

# The JRC workshop on Energy Efficiency in Buildings Moscow, 2-3 September 2010

## Experiences and new trends of ESCO Financing for Energy Efficiency retrofits projects in Hungary

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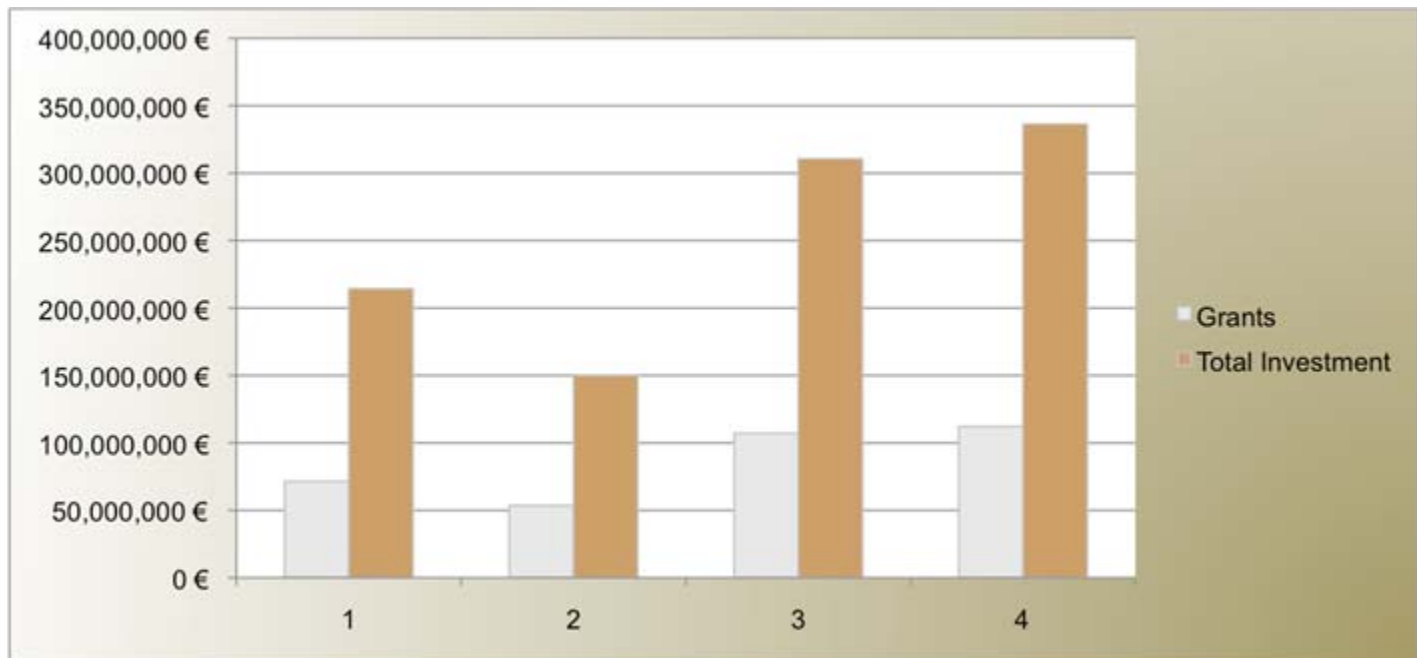
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# Background

**Year 2001:** the Hungarian Government launched a program called “Panel Program” providing support in the form of **grants to the renovation of prefabricated buildings**. It integrated similar proportions of government, municipal (1/3 – 1/3) and home-owners' resources in order to speed up the energy-related renewal of prefabricated buildings.

Panel Program: Grants and investment to retrofit in the periode 2001 – 2010



# Panel Program: Success and Difficulties

The Panel Program certainly gave a boost to energy-related modernization of buildings: 380.000 flats were partially renovated between 2001 and 2009! Nevertheless, by 2005 several substantial problems had also emerged:

- more and more local governments were unable to contribute to financing the program;
- home-owners preferred low-cost and low-efficiency partial technical measures;
- construction products and system accessories used in carrying out projects were of lower grade than planned;
- consequently, energy-savings fell far behind expectations.



