D5.4 Final publishable report

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1. Introduction

This document was developed as part of MULTIPLY – Municipal peer-to-peer learning in integrating transport, land-use planning and energy policy at district level.

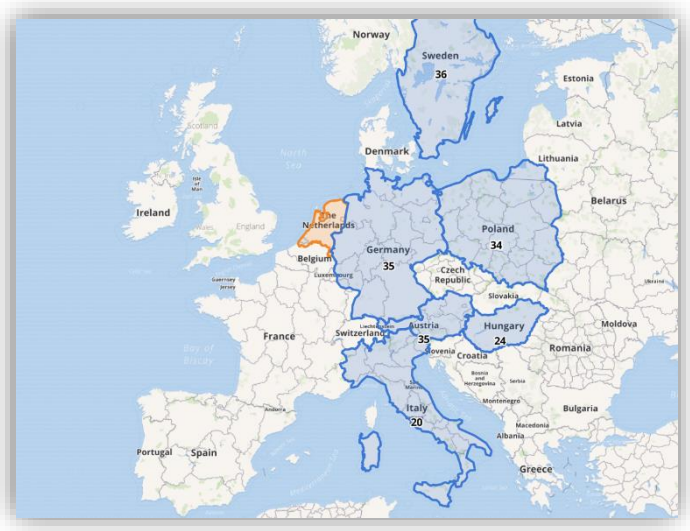
MULTIPLY received funding from the European Union's Horizon 2020 Research and Innovation Programme under the Grant Agreement number 785088. The MULTIPLY project ran from 12/2018 to 07/2022.

This report sums up all major learnings, particulary best practice examples, from the entire project duration.

2. Executive summary

Within the Multiply project 43 municipalities from six European countries (Austria, Germany, Hungary, Italy, Poland, Sweden) where directly involved in six national peer learning workshops on integrated urban planning.

184 participants took part in the learning processes and attended at least one of the organised 38 exchanges. Among the attendees were politicians, city planners and communications experts from the participating municipalities. The map below shows the countries involved in the peer-to-peer learning phase of the project and the number of participants in the national exchanges. The flow chart depicts the original plan for the peer learning exchanges in the six project countries.



What is more, in a series of three national dissemination workshops in all six project countries over 400 participants were reached with the main learnings of the project.

In the course of the project 26 municipal Energy Plans were developed of which 14 could be institutionalized, mostly by way of a formal city council adoption.

Country	Number of Energy Plans	Institutionalised Energy Plans
Germany	4	0
Poland	6	3
Hungary	3	3
Italy	4	2
Austria	4	3
Sweden	5	3*
Total	**26**	**14**

*planned

The before-mentioned 26 Energy Plans entail combined energy savings potential of 4.000 GWh and renewable energy production potential of more than 695 GWh annually from 2030 onwards – if fully implemented. This would result in annual CO2 reduction of 2,5 millions tons (-55% compared to 2019). This would, by far, exceed the goals of the project. The 14 Energy Plans that were institutionalised in the project combine for 2.596 GWh/a in energy savings potentials. Even this is still much more than anticipated.

3. 9 Major learnings of the project

A project that runs for over three and a half years creates many opportunities to increase knowledge and build experience of all involved persons. The following describes a brief selection of 9 major learnings of the project partners that were found noteworthy for those that are planning or implementing similar projects.

#1 European exchange essential and fruitful

Throughout the entire lifetime of the project the partners witnessed a rise in knowledge that stemmed from different European exchange components – both between the project partners themselves and between the involved municipalities from six European countries.

For the project partners the benefit of a European scope and view on the issue of 'integrated urban planning' already became apparent during the drafting of the project proposal and further manifested throughout the project's lifetime. It was especially valuable to have a well-designed project consortium with all sorts of different expertise. The different views on common challenges and their possible solutions enriched the discussions in all project phases. This applies, for instance, to the designing of the municipal competitions as a starting point, the conduction of the peer learning workshops, data collection at municipal/urban level, but also questions on the institutionalization of the Energy Plans that were an essential product of the project.

For the participating Multiply municipalities the open exchange during the Big European exchange conference with its many best practice examples was especially enriching. Also, the peer to peer workdhops with the Dutch urban design office PosadMaxwan/Generation Energy were a real benefit for all. These created the opportunity to learn from the foreign partners, more expert in the topic of

integrated urban planning, learn more about Dutch case studies and how they may be a source of inspiration for other EU Cities. The project partners from Austria and Hungary also organized transnational study trips for their municipal partners. This was very much appreciated by those who benefitted from the direct personal exchange.

#2 Good project set-up: different layers of exchange

The before-mentioned European exchange between the involved municipalities (e. g. during the Big European Exchange conference or the Final European conference) was, without a doubt, really helpful as it helped municipal representatives to broaden their views on specific challenges they are faced with at home.

However, it was a very good decision to design the peer learning phase of the project mainly as national exchanges. Different starting points and country-specific problems as well as language barriers would have prevented a more in-depth exchange.

Therefore, the Multiply project contained a series of six national peer learning workshops (in Sweden, Germany, Poland, Hungary, Austria and Italy) that worked independently from each other, but were interwoven to a certain degree by different European exchange elements.

#3 Differing points of departure from country to country

Despite the common European framework it became clear very quickly that the starting conditions across the participating countries were far from being comparable.

On the one hand this sparked plenty of interesting and insightful discussions within the project team.

On the other hand, however, this made certain challenges and their possible solutions sometimes a bit difficult to compare between countries. However, always some commonalities could also be found and many of the solutions discussed can be a source of inspiration for others, even if requiring adaptation to the national context.

#4 Municipal competitions on 'integrated urban planning' challenging

In some of the project countries the municipal competitions that built the foundation for the selection of the project municipalities were quite challenging.

With the benefit of hindsight the project topic of 'integrated urban planning' might still have been a bit 'avant-garde' in comparison to actual day-to-day work in the addressed municipal administrations. Besides, the topic might have been a too broad one.

#5 'Integrated urban planning': still a new theme in practice

It became clear quite quickly that there is quite a gap between thereotical concepts about 'integrated urban planning' and day-to-day practice in European municipalities.

Most, if not all, participating municipalities across Europe were very much attracted by the idea of addressing their municipal challenges of climate mitigation in a more holistic way, i. e. overcoming traditional sectoral approaches that still prevail within municipal administrations.

Still some of the most advanced forerunner municipalities had a lot of room for improvement when it came to integrating a more holistic view into their day-to-day business. Therefore, often the good and best practice examples we documented are still a bit one-sided.

All in all, we nudged the participating municipalities more and more into the direction of more 'integrated planning' approaches and made these approaches known in the project countries and across Europe via the National Guidelines and the European Guideline.

There is, however, still a lot to be done in terms of actual integrated planning practices within European municipalities. Municipal administrations are, after all, social systems with a substantial degree of inherent institutional inertia. The Multiply project created a good basis for that.

#6 Successful contingency planning in times of Corona/Covid19

With the benefit of hindsight, the consortium's resilience in view of the unfolding Corona/Covid19 pandemic that started in March 2020 was a very good learning experience.

It was excellent to see how all partners collectively and very creatively dealt with the unprecedented situation and challenges we were faced with. The municipal networks were kept alive with various online meetings that replaced the originally foreseen live peer learning events. This holds true for most of the dissemination workshops and especially for the Big European Exchange conference (see chapter 3.2 below).

Also numerous project meetings were shifted into the online world. The basis that we had laid in the first two physical project meetings in Radolfzell, Germany and Kraków, Poland carried us through the entire project lifetime.

The experience proved that the on-line exchanges can also contribute to the rise of knowledge, however the physical ones allow for bigger integration and creating bonds lasting beyond the project. Therefore the conclusion is that – for future and it the situation allows – it should be a mixture of physical and on-line events, each having its strenghts and weaknesses.

#7 Data availability at district level challenging, but important

The Multiply project set out to influence urban planning in at least 24 committed municipalities at district level. It became clear very quickly, however, that this was a challenging endeavour. One of the main reasons for this was the lack of adequate and ready-to-use data for this specific scope in many of the project countries and chosen municipalities. This stems from the fact that districts are usually not congruent with political/administrative boundaries that the municipal adminstrations collect data for.

In our view, this data (e. g. on energy consumption, CO_2 emissions etc.) is needed for robust planning of climate-neutral and climate-proof urban infrastructure.

For this reason, the Austrian partner CAA developed an excel-based tool that helps to approximate the needed data on the district level (see chapter 3.2 below).

#8 A lot has been done but there is still a lot to do

In relation to municipal planning and investment cycles the project's lifetime of 3 ½ years is not that much.

We ared produd that we have managed to increase EU cities' awareness on integrated urban planning and to initiate new local energy plans, however for the results of their implementation we will have to wait a bit more. Considering the project timeframe, almost none of the measures that were proposed in the 26 Energy Plans had a realistic chance to be fully implemented within the project duration. This means that a lot remains to be done within the years to come in the Multiply municipalities and districts.

The Multiply partners will curiously observe the developments in the municipalities in the next years and support them in the process.

