

Future of Cities Forum
IMAGINE Regenerative Urban Development

World Future Council

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WHERE ACTION & VISION MEET

 Federal Ministry
of Education
and Research

IMAGINE A REGENERATIVE CITY



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DEAR READERS,

This year's Future of Cities Forum was another significant step towards a new paradigm for cities beyond the broad concept of sustainability. We are extremely grateful to all the invited experts for participating in the event, for sharing their insights and for collectively daring to rethink the urban agenda. The feedback we received has been overwhelmingly positive. It encourages us to build on the outcomes and recommendations and to further mature the basic features of the Future of Cities Forum.

The timing of these innovative ideas at the Future of Cities Forum is particularly important. Our world is in transition. By 2050, two-thirds of humanity will live in urban areas. Decisions by local authorities are critical for tackling global challenges such as climate change, food security or water scarcity. National and international governments are increasingly acknowledging the importance of cities. Proposals for Global Mayors Parliaments or National Ministries for Cities are gaining momentum. The new global urban agenda will be cemented in 2016 at Habitat III, the UN's bi-decennial conference on sustainable urban development. New business models within the energy sector are emerging and the development of smart technologies for cities is making astonishing progress.

However, due to insufficient political leadership, there is a wide gap between what would be both technically feasible and economically viable and the tangible steps that are actually taken at the city level. Strengthening the political mandate of communities and city authorities as well as fully utilising the national or federal government's role as an enabler of action will help bridge this 'implementation gap'.

It is obvious that future policies by and for cities should be guided by the concept of an environmentally enhancing, restorative relationship between cities and the natural systems on whose resources they depend. Simultaneously, we have to create an urban society where people benefit from this process. These rather broad concepts can be well captured through targets set by city authorities (which correspond with national and international targets) and road-mapped by multi-stakeholder dialogues.

Transforming urban infrastructure into regenerative systems also requires 'buy-in' from the people it affects. That makes the need for a well-articulated and positive vision essential. Proposed initiatives have to be compelling for national and federal governments and should correspond to their mandates and priorities.

An increasing number of mayors do not need convincing about the benefits of a regenerative and socially inclusive city. Those who are willing to lead are eager for sound methods of achieving this transition that can adapt to the particular DNA of their home cities. Key transformative levers are what is needed and that is exactly what we focused on at this year's Forum. You will find some of the best in this report.

Stefan Schurig

Claire Roumet



Open ceremony at the Future of Cities Forum 2014

ABOUT THIS REPORT

This report is the outcome of the Future of Cities Forum 2014, which took place on 30-31 October 2014 and was hosted by the City of Munich. It was co-organised by the World Future Council, Energy Cities and the German Federal Ministry of Education and Research. It was the 4th in the World Future Council series on regenerative urban development and the final conference of the 'IMAGINE low energy cities' project, initiated by Energy Cities and co-financed by the INTERREG IVC programme.

The Future of Cities Forum is an annual international forum on regenerative cities bringing together mayors, city councillors, urban planners, researchers, practitioners and representatives of civil society and the private sector to discuss key challenges and solutions for regenerative urban development.

At the two-day forum, 98 participants from 18 countries had the opportunity to interact and engage, share urban governance solutions and experiences, openly discuss and learn from best examples from around the world, from Casablanca to Milton Keynes and from Beijing to Calgary.

This report attempts to summarise these discussions.

The drawings in this report are real-time illustrations of the discussions at the Future of Cities Forum 2014.

www.futureofcitiesforum.com

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1. EXECUTIVE SUMMARY

Out of the discussions over the two-day Future of Cities Forum 2014, six key recommendations arose which are fundamental to enabling a local regenerative transition.

1 Adopt local solutions that engage citizens and encourage democratic participation

- Complex, large scale issues can be solved more easily when broken down into smaller scale problems that can be tackled at the local and regional level.
- While a national framework is important in facilitate a move towards tangible local targets, citizen participation and community engagement are necessary in ensuring an inclusive, fair and democratic process.
- A community-based approach goes hand-in-hand with the idea that we need to create more regenerative communities which are more reliant on their own means and regional resources.

2 Work together with diverse actors and communicate effectively

- A broad alliance of different actors and interest groups at the local level helps make sure diverse needs are taking into consideration in the decision-making process. Each stakeholder group has a unique role to play in the regenerative transition, and certain individuals can also act as multipliers.
- Approach issues in an accessible way and emphasise solutions. Positive communication is more likely to motivate a people to become active and be supportive. ‘Seeing is believing’ is sometimes the most effective way of getting a message across. Interactive, responsive and transparent communication helps build trust and buy-in.

3 Adopt targets and indicators that reflect our values and real needs

- Targets such as continuous economic growth – measured with indicators such as GDP – need to be replaced. New indicators that reflect what we value as individuals and as a society, as well as the long-term impact of our actions, should be adopted to measure real individual and societal well-being.

4 Set a clear long-term vision

- A long-term vision creates a shared objective that inspires, streamlines and channels various individual efforts towards the implementation of a common regenerative future.
- Coordination is essential given the variety of the multiple actors involved in the transition and demands clear political leadership.

5 Reconcile policymaking and research

- Timing is everything: Policymakers and researchers should begin dialogue early on in the process in order to establish common goals of the collaboration. This helps target research towards solving concrete problems and ensures results are used in local development decisions.

6 Change behaviour through dialogue, education and awareness-raising

- Small individual changes add up and can shape a collective outcome with a much greater impact. Local and national authorities are responsible to deliver conditions enabling citizens to adopt environment friendly habits. They can also help educating citizens to make them aware not only of the true impact of their actions, but how a change in their behaviour can improve their own quality of life. A sound and honest dialogue between public authorities and actors and citizens has to be established.

2. IMAGINING THE REGENERATIVE CITY

All around the world, people move to urban areas with the dream that the city can offer a better life for themselves and their children and provide the space for them to realise their full human potential. As the congregation point of citizens, the site of economic activity and the hub for trade, the city is the epicentre of people, ideas, and resources.