# The EBS ESCO Solution

To address the problems encountered Lagross Ltd. developed a scheme of financing – with the technical assistance of the International Finance Corporation – which facilitated complex technical solutions, therefore significant energy savings could be achieved and guaranteed.

The scheme known as “Energy Saving and Financing Balance System” (EBS) is based on a balanced sharing of results and risks by the partners. The pillars of this solution are:

- complex technical solutions and high quality;
- minimal technological risks;
- optimal operation and efficient control;
- return on investment from energy savings.



# The General Framework of the Financing structure

## I.State and/or Municipality Grants:

33 % - 66 % of total financing

## II.Owners finance structure

1. A part of the owners pay in cash
2. The rest of the owners take a loan to finance:
  - their own part and the one guaranteed by ESCO as well as
  - to pre-finance the support granted by the local government
3. Loan: a combination of (interest granted) loan and Housing Saving Bank System . The most favorable on the market.
4. Repayment period: 65 – 105 months
5. The share of joint expenses to be paid by owners will be increased to pay off the loan.





## Guarantee: Loan collaterals

1. Housing Association : IFC or another bank guarantee

2. ESCO : guaranteeing the energy saving

+ Security deposit: retention of contractor 's fee

+ Pledge on principal

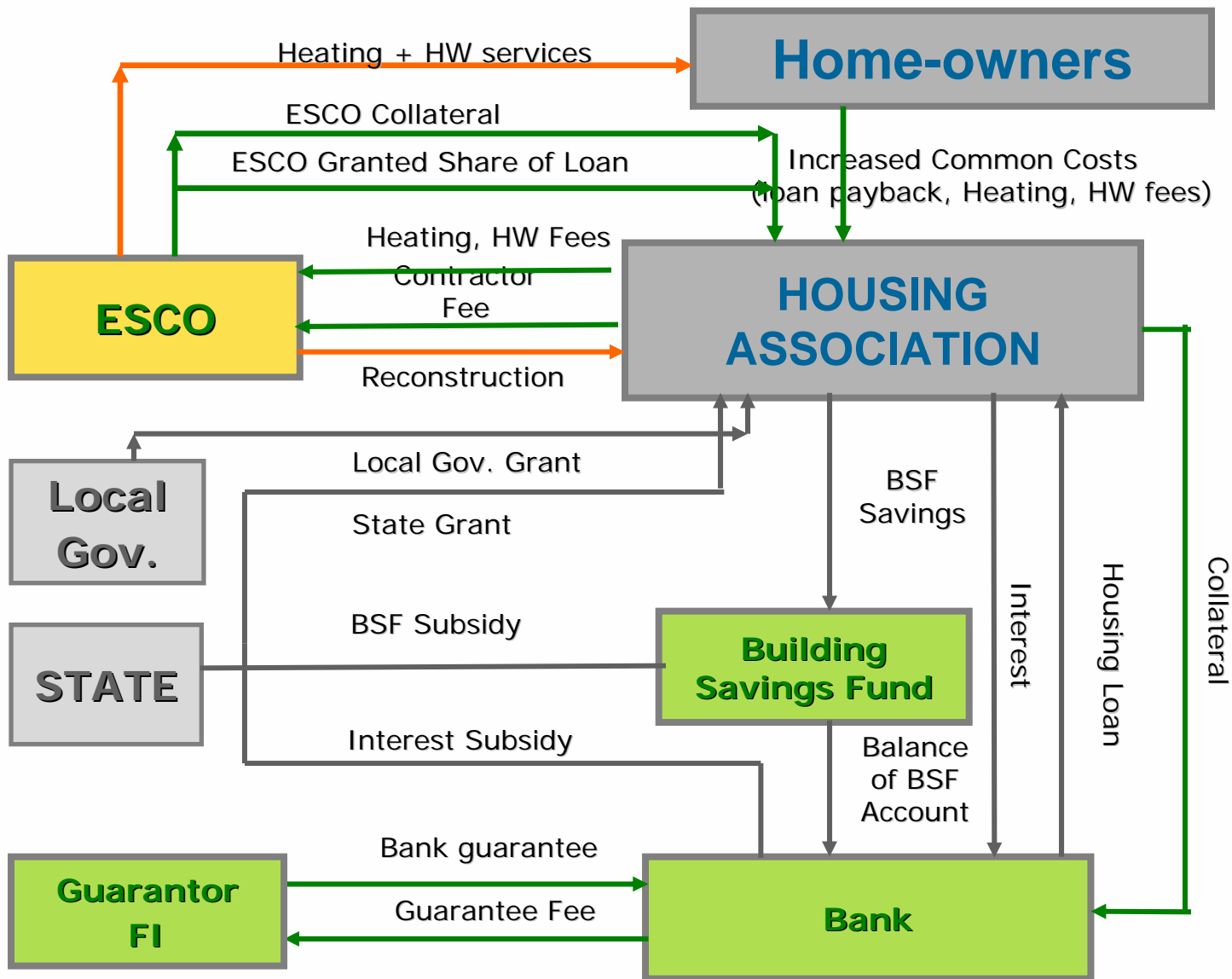
**Additional guarantees:**

+ Quality assurance

+ Liability insurance

+ Property damage insurance

# EBS: General Framework



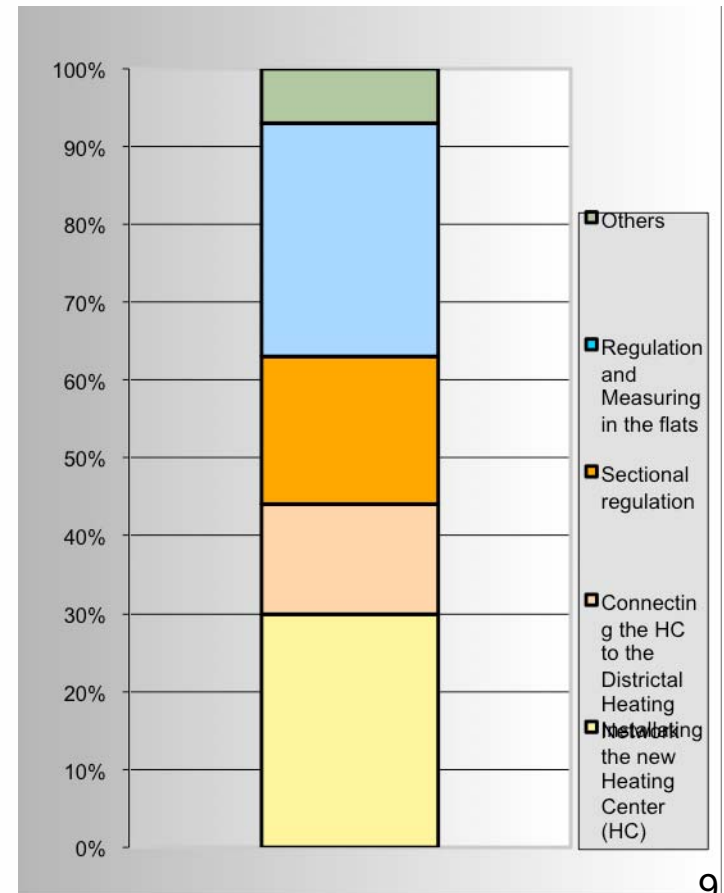
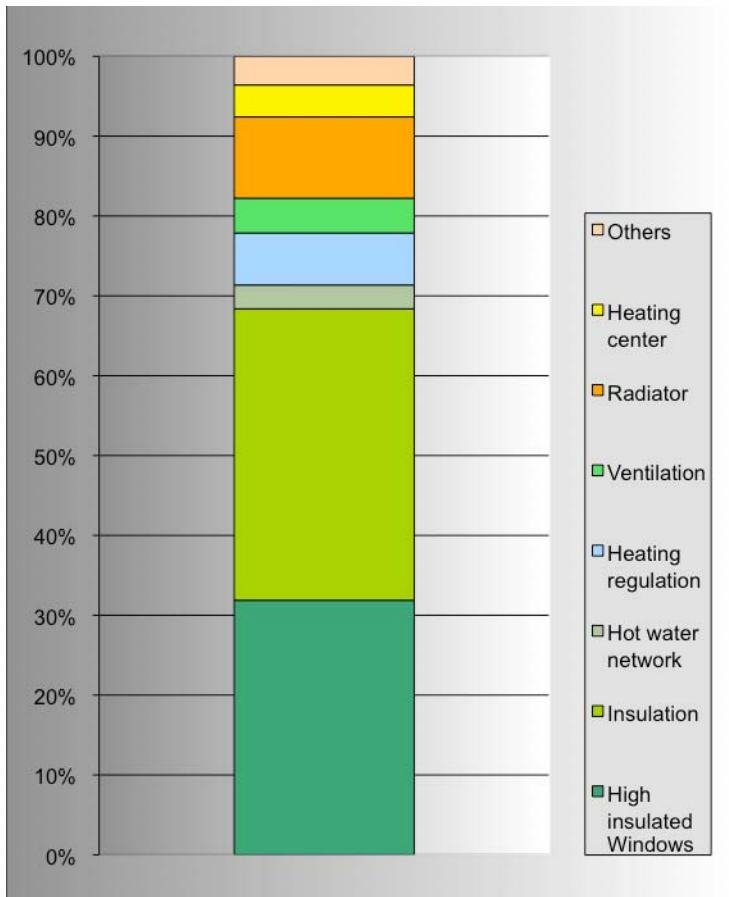