#9 Collaboration more than anything

Successful urban development depends on the work of various municipal departments focusing on different fields. In order to ensure the effective implementation of "integrated urban planning", it is extremely important to create exchange opportunities for individual professionals with wide knowledge inside as well as outside their department. It is necessary for departments to be aware of the responsibilities that belong to others, which will allow for better cooperation as well as implementation and planning of activities.

There is still too little attention paid to such shared activities, which for the implementation of integrated urban planning (combining so many aspects related to the city) are particularly important.

4. 10 Best practice examples

There are plenty of best practice examples within the project. Some stem directly from the participating municipalities (see 3.1), others depict processes tested or outputs developed by the project partners (see 3.2).

4.1 Good practices from participating Multiply municipalities

#1 Germany – Hamburg Eimsbüttel

The German forerunner city Hamburg with its district Lokstedt proved to be a best practice example in two main regards: a strong institutional embeddedness of 'intgrated planning approaches' through an interdepartmental planning group and a general strong focus on civic participation in urban planning.

- **Background on municipal climate protection**

Climate policy already has a long tradition in Hamburg. In 2007, the city adopted its first climate protection concept. With Hamburg Energie, a municipal utility company was re-established in 2009. This was followed in 2013 by the "Climate Protection Master Plan", in 2015 by the Hamburg Climate Plan, and in 2019 by its update and adaptation. In 2019, the city of Hamburg also bought back the district heating network in order to exert a direct influence on the heat supply through this.

Figure 1 Cover page 'Integrated Climate Protection Concept' for Eimsbuettel, Hamburg

The district of Eimsbüttel also installed its own climate protection management in the summer of 2020 and has since developed an integrated climate protection concept with broad citizen participation. This was unanimously adopted by the Eimsbüttel district assembly at the beginning of 2022. The Eimsbüttel district authority is acting within the framework of Hamburg's and the federal government's climate protection goals.

From 2016-2019, the project 'Climate-friendly Lokstedt' was able to provide impulses for climate-friendly district development in an existing neighborhood (including minimizing resource consumption by means of swapping and gifting and redesigning public spaces). These will be tested experimentally in a follow-up project from 2020-2022. One focus will be on combining local quality of life with climate protection and car-free mobility.

- **Background on 'integrated urban planning'**

  The urban planning department in Hamburg-Eimsbüttel is largely responsible for the realization of the 'Climate-Friendly Lokstedt' project. In the district, there has already been good, interdepartmental cooperation for a long time. Since 1995, there has been a district development planning group (BEP group), which is strongly influenced by the city planning office - both in terms of organization and content. District development planning is an internal administrative planning instrument that provides guidelines and objectives for holistic planning. The various specialized offices and departments work closely together here.

  The BEP group is valued by local politicians and administratative staff alike as an important part of open cooperation and communication. In addition to urban planning, other departments participate depending on the topic (health; basic security and social affairs; social space management; consumer protection, commerce and the environment; economic development, construction and the environment, etc.). Municipal politicians from all parties take part in the workshops of the BEP group. In this context, the urban planning department has repeatedly been able to provide impetus on the topic of climate protection.

- **Actual projects and results**

  The main results of the 'Climate Friendly Lokstedt' project are the identification and visualization of a large number of possible measures for subsequent implementation in the areas of household energy, mobility and waste prevention.

Figure 2 Visualization of measures in the field of urban mobility/ © Riesenspatz

The district development planning (BEP) has also developed various concepts under the title "Eimsbüttel 2040 - Zukunft.Lebenswert.Gestalten". Of particular note are the spatial model and the climate protection concept for Eimsbüttel.

#2 Poland - City of Bydgoszcz

- **Background on municipal climate protection**

In 2011 the City of Bydgoszcz committed to join the "Covenant of Mayors on climate and energy". This is a moral commitment to climate protection and the result of the long-term strategy of Bydgoszcz in the field of sustainable development. Another step towards climate protection and improving the quality of life of the city's residents was the accession in 2019 to the "New Integrated Covenant of Mayors on Climate and Energy" with the aim of reducing CO2 emissions, in the city area, by at least 40% by 2030, mainly by improving energy efficiency and making greater use of renewable energy sources. As a consequence, a Sustainable Energy and Climate Action Plan for the City of Bydgoszcz until 2030 has been developed. The city also has a Municipal Plan of Adaptation, as well as Study of Conditions and Directions for Spatial Development, which, by defining the municipality's spatial policy, including local principles of that field. It is the primary tool for fulfilling the municipality's own tasks in the field of land menagement, communications and technical infrastructure. It is an obligatory, interdisciplinary, planning document that takes into account long-term intentions, defining the directions of spatial transformations and technical infrastructure throughout the city.

- **Background on 'integrated urban planning'**

Bydgoszcz is actively working in the field of integrated urban planning. Many specialists are working in the city hall to ensure that this idea transfers to everyday urban reality. In the city works actively Urban Planning Office, which is responsible for spatial planning. Local plans created there, are designed to set the urban direction for the city of Bydgoszcz, with the highest planning standards to ensure sustainable development of the city. As integreated part of design work and according to the needs of the city, analyses and studies of areas are prepared to facilitate all decisions related to the development of Bydgoszcz. The city puts a lot of focus on the energy aspect as the base for a good integrated approach. The proper energy management in the city helps to establish the basis for further activities in other areas. Since 2016, there has been an Energy Management Team in Bydgoszcz, which is a unique in Poland public office and is responsible for i.a. Energy Database, heating management system in municipal buildings and many more. Integrated urban planning, also means proper transportation management. In 2015, the Intelligent Transportation System (ITS) was implemented on the main streets of Bydgoszcz, which allows for the integration and proper management of public transportation and motor vehicle traffic. All of the Municipality Department works together to create the effective results.

- **Actual projects and results**

The city doesn't stop and is constantly looking for new and modern solutions to improve and make city management easier. Therefore, the Energy Management Office launched the Energy Database. It is a web application enabling monitoring and processing of data on media consumption costs, including electricity, heat, gas and water in public buildings. Greater energy efficiency is obtained thanks to

weather regulation, temperature variations according to the schedule. The application also allows the user to optimize energy consumption due to restrictions: return temperature, flow, power. This Database has collected data automatically on electricity from about 1,400 energy consumption points among the city. All of this is controlled by the Energy Cost Management System (EMS), which makes it possible to monitor and process data. The estimated savings from the implementation of thermal energy management is 5%. In 2020, the process has been automated, which until now was based on manual input of invoice data from individual consumption points, with a high probability of mistakes. Thanks to robotization, documents are automatically downloaded and sent to the relevant units. It is also possible to analyze the data contained in these documents and detect billing errors and various anomalies in energy consumption. This knowledge allows, among other things, to take action, install devices such as compensators, which will eliminate the excesses and thus the need to pay additional fees. It allows increasing the efficiency of task performing and automatic analysis of documents according to the implemented logic, as well as adding an unlimited number of energy consumption points from which data will be collected. Such a measure enables constant control and planning of relevant activities in the area of integrated urban planning.

#3 Hungary – City of Budaörs

Budaörs, situating next to the capital, is a town with a quite special atmosphere, with a nice mixture of urban and natural factors: highly esteemed blocks of flats, natural environment and the historical city centre. The city has become one of the most developed settlements in Hungary by the entrepreneur-friendly manner of the municipality that has attracted many innovative companies settled in the area.

Budaörs was among the first Hungarian cities who joined the Covenant of Mayor and developed a Sustainable Energy Action Plan in 2012. The municipality is running several energy-efficiency and sustainability related projects in parallel that demonstrates perfectly the commitment of the municipality towards a sustainable future.

The city administration utilizes solar energy on plenty of the public buildings but they go beyond only producing renewable based energy and also try to be conscious of their energy consumption. To enhance sustainable consumption, the municipal administration has been among the first national municipalities who introduced an energy monitoring system among its self-operated institutions that can be so far assessed as a successful initiation resulted in energy consumption therefore cost reduction and awareness raising among employees.

Budaörs is also a forerunner and demonstrates a good example by always trying to maximize energy efficiency measures and renewable energy utilization on their own building stock. In addition, they ensure that domestic buildings stock is also taken care of by dedicating a considerably high annual financial support for locals' building renovation and renewable energy utilization purposes.

Also, the municipality has a long experience and successful projects with citizen engagement as well. The administration has renewed their Integrated Urban Strategy with an innovative public participation programme. Due to the engagement project the municipality has not only make an extensive use of the participating citizens' ideas and integrated it to their strategy but also managed to make their locals' feel that their voices are being heard.

Budaörs was also one of the EUCF programme funded municipality that developed a positive-energy district concept for one of their mostly commercial and residential type of district. The goal of the concept is to maximize the local energy production mainly by installing solar panels on the residential and commercial buldings, deep- renovation of all buldings, e-mobility solutions to reduce car use, smart metering etc. As the municipality is now owning the concept the way forward os to find a financing solution to implement the project in practice that the municipality certainly plans to in the near future.

