



**Baltic Sea Region**  
Programme 2007-2013

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

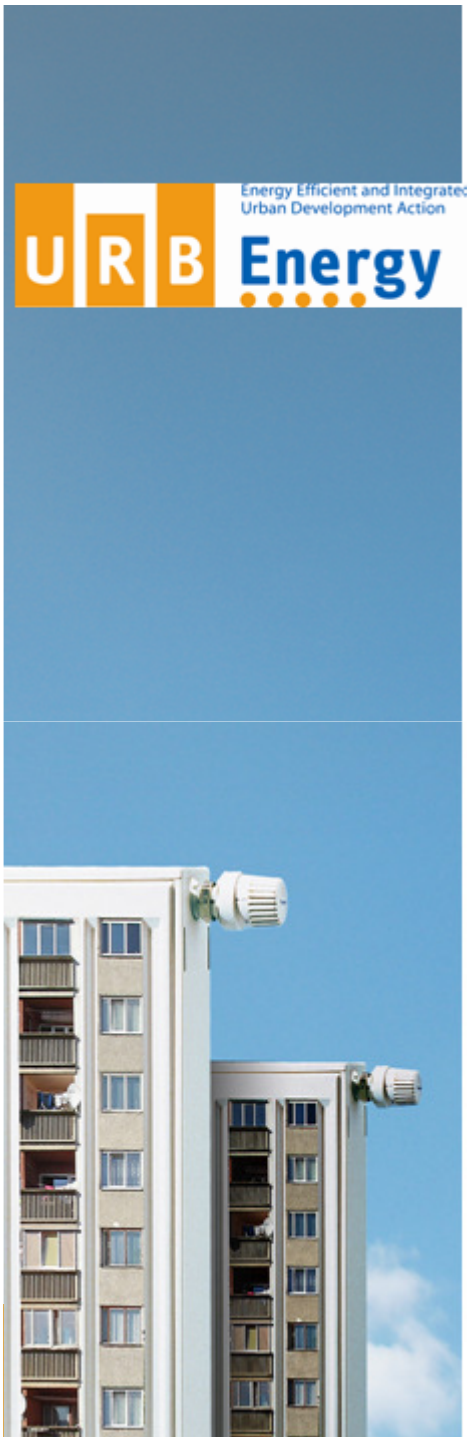


# **Urb.Energy: a project to promote sustainable and energy efficient urban development in the Baltic Sea Region**

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German Association for Housing, Urban and Spatial Development (DV)

10 June 2010 – Urb.Energy Midterm Conference



## Content:

- **Framework for energy efficient upgrading of the housing stock**
- **Project setting**
- **Challenges and potentials of the sample neighborhoods**
- **First conclusions (crucial points to promote energetic upgrading )**

# Political Framework:

**Kyoto-Protocol** (1997/ 2009) and the Copenhagen Accord

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**Energy and Climate Change Policy „20-20-20“**

Energy Performance of Building Directive 2002/91 (EPBD)

Directive on “energy end-use efficiency and energy services” (ESD 2006/32/EC)

**Covenant of Mayors**  
(self-commitment)

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National policies and commitments about CO<sub>2</sub> reduction

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CO<sub>2</sub> –  
reduction  
  
