MUNICIPAL FINANCE

Perspectives from Europe

INTERNATIONAL URBAN COOPERATION PROGRAMME
LATIN AMERICA AND THE CARIBBEAN

INTERNATIONAL URBAN COOPERATION
European Union

MUNICIPAL FINANCE

In 2006 the energy demand of cities accounted for 67% of world primary energy demand and is expected to grow to 73% in 2030 which resulted in greenhouse gas emissions (GHG) of 70% in 2006, which would increase to 76% in 2030. The construction of more infrastructure and, at the same time, environmentally friendly infrastructure calls for a transformation process not only in political decision making processes, human behavior and applied technologies, but also in the way cities are financing their future. It call for 'green' financing.

What is green finance?

Green Finance stands for the responsibility of the financial sector in supporting the reduction of GHG emissions and creation of a climate resilient economy. It includes all parts of finance such as green banking, green stock markets, green financial ratings, green insurance companies and, of course, green municipal finance (GMF). GMF is crosscutting through a number of green finance topics such as green banking and financial instruments such as loans, but also when the issuance of green bonds is discussed. Financial instruments have an impact in ecological factors in the sense that what they finance should follow "green" standards and criteria. For GMF it is important to understand how financial instruments can stimulate growth and green behavior of citizens and enterprises.

Objective of green municipal finance

The overarching objective of GMF is to support the development of cities to provide necessary infrastructure in a socially and environmentally sustainable manner. GMF is the foundation on which livable green cities are built. It is embedded in the context of national policies, the regulatory environment and the institutional framework under which it works. This enabling framework provides the mandates and mechanisms that enable local decision makers to undertake green investments and prioritize them as well as to design proper green revenue sources to pay for them.

Policy Overview

Green municipal finance (GMF) in Europe is not an individual policy, but it is embedded in a complex system of various legislations, strategies and supporting measures. The basis for GMF is the Europe 2020 strategy set in March 2007. It is part of Europe's overall objectives for smart, sustainable and inclusive growth. The EU is subscribed to limit Global Warming to below 2°C compared to the average temperature in pre-industrial times to prevent the most severe impacts of climate change and possibly catastrophic changes in the global environment. To deliver, the strategy focusses on 5 key areas being employment, innovation, education, poverty reduction and climate/energy. Europe 2020 represents an integrated approach to climate and energy policy that aims to combat climate change, increase the EU's energy security and strengthen its competitiveness. Known as „20-20-20" the following targets have been set for 2020:

- A 20% reduction in EU greenhouse gas emissions from 1990 levels

• Raising the share of EU energy consumption produced from renewable resources to 20%

• A 20% improvement in the EU's energy efficiency

The climate and energy package is binding legislation, meaning that EU member countries need to adopt and implement it through their national legislative procedures. Currently the EU has 28 member countries . Each of them has or is in the process of adopting their individual climate policy. How this is done differs a lot and depends on a whole range of factors such as historical setting of decision making processes, current baseline scenarios, economic and financial situation, legislative framework etc. To ensure that the Europe 2020 strategy pushes through, a strong and effective system of economic governance has been set up to coordinate policy actions between the EU and national levels.

The climate and energy package comprises four pieces of complementary legislation which are intended to deliver on the 20-20-20 targets:

• Reform of the EU Emissions Trading System (EU ETS)

• National targets for non-EU ETS emissions

• National renewable energy targets

• Carbon capture and storage

Energy efficiency targets are not included in this packed, but addressed though the 2011 Energy Efficiency Plan and the Energy Efficiency Directive . In addition and to extrapolate Europe 2020 the following main policies and strategies have been adopted which have an impact on GMF:

• The 2030 Framework , which was agreed upon in October 2014 foresees to reduce GHG emissions by 40% compared to 1990 baselines and also sets a target of at least 27% for renewable energy and energy savings by 2030. The law is comprehensive and unifies various aspects of climate change. The extension of the EU 2020 package was felt to be necessary to provide regulatory certainty for investors, acknowledging the great importance of the private sector and to help coordination efforts between member countries.