After being one of the first nation-wide cities with SEAPs, Budaörs has further developed its action plan into SECAP and taking into account climate adaptation aspects and in parallel elaborated their national methodology based Climate Strategy. The municipality now is very much devoted to not only put their climate ambitions into words but also into actions.

Since 2013, the Sicilian Administration has been committed to revolutionizing the city's Borgo through the implementation of virtuous works and participatory pathways, many of which are encapsulated in the B.E.L.L.O.-Bacino, Ecologico, Laboratorio, Lento Operativo project, and which have made this small municipality a model to be followed at the European level. By creating close connections with other administrations and public bodies, such as State Universities, and raising awareness of sustainability issues, the municipality aims to redevelop many of the city's places, providing more services and ensuring a high quality of life. Several good practices have been implemented by the Municipality: from the regeneration of urban spaces with a "proximity composting" system and water houses, to the energy upgrading of public housing stock, and the creation of "soft" mobility. The latest goal is to create the first Energy Community in Sicily. In Ferla, the courage and sharing of good examples become an incentive to be a "positive contagion"

The community of Ferla already since 2015 implements in its territory and with public funds 7 photovoltaic installations on municipal buildings. Also planned is the intervention to re-efficient the municipal aqueduct, a highly energy-intensive, thanks to which the borough could crown its dream, set off in early 2021, of becoming an Energy Community.

The municipality's school buildings have been equipped with a total of 11 square meters of solar thermal and 116 kW of photovoltaics, in addition to being waterproofed and thermally insulated. Also now equipped with photovoltaic systems are the House of Associations, the Municipal Sports Center, the municipal warehouse and the sports field, for an energy savings of about 300 tons of CO2 per year. Thanks to a system of feeding back into the grid of the energy produced, the municipality, over the years, has not only not only saved money on its utility bills but also received an annual rebate from the GSE.

In the municipality of Ferla, every citizen represents an important cog. Precisely because of this, the population and the administration are in constant dialogue and evolution. Rediscovering the use of Instagram, Facebook, Whatsapp with the FILO project, the municipality has initially used a virtual, innovative and smart communication system, starting a real path of communication and participatory democracy.

There is no shortage of community flashmobs, educational meetings on good practices in the local area and civic workshops, from dancing to English and computer courses.

The experience then evolved into the project "Ferla Agora. The square of ideas," promoted by Mayor Michelangelo Giansiracusa in which all good practices of communication and information institutional participatory put in place by the administration and which was created with the aim of restore value to the old village square using it as a new political stage.

The municipality of Ferla is a classic example of a municipality capable of regenerating the hostile environments of its city. It does not go it alone, but by collaborating with partners public and private, such as associations, citizens and neighboring municipalities carries out sustainability projects highly ethical, as in the case of the Ecostation Municipal. From the recovery of an abandoned building, in 2014 a collection point is developed neighborhood recycling collection point run by municipal employees. Citizens can personally deliver I their own waste, obtaining in return incentives economic incentives on waste-related taxes. Ferla also, to date, has two Houses of the Compost, mini

composting facilities to confer the organic fraction on site and with the goal of filling the absence of the plants of industrial composting facilities in the region.

Figure 3 House of compost

Last but not least, the administration has decided to establish and launch a Renewable Energy Community named "Common Light - Let's put our energy together," following the unrecognized association scheme. The project is developed during the Peer-to-peer training organized within the MULTIPLY project and takes off in May 2021.

The REC is open to the free entry (and exit) of both private citizens and Small and Medium Enterprises in the territory whose utilities fall within the same MV/LV (medium voltage/low voltage) transformation cabin to which is also connected the 20 kW photovoltaic plant made available by the sole member-producer of the energy community, namely the Municipality of Ferla.

In terms of governance, the planned membership model is based on the so-called "one head-one vote" scheme, making the REC Assembly to all intents and purposes the sovereign body in charge of decision-making. The Assembly is flanked by a Board of Directors to which executive and management functions are vested, as well as the adoption of actions aimed at giving substance to the objectives of the Community.

Internal agreements on the allocation of incentives among members are governed by a separate contract that clearly and transparently defines the economic rights of association members. The chosen economic model stipulates that part of the money received by the Community is reinvested for the construction of additional photovoltaic or storage systems.

The municipal entity, in light of the full transposition of RED II, is proceeding with the implementation of the first core of RECs with an additional allocation of resources already allocated for the construction of an additional installation within the primary cabin. It is proceeding, in fact, with the issuance of a public notice for the search of technical partners who will commit to install a plant of at least 30 Kw at the roof of the Carabinieri Barracks owned by the Municipality of Ferla. In addition, following the March 2021 permanent public notice addressed to citizens and businesses in order to express their adherence to the REC CommOn Light, a foundation has shown interest in making its 14 Kw photovoltaic system available to the REC. The goal is to increase the installed capacity so as to have a greater share of renewable energy shared among the participants of the Renewable Energy Community.

Figure 4 The photovoltaic plant that powers CommOn Light

#5 Austria – City of Weiz

The Austrian forerunner city of Weiz is an industrial city with 11.797 inhabitants in eastern Styria. In addition, 12.000 people commute to Weiz every day. Weiz has been addressing the issues of sustainability, energy, environmental and climate protection for many years now.

- **Background on municipal climate protection**

The city of Weiz has been a member of the e5 programme for energy-efficient municipalities since 2005. Under this programme, the municipality has committed itself to implementing long-term environmental, sustainability and climate protection measures and to evaluating their effectiveness. This is the only way that Weiz was the first municipality in Styria to achieve the highest possible rating of five "e" in 2014 and has been able to improve its rating even further since then.

Despite all this, it was determined and also unanimously decided in the municipal council that one must not rest on these successes and that further efficient measures must be introduced to counteract the increasingly noticeable climate crisis. With the help of SECAPS, the current situation is surveyed in order to take strategic action against climate change, but also to make eco- and future-oriented adjustments against it.

- **Background on 'integrated urban planning'**

Weiz has a district heating where almost 70% of households are supplied with heat (2500 households, approx. 100 large consumers) from 100% biogenic fuels. In addition to this Weiz has implemented the waste water project. This system is the first heat pump in Austria, which uses heat from a sewage treatment plant. The temperature of the wastewater ranges between a minimum of 10°C in wintertime and a maximum of 20°C in summertime. With the support of an electrical heat pump an office building is heated in winter and cooled in summer. The power of the heat pump is 90 kW.

- **Actual projects and results**

Since 2015, the city of Weiz and Sankt Ruprecht have been in close economic cooperation. This cooperation has also decided to follow a common path in the area of integrated energy planning, as both municipalities are characterised by very strong settlement development, housing construction and population influx are increasing

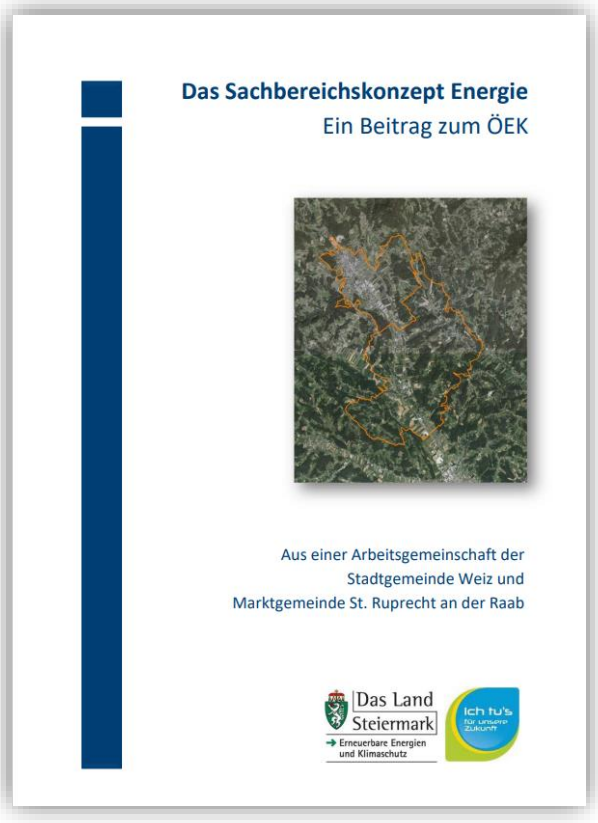


Figure 5 Cover page 'Integrated Energy Concept' for Weiz and Sankt Ruprecht

strongly, so that a holistic approach is necessary. This cooperation makes it possible to look beyond the boundaries of the municipalities and should thus also serve as a model for other municipalities.

The aim of the cooperation between the two municipalities is to promote sustainable resource-saving development with a focus on reducing the use of fossil fuels for heating buildings and hot water and thus expanding the use of renewable energies.

#6 Sweden – District of Tamarinden, Örebro

Figure 6 Visualization of the microgrid in the Tamarinden district

The new city district of Tamarinden a microgrid can effectively combine internal energy resources with external supply as a complement. By both storing and sharing energy, the solutions help reduce energy needs and climate impact as well as contributing to the reducing the Swedish power grid capacity issues. Parts of the solution have already been tested and are scaled up while others are at the forefront and challenge existing legislation in Sweden. The model for Tamarinden has been developed by Örebro municipality in collaboration the municipal housing company ÖBO and the energy company E-ON.

