



Covenant of Mayors

A Climate Protection Initiative by European Municipalities –
Experiences, practical examples, successful approaches



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Registered offices:
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Dag-Hammarskjöld-Weg 1-5
65726 Eschborn, Germany
T + 49 61 96 79-0
F + 49 61 96 79-11 15

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Coordination:
Dr. Marian Rzepka
Teresa Dorfner

With contributions by:
Dr. Astrid Denker
Teresa Dorfner
Andreas Gruner
Strahil Panev
Dr. Marian Rzepka
Agnieszka Schirru-Nowicka
Brian Schjertzer

Editor:
Andrea Hahn

Translation:
Nick Charles Gemmell

Design:
Alexandra Müller

Image credits:
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Energy and climate: Spheres of action for municipalities

Over the last several years, municipal energy and climate protection management has become a central working area within German development cooperation. Municipalities are faced with immense and multi-faceted challenges: increased spending on energy is a strain on the inhabitants as well as public budgets. As a result, many municipalities are witnessing growing engagement in the area of climate protection. Many, however, do not possess the necessary professional, administrative and financial wherewithal nor do they have sufficient legal or political mandates that would allow them to establish independent and effective systems for energy and climate protection management.

As a cross-cutting issue, energy and climate protection affects many sectors beyond production, distribution and efficient use. Related areas include urban planning, water supply, sewage, waste management, transportation, green space management, farming and industry. The latter apply to sectors that fall within the municipal sphere of influence, as in the case of municipal utilities and municipal industry parks.

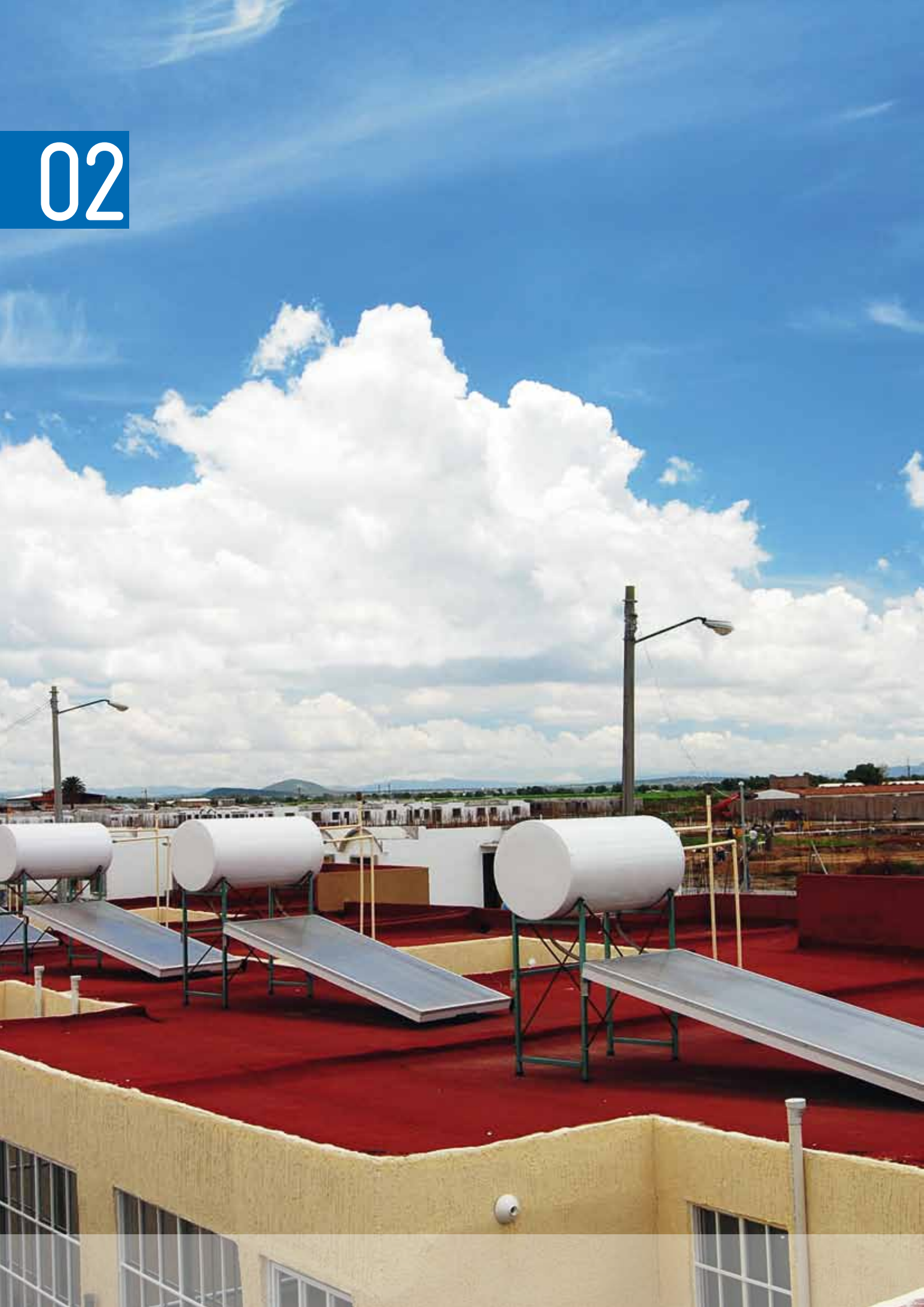
Municipalities have become attractive partners within international development cooperation as they are situated at the nexus of policy formation and implementation. Particularly in countries with instable national governments or weak national partner institutions, municipalities present opportunities for taking action locally, without necessarily severing contact to the national level. City and municipal associations often act as conduits for transferring

experience from the local level to the level of national policy creation.

Local governments play a decisive role in relation to climate protection: cities and towns account for 80 % of aggregate energy consumption and CO₂ emissions. In order to support municipalities in the creation of sustainable energy policies, the European Commission has established the Covenant of Mayors (CoM) within the framework of the European Union's Integrated Energy and Climate Package, enacted in 2008.

Commissioned by the Federal Ministry for Economic Cooperation and Development (BMZ), GIZ GmbH assists cities and municipalities in fulfilling the requirements of the CoM. The present publication presents experiences from the field, highlights achievements and sheds light on obstacles and challenges that have arisen in daily cooperation with partner institutions. Approaches and methods that have been utilised in cooperation work in cities and municipalities are also described. Furthermore, the report highlights the need for action and possibilities for creating future projects. The publication is meant to serve as informational material and a basis for further discussion for staff that work with municipalities in the energy sector and are involved in planning future energy initiatives.

02



How does the Covenant of Mayors work?

A European climate change movement

‘The Covenant of Mayors’ is a mainstream European movement involving local and regional authorities, voluntarily committing to increasing energy efficiency and use of renewable energy sources on their territories. By their commitment, Covenant signatories aim to meet and exceed the European Union 20% CO₂ reduction objective by 2020.

(www.konventderbuergermeister.eu/about/covenant-of-mayors_de.html)



The initiative develops and strengthens partnerships between municipalities as well as with regions, states and the EU. Support is provided by the Covenant of Mayors Office (CoMO), the European Commission, and European, national and regional networks and municipal associations. As of December 2012, there were 100 active coordinators – including energy agencies and associations of local authorities – and 76 official supporters that use their regional and expert knowledge to individually advise participants. The CoM has managed to transform itself from an ambitious start-up idea into an internationally recognised climate protection movement for cities and municipalities within just a few years, having expanded beyond the borders of Europe.

Over 4,580 municipalities of varying sizes, home to upwards of 185 million residents, have signed the CoM to date (as of December 2012).

Even though the CoM has been set up as a European initiative, it also provides a platform for non-EU states in Eastern and Southeast European states (such as Belarus, Bosnia and Herzegovina, Montenegro, Serbia and Ukraine) to implement energy and climate protection strategies.

Overview: The three steps towards joining the Covenant	
Step 1	Compilation of a baseline emissions inventory and drafting of a 'Sustainable Energy Action Plan' (SEAP)
Step 2	Implementation of concrete measures laid out in the SEAP with resident involvement
Step 3	Regular documentation of activities in implementation reports
Detailed information pertaining to the processes within each step can be found at the official website: http://www.covenantofmayors.eu/	

Here's how the process gets off the ground

Step 1: Signing of the Covenant

Once a municipality has decided to join the Covenant of Mayors, the first step involves signing a declaration of membership.

The creation of appropriate administrative structures follows next. An entity that will be responsible for implementing the CoM should be provisioned with sufficient staff and financial resources, and should also possess the necessary skills and mandates. These should correspond to the requirements for creating policies that ensure sustainable municipal energy management. The municipality is then obligated to submit two foundational documents to the CoMO:

- a baseline emissions inventory
- Sustainable Energy Action Plan (SEAP) that has been approved by the city or municipal council

Compiling a baseline emissions inventory and drafting an SEAP can be challenging and require significant time investment, requiring the process to be systematically planned and continuously guided. This functions best when the organisational bodies comprising the municipal administration – including the offices of environmental protection, urban planning, economy, social security, building and infrastructure management, transportation, finance and purchasing – work together and act in agreement. Sustainable energy management should be made a crosscutting topic within a general municipal strategy and be anchored in all municipal activities.

Step 2: Submission of the action plan

The Joint Research Centre (JRC), a department of the EU Commission, verifies all submitted documents. Once the JRC has accepted a baseline emissions inventory and SEAP, a municipal profile is publicised on the CoM website for all interested parties to view.

Participating municipalities are furthermore obligated to involve residents and other important actors in the CoM process and to promote the idea of the CoM to other communities beyond the municipal administrative borders through participation in networks and active marketing.

Step 3: Submission of implementation reports

Once a municipality has submitted its SEAP, it is obligated to turn in an implementation report pertaining to the status of planned measures and projects and the resulting environmental effects. With these, the JRC can check if progress corresponds to envisioned goals; the status of implementation may also be verified by external contractors. Should a municipality fail to meet its proposed commitments, it may be asked to resign from the Covenant.

The heart of the process: The Sustainable Energy Action Plan

The SEAP is meant to focus on measures that target the reduction of CO₂ emissions and energy consumption. These measures should involve the entire community and the municipality should set an example for others to follow; this includes monitoring energy use in public buildings, facilities and vehicle fleets.

In addition to buildings and transportation, the SEAP should also address local electricity production (developing facilities for photovoltaic, wind energy, combined heat and power (CHP), and improving local electricity production) as well as local heating and cooling generation. SEAPs should likewise include provisions for building codes as these are crucial for influencing energy consumption.

Local industry and business are not included as one of the primary target groups of the

Covenant of Mayors; municipalities can themselves decide the extent of engagement with these sectors.

