

## WP 3 Urban Development

# Evaluation of the IUDC process in the Urb.Energy target areas in the Baltic region

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### Ministry for Infrastructure and Agriculture of the Federal State of Brandenburg

Compiled by the Urb.Energy working group which consists of the following companies:  
Ernst Basler + Partner GmbH  
B.B.S.M. Brandenburgische Beratungsgesellschaft für  
Stadterneuerung und Modernisierung mbH  
UrbanPlus, Droste&Partner



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## Introduction

The evaluation of the processes towards integrated urban development concepts (IUDC) and their implementation within the Urb.Energy project was carried out late 2010 and early 2011 on the basis of an analysis of material provided by the partners and a visit to each of the target areas, which included interviews with local actors. During the visits, group interviews with the local partners were carried out, accompanied by individual interviews with experts and partly with representatives from residents' organisations. The interviews were conducted on the basis of confidentiality to facilitate a critical debate.

The analysis focuses on key issues related to the integrated development of the individual target areas and their strategic development as part of the Urb.Energy process. Questions were asked about the degree of integration between energy efficiency measures and other elements of the spatial and socioeconomic development of the target areas and on the meaning of the integrated neighbourhood development for the towns' and cities' development. The evaluation consists of two parts. In the first part, target area specific issues are dealt with. In the second part, a cross cutting view will be taken with regards to a number of topics reflecting the dissimilarities and similarities between the approaches taken towards an energy efficiency guided neighbourhood development in the various countries which have changed from jointly being part of the former 'eastern block' towards being members of the European Union.

Urb.Energy includes 20 project partners and associated organisations that are carrying out the project work in the target areas. Other organisations are included and concentrate mainly on technology related research and consultancy, but in most target areas, also social research is included that focuses on the socio-economic development of the areas and on opinions of residents about their homes and neighbourhood development taking energy efficiency policies into account.

Generally it can be stated that in all of the target areas, a strategic use of IUDCs can be found. However, in each case, the term means something different. Implementing energy efficiency in neighbourhood development is often not at the forefront, but in most cases itself a tool for reaching an overall sustainable urban or neighbourhood development, referring to socio-economic, architectural and environmental issues as a wider planning goal for city development. Even though the culture of integrated and participatory planning is a relatively new issue in some cases, IUDCs reflecting the interdependencies between different elements of development in the opinion of the actors have proved a promising tool for reaching complex targets. If regularly updated and flexibly administered, they have proved efficient in implementing development as a collaborative social practice, where linear forms of planning usually fail due to the fact that during the process, various context-elements are permanently changing. In most cases, the IUDCs were seen as a key urban project of an exemplary character beyond the target areas, based on the prior SWOT analysis of local conditions carried out in an earlier phase of the Urb.Energy project that allowed for more topics to be dealt with than just energy efficiency.

## Target areas

### Rakvere (EST) - redefining the urban structure on the basis of the energy efficient development of a neighborhood

Rakvere is a regional centre situated in the north of Estonia in a rural region with a low population density, halfway between the capital Tallinn and the Russian border. The town has a population of 16,000 inhabitants, which has been shrinking and ageing for about the last one and a half decades, mainly due to a lower birth- rate and emigration.

The energy-related getting into good trim of the Seminari-street neighbourhood is used by the municipality in a strategic attempt to redefine the urban tissue and identity of the town and to kick-start an energy efficient future beyond this one neighbourhood. The target is to enhance the buildings' energy performance in the target area, to improve the landscaping and at the same time to use this project to inter-link the target area to the post-war modern centre, which is situated towards the North-West of the project area and still lacks a density of urban uses. By strengthening this urban spine and the centre, a structural logic is implemented of building a further link towards a prominent road of valuable historic wooden buildings, which formerly was a main street of the pre-war town. Using the Urb.Energy project and the IUDC as a kick-off for a qualitative upturn in the town's development, the project addresses the town's functional structure and a cultural turn towards more inclusion and responsibility of the local residents in the creation of neighbourhoods.

The target area along Seminari-Street comprises mostly of standardised blocks of flats typical for the state socialist period, but also includes a number of traditional small wooden buildings with individual garden allotments. On the northern side, some smaller industrial buildings are also to be found, which in the future might fall out of use. This area in need of a new meaning will become a spatial focus in the neighbourhood plan. Turning the dysfunctional wide central road into an axis defining a neighbourhood includes a new approach to public space, landscaping and the energy efficient refurbishment of the blocks, including improvements in the energy infrastructure. Besides attempting to reach European Union set standards in energy efficiency, the Urb.Energy project is dedicated to preserving the value and attraction of the ageing housing stock from after the 1960s for a long-term future. Proposals to fundamentally improve the buildings beyond simple measures in connection to enhancing their energy standards is an important challenge in this long-term strategy, however, needs the approval of the local residents. As flat-owners and partly opposed to this type of change, they need to be included into the process. Usually satisfied with the structure of the buildings they have lived in for years, qualitative improvements of the architectural appearance are feared by the usually lower or lower middle income residents to overtax them due to high construction cost. They can so far hardly be convinced to invest into an energy-efficiency strategy that only after further rises in energy cost would eventually lead to a favourable balance between investment and savings on energy cost.

## Governance modes and communication

The responsibility for the project lies with the town's urban planning and architecture department and is strongly supported by the mayor, who has taken up energy efficiency as a major policy issue to strengthen the towns' image and attraction. A further aim is to secure the long term affordability of housing for the residents of standardised blocks, which form a considerable part of the local population. Energy efficiency is also directly linked to strengthening local industry and commerce and the cultural appearance of the town in an attempt to strengthen the inner city and avoid sprawl. Cross-departmental collaboration, the inclusion of external experts, e.g. performing a qualitative social survey and others to provide advice on energy matters have been focal in the strategic approach to implement the improvement of energy efficiency. The experts are acting as advisors to the municipality as well as the residents. A close collaboration with the national residents' association has been the basis for successfully building up a close professional network, which is gaining importance beyond Rakvere.

In their attempt at making energy efficiency a key urban issue, addressing the development of Seminary-Street neighbourhood from a top-down approach of comprehensive planning is seen by municipal actors as a necessity to overcome the current lack of bottom up initiative. The IUDC and the dialog-oriented methodology of implementing is seen as a prerequisite for raising the interest of the local residents in more than proper maintenance. The municipality sees activating the neighbourhood as a precondition for the overall implementation of the project and a vital challenge to be met. While the municipality sees its obligations for improving the spatial structures (including energy infrastructure), reaching the qualitative targets for the neighbourhood and a high standard energy rehabilitation is seen as a risk factor for the project as it can only be achieved with the active consent and financial participation by the flat owners, who have been suffering from the economic crisis over the last years.

The town architect plays an important role in promoting and steering the project focussing on the inclusion of flats and block into the wider concept of urban change. Communication with the residents is understood by the planners as a vital factor for the implementation of energy efficiency measures and for turning the residents from passive consumers into active decision-makers about their own affairs, accepting that as owners and end-users they are the final decision makers. But even though consultation with residents is a major element of the communication strategy, the long term argumentation comes across residents' reservations as especially the supposed need for more than the minimum adjustments to maintenance and energy-related improvements meets the residents' counter-argument of a lack of affordability. The contracted external experts supporting the municipality in the management of the project with the main task of energy auditing and advice to residents play an important role assisting the build-up of communication. Their work is expected to help building trust in the concepts quasi as a by-product of their technology oriented work.

