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Institute of Civil Engineering and Real Estate Economics

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MEASURES TO ACHIEVE THE ENERGY EFFICIENCY IMPROVEMENT TARGETS IN THE MULTI -APARTMENT RESIDENTIAL SECTOR THROUGH CO - FINANCING OF THE EUROPEAN UNION

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Abstract. Directive (EU) 2018/2002 of the European Parliament and of the Council amending Directive 2012/27/EU on energy efficiency sets a target of 32.5 % energy efficiency to be achieved by 2030, with a possible upward revision in 2023. The directive also stipulates that the obligation to achieve annual energy savings must continue to be met after 2020. In addition, a revised directive on the energy performance of buildings was adopted in May 2018. It includes measures to speed up the renovation of buildings and the transition to more energy-efficient systems, as well as to improve the energy efficiency of new buildings, thus using smart energy management systems (Amanatidis, G, 2020).

Buildings consume the most energy and have the greatest energy saving potential. They are therefore crucial to achieving the European Union's energy saving targets. The EU allocated around 14 billion EUR to improve the energy efficiency of buildings in the period of 2014–2020, of which 4.6 billion EUR was intended for residential buildings. In addition, the Member States have earmarked 5.4 billion EUR of public co-financing for the improvement of all types of buildings, of which around 2 billion EUR is allocated to residential buildings. Multi-apartment residential buildings in Latvia are in a technically unsatisfactory condition. In Latvia, the service life of multi-apartment residential buildings has been artificially extended. In addition, there is also the problem of reduced construction quality. Housing problems affect all layers of society, but they are most acute for low- and middle-income people.

The aim of the research is to study, using the co-financing of the European Union Structural Funds, the activities performed during the renovation process of multi-apartment residential buildings in Latvia and to identify the shortcomings.

Keywords: *energy efficiency, renovation of residential houses, construction quality*

JEL Classification: R3

METHODOLOGICAL SOLUTIONS FOR SUSTAINABLE LAND MANAGEMENT PRACTICE: APPLICABLE ASSESSMENT TECHNIQUES, CRITERIA AND INDICATORS

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Abstract. The scope of land management includes spatial planning as an integrated activity in the public domain. It demands a planning process to be based on publicly or societally acceptable values that is a matter of necessity. The study focuses on the advanced approach to improve land use management practice. It is concerned with the development of methodological solutions. This study, therefore, proposes the methodology of values-led planning (VLP) approach be introduced for sustainable land use and spatial development. The motivation of the study is to promote the embrace of assessed values in planning. The review of scientific literature as well as comparative analysis and synthesis techniques when addressing the essential outcome of empirical research have mainly been employed for the study. The study draws from issues evoked in various topical studies on European comparative perspectives. By way of argumentation, the study makes three relevant contributions to the literature and the practice of spatial planning and development. First, it presents and discusses the essential elements required in the design of a methodology for VLP approach in spatial development. In doing this, it figuratively depicts VLP as a consequence of interactions between four key elements of spatial planning. Second, it proposes an actual methodology for action, including applicable assessment techniques, criteria and indicators. And third, it discusses the applicability of the methodology in practice. The proposed methodology will be useful for planners, including public authorities, land managers, and community leaders, who make spatially-related decisions in land management and related activities.

Keywords: *land management, methodology, values-led planning (VLP) approach, land-use, spatial planning, value causing assessment (VCA), spatial development, sustainability*

JEL Classification: O21

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LAND VALUE ASSESSMENTS TO QUANTIFY THE EFFECTS OF DETAILED PLAN IMPLEMENTATION IN URBAN AREAS

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Abstract. It is acknowledged that land value is dependant by spatial variables, for instance the presence of infrastructures or services contributes in increasing the appeal of a site and the price of land or houses increases too. Land development processes contributes in creating economic value but also social and ecologic values. All these aspects concur in creating public value which is an indicator of life quality in a certain area. It emerges how public value is a grounding element in land transformation processes such as urban regeneration phenomena. But how public value is included in land development regulation? And, if processes are based on value creation, how does it spread on territory? Is it possible to measure it and to assess the effects of land development? To answer these questions, it is necessary to consider how land regulation evolves in a certain area and which are the different actors that contribute within land development process. Once that an urban transformation is defined it is possible to quantify its effect using different analyses such as the costs/benefits analysis or the analytic hierarchy process. To implement these methodologies a definition of a set of indicators is needed which can consider both environmental and socioeconomic aspects. One of the considered indicators is the economic value oh houses which is strongly connected with land value. Using GIS software, it is possible to analyse its spatial distribution and if there are relationships with land development projects that in a defined period occur in an area. The article analyses an urban regeneration process that happened in Brescia (IT) between 2013 and 2018 focusing on the spatial distribution of economic value. The starting point of the analysis is the study of how land and public value are considered within land regulation. These prescriptions strongly influenced land development processes and the analysis of Brescia case study, though the implementation of economic value maps, is the occasion to understand how detailed plans implementation contributes in creating a diffuse quality of life in urban environment.