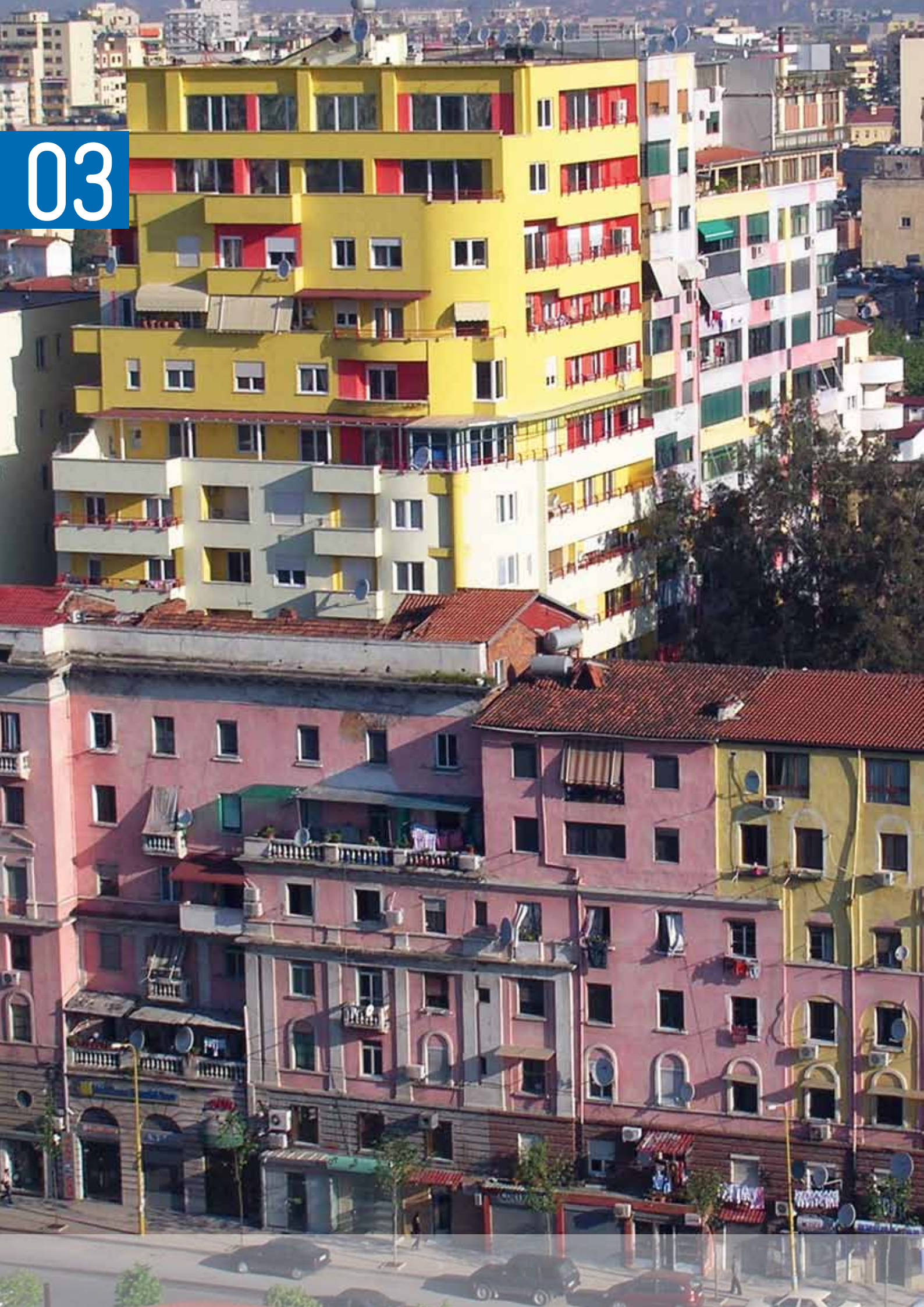
Nearly half of participating municipalities have already submitted SEAPs which are currently under review. The SEAPs from 509 municipalities have successfully been accepted by the EU (as of December 2012), while 40 have been rejected.



Sustainable energy management as a crosscutting issue



03



Why have cities and municipalities decided to join?

Treading new ground together

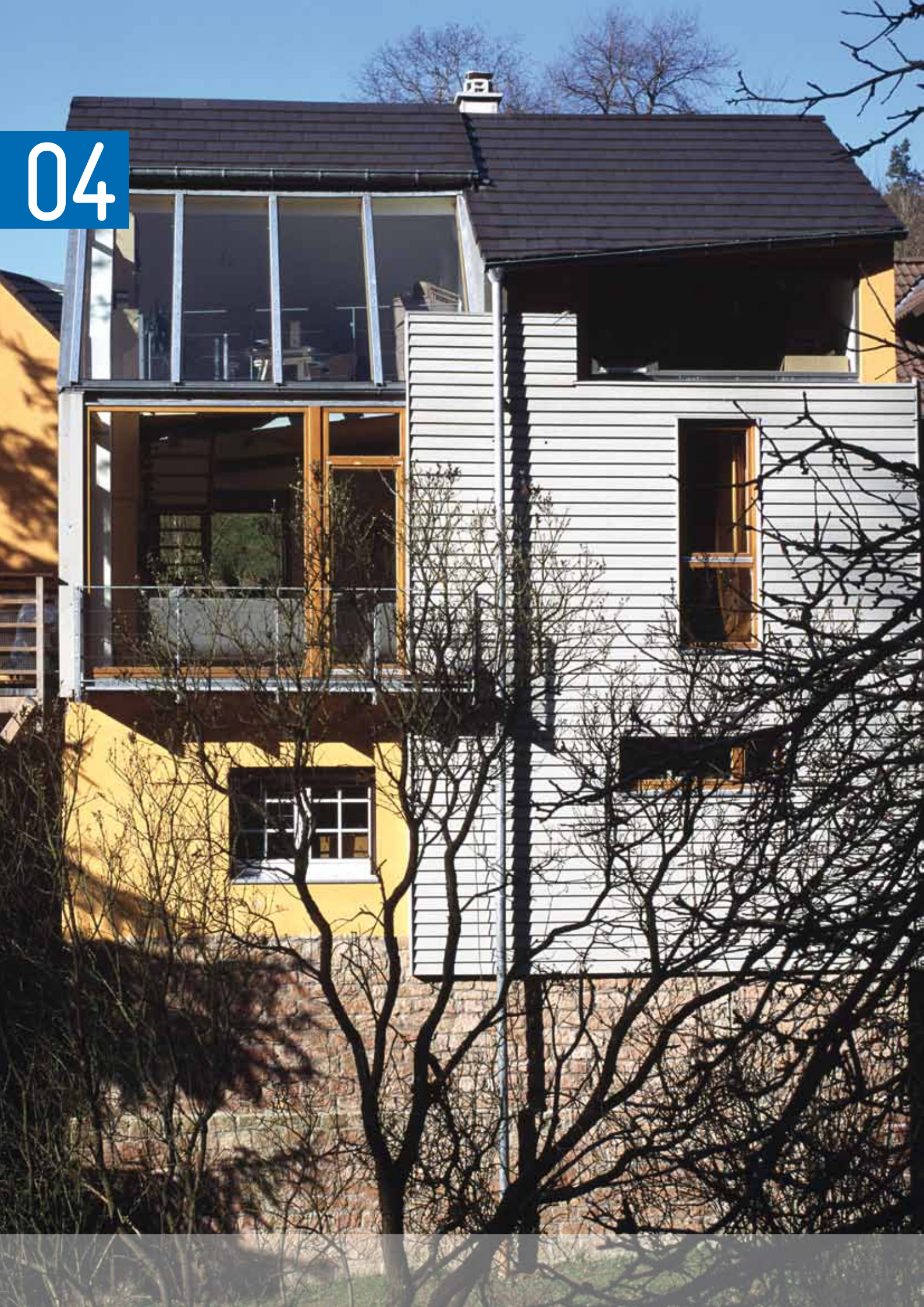
Energy management and climate protection remain unexplored terrain for many municipalities in Europe, though awareness of these topics has been increasing. The Covenant of Mayors promises to ease the initial approach to this complex issue for municipalities and serves as an assisting partner. Municipalities can, of course, carry out such measures without joining the CoM. The primary reasons for joining the Covenant of Mayors include the following:

- Being involved in a structured system like the CoM makes it easier to get started with an energy management and climate protection initiative and implement the necessary measures.
 - Municipalities receive professional support and have access to existing instruments that would otherwise be out of reach – such as the compiling of baseline emission inventories and the calculation of energy savings and climatic effects of individual measures.
 - Municipalities hope to have easier access to investment funds.
 - Publicised participation in the initiative and involvement by residents improves the image of the municipality (“we’re doing something”).
 - Involvement in the CoM supports cooperation and agreement among all relevant municipal offices and administrative areas.
 - Municipalities become part of a comprehensive national and supranational European network.
- Municipalities wish to publically display their efforts in the area of climate protection beyond municipal borders and likewise strengthen their profiles.
 - Municipalities hope for increased desirability and new economic connections that can contribute to economic development.
 - Joining the CoM creates a certain degree of pressure for actually implementing the voluntary commitments; no one would want to be shut out of the network.

A long breath will be needed

Once signing the CoM has been completed, many municipalities come to realise that implementation is not as simple as originally assumed. Achieving open, transparent and trusting cooperation among municipal administrative areas presents itself as a first obstacle. Moreover, few municipalities have experience with involving actors from the private sector and civil society in public initiatives. Municipalities must bear in mind that successful participation in the CoM requires the availability of staff capacity for longer periods of time. The desire for easier and cheaper access to financing in order to implement measures does not materialise on its own. This may be a reason why so few participants have submitted SEAPs or been able to fulfil the requirements set by the European Commission, despite the fact that such a great number of municipalities have formally joined the CoM.

04



The Covenant of Mayors in Germany

The starting point: The concept of sustainable development

In Germany, the Covenant has added itself to the already established concept of sustainable development. As a result, many municipalities in Germany have been able to draw from years of experience in the area of municipal energy management.

The City of Stuttgart implemented a system of energy monitoring for its public buildings in 1973, well before debates on sustainable development arose in the international arena. Heidelberg has been carrying out municipal energy management since 1992 and the City of Unna followed a year later. Nearly 500 municipalities in Germany are involved in the Climate Alliance of European Cities with Indigenous Rainforest Peoples, an initiative that promotes energy savings, efficient energy use, the utilisation of renewable energy sources, and environmentally friendly mobility in municipalities. The world city association ICLEI (Local Governments of Sustainability) has over 1.100 members and supports sustainable development on the municipal level through the creation of capabilities and structures (capacity building), knowledge management and lobby work. Both organisations, which were founded in the early 1990s and have their headquarters in Germany, build on experience from local initiatives and contribute to the dissemination of the sustainable development issue. The German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) launched the National Climate Protection Initiative in 2008 in order to provide support for local initiatives related to sustainable energy. The number of local energy cooperatives saw a nine-fold

increase from 66 in 2001 to 586 in 2011. These cooperatives are actors within the energy sector that target decentralised, ecological energy generation that is carried out independently of business enterprises. As a citizen initiative, they offer facility and investment options for local and regional energy projects.

These examples serve to show that the Covenant of Mayors was sown upon grounds that were fertile for new ideas and approaches.

German municipalities are proven frontrunners

A total of 65 municipalities (as of 2012) in Germany have joined the CoM movement since its establishment, representing a quarter of Germany's total population. Pioneers in this field were the cities of Kiel, Heidelberg and Bielefeld, all joining in 2008 – the Covenant's first year; the eleven largest cities in Germany soon followed suit, including Berlin, Hamburg and Munich. Many municipalities within the Covenant have proven themselves as frontrunners in the areas of energy efficiency and sustainable development, with 37 submitting activities for recognition as Benchmarks of Excellence. These benchmarks represent particularly successful examples of local initiatives that are promoted for imitation by other Covenant signatories. Germany has been the leader in producing these benchmarks, comprising 20% of all those submitted to the Covenant of Mayors Office so far. In order to make the movement even more effective, a collection of municipalities in Germany founded the Covenant Club Germany in October 2011.