Historically, cities were able to grow thanks to agricultural surplus, which allowed a portion of the population to engage in activities outside of agriculture. Farmers produced more food than they consumed, which was sold to their urban neighbours. As time went on, and as cities grew bigger and richer, urban citizens sourced their food from farther and farther afield. And the farther we reached for resources, the easier it became to consume beyond our means - that is, faster than ecosystems can regenerate.

The costs of rapidly extracting resources from all over the planet is not only global – problems of climate change, soil degradation and the depletion of biodiversity, but are also felt locally in price shocks and supply volatility due to processes outside the control of local administrators.

Cities can regain some power in ensuring basic service provision and that their citizens are able to sustain their quality of life by identifying resources closer to home, making the most out of them and regenerating them. Urban wealth that is generated from natural capital in the region allows value to remain in the area with local people.

Utilising local resources and finding value in everything – especially what we traditionally consider ‘waste’ – entails creating urban markets for food from urban and peri-urban producers, maximising local renewable energy potential, applying organic nutrients from sewage and waste to farmland, tree planting, replenishing watersheds with treated water and developing ecosystem service infrastructure to encourage urban biodiversity.

The city is then not only self-sufficient by focusing on local assets, but can improve the ability of ecosystems to regenerate the resources. Establishing a symbiotic relationship between urban areas and their surrounding area lies at the heart of the regenerative vision. Unlike cities that take from their hinterland without returning anything except waste, a regenerative city has a mutually beneficial relationship with their peri-urban and rural territory.

Citizens and communities can have a closer tie to the resources they consume when they focus on local and regional stock, including a greater say in production processes and who benefits from those processes.

So what would such a city look like? Would life be different? What kind of activities would take place? No one really knows for sure, but everyone has their own idea, their own dream! The team of the IMAGINE project gave it a try and explored the traits they wish, which could characterize the cities of the future.

- Life in the city of the future takes place around shared spaces (gardens, public places, workshops).
- People get around using public transports, biking, walking or car-sharing while goods are carried out by cargo-bikes, trains and ships.
- Schools integrate and are integrated in lifelong learning. Education aims at raising thoughtful citizens. Much time is spent on discovering and experiencing nature and one's talents. Children have wide possibilities to experience the city on their own.
- Working time is reduced to a few hours. This gives time for non-paid activities such as taking care of the elderly, young or disabled, leisure, housekeeping, cooking, community activities, etc.
- Energy is produced locally from renewable sources (solar, wind, biomass, biogas, etc.).
- Food is produced locally. The agriculture sector is growing with new players and a new philosophy. Urban farming experiences a renaissance. Dietary habits give a large part to vegetarian diet.
- Consumption goods are characterized by green technologies and produced locally. Most services are dematerialized.
- Circular economy allows for re-using resources and goods and maximizes synergies amongst local economic players.
- Nature has found its place in the city. Public space is used as meeting place and helps develop a sense of community.
- Governance processes are open to all citizens, allowing communities to experience and apprehend social rules and values in a new way.

3. BUILDING BLOCKS TO REALISE THE REGENERATIVE VISION

3.1 MULTI-STAKEHOLDER ALLIANCE

I. A SPACE TO CULTIVATE DIFFERENCES

Do local administrations tend to have a control and command governance style and operate behind closed doors? It seems that energy and climate targets cannot be achieved without a broad alliance with multiple stakeholders and interest groups at the local level. All interested actors should be involved. Local authorities clearly have a role to play in coordinating such alliances. Discussion platforms should include stakeholders who have diverging opinions, goals or drivers. But who needs to be involved? Due to the complexity of the topic many different actors and stakeholders have differing priorities. Policymakers, local administrators, community leaders, business owners, technical experts and local media all have unique roles to play in the energy transition. Mostly until now no communication between relevant actors had been undertaken.

Local partnerships need leadership to get started and should maintain a relationship of mutual trust, respect and honesty. Each participant must be clear that gains are mutual, that give and take should be a rule and that everyone should be recognised for their differences and their diverse contributions. In this context, moderation becomes important.

II. THINGS TO WATCH OUT FOR ...

a. Those we don't hear

Where is the negotiation table and who is seated around it? Participation to local partnerships is a privilege. There is definitely an inequality of access to the decision-making rounds. Many societal groups are not often found in decision-making processes and their voices are almost unheard in the discussions due to historical and cultural oppression which resulted in their needs not being taken into consideration. In particular, traditionally marginalised and vulnerable members of society such as women, young people, disabled, elderly, immigrants, minorities and poorer people. Other stakeholders which play an important role in influencing urban policy are also often not heard. Cultural producers (artists, poets, musicians, etc.), chambers of commerce, SMEs, researchers, developers, architects, landlords and mass media often look at decision-making processes from the outside.



The Danish city of Odense organises training sessions for local craftsmen on energy-efficient retrofitting

Engage the 'hard to reach' populations where they feel safe

It is important to engage the “hard to reach” people (e.g. homeless people or alcohol and drug addicts) where they are and where they feel safe instead of inviting them in an environment they don't know or don't feel comfortable with. Looking for multipliers is also an idea. Practitioners have to identify the people that could make a change and bring them into their communities.

b. There is no bad moment

“This is not the right moment” cannot be an excuse. It is often found that triggers are not where we expect them. It is also common that lack of money unleashes creativity and synergies. Urgent problems call for action and decisions. It is therefore important to find out where sets of motivation overlap to create complementary efforts and synergies.

CASE STUDY: INVOLVING ALL CITY DEPARTMENTS IN MUNICH

In Munich, the ambitious targets of the Integrated Action Plan for Climate Protection agreed in 2008 by the city council allowed to gather all city departments around a table get them to agree on actual targets. In order to involve local stakeholders, a platform including public and private sector was created to develop joint proposals for carbon reduction. Since then, more than 60 projects have been developed.

