



Final Project Conclusions

AREA 21

Project title Baltic Smart City Areas for the 21st century			Project duration October 2017 - September 2020		
Priority Management of natural resources		Specific objective Energy efficiency			
Budget 2.55 million	Spent budget 2.17 million	Flagship project x	EUSBSR Policy Area/Horizontal Action PA Energy		
Link to the project library https://projects.interreg-baltic.eu/projects/area-21-129.html			Link to the project's website https://area21-project.eu/		
Lead partner (country) HafenCity University Hamburg (Germany)			Countries involved DE, FI, RU, EE, SE, PL		

Project summary

Teaser

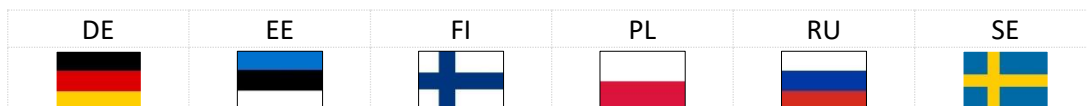
The Interreg project AREA21 involved local and regional public authorities, energy providers, public property owners and citizens from six countries and improved cooperative planning processes by applying ICT-based tools for visualisation of energy consumption and upscaling good practices in energy saving to a district level.

The challenge

A collaborative approach is needed in saving energy and thereby decreasing CO2 emissions in the Baltic Sea region. A radical change in behaviour of property users in increasing energy efficiency and engagement of citizens in energy planning and consumption are preconditions for energy saving.

Besides structural, technical and organisational inefficiencies, there is a lack in integrating the behavioural perspective into the holistic approach. More efforts are needed to identify incentives for a behavioural change of energy consumers as 20% of energy savings can be reached by targeting individual behaviour, according to European Environment Agency, 2013.

As key players in reaching European energy efficiency targets, cities are facing challenges to reach a greenhouse gas emission reduction. Modernisation of urban structures, infrastructures, ownership which represent the majority of the existing settlement patterns in the Baltic Sea region and entire EU represents an unveiled potential. Sectoral fragmentation as well as lack of cooperative integrated approach between public authorities, energy utilities and property owners are obstacles to overcome.





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Project's highlights

The highlights present the project's main achievements and results, e.g. change brought for the target groups, pilots or tests carried out, and exemplary transnational work.

The project established Energy Improvement Districts (EID) in Hamburg, Helsingborg, Tamprere Tartu, Kohtla-Järve, St. Petersburg and Lublin where local and regional public authorities, energy utilities, public property owners and users worked together. The stakeholders applied the collaborative approach to property users' behavioural change to increase energy efficiency. The partners used upgraded ICT-based tools for visualization of energy consumption and thus providing incentives for the property owners to lower their energy consumption.

AREA 21 partners succeeded in upscaling energy efficiency in buildings from the level of a single house up to the level of entire city districts. In addition, the partners introduced new policy recommendations and guidelines on collaborative processes in strategic planning.

New Guidance for Cooperative Energy Planning

The project developed a holistic guideline that helps understand and follow the process of planning and establishing an Energy Improvement District. The guideline contains information on setting up a context-specific concept, developing a strategy, as well as implementing the EID. It addresses local, regional and national actors in energy planning aimed at reduction of CO2 emissions and increase of energy efficiency at the district level. Clearly defined features of the EID concept can be transferred to other context-specific cases. Such features as initiation of an EID, area identification, definition of boundaries, understanding of cooperative formats, financing and incentives are concrete steps to be taken into consideration.

Energy consumers empowered in energy planning

Three different ICT tools were developed and tested in seven piloting regions. The tools can monitor energy (electricity and heating) and water consumption in buildings as well as single apartments. Thus, the web-based tools helped the owners of apartments and buildings to display the energy consumption of single housing units and measure saving potentials. Similarly, the tools could be applied at the district level in order to quantify smart energy solutions with a reduced cost and climate footprint. Thus, these tools were tested in the Helsingborg Hospital Area in Sweden and indicated an annual saving potential of EUR 18,700 and 160 tons of CO2 emissions.

Continued efforts in a new format

The lessons learnt within the partnership have been taken further in a new format of the project AREA 21+ action which introduces measures from the selected EIDs and demonstrates the potential of the EID concept of supporting integrated energy planning and emission reductions. Furthermore, a continued transfer of ICT tools to other cities and regions in the Baltic Sea region is planned.



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The project AREA 21 used EUR 2.17 million and improved planning processes by bringing together local and regional public authorities, energy utilities, public property owners and users. The new holistic approach enabled to upscale energy efficiency in buildings from the level of a single house up to the level of entire city districts.

Main Outputs

The main outputs present the project's main deliveries which are tangible and can be used by others outside the project.

Energy Improvement Districts – Conceptual and Technical Guidance for Implementing Cooperative Energy Planning

This document is a holistic guideline that helps understand and follow the process of planning and establishing an Energy Improvement District from the starting point, via the set-up of a context-specific concept and strategy, to the implementation of the EID in practice. It addresses local, regional and national actors in energy planning that are searching for instruments to reduce CO2 emissions and increase energy efficiency at the district level. The main EID concept features are defined and condensed to form the central pillars of the concept that can be easily transferred to other cases. The pillars are (1) initiation of an EID, (2) area identification and definition of boundaries, (3) organisation and cooperative formats, (4) financing and incentives and (5) the time frame.

<https://area21-project.eu/wp-content/uploads/AREA21-Energy-Improvement-Districts-Book.pdf>

ICT-based tools for involving citizens and property users in energy planning

It is a set of ICT tools that help can monitor energy (electricity and heating) and water consumption in single buildings as well as single apartments. Thus, the dwellers and owners of apartments and buildings can get a better overview of the energy consumption of single housing units. This allows them to conclude on saving potentials. One of the tools can be applied at district level and quantify smart energy solutions with a reduced cost and climate footprint. These tools were tested in the Helsingborg Hospital Area (SE) and indicated an annual saving potential of EUR 18,700 and 160 tons of CO2 emissions.

https://area21-project.eu/wp-content/uploads/Report-Energy-Improvement-Circle-tool-Executive-summary_V2.pdf



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Follow-up/spin-off activities

These include specific new activities that have been inspired by or initiated during the project work and will be continued after its implementation.

The project successfully applied for an extension under the Baltic Sea Region Programme. AREA 21 + action provides the frame in which first measures from selected EIDs can be implemented and the potential of the EID concept to contribute meaningfully to both integrated energy planning and emissions reductions can be demonstrated.

Further, the ICT tools have been tested and transferred to other cities and regions in the Baltic Sea region.

Administrative matters

These include specific good practices, financial implications, challenges as well as synergies and cooperation with other projects and the main drivers of the project (core partners).

There are no particular administrative matters to be mentioned. The project had no State aid relevant activities. The implementation went smoothly without any larger challenges. The progress reports were submitted in time and were of good quality. The main outputs were delivered in the shape and quality as indicated in the application form.