



Retrofitting of Social Housing. Policy and Financing Options

SESSION III: Present Situation in the EU
and the Accession Countries



CECODHAS

European Liaison Committee for Social Housing

**Retrofitting of Social Housing in Europe
8 November 2006 - Thessaloniki**

Introduction: Reality check

- 2006 European Quality of Life survey by the European foundation for the improvement of living and working conditions
- % of those surveyed who report that they cannot afford to heat their homes – in EU 15 7% (range of 1% - 45%) , in NMS 23% (3% - 56%) and Accession states 47% (44%-51%)
- This proportion is set to increase as fuel prices rise

- Proportion of those surveyed who report rotting window frames, doors and floors
- EU 15 8%, (2% - 16%) EU 10 25% and Accession states 30%

Technologies and Know-how exist but financial and organisation barriers are significant

Goal: Closing Gaps

- Ensure the transfer of knowledge and experience and best practice throughout the social housing sector
- Consolidate necessary political and financial support from Local, regional, national and EU levels in partnership with universities and industry

CECODHAS – an introduction

- Established in 1988 to represent the Social Housing Sector vis-a-vis European institutions
- No common definition of social housing in Europe . Huge diversity of systems however the common denominator between our members is that they provide housing on a non-for-profit basis.

CECODHAS activities

- **Lobby for adequate policy framework** so that social housing providers can play their role to offer decent and affordable housing to those in need
- Facilitate the **exchange of experiences** to learn from others and feed the design of new policies -
Community Development, - Urban Regeneration, -
Integration of Immigrants, - Housing for the Elderly,
- anti-social behaviour, **Energy Efficiency**

CECODHAS in Numbers

- Direct Members: 43 National and Regional Social Housing Federations in 19 Countries
- Members of Members: 22,000 public, cooperative and voluntary housing companies
- Housing units (rental and for owner occupancy): approximately 20 million housing units
- The sector represents a large proportion of housing and can therefore make significant cuts to energy use.
- Housing organisations have a long-term vested interest in stock and residents.

Multiplier Effect

- A multiplier effect: Because of the large stock levels, Social Housing Organisations can act as a catalyst by spearheading innovation and energy efficient renovations in local communities and in New Member States.
- A socially cohesive force: Bring different actors in the community together in partnerships with residents, local authorities, industry.
- Sector has considerable employment generation potential
- In creating the funding stream specifically for the retrofitting of social housing under the SAVE programme, the EU (Intelligent Energy Executive Agency) has managed to tap this potential and boost the multiplier effect

EU, Energy and Social Housing

- Action Plan for Energy Efficiency: Includes a range of measure to speed up the potential 27% reduction in energy consumption in the residential sector over the next 3 years
- Expansion in the scope of existing Legislative and regulatory measures and Norms and establishment of new norms and minimum requirements

EU, Energy & Social Housing contd.

- Facilitating leveraging of financing for energy efficiency projects, including the multifamily and social housing sectors, in the new member states through structural and cohesion funds (2007-2012)
- Promoting networking amongst member states and regions, to ensure financing of best practices in energy efficiency (2007-2012)

Challenges for Social Housing

- Funding of investment
- Compliance with growing amount of regulation and norms
- Access to knowledge and training

CECODHAS actions on energy

- Proposals on Energy Performance of Buildings directive
- Answer to Green Paper on energy efficiency
- Partner in European Sustainable energy campaign, EPBD building platform
- Participation to European Expert Group on the Urban environment

- Lobbying for eligibility of EU structural funds for social housing energy projects
- Promotion, participation, facilitation of network building for the SAVE calls for proposals

Current Campaigns

- **Greening of the Cohesion Policy:**
Maximising the potential of new financial instruments to improve living conditions for all in the EU
- Ensuring that local authorities in new member states are aware of the new possibilities open to them in 2007 -2013
- Present a body of expertise and good practice at a conference on January 31st 2007
at the Committee of the Regions, Brussels

Greening of Cohesion Policy

- Clearly outline new possibilities to use EU structural funds to support the housing sector targeting local levels
- Identify needs for successful implementation of EU projects
- Present successful projects in integrated urban renewal and community development and energy efficiency

Current Campaigns contd.

- Establishment of structured exchange of knowledge and best practice through a platform of energy experts from each CECODHAS member federation.
- Capitalisation on work of Intelligent Energy projects (SAVE, Altener, Research Framework) on a thematic basis:

- Financing
- Fuel Poverty, Housing, energy & Health
- Networks/ Forums Models (links with universities/industry
- Training
- Asset management
- Waste/ Water/ common areas



Thank you for your attention

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Retrofitting of social housing in Estonia

Marit Otsing

Estonian Union of Cooperative Housing Associations

Conference „Retrofitting of Social Housing –Financing and Policy Options”

Thessaloniki, 08.11.2006

Retrofitting of social housing in Estonia

- Estonia – what is it?
- A brief history of the housing development in Estonia
- Energy efficient retrofitting - obstacles and opportunities
- Achievements

Estonia

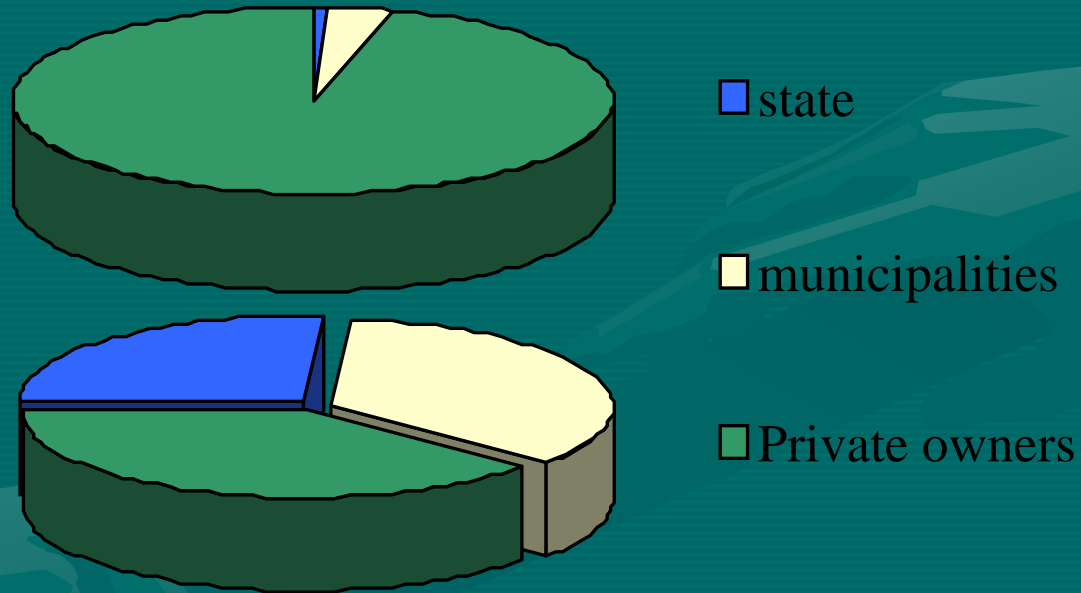
- Territory - 45 227 square km
- Population – 1 370 000
- Rate of unemployment- 1,9 %
- Annual economic growth – 12 %
- Average wages – 9500 EEK – 610 EUR per month
- Inflation – 5,0

Estonian Housing Reform

- Estonian Housing Reform started in 1992.
- 3 steps of the reform:
- Privatising of apartments
- Establishing of housing co-operatives and associations
- Setting housing property
- 98 % of the apartments were privatised

Division of living space between different sectors in Estonia in 1992 - 2002

2002



1992

Two pillars of social housing – people and the building

- 8000 housing co-operatives and associations
- 360 000 apartments
- 800 000 inhabitants
- 530 million EUR of annual turnover
- 60 % of Estonian population lives in housing co-operatives and associations.

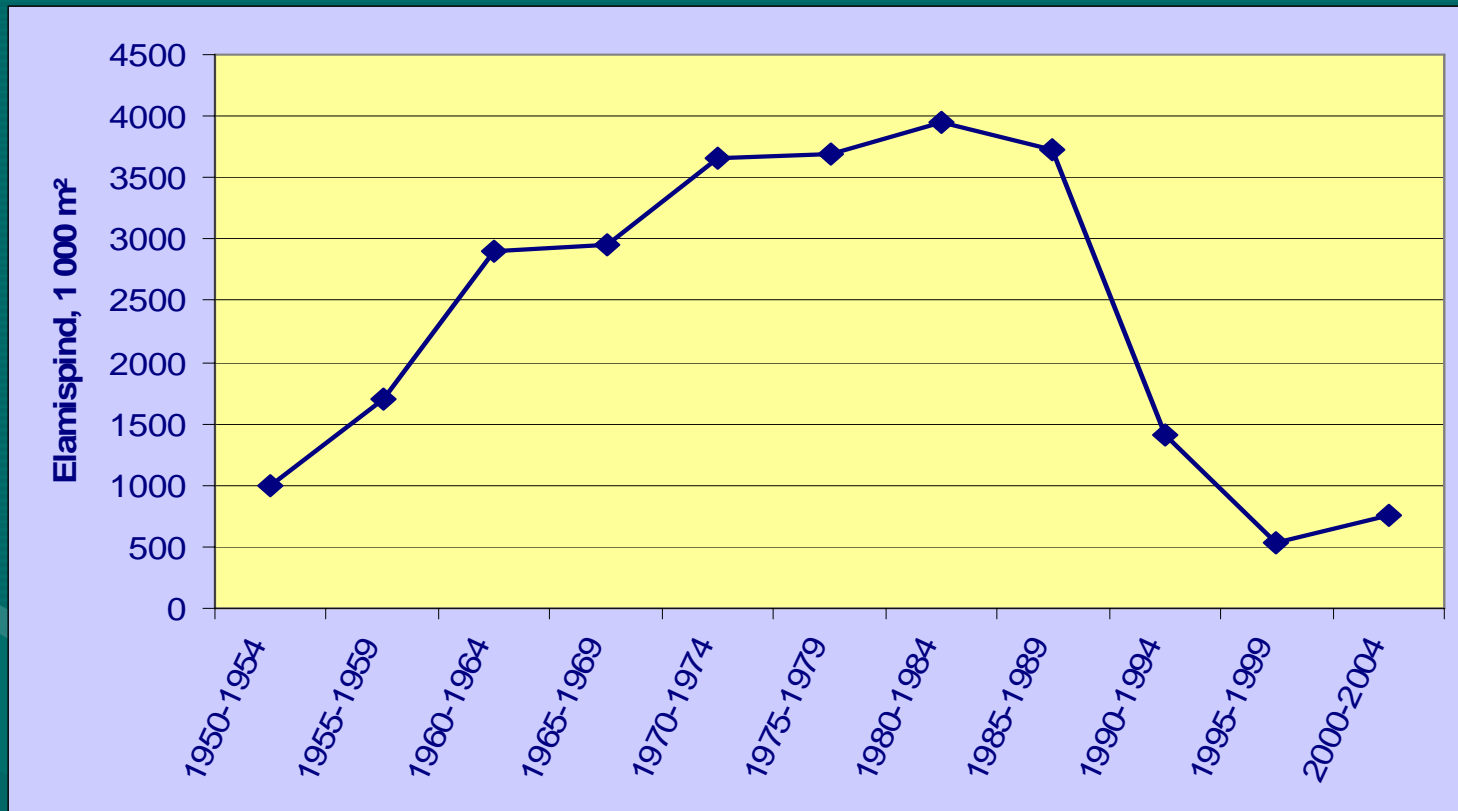
The first pillar of social housing - people

- In 1990-s – forming of the class of private owners
- new responsibility
- lack of knowledge and information
- Apartment owners in one building have different national, financial, cultural background and different demands
- Managers have different educational and professional background
- Licensed courses for the managers
- 3 pillars of the training courses
- People (leadership and communication skills)
- Building (basic knowledge in technical matters)
- Management (knowledge about legislation, accounting etc)
- Manager of a housing co-operative is a new profession

The second pillar of social housing – the building

- According to the expert analysis it is possible to gain 20-30 savings in energy consumption with the help of reconstruction of housing stock
- Estonian housing stock consumes ca 30 % more energy in when compared to West-European countries? Why?
- Huge amount of new apartment buildings constructed during 1965-1990
- During that period energy was cheap
- Building quality was low
- Buildings have been without high-quality maintenance and repairs for 50 years

Construction of living houses during the period 1950 -2004



Typical soviet period block-house in 1990s



Energy loss through roof



The results of lack of maintenance



Low-quality construction



Financing of retrofitting

- * In 1990-s conditions for loan borrowing were not acceptable. The loan interest was 16-18 %.
- * Until the year 2000 banks did not borrow to housing associations and cooperatives without guarantee.
- * Today the cash flow of the housing organisation is taken as a guarantee. the average loan amount has slowly increased from 16 EUR/m² to 38 EUR/m².
- * 36 000 families all over Estonia have improved their living conditions.