Learning from experiences made by the City of Worms

The City of Worms is a CoM signatory and has been engaged in energy policies since the early 1990s, initiated as a response to debates on energy consumption and natural resource protection. An energy saving concept drafted in 1992 focussed on energy use in municipal buildings, involving the introduction of an energy controlling scheme that followed a building inventory. The building management office for the City of Worms has taken care of measurements, checks and optimisation of energy use in public buildings since 1997. This concept was further developed two years later with the establishment of a department for environmental protection and agriculture within the public administration. The department is responsible for coordinating and guiding environmental protection tasks for the community. In order to raise awareness of the city's various activities, a campaign titled 'The Future for Worms' was organised in 2001 in association with the local initiative "Initiativkreis Lokale Agenda 21". Worms has also kept the public informed about environmental issues through its website since 2004.

The City of Worms was recognised by the Deutschen Umwelthilfe e.V.¹ and the BMU for its excellence in the area of energy savings, urban planning and transportation planning at the 'Federal Climate Protection Capital Competition' in 2006. In the same year, the city joined the Climate Alliance and committed itself to reducing its CO₂ emissions by 10% every five years.

The Worm's City Council tasked the administration with creating a climate protection and energy efficiency concept. The concept documents all measures and spheres of action that have been carried out so far while also laying

out future areas of action for the municipality, residents and businesses as well as defining goals, priorities and measures to be taken.

In a further step, the City of Worms compiled a baseline emission inventory, created working groups according to local Agenda 21, defined immediate measures to be carried out and decided on forms of implementation. An energy advisory office within the public consumer advice centre in the German state of the Rhineland Palatinate was established by the City Council in 2008. The office receives high demand for its services, already engaging in 100 advisory sessions per year.

Following many years of engagement in the areas of climate and energy, a membership in the Climate Alliance, the fulfilment of CO₂ reduction obligations, and creating a climate and energy efficiency concept, it is no surprise that Worms joined the CoM at the beginning of 2010. Participation in the CoM is a political declaration of intent, and, for Worms, the added value of membership lies in the initiative's monitoring function, overseen by the international Covenant Office. By agreeing to submit progress reports on the implementation of selected measures, Worms voluntarily commits itself by external monitoring and evaluation.

The example provided by the City of Worms demonstrates that participation in the CoM can be bundled with other activities and initiatives that may, in part, have similar goals. These include engagement in the Climate Alliance and the European Energy Award (an international quality management system and certification process).

And thus the topics of climate protection and energy are brought into relation with one another, demonstrating that their borders are rather fluid. It is important to mention that energy management measures do not necessarily lead to CO₂ reductions but rather mainly to monetary savings.

¹ German Environment Aid: Provides a forum for environmental organisations, politicians and decision makers from the business sector.

Worms not only includes municipal and private households in its activities but also the commercial and industrial sectors. In comparison to other cities, Worms's relatively high proportion or per capital CO₂ emissions owes to a high concentration of chemical and other industries in the city, comprising 80% of local energy consumption. An energy efficiency network was established by eleven companies in 2010 and aims to reduce energy consumption by 6% by 2013. This shows the decisiveness of establishing borders and identifying the energy considerations for a municipality at the very beginning of a baseline emission inventory process. Emission measurements end up being higher when all aspects of a municipality and its consumers are calculated in, rather than when only public properties are considered.

The yearly CO₂ baseline fluctuated between 13.5 and 12.7 tonnes of CO₂ per capita between 2004 and 2006. This is certainly an initial success but the path that has been laid out must be followed further: According to Germany's

climate protection goals, yearly per capita CO₂ emissions should sink to just two tonnes by 2050; the current average is around ten tonnes per capita.

The activity profile summarised in the info box below shows the intensity with which the City of Worms is carrying out current efforts and demonstrates potential future areas of action. The numbered circles indicate the varying strength of the efforts in the corresponding areas, ranging from circle 1 – no area targets climate protection goals – up to circle 4 – all areas target climate protection goals. In an ideal situation, the line would assume a circular shape that follows the outermost edge. In the case of Worms, much is being done in the area of low-carbon transport, but little in the area of CHP.

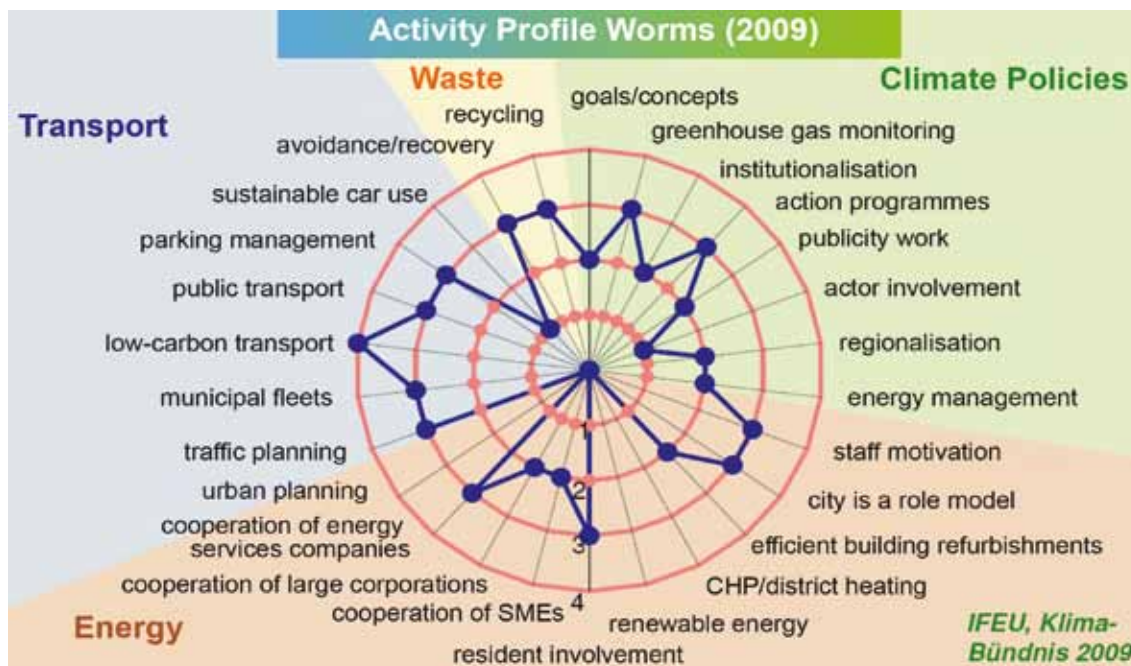


Image 1: City of Worms activity profile 2009. Image: Worms City Administration (2010)



The Covenant of Mayors and GIZ involvement

The status of the emission inventory and the impacts of the SEAP can be assessed in mid-2013, following the last measurement period.

Creating systems for sustainable energy supply in countries involved in German development cooperation has become a central task for GIZ. Contracted by the BMZ and other German ministries, the federal enterprise has supported governments, municipalities, energy associations and the private sector in the development of renewable energies, the increase of energy efficiency and the establishment of corresponding pre-conditions for over 25 years. In order to go about this, GIZ utilises various advisory services: energy policy advisement, development and guidance of support mechanisms, planning and implementation of pilot and model projects, professional training of energy experts, and transfers of technology and know-how. In order to strengthen the capabilities of

people in the field, GIZ establishes networks, platforms, competence centres and advisory agencies and assists in organisational development.

GIZ guides municipalities in the fulfilment of requirements related to participation in the CoM in a variety of projects. The establishment history of such projects varies greatly; in some cases, cooperation with the municipalities had already been planned beforehand. Other projects came to the realisation that cooperation with state institutions was not feasible due to complex relations on the national political level, and today engage in successful cooperation with partners on the municipal level.

In the section that follows, GIZ staff report on cooperation with municipalities in the field within the context of the Covenant of Mayors. They present the respective conceptual approaches and highlight sought-after impacts and learning experiences.

5.1 Ukraine: For a better quality of life

The association 'Energy efficient cities of Ukraine' promotes the CoM initiative in Ukraine

By Agnieszka Schirru-Nowicka²

Municipalities want a secure and efficient energy supply

Ukrainian cities account for nearly 75 % of total national energy consumption and around 80 % of its CO₂ emissions. This high quota is partly a result of the fact that much energy

remains unused and is therefore wasted; as a comparison, energy use in Germany is three times as efficient.³ This is the result of the high concentration of energy intensive industries in Ukraine, such as steel production. Another factor is a lack of efforts to reduce energy losses and improve production processes. Additional challenges in the Ukrainian energy sector include insecure energy supplies, dependence on fossil energy sources, deficient political will and lacking know-how within national and local authorities in regards to initiating comprehensive changes. As such, legal regulations and the current national energy strategy up to 2030 do not reflect the country's own requirements.

² Agnieszka Schirru-Nowicka worked at the association 'Energy Efficient Cities of Ukraine' as a project manager from January 2010 through October 2011. She assumed the role of deputy director at the association's energy agency in November 2011. She was dispatched as an integrated expert by the Centre for International Migration and Development (CIM) – CIM is jointly run by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the International Placement Services (ZAV) of the German Federal Employment Agency, bringing together over 30 years of expertise in development and labour market policy.

³ See Report by the International Energy Agency 2009



Image 2: Members of the association 'Energy Efficient Cities of Ukraine' (Image: Agnieszka Schirru-Nowicka)

The Ukrainian Parliament tends to vote in the interests of the gas and coal industries, whereas the interests of consumers – seeking a dependable, cost-saving and environmentally friendly supply of energy – are ignored. Moreover, the energy strategy is hardly taken seriously in practice and implementation has failed due to a lack of agreement in relation to budget planning.

Owing to this situation, four mayors representing the Ukrainian cities of Kamyanets-Podilsky, Berdyansk, Lviv and Slavutych decided to combine efforts in the area of sustainable energy. They founded the non-profit association ‘Energy Efficient Cities of Ukraine’ (EECU) in 2007 in order to co-operatively seek solutions for the energy problems in Ukrainian municipalities. The association has brought together 31 cities to date, and additional candidates across the country have shown interest. An overview of participating municipalities has been presented in image 2.

Pioneering CoM members

The European Commission created the Covenant of Mayors following the conclusion of the EU Climate and Energy Package in 2008. Over 370 municipalities stemming from 30 European nations joined the initiative in time for the first signatory ceremony in Brussels on 10 February 2009. These included the Ukrainian municipalities of Artemivsk, Dolyna, Kamyanets-Podilsky, Kherson, Kovel, Lutsk, Lviv, Pervomaisk, Pryluky, Voznesensk and Zhmerynka. However, special programmes and financial support from the EU meant to assist in CoM implementation are not available to Ukrainian municipalities as Ukraine is not an EU member state. Consequently, the starting situation for Ukrainian municipalities was considerably more challenging than for municipalities among the EU member states.

