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# Urban regeneration in the EU



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# **Urban regeneration in the EU**

Sonia De Gregorio Hurtado coordinated this issue with the editorial board

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abstract

## Urban regeneration: focus on “software”

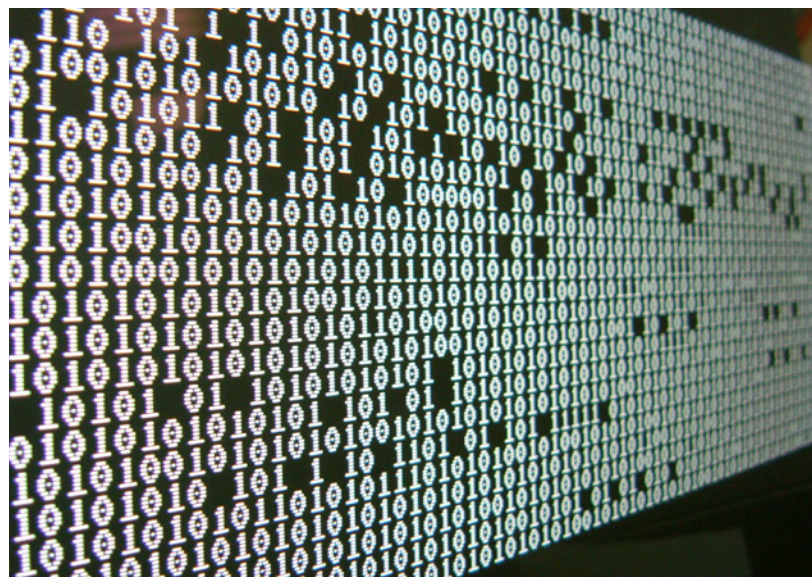
*Marc Moehlig*

### *Abstract*

Urban regeneration is not only a matter of “hardware” or infrastructure; it is also a question of “software”, of defining the right operating rules to make cities functional and sustainable.

Modern society faces a lot of challenges and they are most visible at the level of a city. This is especially true for the economic ones. After WWII, industrial activities were moved out of the cities. In a second stage they were transferred to low cost countries. This resulted in massive global trade flows that eventually translated into huge traffic jams in and around our cities. It must be noted that the cost price differences between regions are relatively small in comparison to the level of the final retail prices. This phenomenon resembles a butterfly effect: a relatively small variation in initial data translates into huge negative environmental and social effects.

To counter this, Europe needs lower taxes on labour and, in parallel, much higher taxes on transport and waste. This new fiscal framework will give a boost to the urban economies. Indeed, technology is there to allow the reintegration of industrial activities into our cities: new production methods limit emissions and favour efficiency. Making labour less expensive will help cities to become real service hubs. Cities will become more



“inclusive”, because there will be employment opportunities for everyone. Cities will also become more “supportive”, because there will be a very broad range of affordable services on offer. Negative butterfly effect described in the previous paragraph could be replaced by a positive one. Availability of affordable services can give citizens an impulse to go for partial dematerialization. It will help them to adopt a lifestyle built around personal development rather than geared towards accumulation of goods. Citizens with sustainable lifestyles will help to make cities more sustainable and vice versa. Occurrence of stress-related diseases should diminish tremendously. Ambition of this paper is primarily to promote a vision. Research should validate the statements about the economic butterfly effects described in this paper.

#### **KEY WORDS**

*urban regeneration, service hub, dematerialisation, sustainability, butterfly effect*