Keywords: *land value vs public value, land value in land regulation, GIS, economic value maps, urban regeneration*

JEL Classification: O21

REVIEW OF APPROACHES TO THE ANALYSIS OF SUSTAINABLE DEVELOPMENT OF URBAN TERRITORIES

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Abstract. Rapid increase of urbanization rate appearing across the world, cities are becoming less and less sustainable with each coming day. Therefore, there is an urge to envision sustainable cities and implement strategies to reach higher levels of sustainability, but also it is increasingly important to find out what factors have an influence on sustainability in the urban context. Notwithstanding the growing amount of literature on the topic of sustainability, it is still not clear what components impact it. This paper presents a review of urban sustainability factors literature that is to identify which ones are the most common and considered to be the most important. It is found out that urban sustainability in general lacks a unified framework and mostly bases on the traditional three-pillar-of-sustainability model. After the analysis of 28 literature sources 14 factors impacting urban sustainability have been identified.

Keywords: *sustainability, urban sustainability, sustainable development, sustainable cities, sustainable urban development*

JEL Classification: Q01

DEMOGRAPHIC IMPACT ON REIT PERFORMANCE

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Abstract. One of the important directions of investment is real estate. As a result, the amount of the investment in real estate development is closely linked to the construction and industrial sectors, which have a direct impact on each country's GDP. To ensure the development of the real estate sector, it is important to develop various investment solutions, providing the investor with a free choice to choose its investment vehicle- REIT is one of them. One of the key parameters for investor's attraction is national demographics, since national demographic present the vector of national economic growth or slowdown. This study investigates the importance of demographics on REIT performance and the current REIT performance in USA and European markets.

Keywords: REIT, real estate investment, economic geography

JEL Classification: R30, R39

MEDIUM TERM OUTLOOK FOR THE LATVIAN REAL ESTATE INDUSTRY

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Abstract. Real estate industry has had its ups and downs during the last decade, thanks to the financial crisis, property bubbles and now the most recent COVID-19 pandemic. With some evidence that the health crisis seems to be lessening in Latvia and surrounding countries, now would be the time to take a look at the Latvian real estate sector over the last 12 years and determine how well it has managed to recover and what is the medium-term outlook for its further development. At the end of this paper we conclude that, while some regions are recovering faster than others, full recovery is likely several years away and medium-term outlook is not as promising as it should be.

Keywords: *Latvia, outlook, prognosis, real estate*

JEL Classification: R30, R31

THE IMPACT OF COVID-19 ON REAL ESTATE DEALS WITHIN LATVIA

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Abstract. At the beginning of 2020 the world was hit by an unprecedented outbreak of a very infectious disease that changed the way the world operated. Many industries and economic sectors suffered as a result. The real estate sector was rocked worldwide and Latvia was no exception. This paper examines the consequences that the pandemic has had on the real estate sector in Latvia by using the latest available data. Our preliminary findings conclude that the pandemic has caused a drop in nearly 40% year on year drop in deal volume due to the pandemic. This has caused significant problems, especially in certain regions that were just starting to recover from the last financial crisis.

Keywords: *COVID-19, Latvia, market analysis, real estate.*

JEL Classification: R30, R31

ECONOMIC JUSTIFICATION OF THE ENERGY EFFICIENCY INCREASING NECESSITY IN THE RESIDENTIAL HOUSES

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Abstract. In this study, the authors are analysing activities of energy efficiency improvement, regulatory framework and possibilities to attract financing for energy efficiency improvement of a residential house. The aim of the study is to prove the necessity of increasing the energy efficiency of residential houses and economic benefits for apartment owners. Several methods used in the study: general scientific methods (analysis of theoretical sources and statistics, descriptive method), mathematical statistical methods (comparison of economic benefits of financing models) and empirical research methods (survey, expert interviews, discussions with industry experts). The authors in the study calculates the heat energy savings and repayment of the invested money for the residential house and owners of apartments. Authors are comparing different financing methods to find the most economically advantageous financing model. In the study, there is the process of technical inspection and energy efficiency improvement process described, and apartment house resident`s survey about energy efficiency improvement activities analysed. Laws and regulations of the European Union legislation, Republic of Latvia, municipal regulations, Internet resources and scientific literature used in this study. Main conclusions and suggestions for reduction of investments of energy efficiency improvement activities project of residential house apartment are made.