• The 2050 roadmap set the longer-term perspective already in 2011 looking beyond short-term objectives. It aims at a reduction of GHG emissions by 80-95% below 1990 levels through domestic reductions alone by 2050 as part of the Resource Efficient Europe flagship initiative. It provides a perspective how the main sectors responsible for Europe's emissions - power generation, industry, transport, buildings and construction, as well as agriculture - can make the transition to a low-carbon economy most cost-effective.

• The EU Adaptation Strategy which was formulated in April 2013 was the strategy supports action by promoting greater coordination and information-sharing between Member States, and by ensuring that adaptation considerations are addressed in all relevant EU policies.

• The Energy Efficiency Directive of 2012 is a legally binding measure to step up the use of more energy efficiency measures at all stages of the energy chain. Measures include the requirement to establish

energy efficiency obligations schemes (or equivalent alternative measures), a 3% annual renovation obligation of central government buildings, the promotion of energy audits and others.

The EU splits its policy in climate change mitigation and adaptation: The London School of Economics has come up with a worldwide study on climate relevant legislation in individual countries .The study covers 98 countries' national laws and policies directly related to climate change mitigation and adaptation (EU is taken as one block of countries). Since 1997 the number of policies has increased substantially from 446 in 1997 to 804 in 2014. Framework laws, such as the EU 2030 are seen as an efficient instruments because they unify existing policies and encourage new policy measures. Most countries combine under the framework laws on mitigation and adaptation actions:

Germany for examples passed a framework law in 2014 which included various activities such as transport specific measures, a reform of the ETS trading system and energy efficiency in houses and buildings. The national budget was increased for energy efficiency measures from €2.4billion p.a. to 4.2 billion p.a.

EU project development advisory and knowledge/information

To see the EU 2020 policy through at the level of municipalities, the EU has launched the Covenant of Mayors. It is a platform to endorse and support the efforts deployed by local authorities in the implementation of sustainable energy policies. This is direct municipal support coming out of the EU 2020 strategy. Local and regional authorities commit voluntarily to increasing energy efficiency and use of renewable energy sources on their territories to achieve the 20-20-20 objectives. Currently 6348 cities have signed the Covenant of Mayors ranging from small villages to major metropolitan areas such as London or Paris representing over 204 million inhabitants (of about 506 million inhabitants in total).

Signatories commit to a baseline inventory from which the Sustainable Energy Action Plan results, which will then be implemented, monitored and documented. The SEAP is the key document in which the Covenant signatory outlines how it intends to reach its CO2 reduction target by 2020. It defines the activities and measures set up to achieve the targets, together with time frames and assigned responsibilities and is part of the local. The post 2020 period requires so called intended nationally determined contribution (INDC), which is a vehicle to communicate how a country will cope on a national basis . Each country decides its own appropriate contribution to reduce emissions. The INDC will include domestic policies and planning processes that will drive transformative change over the longer term.

The Covenant of Mayors works with so called Covenant Coordinators which are public administrations providing strategic guidance, financial and technical support to municipalities signing up to the Covenant of Mayors but lacking necessary skills and/or resources to fulfil their requirements. They may be sub-national authorities (e.g. other municipalities) and national bodies (e.g. national energy agencies). They play an important role in the distribution of best practices, alignment of EU and national polices and regional integration.

EU funding and financing

To see the various policies through, the EU provides funding in support of the EU 2020 strategy. At least 20% of the EU's €960 billion budget for 2014 to 2020 (about €180 billion) should be spent on protecting the climate. This is on top of funding from individual EU countries.