In Tamarinden, the municipality plans for the properties to be connected in a microgrid so that they can store and share the energy with each other. The city's electricity and heating plants are also connected to the grid. In this way, the area can contribute to cutting the power peaks, but also supply electricity to the Swedish power grid. Houses are no longer passive users of energy but an important part of the energy system. Solar cells on the roof generate energy during the hours of sunshine. But the houses are also equipped with batteries and hopefully one or more electric car pools, which means that the energy can be used even when the sun has gone down. With the help of a sophisticated control system that ensures that the energy goes where it is most needed, it is possible to steer away top load at times when the large electricity grid is short of capacity. In this way, this working method provides a solution to the capacity problem that can arise at certain times.

Tamarinden must be able to reduce, produce, store and share energy in a way that has never been done before and serve as a model for further expansions of the city.

4.2 Good practices from project implementation

#1 P2P 'design challenges' with PosadMaxwan/Generation Energy

One activity that was equally enjoyed by the municipalities in all project countries were the 'design challenges' for the technical planners being part of the six national peer learning settings that the Dutch urban planning office and Multiply partner PosadMaxwan/Generation Energy (PMGE) prepared and executed.

The 'design challenges' consisted of the following main steps:

- Definition of key challenges and related questions in the districts by the participating municipalities
- Organisation of 1 online workshop with various joint whiteboard exercises and discussions
- Preparation of 2 'design sketches' by PMGE as a proposal/starting point to further work with for the municipalities
- Organisation of 1 online workshop with presentation and joint discussion on the 'design sketches'

The following gives a couple of impressions from the related workshops and 'design sketches' in Germany.

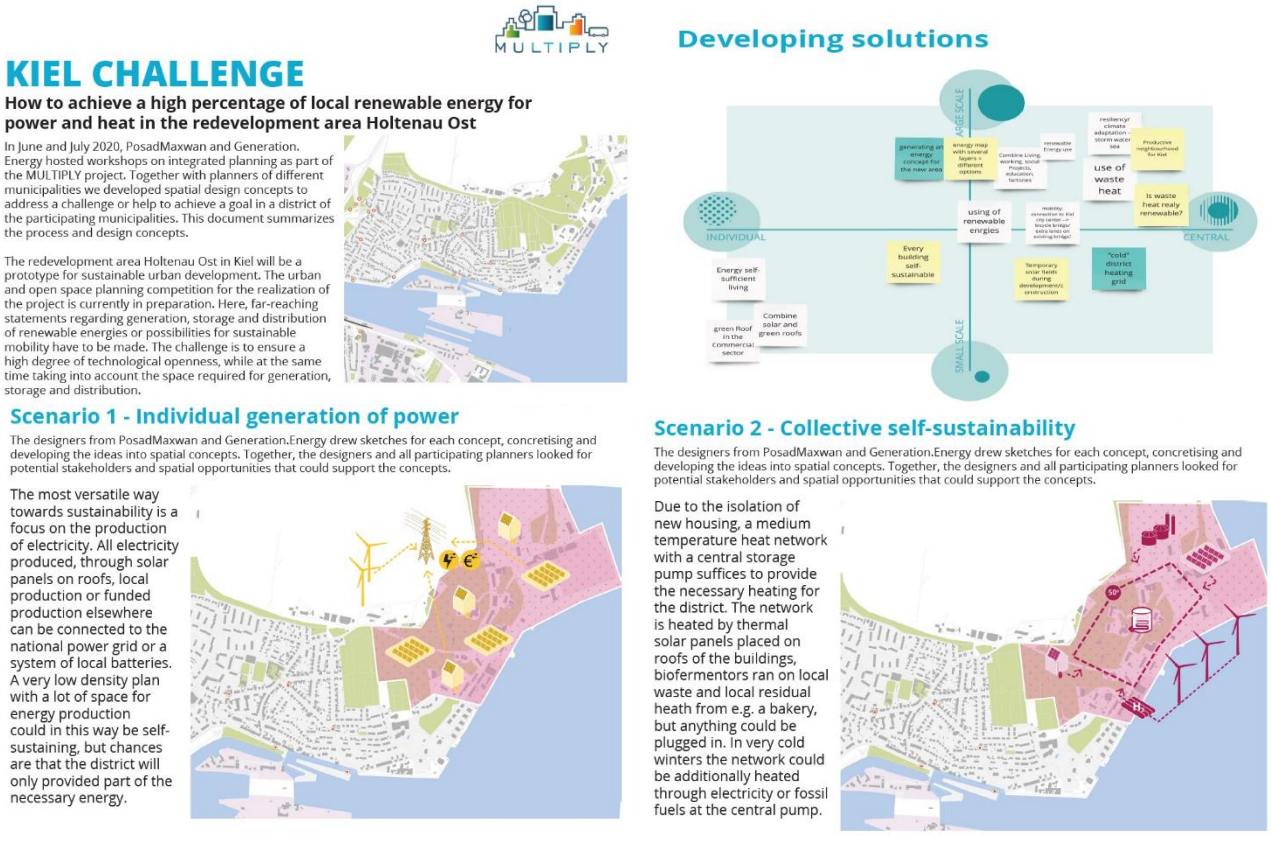


Figure 7 Examples of the 'design challenges' and 'design sketches' developed for a district in Kiel, Germany

The ‘design sketches’ served as a source of inspiration for the Multiply municipalities and were referred to and further worked on in later peer learning workshops.

Since most of the sessions with PMGE fell right into the first Corona/Covid-19 lockdown these workshops were almost entirely organized online. With the help of the online whiteboard tool ‘Miro’ interactive collaboration was possible. Also, PMGE managed to organize native speakers where necessary to facilitate discussions and networking.

All in all, the municipalities were very excited about the possibility to discuss their most pressing questions with specialized Dutch urban designers. This was a real incentive for some municipalities to join the project and certainly a big added value.

#2 Online Big European Exchange conference

One important European exchange event organised within the Multiply project was the so-called Big European Exchange (BEE) conference. Originally, this conference was meant to be a live event held in Italy. However, due to the Corona/Covid19 pandemic the entire event had to be shifted into the online world.

The Italian partners from Legambiente, who were responsible for this task, did a great job to achieve this. Within months, the entire conference organization was professionally shifted to a big online event.

Figure 8 Final agenda of the Big European Exchange Event

The conference was organized along four thematic fields: renewable energy, energy efficiency, mobility and participation. All sessions featured plenty of interesting good practice examples from the Multiply municipalities and included joint discussions.

The conference day and its many inputs and presentations took place via the Zoom platform.

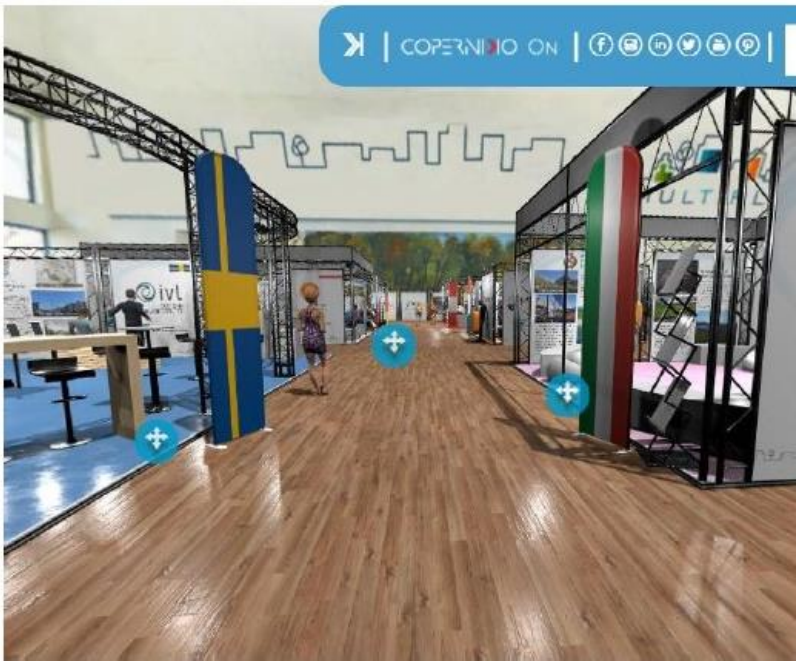
Before and after the actual conference day a virtual platform was accessible for invited guests that offered a virtual exhibition hall with individual country stands and different ‘rooms’ to enter.

This made the entire exchange of experience as close to a live event as possible.

All in all, with more than 125 users and more than 1.300 views on the 16th of April 2021 the conference and the complementary virtual platform can be considered very successful.

The following page contains a couple of pictures

from the different conference rooms.



The central corridor of the fair in the 'exhibition hall' was the starting point for our virtual visitors. From here, they could walk around the main hall and visit the six 'country stands' as well as the 'plenary hall' and the 'coffee area'.