&  
  
more  
energy  
efficiency

## Development of energy prices for private consumers:

### Prices of natural gas for private consumers (in € per kWh):

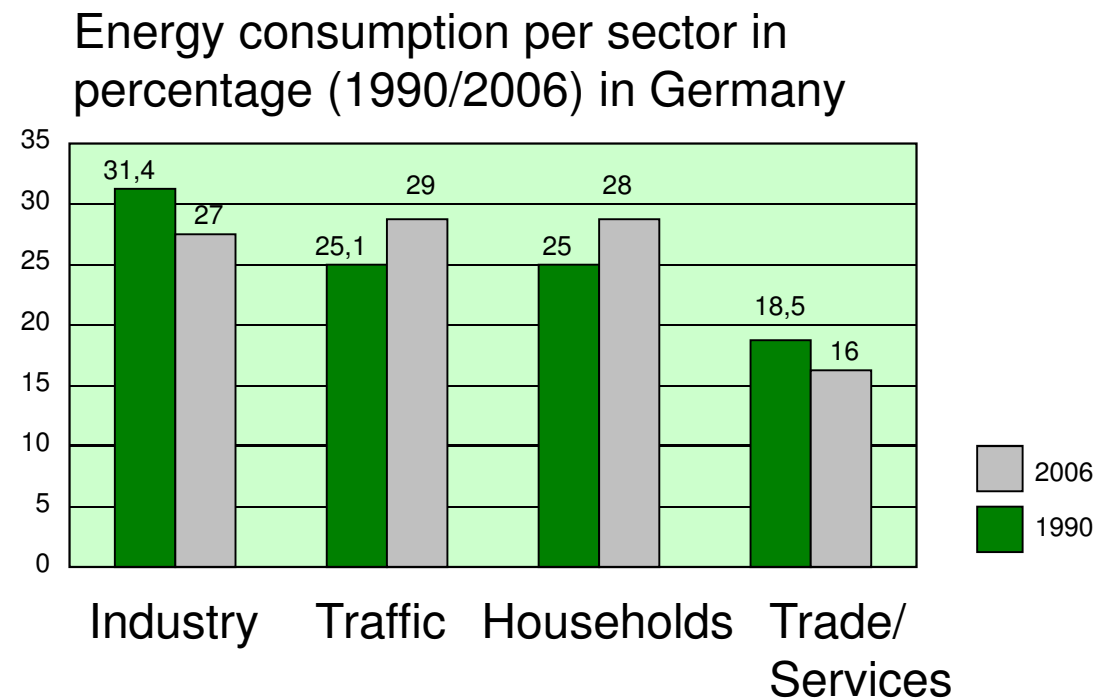
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Estonia				1,67	1,67	1,67	1,71	2,39	3,53	3,95
Germany	3,52	4,45	4,18	4,41	4,43	4,93	5,98	6,47	7,02	6,48
Latvia					1,56	1,64	2,11	2,67	4,06	5,23
Lithuania					1,91	1,86	2,39	2,54	3,56	4,25
Poland	2,21	2,61	2,75	2,59	2,35	2,79	3,47	3,91	4,65	3,89

### Prices of heating oil for private consumers (in € per 1000 liter):

	2000	2001	2002	2003	2004	2005	2006	2007	2008
Estonia					327,6	457,6	558,8	529,7	710,4
Germany	360,9	378,5	331,3	369,9	360,0	510,4	619,9	581,8	707,6
Latvia					393,8	527,7	629,3	601,2	764,3
Lithuania					330,2	439,5	545,8	510,5	644,1
Poland					372,4	500,9	626,4	579,6	729,5