Keywords: *energy efficiency, economic justification, Energy efficiency increasing necessity, residential houses*

JEL Classification: R30

APPROACHES FOR STUDYING OF REGIONAL DISPARITIES: ADVANTAGES AND LIMITATIONS

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Abstract. The research discusses used approaches in high economic development countries for studying the socio-economic development of territorial units. The aim was analyzing the advantages and limitations of using them to measure disparities at regional and local level. The tasks were: a critical literature review of used approaches in world organisations and the leading economies in Europe, and testing them with statistical data for Bulgaria, published by the National Statistical Institute. A comparative analysis was done. The advantages and limitations of different approaches have been described. The most adequate approach for studying of regional and local socio-economic disparities in Bulgaria has been identified. The research contributes to the scientific and practical discourse at choosing of a set of indicators and approach for the analysis of regional disparities and the evaluating and ranking of territorial units.

Keywords: *regional analysis, statistical methods, ranking, socio-economic development, socio-economic indicators, territorial unit*

JEL Classification: B40, O18, R10

DAMAGES TO ARCHAEOLOGICAL HERITAGE OBJECTS CAUSED BY ILLEGAL ACTIVITIES: DAMAGE ASSESSMENT ASPECTS

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Abstract. It is widely acknowledged that the destruction and damaging of archaeological sites, illegal obtaining and trade in antiquities leads to the impoverishment of the archaeological heritage, causing irreversible losses. Damages done relate not only to losses in terms of culture and historical knowledge, but also to a wider range of socio-economic interests.

Considering social, cultural, symbolic significance and numerous uses of the heritage, it is complicated to make an accurate monetary valuation of heritage objects as well as the damage caused in result of illegal activities, e.g. illegal excavations. Due to their commodity value archaeological sites often become targets of offences committed with the aim to get antiquities. In the process of illegal obtainment of antiquities harm is being done to the archaeological site itself. Therefore, the question arises what are the criteria for assessing damage to archaeological heritage caused by illegal activities and how justified is calculation of such damage in the relevant criminal and civil proceedings? What compensation the owner of the archaeological site and other stakeholders can count on to cover their losses? In order to answer these and other questions the range of affected socio-economic interests, as well as current approach and practice in Latvia and several foreign countries are observed in the presentation.

The presentation is based on research done by A.Kairiss (PhD oec. cand., RTU) and I.Olevska (LL.M., founder of the ArtLaw.Club platform). Methods used in the research are literature review, legal framework and criminal cases analysis, documentary and statistical analysis and elements of qualitative content analysis. International comparisons were made consulting with foreign experts.

Keywords: *antiquities, archaeological heritage, damage assessment criteria, losses, socio-economic consequences*

JEL Classification: Z10, Z18, K11, K14

THE INFLUENCE OF REAL ESTATE MARKET UPON THE DEVELOPMENT OF METROPOLITAN AREAS IN MEXICO

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Abstract. Real estate market and the development of national economy are closely linked through a complex set of interactions. This relationship has the potential to give the conclusions and overview on the conditions for commercial activity and urban development. The aim of the research is to analyse the influence of real estate market upon the development of metropolitan areas in Mexico, in order to clarify how real estate, through this impact, has affected conditions for economic development in the country. The methods used in the research are statistical analysis, historical and comparison methods, in relation to available demographical and economic information, as well as revision from academic literature was done. Taking the case of the Metropolitan Area of Mexico City as an example, authors expect to describe a current process of desaturation of the largest urban concentration in the country, which has allowed for a new trend of population redistribution in other urban areas of central Mexico.

Keywords: *real estate development, Mexico city, public space, industrial real estate market, metropolis, economic infrastructure*

JEL Classification: R21, R31.

THE ANALYSIS OF URBAN PLANNING ASPECTS AND DEVELOPMENT OF RESIDENTIAL REAL ESTATE IN TALLINN, ESTONIA

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Abstract. At the present time, due to the fact that the world's population is rapidly increasing, existing resources also are being significantly consumed. In relation to this, the concept of planning day by day gains importance, also in order to use the limited resources more efficiently. The aim of the research is to analyse the interrelation aspects between urban planning and residential real estate development on different levels in Tallinn, capital of Estonia, in the context of sustainable development. Analysis and synthesis, comparison, observation, and logical deduction methods are used within the research. According to the done research, the price ranges of real estate objects are closer to each other in the conditions towards homogeneity in residential settlements which have similar residential and planning features. It can be recommended to build a contemporary system regarding interrelation of urban decisions and tendencies within development of the real estate market, which can help investors and other market participants in sustainable, efficient and long-term decision-making.

Keywords: *heterogeneity of real estate market, public-private partnership, real estate development, real estate market, residential real estate, sustainable development, sustainable development goals, Tallinn, urban planning*

JEL Classification: O18, R31

DATA FOR MARINE CADASTRE MODEL

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Abstract. Questions and problems of Marine Cadastre are in the actual agenda in many European countries, and to achieve the goal, international projects are realized for this. The coastal status of the Baltic Sea is a very important element of infrastructure for all countries around the Baltic Sea. The baseline serves as the main element or reference of the Maritime Cadastre. Land parcels from the sea are registered and maintained in the Cadastre Information System. Already from 2017 in Latvia has started to register coastal areas two kilometres in width from the Baltic sea baseline.