# ESCO Projects on the Panel program

**Comprehensive  
Renovation of Buildings  
Zagreb Modell  
5.500 – 6.000 €/flat**

**Partial Renovation of  
insulated Buildings  
Raab Modell  
1.400 – 2.000 €/flat**



# Results

Positive impact on the environmental comfort and the Quality of life

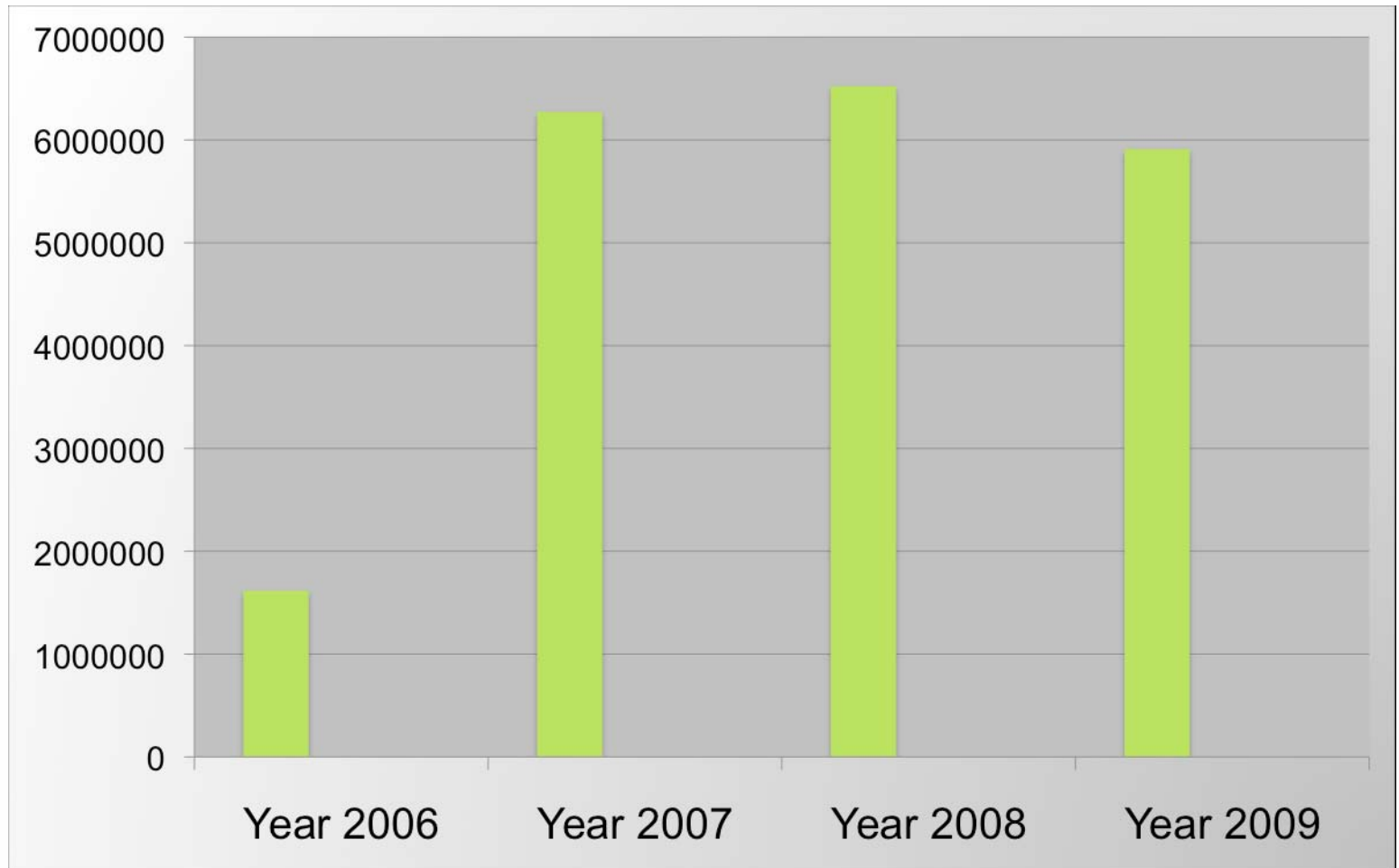
Increasing estate prices and rent in the renovated buildings