The 'country stands' contained a lot of invidividual information about the 42 participating Multiply municipalities and allowed the visitors to get in contact with these.

Figure 9 Central corridor of the fair with access to the 'country stands'

Figure 10 Examples of 'country stands' from Austria and Italy

The 'plenary hall' allowed to directly enter the Zoom conference and contained some additional information about the work of the technical partner of the project, the Dutch urban planning office PMGE.

Figure 11 Plenary hall

As a part of their dissemination efforts all project partners produced a National Guideline document on 'integrated urban planning' and a corresponding short version of the examples covered there – the so-called Info Packs.

These documents – mostly available online, but partly also printed – served to make the concepts, ideas and best practice examples derived from the Multiply project known to a wider national audience in the six project countries (Austria, Germany, Hungary, Italy, Poland, Sweden), acting as a source of inspiration for taking similar approaches and actions.

The Swedish IVL partner developed a template for both documents and gave advice on how to collect the data and information to develop these dissemination outputs.

The following gives an example of the front page of the final National Guideline from Hungary and one of the Info Packs from Poland.

Figure 12 Cover page of the Hungarian National Guideline

Figure 13 Cover page of the Info Pack for Bydgoszcz, Poland

The process of collecting data and information for these central dissemination products of the Multiply project was closely accompanied by the Swedish partner IVL. They organized several internal workshops for the project partners. This way, it was guaranteed that the final results all contained comparable and good quality content.

These documents serve as a pratical guideline for other municipal practitioners.

#4 Energy planning excel tool

Another great output of the project is the freely available 'energy planning excel tool' that the Austrian partner CAA developed. Within the project the excel tool helped to develop the Energy Plans that contain concrete energy and CO_2 saving targets, often on a district level.

The excel tool allows municipalities to track and monitor CO2 reduction targets on the basis of available data. It complements already existing CO2 monitoring tools.

One of the unique selling points of the tool is that it allows calculation on a district scale and works with a lot of proxies so that only minimum data input is necessary to already get first usable results.

The tool uses different sheets for heat, electrity and mobility. It also contains sheets for further information, budgeting/financing and automatically derived figures that can be included in a report.

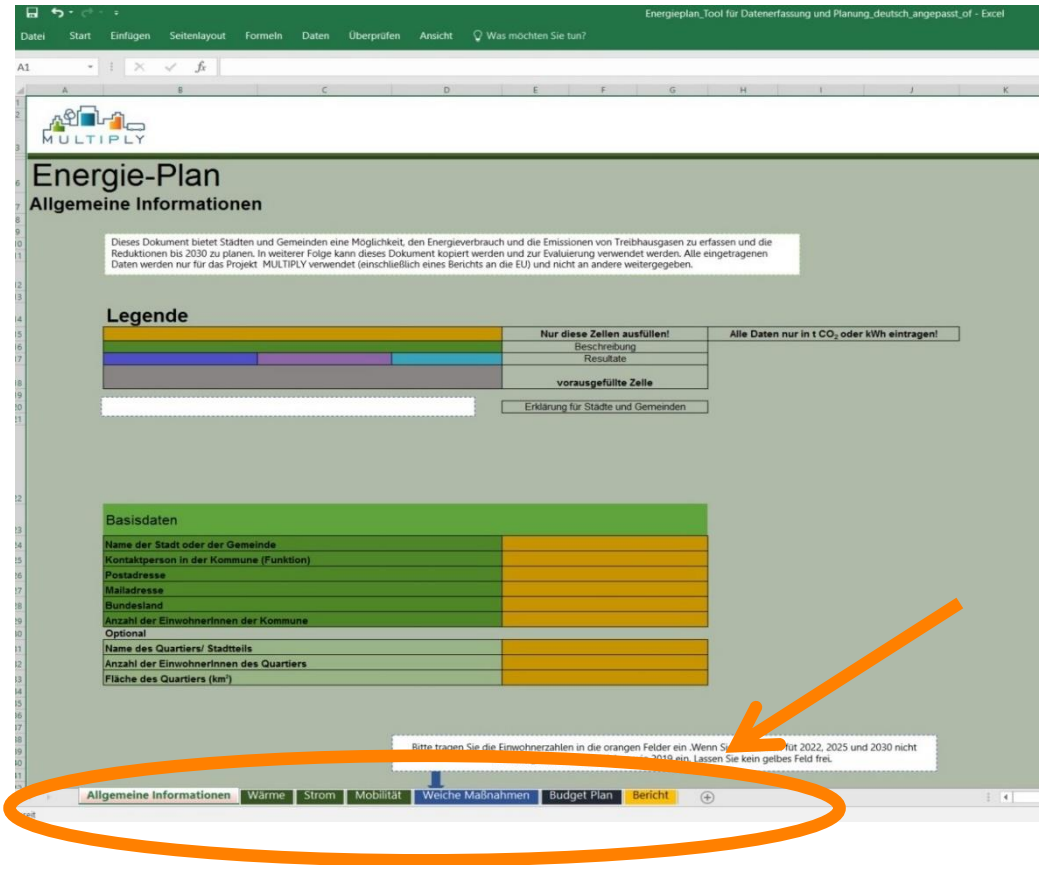


Figure 14 Start screen of the 'Energy planning tool' (German version)

5. Impact

5.1 Established relationships and capacity building

More than 42 municipalities participated in the project. Therefore, a broad network enabling exchange – both on the national level as well as on the European level – was developed.

Also, more than 690 stakeholders were reached – and their capacities increased – with the peer learning and the dissemination workshops. By way of online distribution of certain workshops (peer learning and dissemination), for example in Italy, additional people were reached. Also during the Big European Exchange additional interested people were reached. Therefore, all in all more than 1.000 people were reached and their knowledge increased throughout the lifetime of the project.

5.2 Expected energy/CO_2 savings and renewable energy production

All in all, 26 Energy Plans were developed during the project. These plans entail concrete targets for energy and CO2 savings as well as renewable energy production. The real implementation of the proposed measures, however, lies outside the scope of the project and will be followed after its closure.

In addition, 14 Energy Plans were institutionalized and 6 cities became signatories of the Covenant of Mayors.

These before-mentioned 26 Energy Plans entail combined energy savings potential of 4.000 GWh and renewable energy production potential of more than 695 GWh annually from 2030 onwards – if fully implemented. This would result in annual CO2 reduction of 2,5 millions tons (-55% compared to 2019).

This would, by far, exceed the goals of the project (energy saving of 177 GWh annually and renewable energy production of 80 GWh annually). The 14 Energy Plans that were institutionalised in the project combine for 2.596 GWh/a in energy savings potentials. Even this is still much more than anticipated. The main reason for this is that the district boundary was replaced for the whole municipality in some cases.

It must be noted, however, that these savings were triggered within their project but their final value will much depend on the implementation phase. Throughout the project the partners highlighted how important timely and efficient implementation is for the success of the Energy Plans.

Nonetheless, 14 Energy Plans 'institutionalized' the envisaged targets to a certain degree. The energy plan can and will presumably be used as a starting point for the cities who want to address the district level in their climate efforts. It can as such be a potential tool when choosing between different investments (i.e comparisons between mobility efforts or investment in building energy efficiency). It can also help visualise the importance of integrating a climate perspective in the development process. This way, MULTIPLY helps the committed cities' political decision makers to develop and defend a longterm vision for the districts in question and visualise the importance of the planning processes when the city strives to reach their climate goals.

5.3 Communication and Dissemination

Communication

Good communication helps to spread the news about the project and its concept among a wide circle of stakeholders and encourage them to follow project development and its results. Within the Multiply project various communication channels and tools have been used, including traditional and social media:

EU level

- **Project website** (www.citiesmultiply.eu)

The **Project website** was the main tool used for communicating on the project, its activities, events, results and products. It supported project activities centralizing all relevant project information.

Figure 15 Landing page Multiply website

The website was regularly updated by the Managing Partner (PNEC) and the rest of the consortium, who published regular news on project activities and regularly uploaded new content and material produced within the project.

- **Project leaflet** introducing the project and its main concept to all interested parties. It contains basic information about the project (idea, objectives, expected results) and its key ingredients.
- **Project banner**, including project name and address of the project website to be used at EU level events.
- **Social media**, including the Facebook and the LinkedIn profile of the project, as well as social media used by the partners.

National level

- **National project webpages**

National project webpages are based on the EU-project webpage and can be accessed from it directly by choosing respective flags or adding country extensions to its address. It was up to the partners to copy and translate the texts from the EU-webpage and to add their own, national-relevant news, content and material.

- **Partners' institutional websites**

Although the main communication tool of the project, also on the national level, was the official project website (with national language versions) centralizing all relevant information and material, each partner also promoted and communicated on the project using its institutional website.

