers always playing an important role. Such changing values currently are seen again within society, with citizens wanting to generate their own power, and frontrunner companies that base their business cases on green operations. Government policy in this respect is obviously lagging behind. When urban civil society is willing to adopt these new values, a new perspective on the future of cities will emerge.

Just as ‘high carbon’ in the near future could be synonymous with ‘high risk’, the opposite is also true and a low-carbon profile therefore could boost a city’s image.

The idea of a liveable, innovative city with good air quality that makes efficient use of the increasingly more costly resources already is a visible leitmotiv for many urban administrators (see http://www.c40cities.org). But even so, the question remains of how to combine the way towards a sustainable world, utilising the strength of the energetic city. The answer will not come from large-scale governance delivering a ‘masterplan’, but requires administrators who try to channel societal energy into the right direction.

**Confrontations with citizens**

A society of often higher educated and articulate citizens places large demands on public administration. Attempts to introduce ‘carbon capture and storage’, a technique by which industrial CO2 emissions are captured and stored underground, such as in empty gas fields, proved difficult in the Dutch town of Barendrecht. Government approached the citizens of Barendrecht as if they were objects and reasoned too much from the technology perspective, without much of an eye for what those citizens wanted or feared. This emphasis on technology is also apparent in the thinking on sustainable cities. Environment optimists often point to Masdar City: ‘The sustainable city? It is already being built!’. Masdar City is a large-scale, tabula-rasa design of a sustainable development project to house 40,000 inhabitants in the Arabian Desert. It is an example of a ‘smart city’ where mobility, buildings, transportation and energy use are organised at optimal level by the urban equivalent of a personal computer’s operating system. The utopian dream is to use natural resources in the most efficient way possible. The city’s total package is the product of large technology companies wanting to sell a ‘smart city in a box’; a sustainable solution for urban administrators, straight from the drawing board. These types of solutions also regard the inhabitants as objects – this time not just from a top-down government perspective, but from an equally top-down technocratic perspective. Resistance against large-scale, forced interference in the existing city cannot be expected to be any less in this second perspective. Moreover, around 70% of the European cities of 2050 already exist; they will merely be expanded to varying degrees, over the coming decades. Challenges that face the future cities consist mainly of having to improve existing urbanisation, to restructure it. Thus, with respect to the future, existing cities will be leading.

*A changing, energetic society*

The examples show that the transition towards a sustainable society cannot be achieved by government decree or solely with technological means. Neither government nor technology alone can determine how sustainability may be achieved. It cannot be achieved without people, the urban citizens. To increasing degrees, citizens, companies and local governments are taking the initiative, obtaining their information from online networks. A situation must be created through cooperation between citizens and government, in which public administration focuses on *governance* instead of being a *government* actor. Only then can both parties approach each other in a positive sense, solving disagreements and facing challenges. Examples are urban agriculture, local energy generation, and the setting of climate-neutral goals. In the business community this can be seen in the strategic reorientation of companies such as DSM, Unilever, TESCO and Van Gansewinkel Groep. Other companies, such as Ahold, are closely following developments. The interesting aspect to these initiatives is the evident shift in values, not the change in CO2 emission levels. These changes, nevertheless, do bring the government in a somewhat awkward position; society, in these cases, is more involved in the extremely difficult transition than the government itself. Although this obviously often concerns only a small part of society, it could also present an opportunity for policy to play a role.

*Empowered Deliberative Democracy*

PBL’s report ‘The Energetic Society’ states that the government does not utilise all of the creativity and learning capacities within society. The political-institutional side of the energetic society can be seen from the perspectives of concepts such as the ‘Empowered Deliberative Democracy (EDD)’ and the ‘information society’. The EDD concept was introduced in 2001 as a blanket term for the innovative ways in which governments may utilise the energy and influence of ordinary citizens to achieve institutional reform. In this way, everyday practice is combined with communication, responsibility and deliberation. It broadens the application of deliberation about abstract issues related to conflicting values and justification to concrete issues, such as repairing holes in road surfaces, improvements to schools and the management of nature areas. Basic principles involve a focus on specific, tangible problems, engagement of ordinary citizens and involved public administrators on local levels and joint searches for solutions to those problems. The technical options offered by the Web 2.0 to create two-way communication, as well as the increase in available information, provide the right circumstances for hands-on involvement of articulate citizens and companies in sustainability and local environmental policy.