Strong innovators needed

Decentralisation is only progressing at a slow place in Ukraine; the central government still has significant influence in local energy developments. Municipalities are required to justify their energy spending to the government but receive hardly any financial support that would allow them to improve the energy situation. Along with management know-how, experience that would be vital in creating sustainable energy developments and budgetary funds for hiring energy managers or



Solar-thermal system

external advisors are lacking as well. Additional hurdles include antiquated organisation structures and outdated remuneration policies. In summary, the municipalities require more decision-making powers and a working environment that stimulates innovation. Effective communication about energy policies is made more difficult by deficient know-how in relation to methods, standards and energy management instruments along with an incomplete and undependable database on energy consumption and demand. Municipalities will, however, be forced to deal with these issues in the near future. Rising energy prices have increased the willingness of municipalities to seek solutions with other cities and in the context of local partnerships.

The municipalities are faced with daunting challenges: They must guarantee energy supplies as well as financial and social stability. These tasks require daring and strong innovators on the municipal level.

Municipal energy management, step by step

Ukrainian city administrations are not yet in a position to independently fulfil the obligations of the CoM, such as the integration of appropriate administrative structures or baseline emission inventories, due to a lack of experience in sustainable planning and basic expertise in energy management. In order to bridge this gap between limited capacities and ambitious goals, the EECU association has developed a model for introducing a municipal energy management system to CoM participants. The process comprises two steps:

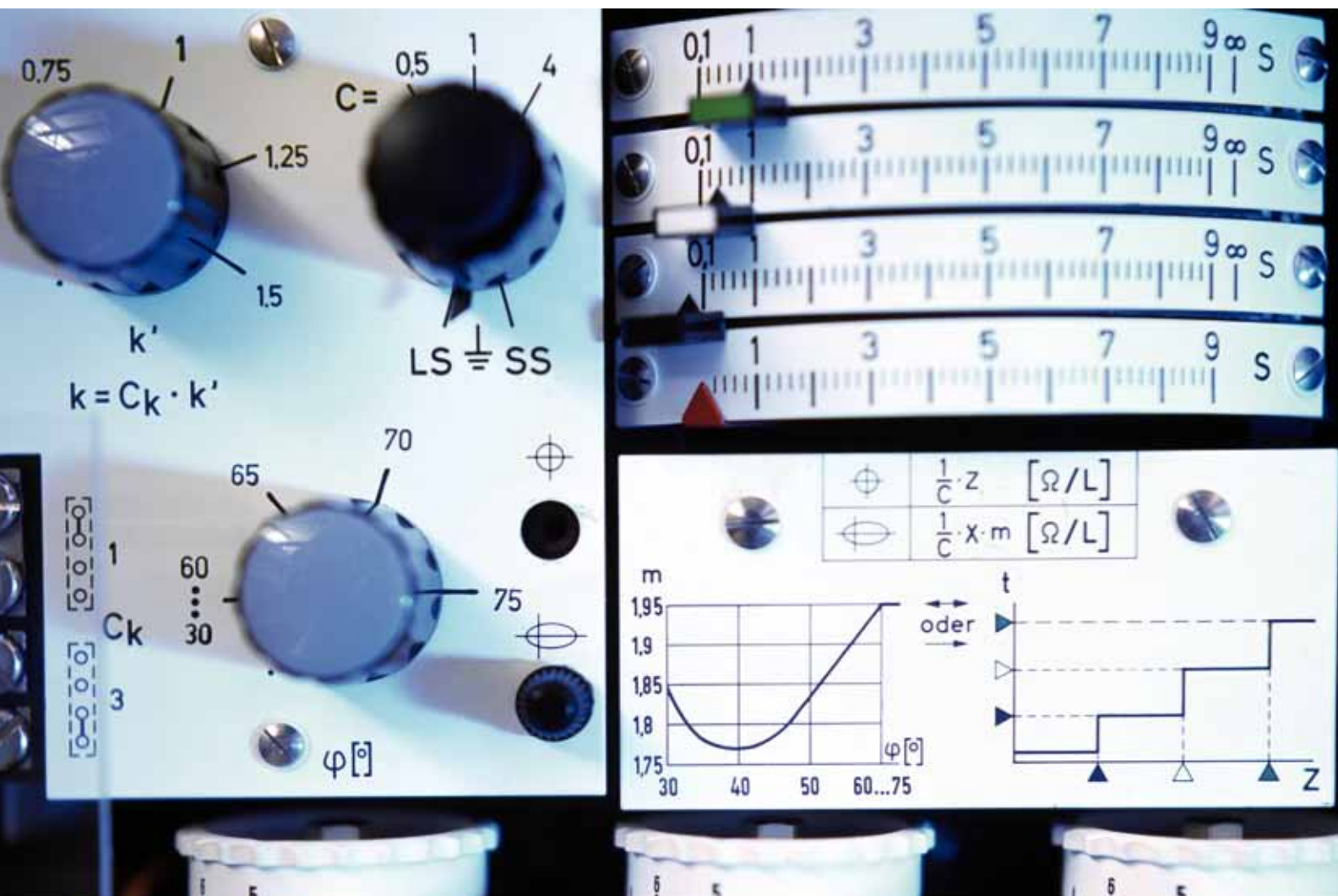
Step 1:

- Establishment of an energy management department or the hiring of at least one energy management expert
- Implementation of an electronic monitoring and control system for energy use in public buildings

Step 2:

- Utilisation of collected experience in all sectors relevant to energy policies
- Implementation of complex municipal energy management

The second step is first implemented once the foundational elements in step 1 have been applied.



Such an approach, applied by many participating municipalities, enables staff members to continuously develop their capabilities, allowing the complex processes within municipal energy planning to become attainable on a step-by-step basis. This has led to an understanding and acceptance among civil servants and politicians in many municipalities of the necessity of introducing sustainable energy policies. The five Ukrainian municipalities, whose SEAPs have been accepted by the EU, followed this process as well.

The EECU association was able to execute the first step in the independent implementation of an energy management system – financed by membership contributions from participating municipalities as well as those from other projects carried out by the EU, the BMU, Polish Aid and USAID. EECU experts are knowledgeable in the area of energy management and can support municipalities in accordance with their needs and also draw from external expertise via international projects. The compilation of the baseline emission inventory as well as the first municipal action plans required financial and technical assistance from international donors and other partner organisations.

Capacity building and CoM – a model for Ukraine and Georgia

This project of the same name is a component of the BMU's International Climate Protection Initiative (IKI) and is being implemented by the Climate Alliance⁴ with the EECU association serving as the Ukrainian project partner. The aim of the project is to transmit experience and knowledge from German communities regarding local energy and climate policies to

⁴ Roughly 1.6000 cities and communities are part of the Climate Alliance of European Cities with Indigenous Rainforest Peoples association, which was founded in 1990.
www.klimabuendnis.org

Ukrainian municipalities. A software programme development in Switzerland – ECORegion – for the compilation of emission inventories was translated into Ukrainian, customised according to local factors and offered to participating municipalities.

The methodology for compiling baseline emission inventories recommended by Climate Alliance experts involved combining top-down and bottom-up approaches in order to calculate energy use with the most accuracy possible. Top-down approaches entailed investigating



The kick-off meeting for the project 'Covenant of Mayors: Capacity Building – Model for the Ukraine and Georgia' brought all involved partners and responsible parties together. (March 2012 – Image: Agnieszka Schirru-Nowicka)

the available statistics on national energy use in all SEAP-related sectors between the years of 1990 and 2010. Private households, agricultural businesses, industry, the service sector, municipal economies (lighting of public spaces, buildings and infrastructure) and transport (private, public, freight and long-distance) were included sectors. Existing local energy use data in the same sectors were gathered and analysed for the bottom-up approach. The subsequent results from both approaches proved that the actual greenhouse gas emissions in the project municipalities were much higher than originally calculated by national statistics.

Depending on the availability of relevant energy use data, the project municipalities decided on the following baseline years: Lviv – 2008, Dolyna – 2010, Pervomaysk – 1999, Kamyranets-Podilsky – 2005, Voznesensk – 2007. Thus, all SEAPs that have been developed in Ukraine were based on reliable baseline emission inventories. Measures frequently implemented into the SEAPs included the modernisation of public lighting and energy efficient refurbishments of municipal buildings and multi-family homes.

Examples of further measures were: increasing the energy efficiency in the chemical industry, limiting personal transport in the city (Dolyna), the provision of environmentally friendly solutions for public transportation (Kamyranets-Podilsky), and the implementation of renewable energy, particularly solar and wind energy (Pervomaysk, Voznesensk). Some SEAPs included awareness-raising campaigns and workshops for energy saving in kindergartens and schools (Lviv).

Energy association provides municipalities with customised methods and instruments

The EECU association is the first and, as of yet, only official CoM supporter in Ukraine, having begun operations in July 2009 and with a current membership of 31 municipalities. Five of the members (Dolyna, Lviv, Kamyranets-Podilsky, Pervomaysk and Voznesensk) developed their SEAPs with the support of the association and its partners – including GIZ, the Climate Alliance, Energy Cities⁵ and various European donors – and have already submitted them. The other members are currently in the process of establishing the abilities required by the CoM.

In a timespan of just three years as a CoM supporter, the association has been successful in making the EU initiative increasingly known in Ukraine. Any municipality that wishes to become part of the CoM has access to methods, instruments and documents from the involved city networks. These resources have been translated into Ukrainian and adjusted to local conditions through various projects. Brochures and case studies

⁵ Energy Cities is an association of European municipalities that are active in the area of sustainable energy policies and was founded in 1990. A total of 1.000 communities from 30 countries are represented by the association. www.energy-cities.eu



Awareness-raising among the public



have been made available for interested municipal administrations on the association's website and within the context of advisory services.

Public awareness relating to questions of climate change and energy efficiency in cities has been heightened by campaigns and lessons in schools. This is proven on the basis of increased media coverage and the willingness to cooperate among citizens and municipal administration staff, who engage in the topic through competitions and training sessions.

A model for countries in the 'Eastern Partnership' and Central Asia

This model for introducing energy management systems in municipalities, developed by the association, is based on lessons learnt from its successful member states. The model takes from European role models and may also serve as a solution for municipalities in countries of the former Soviet Union. The EU has opened a new Covenant Office in Lviv within the con-



EECU association team. (Image: Agnieszka Schirru-Nowicka)

Owing to positive experiences from pilot projects, a desire for legal reforms has sprouted on the side of the municipalities.

In order to do this, many municipalities submit recommendations to the association, which are then forwarded to Parliament, ministries or other state institutions. The possibility for improving municipal energy management legislation and strengthening local authorities can thus be carried forward.

text of a new EU initiative titled 'Covenant of Mayors going East: Supporting the participation of Eastern Partnership and Central Asian Cities in the CoM'. The office offers advisory services and support to any interested municipalities from countries in the 'Eastern Partnership'⁶ and Central Asia. The EECU association acts as one of office's five main partners, with the European 'Energy Cities' initiative serving as the founding partner. The EU Commission has established an increasing number of initiatives and programmes for supporting CoM signatories in these two regions as well. As a result, the Covenant can assume a central role for European integration in this region.

⁶ Included are the countries of Ukraine, the Republic of Moldova, Azerbaijan, Armenia, Georgia and Belarus.

Central experiences and recommendations

1. Consider local preconditions: Even though CoM obligations are targeted, first and foremost, at the reduction of CO₂ emissions, the fact that rising energy costs are a much greater motivator for saving energy than climate protection, especially in countries like Ukraine in which the vast majority of the population has a low level of income. In order to gain acceptance and support from a large portion of the public, it is crucial to adjust the contents and central ideas of the Covenant to local conditions. The ‘Sustainable Energy Days’ event, which should be organised by CoM signatories each year, is a key component in creating awareness. During this event, municipalities present the basic elements of municipal energy policies and their SEAPs to their residents, and also discuss possible solutions. Successfully strengthening and including civil society will be decisive for creating a sustainable CoM process in Ukraine, one that allows for long-term changes in mentalities.

