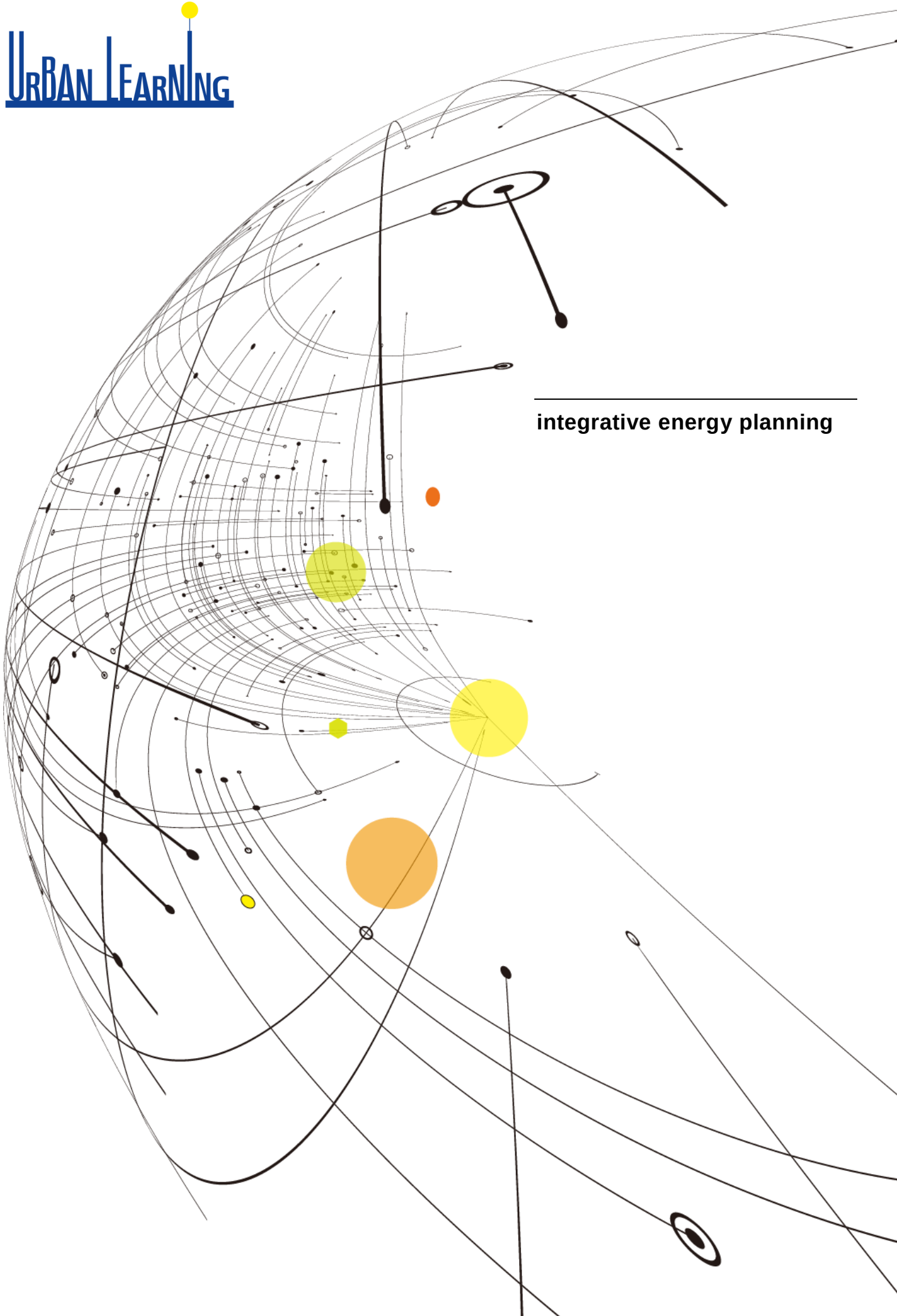
URBAN LEARNING

integrative energy planning



Why is integrative energy planning important in urban planning?

Climate neutral cities are the main goal of EU climate objectives. Climate neutral urban districts, eco districts, Climate positive districts, low carbon society, carbon neutral society or low carbon footprint, are all phrases often used as starting point to transform cities into climate neutral areas.