In addition to EDD, citizens within the energetic society also create new structures themselves – to call on government to take responsibility, to focus attention on tangible problems, and to search for solutions through deliberation. In such cases, existing rules often appear to hinder the development of new, previously unimagined and unconventional forms of collaboration. This applies especially to the field of energy. Surplus heat can be used for heating houses, flat school roofs may provide solar power to their neighbourhood and PV installations are cheaper when they are bought and installed in bulk. However, such unconventional forms of collaboration currently keep running into rules, such as the higher taxation of small-scale consumption in the Netherlands, which, often inadvertently, forms a barrier to the use of these new sources of social energy.

The 21st century may very well see a return to spruced up versions of former social forms of collaboration, such as cooperatives and societies. Associations of citizens who are focused on incorporating sustainability into their own local environments. Such initiatives are being supported by the online exchange of knowledge and ideas; people who want to generate their own power or grow their own food, are becoming united and make use of the knowledge and experience that is available on the internet. For example, in San Francisco, if you consider having PV panels installed, you can first estimate the costs and benefits involved by visiting a website that uses areal photos to estimate size of your roof surface after which a database provides you with information on local regulations and shows you the procedures that must be followed. If this should prove to be cost-effective, you can unite with your neighbours online, to jointly purchase such solar systems (see http://1bog.org; http://zonability.com). The same applies to urban agriculture; citizens worldwide share their knowledge and experience of innovative techniques to grow vegetables indoors, using hydroculture (see www.rndiy.org; www.windowfarms.org) and exchange practical knowledge on how to start a temporary farm on a patch of wasteland (see http://enablingcity.com/). The government just stands back and watches; in these cases governments have to do what they find the most difficult: as little as possible. They have to let things develop and limit their involvement to a minimum to obtain the maximum effect and, subsequently, only have to embrace the initiative. Citizens must be given the opportunity to get organised and, together with public administrators, search for solutions. The energetic information society is ready.

**Sustainability requires a different governance philosophy**

For the energetic city, the core challenge is that of sustainability. Citizens and administrators are already involved in this, each in their own way. Companies consider sustainability in terms of financial returns and investment security. Multinationals consider the greening of cities, including new infrastructure, as one of the major investment opportunities of the future. Government would do well to recognise both the value and risks of this energy, and to distinguish the physical from the cultural dimension. A clean economy is feasible, but does imply very far-reaching adjustments. The use of resources and emission levels of greenhouse gases, such as CO2, should be around five times lower than they are today. This would require a large role for government, starting with the commitment to seriously address the issue. By using effective, traditional tools such as pricing and regulation, and especially by identifying new revenue models.

The second dimension is a cultural one. Sustainable, smart cities originate from the initiatives regarding sustainability, undertaken by citizens, companies and local administrators. These initiatives, added together, are as yet insufficient to form the solution to large problems such as climate change. But they are an indispensable component in the reassessment of the economy and the thinking on welfare and well-being. Without such cultural changes, reducing the burden on the environment and natural resources by a factor of five would be impossible.

The initiatives within society help to create a widely shared vision of a new, strong society. A smart, social and sustainable city forms an attractive image for citizens, public administrators and companies to strive for. Cities and the internet, and both the local and global dimension, together, are the breeding ground for ideas and shared visions of a sustainable society. However, to achieve the required 80% to 95% reduction, we need both a local government that encourages and loosens the reins and a national government that helps to scale up promising initiatives and enables their widespread implementation.