2. Improve quality of municipal services: Standards that are considered commonplace in the EU are not necessarily so in Ukraine. Street lighting, as an example, is critically insufficient in many Ukrainian cities, public transport systems are almost always overcrowded, and bus schedules are often undependable or non-existent. The quality of district heating and the water supply is likewise sub-par in many Ukrainian cities. Water supplies are even turned off completely at certain hours and the interior temperatures in buildings serviced by district heating are often much too cold in the winter. Often, the only way to regulate room temperature is either to open the windows or to turn on additional electric heaters, both of which result in wasted energy. Corresponding with the CoM goal of reducing greenhouse gas emissions, municipa-

lities must engage in improving the quality of their energy services.

3. Account for increasing energy demand: The Ukrainian economy is set to grow in the coming years, which will lead to an increase in energy demand. This will also be the situation for countries within the Eastern Partnership and Central Asia. The CoM initiative should by no means dampen economic growth but rather support sustainable development and energy supply.

4. Sustainable development of skills: Ukrainian CoM signatories would not be in a position to fulfil their obligations without strong external support. There are two ways to handle this: One involves having a foreign consultant compile a baseline emission inventory and create an SEAP for the municipality in a short period of time – as is being done in the Georgian capital of Tiflis. One disadvantage of this approach is that the city administration is left to implement the measures alone once advisement and the SEAP have been completed. The other variation is more time-consuming and requires municipalities to exhibit a high degree of engagement from the very beginning, thereby assisting in the sustainable development of local energy management skills. The EECU association promotes the second variation and this approach has been used by all Ukrainian CoM signatories.

5. A long breath is required: Confusion, contradictions and missing factors within the baseline emission inventory existed in some of the first Ukrainian SEAP drafts. Nevertheless, all five Ukrainian actions plans could successfully be created by energy managers from the respective cities along with support from the association, the Climate Alliance and other partners. The development process for the SEAPs, which includes establishing know-how among city administration staff, may have taken a lot longer than the estima-

ted 12 months, but it has proven to be more sustainable and more effective in the long run compared to the 'quick approach'. The EU commission has made note of this and does not exclude municipalities that submit their action plans late as long as progress reports are presented. However, not all municipalities involved in the project 'Capacity Building: Communal climate protection in Ukraine' have managed to complete their SEAPs; originally, ten Ukrainian municipalities had planned to prepare action plans. One reason for this was the political shift following the Ukrainian municipal elections in October 2010. Some of the newly elected mayors showed no interest in continuing work that had already begun.

6. Cooperation with other partners and donors:

Without the support of development organisations in the US (USAID), the Netherlands (NL Agency), Poland (Polish Aid) and the EU, creating the first SEAPs would not have been possible for the BMU and GIZ alone. So far, the Ukrainian government has contributed little to the CoM initiative. While many national and regional authorities function as Covenant coordinators among EU member states, in the Ukraine, neither the National Agency for Energy Efficiency and Energy Savings nor regional administrations have shown interest in being Covenant coordinators, despite repeated requests by the EECU association. The Ministry for Regional Development, Construction, Residential and Municipal Economy has, at least, shown interest in being a CoM regional coordinator in the future. A conference on this topic was held with the association and the CoM Office East in October 2012.

7. Support as a success factor: As experience has shown, local authorities in Ukraine require more guidance than most municipalities in the EU in order to participate successfully in the Covenant. For this reason, the establishment of support structures has

been a decisive success factor for the CoM in Ukraine.

8. Wise approaches for technical cooperation:

The following approaches are recommended for spreading and supporting the CoM in countries in Eastern Europe and Central Asia:

- development of municipal networks or energy agencies,
- systematisation of existing know-how,
- support for pioneers,
- support for accessibility and spread of key CoM instruments (energy monitoring, calculation of CO₂ emissions, handbooks, training measures),
- provision of customised technical and financial cooperation combinations,
- donor coordination,
- support in the creation of national financing schemes for implementing SEAPs and
- adjustment of national legal regulations to EU law.

9. Baseline emission inventory compilation software:

Since the ECO-Region software was quite expensive, it could only be used within the context of the project and does not serve as a long-term solution. In order to avoid having to refamiliarise users, it would make sense to use less expensive, yet suitable, software from the very beginning.

5.2 Bosnia and Herzegovina: More energy efficiency for municipalities

Communities engaged in the CoM from both regions increasingly working together

By Brian Schjertzer⁷

Bosnia and Herzegovina (BiH) declared its separation from the Yugoslav Republic on 2 March 1992 and has since been an independent republic. The country still suffers from the consequences of the Bosnian War and the continuous conflicts among various ethnic and religious groups up to today. Since the conclusion of the Dayton Agreement (1996), BiH has comprised of two mostly autonomous regions ('entities'), the Federation of Bosnia and Herzegovina (FBiH) and the Republika Srpska (RS); the district of Brčko is a special administrative area. Both entities have their own energy ministries. The Ministry for Foreign Trade and Economic Relationship (MoFTER) is tasked with coordinating the work of the respective entity ministries, which has proven to be rather difficult in practice. Moreover, the planning ministries from each entity assume responsibilities in the area of energy, particularly in the building sector. The situation is especially complicated in the Federation, which is divided into ten cantons, each with its own government and ministries. Cooperation between the entity ministries and MoFTER is

particularly sluggish and riddled with mutual mistrust. Agreement on shared energy policies therefore does not exist.

While energy efficiency has not received much attention within political strategies, interest in the issue is growing in the non-governmental sector. BiH became a member of the 'Energy Community'⁸, committing itself to introducing EU legal standards in the energy sector.

Municipalities are increasingly recognising the potential in energy efficiency for reducing energy costs, promoting competitiveness and also contributing to climate protection. A number of municipalities have joined the European CoM initiative and aim to reduce their greenhouse gas emissions by 20% up to the year 2020. These municipalities seek to draw nearer to the EU and become more visible and attractive to international donors and institutions. Environmental and climate protection activities carried out by the municipalities should likewise be transparent for the populace.



⁷ Brian Schjertzer works as an external advisor and team leader on the project 'Energy efficiency advisement in Bosnia and Herzegovina', a GIZ project contracted by the BMZ.

⁸ The 'Energy Community' has been offering the regulatory framework with which the EU is extending its energy market into Southeast Europe since 2006. www.energy-community.org.



'Energy efficiency knowledge days': Street event in Livno. (Image: Aleksandra Stanivukovic)

Support for supra-municipal cooperation

Bosnia and Herzegovina (BiH) is lacking an agency that is responsible for energy efficiency as well as a supervising ministry that provides directives on energy matters. Each entity has a relatively weak ministry and each concentrates on energy production. Contracted by the BMZ, GIZ has been running a project dealing with energy efficiency advisement in BiH, establishing a basis for improved visibility and transparency within the municipalities. Three communities in each entity were chosen as pilot sites for this project. Municipalities are assisted in the creation of structural requirements for drafting SEAPs and also guides for the development and implementation of measures that serve the purposes of awareness-raising and information for the populace.

One of the focal points includes networking the municipalities with one another and with others that share energy policy efforts. The project also pays special attention to cooperation among the two entities, which is a practical impossibility at the national level at the moment. Professional counselling for the municipalities is carried out by two coordinators (one from the RS and the other from FBiH), each cooperating with a group of municipalities from both entities.

The mayors of the municipalities involved in the CoM have been involved in the process from the very beginning. They assembled an SEAP working group for their municipalities and also named a coordinator. As a rule, members of the working group represent all departments of the city administration as well as a representative from the local energy supply company.



Energy efficiency is advancing

Numerous partnerships and networks are being created among CoM participants and other Southern European and European municipalities. The Municipal Association of the Republika Srpska has established an energy efficiency committee that integrates the SEAP coordinators of the participating municipalities.

The first statistics relating to energy consumption now exist for the six municipalities in BiH, and they will be further attended to in the future. Furthermore, SEAPs have been created, submitted and accepted by the EU for all participating municipalities.

The administrative entities in Zenica, Zvornik, Laktasi and Livno can now develop their own energy efficiency projects, work on project recommendations and seek out donors and institutions for support. Various financial

cooperation agreements have been established with USAID, Caritas and the EU.

Through the support by Enova – a German enterprise specialising in wind energy project development –, the ZEDA development agency in the city of Zenica can now carry out energy audits in buildings with software it developed on its own. A monitoring unit that oversees various departments in the Zenica city administration has begun to collect, evaluate and summarise all relevant information. As the result of public awareness events within the SEAP process, residents of Livno are increasingly asking the municipalities for assistance with the refurbishment of buildings.

At the university in Banja Luca, three students came together to launch an energy efficiency club that is meant to serve as an innovation centre for the RS; and the club has now gained the status of a non-governmental organisation. The club installed a solar panel tree at the central market in Prijedor, a community with 110.000 residents. The structure has turned into a meeting place for residents and allows for charging mobile phones as well as other battery operated devices. Students at the university in Sarajevo have been inspired by this project and plan to found a similar club.

The United Nations Development Programme (UNDP) works with 30 municipalities with the goal of creating local environmental actions plans (LEAP). Responding to a request by five municipalities, the UNDP assisted in the creation of SEAPs in these municipalities. The official unemployment rate in BiH is

around 40 % for the entire working population and as high as 70 % for young people. It is therefore rewarding that a project intern was offered a position in the Laktasi city administration following the end of her internship and today supports the city's SEAP team.

The table below seeks to give an impression of the energy consumption and goals of the municipalities participating in the CoM.

Municipality	Zenica	Travnik	Livno	Prijedor	Laktasi	Zvornik
Population	128.000	55.000	32.000	105.000	40.300	65.000
Base year	2006	2005	2009	2008	2009	2009
Energy consumption per capita (in MWh in base year)	5.71	7.81	8.97	12.041	6.70	8.12
Energy consumption reduction target by 2020 (% in relation to base year)	26	6	25	5	13	18
CO ₂ emissions per capita (in tonnes in base year)	1.89	2.22	2.97	2.48	2.33	1.87
CO ₂ emissions reduction target by 2020 (% in relation to base year)	42	53	42	22	20	34
SEAP submitted	12/2011	03/2012	03/2012	11/2011	03/2012	05/2012
Planned SEAP investments by 2020 (in million €)	518.336	68.042	71.909	39.000	25.083	34.924

Overview of participating municipalities (Source: Brian Schjertzer)

The most important experiences and recommendations

1. Municipalities must take on responsibility for the CoM process: They have established implementation structures and drafted SEAPs. Experience in BiH shows: The better the populace is informed the quicker they react positively to concrete measures, granted that they are economically feasible and display clear advantages.



The Mayor of Laktsai (right) signs the membership declaration for the Covenant of Mayors in the presence of Brian Schjertzer (GIZ team leader). (Image: Aleksandra Stanivukovic)

2. Create administrative structures early on: Since the SEAP must be submitted within a year of signing the CoM, it makes sense to begin working on administrative structures and project organisation ahead of time.

3. Continuous agreement on processes: The SEAP coordinator was usually the only active person at the meetings and events during the SEAP creation process in smaller municipalities. For this reason, the process progressed slowly and was not agreed upon by all important actors.