3.2 CITIZEN ENGAGEMENT

I. WHAT IS ENGAGEMENT?

Local residents are the end users of the outcome of the planning process. Does this mean that they are only consumers? Engaging people in regenerative development is not only a 'nice-to-have' but is a key enabling factor. When residents and other stakeholders participate in a process, the goal is not consensus but rather to create a platform to voice concerns and exchange ideas.

"When access to the sustainability agenda is granted only to certain groups in society, it adds another facet of conflict potential to the global wealth and welfare gradient. It might in effect turn out as destabilizing as militant conflicts, poverty, racial or political besetment."
Michael Preuss

Who is participating in regenerative urban development? Is it those in traditional positions of power and decision making? Without engaging marginalised and vulnerable members of society, inequalities will persist. This not only threatens the right of all residents to participate in decisions that affect their own lives, but also undermines the legitimacy of any decision.

II. THE PROCESS OF ENGAGING

In order to be useful and successful, the earlier the engagement takes place, the better it is. An engagement process also needs clear rules about what it is about and what the consequences are, so that trust is maintained and participants do not feel cheated or misused.

Bad engagement such as "Listening to the citizens" ending up with either a summoning of politicians or just appeasement has the same effect as a soothing placebo. "Involvement" can also be misused when decisions have already been made and political strategy has already been decided, or when participation is perceived only as a good opportunity to complain.



At the Future of Cities Forum 2014

Citizen engagement has different practices. Sometimes citizens create solutions. In some cases, the local authority seeks approval. There are several ways to engage citizens, from feedback surveys, to online programs, from design charade to drafting, sketching and using social media to discuss opinions.

Engagement needs to be re-thought and move away from classical workshops towards developing relationships that include the diversity of voices throughout the planning process.

CASE STUDY: SCHOOL COMPETITION IN MODENA

In Modena, schools and families were asked for their contribution. The city decided to set up an idea competition between schools in order to outsource proposals for the future of the city. School pupils proved having very creative ideas on how to organize the city, how to get the energy, how to develop the future infrastructure, etc.

CASE STUDY: CITIZENS ASKED TO DESIGN THE CITY'S ROADMAP TO 2050 IN FIGUERES

The IMAGINE project has enabled us to rethink the city in a collective way by setting up a public participation process open to all citizens and all economic and social actors. Citizens have designed the energy roadmap for Figueres in 2050. At the end, the IMAGINE project has shown that we should not be afraid of citizen participation and of giving voice to citizens. Engagement enriches managers by allowing them to incorporate new visions and new decision-making criteria. At the same time engagement is extremely valuable for normal citizens as it allows them to compare different points of view and appreciate the complexity of reality. The project highlighted that people really want to participate and transform the city and that engagement does generate great expectations and excitement.



Citizen forum in Munich: Co-building a vision for the city's future



Presenting working group results at the Future of Cities Forum 2014

Unresolved issues

- Are engagement and participation process-oriented or goal-oriented?
- How can we engage in an honest participation process and set rules without setting power hierarchy?
- Participation is risky. The outcomes can be anything, so we must be very cautious about the outcomes of the process.
- What about leadership and dealing with conflicts in the group? Is strict moderation the solution? Engagement is almost never about consensus. Also, who is really taking the decision in the end?

3.3 MULTI-LEVEL GOVERNANCE

An increasing number of local authorities around the world are taking action beyond the ambitions of the nation-states to which they belong. Practical action and ambitious targets seem to be easier to undertake at the local level. Shifting power to cities would have the potential to decrease the NIMBY effect as local value could be generated more easily. However, in many countries, policy decisions and tax bases remain with the national government.

“Empty pedestrian zones are a sign of city planning taking place on the wrong level”
Alexander Schwab, Management Board, Bavarian Chamber of Architects

In recent decades, the authorities involved in urban policy-making have diversified considerably. In Europe, competence

has been shifted to supra- as well as sub national levels. European cities are now being involved in vertical governance. As a result in some respects they bypass the state level in their co-operation as is the case in the EU. A good example of this is the success of the Covenant of Mayors initiative.

Furthermore, transnational city networks have strengthened horizontal governance. Many pilot cities have joined such networks. However, comparatively, relatively few European cities have, but the share is likely to increase. With the philosophy of ‘learning by sharing’, at the EU level the INTERREG IVC programme finances projects that enable local and regional authorities to share experiences with each other in order to improve their own policies and practices.

I. COORDINATING POLICY, STRATEGY AND ACTION

Better coordination between national, regional and local levels brings in more accurate knowledge of local capacities, costs and the potential acceptance of certain projects – all of which can enable more effective implementation, but also takes more time. This is particularly relevant in decentralised systems. Countries like France with a centralized energy system show a lack of cooperation leading to a rigid energy policy and almost no possibility to take action at the local level.

However, only focusing at the local level might comprise the risk of losing the global perspective, particularly in the transition stage. Issues such as investment in global infrastructure and coordination of local storage capacities need to be addressed on the supra-local level.

II. WHICH LEVEL IS RIGHT?

There is a historical reason why multiple levels of government



Evaluating the importance of different work streams at the Future of Cities Forum 2014

exist. The extent of government mandates on the various levels differs from country to country and from region to region. No particular level is unnecessary, but the problems need to be tackled at the right level. Responsibilities might have to be changed in order to reflect this. The key question is: Where is the power the most efficient?

III. FUNDING POLICY IMPLEMENTATION

Even though transnational city networks are enhancing horizontal governance and cities in some cases do have authority in important policy areas, power is not usually assigned along with the necessary resources. In most cases, wealth produced in cities is not enough to fund the level of service provision cities are responsible for. It is self-evident that the implementation of policies requires resources. It is worth looking towards models where municipalities have access to greater financial resources and innovative financing schemes. For example, the city of Stuttgart has created a revolving fund linked to internal contracting financing scheme. In the Netherlands, the City of Delft set up a revolving fund linked to soft loans financing scheme.

3.4 LOCAL BUY-IN

Acknowledging the implications of our changing climate and diminishing resources is a major shift for human consciousness. However, it seems that the urgency of action for change is not yet perceived as such by a sufficiently great share of stakeholders. Similarly, the role of local value creation for successfully building momentum in the course of the transformation is not yet universally appreciated.