# Results

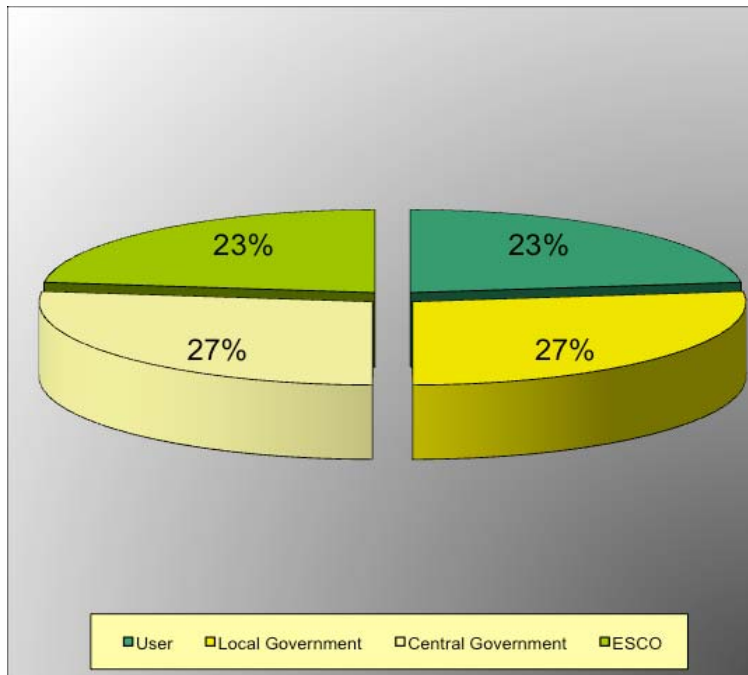


## Results: Yearly realized Energy Saving - kwh/Year

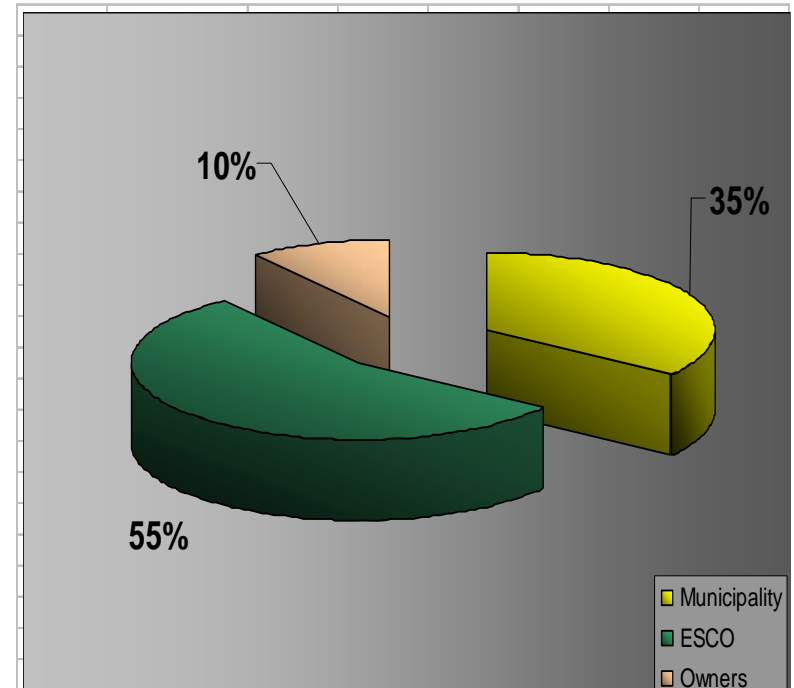


# Results: Sources of Financing

## Zagreb Modell



## Zagreb Modell



# The Crisis: impact on the ESCO market

ESCO companies and energy-consumers came to face new problems and challenges quite unexpectedly due to the financial crisis. The most important such concerns are the following:

