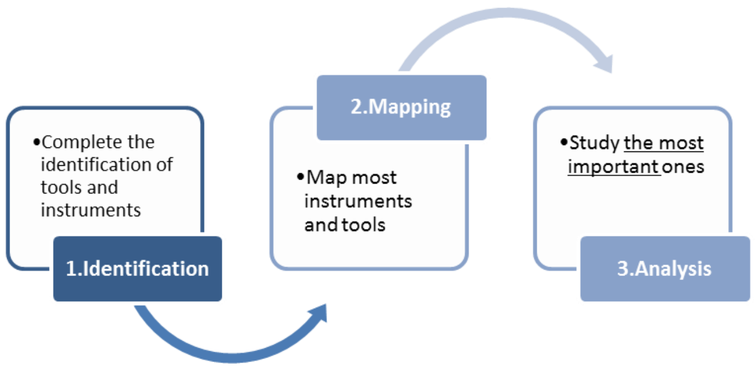
WP3 Instruments and Tools

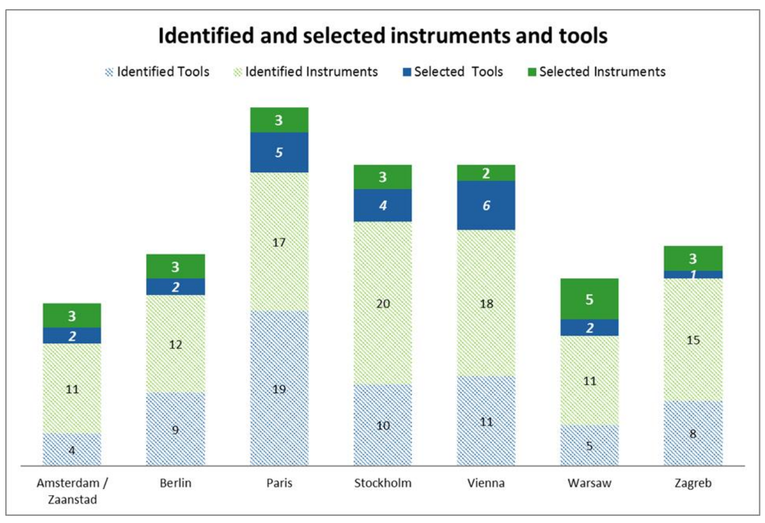
D3.1 Analysis grid

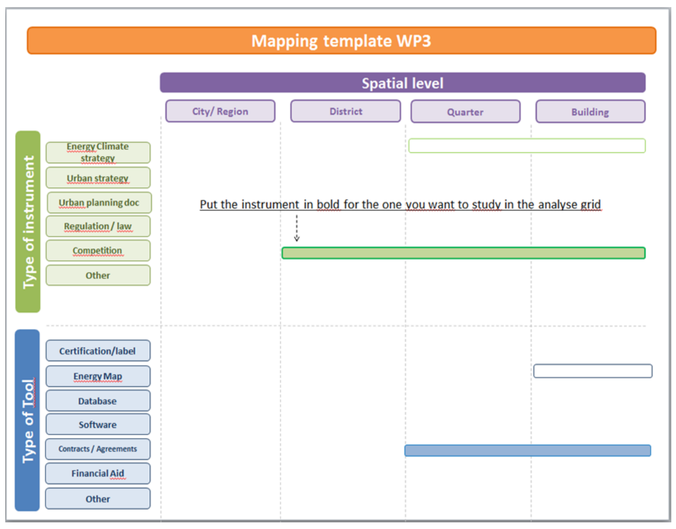
3 steps to identify, map and analyze the tools and instruments

170 instruments and tools identified by the seven cities

22 instruments and 22 tools were mapped and analyzed more accurately in a grid







D3.2 Map and review of used instruments and tools

7 conclusions emerged from the analysis

- Lack of adequate instruments for energy planning
- Need for improvement of diagnosis tools for a better use at an early stage
- Missing framework to integrate energy issues in contracts or competitions
- Lack of ongoing management throughout the project
- No monitoring after the implementation in most of the cities
- Need for an environmental certification at urban project scale
- The challenge is the building stock

D3.3 Best practices

Showcase of 9 best practices which are implemented by the member of the consortium

ENERGY ATLAS + TRANSFORM TOOL — AMSTERDAM/ZAANSTAD

OUTLINE

The energy atlas started in Amsterdam and became a national project. It maps the energy consumption, network and (renewable) energy potentials to get a better understanding of the energy situation in a given context. The data is detailed and easily accessible.

The TRANSFORM tool was developed in the TRANSFORM-project to be able to work with the available data during the energy planning and spatial development process. It's meant for decision support and informed dialogue. Tool features include setting of measures, creating scenarios and costs benefit calculations.

Project Coming up | Preliminary studies | Project stage | Operational phase | Implementation

ENERGY INSIGHT

The energy atlas consists of about 90 maps. Half of them are about the existing situation, the other half is about the potential for more sustainable solutions. Part of the energy atlas are the current energy use, sources for sustainable energy, and relevant characteristics of the (built) environment. Most of it is open data and can be used by anyone.

The TRANSFORM-tool makes the real data easily accessible in a visual and playful model. It is interactive, users can select, calculate, formulate thier own measures and scenarios and set the context in time and trends. Sixteen measures are predefined. Results of the measures are given for energy consumption, costs, emissions and renewables.