Also building up stronger and more responsive structures on the side of flat owners, which could be supported by an enhanced homeownership law, is seen as an important matter in the evolution of a balance between municipal top-down policies and resident driven bottom up initiatives. The improvement of an enhanced co-ownership law is thus strongly supported by the municipality as well as by local and national residents' organisations. Also local building-management units, who should be better integrated into the implementation of the energy efficiency measures, should be strengthened in the opinion of the municipal actors. However, this is partly opposed by residents who fear that their individual financial capacity could be overstretched, if full energy performance became the target of change

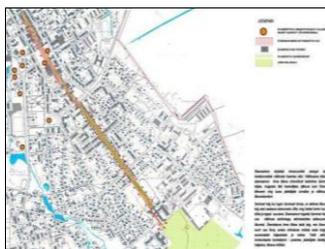
and separated from their individual choice by externalising decision-making towards management organisations.

The design of technological and process oriented alternatives, including a step-by-step approach lowering cost in the first instance and a partial lowering of benchmarks for energy improvements where appropriate, is said to have so far not become more than a consideration as a strategic instrument, but could ease implementation in close collaboration with residents, the municipal actors and experts.

For the implementation of the overall project even more than for the individual measures on the buildings, the passive attitude of the residents in combination with a low organisational level on their behalf leads to prolonged decision-making processes and uncertainties about the level of fulfilment of the project targets. It is understood that the financial impediments are a main factor discouraging the inclusion of the residents and prolonging and endangering targeted decision-making. However, raising the awareness and building up permanent communication with the residents for energy matters is seen as a vital first step not only for the near future and not only for the Rakvere target area.

While the credit provisions from revolving national and EU funds are generally understood as a positive element in contrast to former financing schemes, they are understood to need a complementary element of a means-tested subsidy to becoming an element activating residents. The municipal actors stressed that in addition to financial matters, a change of mentality, putting housing and environmental matters before consumption would be another precondition for the success of energy efficiency programmes, which they try to support by their dialogue-oriented approach to change.

From the perspective of the town, the strong and monopolistic state of the national energy provider is seen as a problem for the development of flexible solutions and technological innovations, which reach out over present standard measures.



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## Project status

Elaborating the concept spatially, socially and with respect to communication, implementation of energy audits in preparation for and fine-tuning of energy concepts, development and promotion of alternative building concepts and the landscape project.

## Special issues

With the public KREDEX Bank Estonia is the only country in the East of the European Union which has an institution integrated into the Urb.Energy project as a partner actively promoting revolving funds of the JESSICA type. KREDEX provides exemplary public relations for

energy efficient rehabilitation in Rakvere and across Estonia, visible in public space and in the media throughout the country. However the current economic situation of the residents is expected to limit the uptake of credits unless a demand oriented grant element is added.

## Riga Jugla (LAT) - Energy efficiency as strategy of preventing the future declassification of a large peripheral housing estate

Riga Jugla is a peripheral large housing estate of the Latvian capital built between the 1960s and 80s with some older small home neighbourhoods and post 1990 additions of varying but partly high-quality. These spatial elements have their individual socioeconomic identities and form three distinct images in the neighbourhood, which are experienced by the residents and shape the outside perception of Jugla. Situated in a preferred natural environment about 10 km to the east the town centre, the majority of housing and service buildings comprises of various industrially built entities from panel buildings to composite structures typical for the former Baltic republics of the USSR of between four and more than 10 floors. The estate benefits from external and internal green. It has about 27,000 inhabitants and the population has been only growing through additional building, while in the main housing stock the population it is ageing and slightly shrinking due to demographic change.

It is the aim of the municipal administration to counter the threatening devaluation of the housing stocks' value and usability by implementing a policy to reduce energy consumption, to start the process of modernisation of dwellings and public buildings and to enhance the living environment of the population. City and district government plan for the visibly positive development, which was started through the post-1990 new additions at the rim, to be extended to the older parts (1960-90) to avoid further segregation and a stigmatisation of the inhabitants of the panel buildings. According to the local administration and planners, also the small homes neighbourhoods need better integration into the urban tissue of the estate and a link-up to services. However, also a demand for family oriented large flats, which are hardly available are foreseen as a demand in the neighbourhood and in Riga on the whole. Throughout the estate, the demographic change, which will lead to a further ageing of the population, will eads to a demand for age-related flats, infrastructure and services. Whereas the buildings are structurally sound, energy efficiency measures have so far only reached a small number of housing blocks and have had limited impact. Heat loss of ground-pipes is a major problem, while some public buildings, especially schools, have lately been upgraded to European Union standards.

### Governance modes and communication

Riga benefits from an outstanding integrated development and planning instrument, the urban master-plan which envisages a comprehensive perspective for the city until 2025. It deals with the triangle of spatial and economic development, societal development and the development of the urban environment. The master-plan formulates detailed planning guidelines from a research grounded top-down perspective for a greener sustainable future. Thus the mastere-plan is a high-quality policy tool for city government. However, its key points are at present not fully matched by respective instruments on the district and

neighbourhood level. In Jugla the integrated urban development concept, which was produced as an action within the Urb.Energy project, focuses on a sustainable and rational strategy including visual aspects of neighbourhood enhancement, public space and supply, energy use and distribution, and on improving public space including car parking. However, a consequent local action plan, which is pursued by the local authority, has not been approved as part of the city's longer-term master-plan strategy.

Monitoring the social development of Jugla has led to the opinion that after a long period of stability, the social situation might be at a turning point. Although outward migration has gone down since the beginning of the economic crisis, incomers are increasingly of a lower social standard than the aged population that is dying out or those still relatively few who decide to leave the area for better quality homes. For the latter group, the new developments nearby have so far provided an opportunity to remain in the area, preventing an overall social downturn so far. It is seen as a target, to increase public participation in the estates' development and to attract younger families with a higher social status. In order to achieve this goal, the maintenance standard of buildings needs to be raised, the cost risk of inefficient energy systems needs to be reduced, public space should be improved and the provisions of social and commercial services should be upgraded to fit the envisaged population, albeit without excluding the present inhabitants economically. They are interested in a slight improvement of maintenance and in energy standards at minimal cost, because incomes are mostly insufficient to support large-scale rehabilitation. These limitations to change are aired by many residents, despite the fact that currently the very high energy cost is consuming a considerable part of income, which could be minimised if the buildings' energy efficiency were improved.

City planners and politicians are of the opinion that without improvement the estate could lose attraction to a population that might be able to support improvement, a dilemma difficult to solve and potentially leading to conflict between various groups of residents, if EU energy directives were strictly applied. Generally it is stated that the current residents, mainly due to their limited and over the last years decreasing incomes, are fending off any consideration of major changes. Especially the older generation and low income households are seen as passively resisting interference from the planners. On the other hand, presently the municipality has little to offer. Revolving funds, which might be handed out as credits and/or subsidies might be available in the near future, but so far at an insufficient quantity. There is a need for prioritising investment, which might go into model projects in housing improvement and upgrading public spaces and infrastructures.

In this situation, the municipality in collaboration with flat and block management companies is considering the foundation of a non-profit public-private urban development company for Jugla. Bridging the various actor interests, one main purpose would be to design a strategy and to communicate it towards the local residents, who as individual property owners and final decision-makers decide over most of the measures. The general understanding is that this company would need to build up partnerships with local owner associations on the base of individual buildings. In the planners' view a first step would be to build up strong networks amongst the public and formal actors on district level, at best with support by city government, which could then be extended to include the residents.