Source: Federal Ministry of economics and Technology 2009

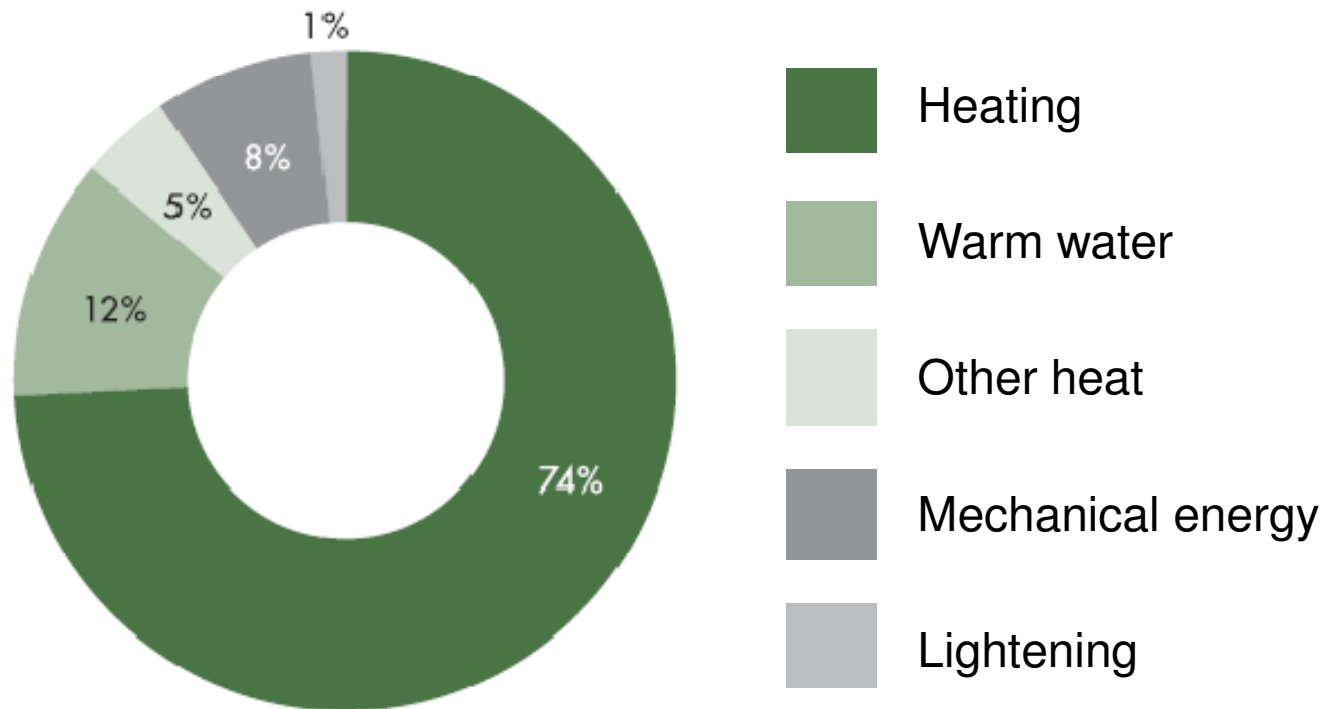
# Energy consumption of the housing sector (1):



Source: Federal Ministry of economics and Technology 2008

## Energy consumption of the housing sector (2):

Energy consumption of private households according to field of application (2006) in Germany



Source: Federal Ministry of economics and Technology 2008

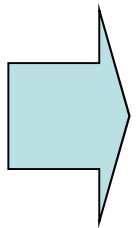
## Energy consumption of the housing sector (3):

Potential reduction of heating energy in multi-apartment buildings

### Example: Urb.Energy Target Area Riga – Jugla:

Heat load of multi-apartment building:	87 W/m <sup>2</sup>
Reduction potential of space-heating	<b>30% - 50% *)</b>
Annual saving potential	11.6MW – 19.3MW

\*) Refurbishment of a multi-apartment building according to the recent requirements of Latvia building code LBN-002-01