Development of the borrowing activity of co-operatives and associations

- 1995 – 2000 10-20 loans
- 2001 80 loans
- 2002 250 loans
- 2003 520 loans
- 2004 850 loans
- 2005 1200 loans

State subsidies

- **KREDEX** – In 2003 State Housing and SME Supporting Agency – started a program of 10% grants of performed construction works and a 50% grant of technical evaluation report and/or energy audit report.
- **KREDEX** offers banks loan guarantees to housing co-operatives.

Municipal subsidies

- Municipalities of Tallinn, Paide and Rakvere are offering a subsidy for housing co-operatives' loan borrowing.
- This subsidy enables to keep down the loan interest.
- Housing cooperatives and associations in Tallinn can take a loan with an interest of 2,85 – 5 years or 3,8 for 10 years.

Renovated housing cooperative



Renovated housing cooperative



Retrofitted housing cooperative



Retrofitted housing cooperative



Retrofitted housing cooperative



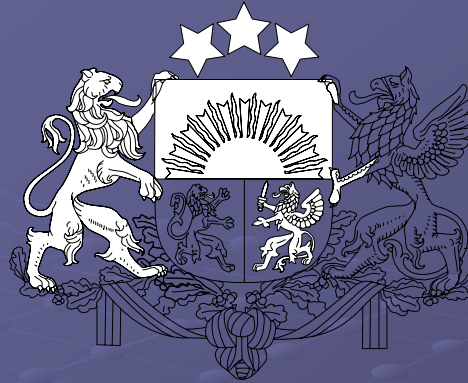
Retrofitted housing cooperative





Welcome to Estonia

- Baltic Housing Conference
- 10 years of cooperative housing movement in Estonia
 - April 2007
- Estonian Union of Cooperative Housing Associations
 - www.ekyl.ee
 - ekl@ekyl.ee



REPUBLIC OF LATVIA
MINISTRY OF REGIONAL DEVELOPMENT
AND LOCAL GOVERNMENT

Social Housing in Latvia

DEFINITION

Social house

is house which belongs to municipality. The status of social house is assigned by official decision of municipality council.

In social house municipality rent out apartments only to low-income people.

According to the Law, social apartments and social houses cannot be privatised

LEGISLATION

In 1997 Latvian Parliament adopted Law on Social Apartments and Social Dwelling houses.

This law has been the first legislative act that defined what is social house and social apartment and how these houses should be financed and who has the rights to live in these social houses and apartments.

Municipalities are responsible for implementation of the law.

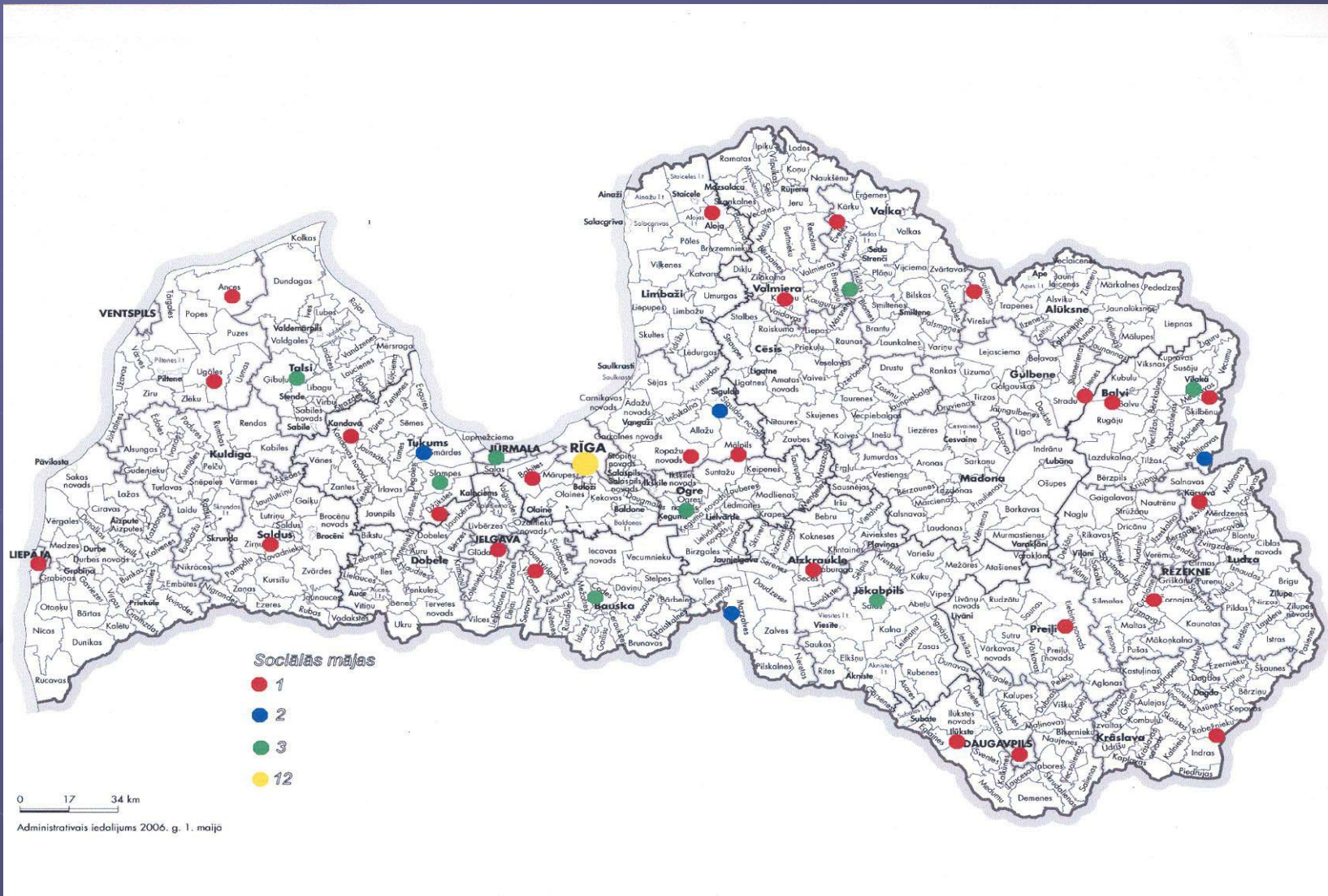
Legislation regarding social assistance for low-income people has been adjusted and several laws and regulations have been adopted and amended. The main legislative acts in this field are:

- **Law on Social Utilities and Social Assistance (19 November 2002);**
- **Law on Assistance In Solving Apartment Matters (1 January 2002)**
- **Regulation on Order in which are allocated, calculated and paid benefits for to secure guaranteed minimum income level (9 December 2003);**

Each municipality assigns the renting fee separately, but it shall be at least 3 times smaller than that renting fee which is allocated to the same category municipal flats.

Municipally can partly cover as well expenses for public utilities.

The distribution of 73 social houses in Latvia



- 18, of 73 social houses are situated in “big” cities, in capital of Latvia – Riga in year 2006 have been established 12 social houses; 29 social houses are created in regions and 26 social houses in different districts.
- Comparing with the data in 2001, the number of social houses has increased by 30% (in 1 January 2001 there were 56 social houses)

Identified problems

Legal (affordability):

- only 10% of housing stock will belong to municipality after denationalisation and privatisation process (disbalance between demand and supply)
- Due to that the municipalities cannot meet the demand for social housing. That results in the problem that there is not enough space where to house low income and socially unprotected people who cannot pay existing housing bills and who are without housing.

Financial:

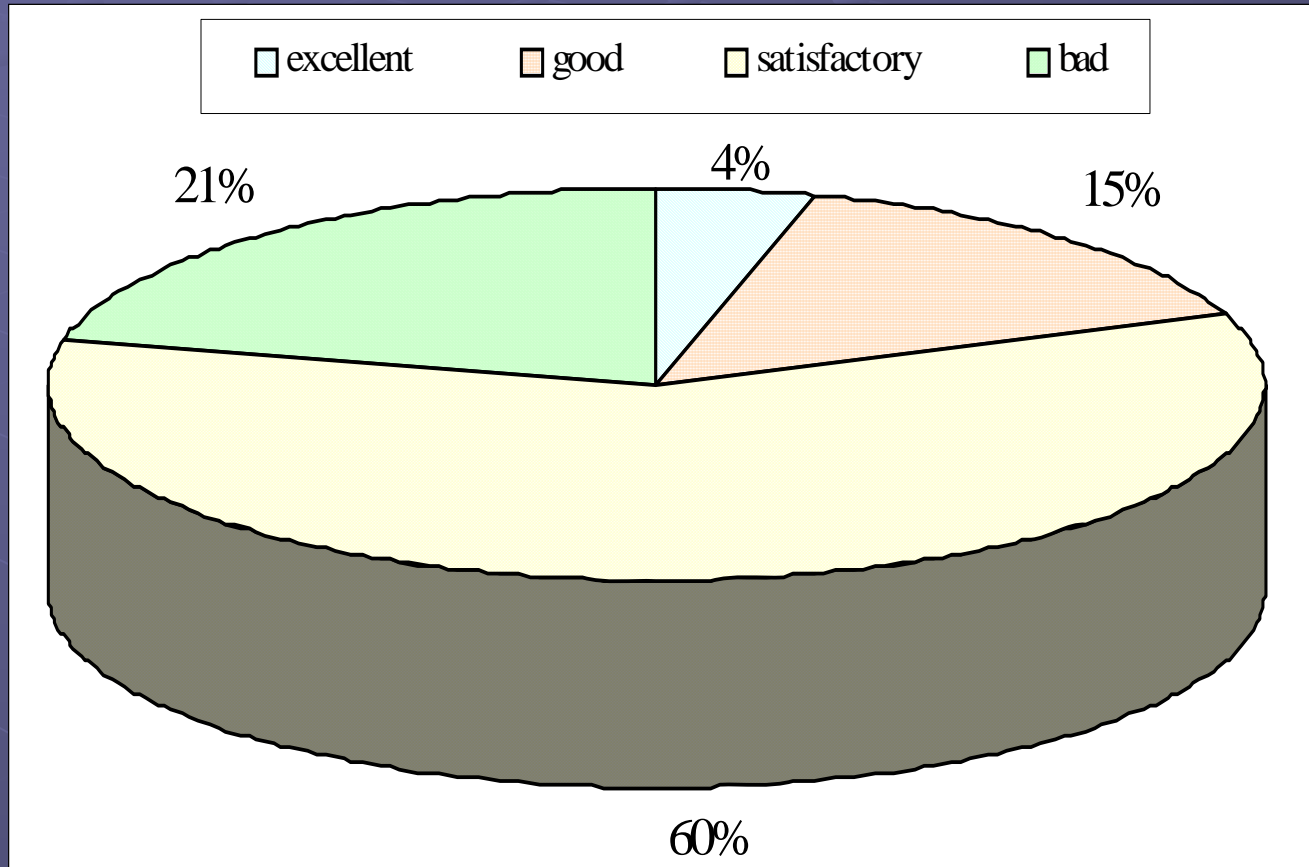
- At the moment municipalities do not have enough financial resources; the money that is allocated for social assistance is not used in efficient way by paying benefits – allowances.