4. Overcome scepticism towards citizen involvement: Municipal administrations are not used to including residents in decision-making processes and are therefore critical of participatory practices. Such scepticism should be dealt with at an early stage in the technical cooperation project through clarification measures. This sceptical mentality can slowly be overcome with time, positive experiences, and the adoption of EU regulations presented at public hearings.

5. Bundle resources: Measures can be efficiently carried out through close cooperation with USAID and UNDP. This project organised workshops with other donors, carried out information events and acquired energy management software for the municipalities.

6. Inclusion of other project partners: In order to include lessons learnt in the political debates, other project partners must also be brought in. In BiH, these include municipal associations; these associations, however, have limited personnel and financial capacities that can be used for project work. In order to overcome this, it is important for mayors to put extra pressure on municipal associations so that they include the energy issue on their agendas. This has been successful, in part, in the Republika Srpska, where an energy efficiency committee has been set up within the association that also deals with the CoM.

7. Municipalities as drivers: Since fruitful cooperation between the two energy ministries within both entities on the topic of energy efficiency will not be feasible for the time being, cooperating with municipalities and turning them into drivers for the implementation of energy efficiency measures has proven to be very promising.

5.3 Capital cities in Southeast Europe: Role models for energy efficiency

Establishment of sustainable energy management in the cities of Zagreb (Croatia), Sarajevo (Bosnia and Herzegovina), Podgorica (Montenegro) and Skopje (Macedonia)

By Strahil Panev⁹

Large cities devour energy

The capital cities of Southeast European countries account for 70 % to 80 % of total national energy consumption. This makes them ideal project partners for the technical cooperation programme 'Open Regional Funds for Southeast Europe – Energy Efficiency'. The fund is a flexible instrument with which GIZ, contracted by the BMZ, supports cross-border and regional reform approaches as well as national adjustments to EU guidelines. Up to 30 % of the total population in these countries resides in their capitals; 800.000 in Zagreb, 600.000 in Skopje, 350.000 in Sarajevo and 150.000 in Podgorica. The capitals are also the dominant economic centres in their countries, and, due to their high levels of energy consumption, they are the largest generators of greenhouse gas emissions as well.

Energy costs are a burden on city budgets, particularly apparent in the energy consumption costs for public buildings, especially since these buildings are generally inefficient in terms of energy. In Zagreb, however, an energy management system was being established when this project commenced. The other three cities did not have any structures within their city administrations in 2009 that were responsible for monitoring energy use.

On the national level, all countries in Southeast Europe have committed themselves to creating national energy efficiency actions plans (NEEAPs) and to reducing their primary energy use by 20 % up to the year 2020. Some countries also ratified the Kyoto Protocol. Municipalities have to bring their energy plans in line with national goals. Through joining the CoM initiative in 2009, Zagreb and Sarajevo have committed themselves to further climate protection obligations.

One of the measures within the open regional fund was titled 'Capacity building for sustainable energy management in four Southeast European capitals'. Following examples set by cities in the EU and especially Germany, GIZ supported in the development of organisational and administrative skills for sustainable urban energy management. The desired additional impact read: Implementation of the CoM in capital cities should contribute to EU alignment in Croatia, Bosnia and Herzegovina, Montenegro and Macedonia.

From its very inception, the project aimed to prepare Skopje and Podgorica for entry into the CoM initiative in addition to the development of an energy management system in the capital cities. The cities had to meet the following requirements:

- Mayors have the authority, granted by the city council, to enter into the CoM.

⁹ Strahil Panev had been working as the country coordinator and manager for sub-measures as part of the programme 'Open Regional Funds for Southeast Europe – Energy Efficiency' in Macedonia since mid-2012.

- Formation of administrative energy management structures.
- The city administration appoints at least two people to an energy management office (or department) on a permanent basis.
- The mayor signs a declaration of intent for the issues of energy management and environmental protection.

the autumn of 2009. The other capitals, Sarajevo, Podgorica and Skopje began preparations in June 2010.

Teams comprising of experts from Southeast Europe drafted the SEAPs in all four capitals. These teams included energy experts from the Norwest Croatian Energy Agency (REGEA), local consultancy offices and experts from the respective city administrations. The 'Open Regional Funds' assisted the cities in drafting the SEAPs and financing consultants.

The City of Zagreb had already implemented energy management structures and its own energy management information system (EMIS) which monitors and controls energy use in the city's municipal buildings. Around 60 % of the 1.800 municipal buildings in Zagreb are connected to this software system. Drafting an SEAP for Zagreb therefore took less than a year.

The other three cities were also able to draft their SEAPs in less than a year. One particular challenge, however, was collecting basic data relating to energy consumption. The respective city councils each ruled to make the SEAPs an official part of the municipal energy policies. The city administrations gathered and analysed data on energy use in the capital cities while the SEAPs were being drafted. This data included energy use in the areas of transport, street lighting and private households, in addition to municipal buildings. The data on energy use in municipal buildings is particularly important for the cities since they have to pay for energy costs which end up comprising a significant portion of the municipal budget. The energy management offices can use this data as a basis for an EMIS. The SEAPs serve as an instrument for the partners that can also simplify budget planning for energy efficiency measures.



The German ambassador to BiH, Ulrike Knotz, and the Mayor of Sarajevo, Professor Alija Behmen, officially opened the Energy Efficiency Information Centre in Sarajevo on 21 March 2012. (Image: Strahil Panev)

The mayors of Podgorica and Skopje signed the Covenant of Mayors in Brussels in May 2010. They then founded energy management offices and appointed personnel. The City of Skopje founded a new department for energy, energy efficiency and renewable energy at the beginning of 2010, belonging to the area of regional economic development within the city organisation.

With their entry into the CoM, all four cities have committed themselves to drafting an SEAP within a year's time and submitting it to the CoM office in Brussels. Since the City of Zagreb had signed the Covenant in 2009 and already fulfilled all of the requirements mentioned above, its SEAP preparation began in



Municipalities from across the region are following suit

The capital cities of Zagreb, Podgorica, Sarajevo and Skopje serve as role models for other communities in their countries and regions; they are attracting other municipalities to follow their lead. Entry into the CoM initiative has been growing in the last two years, especially in Croatia (currently 38 municipalities) and Bosnia and Herzegovina (currently 18 municipalities). This total remains low in the other countries but interest in the initiative is growing nonetheless.

The capital cities have adsorbed the SEAPs into their official municipal energy effi-

ency policies, and they are each creating action plans for the next three years. The city administrations, especially mayors and vice mayors, have become aware of the energy efficiency issue and have demonstrated an acute interest in implementing SEAP measures. They have already begun with the restructuring of their city administrations – two energy experts have been appointed in each energy management office, ensuring that operations continue into the long term.

The city administrations first allotted funds in the budget for energy efficiency and the implementation of SEAPs in 2012. In the case of Skopje, the Macedonian capital budgeted € 160.000 for energy efficiency and renewable energy for the 2012 budgetary year.

Drafting the SEAPs sparked regional dialogue and fostered an exchange of know-how in the area of energy efficiency. One example of this regional cooperation was the establishment of a club that brings together the Southeast European capitals cities, founded by the capitals

in Zagreb on 6 April 2011. The club aims to become one of the primary support structures for the CoM in Southeast Europe.

The main CoM office acknowledged the significance of the club and of the capital cities for Southeast Europe and it values their role as CoM supporters in the region. Due to the large amount of experience and knowledge that the City of Zagreb has gathered, it was given the status of 'special supporter of CoM participating municipalities and networks'.

In a CoM speech in November 2011 in Brussels, the mayor of Sarajevo, Alija Behmen, stressed the dire need for cities to take action in response to rising energy demand and energy costs. He also declared it necessary for municipalities to cooperate more intensively on the regional and international levels.



The mayor of Sarajevo, Alija Behmen, during his speech at the Covenant of Mayors on 29 November 2011 in Brussels. (Image: Strahil Panev)

Regional dialogue and an exchange of know-how



The Energy Information Centre in Skopje (Image: Strahil Panev)

Central experiences and recommendations

1. Ensure access to energy use data: Compiling energy data when drafting an SEAP has proven to be a difficult and time consuming measure in nearly all countries in Southeast Europe, due to the fact that data are either non-existent or error ridden. Energy audits were carried out for municipal buildings in only one of the four capital cities, generating concrete data for only the one case. This is a result of the fact that energy audits have not yet been made obligatory in municipal buildings, a situation that is supposed to change in the coming years. Data had to be collected directly from the energy supply company for the SEAP draft. It is advisable that municipalities ensure access to such energy data. This would avoid the need for city experts to attain data for the SEAPs through the use of personal relations, as was the case for some cities. Energy use in the transport sector, including private and commercial vehicles, had to be estimated based on insufficient data. Even energy use figures for private households proved difficult to come by, especially in relation to coal and wood fuels.

2. Municipal administrations must support the entire SEAP drafting process: Municipal structures can sometimes be quite complicated, such as in Skopje, which is composed often individual municipal entities. Some cities, such as Sarajevo, do not own municipal buildings, as the buildings belong to the Canton of Sarajevo. As a result, the SEAP for the City of Sarajevo includes measures for the entire canton. The mayor of Skopje was required to get commitments from each of the ten municipal entities, declaring that they would participate in the SEAP preparations and name a contact person. This ended up having a positive effect: The municipal entities and the city administration started working together in closer cooperation in areas beyond the SEAP.

3. The focus is on buildings: Around 70 % of all measures in the four submitted SEAPs are related to the municipal and private building sector. Building renovation is one of the primary components, being that buildings have very poor energy profiles. This means that insulation is either sub-par or altogether lacking, that window panes are below standard or that the heating system is out-dated. Moreover, there are hardly any cases of implemented energy management – there is no individual responsible for monitoring energy use. The majority of buildings in the capital cities are connected to district heating but households, especially those living in multi-family buildings, pay for their energy consumption in one lump sum that is calculated by the total square metres of living space. Building owners are therefore not motivated to save heating energy or invest in energy efficiency upgrades. Compiling the energy use per residential unit and calculating energy bills based on actual use would have a positive impact on energy savings.

4. The transport sector is underrepresented: Only 20 % of SEAP measures are targeted at the transport sector. Measures in this area, such as the modernisation of the public transport network, have great potential for reducing CO₂ emissions; however, they require a good deal of investment.

5. Investments for improving street lighting pay off quickly: Measures in the area of street lighting are rare but investments here pay off faster than in many other areas, especially in capital cities.

6. Adjust publicity work to locality: The single measures in all of the SEAPs also include developing public awareness among residents and the city administration on the topics of energy efficiency and climate protection. It is essential to customise public awareness work to the locality. Energy costs are a great burden for the majority of the po-

pulation, part of which must get by with very low incomes to begin with. Campaigns should therefore focus on the topic of energy savings, despite the fact that CoM obligations primarily relate to the reduction of CO₂ emissions.

7. Including the public: The SEAPs for capital cities that have been drafted so far have been quite satisfactory. However, a greater inclusion of the public sphere (such as non-governmental organisations and professional associations) would lead to even greater success. The involvement of city administrations and local energy experts had a positive influence on drafting the SEAPs. Though the capitals have taken an important step with their entry into the CoM and the drafting of SEAPs, there is still much work to be done so that goals can be achieved. It is advisable to carry out an analysis of the SEAPs following their creation in order to order the measures according to priority.