# Promotion of energy efficiency in the housing sector in the frame of **Integrated Development of Neighborhoods**



Sample neighborhood Berlin, Frankfurter-Allee-Süd / Kaskelkiez



Target Area Jelgava

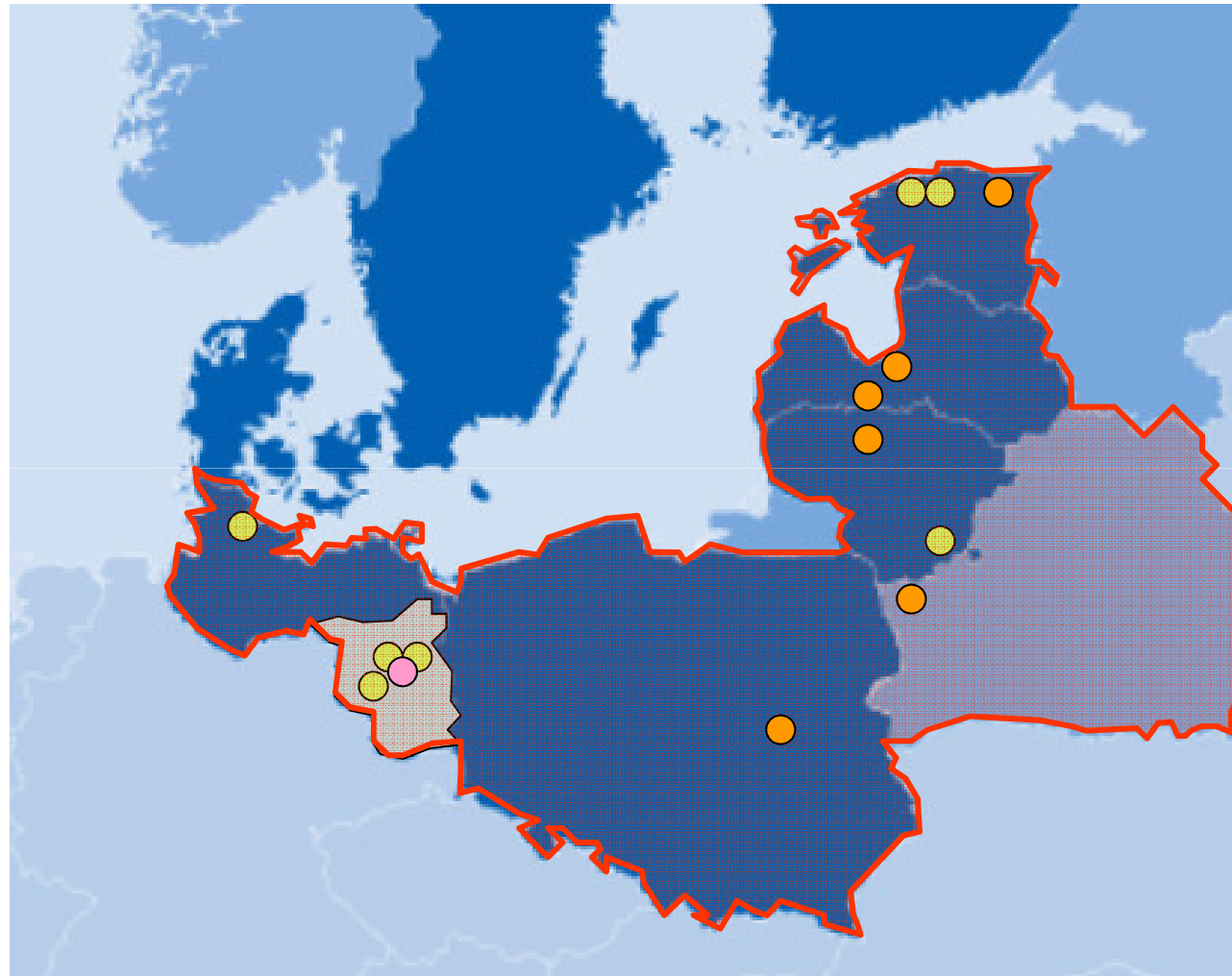
Neighborhood: residential area that is a functional and structural unit but not necessarily an administrative unit



## Integrated approach:

Spatial Dimension	Sector			
Region	Urban Planning	Energy / Environment	Traffic	n.n.
City				
District				
Neighborhood				
Particiapation				

## Project Partnership:



-  Target Area - neighborhood
-  Case study - neighborhood
-  Case study - region
-  Mainstreaming partner
-  Transnational output