1. Credit slowdown
2. Delayed payment of state and municipal grants.
3. Deteriorated credit standing and insecurity of the income of tenants.
4. Building materials and services became more expensive.



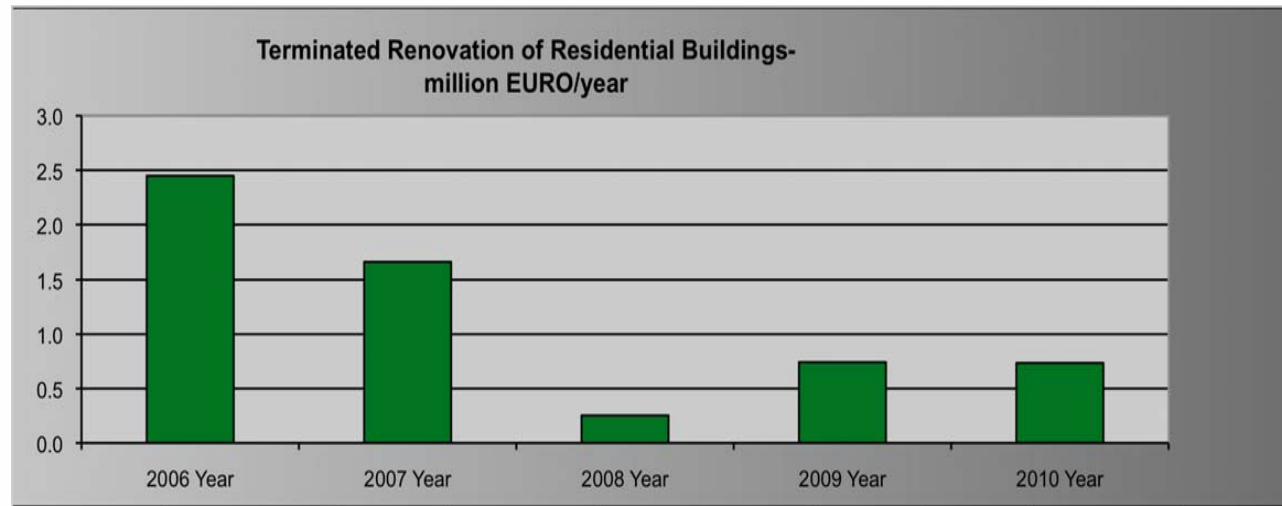
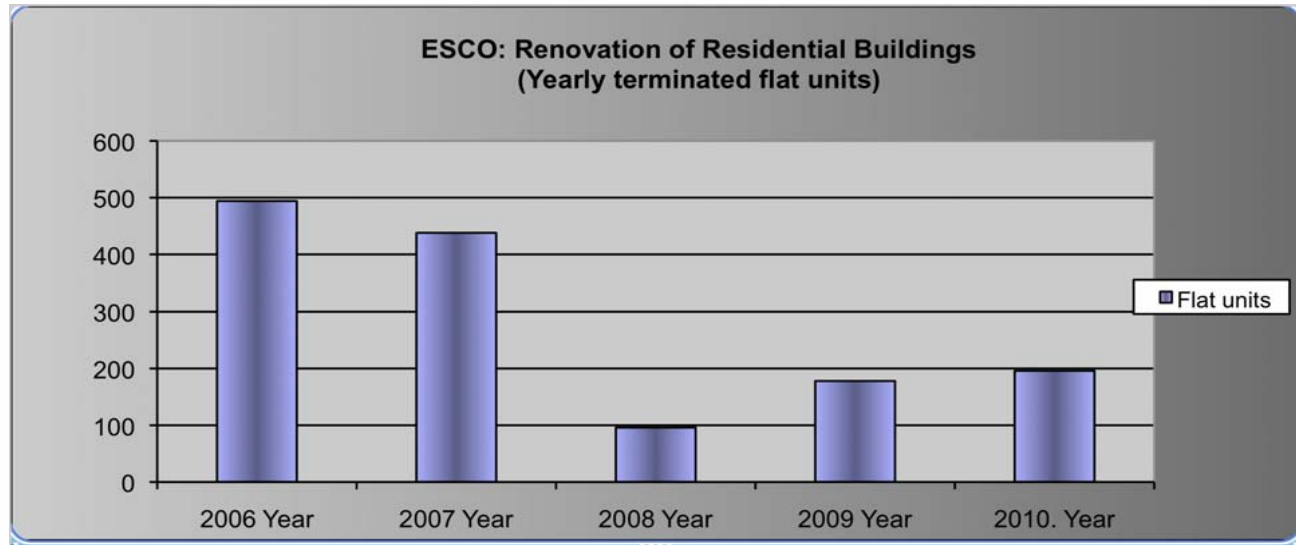
# ESCO Market: Consequences of the Crisis