In order to build a strong alliance, it is key to effectively com-

municate the benefits of a regenerative transformation. The goal is to raise widespread support from multiple stakeholders who are informed and aware of the concrete challenges we face, as well as the ideas and solutions needed to change the way cities work.

“Climate change is not a new story; it is a basic new framework. It is necessary to change the rules of the game in the economy, lifestyle and culture. To do that, we need to create new visions with all stakeholders.”

Brendan Catherine, Project Manager, Rennes Métropole – at the Future of Cities Forum 2014

I. SEEING IS BELIEVING

There are projects and policies that aim for a more sustainable urban model, but fail to fulfil the most basic mandate of the local authority: improve the quality of life for its residents. This loses out on winning the buy-in and support of the people. It also loses out on preventing the NIMBY effect, which is a big challenge for the move to a more sustainable future.

A school in Freiburg (Gesamtschule Staudingen) has been a role model for local value creation and successful communication of such for many years now. In 1999, an investment plan was launched which aimed to renew the lighting, heating and water facilities. Teachers, parents and citizens invested 282,000 Euros. Because of great savings, the return on investment has been over 6%. This project has created local value that is tangible and direct, while educating young people as well as their parents of the great potential of increasing efficiency.



In Geneva (Switzerland), city-owned buildings display their energy performances

By focusing on regenerating local resources, cities can extract value from their immediate and surrounding areas. Local residents are involved in this process and jobs remain within the local area. For example, creating urban space for local farmers



Milton Keynes

MILTON KEYNES AIMS FOR LOCAL VALUE CREATION

Waste is seen as a resource, 22 million planted trees since 1967 have become a viable biomass resource and low carbon community heating has been installed. The local energy infrastructure results in low cost energy and local jobs as well as economic independence in the face of increasingly vulnerable global energy prices. In addition, Milton Keynes hopes to gain a reputation as a centre of innovation and excellence for planning, energy and environmental initiatives.

to sell their produce supports local production for local consumption, ensuring the wealth circulates within the area. The same development can be seen in local energy transition experiments in Germany, where ‘value creation’ was listed as the number one reason municipalities and regions were switching to 100% renewable energy. The power of ‘seeing is believing’ is important in creating ownership and support.

II. ARE WE SPEAKING THE SAME LANGUAGE?

The first hurdle to effective communication is the development of a clear narrative. Quite often, it is unclear what the ultimate point of communication shall be. For instance, the discourse at times implies that urban development is an end for itself while it is actually a mean for a better life in cities. Furthermore, dull, repetitive messages become ineffective. Another issue is that some groups are hard to reach because the issues are highly technical, or because they’ve “heard it all before”.

The development of a clear narrative is therefore an essential prerequisite to effective communication. We need to consciously and thoroughly reflect the message that shall be conveyed. The best advice is to be creative, do the unexpected and tailor communication as much as possible, using simple yet not overly simplistic messages.

The region Nord-Pas-de-Calais, France, has adopted Jeremy Rifkin’s concept of the 3rd Industrial Revolution as the overarching narrative that guides the regions transformation. This demonstrates how a clear, coherent and convincing narrative can guide change and create momentum.

III. THINK LOCAL – AND BE POSITIVE!

There is a fine line between raising sufficient attention and painting a too grim picture. Feelings of helplessness and discouragement easily emerge, especially when communication reinforces doom scenarios without pointing towards solutions. Furthermore, doom scenarios involve identifying ‘bad lifestyles’ and ‘villains’, leading to exclusion. This is sensitive as most people are very attached to their identity and do not want their identity to be criticised or attacked.

Emphasis should be placed on solutions in order to approach problems constructively. Positive communication is more likely to motivate a wide alliance of stakeholders to become active. As the relevance of climate change and global problems can be difficult for the individual to grasp, one must communicate how certain decisions will affect day-to-day life. For example, a transition to 100% renewable energy decreases reliance on volatile prices of imported fuels; improving energy efficiency of a home will help reduce the household’s energy bills. The choice of terms should also mirror a constructive attitude: instead of aiming to ‘save money’, the goal to ‘make money’ should be stressed.

IV. GETTING EVERYONE ON BOARD

People don’t all communicate in the same way and access to information is not equally available to everyone. For example, digital and online communications exclude those without access. Furthermore, communication is often one-way, missing out on interaction and transparent listening processes.

We need to think of how to reach groups and ensure that all communities have access to communication. Councils should be “open by default” and proactively provide information, instead of requiring residents to file a request for information.

Involving people in the communication, including elements of interaction and allowing citizens to express themselves in a way they feel comfortable with builds trust and enthusiasm and reaches people better. When asking for contributions, the process has to be open and clear with what will happen to the contributions.

V. LEARNING FROM HOLLYWOOD

Furthermore, concrete projects often fail to deliver because communication is neglected or not taking place properly. Cities as local authorities are not made to communicate and have to learn it so communication can take place through all channels. Although they have comparably easy access to communication channels, they often don’t use them effectively.

Blockbuster Hollywood films dedicate approximately one-

third of their entire budget to marketing and advertising. Similarly, local authorities must not underestimate the importance of communication. Resources and capacities in communication must be ensured.

Unresolved issue: Built-in obsolescence

■ In many cases, the economy profits from the linear metabolism of their cities. For instance, buildings are designed to last 25 years and no more, which is beneficial in economic terms, as it will create demand for refurbishment and re-construction. Therefore, if resource loops are closed, the current economic model that only values GDP creation will likely be disrupted. The idea of closing resource loop is addressed by the circular economy concept which aims at replacing a so-called linear growth model with a model of eco-systemic development.

The pan-European communications initiative ‘ENGAGE’ aims to produce tangible energy savings through innovative and participatory communication. The campaign produces campaign posters featuring local citizens and their energy savings contributions. So far, 74 cities have joined the interactive campaign. Similarly, in Rennes, citizens tell their story in the campaign ‘Mobil’acteur’ through short films featuring individuals who use more sustainable means of transport.