## Project setting:

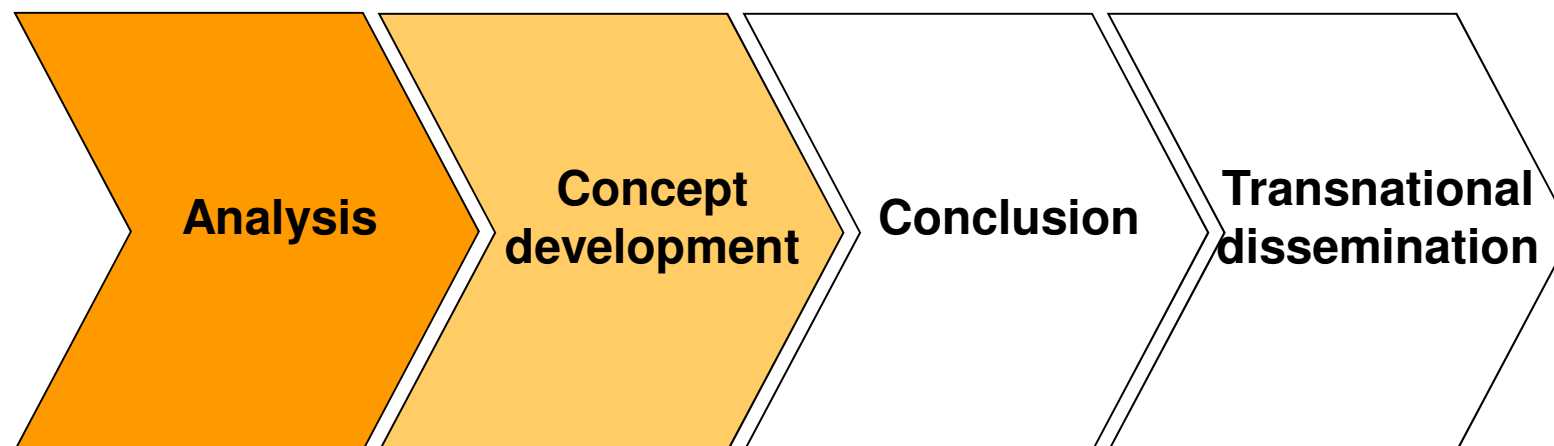
### Project objective:

Urb.Energy's key objective is the development of integrated concepts and strategies for the comprehensive energy efficient renewal of residential areas in the Baltic Sea Region

### Thematic Areas: (work packages)

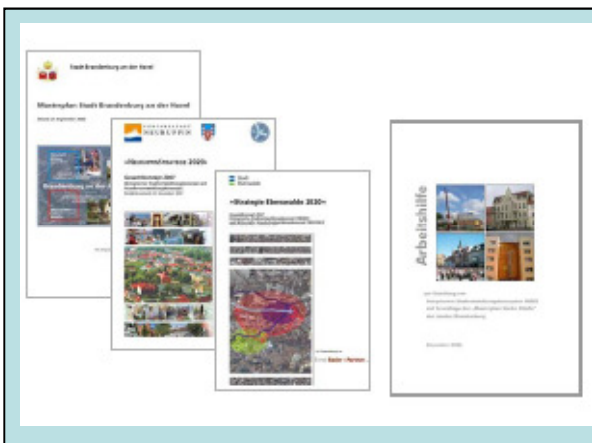
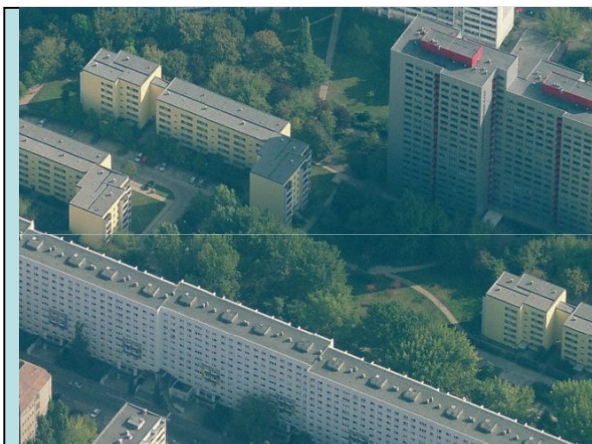


## Current working stage of the project:



# Sample Neighborhoods

## target areas and case studies



# Structure of the Sample Neighborhoods:

Planned and constructed between 1960 - 1989

Multi-apartment buildings

Pre-fabricated concrete panels

Detached buildings with open space between the buildings

District heating systems

Predominately residential areas

Predominately private owned apartments and surrounding area remains in the property of the municipality



# Typical challenges at the Sample Neighborhoods:

**Housing**

**Energy/  
Environment**

**Urban  
planning**

**Social**

**Traffic**

**Participation**





# Typical challenges at the Sample Neighborhoods:

- Poor overall condition of the buildings, need for maintenance
- Inefficient energy efficiency of the buildings
- Technical condition of heating systems  
(in the buildings and district heating system)
- Predominately pure residential areas → high share of commuters
- Labor market and social structure
- Inadequate use and property rights of open space between buildings
- Increasing number of residents with private cars and negative impacts on traffic and parking situation