#### **La rigenerazione urbana: focus sul “software”**

La rigenerazione urbana non è solo una questione di “hardware” o di infrastrutture; si tratta anche di “software”, di definire le giuste regole di funzionamento per rendere le città sostenibili. La società moderna affronta molte sfide e queste sono più visibili al livello urbano, particolarmente per quelle economiche. Dopo la Seconda Guerra Mondiale, le attività industriali furono spostate dalle città e successivamente nei paesi a basso costo. Ciò ha portato a massicci flussi commerciali globali che si sono tradotti in enormi ingorghi di traffico dentro e intorno alle nostre città. Va notato che le differenze di prezzo dei costi tra le regioni sono relativamente piccole rispetto ai prezzi finali al dettaglio. Questo fenomeno assomiglia ad un effetto farfalla: una variazione relativamente piccola nei dati iniziali si traduce in enormi effetti ambientali e sociali negativi. Al contrario, l'Europa ha bisogno di minori imposte sul lavoro e, in parallelo, tasse molto più elevate sui trasporti e sui rifiuti. Questo nuovo quadro fiscale darebbe un impulso alle economie urbane. Infatti, la tecnologia è lì per consentire la reintegrazione delle attività industriali nelle nostre città: i nuovi metodi di produzione limitano le emissioni e favoriscono l'efficienza. Rendere il lavoro meno costoso aiuterà le città a diventare veri hub di servizi. Le città diventeranno più “inclusive”, perché ci saranno opportunità di lavoro per tutti. Le città diventeranno anche più “di sostegno”, perché ci sarà una gamma molto ampia di servizi in offerta a prezzi accessibili. L'effetto farfalla negativo prima descritto potrebbe essere sostituito da quello positivo. La disponibilità di servizi vantaggiosi può dare ai cittadini un impulso per una parziale dematerializzazione. Li aiuterà ad adottare uno stile di vita costruito intorno allo sviluppo personale piuttosto che orientato verso l'accumulo di beni. I cittadini con stili di vita sostenibili contribuiranno a rendere le città più sostenibili e viceversa. La comparsa di malattie correlate allo stress dovrebbe diminuire tremendamente. L'ambizione di questo articolo è quella di promuovere una differente vision e la ricerca dovrebbe avere il compito di convalidare le affermazioni circa gli effetti farfalla economici descritti.

#### **PAROLE CHIAVE**

*Rigenerazione urbana, service hub, dematerializzazione, sostenibilità, “effetto farfalla”*

## **URBAN REGENERATION: FOCUS ON “SOFTWARE”**

*Marc Moehlig*

### **Introduction**

We spontaneously associate urban regeneration with infrastructure, architecture, housing - in short, with “hardware”. In this article we wish to focus on “software”, i.e. on the main operating rules that help a city to be functional and sustainable.

Every society has rules that should help its citizens to optimize their wellbeing, at a collective and at an individual level. Both Hans Rosling (2009) and Michael Green (2015) have demonstrated that welfare is a lever to increase wellbeing up to a certain point. They both give a clear warning however that above a certain level of welfare, other measures are required to optimize wellbeing.

Challenges a society faces become more visible and more urgent in an urban environment. Higher density of population leads to increased human interaction, both wanted and unwanted. On one hand, this can lead to increased pleasure and wellbeing, simply because man is a social being in its very essence. On the other hand, it can also lead to higher levels of stress, frustration and even outright danger. It is therefore crucial that cities have the right operating rules.

### **Balance between labour and transport**

Since thirty odd years, Europe has increasingly been facing the negative consequences of an excess of road traffic and of road transport in particular. These so-called transport “externalities” are not limited to a mere increase of the time required to go from point A to B but include far stretching environmental and social effects (Majeres, 2003). Cheaper transport in combination with high labour costs has led to delocalisation of production activities and a shift from local to import economies. Whereas the medieval town was a concentrate of industrious citizens protected by strong stone walls, the average modern European city consists of a mix of hyperactive and jobless citizens surrounded by a moving wall of trucks and cars.

Until WWII it was very common and even fashionable to integrate manufacturing activities into the very hearts of our cities. Pure manufacturing was complemented by a wide array of maintenance and repair shops. After the second world war, higher labour costs led to a search for higher economies of scale and manufacturing units were displaced to industry zones far away from the cities. In a lot of cases maintenance and repair shops progressively disappeared. In a second stage a large share of the industrial activities left Europe completely.

Disappearance of industrial activities led to unemployment, which in turn caused social exclusion and an increased crime rate (according to a Romanian study, a 1% in-



crease in unemployment leads to a 9% increase in property crime – Huang and Huang, 2015). On top of that, replacement of local production by imports led to an explosion of road transport. Following is true for most industrial products: competition between local players with similar cost structures tends to restrict the competitive zone around a factory to a range of a couple of hundred kilometers. In sharp contrast, low cost country production in combination with very cheap maritime transport allows products to be transported by road over a distance of several thousand kilometers, from the import harbour to the end market.

In fact, our economy suffers from a butterfly effect, as described by Lorenz (Dizikes P., 2011). According to Lorenz, a small variation of the initial data can result into a very important change of outcome. Let us consider the example of jeans production. A pair of jeans is produced in Asia for approximately 6 to 8 EUR (yes, not only those you can find in a main street shop at 40 EUR but also the branded ones at 100 EUR). This is only a couple EUR less than the production cost in an automated factory in NW Europe, at the present labour cost (unofficial source). Sea transport is so cheap that even minimal cost price differences suffice to relocate industrial production to low cost countries: shipping a 30 ton container from Asia to a NW European harbour costs less than 3000 USD which means only about 0,2 EUR per pair of jeans. Small cost price differences in comparison to the level of the final retail prices are at the basis of massive global trade movements. These huge trade flows between the Southern and the Northern hemisphere eventually translate into cities facing frequent and important traffic jams.