3.5 TARGETS AND INDICATORS

Indicators measure societal developments and can be useful tools to inform policymaking and influence decisions. The choice of indicator also influences how a problem is defined. In reality, the predominantly used indicators often fail to depict developments truly relevant to quality of life. Alternative indicators are already in use, but conservative indicators too often trump new ones. The most prominent example is the dominance of GDP and economic growth as measures of success amongst politicians. Social welfare and environmental indicators are crowded out, contributing to the failure of policies to address ecological and societal well-being.

“The indicators we have now are reinforcing outdated views of our society. When we look at how many litres of water per capita are being used, shouldn’t we really look at how that water was recycled, how much energy was used to heat it, where that energy came from and how many litres of potable water are flushed down the toilet every day?”

Nicolas You, Guangzhou Institute for Urban Innovation, at the Future of Cities Forum 2014

I. LEGITIMISE INDICATORS

One of the challenges related to the right choice of indicators is that politicians tend to use research and indicators that confirm their pre-existing beliefs to the point where indicators are used strategically by policymakers to bolster certain results or plans. This implies that the quality of an indicator relates directly to the process determining it. This is interrelated with a lack of transparency and availability of data for the broader public, which is indispensable for an informed decision on the choice of indicators.

A higher degree of legitimacy can be achieved by integrating citizens in the process of choosing appropriate indicators, which creates political acceptance.

“Citizens have the capacity to inform indicators and targets if given the relevant data”

Dave Ron, PIT Programs Manager, Ecocity Builders, at the Future of Cities Forum 2014

The city of Dobrich, Bulgaria has made an effort to improve the availability of data by launching a hotline and publishing relevant data in brochures and online. These activities are embedded in the cities strategy to emphasize indicators such as the number of jobs created, achieved CO2 reductions and increased quality of life in the policy making process.

II. TEST THE LIMITS

No matter how accessible the data is, there are constraints to what data can be collected and analysed. Many alternative indicators are used irregularly or with too much of a delay to impact policy cycles. The availability of data limits the choice of indicators – to an extent.

However, this should not be used as an excuse. Complex situations might require complex indicators that are worth increased efforts to collect data. Initiatives such as the BMBFs project on ‘Future Megacities’ aim to shorten the time lapse between data collection and action. The open data revolution provides the opportunity to accumulate new data more easily. Furthermore, individual households can be integrated in the data generation. For example, Ecocity Builders collect citizen-generated data, set up individual household profiles and maps and visualizes resource flows.

During the IMAGINE project, an attempt was made to give local authorities a self-assessment tool in order for them to self-evaluate the progress of their own energy transition. The grid supports three main points: (1) Evaluating the local progress or local situation of the transition towards a low energy future; (2) Guiding the decision-making process towards transition policies; (3) Triggering an internal discussion by breaking silo mentality through the use of transversal indicators.

The assessment grid eases identification of strengths and weaknesses of the local energy structure. Within the transition process it allows for regular feedback loops and for selecting relevant action fields. Thereby it can contribute to keeping track of the trajectory of change cities are going to face on their energy transition process.

III. WE MEASURE WHAT WE VALUE – AND VALUE WHAT WE MEASURE

A less technical yet equally relevant issue is the psychological barrier hindering a shift to better indicators. For instance, the very notion that potable tap water is an ‘externality’ when it is a basic good reflects the narrow economic understanding of value. Dissolving this issue will be part of a greater cultural process and it is a long-term issue yet to be solved. Generally, the indicators should be guided by what is truly important to the people.

Open questions

- The process of collecting and analysing data, choosing the right indicators, and feeding these into the policymaking process remains a complex and challenging task and one that cannot be easily framed in a political campaign. But there is a silver lining: over 70 Chinese cities have already dropped GDP – hitherto the holy grail of progress in China – as an indicator altogether.¹ And the Chinese National Bureau of Statistics (NBS) announced early this month that steps were being taken to end what it called “GDP supremacy”.²

¹ <http://www.ft.com/intl/cms/s/0/a0288bd4-22b0-11e4-8dae-00144feabdc0.html>

² <http://news.asiaone.com/news/asia/dethroning-chinas-gdp-supremacy-good-region>

3.6 RESEARCH IN POLICYMAKING

Research in urban decisions

Research and practice should inform new urban decisions and policymakers should have the opportunity to receive input from researchers. This can be facilitated by better coordination and starting collaboration earlier on in order to jointly identify what the needs of the city are.

Municipalities require support to identify their research demands and to work with universities to secure research funding. A local forum or transnational cities network can help in exchanging experiences and finding specific needs. This ensures a multi-disciplinary approach towards regenerative urban development. Research is also required to help municipalities implement their policies. This means they can set the research agenda and partner up with academic institutions to deliver relevant outcomes.

Is it a lack of funding or a lack of coordination?

In Europe, there is not enough research funding from either national or EU-level governments that was targeted at the local level. EU and EU member states should increase research funding for work between universities and municipalities to address the cities' research demands. In India, apart from policy-focused think tanks, there is a large gap between research and policy. In China, too, there is a need for research to focus on finding solutions to certain problems. Academic research too often remains in the confines of academia rather than be used to inform policy.

As research is driven by funding cycles, city politics is impacted by election cycles. Discrepancy in the timeframes of policymaking and research processes affects whether and how policymakers work in partnership with researchers.

I. PARLEZ-VOUS ACADEMIA?

The language barrier is perhaps the most significant hurdle to using research in policymaking. It is also about generating data that matters. The Chinese central government, for example, only became interested in high air pollution levels after carbon emissions were converted into costs. Economic measurements such as GDP dominate information channels. Even qualitative aspects such as social well-being and natural capital can be quantified and monetised. Scientific data that is translated into language policymakers are familiar with makes it easier for them to incorporate it into their decisions.

Policy-focused think tanks can be used to combine the efforts of research and policy. In addition, platforms such as Energy Cities can aid in transferring knowledge between researchers, consultants and municipal governments. There needs to be



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better communication in translating research results into real policy and practical action.