- **National communication material**

Apart from the European project leaflet, also national communication material was developed and used to communicate on relevant project activities. These include (upon need):

- **National competition information leaflet** promoting national competitions for forerunner and committed cities and including key information on these competitions.
- **Workshop promotion leaflet** –promoting national workshops and other events organized within the MULTIPLY project.
- **National project banner** to be used during national-level events.
- **Posters presenting forerunner and committed cities**.
- **City certificates** – all awarded forerunner and committed cities received a certificate confirming their achievement and participation in the MULTIPLY project.

- **Opportunity-based PR**

All project partners contributed to the communication and dissemination process through their own communication channels (website, social media, newsletter, events etc.). They also used their contacts to create synergies and maintain networks with other European projects and initiatives supporting sustainable urban development. In total, the following were delivered:

- **22 press articles**

MITEINANDER LERNEN

Quartiersplanung bietet Chancen für den Klimaschutz

Mitarbeitende aus sechs deutschen Kommunen haben sich Mitte Juni erstmals zu einer digitalen, von der DUH moderierten Lernwerkstatt getroffen. Dies war der Auftakt einer sechsteiligen Workshop-Serie im Projekt Multiply, dessen Ziel die stärkere ressortübergreifende Verankerung von Klimaschutz in der Stadt- bzw. Quartiersplanung ist. Die Veranstaltungsreihe richtet sich an verschiedene Zielgruppen aus Politik und Verwaltung ausgewählter Kommunen.

Die teilnehmenden deutschen Modellkommunen und ihre Quartiere sind Bürkle-Bleiche (Emmendingen), Hillerheide (Recklinghausen), Holtenau Ost (Kiel), Innenstadt Rheydt (Mönchengladbach), Lokstedt (Hamburg), Lutherviertel (Halle) und Rauher Kapf (Böblingen). Für den ersten Workshop entsendeten sie technische Verwaltungsangestellte, darunter Stadtplaner, Verkehrsplaner, Klimaschutzmanager, Quartiersmanager sowie Energiemanager.

Foto: Malmemto/stock.adobe.com

Im Projekt Multiply hat die Workshop-Phase begonnen.

Neben den persönlichen Vernetzung gab es die Gelegenheit, konkrete Problemfelder und Erfolge der teilnehmenden Quartiere kennenzulernen. Gemeinsam mit einem niederländischen Stadtplanungsbüro entwickelt die DUH im Nachgang erste Lösungsvorschläge für identifizierte Herausforderungen.

Solche Lernprozesse werden die DUH und ihre Partner auch in Italien, Österreich, Polen, Schweden und Ungarn, zunächst auf nationaler Ebene initiieren. Um die Vorteile integrierter Stadt- und Quartiersplanung bekanntzumachen, fließen die Ergebnisse in Leitfäden ein. Zudem wird die DUH, gemeinsam mit ihren Projektpartnern, zu einer europäischen Austauschkonferenz einladen – voraussichtlich im Frühjahr 2021. *(nw, jk)*

MULTIPLY

Förderer:

Kofinanziert durch das Programm „Horizont 2020" der Europäischen Union

Themen

Kommunaler Umweltschutz

Städte zukunftsfähig machen

Um die Klimaziele der Bundesregierung zu erreichen, stehen Kommunalpolitik und -verwaltung sowie Stadtgesellschaft in der Pflicht, alle bestehenden Klimaschutzpotenziale auf ihrem Gemeindegebiet zu heben. Die DUH unterstützt sie mit vielversprechenden Ansätzen.

Der Krieg in der Ukraine und die aktuelle Energiepreiskrise führen uns eins schmerzlich vor Augen: unsere hohe Abhängigkeit von klimaschädlichen fossilen Energien. Dabei liegen die Rezepte für eine zukunftsfähige Entwicklung unserer Städte auf der Hand. Die Schlagworte lauten: Autoverkehr vermeiden, Wärmenetze ausbauen und Strom aus erneuerbaren Energien verbrauchsnah erzeugen. Dazu: Stadtnatur und -gewässer erhalten, beziehungsweise neu anlegen.

Im aktuell laufenden Projekt Multiply betrachten die DUH und ihre Partner die Themen Verkehr, Wärme und Strom bei der Entwicklung von zukunftsweisenden Quartieren mit einem integrierten Ansatz.

Baustellen in allen Sektoren

Für den Verkehrsbereich bedeutet dies vor allem die Überwindung des völlig aus der Zeit gefallenen Leitbilds der „autogerechten Stadt". Um den Umbau hin zur „menschengerechten Stadt" zu erreichen, engagiert sich die DUH etwa für folgende Maßnahmen: Tempo 30 als Regelgeschwindigkeit innerorts, autofreie Innenstädte, reduzierte Stellplatzschlüssel, höhere Parkgebühren sowie mehr Fahrrad- und Fußverkehrswege und einen attraktiven öffentlichen Nahverkehr.

Im Wärmebereich sind die großen Baustellen die energetische Sanierung des Gebäudebestands und eine fossilfreie Wärmeversorgung. Für ersteres braucht es staatliche Anreize, für letzteres verpflichtende kommunale Wärmeplanungen. Erst beides gemeinsam schafft die Voraussetzungen für dekarbonisierte Wärmenetze, für die sich die DUH einsetzt. Das Verbot des Einbaus neuer Öl- und Gasheizungen flankiert dies.

Im Strombereich müssen Städte und Gemeinden alle verfügbaren Flächen für die Solarstromerzeugung nutzen. Versiegelte innerstädtische Flächen wie die Dächer von Schwimmbädern, Schulen, Kindergärten oder Rathäusern, aber auch von Gewerbegebäuden können mit Photovoltaik bestückt werden. Auch manche Parkplätze kann man überdachen und als Solarflächen nutzen. Unversiegelte Flächen im Umland eignen sich für die Errichtung von Freiflächenanlagen. Parallel zum oben skizzierten „Klimaschutz-Dreiklang" müssen sich die Städte zudem fit für die unvermeidbaren Folgen des Klimawandels wie die immer häufigeren und extremeren Hitzephasen und Starkregenereignisse machen. Hier können Stadtnatur und -gewässer Abhilfe schaffen. Denn sie kühlen auf natürliche Weise die bauliche Umgebung und führen Wassermassen kontrolliert ab. Gleichzeitig bieten sie einen unschätzbaren Naherholungs- und Freizeitwert.

Seit Jahren gibt die DUH dringend nötige Impulse. Auch weiterhin wird sie sowohl auf allen Ebenen der Politik als auch vor Ort mit konkreten Modellprojekten für zukunftsfähige, CO_2-neutrale, klimaresiliente und lebenswerte Städte und Gemeinden aktiv sein. *(nw)*

Kofinanziert durch das Programm „Horizont 2020" der Europäischen Union

Stadtteil Hillerheide, Recklinghausen: Auf dem ehemaligen Trabrennbahngelände (oben links) soll ein Wohngebiet mit einem See und Grünflächen entstehen (rechts).

Foto: Stadtentwicklungsgesellschaft Recklinghausen mbH

DUHwelt 2/2022 17

Figure 16 Examples of press articles on Multiply

- **7 press releases**

ARRIERE

WOCHE STEIERMARK · 08./09. JUNI 2022

MEINBEZIRK.AT/WEIZ

WIRTSCH

Raumplanung für den Klimaschutz

Sachbereichskonzept Energieraumplanung (SKE) von Weiz und St. Ruprecht an der Raab dient als Vorbild.

MARTINA EISNER

„Wir haben kein Problem damit, wenn die Häuser in die Höhe wachsen, aber sie sollen nicht mehr breiter werden", so Bürgermeister Erwin Eggenreich.

Wie mit klimaschonenden Siedlungsstrukturen wie zum Beispiel Versiegelungsgraden umgegangen wird, stellt einen von drei Bereichen im Sachbereichskonzept Energieraumplanung (SKE) der Stadt Weiz dar.

Ressourcen schonen

Oberstes Ziel ist die Förderung von energieeffizienten sowie ressourcenschonenden Raum- und Siedlungsstrukturen, um Energie zu sparen, Kosten zu senken und weniger CO_2 auszustoßen. Bereits 1994 trat die Stadt Weiz dem Klimabündnis Österreich bei. Im SKE wurden klimapolitische und energieraumplanerische Ziele verankert: energiesparende Mobilität und Wärmeversorgungssysteme sowie klimaschonende Siedlungsstrukturen. Sektorenübergreifendes und integriertes Planen ist in Weiz nichts Neues, aber besonders innovativ.

Die Stadt der kurzen Wege

Ein wesentlicher Schlüssel raus aus der Abhängigkeit von Öl- und Gasimporten liegt in einer klimaschonenden Raumplanung und einer Mobilität der kurzen Wege, kurz Energieraumplanung. „Die Stadt der kurzen Wege" wird mittels eines implementierten Fußgänger- und Radfahrerleitsystems geschaffen. Elf Stationen mit 80 Fahrrädern stehen zur Verfügung. Was die Wärmeversorgung betrifft, hat sich Weiz zum Ziel gesetzt, die Stadt flächendeckend mit regionaler Energie zu versorgen. Derzeit werden 70 Prozent durch Fernwärme aus 100 Prozent Biomasse gedeckt. Als Vorreiterin hat die Stadtgemeinde Weiz bereits einige klimaschonende Maßnahmen umgesetzt. „Derzeit plangen wir zusätzlich eine umfangreiche Begrünungsaktion in der Innenstadt, um hier die im Sommer immer stärker spürbaren Auswirkungen des Klimawandels abzumildern", ergänzt Erwin Eggenreich.