# Crucial points to enable the energy efficient upgrading of neighborhoods:

- **Relation investment costs to saving potential**
  - costs for refurbishment
  - possibilities for financial support
- **Heterogeneous owner structure is a challenge**
- **Integrated concepts initiate processes**
- **Integrated concepts offer the possibility to foster the prioritization of energetic aspects and build the frame for awareness raising**
- **Steering capacity of the local administration**

# The Urb.Energy result-webpage

Urb.Energy interim res...

Ansicht Chronik Leseze...


http://

Erste Schritte Aktuelle Nachrichten

Urb.Energy interim res...

- Events
- Working Structure and Topics
- Publications and Downloads
- Partner Section
- Newsletter
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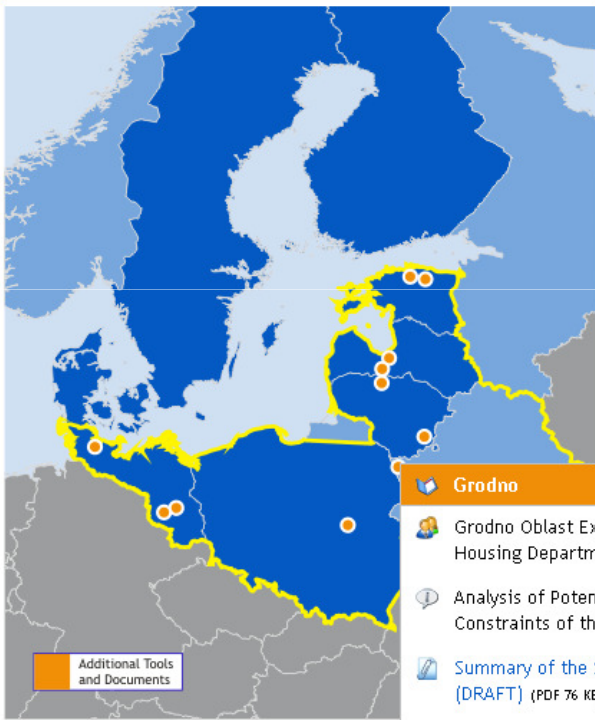
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Part-financed by the European Union (European Regional Development Fund and European Neighbourhood and Partnership Instrument). [eu.baltic.net](http://eu.baltic.net)

In addition, the project is supported by the German Federal Programm Transnational Cooperation of the Federal Ministry of Transport, Building and Urban Affairs. [www.interreg.de](http://www.interreg.de)

► Overall project papers

▼ Thematic area: Integrated urban development (WP3)



Additional Tools and Documents

► Thematic area: Energy efficient renewal (WP4)

► Thematic area: Innovative financial schemes (WP5)

May 2010  
**Urb.Energy Midterm Conference in Warsaw**  
Registration for Urb.Energy Midterm Conference [more](#)

April 2010  
**Financing Seminar in Lübeck**  
Seminar in Lübeck took place despite volcano ash causing flight disruptions. [more](#)

March 2010  
**Rakvere nominated to SEE Award**  
Rakvere City Government is nominated to the Sustainable Energy Europe Award. [more](#)

February 2010  
**Energy Saving Days in Siauliai**  
On the 28-29 January 2010 the Energy saving days within the project of Urb.Energy were organized in Siauliai. [more](#)

**Newsletter**  
Urb.Energy launched this

**Grodno**

- Grodno Oblast Executive Committee Housing Department
- Analysis of Potentials and Constraints of the Target Area
- Summary of the SWOT-Analysis (DRAFT) (PDF 76 KB)

**Explore this map with your mouse!**

Click on color-coded thematic areas or places to view partners and other information. Do not forget to look also at the other Thematics.

[www.urbenergy.eu](http://www.urbenergy.eu)

Development Urb.En...

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# Thank you very much!



**Deutscher Verband für Wohnungswesen,  
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