II. LEAVING THE IVORY TOWER TO MEET LOCAL RESEARCH DEMANDS

Is research inspired by ideas or by action? A concrete way of introducing research into local policymaking is to gear it towards solving concrete problems in the city. Local authorities play a role here not only in setting the research agenda but also in funding it. For example, PhD projects could be embedded in the various city council departments. Research commissioned by the government is more likely to be used by them; if this is not the case, it is up to intermediary facilitators to find end users and to make the results implementable.

Projects that involve multiple stakeholders – not only policymakers and scientists but also associations, NGOs and civil society – should bring together these people from the first stages to work together instead of commissioning them halfway through.

“Where and how can the city expand to minimise disruptions on transportation? Which tools help us make this decision?”

“Where is energy being consumed in the city? We need detailed data and an overview.”

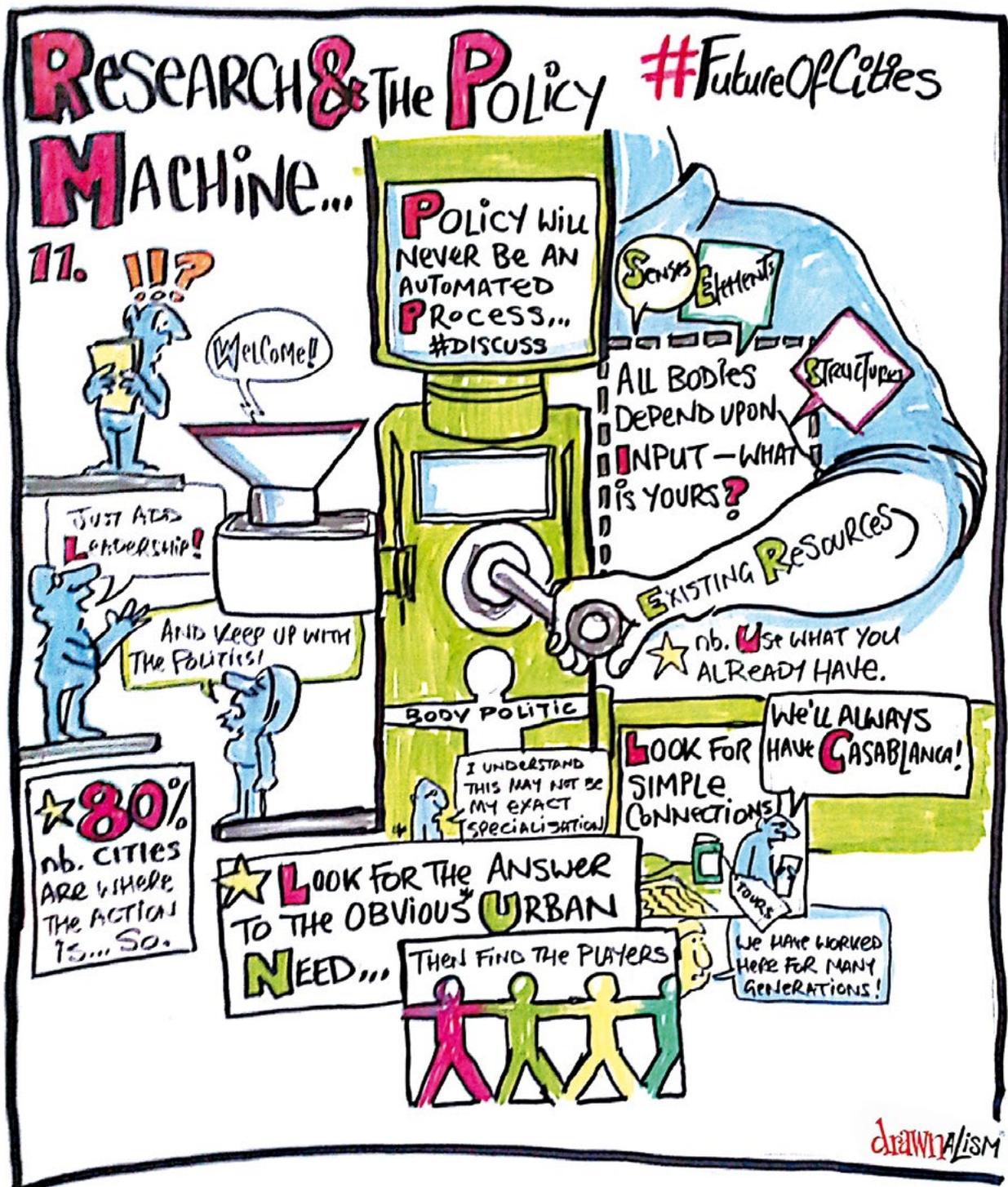
Open questions

- The influence of lobbying, especially from corporate interests, is undeniable in both research direction and shaping the policy agenda. Independence is important when research results challenge the status quo – or becomes an inconvenient truth for policymakers.

CASE STUDY: NATIONAL PLATFORM FOR FUTURE CITIES

"Our aim is to develop practice-oriented solutions which address the needs of cities."

On the national level, the German Federal Ministry of Education and Research established the National Platform for the City of the Future. Over 400 experts from local authorities, science, industry, politics and civil society worked together during the past 1.5 years to draw up a strategic research and innovation agenda for the sustainable transformation of cities and municipalities.





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3.7 BEHAVIOURAL CHANGE

I. URBAN PROCESSES AS A SUM OF BEHAVIOURS

Cities are not cities without the people. It is the needs of the people that steer the flows of energy, waste and water within a city. What makes a city a regenerative city is not only the arrangement of these flows, but also the results of the people's decisions and habits.

Individuals do not want energy per se, but rather, basic needs such as going places, eating or sleeping. When we turn on the heater, it is not because we demand heat, but rather to feel warm. It is the way people satisfy their needs and the resulting consequences that allow a city to be a regenerative or low energy – or not.