A comprehensive funding model, which would need to include means-tested subsidies and a sustainable credits scheme, is seen as indispensable for the success of this company. Also it is considered that step-by-step implementation and measures which can be realised with small investment should have priority as a precondition for the inclusion of residents and kick-starting visible change as a basis for joint learning processes. The independence of the

envisaged public private company from everyday politics and a strong capacity for neighbourhood management, including energy matters, influence on market development and social issues are seen as vital preconditions for success. Next to the design of concrete plans with alternatives for an implementation over time, a focus could be introducing plausibility studies for typical buildings that describe the narrow channel of investment, which leads to considerable rises in efficiency and at the same time accepts the limitations of public and residents' funding. Such measures are hoped to become the basis for residents' more actively being interested in energy efficiency improvements, which then would become acceptable as not in contrast to their everyday interests.

The development of the local IUDC has proved a strong factor in building up professional network structures, as it brought together the various actors on a task related basis and has shown the need for scientific expertise. The discussions about integrated urban development with a focus on energy efficiency in itself was seen as a positive trigger leading towards a holistic approach to development, and is understood as a transferable towards many of the other neighbourhoods of RIGA in need of comparable strategies of the step-by-step improvement.

Institutional development within the Jugla project has so far been limited to building up and stabilising an internal network of experts, including participants from Riga's central administration, the district administration and its departments, energy and other amenities' providers and partially with flat owners associations. The development of a communication strategy towards the residents, building upon an energy efficiency strategy has been started as a first major project in relation with the establishment of the urban management company.



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## Project status

The foundation of a public private urban management organisation for the district is under development and in preparation for the public decision makers. Further public buildings are under energy-related reconstruction, there is a strategy for energy audits to cover the whole of the estate and plans to implement these in a foreseeable time are under way as for the enhancement of public space and greenery. Together with national institutions and the city of Riga, a financing strategy for the kick off programme has been developed.

## Special issues

Jugla is provided with energy from cogeneration power stations through comparatively old, but mainly sufficient larger-scale piping. So far the present technology has been un-

derstood as set, and alternatives like geothermal power has only come under consideration lately. It needs to be seen, whether the inclusion of alternative energies into the system could lead to cost reductions, which would partly compensate the cost of investment for increased energy efficiency.

A specific problem of parts of the estate is a high floodwater risk that needs planning attention. Turned into an asset, the floodwater risk could lead to lively landscaping and a specific form of a green face for the neighbourhood.

## Jelgava (LAT) - Energy efficiency as a link to regenerating the urban centre

Jelgava is a central Latvian town with near 64.000 inhabitants and a shrinking population over the last decade due to outward migration and demographic change. Jelgava utilises the Urb.Energy project and especially the integrated urban development concept as an incentive, to build up a vision for the future of the town centre and to engage into the energy efficient upgrading of infrastructures and blocks of flats as well as public buildings. The target area in the centre of town, which was rebuilt after the destructions of the Second World War, according to standardised solutions of industrial building is home to approximately one third of the population. Students and older residents are major elements in the population structure as well as older residents. The town planners consider it a challenge to attract more younger family households to the inner city. Especially on the technology level and the governance of implementation, one peripheral estate of high-rise panel blocks is expected to benefit from the experience of the central target area development.

The overall target of the IUDC is improving the central area as a core element of the urban image for the whole city and the local residents. Enhancing its business capacity, improving the environmental aspects of public space and pedestrianisation are on the agenda of a development concept that is being finalised. The urbanistic approach emphasizes building a visual identity for the centre and making the city centre generally better readable, especially with regards to highlighting the few remaining historical buildings. Generally, the urban structure is understood to be satisfactory with respect to buildings' dimensions; however, decreasing the often underused public space by partial conversion into building land for quality inner-city housing is expected to strengthen the inner-city core and to divert future building of homes and commercial buildings from the periphery into the inner-city. The concept is aimed at providing the region with an attractive socio-economic and cultural core, making the city attractive for investment and innovative and knowledge-based activities, while supplying the present inhabitants with a satisfactory built and socioeconomic environment.

The improvement of the energy efficiency of the buildings, energy transfer and generation has been so far addressed through a limited number of model projects, focusing on the insulation of the outer hull and on enhancing the neighbourhood's public space. It is seen as a necessity to include energy conservation and efficiency as a topic in its own right, integrated into Jelgava's city development plan. Currently, enhancing the energy efficiency of state owned or municipal public buildings is on the agenda and is expected to

serve - together with the improved blocks of flats - as example to build up public awareness.

## Governance modes and communication

The limited financial capacity of the municipality, of the residents as well as partly segmented action of the various public actors have made the implementation of integrated and owner inclusive approaches difficult in the past. This is aggravated by the fact that the current economic crisis has further limited public and residents' financial means for investment into energy efficiency even though it is acknowledged by residents' associations that energy losses would become more costly on the long run.

The personnel capacity of the public sector has since 2009 been limited by the effects of the crisis by over 20% due to partial redundancies and is only in the future to be partly compensated. For the municipality, at present the finalisation of plans and preparation for an eventually oncoming period of activity on the bases of a more vivid economy on state and local level are having priority. Building up network structures in order to limit the difficulties in communication between the municipality as the core actor, central state authorities, residents and owner associations is on the agenda, but suffers from a lack of opportunities for realising projects on a larger scale. In a short-term perspective, efforts to start steering small-scale energy-related investments of residents and residents associations (windows, installation of roofs, improved heat converters on the block level) and to integrate these into the more comprehensive neighbourhood energy concept are an action focus of the municipality in collaboration with housing management companies.

Building up a consistent system of urban governance for enhancing the energy efficiency and implementing the accompanying measures in the urban environment is according to the local actors (policymakers, planners, other experts) dependent on the emergence of sufficient funding structures that would allow the extension of measures on the level of flats and buildings above individual model projects. Programmes with a large public grant element have proved exemplary in the past, but are lacking now attraction, as for the majority of the residents they are connected to funding concepts requesting individual contribution. Thus a robust strategy of implementation, based on a credit programme supplemented by means-tested individual or owner association oriented subsidies is seen as a vital precondition to kick-start a continuous process of debate leading towards widespread measures to bring about a climate friendly future image and the necessary changes on buildings and in the urban structure.

After Urb.Energy had initially led to a series of internal targeted debates about strategies and plans that were partly extended to the local population in Jelgava, the ongoing crisis has led to a reluctance by local politicians and the administration to engage into too close a communication with the residents except in the case of model projects with a potentially secure outcome. Engaging residents at the time could lead to expectations that could not be fulfilled and would be expected to hinder future collaboration. Only with a sound basis for action, communication with the residents will be entered.



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## Project status

Technological upgrading of the outdated heat provision networks, development of an implementation strategy for the integrated urban development concept above the level of individual model projects and designing a coherent financing strategy for the future are presently main fields of action.

## Special issues

Whereas energy generating and distribution technologies were upgraded, the planned inclusion of biomass as a source of energy so far remains in the planning stage.

## Šiauliai (LIT) - Enhancing energy efficiency in order to keep a neighbourhood attractive

Šiauliai is a major city of 130.000 inhabitants in the north of Lithuania. The number of residents has been declining over the last decades, mainly through emigration of residents at working age, which so far has led to a relative increase of younger and aged inhabitants, which however is expected to be followed by the growth of the working age group, if outward migration can be lowered.