It is a pity that Europe has become uncompetitive in a lot of industrial disciplines because today the technology is there to make industrial activities efficient without the need to produce massive volumes. On top of that, new technologies allow manufacturing nearly without emitting toxins. Both conditions could allow the reinsertion of manufacturing activities in the form of small and medium scale workshops into the urban environment. Surprisingly, technological innovation even creates the conditions to have agriculture in an urban environment: LED lighting allows to grow vegetables and herbs in drawers, one on top of the other. Even NASA is studying the use of LED lighting to grow vegetables (Massa G., Kim H., Wheeler R., Mitchell C., 2008).

Combining functions is not only feasible at the level of a city, but even at the scale of an individual building: a good example is the waste powered electricity plant that was conceived by architect Bjarke Ingels of BIG (Bjarke Ingels Group) and that is being built in Copenhagen. (the Guardian, 2016). Air emissions are so clean that Ingels can build a ski slope on the steep rooftop of the power plant.

Nearly 100 years ago the British economist Arthur Pigou suggested that governments should levy a tax on polluters proportional to the level of harm (IMF, 2010). Pigou's work spurred a debate among economists on the correction of so-called market infidelities but the translation into public policy is still insufficient. If like in the 19<sup>th</sup> century, cities are expected to host a mix of residential, industrial and service activities, commuting and the associated traffic problems could be drastically reduced. This can only become reality if we progressively tax labour significantly less and, at the same time, tax

transport and waste considerably more. Obviously this approach requires a coordinated effort at the European level. Let us use the butterfly effect to our advantage. Let us create the conditions to make our cities vibrant and industrious again.

### **Cities as service hubs**

In vast contrast to Asian cities, in Europe tailor made products and services are only affordable to the happy few. This is especially true in the North of Europe. Term "do-it-yourself" is associated with home improvement activities, but in fact the "do-it-yourself" principle is presently common practice in a wide range of activities like housekeeping, cooking, ensuring child care, gardening, etc.. This leads to an overworked middle-class that needs to cope with increased work pressure (including commuter stress) and with a stretched personal life at the same time.

Cities should be hubs for affordable services of all kinds. In Bangkok e.g. hardly any of the office workers cook a meal after a full day in the office: they pick up healthy, tasty and affordable meals on their way home. In Shanghai e.g. an array of affordable wellbeing services can be found in any part of town: acupuncture, acupressure, reflexology, health massage, etc.. A lot of cafes and hotels hire music bands to entertain their customers, at a scale unseen in Europe since the 1950ies. In a vast number of non-European cities across the globe, public transport is complemented by cheap taxis and minibuses. Car ownership is no longer a necessity but is a luxury you can do without.

If at the European level we progressively increase taxes on transport (including on maritime transport), and at the same time proportionally decrease taxes on labour, we will evolve towards more local and more service oriented societies and cities. If you add to these tax measures a stricter fiscal policy on waste, you boost the repair economy. New service companies would provide job opportunities to a lot of people, especially to those with a lower level of education. It would make cities more "inclusive": every citizen in good health would find a job opportunity and would feel valued by society.

### **Partial dematerialisation and personal growth**

Service orientation allows for partial dematerialisation. Especially in an urban environment where space is scarce, it is useful to live in a lighter way and to accumulate less bulky possessions.

Let me illustrate the consequences of cheap labour: there would no longer be a need for a car because public transport would be cheap. People could do with more simple kitchens because wholesome meals would be available at affordable prices from takeaways. And by the way, these takeaways would more easily serve vegetables because cleaning and processing them would become more affordable. Low quality furniture would no longer be in demand because of the high level of taxes on waste but robust furniture

would gradually move from one owner to another as needs and tastes evolve. People would no longer have to invest a fortune in DIY tools, because carpenters, plumbers, electricians and painters would work at more affordable rates.

Partial dematerialisation creates the framework for citizens to review their priorities. It creates room for lives that are not geared towards the accumulation of material possessions but that are built around personal development. City is the optimal environment to offer a maximum amount of options for people to learn new skills, to gain new insights and to develop one selves. If services become less expensive, cities will be able to offer an abundance of courses and workshops to every age group and every layer of society.

Culture life will thrive and small theaters, music halls and art galleries will pop up.

### **A healthy urban environment**

We should not ignore that an urban environment can cause a lot of frustrations because of pollution, traffic congestion, the lack of green spaces, poor air quality, lack of sunshine, etc..