To comprehend GMF in Europe it is important to understand the leverage effect and impact EU funds have. Most EU funds are designed to either co-financed or supporting financial instruments that attract a multiple of funds from financial institutions and other investors. This lead to an “EU mobilized size” of funds of €2 trillion or 2% points of GDP, i.e. two times the investment . Based on this experience e.g. the energy and external action related funds such as the European Energy Efficiency Fund and others are expected to increase the fund size from €1 billion in EU support to €25 billion. Funds and projects under the EU-funds are therefore measured as to the leverage effect they have.

The European Investment Bank (EIB) plays an important role in financing GMF as it is the bank for the European Union representing the interest of the EU. More than 90% of the overall activity is focused on Europe, where the multilateral bank finances sustainable investments as part of the EU policies. The instruments used are

1. Lending: The vast majority of the financing is through loans, but guarantees, microfinance, equity investment, etc. are also offered
2. Blending: Through the EIB support financing from other sources is unlocked, particularly from the EU budget. This is blended together with banks’ own funds to form the full financing package.
3. Advising: EIB takes to role of an advisor to help with administrative and project management capacity which facilitates investment implementation.

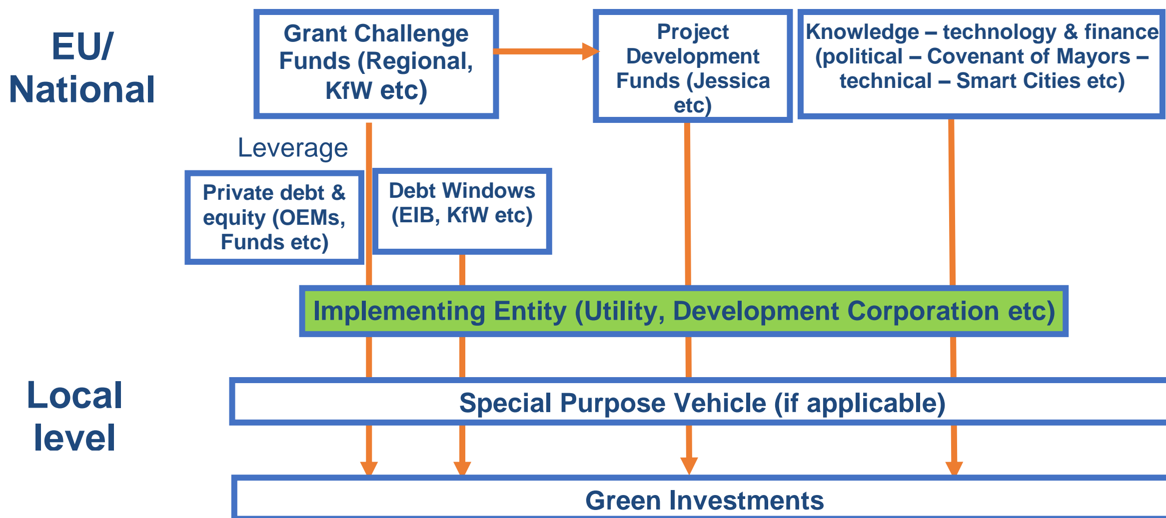
Climate finance is one of their four strategic focus areas. Project development support and catalyst finance for regard to urban environment, sustainable transport, energy and water projects are available through two main EU funds – the Joint Assistance to Support Projects in European RegionS (JASPERS) and the Joint European Support for Sustainable Investment in City Areas (JESSICA). At the same time the EIB is manager of a number of municipal funds in other countries such as Turkey . These funds are partly funded by the EIB and leverage with national resources.

Another major European bank is the European Bank for Reconstruction and Development (EBRD). It was founded in 1991 to create a new post-Cold War era in central and Eastern Europe, furthering progress towards ‘market-oriented economies and the promotion of private and entrepreneurial initiative. It is owned by 64 countries, the European Union and the European Investment Bank. As such, part of the funds used by the EBRD are also EU budget related financial sources . The Figure below gives an idea on how complex (and confusing) EU funding can be:

The Covenant of Mayors generated a table of available sources from the EU that support them best, see Figure 22. The programs help in the planning and/or in the implementation process of the SEAP. In addition to these EU funding sources, other financial programs can be tapped some of which support municipal finance directly, some of which target climate finance and include municipalities as eligible recipients such as the aforementioned JESSICA and JASPER.