- Municipalities do not have enough investments for insulation measures to reduce energy consumption;

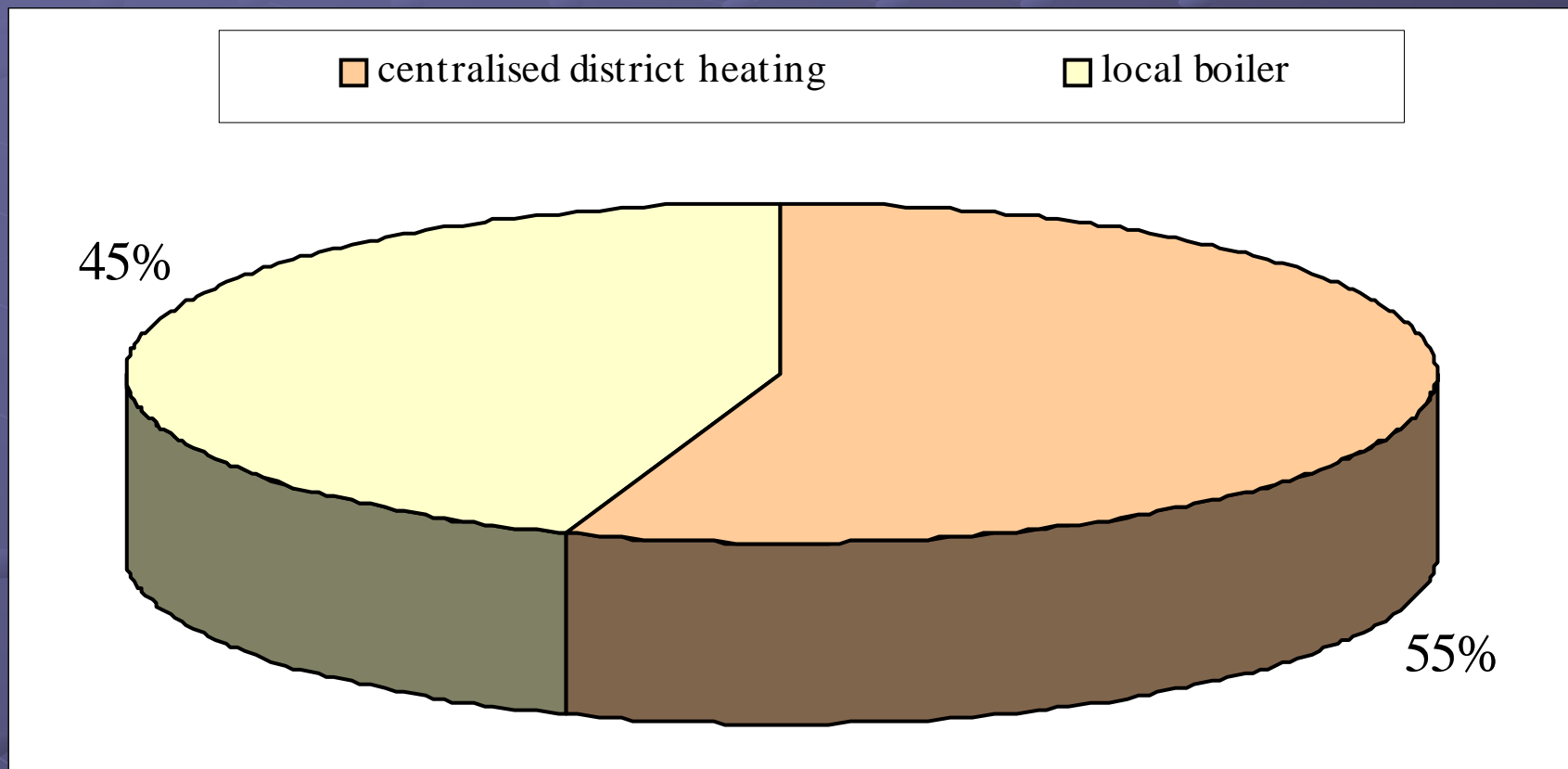
Technical

- Heating systems are morally and physically old and do not fill technical and economical requirements;
- Houses have not effective insulation – big losses through walls, windows, balcony doors etc.;
- Small % of social houses with utilities (50% of total)

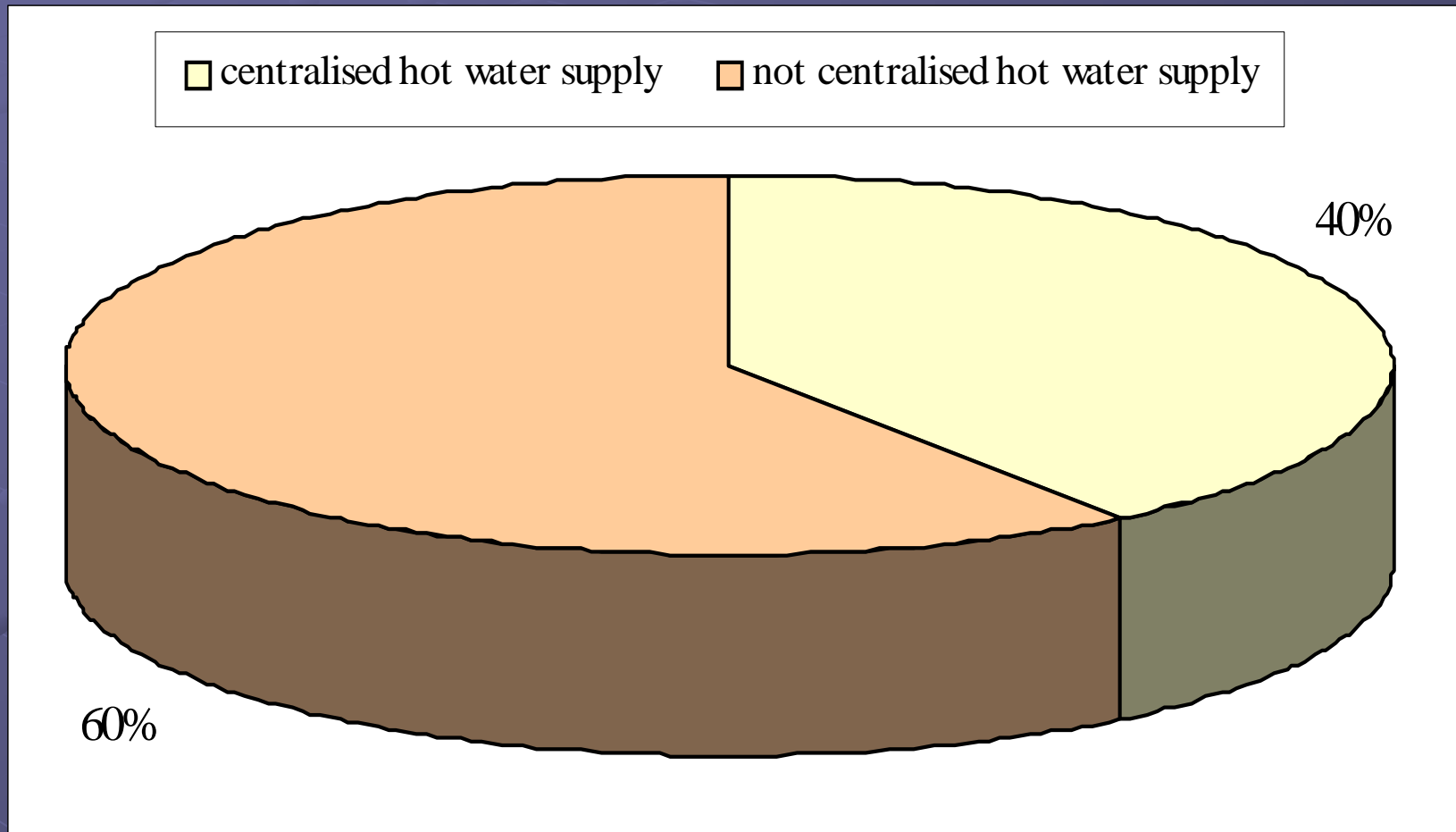
Technical conditions



Social houses with centralised district heating and local boilers and ovens



Social houses with centralised hot water supply



Social house in Skrunda was built in 1932. The area of building is 130 m² and there are living 8 persons. The house are heated with the local wood



Social house in Tukums was built in 80ties and the heated area in building is 2600 m²



Social house in Emmas street

House was built in 1968 and renovated in 2001 .

Total heated area is 5209 m² (basement and staircases are heated as well). As well this building in Soviet time was built as dormitory and now there are created 93 apartments with rooms for 116 inhabitants – pensioners.



Retrofitting – for saving and life quality

Half of buildings either municipality or inhabitants themselves have been implementing some energy efficiency measures. (Usually that was packing of spaces in between the windows, which is the cheapest measure).

In “big” cities form municipalitys budget other energy efficiency measures were implemented like insulation of attics and basements or insulation of walls.

Several social houses (mostly in capital city) have been newly renovated and reconstructed.

State support

Procedures by which State Earmarked Subsidies are to be Granted to Local Governments for Solving Apartment Matters

(adopted in Government 5 April 2005)

In accordance with these Regulations, local governments may qualify for earmarked subsidies:

1. for the construction of social residential houses – in the amount of 30 % of the construction costs;

2. for the reconstruction into residential houses of buildings owned by a local government or the completion of unfinished houses (the construction work of which has been stopped), – in the amount of 30 % of the reconstruction (renovation) costs

In 2006. effected project with state



Opportunities from ERDF (European Regional Development Fund) and Social Fund

ERDF

Allocation to housing shall be either a maximum 3% of the ERDF allocation for the Operational Programmes concerned or 2% of the total ERDF allocation.

Social Fund

No eligible expenditures for construction, retrofitting or renovation of Social houses.

Considering that:

- certain elements of EU-legislation and EU-programmes have affected and will affect housing very directly and significantly ;
- social inclusion is one of significant goal in all EU countries;

It is important to pay more attention in EU level to refurbishing of Social houses and restructuring their surroundings, and to take account of constructional, social and economic and eco-efficiency aspects.

Therefore, special social programs need to be foreseen from Structural Funds (in addition to National programmes) in the set of refurbishment measures in order to avoid social tensions and economic losses.