The target area of Lieporiai/Miglovaros consists of a variety of multi-storey blocks from the pre 1990 period in a typical settlement layout of the period, adjacent to a large park, which is included into the project area. Until now only a small number of blocks have been improved with regards to energy efficiency, mostly by insulating the outer hull. It is seen as a major problem that public space and social infrastructures are not developed in conformity with the residents' changing demands. For the majority of residents, the heat losses through bad insulation of buildings and of the distribution network are producing excessive energy cost leading to economic problems decreasing spending power. The high cost for energy is partly attributed to the monopolistic structure of energy service providers exploiting this position with regards to their public and private customers and to the partly outdated technology currently used for energy production.

In Šiauliai, considerations about a fundamental change of the meaning of the two neighbourhoods for the city are not a central issue. Above the needed general improve-

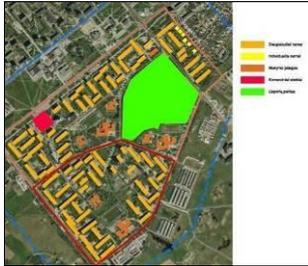
ment of the technical energy appliances of the building and energy distribution, the two neighbourhoods are seen by the municipal actors and condominium administration as in a satisfactory condition, where no fundamental turnaround of the neighbourhood development is seen as necessary. In the estates' public space, the focus is on smaller measures, including improvements in car-parking facilities. Enhancing the public park area is expected to lead to a continued attraction for the current residents and on the local housing market. Also the recent modernisation including energetic improvements on public buildings has been seen as an important contribution to the sustainability of the neighbourhoods.

The current initiative is to prepare for widening the scope of energy efficiency measures in the two neighbourhoods, which has been very limited due to the economic crisis, for the future. Producing integrated neighbourhood development concepts is seen as a means to be prepared, should the overall economic situation improve and make public and private investment possible on a larger scale to catch up with the current backlog.

### Governance modes and communication

In Šiauliai cooperation between the city's planning administration on the one hand, and flat owners associations and contracted housing management firms on the other is the central collaborative element of planning. The main effort is to produce a coherent plan for the energy lead refurbishment of the neighbourhood, which is thought to be sufficient in rendering the estates sustainable for the future. Sectoral dependence, e.g. of the energy providers, is understood to be the factual situation, but not an excessive problem, as they are investing into the technological improvement of their installations. After only a minority of residents could be activated to take part in a general survey of the neighbourhood about their housing situation and planning visions, the focus is on building up a reliable professional network, which includes the municipal planners, contracted urban and landscape planners, energy experts and the representatives of flat-owners associations to provide the communicative background to future enhancements of the energy status of the buildings. The residents are seen as customers who should be well informed of the planned energy efficiency measures. In the past of the recently finished model projects residents were supported with a 50 per cent subsidy, making energy savings lucrative from a very early stage onwards. Further forms of an inclusion into the integrated planning and management of the estates are currently not seen as on the agenda of the municipality.

Under the conditions of the perception of the estates as fundamentally lacking problems - except minor adjustments with regards to maintenance and raising the level of energy efficiency of buildings and energy infrastructures - the plans for the neighbourhoods and for their implementation are of a building oriented character, where information for residents about technical and funding opportunities are a central issue. These actions are, however partly externalised by the public administration to the housing management companies and residents associations.



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## Project status

Integrated neighbourhood development concepts are being elaborated and the strategy towards energy audits and the evaluation of existing model projects is under consideration as a starting point for a citywide implementation of improvements step-by-step.

## Special issues

The city is focussing on plot-generation in an effort to provide a basis for shared responsibilities over land use and for the plan integrating the technology for heat and other energy distribution with the flat-owners' utilisation of land.

## Piaseczno (PL) - Energy enhancement and preventing social downturn

Piaseczno is a town of 67,000 inhabitants in the direct vicinity of the Polish capital Warsaw. The town, benefiting from the overflow of the capitals' economic development consists of a large mix of various neighbourhood typologies, including a well-defined 1960s estate, which is the target area. In the town, which is generally benefiting from an influx of better off population, the target area, consisting of medium-sized blocks in an open neighbourhood layout, is seen as a potential problem zone. Due to labour market changes, a relatively high proportion of the local residents are faced by unemployment, while generally the estate's population is ageing. The municipality and the planners are seeing the danger of low income residents burdened with social problems becoming a major group in the neighbourhood, which already is starting to alienate older materially established residents and social conflicts are seen as a potential threat, which in the end might lead to the downturn of the neighbourhood.

Taking part in the Urb.Energy project and enhancing the energy status of the target area was seen by the last municipal government as an important step towards learning how to generally improve the energy efficiency in Piaseczno, while at the same time making the estate sustainable as a social entity and on the housing market. Designing the plan and implementing it in collaboration with the municipality and the residents association was contracted out to an experienced energy consultancy company. Planning and implementation was strongly supported by the political level, which, however, has changed after the last elections, since when especially the focus on social sustainability as the basis for the project was seen as less important. Also energy efficiency is not given such a high priority any more, mainly due to the perception that in the normal urban building structure, mar-

ket-driven energy efficiency alternatives alternatives for the small buildings can provide ample opportunities for the overall energy efficiency of the town, which increasingly attracts new residents in single family homes and small new blocks of flats. However, improving the energy efficiency in the target area and improving its public space as well as energy provision is pursued further, albeit with a decreased political backing.

## Governance modes and communication

Building upon the sophisticated energy audit, an integrated neighbourhood development plan was designed, which combines energy efficiency measures of the buildings with the improvement of the public space of the estate (greenery, waste management, social control, improved commercial infrastructure, car-parking) in order to provide the sitting tenants with affordable housing in a satisfactory environment as well as to produce a high-quality housing environment as an offer for incoming new residents to prevent a majority inflow of poorer people gentrified out from other peripheral housing estates in the region. The concept was highly dependent on the general public's understanding of the integrated character and its various environmental, social and economic targets.

Under the strong leadership of the energy consultancy, it was possible to build up a professional network for the implementation of the project. However, due to the economic situation of a majority of the residents, gaining full support for its implementation was seen as only possible with material support from the municipality, especially for measures concerning the public space. Even convincing the residents of taking up subsidised funds for the improvement of the buildings was seen as a challenge, not yet met, due to the economic situation of the average residents.

It remains a challenge to realise the project, after the political support for the integrated development concept has been failing. The project, which is in an advanced planning stage shows, in how far integrated projects dealing with energy efficiency, the physical development of neighbourhoods and the socio-economic implications are dependent on an embedding political environment and a supporting public administration as well as a permanent collaboration with residents and their organisations. It was understood that the technical project would need a strong support from community development and social services as well as specific needs tested financing procedures.



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## Project status

Energy audits are performed on a large scale and building upon their results, conceptions are devised for earmarked neighbourhoods on the bases of the model projects that were realised so far.

## Special issues

Due to the relatively small estate, the complexity of interrelations between efforts to improve the estate and the socio-economic situation of the residents can be observed in a nutshell. Without the implementation of energy efficiency measures, the negative spiral of a loss of attraction, which has been common to many post war Western states, could be seen accelerating. Due to the relative loss of attraction as a consequence of energy-related price rises, its attraction could be reduced to those who could not find homes in other places, even though the overall structure of the estate could provide decent housing for lower income residents on a permanently satisfactory basis.

## Lida in Grodno Oblast (BEL) - kick-starting in a centrally planned environment

Lida, towards the West of Belarus is a regional centre of about 100.000 inhabitants slightly declining until 2009. Since then a rise to only slightly below the figures of 1999 has been noted. As a project partner, Lida, which is part of the Grodno oblast, is the only city outside of the European Union and under the regime of a highly centralised state with departmental and hierarchical structures. Local housing policy and management is arranged under a strong influence of the oblast administration. The city has joined the Urb.Energy project under special provisions and has fully taken over the project's methodology.