8. Share experiences and knowledge: The capital cities have declared themselves willing to share their experiences and acquired knowledge with one another and also with other municipalities in the greater region. For these purposes, they initiated a programme with the title ‘Strengthening the Network of Energy Efficient Cities in Southeast Europe’, with the goal of getting another capital city to sign the CoM agreement. This will likely be the Albanian capital city of Tirana, which has already joined the network.

5.4 Georgia: Launching a 'green economy'

The City of Tiflis is getting an action plan going for sustainable local energy with external advisors

By Astrid Denker¹⁰

Energy efficiency – Tiflis is advancing on its own

Motivated by the visit of an EU delegation to Georgia, the City of Tiflis announced its joining the Covenant of Mayors in March 2010. This occurred one and a half years before the EU established a process for the countries in the 'Eastern Partnership' and Central Asia that makes entry into the CoM easier. Tiflis decided for the normal path that other EU municipalities have taken in order to fulfil its obligations. Donors such as the US development agency USAID and the European Bank for Reconstruction and Development were hesitant in supporting Tiflis in the drafting of an SEAP. The technical cooperation programme 'Private Sector Development in Georgia', carried out by GIZ through a contract from the BMZ, assigned an external expert to support the city in creating an SEAP in time for the submission deadline in March 2011. The GIZ project recognised the opportunity to approach the topic of 'green economy' jointly with the City of Tiflis, the most important urban centre in Georgia.

The Georgian government did not offer Tiflis support in regards to its climate efforts at the beginning. The justification for this was Georgian government's position of not wishing to influence the private sector through further governmental regulations. The 'Doing Business Report' issued by the World Bank had positively evaluated the investment climate in Georgia (position nine in the current report)¹¹,

which confirms the government's neoliberal leanings. As a consequence, energy standards for buildings and feed-in tariffs for electricity derived from renewables have also been strictly rejected, even though such measures would open up new markets.



Governmental and municipal policies accompanied by their differing interests often clash with one another in Tiflis. Furthermore, one quarter of Georgia's population lives in the capital and the president is expected to be an upcoming candidate for the presidency. The Ministry of Energy is also located in the capital and feels obligated to focus on the issue of energy supply but not on energy efficiency. One of the energy efficiency units that were established and funded by the EU were dissolved following completion of the pilot phase. The EU then transformed this unit into a non-governmental organisation, which now carries out smaller projects that are financed by donors. The Minister of Energy has shown little satisfaction in the City of Tiflis participating in the CoM. For a time, the government considered dissolving the

¹⁰ Astrid Denker is an independent advisor in the areas of 'green economy', climate change adjustment and preventing climate change.

¹¹ See World Bank: Doing Business Report. 2013, pp. 3



Ministry of Environment, which was engaged in the topic of energy; the plan was blocked in the wake of objections by donors and the EU in particular.

Georgia currently produces 80 % of its energy supply with hydropower; the remaining demand is covered by gas imports from Azerbaijan. Georgia plans to produce electricity surpluses in the coming years through the expansion of its hydropower facilities. The government intends to export electricity to Turkey once construction of an above-ground electric cable, financed by the KfW, has been completed. According to the position of the Georgian government, measures that aim to increase energy efficiency are generally seen as unnecessary since the country has an abundance of 'green' energy that it produces itself. However, a growing economy and development will lead to increased energy demand that will lower the amount of energy available for export if energy efficiency measures are not implemented. Furthermore, energy efficiency measures also give municipalities and private households the opportunity to save energy.

External advisor can rapidly bring actors together

The Tiflis city administration had six months following entry into the CoM to draft an SEAP and compile a mandatory baseline emissions inventory. The head of the department for economy was responsible for the SEAP on the side of the city administration, supported by a new staff member who was responsible for environmental issues. In order to stick to the allotted timeframe, the responsible parties divided up the entire process, working on individual aspects separately and in parallel, bringing them together upon completion.

The GIZ project on private sector development analysed the relevant actors and supported the city administration in creating an actor communication platform. The dispatched external advisor got the necessary activities off the ground, including the appointment of members to the communication platform, its moderation, the establishment of working groups in agreement with the city administration, organising the compilation of a baseline emission inventory, and selecting the necessary software for the inventory.

The head of the department of economy took on the task of moderating the actor communication platform along with the external advisor at a later point.

Four working groups were established from the platform: One of the groups processed the baseline emission inventory¹²; the three others dealt with project development for the areas of buildings, transport and municipal infrastructure. Being the only software programme customised for the CoM and recommended by the EU, the EcoRegion software was used – a programme developed by the Climate Alliance and the Swiss enterprise EcoSpeed.

The private sector development project moderated the three project development groups, whose members proved to be highly engaged. Actors were brought together in a short period of time, information and opinions were exchanged, an appreciation for energy efficiency and climate matters was developed and the first project ideas were gathered. During this phase, it was essential for the city administration to maintain motivation for the topic of climate protection. A feasibility study for the creation of an energy agency was done on request of the city administration as well, with the intention of developing the necessary structures for the implementation of the CoM. The energy agency should slowly assume an increased number of tasks, particularly the tasks of assisting municipalities that are developing an SEAP and supporting activities aimed at sustainable urban development. Tiflis received support from various partners, financed by the BMZ's International Climate Protection Initiative (IKI): from GIZ, from the Berlin Energy Agency, and from a local legal consultancy agency.

¹² The working group was supported by specialists for energy and greenhouse gas inventories from Switzerland, EcoSpeed, the Climate Alliance and by experts financed by USAID.

Considering the narrow window of time, the EU representative in Tiflis found a compromise with the city for submitting an SEAP, accepting a project list as a first step; the concrete development of the project's concepts could be submitted at a later date.

The city administration first planned to undertake a number of projects with assistance from international donors. It was then decided to establish an implementation structure for the SEAP within the city administration itself.



Drafting the SEAP together – at a workshop in Tiflis (Image: Astrid Denker)

High degree of responsibility required

The CoM office in Brussels approved the SEAP submitted by the City of Tiflis. The responsible people within the city administration came to realise that the CoM label is not all that easy to come by as it requires structural changes in the administration as well as a high degree of engagement and initiative. The city administration intends to found an internal unit for preparing the establishment of an energy agency. In so doing, the administration is not depending on international donors but is taking on responsibility itself. Many of the donors specifically required this to happen, above all the technical cooperation project for private sector development funded by the BMZ.

NGOs, companies and experts all exchanged their views on the topics of energy efficiency in buildings during discussions that were intense and, at times, heated. As a result of these exchanges, the idea of energy efficiency has grown in prominence in Tiflis. A group that plans to work on concepts and solutions for improving energy efficiency in the building sector has been established. These developments in the energy efficiency sector have also had an effect on the Ministry of Economy: The ministry created a new department named 'Sustainable Development' three months after implementation of the CoM. This department is also meant to handle the issue of sustainable energy supply.

The ministry requested financing and advice from international donors for the task

of establishing this new department. GIZ organised the first orientation workshop and the UNDP took on further advisory services. One of the central issues is the improvement of the building sector situation and the introduction of internationally recognised construction standards. Currently, construction companies can choose from among 36 construction standards that apply in Georgia, which include certain mandatory parameters such as earthquake and fire safety. There has been a debate on the political scene as to whether US or EU standards should be implemented. For the time being, it remains difficult to predict if a unified standard will be introduced in Georgia, especially considering that many politicians see the freedom of choice among numerous standards as the core of a free market economy.

Central experiences and recommendations

1. Choose interdisciplinary approaches:

Choose interdisciplinary approaches: The process of creating an SEAP can, at times, be very technical – such as taking inventory of greenhouse gas emissions, calculating CO₂ saving potentials and extracting methane gas from landfills. On the whole, SEAPs require an interdisciplinary approach – they are ultimately a matter of setting priorities. These could be dependent on the effectiveness of a measure in relation to CO₂ reduction, the societal goals that a municipality wishes to set – such as improved energy supplies for the populace –, and the skills and levels of engagement that the private sector and civil society wish to offer up.

2. Connect issues of technology and economic support: Experts who advise on the issue of energy efficiency should also be intimately

familiar with economic support mechanisms or closely work with experts who are. This helps in differentiating purely technical questions from economic and institutional ones. Ignoring this issue could lead to concepts being created that do not accord with the actual needs of the municipality.

3. Recognise overarching connections: The CoM embeds itself within a large impact chain related to the global environment and development policies (ever since the 1992 'World Summit' in Rio de Janeiro). The CoM can serve as a starting point for achieving sustainable development by laying out the required steps and for achieving visible results in a short period of time.

4. Make use of CoM dynamics for other processes: Support for the CoM through international cooperation for sustainable development should be seen as existing within a larger context from the very beginning and therefore also consider other related effects.

On the larger scale, the dynamics that result from the CoM process could also be used to establish and expand a 'green economy'.¹³

5. A customised software programme for emissions inventory necessary: One of the disadvantages of the EcoRegion software is that it supports the creation of baseline emission inventories but does not allow for setting baseline scenarios. Such a feature would be important for municipalities in the Eastern Partnership in order to gain an overview of forecasted climate and energy supply developments. Many of the calculation factors found in the programme are oriented towards Western Europe and are not entirely suitable for Eastern Europe, one that can generate baseline emission inventories as well as baseline scenarios.

6. Communication as a success factor: Frequent and transparent communication with all interested donors was necessary for the sake of mobilising all the available resources when drafting the SEAP for Tiflis.

¹³ For the analysis of system contexts and the design of development measures cybernetic models, also being applied in climate research, can be used. Reference: *Dennis und Donella Meadows, Joan Davis, 1972, Aktualisierung 1992; »Die neuen Grenzen des Wachstums«.*

7. Allow for margins of error: The energy data available for the City of Tiflis has proven to be very incomplete. At the beginning, it was important to start with the available resources and then refine them on a step-by-step basis while compiling the baseline emission inventory.