Thank you for your attention

Ministry of Regional Development
and Local Government
www.raplm.gov.lv

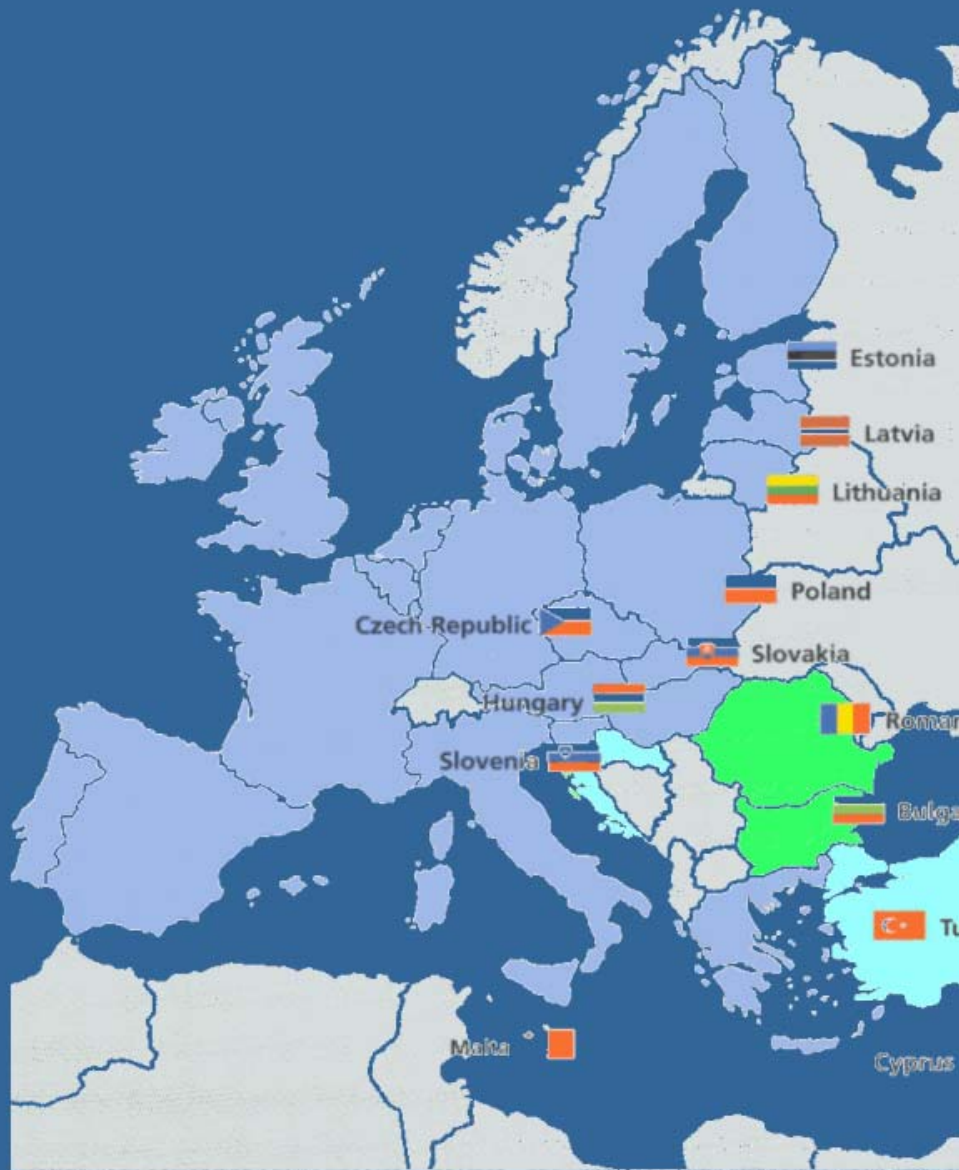
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REFURBISHMENT OF SOCIAL BUILDINGS IN BULGARIA - SPECIFIC PROBLEMS AND SOLUTIONS

arch. Rossen SAVOV

arch. Valentina BELOEVA



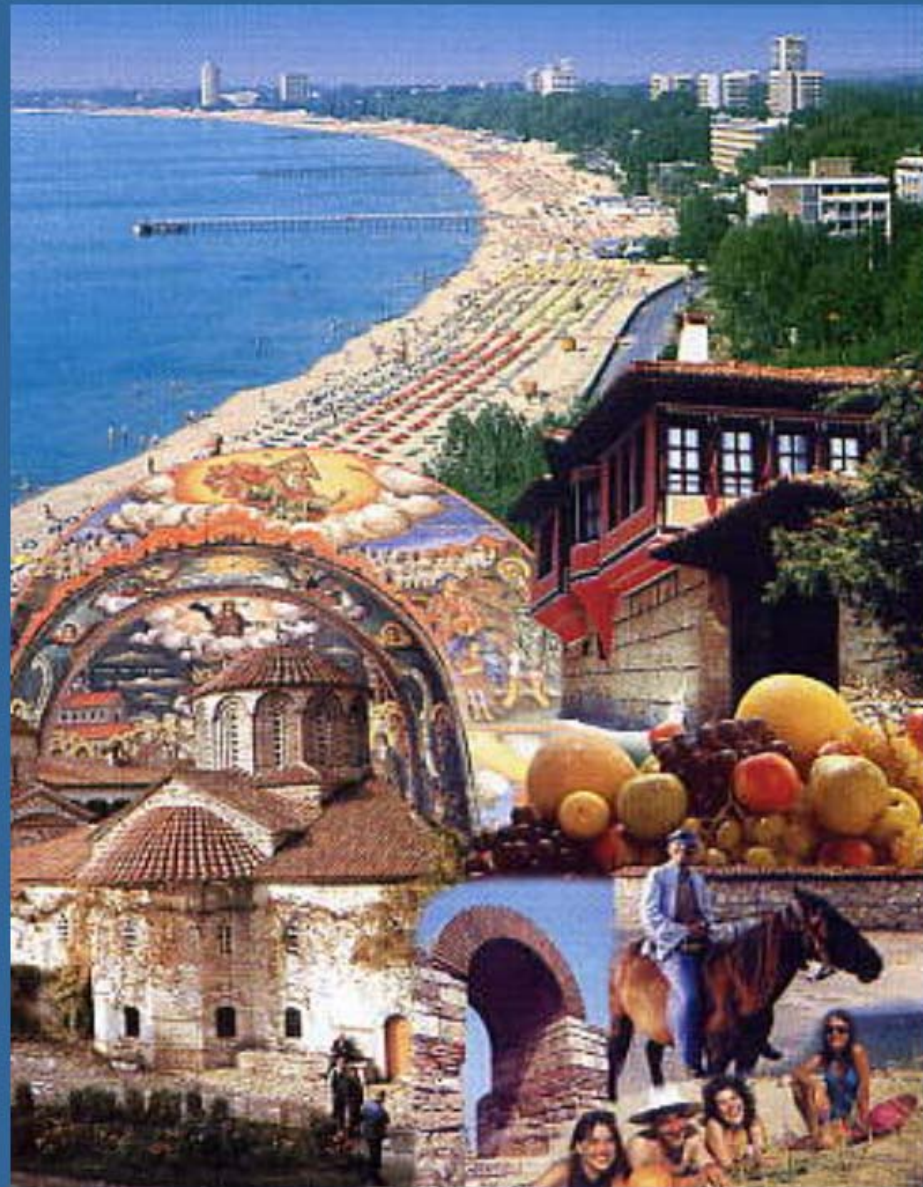


The rejection of the centralized single-party political system and the establishment of democratic principles in the management of the social and economic processes brought about a replacement, within a short period of time, of outdated, existing for several decades relations and habits with new ones which are expected to provide optimal economic and social stability.

New principles of interaction between administration and citizens were anticipated to be set in the society. Without reducing its responsibility and high degree of concern, the state had to reduce sharply its influence on the processes in the sphere of economic relations and to guarantee the social prosperity of the individual within an environment of competition and equality.



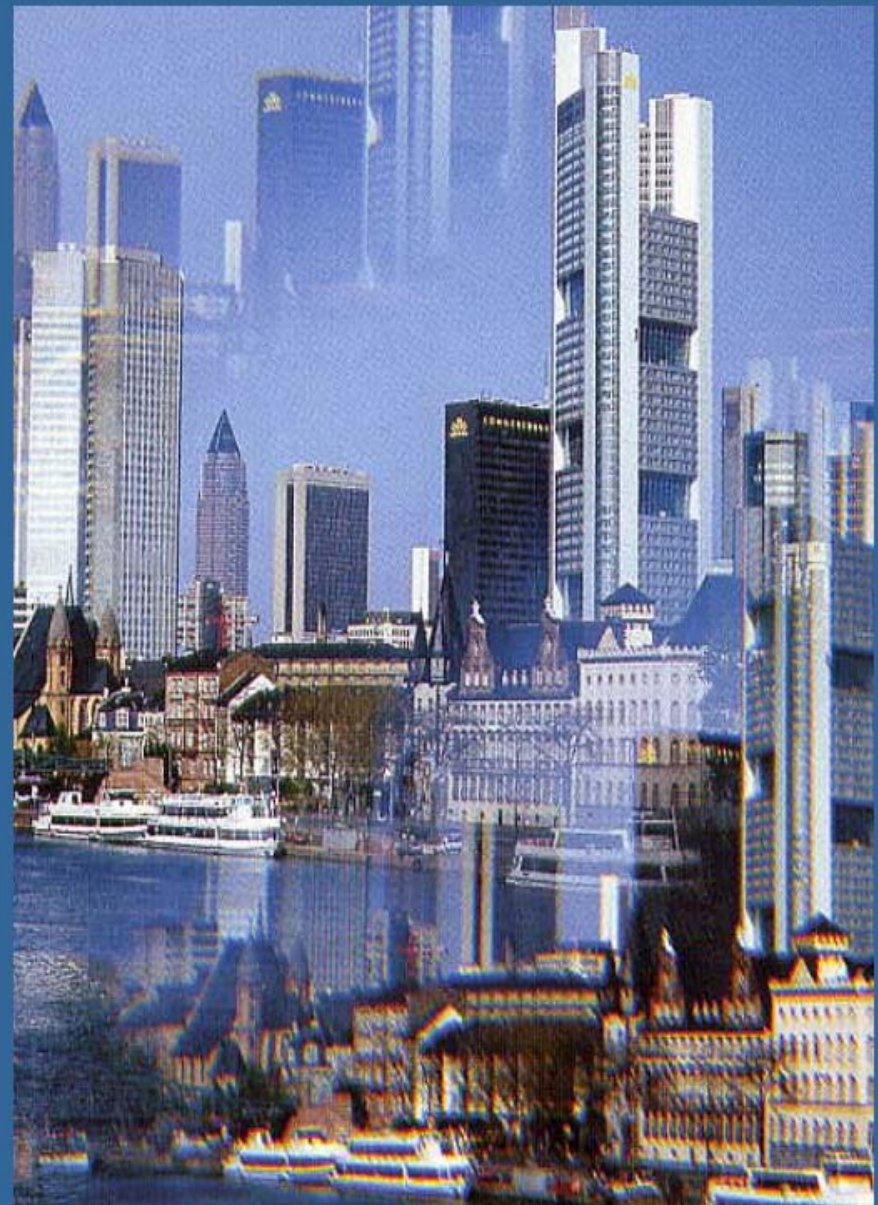
Particularly, through such actions the number of people placed at the risk of poverty and social inequality may be brought about to a minimum, a higher level of social and regional understanding to be secured, and a society observing the solidarity between/within the generations in the process of improving the quality of life to be set up.