Cities, energy and climate issues and flows are complex and it can be difficult for the individual to connect their actions with all of their consequences. The role of city planners and decision-makers is to promote a city, which by its design, allows behaviours that have no or low negative effects on our environment. As a paradox, today's cities are mostly dependent on the use of polluting fossil fuels and they do not encourage environmentally friendly behaviours but many often behaviours that are counterproductive in environmental terms.

II. THE DELICATE ART OF DEALING WITH BEHAVIOURS

How can we deal with people's behaviours then? Is it enough to raise awareness or to provide individuals with a chart of their energy consumption? Energy is closely connected with mind-sets, values and behaviours which create path dependencies that need to be overcome in order to successfully change energy patterns. It is possible to observe a shift of focus from technical solutions to behavioural solutions, whereby change

comes from behaviour and not just on the technologies. Fear of change, however, is human.

Open questions

- Can behaviours be changed through education?
- Who decides what the desired behaviours are?
- We are at a stage where we quite clearly know what to do but we are not doing it. Is it a problem of creating conditions for letting things happen (public authorities deliver conditions) or is it a problem of individuals that do not seize opportunities or have the courage to act differently?
- What is the role of local authorities in changing behaviours?



At the Future of Cities Forum 2014: (from left) Peter Marland, Leader, Milton Keynes Council; Sylvia Franzl, Directorate Manager Environment, Department of Health and Environment, Munich; Claire Roumet, Executive Director, Energy Cities



Mayors demonstrating in favour of a local energy transition at Energy Cities' Annual Conference 2013, Växjö

4. BUILDING POLITICAL WILL AND LEADERSHIP

I. WHAT IS LEADERSHIP?

Today, the complexity of political exchanges has changed the policymaking process. Along with classical vertical governance (International – national – local), horizontal governance has emerged. In Europe, for example, cities now can have direct access to the European level. At the regional or local level, cooperation is increasing as it has become obvious that the different decision-making instances have to fit within a larger multi-level governance model.

In the meantime, the rise of environmental issues that have forced people to think in terms of long-term development and consequences have brought up new kind of claims and leadership from the civil society. The concept of a leader or urban decision maker is being redefined to include actors beyond the political sphere. For example, local community groups or organisations may set up independent bodies to work in partnership with the municipal government. This is, to some extent, a reflection of the increasing role played by public participation in some countries that encourage those in political office to take up grassroots or community-led initiatives. In European cities it is difficult to implement policy without some endorsement from citizens.

“Community groups often show the way.” – Claire Roumet, Executive Director, Energy Cities, at the Future of Cities Forum 2014

On the municipal level, decisions tend to face a conflict between short term and long term aims, driven partly by

political career goals and issues surrounding duration of office but also by the reality of on-the-ground everyday problems in running multiple systems within a city. Leadership is the ability to navigate these different timeframes, processes and interest groups.

II. RAISING AWARENESS

Political decision makers are uniquely positioned to advance and implement a vision and plan for regenerative urban development. They can help define the fiscal and budgetary priorities that serve as an indicator to other actors on what the policy direction is.

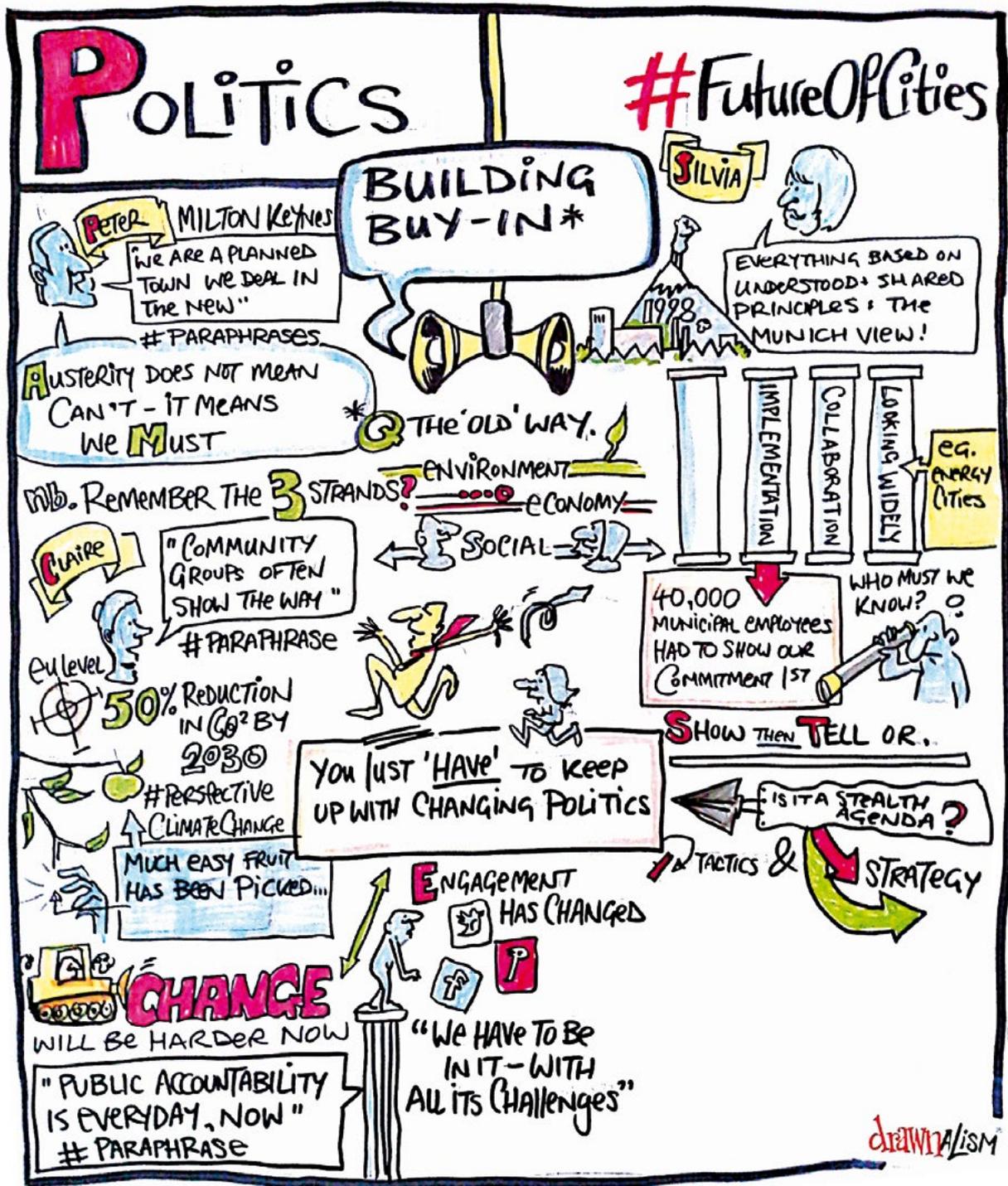
There is a movement of growing awareness of the increasing risks of our existing carbon-based growth paradigm and the more attractive, affordable and sustainable alternatives. Creating this awareness among all stakeholders is a precondition to creating the political will needed in the regenerative transition. The voices of citizens, local businesses and other interest groups in the city can be used as leverage not only to pressure policymakers but to provide support and legitimacy for their decisions. This is especially pertinent given that citizens can be more ambitious than their political leaders in creating a more regenerative city to live in. We see that this tends to be the case in democracies but also in places where policymakers are not elected representatives.