Lida has benefited from a small number of energy-related model projects, namely the recent refurbishment of a composite panel block in the inner city's typical 1960s to '80s environment with two others to come, and the installation of a modern district heating system serving a newly built panel block estate produced during the 1990s for soldiers returning from Germany. Both these lighthouse projects with respect to energy efficiency were part funded and assisted by consultancy from Western partners; the block enhancement and the development of an IUDC are part of the Urb.Energy project. For completion in 2010, the town had been allocated considerable funds for refurbishment related to a national cultural highlight to be celebrated. This money went partly into improving housing and especially urban public space. By 2012 the city intends to continue with energy related enhancements, like individual consumption metering, in a number of blocks and the full conversion to co-generation of energy, including a 25% share of local fuel in heat provision. Lida is in an advanced state of preparing individual block oriented model projects, which are integrated into the implementation of the city's master-plan.

## Governance modes

Whereas all the other target areas are under the influence of strong elements of municipal self-government, the planning environment as well as the allocation of funds for Lida are clearly coming from a central oblast and state level, while municipal self-government is focused on implementing the plans. Residents' influence is restricted to some maintenance issues of the buildings and their direct surroundings, as all public space is public property. Although over 85 per cent of dwellings have been formally privatised, it is seen as a challenge for the public sector to secure rehabilitation funds from the central budget, while private contributions are not clearly earmarked. This potentially relieves residents of high financial responsibility, which they are considered, due to the general economic conditions, not to be able to bear at the time. However, the form of funding externalises energy

efficiency from the realm of the residents and makes it a public rather than a joint public and private issue to be handled under conditions of market price development.

The city’s master-plan is the central development instrument. It includes an ecological concept focused on the preservation of the natural environment and an energy concept amongst other topics, like social and economic development, transport and the physical development plan, and is devised by the regional element of the central planning ministry of construction and architecture. It has a binding nature for central state actors as well as the municipality. According to local actors, it can be compared to an integrated urban development concept and takes up local development demands. However its implementation is said to lack many of the communicative elements that are common to the IUDC concept in other countries. The master-plan’s development is judged as over- complex, as are the approval mechanisms, which include 16 national ministries. In the opinion of the local experts, the master-plan is a slow and inflexible instrument, in the past only revised after longer periods.

Urb.Energy and other foreign collaborations in the Grodno oblast have been utilised to develop a professional network, which could represent a bottom up element in the otherwise strong top down planning methodology in the future. Thus, it is understood as a first step at modernising outdated administrative structures, which were reported to be irrational in some parts. Widening these efforts of a new professional planning culture towards the residents’ participation is understood to be encountering a lack of peoples’ consciousness for the relations between the energy efficiency of their housing, and their own opportunities to act. The Urb.Energy project is seen as a first entry point into building up a local counterweight to central planning within a continually regulated system of planning and in is supposed to be highly successful in this respect. The personal support from the EU is seen as beneficial in building up political and professional awareness for the technical opportunities of neighbourhood enhancement in energy efficiency, even though active resident inclusion seems still a distance away.



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### Project state

Externally supported model projects are in the phase of a first evaluation. Development of a energy concept for the whole city and certain neighbourhoods, partly evaluating island solutions is under way. The implementation remains highly dependent on central authorities’ decisions.

### Special issues

While clearly local initiatives are not central to the IUDC for Lida, there are obvious advantages of the system of economic planning in the local experts’ view. Should energy effi-

ciency of housing, as is implied due to the problems of the state's energy supply being highly dependent on Russian good-will, become a major target of politics, the local actors expect governmental financing on a large scale being diverted from other issues to energy efficiency measures. Should that happen, they expect implementation of energy efficiency planning to benefit from the set mechanism of processing public matters and stable legislation.

## Cross-cutting conclusions

The demand for a turn towards energy efficiency in the case-study neighbourhoods and towns is high and it is seen as a challenge by Urb.Energy partners to turn the local planning systems from prioritising sektoral planning and centralist traditions towards a culture of an integrated and actor-inclusive approach to development. This is especially the case with regards to post-war housing estates of the state socialist period, even though also older estates and smaller scale housing are perceived as lacking an integrated approach to urban and neighbourhood development. Indications are seen that many of the formerly well accepted post war estates and their buildings could be at a turning point from being generally accepted mainstream housing to becoming more of a socially residualised part of the housing market. In all target areas, the local experts said that such a marginalisation of formerly esteemed neighbourhoods had been entirely unexpected only a decade ago, but had now become a real threat. Upgrading the urban environment and making it more usable for the present population as well as for an envisaged incoming population of the lower middle classes was seen as a necessity to counter a negative social selectivity, which was said to become tangible in the some estates. Main factors addressed were the meaning of the estates for the town or city, its location, and the housing cost, of which energy cost is a major factor. Thus, energy efficiency is understood to be a key factor of improvement and securing the status of post-war estates on the housing markets.

Despite tendencies for sub-urbanisation amongst the middle classes, centrally located estates were said to have better chances to avoid socio-spatial segregation within the towns, whereas peripheral estates needed special attention. Where the buildings of the 1960s to '80s formed a massive part of housing and alternatives were scarce, keeping the sitting population was understood to be easier through improvements in the buildings and in public space than attracting new residents, which was understood to be imperative though to secure the estates for a longer term future.

Tailor-making housing through user oriented forms of modernisation and targeting the public and private service provision at the residents changing demand - demography, economic carrying capacity - was seen as another point in fending off the social downturn of the neighbourhoods.

As the energy element, especially for those residents, who had been the beneficiaries of privatisation, formed a major part of housing cost, lowering these was seen as a key factor to preventing the loss of those residents, who have the economic potential of choice on the market. This is especially the case, as most new and some rural housing produces considerable less energy cost than the post-war estates, which are characterised by high individual consumption due to bad insulation and high common cost through heat loss in regional transfer, which is loaded onto the residents' bill.

With these considerations in mind, the enhancement of the energy efficiency of buildings and energy infrastructures was seen as the vital point in trying to avert the loss of attraction of these housing structures. The adverse climatic situation of the north-eastern countries was stated as a special element forcing for action, as energy cost were seen as a major element in the development of the household spending potential.

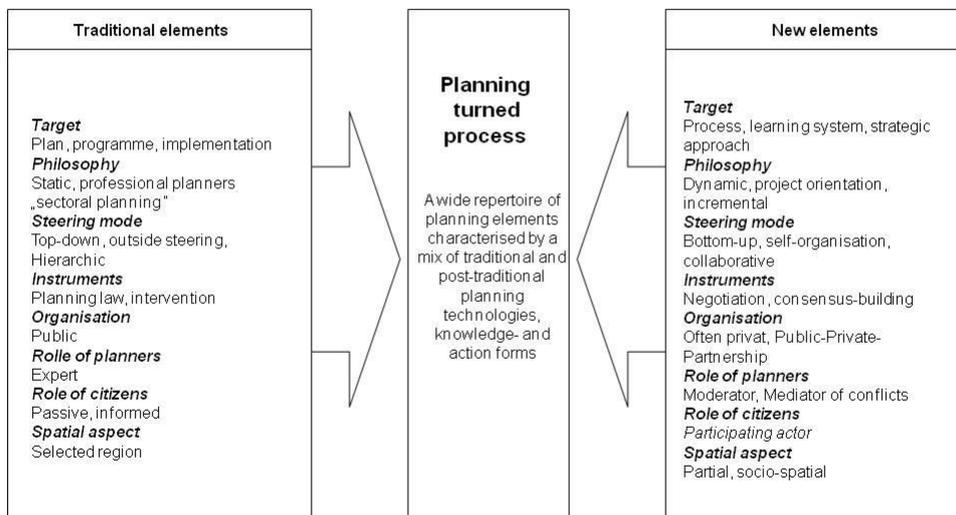
Generally the aim was to include residents as stakeholders in their own right as partners, partly the delegation of certain power for self-management of public space was envisaged, but the passiveness of residents was seen as a severe obstacle for this. Network building strategies that take up local potentials are seen as the core of the implementation concepts. But integration seems difficult to achieve under the current conditions of very limited public and private finances. Also policies and planning systems which are only beginning to come under conversion from the influences of top-down planning to more balanced and holistic approaches were seen as factors inhibiting change.