This is one of the main tasks of the European Union's Strategy for Sustainable Development updated in 2006 –

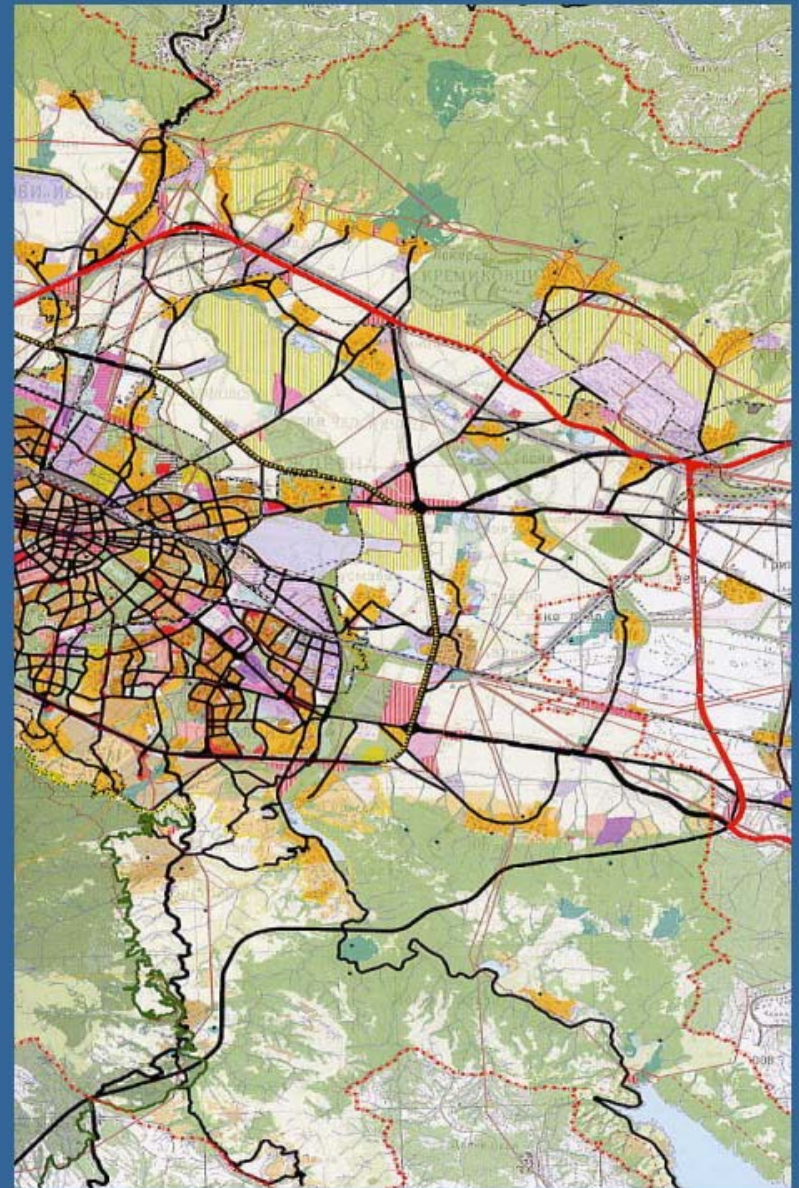
“... for long-term improvement of the living environment both for current and future generations, for establishment of sustainable societies capable to efficiently manage and utilize resources and to benefit from the ecological and social innovative potential of economy, providing prosperity, nature preservation and social agreement”.

The experience of all countries speaks for the fact that the housing sector is one of the key components of every economy and economic activity as a whole, and may be used as a driver for sustainable development.





Let's consider a residential building in a very narrow sector – a concrete panel building on the territory of Sofia Municipality - and from the point of view of several criteria only:





The condition of the existing concrete panel housing



**Varieties of
ownership**
**The condition of the
existing concrete panel
housing**



Age characteristic and financial status of users

Varieties of ownership

The condition of the existing concrete panel housing



Age characteristic and financial status of users

Varieties of ownership

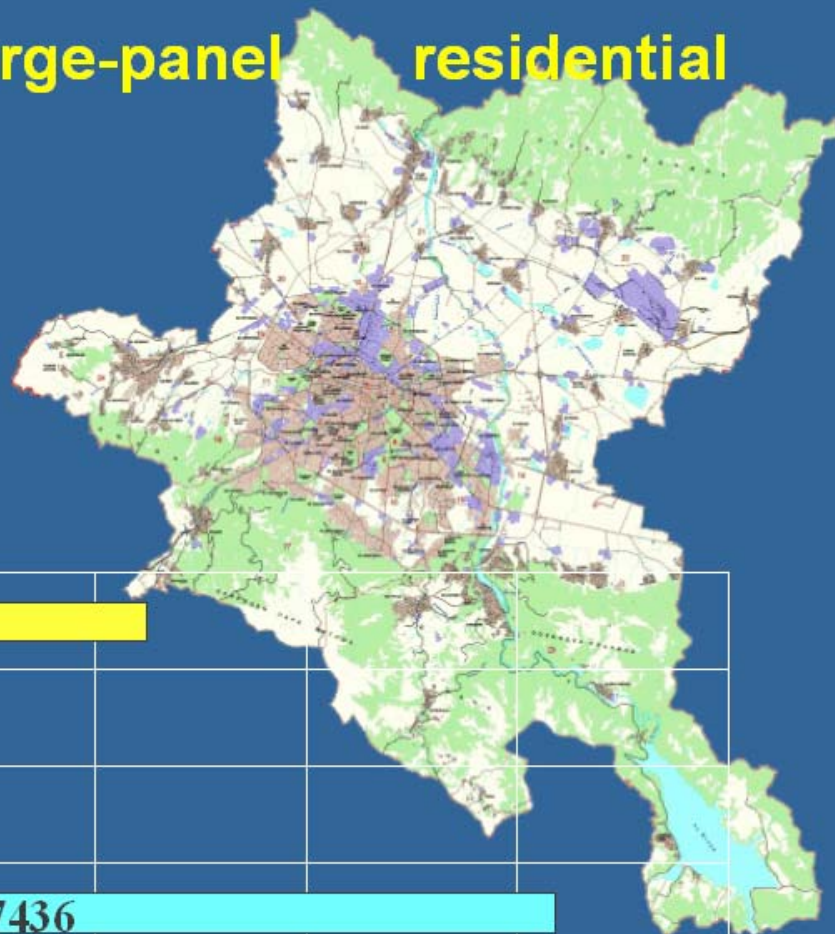
The condition of the existing concrete panel housing

LEGISLATION

CONDITION OF THE EXISTING CONCRETE PANEL HOUSING

A/ Housing available – large-panel residential buildings

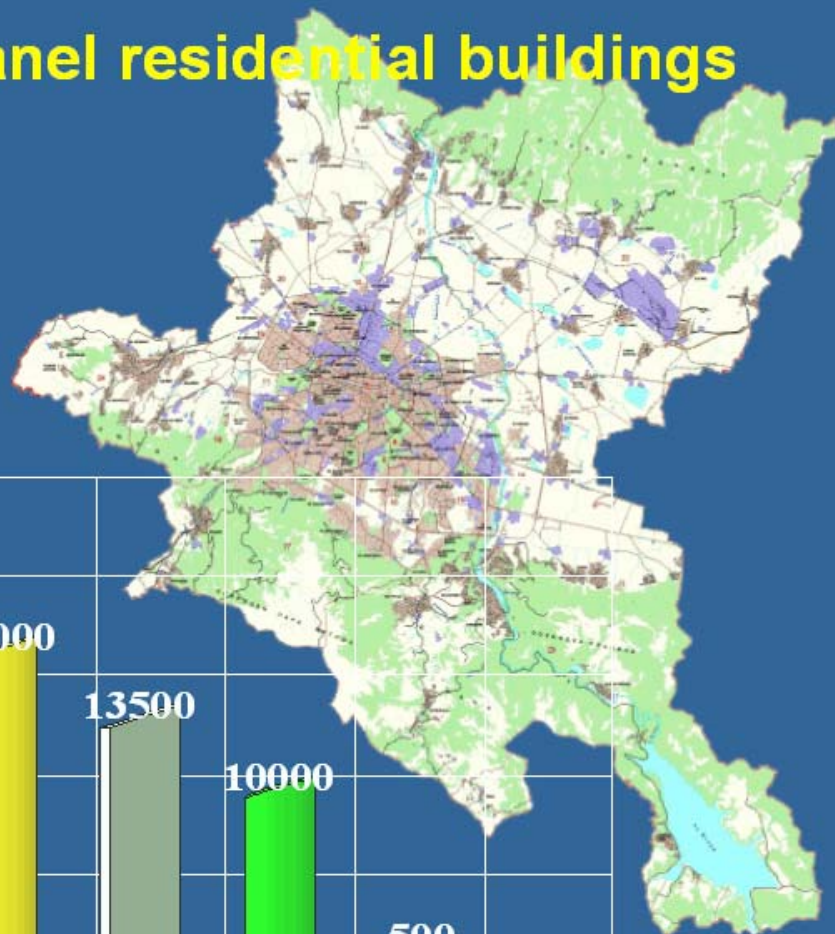
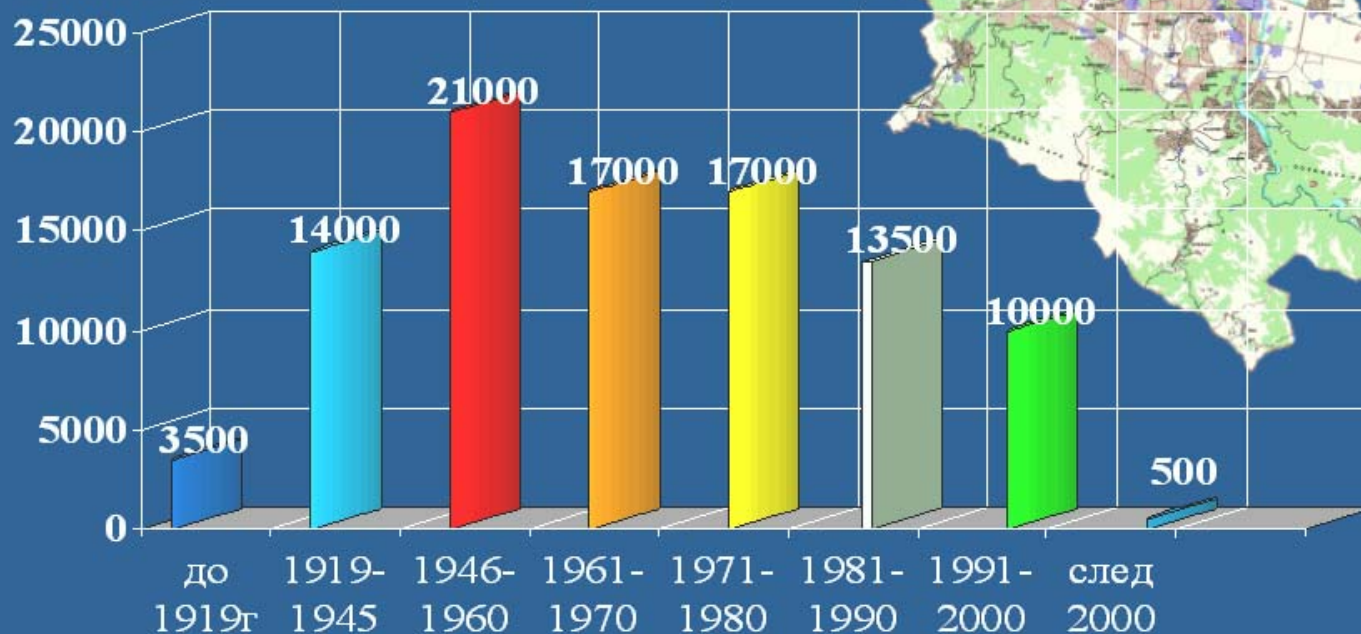
Duellings by material of outer walls as of 31.12.2002



CONDITION OF THE EXISTING CONCRETE PANEL HOUSING

B/ History of the large-panel residential buildings

Residential buildings by periods of construction as of 31.12.2002



CONDITION OF THE EXISTING CONCRETE PANEL HOUSING

C/ Analysis of the technical condition of the large-panel residential buildings

Bearing capacity, fire safety, noise protection - the large-panel residential buildings are designed and erected in compliance with the current regulations at the time of erection. Some of the criteria have been subsequently enhanced. Since 1987, there is a new zoning scheme of earthquake regions in Bulgaria, and Sofia is located within a zone of expected earthquakes with a magnitude of 9 according to the Richter's scale.