Although the topic of climate is a part of environment policy it is inseparably connected to energy policy as well. Integrative energy planning of urban areas promoted and developed through the URBAN LEARNING project is meant to enhance the capacity of public authorities to improve the ways and means to integrate energy aspects into urban planning processes. City and agency representatives from Vienna, Berlin, Paris, Stockholm, Warsaw, Amsterdam, Zaanstad and Zagreb are in the process of improving their approaches towards integrative energy planning in urban areas. Though every city has its own story, all agreed that the following topics are central in the integrative energy and urban planning process:

Strategic framework:

Cities have always been the engines of change in society. Now they are faced with the challenge of changing the ways cities are functioning and developing towards low and eventually zero carbon emitting solutions. Environmental protection and sustainable energy supply are important pillars of future urban development options. In order to ensure this transformation of cities, they need to, firstly, define and embrace the future vision of the city beneficial to all its citizens and secondly, to document this vision in a strategic document adopted by city governance bodies based on a wide consensus, in which directions and long-term development objectives are set. This strategic framework is intended to provide guidelines to and direct activities of all stakeholders – citizens, enterprises, non-profit institutions and the public sector itself – with the final aim of achieving the vision of the city. Issues like efficient use of energy in all sectors and ensuring sustainable energy supply of a city should be emphasised and main strategic decisions should be clearly stated (e.g. focus on development of RES-based district heating systems, public transport based on alternative fuels, decision on forbidding further expansion of natural gas networks within the city, etc.)

Legal framework

In order to translate strategic approaches into action, a legal framework governing urban planning procedures needs to enable and even firmly prescribe the need for integration of energy related issues into obligatory planning procedures. Therefore, the coordination between urban planning procedures, energy and climate change policy, and environmental legislation is of utmost importance. The first step in this direction is through exploration of existing legal practices and obstacles at local (city) level. However, in countries with strong centralisation it is often found that the legislative framework at the regional or national level needs to be updated to enable integrative energy and urban planning at the local level. Legal instruments need to be updated so that they support and not hinder the undertaking of actions that will lead to the fulfilment of strategic goals. Often, the changes or additions needed in the legal framework are not significant and may be solved through the adoption of e.g. additional guidelines on energy issues that need to be respected or by prescribing comprehensive energy studies that will be an integral part of typical urban planning processes.

Instruments

They define procedures and rules (regulations, decisions, competitions, financial and/or advisory instruments, guidelines) for implementation of specific activities. A need was found in advancing them to support rather than hinder procedures. Often, the changes or additions needed are not significant and may be solved through the adoption of e.g. additional guidelines on energy issues that need to be respected or by prescribing comprehensive energy studies that will be an integral part of typical urban planning processes. In Berlin, the Service Point for Energetic Neighbourhood Development is the driving force supporting district planning authorities to initiate energy actions.

Stakholders

Urban planning process including all actors and stakeholders – probably the most challenging part in improving urban planning procedures and integrating energy issues is the need to broaden the spectrum of stakeholders involved in the planning process. Development of a city is a matter of a wide range of stakeholders. Therefore, an open, transparent and participatory process needs to be ensured. An approach proposed by the Urban learning project is to establish local working groups comprising all relevant stakeholders at city level (administrative departments, utilities, enterprises, scientific institutions and civil society representatives) that will participate in the decision-making process and will contribute with their knowledge to find solutions that will be the most beneficial for the community and in line with the adopted strategic vision of a city. This urban development partnership regarding energy and climate issues is a way forward.

Data and diagnostic tools

Future energy planning at the city level, as part of overall urban planning, must be based on a thorough information base and an understanding of the existing energy situation within the city. Since energy planning and monitoring at the whole city level has not been in the scope of activities of city administrations, the availability and reliability of data is often not adequate. There are already some excellent solutions applied in the cities that help overcome this barrier in integrative energy planning. These are energy maps/atlas that provide data on energy consumption in the form of interactive city maps accompanied by tools that enable scenario calculations - (what-if) analyses of different energy options considered for future development of a city quarter or a district.

Inspection and monitoring tools

Finally, all strategic plans need to be transposed into real-life actions, i.e. into actual projects that represent urban transformation/development towards carbon neutrality. To ensure that projects are implemented as envisaged and approved by city administrations and that they will eventually deliver desired results, the procedures of inspections and monitoring of achievements need to be established. This may be accomplished through contractual obligations to deliver realised data on e.g. energy consumption, but also some more visible and awareness-raising solutions, such as eco labelling of buildings or even whole city quarters that underwent urban and energy transformation.

The Urban learning project dealt with all these topics that are crucial for integrative energy and urban planning. The findings are summarized in a Toolbox that can be used by cities as an inspiration to start and then carry out the processes needed to fully establish integrative energy and urban planning as a business-as-usual practice at the city level.