Block | Quarter | District | City | Region

KEY FACTS

- ✓ **Data Treasure** / Energy and context
- ✓ **90 maps** / existing and potential
- ✓ **Tool to integrate data** / test and decision support
- ✓ **Upscaled to national level** / Energy atlas

CONDITIONS OF USE

- ✓ Energy atlas: open data
- ✓ Easily accessible
- ✓ For the use of the tool it is necessary to have an account
- ✓ Commercial support if needed

No evaluation | Auto evaluation | Evaluation by external experts

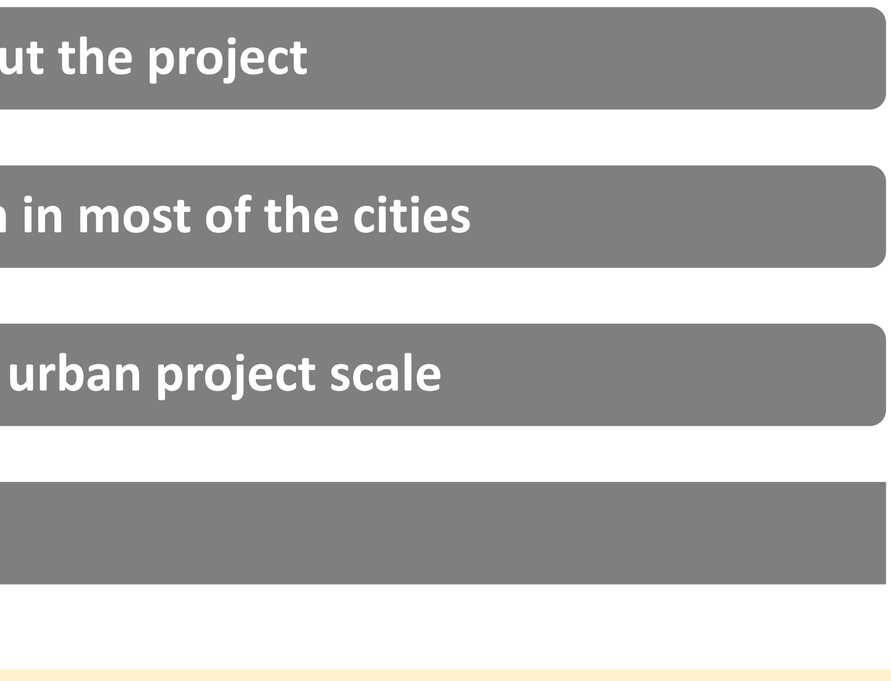
READ MORE

http://maps.amsterdam.nl/energie_zuidas/

www.nationaalenergieatlas.nl

http://urbanlearning.eu/decision-support-transform/

UL - WP3 INSTRUMENTS & TOOLS BEST PRACTICE SHEET http://www.urbanlearning.eu/



SRS MODEL FOR MONITORING — STOCKHOLM

OUTLINE

The Stockholm Royal Seaport (SRS) model for monitoring (so called "the Sustainability portal") is a web based database used for performance reporting and monitoring with regard to the sustainability requirements in the development agreements in the Stockholm Royal Seaport. The main objective of the database is to enable a more systematic, structured and fair follow-up process and to provide a tool to gather and store all information related to that process in one single place. The tool also provides the opportunity to withdraw results from registered data to different kinds of reports that can either give a quick overview or more in-depth results of the performance on a number of sustainability indicators.

Project Coming up | Preliminary studies | Project stage | Operational phase | Implementation

ENERGY

Every developer is given access to the database and fills out one digital form for each follow-up occasion, in total five forms (different stages) during the whole development and building process, from the early program document to the finished building that has been in use for two years. Each answer (with associated documents such as calculations, drawings and key performance indicators) is reviewed and assessed by an expert who concludes if the requirements are met or if supplements are needed. When all requirements are fulfilled, the form is approved and the information is registered in the database. There are also functions in the database which requires the developer to report deviations from the requirements. The system allows a good control of the developers performance. It also give continuous feedback to the development administration (responsible for the performance) which can readjust its decisions and formulate new goals, instruct to find better indicators and give direct commands to administrations and companies where goals and objectives are not fulfilled. In terms of energy and planning there are so far good experiences with this system. The SRS model for monitoring is continuously developed and in the future, different calculations might be done, e.g. CO2-calculations, to assess environmental performance for the city district but also to benchmark against other city districts. Furthermore, all calculations, drawings, key-performance indicators, that are uploaded in the model can be subject for further research in the future. The city is right now investigating to which extent the SRS model for monitoring could be used in even other development projects within the city.

Building | Quarter | District | City | Region

KEY FACTS

- ✓ web-based IT-tool (no real-time)
- ✓ coordinated and developed by the city in close cooperation with the system owner
- ✓ 5 focus areas and 48 requirements, 9 requirements for energy
- ✓ self-declaration by developers during five different stages
- ✓ deviation system included in the system in order to predict and prevent deviations
- ✓ feedback-processes to developers and city representatives
- ✓ continuous evaluation of requirements and results by expert groups within the city
- ✓ publication of results in each stage
- ✓ Around 3000 apartments are monitored right now (2014-2026), more will follow including retail, offices, etc. In total 2030: 12.000 apperments and 35.000 working spaces

CONDITIONS OF USE

- ✓ Mandatory for developers in the SRS with a land allocation (no penalties)
- ✓ If the required information is delivered and approved by 3rd part, the information is registererd in the database
- ✓ Publication of results
- ✓ Administrative support by the city
- ✓ Reviewed and approved by external experts (3rd part) according to a national industry standard to assure comparability and fairness

No evaluation | Auto evaluation | Evaluation by external experts

READ MORE

http://wwwer.stockholm.se/royalseaport

UL - WP3 INSTRUMENTS & TOOLS BEST PRACTICE SHEET http://www.urbanlearning.eu/

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