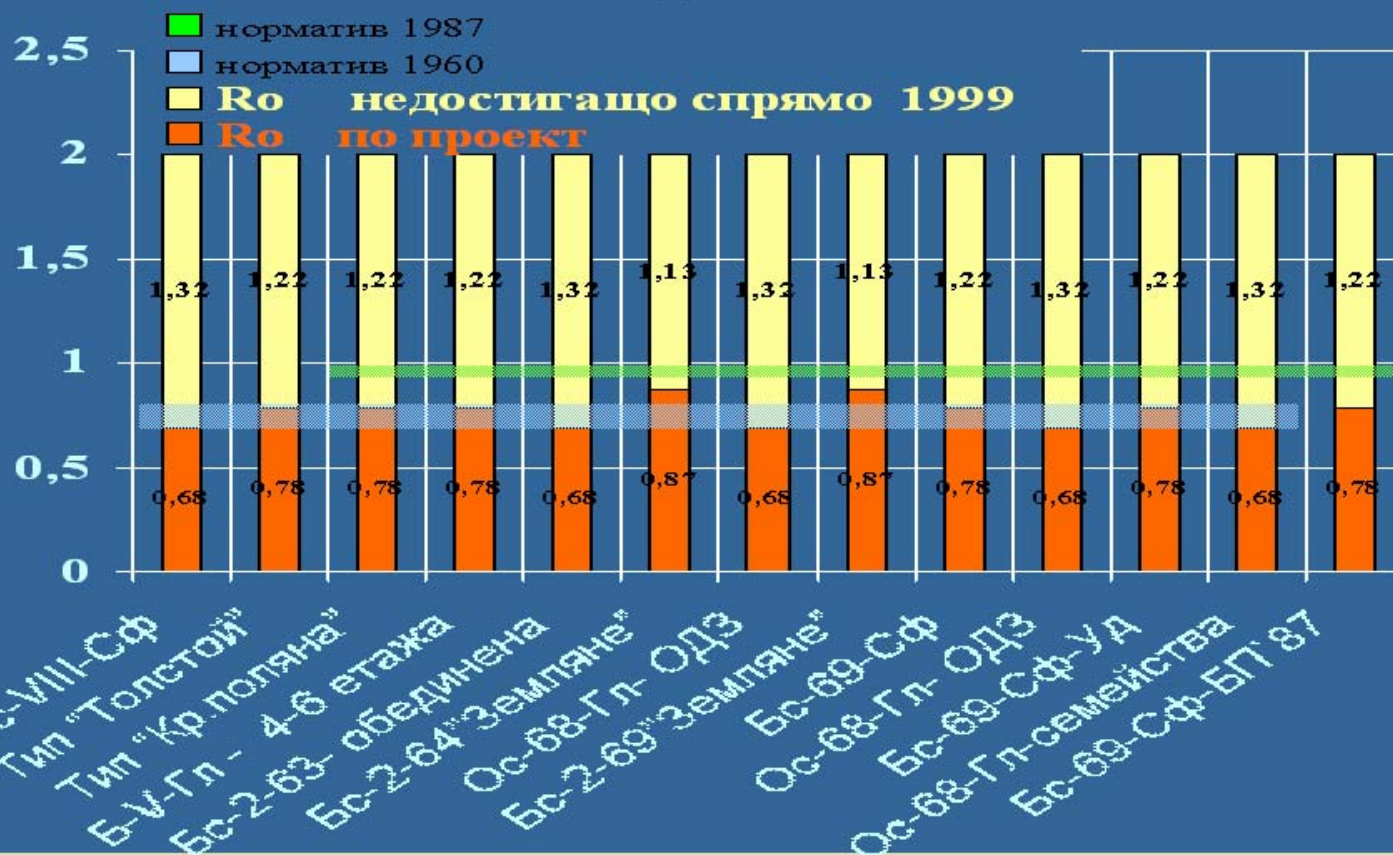
Energy efficiency - According to analyses made in 1981 for the thermal engineering parameters of the existing housing by 1980, some large-panel residential buildings do not meet the current thermal engineering regulations for the cladding components and structures.

Easy access – with respect to the access of disabled people, the concrete panel buildings are unsuitable, due to the fact that they had been built several decades before the regulations for easy access came into force

CONDITION OF THE EXISTING CONCRETE PANEL HOUSING

C/ Analysis of the technical condition of the large-panel residential buildings - Energy efficiency

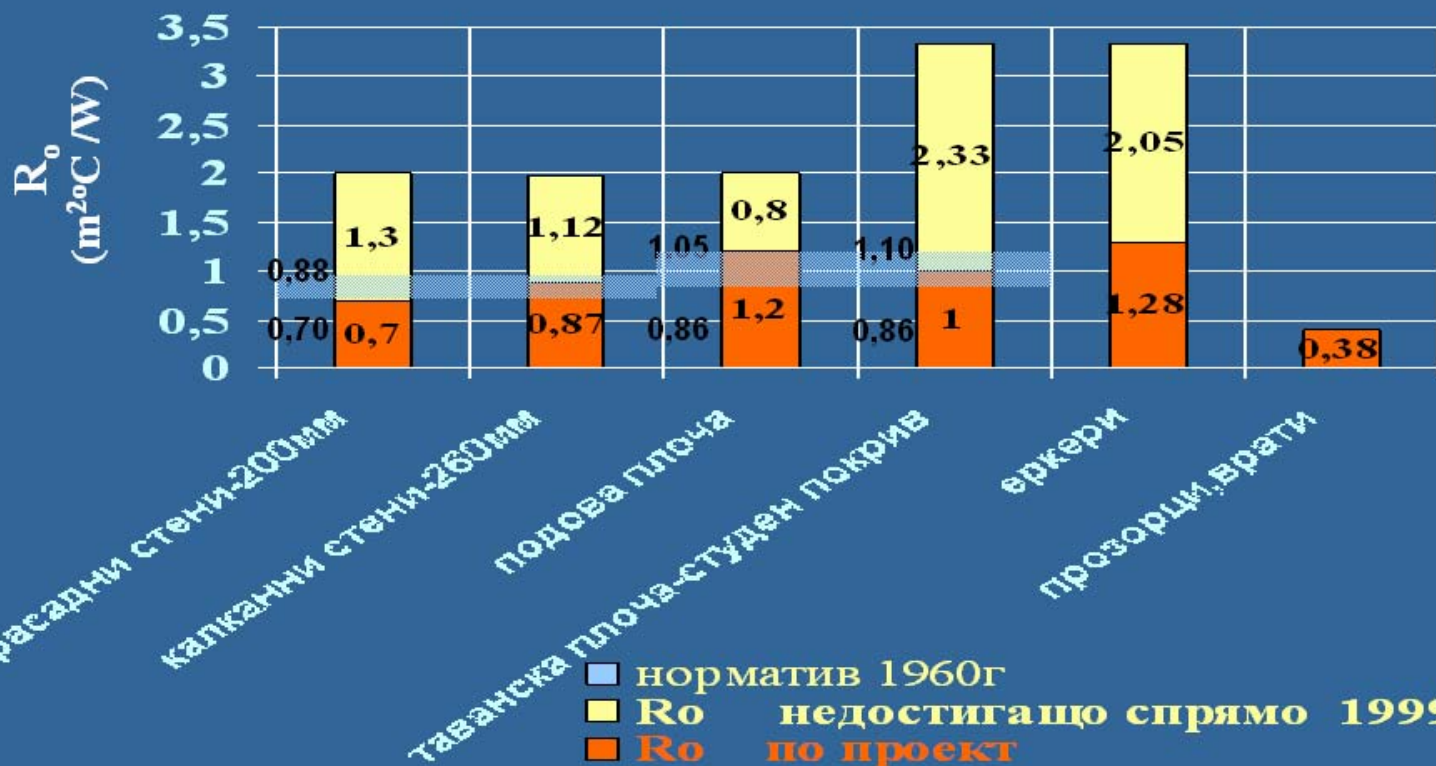
ТОПЛОТЕХНИЧЕСКА ХАРАКТЕРИСТИКА НА ФАСАДНИТЕ СТЕНИ НА ПАНЕЛНИТЕ СГРАДИ ПО НОМЕНКЛАТУРИ



CONDITION OF THE EXISTING CONCRETE PANEL HOUSING

C/ Analysis of the technical condition of the large-panel residential buildings - Energy efficiency

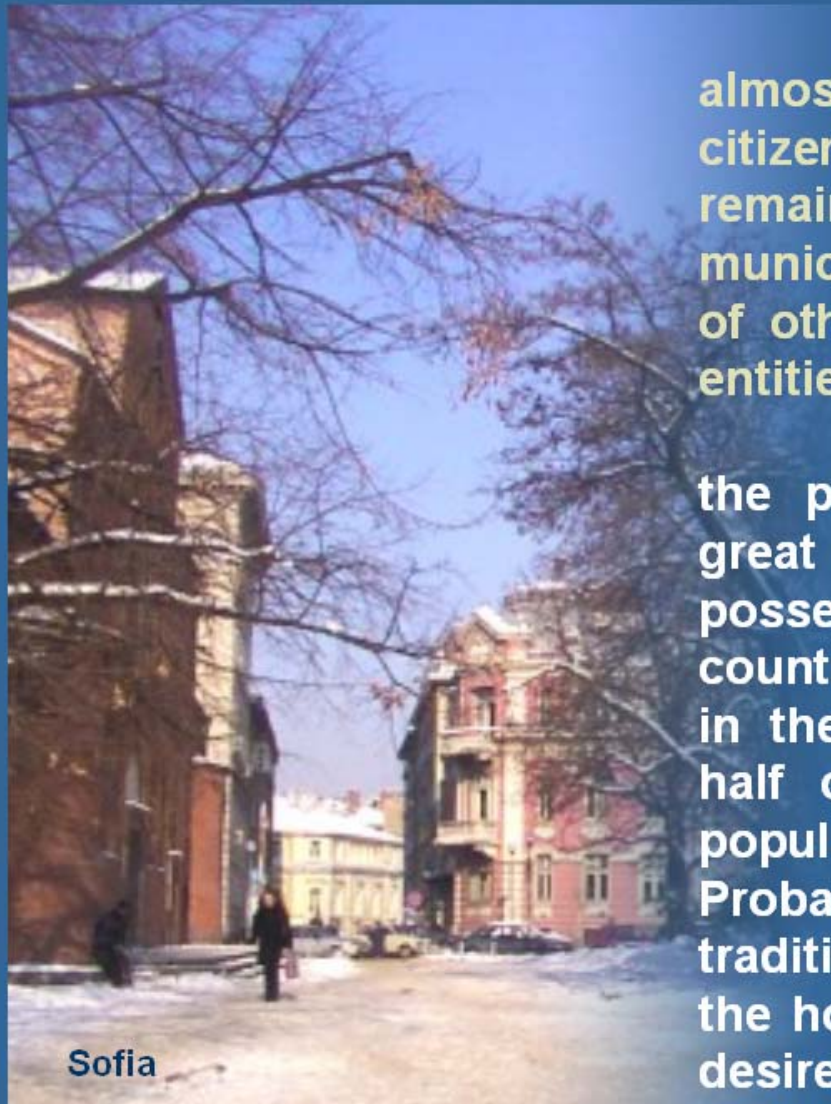
ТОПЛОТЕХНИЧЕСКА ХАРАКТЕРИСТИКА НА ОГГРАЖДАЩИТЕ ЕЛЕМЕНТИ НА НОМЕНКЛАТУРА **Бс-69-Сф**



VARIETIES OF OWNERSHIP

The housing in our country is almost entirely a private property. The citizens possess 96.5% of it, the remaining part being state and municipal property as well as property of other economic and non-economic entities.

The peculiar point here is that the physical persons (owners), to a great extent occupy the dwellings they possess, while in the EU member countries, although to a different extent in the different countries, almost the half or maximum two thirds of the population live in their own dwellings. Probably this is related with the traditional adherence of our people to the home, to their own house and the desire to find security and peace in it.



Sofia

AGE CHARACTERISTIC AND FINANCIAL STATUS OF OWNERS *OCCUPANTS OF CONCRETE PANEL RESIDENTIAL BUILDINGS*

Age composition

Out of the total of 1 170 842 inhabitants in Sofia, 172 114 are up to 16 years of age, 737 820 inhabitants are 16-61 years old men and 16-56 years old women, and 260 908 inhabitants are over this age. The total number of disabled groups is 39754 which makes 4% of the people in the city, while the romes in Sofia number 17885, i.e. 1.5% of the city's inhabitants. By 2003, 43.45% of the inhabitants of Sofia are in non-working age (of them 28.65% are retired persons and 14.8% are under 16 years of age).