Enabling Framework Overview. The key enabling institutions for EU GMF are described in the following figure.

Key Institutional Supports from EU GMF



Source: M. Lindfield, EC Link

While not perfect or fully resourced, this structure constitutes a model that can be discussed with Chinese regulators and cities in order to structure their approaches to green/ climate investments. Key elements of the structure, at its best, are:

- Grant challenge funds to address, inter alia, the issue that there are Viability Gap funding issues relating to environmental investments with external benefits;
- Project development facilities to ensure appropriate design and structuring of projects/ programmes;
- Knowledge networks – at both the political and technical levels;
- Large scale financing institutions with capacity to ‘’crowd in’’ the private sector; and
- Well-structured implementing entities – many ‘’off balance sheet’’ of local governments – capable of utilising a wide range of financing and funding models and having flexibility in structuring projects.

The system works best if all components are present, coordinated and functioning effectively.

Adaptation Finance - Adaptation / Resilience to Climate Change

Financing adaptation in EU countries does not follow a standard approach. While city level adaptation plans have arisen through a number of different opportunities, they were mostly initiated through EU funding options. EU funding is extremely important to the process it is, however seen as a disadvantage that the funding is only project specific and does not finance a whole stream of activities related to adaptation in cities. Mayors Adapt is an EU initiative to train and exchange knowledge among

stakeholders in support of the EU Adaption Strategy at the level of the Covenant of Mayors initiative. The Urban Adaptation Support Tool* provides a step-by-step guidance through the planning and implementation cycles and links to a data-base and other information underlining each step. The six stage process is a practical guidance to help project partners develop individual Climate Change Adaptation Action Plans. The tool is constantly fed by users, who give input and additional help so that it stays a very dynamic instrument.

There is no individual EU financing program for adaptation, but the topic is cross-cutting through all EU financial support initiatives. The European Structural Investments Fund , LIFE and Horizon2020 are expected to support the bulk of the investments in addition to countries own national funds and funding stemming from EIB and EBRD.

Auxiliary instruments to adaptation finance are insurances as they help manage the impacts of climate change. Relevant for cities are the so-called cat bonds* (municipal catastrophe bonds) through which cities can insure themselves against the financial impacts of a disaster such as flooding, earthquakes and other. Cities may group a number of risks, however, they must be clearly defined to specify the event and nature of the risk. Cat bonds are issued by insures who diversify their risk and at the same time extend their ability to insure cities. The bond is sold to mainly institutional investors, who are attracted by the higher yield of the bond and of its non-correlation with equity and other bond markets. Cat bonds are a kind of risk sharing mechanism: in the event of a disaster, the city will have immediate access to finance, the investor however, may lose principle and interest rates and/ or the repayment will be deferred. Cat bonds become an interesting option for municipality to hedge the latent climate change risks in Europe.

Mitigation Finance

In contrast to adaptation, there a number of different initiatives relating to the financing of mitigation projects. These cases are divided into knowledge initiatives at the EU level and financing/ incentive systems at the EU and national level.

The program is funded by a large variety of different funds, such as JESSICA and ELENA, but also other sources. To guide cities through the process the EU has issued guidelines how to use which funds (*Guidance instrument: Using EU funding mechanism) and how to best leverage EU funding sources (*Guidance instrument: Financing Models for smart cities).

In addition, the Market Place of the European Innovation Partnership on Smart Cities and Communities was established, an online platform leading to additional information on topics such as urban mobility, creating online clusters and linkages between cities and regions .