KLIMASCHONEND

P&R Weiz-Nord u. Preding
E-Carsharing & E-Bikeverleih
E-Ladestationen
Intervallanpassung Bus u. Bahn
Ceih- und Radwege innerstädtisch
Erhalt von Grün- u. Freiflächen

ZUR UMFRAGE

Welche klimafreundlichen Angebote haben Sie schon genutzt?

Ziel ist es, an einem Peer-to-Peer-Erfahrungsaustausch teilzunehmen. In Weiz war gerade eine ungarische Delegation zu Gast. RegionsMedien_Ettner

Die Stadt der kurzen Wege wird mittels eines implementierten Fußgänger- und Radfahrer-Leitsystems geschaffen. Markus Weiss

Debata w mieście krótkich dystansów

Wizyta uczestników projektu w sztumskiej ciepłowni Veolii Północ. Fot. PSEC

O zarządzaniu energią, transportem i o planowaniu przestrzennym w gminie dyskutowano 6 października w Sztumie podczas kolejnych warsztatów zorganizowanych w ramach projektu MULTIPLY.

Po przywitaniu gości i przedstawicieli miast biorących udział w projekcie przez Annę Jaskułę - dyrektor Stowarzyszenia Gmin Polska Sieć „Energie Cités" oraz burmistrza Leszka Tabora uczestnicy mieli okazję przypomnieć sobie główne założenia projektu, dotychczasowe działania oraz planowane rezultaty projektu. Patrycja Płonka - kierownik projektów w Stowarzyszeniu Gmin Polska Sieć „Energie Cités" przedstawiła ramy polityczne i prawne transformacji energetycznej w Unii Europejskiej oraz ich wpływ na sytuację i zadania samorządów w Polsce.

Następnie przedstawiciele miast mieli okazję zaprezentować działania, jakie w obszarze zrównoważonej energii, transportu i planowania przestrzennego planują realizować na przestrzeni kolejnych 10 lat w odniesieniu do nowo opracowanych Planów Działań na rzecz Klimatu i Energii czy aktualizowanych Planów Gospodarki Niskoemisyjnej.

Poruszono też wiele kwestii związanych z zarządzaniem energią w mieście i poszukujących nie problemów dotyczących efektywnego wykorzystania odnawialnych źródeł energii na terenie miasta.

W dyskusji uczestniczyli także zaproszeni przez Urząd Miasta i Gminy w Sztumie przedstawiciele firmy Veolia Północ, zarządzający sztumską ciepłownią, która w trakcie wizyty studyjnej uczestnicy mieli potem okazję odwiedzić. Ich doświadczenie w obszarze energii czy spojrzenie na problemy samorządów z punktu widzenia przedsiębiorstwa produkującego dystrybucyjnego było wartościową częścią dyskusji.

Następnie burmistrz Leszek Tabor przedstawił działania, jakie podejmuje miasto na rzecz rozwoju OZE na swoim terenie oraz „Sztum jako miasto krótkich dystansów", w którym wszystkie najważniejsze funkcje miasta są dostępne dla mieszkańców w trakcie niedługiego spaceru.

Kolejnym punktem spotkania były przedstawienie planów modernizacji ciepłowni w Sztumie przez Jarosława Kuśmierczyka, dyrektora regionu w Veolii Północ sp. z o.o. Będzie się opierała na wykorzystaniu niskoemisyjnych źródeł takich jak gaz ziemny (gazowa kogeneracja) czy biomasa.

Po części prezentacyjnej i dyskusyjnej grupa uczestników warsztatów odbyła podróż studyjną. Po miejskiej ciepłowni oprowadzali Jarosław Kuśmierczyk oraz Marek Kaszkowiak, dyrektor ds. rozwoju w Veolii Północ sp. z o.o. Gości mieli okazję zapoznać się z systemem działania tego typu obiektu oraz zaawansowanym systemem oczyszczania spalin.

Kolejnym etapem podróży była farma wiatrowa w Postolinie. Tam burmistrz Sztumu przekazywał najważniejsze informacje dotyczące farmy wiatrowej, jak i okolicznych farm fotowoltaicznych, dzieli się doświadczeniami miasta w obszarze współpracy z prywatnymi inwestorami, którzy zdecydowali się zainwestować w OZE na terenie gminy.

Miasto z klimatem. Sztum wśród wyróżnionych

W tegorocznej edycji projektu Ministerstwo Klimatu i Środowiska „Miasto z klimatem" Sztum otrzymał wyróżnienie za jakość powietrza. W tej kategorii zwyciężyła Ustka, oprócz nas miastami wyróżniającymi się są Mrocza i Jasień.

Projekt Miasto z Klimatem zainicjowany został w marcu 2020 roku z przeświadczeniem, że jego realizacja przyczyni się do poprawy jakości życia mieszkańców oraz że miasta otrzymają wsparcie w przekłamującej transformacji. W ramach tegorocznej edycji ministerstwo przeprowadziło analizę działań podejmowanych przez miasta w kategoriach: jakość powietrza, zieleń miejska, transport zeroemisyjny, transformacja energetyczna oraz retencja miejska.

Miasta z najlepszymi wynikami oraz miasta wyróżniające się zostały zaproszone do współpracy w ramach specjalistycznego doradztwa strategicznego renomowanych instytucji takich jak: Instytut Ochrony Środowiska, Instytut Ekologii Terenów Uprzemysłowionych, Instytut Badawczy Leśnictwa i Narodowe Centrum Badań Jądrowych. Celem wsparcia będzie także przygotowanie miast do finansowania kluczowych inwestycji w ramach nowej perspektywy finansowej UE, środków z Krajowego Planu Odbudowy oraz z programów priorytetowych NFOŚiGW.

4 | BIULETYN INFORMACYJNY MIASTA I GMINY SZTUM

Figure 17 Examples of press releases and media coverage on Multiply

- **2 press conferences**

Figure 18 Joint study tour and press conference of Hungarian and Austrian Multiply partners

- **21 presentations at external events (national, regional, local)**

- **25 synergies with other projects and initiatives:**
  - Types of synergies:
    - exchange of experience of project during
    - common events,
    - presentation of the project on events,
    - recommendations

- **105 posts in social media (Facebook, LinkedIn, Twitter, other)**

The whole consortium contributed to the communication efforts, using own communication channels, including traditional and social media, promoting the project at external events and seeking for synergies with other relevant projects and initatives. In particulat synergies were sought for with the Covenant of Mayors, an European movement gathering cities committed to achieve EU's ambitious climate and energy targets on their territory. The Multiply project supports them in this process providing new vision of sustainable energy development and new tools.

Dissemination

The main dissemination activitities carried out/output produced during the project were the following:

- A series of at least 3 national dissemination workshops in all six project countries

  All project partners that were engaged in the P2P processes also hosted three targeted dissemination workshops for municipal actors on the national level.

- The production and dissemination of the 6 National Guidelines

  The national guidelines' aim is to provide adapted and in-depth information about integrated energy efficiency and energy supply solutions as well as best practices of the model districts in the forerunner and committed cities. All partners have produced national guidelines in their local languages. The national guidelines were adapted to the conditions in each country and contain the specific national insights and measurements gained during the peer learning phase of the project.

  The guidelines will encourage further multiplication of integrated district approaches in the six countries. The national guidelines are available online (on the project websites); in some countries they have also been printed and distributed during the workshops and conferences.

- Info Packs on integrated urban planning (see also chapter 3.2. above)

  The aim of the info packs is to make the guidelines easier to use for municipal actors. The info packs are short and easy to read material developed in the local languages, that are digitally interlinked with the more elaborate guidelines. The info packs focus on spreading knowledge on the achievements, success factors and barriers related to energy (including mobility) ambitions of the cities and the energy planning process of districts. The info packs primarily focus on the forerunner cities and the special award-winning cities as they presumably have a more elaborate story telling from developed districts to support the guidelines. Therefore, every country has produced at least three info packs. Information for the info packs was collected during the peer-to-peer process.

- The production and dissemination of the European Guideline

  The aim of the European guideline is to activate further European cities to implement integrated district solutions, by providing basic information about the necessities and effects of integrated urban planning in a more general way. The European guideline will create awareness and understanding for the potential and key role of a cross-sectoral approach to urban planning for a low-emission future of the EU. PosadMaxwan, including its linked third-party GE, has developed an interactive web-report online in cooperation with all other partners using national data provided by the partners.

The European Guideline is an interactive illustration of a fictional city that displays the most common problems, approaches and solutions of the different participating cities. The illustrations with solutions were linked to summaries of best-practice examples of the forerunner cities, many of these summaries included contact information of the municipalities in order to stimulate exchange between municipalities beyond the project. The web-report was promoted by the partners through the dissemination activities and at the European conference in Helsingborg and at international conferences visited by the partners. The web-report was put online by PNEC.