AGE CHARACTERISTIC AND FINANCIAL STATUS OF OWNERS *OCCUPANTS OF CONCRETE PANEL RESIDENTIAL BUILDINGS*

Financial status

The average annual remuneration in the sphere of economic activities for 2003 is 3441 – 4682 Lev (monthly remuneration 287-390 Lev). In 2003, the retired persons are 335 459, with average annual pension of 1164 Lev (97 Lev per month). The average annual remuneration in case of disability, disease and labour accident is 1262 Lev (105 Lev per month).



CONCLUSIONS

1

Yet at the design level, 90% of the concrete panel buildings do not meet the regulations of 1992, and by 2004 they have considerably worse thermal engineering characteristics of the cladding structures.

The high percentage of private property in the housing sector and the large number of owners occupying their dwellings leads to a very narrow market of rented dwellings and inadequate economic mechanisms for rent relations, which generates considerable economic and social problems.



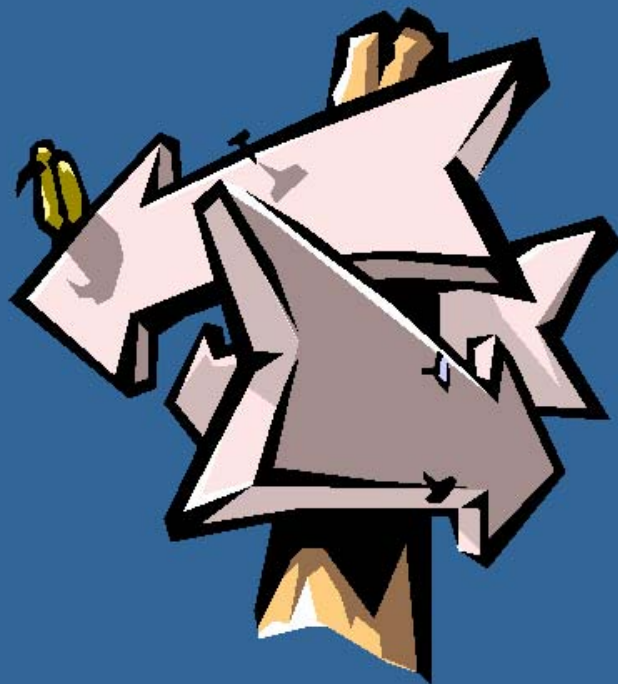
In the time of acquiring these concrete panel dwellings, their owners have been in working age, while today they are retired persons with rather limited income. Therefore, they can not meet the expenditures needed for normal heating and can not maintain their living comfort.

CONCLUSIONS

2

The residential buildings' energy efficiency issue becomes increasingly significant: on the one hand, the energy carriers' price is a heavy burden for the household budgets; on the other hand is the global endeavour for energy saving in the context of efforts for reaching sustainable development, because heating covers 70% of the household energy consumption.

Therefore, the housing management in the country should be realized in a new economically and socially well-grounded way.



LEGISLATION AND REGULATIONS

1

The legal framework needed for refurbishment of social buildings covers mainly three aspects: technical, economic and social. Each one of them is backed by a specific set of new contemporary regulations, and only a small part of them needs updating or replacement.

On the basis of these legislative documents, the Ministry of Regional Development and Public Works (MRDPW) developed the National Housing Strategy in the Republic of Bulgaria.

The follow-up developments are as follows:

- National Programme for Improvement of the Romes' Living Conditions in the Republic of Bulgaria for the Period 2005-2015;
- Framework proposal to municipalities under the "Preparatory Project for Demonstrational Refurbishment of Blocks of Flats", that has started in June 2006.

At a municipal level, the Metropolitan Municipality developed a Municipal Short-term Programme on Energy Efficiency for 2006-2008.

LEGISLATION AND REGULATIONS

2

However, the main obstacle for more significant development of the refurbishment process turned out to be the lack of in-depth knowledge on the regulations as well as their apathetic implementation. This called for a number of training courses and seminars for employees of state, municipal and technical services to be held.

The respective branch organizations have been holding also specialized courses for designers, builders, consultants, investors, and others.

The only remaining non-covered group was the one of occupants, tenants and owners. Obviously, the existence of the problem in the media space in the form of discussions and comments proves to be not sufficient



PROCESS MANAGEMENT

1

The pursuit of a policy for raising the living standard as well as sharing the best practices of the state and local authorities should be accomplished through a democratic and rational governance, along the way of the sustainable development of municipalities.

The following actions should be undertaken at a central governmental level:

- Pursuing a policy of raising the energy efficiency of the existing concrete panel housing;
- Creation of a suitable organizational, technical and financial ground for the accomplishment of this policy;
- Support for conducting scientific research and information dissemination;
- Stimulation of the establishment of governmental and non-governmental institutions that will help for this policy to be pursued.



PROCESS MANAGEMENT

2

Today, in the interaction “authorities – citizens”, it is taken into account the availability of governmental administration, municipal administration and district administration (in cities having district division, like Sofia, Plovdiv and Varna) as well as a civil society which is in a process of building of its structures (non-governmental organizations, associations, foundations, agencies, unions, councils, etc.). In order for their cooperation to be a fruitful one, the central government, local governments and citizens should be able to carry on a dialogue between each other, which is feasible only in case certain adjustments and prerequisites exist

The mutual confidence, the recognition of the equality of the parties, seeking of beneficial partnership, using the same “language” in the discussions, as well as reaching of basically equal viewpoints are part of the elements guaranteeing the development of the dialogue under the conditions of a democratic governance.



PROCESS MANAGEMENT

3

All this presumes a passage of a joint and not easy way of searching and experimenting.

Often, the outcomes reached are fragile and ambiguous and the goodwill to start again and again is the only correct approach in the solution of the various problems.

Therefore, one of the main duties of the municipal administration is its support for the establishment of housing associations, house managers associations, civil forums within municipalities, etc.



PROCESS MANAGEMENT

4

A good example for this is the project “Rehabilitation and Efficient Maintenance of Blocks of Flats” realized in 2005 in Zaharna Fabrika quarter in Sofia. The partners were a housing association from Sofia, a housing association from Rotterdam (De Nieuwe Unie), and a housing association from Woondrecht.

The support of VROM (Ministry of Housing Policy in the Netherlands), MRDPW and the Metropolitan Municipality proved to be very fruitful.

The goal of the project was “to formulate and realize in practice through pilot sites a sustainable system for reconstruction and maintenance of the existing housing-blocks of flats”.

Good Practices

Project Zaharna Fabrika



PROCESS MANAGEMENT

SOFIA MUNICIPALITY, "IZGREV" DISTRICT

This district administration has got experience in searching a dialogue with the citizens of the district in order to reach consensus on the ways of solving the common problems. In 2003, a number of sessions of the Public Forum-Izgrev were conducted experimentally in Sofia, with the assistance and support of the Swiss Agency for Development and Cooperation, Balkan Assist Association, and Eco Regions Association. The sessions continued in the next year. As a result of the confidence and belief that citizens may take part in decision making together with the local authorities on problems being of mutual interest, the Public Forum-Izgrev was founded, with the conviction that this is one form of development of this idea in the future.



Swiss Agency
for
Development
and
Cooperation



Balkan Assist
Association



ASDE
ECOREGIONS

PROCESS MANAGEMENT

6

SOFIA MUNICIPALITY, "IZGREV" DISTRICT

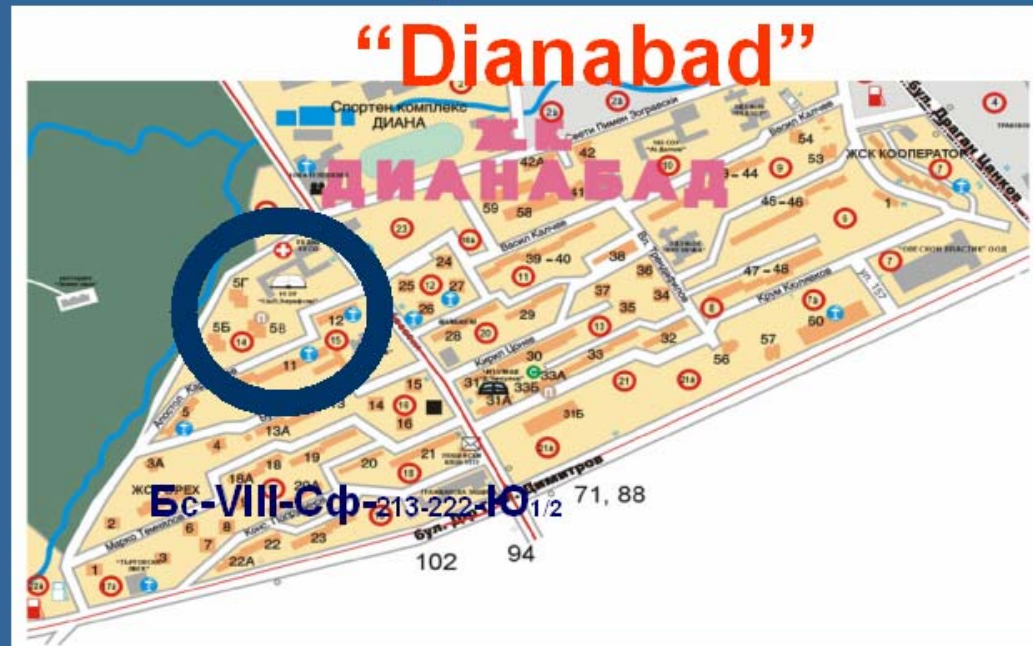
At the end of 2004, a second association – “District Council Izgrev” was founded as a result of the project “Partnership for Solving the Living Environment Problems in Izgrev and Iskar Districts”, launched in March that year with the financial contribution of the International Development Dept. at the British Embassy, and the support of the Association for Partnership and Support of the Civil Activity “Balkan Assist”.



Balkan Assist Association

PROCESS MANAGEMENT

SOFIA MUNICIPALITY, "IZGREV" DISTRICT



Thanks to these two associations being a result of the civil activity, it became possible the Metropolitan administration to take part and the Izgrev district to be included in the "Preparatory Project for Demonstrational Refurbishment of Blocks of Flats", that has started in June 2006 following an initiative of MRDPW and UNDP.