Context and Future Needs

Europe provides a good reference point for China in relation to creating the right environment for low carbon financing. Like China, Europe also has large-scale investment needs as many of its infrastructure and power plants are due for upgrades. Furthermore, in order to achieve the emission reduction targets of at least 40% by 2030 and 80% by 2050, Europe needs huge amount of investment in energy efficiency and low carbon and clean energy, its transport system and building stocks. For example, power sector investment needs to increase by 2.5 times from BAU levels over the next 10 −20 years.55 Investment in energy efficiency needs to increase significantly – with over EUR60 - 100 billion per year needed for

buildings just to 2020 56 – and has a far weaker supply chain and financial infrastructure supporting it. So far, financing had been done by energy companies on balance sheets; but some of the offshore wind projects require capital investment bigger than the market capacity of the biggest utilities.57 Also, project finance has become harder to get as banks no longer lend the volumes of debt they used to.

Similarly to China, Europe also has to deal with the high(er) risks associated with low carbon solutions and limited public finance. Decarbonisation of its energy sector, for example, is shifting investment from lower capex, better understood assets with higher running costs to investment with higher capex, less well-tested assets with lower running costs. The aggregate investment costs mask a non -trivial large-scale shift in investor preferences from well-understood high carbon industrial sectors, business models and technologies to less mature and more policy -dependent low carbon ones. This is needed at a time when the financial markets are recovering from financial and economic crises. Even without the financial crisis, Europe would be facing a low carbon investment challenge given the huge investment needed to decarbonise its economy. To meet these challenges, a few European governments and institutions have made the decisions to refocus public finance to climate. This is because – as in China – private sector finance will not flow to the right investments without direct public finance interventions and regulatory/market reforms to reduce risk. In the UK, the government has set up the Green Investment Bank (GIB) to address the market failure and enable investments in the green sector – its priority sectors are offshore wind, waste, domestic and non-domestic energy efficiency. It currently has £3.8 billion under management and its current leverage ratio is 1:3.59 Similarly, the European Investment Bank is also focusing on leveraging private sector investment in low carbon/green sectors, through starting to screen energy projects for climate impacts – introducing an emissions performance standard of 550gCO2/kWh in 2013 – and streamlining lending to energy efficiency and renewable energy projects.60 In addition to meeting climate targets, public finance can also provide resilience to boom and bust investment cycles that will otherwise derail Europe's decarbonisation pathway, as private finance is withdrawn in times of shortage.

At the same time, Europe is undertaking financial reforms to address gaps exposed by the financial crisis and meet future challenges. This has inadvertently created unfavourable conditions for low carbon investment in Europe: capital requirements on banks have increased; Solvency II regulation risks reducing the ability of pension funds to invest in long dated illiquid assets; and public accounting rules for PPPs and guarantees are unclear.61 Furthermore, market liberalization rules can also have perverse impacts on low carbon investment: European State Aid rules aiming to avoid market distortions resulting from public finance interventions limit the role of the UK GIB and other public banks in some areas (e.g. guarantees), including their ability to blend different sources of public finance (e.g. grants, loans and guarantees).

As in China, Europe needs to make sure that its financial reforms are aligned with its climate objectives. Specifically, it needs to create a long-term regulatory framework to provide certainty for the commercial sector – effectively 'procuring' energy and energy efficiency from the market: (i) Addressing market capacity limits – through introducing a bigger role for public banks to encourage investment at scale and creating financial regulation that is conducive to low carbon infrastructure investment; (ii) designing investment grade policy frameworks – the need for targets and for policies that are transparent, of suitable duration, avoid retroactive adjustment and are easy to comprehend; (iii) driving regulated asset base investment – accelerating the process by which regulators provide clarity on what is required from

regulated investment as well as early clarity on who pays for innovation; (iv) tackling the aggregation challenge – ensuring policy-makers focus on ensuring both small and large scale infrastructure investment is adequately incentivized; (iv) scaling up support for development and deployment of innovation technologies – a renowned public investment effort to secure high quality European jobs and revenue flows for the future.