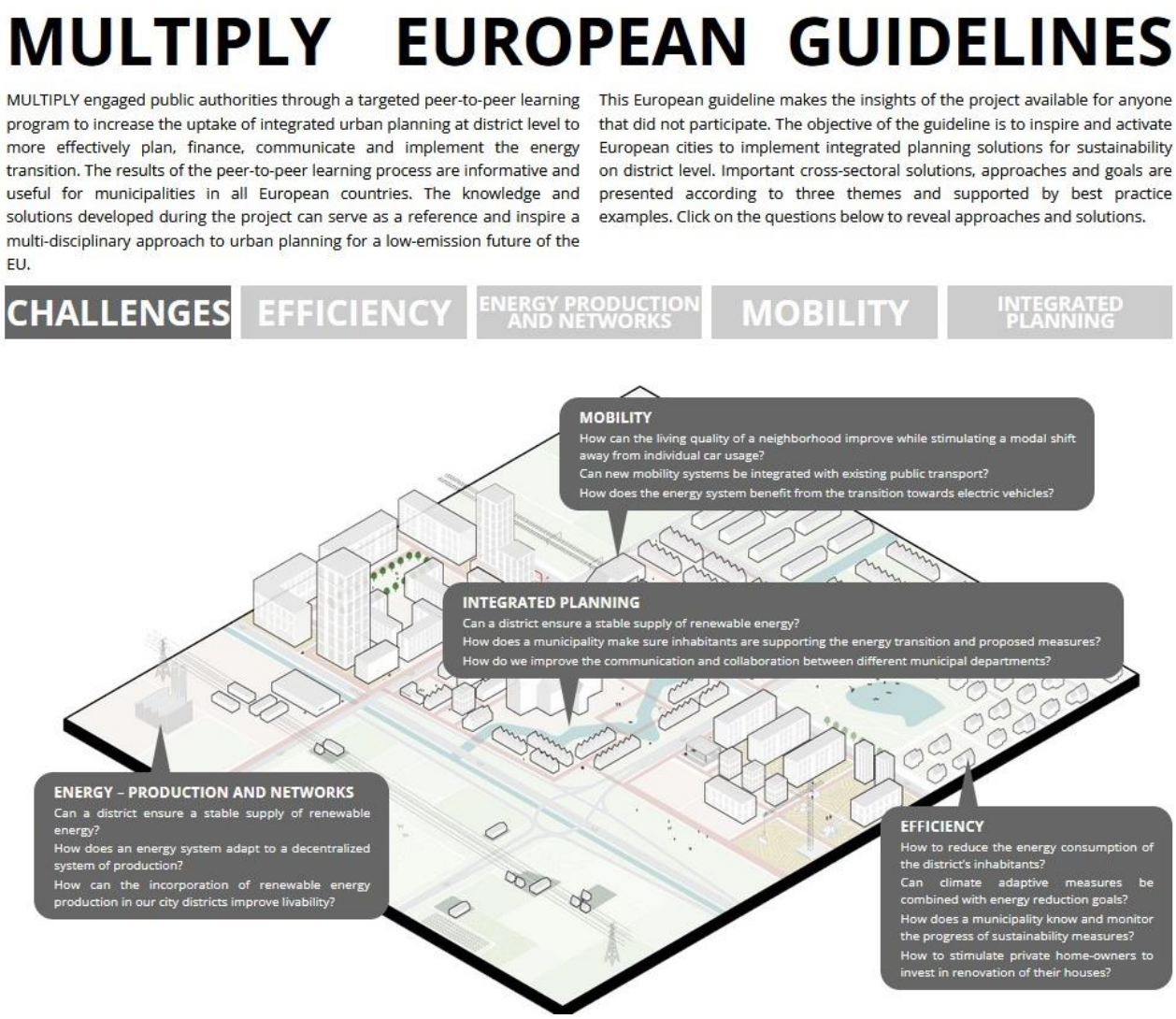


Figure 19 Start page European Guideline

- EU-level events, both organized within the project and external, e.g.

  - **Big European Exchange** – This first European conference organised by Legambiente (Italian partner in the MULTIPLY project) took place online on 16 April and it was dedicated to share best practices in decarbonization, development of renewable sources, efficiency policies, sustainable mobility and participation.
  - **World Sustainable Energy Days -** A poster of the MULTIPLY project was displayed at the World Sustainable Energy Days on 7-8 April 2022. More than 650 people from all over the world attended the conference in Wels (Austria) and an even higher number of people followed the event online.
  - **Urban Future 2022 –** A dedicated session focused on the results of the MULTIPLY project was held on June 2, 2022 during Urban Future in Helsingborg, Sweden. It was attended by local government officials, local leaders, urban planners and scientists, who shared their experiences of improving the quality of life in cities and provided a perspective on social innovation in their transformation.
  - **World Urban Forum -** Organised in Katowice from 26 till 30 of June 2022 was an excellent opportunity to present the results of the work and good practices gained during the implementation of the three-years project, mostly thank to participation in the European Track, dedicated to a just transition of cities in the context of global challenges.
  - **Presence at the EU Sustainable Energy Week 2021** – the project was presented during the Energy Talk session taking place on the 26 October.

Other dissemination activities included the production of videos (CAA), press releases and press conferences of the partners.

6. 6 Recommendations for future projects

#1 Learning from one another: municipal peer learning rocks!

Our project experience and results show: peer learning settings are a great way to get the most out of municipal networks in limited time. All participants enjoyed the open exchange atmosphere and were stimulated to think into new directions and start collective and creative problem solving processes. Many participants voiced their wish to have more of similar moderated exchange settings with like-minded professional peers in the future.

We therefore strongly recommend to further work with similar settings on the municipal level in future EU projects and beyond. Also, developing new methods and concepts in this regard bears a lot of potential for scientific and practical research.

Our publicly available **'Evaluation report on the MULTIPLY peer-to-peer exchanges (D2.9)'** might give interested readers many interesting practical insights and suggestions for designing and conducting their own (municipal) peer learning settings.

#2 Small is beautiful: the district level bears a lot of potential!

Although a number of Multiply partners had to resort to the next higher administrative level due to impracticabilities, the district level bears a lot of potential – especially for bigger cities and highly urbanized regions.

The district level is the perfect intermediate level between citywide scope and building scope. In contrast to a narrow building scope solutions implemented at district level can trigger far bigger – an far more economic - impacts in terms of energy savings and CO_2 reductions (e. g. urban heat networks, building renovation campaigns, public transport solutions etc.). In contrast to a citywide scope it allows for quicker changes and – too a certain level – also 'experiments'.

From our practical project experience it seems more than worthwhile to further dwell on the district level in future EU projects and beyond.

#3 Synergies, synergies, synergies!

There are always a number of other, similar projects out there. The most fruitful exchange often comes from these exact projects. In the course of the Multiply project the H2020 contractor's meetings proved as one valuable opportunity for meaningful exchange with other colleagues that were working on similar issues.

Since the theme of the project was such a broad one there were plenty of chances to use and establish synergies with other projects and initiatives for all the project partners.

#4 Bringing people together physically fosters stronger connections

The global Corona/Covid19 pandemic demonstrated that a lot of exchange is indeed possible online. However, physical meetings and direct interaction should never be underestimated. Many municipal participants actually missed the informal coffee chat possibilities the most.

Therefore, when designing future project we strongly recommend making use of the advantages of both online and offline settings. A good mixture is key.

Bringing people physically into the same room brings interaction and commitment to the next level. It helps to create a more intimate and trustful atmosphere that fosters co-creation and joint problem solving.

#5 Enhance existing municipal networks

Although a lot of synergies with other municipal networks could be realized (e. g. ICLEI, Covenant of Mayors etc.) it must be emphasized that an even closer collaboration with existing networks seems most promising.

After all, these networks have already done a lot of important groundwork and are well beyond a pioneering phase.

When designing similar municipal projects in the future it seems reasonable to fully integrate them in the existing structure of well-functioning European/global municipal networks.

The Multiply project tried to achieve this via the Energy Plans that are derived from and fully compatible with the Sustainable Energy and Climate Action Plans (SECAPs) from the Covenant of Mayors. Also, the participating municipalities were invited to become members of the Covenant of Mayors and some of them took the opportunity.

#6 Try to make municipal ambitions as binding as possible

To turn the municipal worlds upside down within 3 ½ years is virtually impossible. Urban planning solutions and corresponding infrastructure projects need a lot of time for preparation and pre-planning. Therefore, the actual implementation of proposed measures within the Multiply municipalities falls outside the project's lifetime.

This is why it is of greatest importance to make the municipal pledges as binding as possible. Within the Multiply project this was achieved in an institutionalized way for 14 of the 26 Energy Plans. In the most cases the Energy Plans and the measures they contain therein were adopted by a formal city council adoption.

It could also be a great way to engage with municipalities that are already part of other existing municipal networks with binding targets for CO_2 reduction.

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