*Is this
the right
way ?*

The Practical Application of Energy Efficiency Improvements in Social Housing

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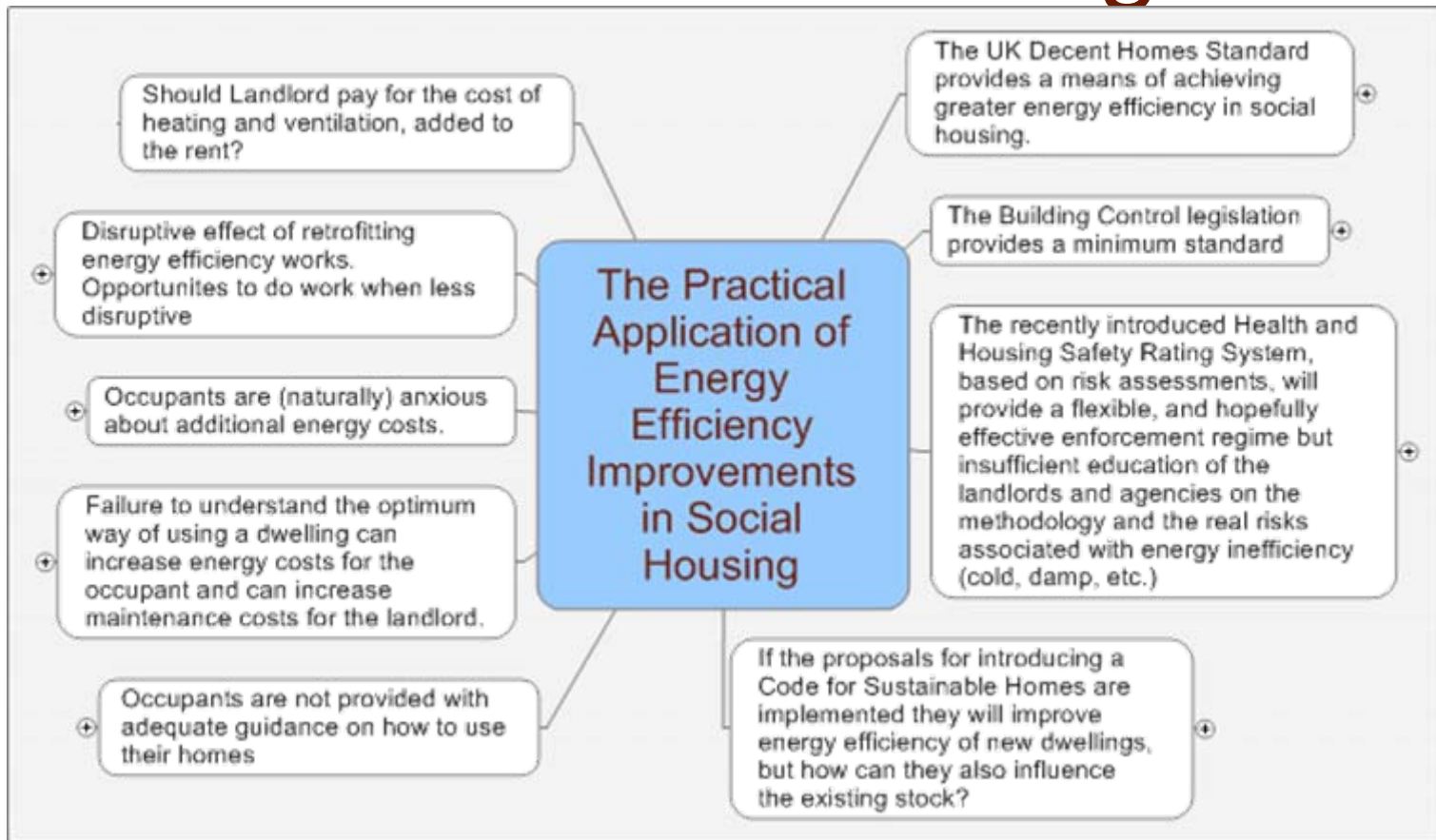
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Association of Building Engineers

The Practical Application of Energy Efficiency Improvements in Social Housing



The UK Decent Homes Standard

A decent home is one that meets the following criteria:

- is above the current statutory minimum standard for housing;
- is in a reasonable state of repair;
- has reasonably modern facilities and services;
- provides a reasonable degree of thermal comfort.

The Building Control legislation provides a minimum standard

- Part L
 - Limit heat loss by
 - Insulation of building
 - Airtight building
 - Insulation of pipework, etc.

The Building Control legislation

- Part L Performance Targets
 - Heating & hot water
 - Efficient appliances
 - Controls for timing and temperature
 - Lighting
 - Switching
 - Energy efficient

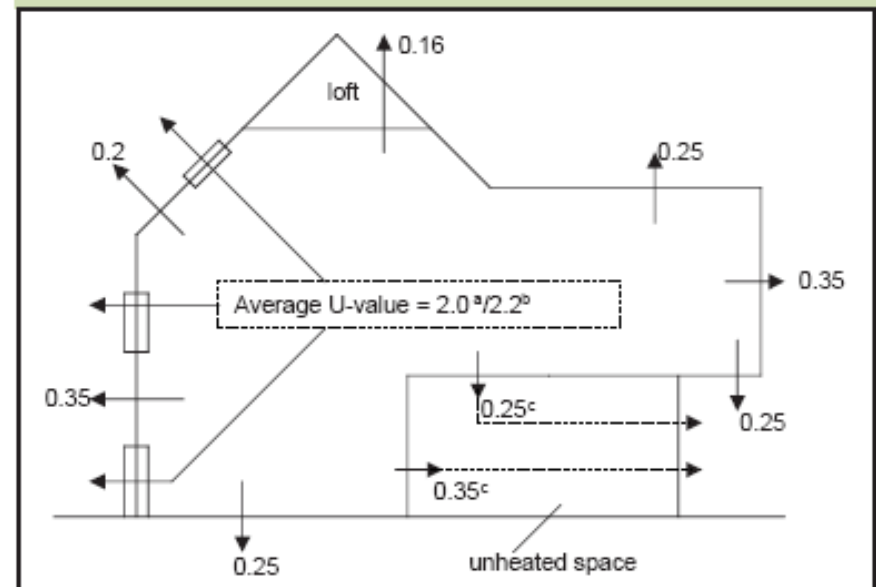
The Building Control legislation

- Part L Performance Targets Prior to April 2006

Table 1 Elemental Method: U-values (W/m²K) for construction elements

Exposed Element	U-value
Pitched roof with insulation between rafters ^{1,2}	0.2
Pitched roof with integral insulation	0.25
Pitched roof with insulation between joists	0.16
Flat roof ³	0.25
Walls, including basement walls	0.35
Floors, including ground floors and basement floors	0.25
Windows, doors and rooflights ⁴ (area-weighted average), glazing in metal frames ⁵	2.2
Windows, doors and rooflights ⁴ (area-weighted average), glazing in wood or PVC frames ⁵	2.0

Diagram 1 Summary of Elemental Method



The Building Control legislation

- Part L Performance Targets from April 2006

Table 4 Standards for thermal elements W/m ² ·K		
Element ¹	(a) Standard for new thermal elements in an extension	(b) Standard for replacement thermal elements in an existing dwelling
Wall	0.30	0.35 ²
Pitched roof – insulation at ceiling level	0.16	0.16
Pitched roof – insulation at rafter level	0.20	0.20
Flat roof or roof with integral insulation	0.20	0.25
Floors	0.22 ³	0.25 ³

Table 5 Upgrading retained thermal elements		
Element	(a) Threshold value W/m ² ·K	(b) Improved value W/m ² ·K
Cavity wall*	0.70	0.55
Other wall type	0.70	0.35
Floor	0.70	0.25
Pitched roof – insulation at ceiling level	0.35	0.16
Pitched roof – insulation between rafters	0.35	0.20
Flat roof or roof with integral insulation	0.35	0.25

* This only applies in the case of a wall suitable for the installation of cavity insulation. Where this is not the case it should be treated as for 'other wall type.'

Health and Housing Safety Rating System

The recently introduced **Health and Housing Safety Rating System**, based on risk assessments, will provide a flexible, and hopefully effective enforcement regime but there may have been insufficient education of the landlords and managers on the methodology and the real risks associated with energy inefficiency (cold, damp, etc.)

Condensation and mould



Health and Housing Safety Rating System

- Scoring
 - Based on Statistics of likelihood
 - Risk Assessment

HEALTH AND SAFETY RATING SYSTEM SCORES

LIKELIHOOD

										Post 1980	Pre 1919	1 in	1		
10000	5600	3200	1800	1000	560	320	180	100	56	32	18	10	6	3	1
											Average				Model

Justification

The presence of such severe dampness and the mould growth means there is a certainty of a harmful occurrence over the next twelve months. The condition would also have a psychological effect on any occupant.

HHSRS

Justification Although there is some mould growth, it is not that serious. The over-riding problem is the dampness, and there is nothing to suggest the outcomes would differ from the average.

		Model											
RATING		A	B	C	D	E	F	G	H	I	J	Score	1389
		<i>Average</i>											

RATING SCORES AFTER IMPROVEMENT

IMPROVE Likelihood to 1 in 10 Outcomes to 0 | 0.1 | 1 | 99 %

Justification The minimum works would be to strip and properly recover the whole of roof; to renew the rainwater goods; and remove all damp affected plaster and replaster and redecorate the walls. This would reduce the likelihood to the average for the age of the property. (Clearly, other works are required to the house as a whole.)

		Improved											
NEW RATING		A	B	C	D	E	F	G	H	I	J	Score	139
		<i>Average</i>											

Basis of averages: Population living in dwellings that are damp or have defective ventilation or heating

Code for Sustainable Homes

If the proposals for introducing a **Code for Sustainable Homes are implemented** they will improve energy efficiency of new dwellings measured at 5 levels

1. a base level that meets the minimum standard in each of the six essential elements;
2. three further levels that deliver all of the minimum standards and additional levels of sustainability either by meeting higher standards in some of the essential elements or by offering some of the optional elements; or a combination of both; and
3. a level which delivers 80% or more of the Code.

Code for Sustainable Homes

The Code as currently proposed will have six essential elements:

1. energy efficiency in the fabric of the building and appliances in the building. This covers, for example, the standard of insulation or the use of solar heating. It may include 'A' rated kitchen appliances (where fitted) or low energy light bulbs;
2. water efficiency, for example, fitting dual or low flush toilets and reduced flow taps;
3. surface water management, for example sustainable drainage;
4. site waste management, as building construction is responsible for a significant proportion of waste that currently goes to landfill;
5. household waste management. This means providing space for bins, such as segmented kitchen bins for recycling waste;
6. use of materials, for example, using low allergy materials.

Code for Sustainable Homes

In addition, homes built to higher Code standards may have some of the following features

- a) **Lifetime Homes**. This is about internal adaptability so that a home can be adapted for use of an elderly or disabled person;
- b) additional **sound insulation** which is important especially in apartment developments;
- c) **private external space** which may be a garden or a balcony;
- d) higher **daylighting standards** which is beneficial to health and reduces the need for electric lighting;
- e) improved **security**;
- f) a **home user guide**. This is a home log book and will advise purchasers on the details of the sustainability of their home.

Guidance for Occupants on how to use their homes

- Insulation
 - Codes set standards – not variable by Occupant
- Heating
 - Codes set standards – variable by Occupant
- Ventilation
 - Codes set standards – variable by Occupant

Guidance for Occupants on how to use their homes

- Occupants are not provided with adequate guidance on how to use their homes
 - Appliance > instruction book
 - Car > manual

Condensation and mould



Condensation and mould



An optimum way of using a dwelling

- Remediating Condensation dampness and mould growth
 - Ventilation
 - Heating
 - Insulation

Ventilation

- Ventilation
 - Automatic (i.e. humidistat controlled) extract fans, operating separately from lights

Ventilation



MODULE	CONTROL	FUNCTION
	Basic	Fan operates by remote switch (optional). No module required
PCM	72573602 Pull Cord	Manual on/off control by pull cord switch
TM	72612601 Timer	Adjustable timer 1 to 45 minutes. Remote or light switch operation
HTM	72573601 Humidity	Adjustable humidity setting 40% to 90% RH, adjustable timer and pull cord boost
PRTM	72573903 Infrared	Passive infrared activation with adjustable timer overrun
PRHTM	72573901 Infrared	Passive infrared activation with adjustable humidity setting and adjustable timer overrun
2SM	72573601 Two speed	On/off by remote switch (optional), starts at full speed and reduces to trickle speed by integral pull cord.

Heating

- Heating controlled by timed air thermostats, correctly set



Additional energy costs.

- Occupants are (naturally) anxious about additional energy costs
 - Inadequately publicised research and reassurance to demonstrate that
 - intermittent heating can increase rather than reduce costs.
 - Switching off ventilation will increase moisture retention > reducing comfort levels

Additional energy costs.

- Landlord can obtain benefits from increased comfort for Occupant:
 - Reduction in rent arrears and housing management costs
 - Reduction in dispute costs
 - Legal
 - Management
 - Reduction in repair costs
 - Kitchen units
 - Plaster
 - Flooring
 - Windows

Landlord pay for heating and ventilation?

Should the Landlord pay for the cost of heating and ventilation, added to the rent?

“Big Brother”?

Tamper-proof/ automatic controls for minimum levels.

Recording of use data

User Choice:

Temperature within a “comfort range”

Excessive use?

Disruption to Existing Dwellings

- Disruptive effect of retrofitting energy efficiency works.
 - Take appropriate opportunities to carry out major works when less disruptive
 - Insulation when property becomes empty/ refurbished
 - Heating works in warmer weather (but not school holidays when the home is crowded)
 - Ventilation and heating at the same time

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