



**Baltic Sea Region**  
Programme 2007-2013

Part-financed by the European Union  
(European Regional Development Fund  
and European Neighbourhood and  
Partnership Instrument)



# Energy Efficiency and Integrated Urban Development

## The Example of Grodno target area

Authors: Tatiana Dashkevich, Maksim Burak

Date 7-8 of April

# 1. IUDC Concept in Belarus

- **1.1 Methodology**
- City development in Belarus is
- done on the basis of **MASTER PLAN**
- which is elaborated by the
- Responsible bodies of Ministry
- of Construction and Architecture.
- It bears bounding legislative
- status and serves as the
- basis for city development.
- Can be compared to the IUDC.



# 1. IUDC Concept in Belarus

- **1.2 Process and participation**
- **The request to develop a Master plan comes from the local bodies of administration (Executive Committees). Reasons for site for general plan development are:**
  - a) Lack of Site Plan or its expiration
  - b) Expiration of City construction project of a Higher level which touches includes the city
  - c) Request from Higher level bodies to create a Site Plan
- **Local bodies pay for the Master Plan Development**
- **Major points of a Master plan must be approved by the President of Belarus and coordinated with:**
  - Ministry of Architecture and construction
  - Ministry of Internal affairs
  - Ministry of health protection
  - Ministry of Culture
  - Ministry of Forestry
  - Ministry of Defense
  - Ministry of Education
  - Ministry for Emergency Situations
  - Ministry of Natural resources and Environment protection
  - Ministry of connections
  - Ministry of Agriculture and supplies
  - Ministry of Sport and Tourism
  - Ministry of Transport and Communications
  - Ministry of Finance
  - Ministry of Economics
  - Ministry of Energy

# 1. IUDC Concept in Belarus

- **1.3 Bottom up or top down ?**
- Elaboration of Master Plan is a bilateral process (Bottom up and Top down)
- The Bottom up process of elaboration of master plan starts from the local need for the program or vector of development. This need is included into the requirements for the master plan expressed by the Local Administration. The Need itself appears from many factors: requests from residents, industrial needs, economic instability, etc. Thus the requests form the need and the need serves as the vector for master plan.
- The Top down process starts from the prospects of the government for this certain city and its future status in the country. Here programs and policies serve as a basis for General Plan creation.



## 2. Urban vision and development goals

- **2.1 Core principles of development**
  - Integrated Social and economic development
  - Improvement of ecologic situation
  - Improvement of energy efficiency in the frames of Energy Independence Goal
- **2.2 Conceptual fields of development**
  - Social sector
  - Economic sector
  - Town planning
  - Transport
- **2.3 Details on energy efficiency and funding of EE**
  - The strategy to reduce energy consumption includes reduction of usage of imported kinds of fuel and in particular black oil.
  - Construction of Cogeneration heating plants.
  - In perspective it is planned to continue an implementation of energy efficiency projects and to provide to 2012 year not less than 25% of volume of power and heat energy producing with local kind of fuel using local and renewable sources.
  - Financing – Local Budgets, State budget, State innovation fund.

### 3. IUDC on neighbourhood level – core action fields

- **Improvement of city water supply infrastructure:**
  - Water supply pipes were modernized in 2010.
  - Individual water Meters were made obligatory.
- **Improvement of Transport system**
  - More than 300.000 m<sup>2</sup> of asphalt covering were replaced
  - 29 streets were reconstructed and renewed.
- **Housing stock improvement**
  - The fronts of 123 living and public buildings were modernized.
  - Planned repairs of Houses were conducted.
- **Improvement of social infrastructure**
  - Social sites were constructed and reconstructed in 2010: Ice Palace, Sport centre, Park, Stadium, Cinema, Centre of folklore crafts etc.
- **Improvement of energy efficiency**
  - Introduction of Cogeneration plants
  - Transition to local sources of fuel



# Before and after renovation



## 4. Summary evaluation of IUDC approach (in Lida)

- **Success factors and innovations**
  - Factors include: good geographical position, developed transport network, developed industry, developed city infrastructure.
  - Innovations include: introduction of cogeneration plants, construction of Ice Palace and Sport Centre.
- **Challenges and shortcomings**
  - Not enough public entertainment infrastructure(bars, restaurants, night clubs).
  - Lack of parking spaces near the living houses.
  - Lack of children's playgrounds.
- **Transferability of solutions**
  - The common principles: such as integrity of all fields, socio-economic approach, energy independence goals can be transferred to other regions.
  - But in general each area requires individual approach



**Thank you for your attention!!!**