Methodologically the approach of Urb.Energy to engage the partners during the first phase into case study oriented analysis of potentials and deficits (SWOT) and later to support the development of IUDCs has in the opinion of the local experts strongly helped to produce a background, which allowed a systematic approach to catching the interdependence of physical planning, the economy and income situation and, last but not least, measures to improve the energy environment of housing, including the efficiency of production, distribution and use. According to the opinion of the partners, both methods, that of SWOT analysis and the IUDCs, have promoted cross departmental and interdisciplinary action, vertically (on the local level) and also partly horizontally (between the different layers from central state to locality).

## Governance modes and planning culture as a part of neighbourhood development

Despite the intensive change on all levels of political and economic action, it was remarked in all target areas that elements of the old logics of centralised planned economy and a strong political and administrative hierarchy were still influencing action. The often prevailing expectation that at long last solutions would come from above, makes active participation often unlikely on the side of residents as well as professional actors. Especially with regards to some technical experts, (infrastructure planners and developers) the sectoral perception of technical logic is seen as an obstacle to the implementation of IUDCs across departmental boundaries.

### The planning cultural turn towards a balance between plan and process



Overcoming these elements attributed to the past, which was understood to be a precondition for the establishment of a new balanced planning culture of an active bottom up practice in a clear relation to professionally set development concepts, was seen as especially difficult under the conditions of the economic crisis following 2008, which allows little room for manoeuvre both on the side of state actors as for the majority of private actors. Interviewees stated that for the present generation of people living in the target areas, the active role they would need to play as partial investors into the improvement and energy enhancement of their homes would overtax them not only financially, but mentally as such forms of action were not common to their visions and everyday life practices. This was seen as the case with parts of the older generation as well as with the majority of lower income residents, who felt little freedom for action.

Still, where on the local level intensive efforts were made to include local residents by the planners, a willingness to participate was conceded, as long as the material opportunities for action existed. This means that

- an elaborated technical framework (energy monitoring, clear concepts, feasibility studies) easily understandable in their concrete financial and environmental consequences,
- affordable financial opportunities,
- a socio-spatial vision for the development of buildings and neighbourhood, and
- a robust procedural concept including a clear timescale

were not only the precondition for public action, but also for the establishment of a new planning culture which accepts the balance between an actively guiding role of the public sector (on the basis of EU and national regulatives) and an active role played by the residents as the end-users of the measures.

Communicative network structures which allow actors of a different character to collaborate on the thematic and task oriented level, have proved possible, especially when strong political leadership keeps the networks together and working. Amongst the target areas

such network structures were mostly found on a horizontal basis (collaboration of various actor groups, public and private on the local level), while a combination with vertical networking (regional and national collaboration of institutions, collaborations with ministries) were rarer. Where they existed, network structures had proved optimal tools for the management and distribution of knowledge and the preparation of decision-making. Also in implementation, network structures of project delivery proved valuable.

Building up successful and persistent network-structures usually followed a step-by step scenario:

Priority on professional core-networking:

In a first instance, an administrative project team included professional actors from other realms of project partners to form an administrative professional network, often including the urban planning department, housing policy unit and external experts, who usually were concerned with the project application, not necessarily with later carrying it out.

Extending professional networks across thematic and departmental boundaries:

With the inclusion of thematic experts, the network structure extended and became more oriented on the practical project work in the target areas, but still remained in the professional realm. If included, residents' representatives were also present in a quasi-professional capacity.

Resident inclusive network structures as a mature state of governance:

Permanent actor-inclusive networks to be part of the project management with a right of their own as a supplementing and opening the administration to residents and other user interest (shop-owners etc.) were seen in debates as an important target, however, were only understood to make sense on a project basis to support complex forms of project management between professionals and residents, when concrete plans were to be made up and implemented over a longer period, between professional actors in regional communication and vertically with central institutions.

Round table communication as an addition to permanent networks were seen as a strategic element for collaboration and consultation below the level of networks, which usually build up their own rules and traditions. Round tables were experienced as a good means to build up trust between different actors in the first instance, but also towards residents, especially if they were sustained over the whole process of planning and implementing measures, leading to more formal network structures when the permanence of projects could be established. They helped building trust and routines of action. However, keeping up communication as a main factor of managing the integrated approaches proved time-consuming and often overstressing the abilities of local administrations.

A general demand was made for the states to provide a clear policy on energy efficiency supporting the local self-administration with reliable frameworks for action.

A strict communication management was also understood to be a condition to keep up the readiness of residents to invest their time. It was stated that in the practice of the implementation of integrated plans, the needs for personnel capacity and funds for communication were usually underestimated and needed to be taken up as a necessary factor of planning cost.

Networks as well as round tables were reported to need an experienced moderation and accountable participation management of those invited. Usually a high level link to political leadership helped networks to remain working effectively. It was stated that in a first stage, building up networks between the public (administration, policy makers) and private (housing management and the energy production and distribution industry) was necessary to ensure the project related flow of information. However, from an early stage onwards, residents and their organisations should be addressed clearly to be included. Clear target decisions and implementation plans should be the formal part complementary to the more informal communication implied by network structures.

Where integrated into the implementation practice, external actors appointed by the municipalities often proved a positive factor. Neither being part of public administration nor of the residents' sphere of interest, they were reported to be able to bridge differences of interest as external experts.

## Institution building and the legal system

In all countries, the formerly strong focus on rental housing was substituted early after the political change by a strong ownership orientation, relieving the state largely from many responsibilities for housing political issues and altogether finishing its active role in building homes and infrastructures, with Belarus being the exception to the rule. Even though proficient management structures for flat ownership have emerged in all countries from rather haphazard and informal arrangements of the early post-communist phase to a more secure legal framework, the present home ownership and management laws and regulations are usually thought to be still insufficient for building up a strong representation of flat owners in the bargaining over communicative planning and the decision making about joint approaches to energy conservation. In some cases, the implication is that housing management organisations, usually as market actors on contract to the flat owners, and flat owner associations might become strong partners for the planning municipalities. But in other, not even very basic decisions about energy saving investment could be taken in a legally clear and committing fashion under the current regulations, as relatively small minorities are able to block decisions under the prerogative of the fundamental right of ownership. Unclear responsibilities over the joint property (roof, technical installations of the building) and over space (plot allocation, public space within estates) have often left an undefined area between the public actors and the residents and their associations. This not only inhibits their action potential, but also limits opportunities for using their properties as collateral for credits, making large part of the residents into precarious lenders for private banks.