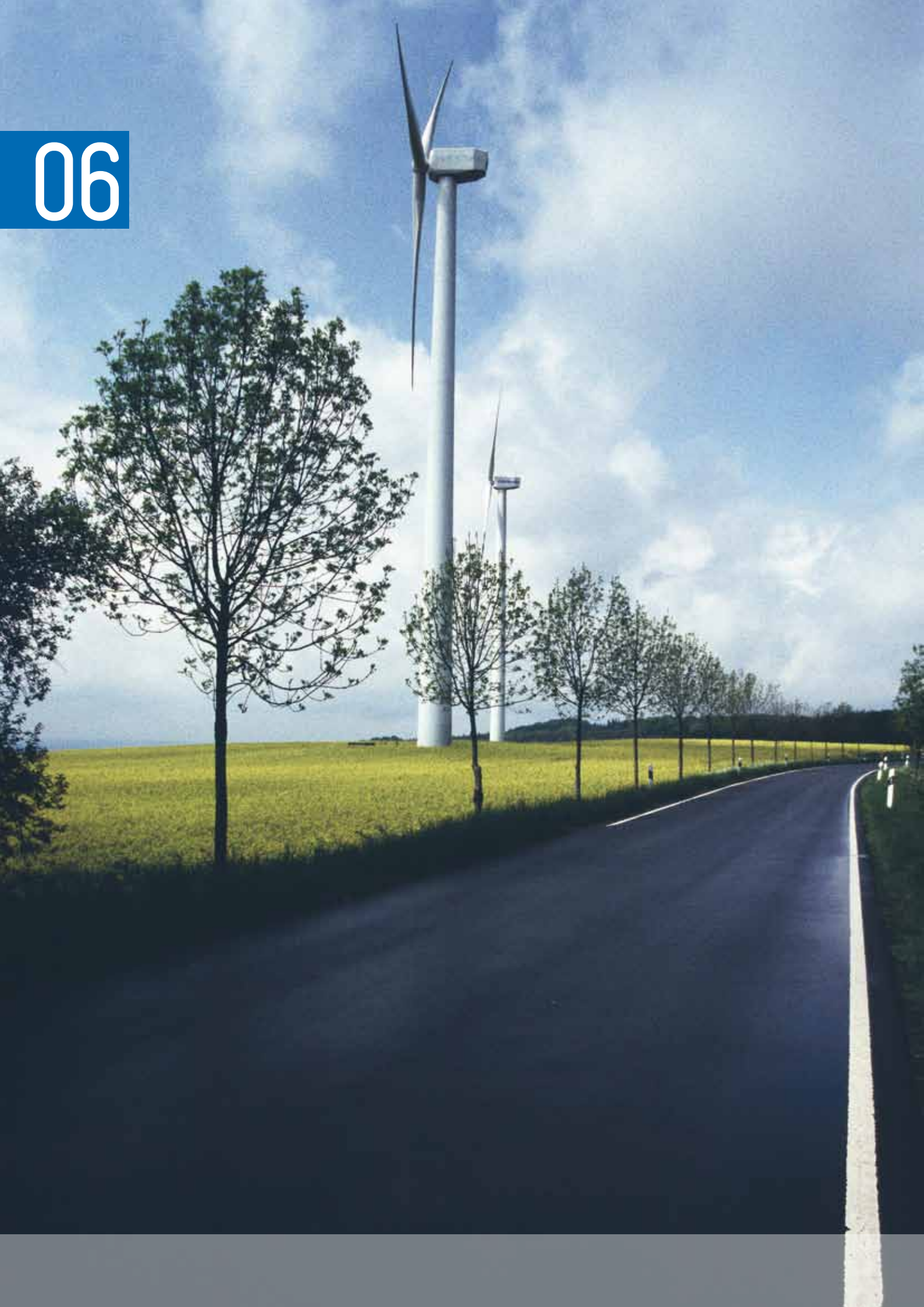
8. Include partners in the CoM coordination process: The actors on the multi-stakeholder platform in Tiflis demonstrated a high level of engagement. They requested guidance and coordination in order to be able to jointly debate relevant issues and reach desired goals consensually. City administrations should be given guidance for moderating such processes. An external advisor assumed this task in the case of Tiflis – the city administration took an active role later on. In order to include city administrations from the very beginning, guidance and training sessions should be an integrated part of the advisory services of the development cooperation programme.

The CoM can advance green economies

The German technical cooperation project on private sector development in Georgia initially concentrated on agriculture – a core sector in the economy with many jobs. Within the CoM, projects have been developed, partners have been gained for the implementation and financing, and a round-table discussion platform aimed at strengthening the Georgian construction sector has been moderated. The project supports representatives from various ministries, economic associations, experts and

donors in mutually developing action plans so that Georgian companies, construction workers and architects become more competitive. Quality and innovation are the central binding elements and preconditions for energy efficiency, also contributing to increased utility as well as cost effectiveness for buildings. Through market mechanisms, the CoM has the potential to become a central feature of private sector development.

06



A look ahead: Perspectives and recommendations

The CoM developed from a voluntary initiative into an influential international movement. It has since expanded beyond the borders to the European Union – participating municipalities can today even be found as far as New Zealand and Argentina.

GIZ has accompanied numerous municipalities with implementing the CoM. The advisory services that have been offered so far have been related to creating the necessary administrative and professional training structures for entry into the CoM as well as drafting baseline emission inventories and SEAPs for the

municipalities. Partners have benefitted from professional know-how in the areas of energy, transport, buildings, city planning, water, sewage and waste disposal as well as from GIZ's years of experience in creating networks, participatory dialogue processes, mediation, public awareness campaigns and forums for public involvement.

The diagram on the following page gives an overview of the success factors and obstacles related to working with municipalities in the context of the CoM.

Success factors

- Rising and/or high energy costs
- Data on the energy sector available and regularly compiled
- Planned future EU membership requires adjustment of legal parameters in the energy sector and the adaptation of EU climate goals
- Tight municipal budget as motivation for finding saving potentials
- Regular and transparent communication among administration, residents and GIZ
- Willingness by the municipal administration to involve residents and local experts
- Close cooperation with other donors
- Support structures (e.g. energy agencies) available for local authorities
- Involvement of all relevant actors
- Development of endogenous municipal networks/energy agencies (serve as coordinators and multipliers, also for other municipalities)
- Transparent decision-making processes
- Close involvement of city administration in technical cooperation measures
- Strong political will and public awareness of the issue
- Stress costs savings rather than CO₂ savings
- Take advantage of competition (image and prestige) among communities
- Time planning forecasts (possibly begin with SEAP before official programme commencement)
- Experience in project development and management
- Those responsible for SEAP have experience with planning processes
- Involvement and dialogue with civil society is decisive for a sustainable CoM process
- Municipal administration communicates results and experiences

Framework conditions

Cooperation

Control structures

Strategy

Processes

Learning and innovation

Obstacles

- Municipalities do not possess sufficient decision-making authority or skills
- Insufficient access to data – data unreliable
- Difficult access to investment funds and financing
- Customised software and tools unavailable
- Infighting over mandates within the administration
- Scepticism within the municipal administration in regards to involving residents
- Changes on the political level and related shifts in interests among actors
- Highly hierarchical and centralised organisation within municipal administration
- Energy efficiency should not curb economic growth
- Time pressure causes insufficient involvement of actors and qualitative devaluing of SEAP
- Lacking political continuity
- No party responsible for monitoring – or monitoring not desired
- Corruption
- Insufficient professional staff
- Insufficient knowledge (on energy, management, planning, process formation) leads to misunderstandings and miscalculations

Summary of challenging and supporting factors and measures – compiled by authors

When all is said and done, energy policies get implemented on the municipal level. Municipal administrations have close contact to their residents and their positive and proactive measures serve as role models and motivators. Tight budgetary conditions add pressure on many municipalities to identify saving potentials and undertake relevant measures, careful not to make decisions that are deemed unpopular by residents. Even though the Covenant of Mayors is, in essence, a climate protection tool, it not only serves as a climate protection instrument for municipalities in developing, newly industrialised, and transitioning economies but it also contributes to:

- opening up entrenched structures within the municipal administration and promoting cross-departmental cooperation,
- introducing and operating municipal energy management systems,
- introducing middle and long-term planning processes,
- establishing participative dialogue processes with the populace, private sector and civil society,
- winning over broad and varied sectors of the population in implementing municipal measures,
- creating outward transparency in decisions, planning and activities,
- creating approaches for monitoring climate and energy policies and presenting concrete and clear results,
- saving money,
- preparing the way towards a sustainable energy economy.

The first steps involved in the CoM (signing, drafting an SEAP and compiling a CO₂ inventory) are met with success when:

- municipalities demonstrate a willingness for engagement and do not leave implementation to other international development cooperation projects,
- mayors personally involve themselves in the CoM and display solidarity,
- a cross-departmental team from the municipal administration take on the management of work processes along with representatives from the energy sector, and also receive the necessary time resources,
- the SEAP draft process involves all relevant actors from the municipality,
- the process is accompanied by good public relations,
- adequate financial resources are made available for the process.

Signing the Covenant and creating the SEAP and CO₂ inventory are the first, and relatively simple, steps on the way towards implementing the CoM. The real work begins afterwards, requiring actors to take a deep breath. Nevertheless, many municipalities face great difficulties related to the requirements for the SEAP; as of December 2012, only 46 % of all signatories have submitted an SEAP to the EU, and less than 12 % of signatories possess an SEAP that has been approved by the EU. The question of 'why' cannot be satisfactorily answered in the scope of this report.

Following the completion of the SEAPs and presentations aimed at public awareness, municipalities are confronted with the question of establishing an order of priorities for implementing and financing the individual activities.



Directors at the back – Actors and staff members of the GIZ project in Podgorica (Image: Strahil Panev)

Municipalities require valid approaches for regular monitoring of the implementation progress. The danger exists that the relatively long-term time frame up to the year 2020 could cause municipalities to delay undertaking the necessary processes within the CoM.

The CoM also offers German international development cooperation and GIZ interesting and expandable working areas for the future – such as making use of the experience from countless German municipalities. The following topics and tasks could be interesting in this context:

- Development of criteria for evaluating the preconditions under which German technical cooperation can successfully support municipalities in fulfilling their CoM obligations.
- SEAP is drafted – now what? Supporting municipalities in implementing measures:
 - setting priorities, financing, detailed planning, execution, quality control, profession training, monitoring.
- Introduction of municipal energy management systems and the corresponding instruments.
- Evaluating SEAPs: Identifying similarities and sharing solutions that have worked elsewhere.
- Networking CoM municipalities and those that wish to join the CoM.
- Creating intelligent and effective measures for public awareness and information campaigns for the populace.
- Making use of CoM experiences for the (national) political sphere – but how? Identifying the role of municipal and city associations in the CoM.

- Sharing lessons learnt: Involving German municipalities and energy agencies in the projects and city partnerships.
- Establishment of cooperation agreements with internationally recognised professional organisations (such as the ICLEI).
- Development of new and existing HCD (human capacity development) programmes for introducing municipal management systems and for training municipal energy auditors and managers.
- Placement of integrated or returning experts in the municipalities (dispatched via CIM).
- Adjustment of the CoM concept for other regions – an initiative for the Maghreb region is also currently being considered, one which is similar to the initiative for countries in the ‘Eastern Partnership’ and Central Asia.

07



Further information

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Table of Abbreviations

BMU	German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
BMZ	German Federal Ministry for Economic Cooperation and Development
BuH	Bosnia and Herzegovina
CIM	Centre for International Migration and Development
CHP	combined heat and power
CoM	Covenant of Mayors
CoMO	Covenant of Mayors Office
CO₂	carbon dioxide
EECU	Energy Efficient Cities of Ukraine
EMIS	energy management information system
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
ICLEI	International Council for Local Environmental Initiatives, as of 2003 Local Governments for Sustainability
IKI	International Climate Protection Initiative (of the BMU)
JRC	Joint Research Centre of the European Commission
MoFTER	Ministry of Foreign Trade and Economic Relationship (Bosnia and Herzegovina)
NEEAP	National Energy Efficiency Action Plans
NL Agency	Ministry of Economic Affairs, Agriculture and Innovation (the Netherlands)
NRO	non-governmental organisation
ORF	open regional funds
RS	Republika Srpska/Republic of Serbia
SEAP	Sustainable Energy Action Plan
SME	small and medium enterprises
UNDP	United Nations Development Programme
USAID	United States Agency for International Development



Deutsche Gesellschaft für
Internationale Zusammenarbeit (GIZ) GmbH

Dag-Hammarskjöld-Weg 1-5
65760 Eschborn
Germany
T +49 61 96 79-0
F +49 61 96 79 11 15
E info@giz.de
I www.giz.de