III. MULTI-LATERAL COMMUNICATION

Inclusive communication lies at the heart of this dynamic.

The common interest binding all actors is the desire to improve the quality of life within the city. It is easier for policymakers to address concrete issues – such as mobility, resource use, public space and local jobs – that affect residents’ day-to-day lives rather than global issues like climate change and planetary habitability. Communicating positive solutions to problems is also more likely to motivate both decision makers, as it provides them with viable options, and their constituents. The will to make hard choices comes from a sense that such choices can and will improve the city.

The emerging political vision in the Milton Keynes urban council centres on building consensus and a grassroots manifesto by listening to their constituents and their concerns. It has recognised the need for flexibility around the vision of which direction to take due to the diversity of voices. “Innovate, explain, implement.” – Peter Marland, Leader, Milton Keynes urban council, on the three keys to his work – at the Future of Cities Forum 2014



5. CONCLUSION

Given the urgency of the problems that we currently face, we cannot responsibly postpone action any longer. Ideas need to be translated into tangible solutions. Fortunately, we know what needs to be done – and which tools and building blocks to use to help us do it!

- **Foster local solutions.** Engage citizens in a community-centred approach and encourage all members of society to participate, especially the ones who are traditionally underrepresented.
- **Reach out across different sectors.** Recognise the different roles played by different actors and work together with them to form a stronger network. Communicate respectfully and constructively.
- **Adopt targets and indicators that reflect our values.** To have a positive impact on individual and community well-being, understand what their needs are and what is important to them.
- **Set a clear long-term vision.** Communicate shared objectives and goals to inspire and coordinate individual efforts towards a common urban future.
- **Reconcile policymaking and research.** Policymakers and researchers are natural allies too often isolated from each other by language, method and timeframe. Begin dialogue in the early stages of a project to align goals and process.
- **Change individual behaviour through dialogue, education and awareness-raising.** Small individual changes add up and can shape a collective outcome with a much greater impact.

We need to foster a social, economic and political environment which promotes local initiatives and community-based projects, which prompts people to undertake real action and which facilitates pro-activeness and engagement from all possible actors. An inclusive action-focused approach is the ultimate key that will allow us to move from imagining a regenerative vision to making it a reality.

IMAGE CREDITS

Shutterstock: cover page
 Andreas Gebert: pages 2, 6 (left), 7, 8, 12, 14
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City Of Geneva: page 9 (top)
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Federal Ministry
of Education
and Research

The **Federal Ministry of Education and Research (BMBF)** of Germany provides funding for science and research (ranging from basic research to cutting-edge technologies), supports talented young people whether it be at school, during training or in higher education, supports early career researchers as well as fosters international exchanges of apprentices, students and scientists.

Together with the Länder, the BMBF is also responsible for non-school vocational training, continuing education and training assistance.

World Future Council

The **World Future Council** brings the interests of future generations to the centre of policy making. Its 50 eminent members from around the globe have already successfully promoted change. The Council addresses challenges to our common future and provides decision-makers with effective policy solutions. In-depth research underpins advocacy work for international agreements, regional policy frameworks and national lawmaking and thus produces practical and tangible results.



Energy Cities is the European association of local authorities in energy transition. With a membership of over 1,000 local authorities in 30 countries, Energy Cities aims to accelerate the energy transition by reinforcing its members' capacity for action. From 2013 to 2015, Energy Cities is under the Presidency of the City of Heidelberg, Germany with a Board of Directors of 11 European cities.



The **"IMAGINE low energy cities" project** (2012-2014) gathered 10 partners: Energy Cities as coordinator, HafenCity University as academic partner, and the cities of Bistrita (Romania), Dobrich (Bulgaria), Figueres (Spain), Lille (France), Milton Keynes (United Kingdom), Modena (Italy), Munich (Germany) and Odense (Denmark). These local authorities involved local stakeholders in co-building their Local Energy Roadmaps 2050 thanks to participatory approaches. These pilot cities have shared their experience in a "Low-Energy City Policy Handbook" which offers a unique toolbox to help municipalities find their own starting point and suitable path towards a sustainable and desirable future. www.imaginelowenergycities.eu > Publications

Future of Cities Forum
IMAGINE Regenerative Urban Development

The **Future of Cities Forum** is the result of the Expert Commission on Cities and Climate Change, a co-operation between the World Future Council and HafenCity University Hamburg. The objective of the commission is to steer public awareness towards the responsibilities of cities in the age of climate change, identify the main obstacles to progress, and facilitate the exchange of knowledge. Furthermore, it aims to encourage the widespread implementation at local, regional, national and international levels of effective policies that accelerate regenerative urban development worldwide.