Asked for alternatives in this situation, which was generally understood to be highly inadequate for the implementation of integrated plans and an energy efficiency guided rehabilitation of buildings and the private part of the neighbourhoods, the majority of actors stated that fine tuning of legal instruments (on state level) and in some cases local agreements could be imagined, but hardly would any fundamental change in the established concept of flat ownership be implemented.

It was seen as imperative that clear condominium regulations allowing for clearer decision-making on energy and climate related issues, and at the same time protecting those residents with limited means from losing their properties through majority decisions unaffordable for them, were needed.

Clear land ownership and land management rules need to be established, clarifying responsibilities over public and private land and in consequences also about which land can be

used by whom as collateral for long-term credits. Keeping only narrow margins of land belonging to the owners (or their associations) puts a high burden on the public purses (infrastructure, greenery). It also limits credit-worthiness for the residents and opportunities for establishing self management in neighbourhoods.

Taking up international experience on co-ownership (England) and housing co-operatives (Germany) was seen as an opportunity to find alternatives to the often inadequate situation.

Co-operative solutions were seen as an opportunity especially in cases, where demographic change and resident mobility should lead to the accelerated development of a flat market of a larger dimension in the nearer future. Co-operative housing companies or public-private partnerships between municipalities and owner-associations could be built up to buy up flats for energy bases refurbishment. At the same time these cooperative companies could also offer the management and rehabilitation to sitting owners. These co-operatives would remain managing the energetically upgraded flats affordable for those who bought them as members through a non profit structure. An analogy for such a model could be found in the public part ownership of buildings which exists in some of the target areas, where municipalities have remained owner of some not privatised flats.

Flat and house management organisations in public-private partnership between municipalities, builders and, if possible, flat-owner associations were seen as another opportunity to build up a collective action force on energy efficiency and other rehabilitation measures, especially in larger estates, where a massive turnover of funds would need to be activated over a longer period, justifying the establishment of a managing and mediating institution.

## The technological environment and implementation of measures

The present housing stock and settlement structures are mostly characterised by standardised buildings from the period of industrialised mass production, even though most neighbourhoods include some historic smaller buildings of an often place-making quality. Model-projects for an energy efficient upgrading of blocks and individual houses are to be found in all target areas. To turn these experiments into routine according to the climate protection regulations of the EU does not in the first place meet technical obstacles, but is hindered by the lack of available funds, their structure and the financial capacity of the majority of the residents. Considering the current economic crisis this affects all countries with a partial exclusion of Poland.

It was seen as necessary to take a second look at the energy standards that should be reached from a socio-economic perspective.

Taking the technological and financial feasibility into account was seen as imperative (plausibility studies to find a reasonable benchmark for investment in relation to efficiency).

Whereas energy auditing and the house-by-house development of energy efficiency projects was becoming common in all target areas, the instrument of plausibility-analysis in order to reach locally adapted strategies was still not a general trend. These should be accompanied by a cross-benefit analysis of all measures, taking energy efficiency and the preservation of the value of the estates into account as well as the social and economic carrying capacity of the residents.

A step-by-step implementation, which needs comprehensive concepts as a precondition, can lead to considerable energy-saving even after the first steps, without overtaxing the financial potential of residents and the public sector and was proposed a mainstream policy.

Across the Baltic countries large numbers of standardised buildings were produced during the state socialist period. On a cross-national bases, the benefits of being faced with near similar typologies was said not to have been fully exploited. Knowledge could be integrated across national boundaries to find out which elements of solutions to energy efficiency could also be standardised, without preventing architecturally individual solutions to be developed. It was assumed that methodologies of energy auditing and plausibility checks for certain standard typologies could be utilised to save costs on individual consultancy.

These measures, so far not focal to the implementation policies, are expected to help to avoid dis-embedded or economically unsound investments with an unclear energy conservation effect.

## Transfer of innovation

Whereas technological knowledge on the level of flat and building was transferred without delay after 1990, the transfer of innovations in energy generation and intelligent networks was said to be much slower. One reason for a slow innovation transfer was the complexity of technologies of energy generation and distribution, which is influenced by monopoly providers and their recent investment into upgrading existing older technologies early after 1995. Western models utilising swarm technology (co-generation and grid) and small co-generation modules for efficient island-solutions that are currently entering the markets after a testing period in many Western countries, are so far hardly being taken into account or outright rejected by the energy providers, which is reducing the room for manoeuvre for the municipalities. Wind energy is usually not seen as an alternative. Despite the usually flat landscape its inland efficiency it is estimated as low and only sea-born wind parks were seen as viable and acceptable in the landscape. In contrast, geothermal energy is debated, but so far only seen as a hypothetical model for the future in the target areas. The continuing massive investment into existing technologies, partly seen as outdated one-fits-all solutions in the north-western EU countries, was criticised as leading to the Eastern European energy systems remaining below the possible excellency thresholds. However this danger was only seen by a few experts, mainly on the municipal planning level, while the companies generating and distributing energy argued for their making sense, due to heavy investment into existing systems in the recent past. Their focus is on improving existing methane gas driven co-generation systems by an additional use of bio-mass as an energy source.

Whereas upgrading the often outdated heat transfer lines is seen as a necessity, problems arising for these installations with a declining energy demand because of coinciding demographic change and improved energy efficiency are envisaged. These could be averted by a flexible and part-parallel use of various technologies for heat and power generation and also by more flexible networks, e.g. in small island concepts for estates.

Some of the interviewees wish an intensive exchange over economic and technological benchmark solutions to securely reach local climate protection goals across the northern EU member states, especially within the Baltic region, which is covered by the Urb.Energy project to be deepened. The wish was aired for a larger number of well monitored experimental projects to be carried out the on the neighbourhood level, allowing technical and financial innovations as well as process innovations to be tested. It was suggested that the model like the German ExWoSt (federal experimental housing and urban development pro-

gramme, part of the knowledge transfer of the Urb.Energy project from Brandenburg and Berlin) could be instigated on across national level in the Baltic region.

## Labour market

Whereas the residents and in some cases municipalities focus on energy efficiency mainly as a cost factor, integrated energy concepts were also seen as a strong economic and labour market incentive by some experts.

Jobs in considerable numbers on different levels from simple to expert level would emerge for a considerable time, if a widening of energy efficiency measures became a coherent policy in the CEE countries. Under this condition, energy saving measures would not only remain a spending factor, but also a job machine and part of wealth creation. It was expected that this would raise qualification levels in the building trade and could become an incentive for professionals of various kinds (engineers, planners, builders) not to consider emigration.

The establishment of a nation-wide strategic approach to energy efficiency - including the energy market actors and municipalities - was seen as a precondition to utilising the possible labour market effects for the benefit of industry and the labour-force.

## Demography

Demographic change, the further-on limited housing space available for residents (app. 25 sqm in the CE countries vs. 40 sqm in the 'old' EU countries) and the expected growth of household-numbers due to societal individualisation leads to the expectation of contradictory housing market developments in most of the target areas, which makes future demand difficult to foresee. It was a certainty for all interviewees that the building stock of the 1950s to '90s would generally remain indispensable for the provision of housing and that energy efficiency measures would play a major role in preserving its attraction and value. But at the same time, the future quantitative and qualitative demand for these homes, and by whom they might be seen as appropriate housing, was seen as a major uncertainty. It was stated that the housing related consequences of demographic change were not fully investigated and understood so far and need further attention.