GMF in Europe

GMF as an important part of overall green finance is currently at an early stage in its development but is considered as potentially playing a critical role in development of low carbon and climate resilient cities. Of particular importance is the power of municipalities to set fees and charges that incentivize green investment and penalizes behaviors that adversely impact the environment is seen as key to sustainable GMF. There are opportunities to create new own-source revenues. This is not to say that cities in the future can cover all their environmentally-related expenses, but experience has shown that creative designs for revenue enhancement can make a significant contribution.

External finance from other levels of government, from multi-lateral organisations, and from the private sector will still be needed. This is accepted worldwide as can be seen in the development of the new Green Climate fund, and other sources of climate. Municipalities should benefit from this development especially in the area of adaptation projects, which are given priority.. Given that the private sector needs to play an enormously important role in financing green infrastructure, the alignment of national and local planning and support for private sector involvement will become more important.

To make more informed decisions about the level of decarburization effort needed, some countries have set up multi-stakeholder platforms at the national level that allow consolidated and integrated discussions and decision making, incorporating the multi-dimension elements of climate change. For example, the French government set up the ‘Grenelle de l'environnement ’ in 2007, which is an open cross-party debate in France that brings together representatives of national and local government and organizations (industry, labour, professional associations, non-governmental organizations) on an equal footing, with the goal of arriving at a unified position on a specific theme, and then drawing up a plan of action of concrete measures to tackle the environmental issue, which can include climate change. Through this process, the government managed to adopt targets and measures to promote energy efficiency and renewable energy. However, a plan to introduce a carbon tax has not yet materialized. A similar process also takes place in the UK through the electricity market reform debate and the new GIB, where dialogue around how to finance the investment needs of a ‘greener’ economy in the UK are playing out.

Lessons Learnt

Lessons learnt are of course based on the context of individual experience resulting from the projects undertaken. Below the most common success factors are summarized on an aggregated level:

1. Political support and coordination at a local and at the higher government levels
2. A long and thorough planning period/alignment with long-term national and municipal plans
3. Transparent financial intergovernmental support (if any)/reliability of relevant laws
4. Use established national institutions through which to operate (related to finance, administration and organization)

5. Involvement of public/civil society at an early stage to bring up acceptable ideas and better business cases (not the “you” but the “we” counts)
6. Start at an early stage to retain internal knowledge base/ reduction of costs for external consultancies
7. Mix of skills (political-technical-financial level) important in the early stages of project design and through- out the process (e.g. to formulate tender documents)
8. Preparation costs of projects/ design of financing schemes will decrease over time
9. Keep design and objectives of GMF transparent, simple and well documented
10. Review demand situation carefully, start create a project pipeline at an early stage and review it frequently, consider that the user base will change over time
11. Ensure a rigorous project prioritization process is conducted across sectors and includes funding considerations.
12. Provide project development technical and financing support for green projects.
13. Provide catalyst funds to ‘’crowd in’’ the private sector.

IUC-LAC PROGRAMME

The International Urban Cooperation Programme - Latin America and the Caribbean (IUC-LAC) connect cities in different regions of the world to get in touch and share solutions to common problems. This initiative is part of a long-term strategy of the European Union to promote sustainable urban development in collaboration with both the public and private sectors and with civil groups and citizens. Through participation in the IUC-LAC, Latin American municipalities exchange knowledge with their counterparts in Europe, thus building a greener and more prosperous future.

IUC-LAC activities promote the achievement of political objectives and important international agreements on urban development and climate change, such as the EU Urban Agenda, the UN Sustainable Development Goals and the Paris Agreement.

Author and Editor: Florian Steinberg
Year of publication: 2020

* All the aforementioned information is based on internet and published source mentioned in footnotes.

The contents of this case study are the sole responsibility of the IUC-LAC and can in no way be taken to reflect the views of the European Union.