As a result of these facts the ESCO firms had to deal with the following consequences:

- Higher credit interests and financing costs.
- Cutting down on the technical content of investments
- Losing potential business possibilities and decreasing profit.
- Decreasing efficiency in investments and in the operation of heating systems.
- To sum it up: the contract opportunities for the ESCO sector narrowed up the year 2008



# The Crisis: impact on the ESCO market





## 2011: Starts the renaissance of ESCO Market ? Positive Signs

1. The ESCO sources of Financing became a real possibility to implement the ambitious aims in Energy Efficiency in Buildings and reducing carbon dioxide emissions .
2. Ambitious program: Joint efforts by professional and civil organizations as well as political decision-makers during the past year have resulted in a new long-term “Complex Energy Efficiency and Climate Protection Programme”, which is expected to be launched in January 2011.
3. Growing interest of the tenants institutions and municipalities in ESCO solutions.
4. Improving trust of financial institutions in the ESCO sector.

# New perspectives: The Raab – Sol projekt

Taking into account its experience and prospective changes, EnergoSys has developed a new market strategy to strengthen its market position while marking out new ways of developing ESCO activities:

1. Long term Partnership: it has entered into a partnership and cooperation agreement with House Associations to develop major projects and implement them on the medium term.
2. Major projects: A technically and financially well founded project, launched under the name of Raab-Sol, covers over 1,600 homes and is planned to be carried out in 3-4 years.
3. Applying Green technology: The projects heavily applies technology based on renewable energy, for example, solar collectors and solar-powered roof extractor fans.
4. Online Measuring and regulation of individual consumption: which will probably help home-owners' more effective cooperation in attaining energy-efficiency targets.



# Brief Summary: reasons to prefer ESCO solutions in retrofit projects

1. Raising resources
2. Integrating interests
3. Guaranteeing Quality:
4. Improving Returns:
5. Optimal Operation of the Heating system





**Thank You for your attention!**