Regional differences in housing demand - on a small scale within towns and on a larger scale between regions - and a fear over possible excess housing and vacancies in certain peripheral locations were seen developing due to migration, lower birth-rates and the ageing of the population a hitherto unforeseen ratio. If happening on a low level, such developments were welcomed, as a certain population decrease relieved of some pressure on the housing markets and opened up opportunities for change, e.g. for linking up very small flats to larger units, which would remain attractive for families. However, if exceeding a certain measure and pace, population change was seen as a major threat especially to post-war housing of the state socialist period, as it could lead to a relative loss of value over time. Scenarios of a stable basic population leaving - due to outward migration and ageing - were unexpected by most until less than a decade ago, when the type of housing found in the target areas was inhabited by a wide mix of population. But strong indications were seen of well settled and materially stable middle income parts of the population decreasing and households in a precarious situation increasing due to these estates remaining a major part of lower priced homes available for the poorer.

One group, however, was described as a possible stabilising factor. If older people with low incomes, as they are widespread across the Baltic countries, would choose these buildings, they would on the one hand add stability, but on the other hand, they would aggravate the financial fix preventing investment without subsidies. All other incoming groups, like poorer starter-households or those leaving gentrifying older neighbourhoods, were seen as possibly destabilising the socioeconomic mix. Elements of these mechanisms were seen especially in Riga and Piaseczno, and parallels were drawn to western developments of large housing estates becoming social problem zones.

It was stated that the current economic crisis, slowing down housing market volatility, was from this perspective to be judged as positive, as some time remains available to find satisfactory solutions. If the pace of economic recovery should lead to a speeding up of housing market developments, it was expected that only a short time slot remained to regenerate the estates and to make them more widely attractive again.

The hitherto mostly disregarded demographic change has a number of consequences for policies towards this type of housing stock.

- As the neighbourhoods will go along different development paths, finding a one-fits-all solution, usually of a high standard quality according to the current EU standard, was seen as futile. In contrast, a search strategy and flexible plausible solutions according to the local conditions were suggested. While this flexibility was said to be lacking in local plans, which needed attention, the variety of options needed should find its expression also in the European and national norms, allowing a strategy of support for 'small measures' of low investment intensity and a well measurable energy impact, even if no full standard was reached.
- Implementation should be closely linked to socio-economic monitoring and resident participation, as some buildings or estates might fall out of use due to the effects of demographic change and a possible problem of overinvestment is seen. What might make sense only for estates that will remain in demand for a longer period, is out of proportion and environmentally as well as economically unsustainable in others. In contrast, in certain 'sure places' a high investment into the appearance of the estates and their energy status might appropriate for the estates' regaining attraction.
- Flexible response to changing demand through population change is seen as possible with long term strategies envisaging different alternatives for energy as well as general refurbishment that allow a step-by-step implementation and changes of direction, when needed without devaluing the steps earlier taken (over-investment in scale and detail).

It was assumed that clear scenarios for the future development of the estates were a good tool to steer investment. Such scenarios should include a vision about likely futures of the target areas, combined with alternative architectural, public space and investment strategies.

## Financing

In debating the funding opportunities for energy efficiency it was stated that for a comparable housing stock in all of the old north-western EU member states, massive state investment had been necessary since the 1980s and ongoing to modernise buildings and enhance the neighbourhoods over the decades. This was especially the case in those countries, where a sequence from technological improvement (1980s) through landscaping and improving public space (1980s to 1990s) and socially integrated projects was followed by

the most recent programmes for energy efficiency and climate protection. This was especially the case in France, first western and then eastern Germany, Sweden and Denmark. As post 1990 the eastern Baltic countries were faced with many of the western problems of such estates, it can hardly be imagined that such interventions in those countries could be established without a considerable public financial support, especially as the economic potential of the residents was understood to be far below that in the north-western countries.

Even though with the opportunities available for the use of EU funds for energy efficiency measures and especially planning cost support was seen as a very positive element, the structure of funding was heavily criticised. Often the funding programs available to the flat owners and their management organisations for energy efficiency measures were not seen as meeting their financial opportunities, more or less forcing them to refrain from accepting the schemes, independent of a possible wish for an improvement of their property. The financial fix the flat owners are said to be aggravated by the current crisis and the overall income situation of many residents.

In all target areas, a public grant component of the financial arrangement for providing credits for energy efficiency measures was seen as a precondition for a success. Even where a simple access to credit schemes was widely available, the lack of interest in taking it up had to be overcome by introducing partial grants. It was suggested that a mix of grant and credit should at least lead to the residents being only burdened with a small additional payment for energy efficiency measures that would be equalled over the medium run by rising energy costs. It was, however, suggested that the grant element of financing should be provided on a means tested basis to prevent excessive subsidies being handed out.

At the time of the project visits, it was feared that the provision of grants and credits without a massive EU participation, e.g. through funds of the JESSICA type were not only overtaxing the available private funds of the home owners, but also public purses. Even though it was acknowledged that increasingly money was made available, program administration was criticised as over-bureaucratic, not adapted to the ownership situation and often not allowing experimentation. Generally models of revolving funds were seen as promising, despite the fact that under the current conditions they only found limited interest with the residents.

## Housing as a market and a social commodity - value and energy efficiency

Housing that by privatisation was converted from state owned rental to single flat ownership is most often judged by the residents only from a perspective of user-value, but not as an economic commodity, as sale or renting out is usually not considered. In most cases only migration or death leads to a sale. Even a long-term value rise through improved energy efficiency is thus usually seen by the owners only as a loss of liquidity as long as savings are not higher than investment or mortgage repayment from the first moment on. Residents considering a joint economic cause or long term gain above the individual perspective were rarely seen by the actors in the target areas at present.

However, as a consequence of demographic change and the ageing of the populations of owners who had moved in a generation ago, an acceleration of flats being marketed and market value becoming more important - for buyers as well as selling persons - was expected by housing managers and urban actors.

With more dwellings going on to the market and the possibility of value being more closely related to the energy status of housing, the future of these homes as marketable needs to be taken into account more seriously and should also be addressed to the residents. Market knowledge could lead to a better investment climate in some estates, would, however, also indicate, where the long-term future as owner-occupied homes would be bleak - and where most probably in large estates the state would have to step in to resolve quality issues through a form of neighbourhood management with public subsidies.

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Referat 22: Bautechnik, Energie, Bau-  
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Peter Busch  
Henning-von-Tresckow-Straße 2-8  
14467 Potsdam  
Germany  
Fon +(49) 331 - 866 8200  
Fax: +(49) 331866 8368  
E-Mail Peter.Busch@mil.brandenburg.de  
<http://www.mil.brandenburg.de>

### Authors:

ARGE Urb.Energy consisting of the following  
companies:

**Ernst Basler + Partner GmbH**  
Tuchmacherstraße 47  
14482 Potsdam, Germany  
Fon +(49) 331 - 74 75 90  
E-Mail [info@ebp.de](mailto:info@ebp.de)  
Stephan Kathke, Kathrin Senner,  
Tobias Schmeja

**B.B.S.M. Brandenburgische Beratungsgesell-  
schaft für Stadterneuerung und Modernisie-  
rung mbH**  
Behlertstraße 3a Haus B  
14467 Potsdam, Germany  
Fon +(49) 331 - 28 99 70  
E-Mail [UrbEnergy@bbsm-brandenburg.de](mailto:UrbEnergy@bbsm-brandenburg.de)  
Wolfgang Wüntsche, Rainer Blank,  
Alexandra Valentin

**UrbanPlus, Droste&Partner**  
Geusenstrasse 2  
10317 Berlin, Germany  
Fon: +(49) 30 3221154  
Email: [Droste@urban-plus.eu](mailto:Droste@urban-plus.eu)  
Christiane Droste, Thomas Knorr-Siedow

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