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Energy Efficiency and Integrated Urban Development

The Example of Šiaulai City Municipality

Rasa Budrytė

2011, April 7-8 - Vilnius

IUDC Concept in Šiauliai

Methodology:

Preparation of 2 integrated urban development concepts for 2 target (residential) areas.

The vision of Šiauliai city: Šiauliai is the City of the Sun – open, dynamic and safe. The city's development priorities set for 2007-2016 are as follows:

- - an open, creative and responsible community;
- - the economic competitiveness of the city;
- - the quality of the residential environment.

Preparation of IUDC of the 2 target areas were oriented towards the third priority under the ŠSDP – the quality of the residential environment.

Target area Lieporiai in Siauliai



- Daugiabučiai namai
- Individualūs namai
- Mokymo įstaigos
- Komer ciniai objektai
- Lieporių parkas

- Area – 91 hectares;
- Number of buildings – 106 (built in 1968 – 1982);
- Lieporiai park with stadium;
- Social and commercial infrastructure:
- 3 Secondary schools;
- Kindergartens;
- Library;
- College;
- Shopping centers.

Target area Miglovaros in Siauliai



**Area – 6,1 hectares;
Number of houses (built from
1969 – 1975) – approximately
35.**

The main approach

- By legal planning measures to prepare IUDC with binding force (approved by city Council) that has to be considered at all public and private constructions and active renovation process;
- By forming, registering and binding the land plots to give to inhabitants the responsibility for cohesive urban development.

IUDC Concept in Šiauliai

Process and participation: The Territory Analysis (SWOT) of 2 target areas (according the following aspects):

- public spaces, green zones and common use areas;
- forms of ownership within the area, the social composition of the residents;
- different centres within the area and its surroundings;
- social infrastructure and adaptation of the environment for the disabled people;
- parking spaces, use of other vehicles and alternative modes of transport;
- evaluation of the engineering infrastructure and waste management;
- creation of an energetically and ecologically sustainable environment;
- energy efficiency, energy supply infrastructure.

IUDC Concept in Šiauliai

Process and participation:

According to the SWOT analysis, „Statybos Strategija“, the originator of the detailed plans of the target areas, identified the main key objectives and aims for the integrated concept.

Every step of IUDC is presented to citizens during public discussions.

Moments from the last meeting



Moments from the last meeting



Moments from the last meeting



The Process of Detailed Territorial Planning in Lithuania

The preparatory stages

Analysis of the
current State

Formulation of the
concepts

Specification of
solutions

The final stages

Consideration and
coordination of the
solutions: consulting or
public hearing, coordinating
with institutions

Approvement of the
territorial planing document
(IUDC)

IUDC Concept in Šiauliai

Bottom up or top down ?

- *Top down: Actions inside city administration:*
 - *set a plan for achieving the targets;*
 - *organise public procurement (purchasing);*
 - *prepare all necessary documents for realising integrated urban development concepts.*
- *Bottom up: Actions outside city administration:*
 - *organise meetings for communities of target areas,*
 - *awareness campaigns (Energy saving days);*
 - *involve society in the process of detail planing and sustainable development, etc.)*

Urban vision and development goals

Major objective - to assure sustainable and integrated development of TA's:

- **Attractive living environment (public spaces, playing grounds, Lieporiai park);**
- **Improved parking situation by using surrounding areas and different solutions;**
- **Increased level of modernization with aim to decrease heat usage and costs;**
- **Expanded public transport and cycleway network, which can help to decrease pollution, solve parking space problems and improve the infrastructure for disabled people.**

Urban vision and development goals

Details on energy efficiency and funding of EE Potentials

- The target areas use central heating, resulting in lower air pollution;
- Some magistral pipes have already been modernized; modernization of the rest has been scheduled;
- Cogeneration station is being under the construction.

Challenges

- The existing infrastructure is old and causes large thermal losses;
- Too low thermal resistance of walls and windows results in a huge thermal loss;
- Lack of motivation for refurbishment among housing communities.

Summary evaluation of IUDC approach (in your town)

- Success factors and innovations: strengthened participation of citizens in decision making process; solution of problems in an integrated way;
- Challenges and shortcomings: changing the point of view of residents towards renovation process; it is difficult to re-plan the territory which was developed in created many years ago and in different economical situation;
- Transferability of solutions: proposals for other municipalities to prepare IUDC for whole living districts, but not for separate houses. The IUDC implementation will be implemented using EU structural funds; Siauliai city municipality budget and private financial resources.