City administrators can invest heavily into hardware solutions (new road infrastructure to limit inner city traffic, public transport, public parks, etc.) but they can also go for policy choices that encourage the right behavior. If e.g. private car use is discouraged and fiscal measures encourage the progressive replacement of traditional taxis and buses by electric vehicles, air quality will increase. Same will be true if the insulation of buildings with sustainable materials is fiscally encouraged.

Cities tend to suffer from lack of green spaces. Nearly a century ago Le Corbusier contended that urban architecture had to be conceived in 3D and that buildings had to open up to the sun (Denèfle et al. ,2006). Present building techniques allow rooftops to be transformed into true gardens. Reality is that in most cities rooftops are underutilized. Fiscal measures could encourage the realization of small parks and green rooftops. More so, a second level of fiscal encouragement could push owners of gardens, parks and green rooftops to open them up to the public at large. In the South of Europe rooftop gardens can allow citizens to enjoy the evening breeze during the summer and to benefit from the sun during the winter.

Discouraging the use of private cars will automatically encourage people to walk and cycle more. Not only are these activities excellent for bodily health but the steady rhythm and pace of walking and cycling is said to have a relaxing effect on the mind.

In a modern society people's minds are flooded by tsunamis of data and images. It is crucial however that the mind can come to rest at regular intervals. Activities like yoga and meditation have proven to be very beneficial. Indeed, there is abundant scientific evidence that regular meditation has a favourable effect on our minds and even on the condition of our DNA (Ricard M., Lutz A. and Davidson R.J. , 2014). Ideally, children should learn how to meditate from a very low age on. This would be especially beneficial

in an urban environment where the level of stimulation is higher than in the countryside. European cities were built around beautiful churches that emanate a special energy; let us make use of them to pray or meditate.

All the measures described in this paper should also contribute to a healthier life-work balance and probably even to a better working environment: in a framework of full employment, employers are likely to offer better working conditions and more meaningful work to their employees. Disappearance of commuter stress is also a beneficial element. None of these advantages are small pluses: according to a study commissioned by the EU in 2013, the total societal cost of work-related stress would presently amount to 617 billion (!) EUR, 109 billion of which would consist of healthcare and social welfare costs (EU-OHSA, 2014).

There is no scientific evidence to support my thesis but I am convinced that if we make our cities more **inclusive** (consisting of creating a framework for meaningful employment and work for everybody), more **supportive** (thanks to affordable service offerings) and more **restful** (thanks to green areas, physical exercise and meditation), a lot of stress will disappear. A range of relatively small measures could have a dramatic positive overall effect on public health and wellbeing. This is another way to make the butterfly effect work to our advantage.

### **Interaction between “software” and “hardware”**

Urban regeneration is a matter of combining the right operating program with the right infrastructure. Some cities can be seen as good examples in a number of respects: Amsterdam and London are cities that are attractive and have succeeded to make their inhabitants and visitors walk and cycle again. None of these examples is perfect though: both cities suffer from housing and employment issues.

If we really want to go for urban regeneration, we will need innovation. According to Gary Hamel (Hamel G., 2007), innovation comes from the fringe. In a lot of cities there is a small but growing number of people who go for partial dematerialisation and prefer to invest in self-development rather than to focus on accumulating material goods. Surprisingly, they come from all layers of society. They favour local produce, are health conscious, reduce their impact on environment, manage their life-work balance, support solidarity and try to give meaning to their lives. In short, they adopt a sustainable lifestyle. These people show us the way forward.

### **Conclusion**

A change in “software” or a move to a new set of operating rules could have a major impact on the level of welfare and wellbeing European cities could offer to their citizens. These new set of rules could also help cities to move to a new level of sustainability.

At a time when most governments and administrations in Europe (whether at Euro-

pean, national, regional or city level) are struggling to make ends meet, it is worthwhile to look at levers that do not require major financial investments or do not entail high operational costs. To the contrary, the new fiscal measures detailed in this paper could be at the basis of a major economic boost. This economic revival would not only benefit the citizens themselves but also offer more means to the administrations. At the same time, the cost of stress-related diseases which have been skyrocketing in Europe, could decrease tremendously.

Ambition of this paper is to show a compelling vision about how cities could develop into functional and sustainable entities. Research should validate the statements relative to the economic butterfly effects described in this paper, before any of the recommendations could be translated into concrete policies.

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Marc Moehlig has worked for many years at a senior management level in a global industrial company. It allowed him to travel extensively and to visit a large number of cities in Europe and in the rest of the world. His background as an economist and his professional expertise in the field of sustainability made him reflect on how to create a balance between welfare and wellbeing, especially in an urban context. Marc has recently created his own strategy consultancy firm called Starstrat, with the ambition to “bring strategy closer to people and people closer to strategy”