The research explores international and national legislation in Latvia and Poland related to the use of marine space, and evaluates the resources of economic growth of the territories of Baltic Sea.

In research, analysed information available in section the “Human activities” in EMODnet, which could be considered possible base of marine cadastral content information, and layers of marine spatial planning that complement the information on EMODnet portal. The information used for EMODnet and maritime spatial planning is compared with the content and information of the cadastre of Greece, which in turn allow to write conclusions on the amount of data required for the Latvian and Poland marine area.

The aim of the research is to obtain the appropriate and sustainable content of the marine cadastral model for the territory of Latvia and at the same time analyse experience of Poland.

Keywords: *marine cadastre, marine data, EMODnet, marine spatial planning, blue growth*

JEL Classification: O21; E22, R3

REAL ESTATE VALUATION CONCEPT IN HOUSING MARKET IN LATVIA AND IN GERMANY

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Abstract. Housing plays an important role in the development of the economy of each country and averages 10-20% of all economic activity in the country, and is also considered the largest main asset of households. The need for housing is not only one of the basic human needs, but also one of the indicators of the life quality standards. Housing should be convenient, economical and realistic in maintenance, as well as architecturally expressive, so as to be able to harmoniously fit into the environment. At the same time, it must be kept in mind that the specifics of the real estate sector are the large capacity of financial resources, the long payback period of investments and, therefore, an invaluable role in attracting financial resources for the long-term development of real estate. Nowadays more attention is paid to the benefits and costs of housing, that the house is comfortable, convenient and suitable, but also energy efficient, and the costs of buying, building, improving and maintaining a house are proportionate with the benefits of using the house.

Only by providing a high-quality informative database to all professional participants in the real estate market system, you can create an effectively oriented organizational and methodological structure and system of the real estate market. The main element of the system's information support is the methodology of obtaining, collecting and further analysing the data in relation to objects on the real estate market, using the latest technologies. Based on the foregoing, the role of real estate valuation in the process of successful socio-economic development is becoming increasingly relevant.

The aim of the research is to analyse the concept of real estate valuation in the housing market of Latvia and Germany and develop proposals for its improvement.

Keywords: *real estate market, real estate valuation, the value of residential real estate*

JEL Classification: O18; E22; R2; R3

THE MAIN STAKEHOLDERS OF THE COMPULSORY PURCHASE PROCESS

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Abstract. The article deals with interested and involved stakeholders in compulsory purchase process. All participants seek maximum benefit. It is meaningful for each of them. Their understanding of benefit is different, and often, they can be fundamentally opposite in reality. The problem of finding a balance in measuring “benefit” is an urgent one, especially when it comes to land resources using. Therefore, to explore and find out the ways to ensure a balance it is needed to determine the list of interests of the main stakeholders. The decision-making on the implementation of projects with compulsory purchase using depends on local community, investors, land owners / users. As a result of assessing the interests of stakeholders, it was found that the interests are interrelated in the following issues – legal, planning and functional, financial and ecological issues. The interaction and interdependence of interest’s participants are reflected in the model of the balance ensuring of interests of stakeholders in the compulsory purchase process.

Keywords: *balance, compulsory purchase, public need, stakeholder*

JEL Classification: R52

HOUSING POLICY AND MULTI-APARTMENT RESIDENTIAL HOUSE MANAGEMENT AND ADMINISTRATION PROCESS: LATVIAN CASE STUDY

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Abstract. The issues of the management and administration process of multi-apartment residential houses give rise to a complex problem that affects the interests of the residents and owners, as well as interests of individual regions and the state as a whole. The housing policy is a topical political planning document that must be developed at both — the state and local government level, thus supporting the solution of the multi-apartment residential houses management and administration problems.

Within the framework of this study, publicly available data on housing stock, demographic situation, as well as related financial data were collected, analysed and compared. Quantitative and qualitative research methods have been used in order to analyse publicly available data.

The results of the study show that, depending on the capacity of the municipal budget and the degree of interest in the development of the very municipality, the role of the municipality and the possibilities to develop a high-quality multi-apartment residential houses renewal strategy in the municipality should be evaluated.

The scientific result of the study provides an opportunity to determine the significance of the trend of factors influencing multi-apartment residential houses renewal strategy in relevance of housing policy in Latvia in general and in its regions.

Keywords: *housing stock, management, real estate policy, planning processes, strategic planning, real estate management and administration*

JEL Classification: F36, M21, R21, R29, R33, R51

SUSTAINABILITY IN URBAN ENVIRONMENT

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Abstract. The development of a modern urban environment and a competitive urban economy is dependent of policy instruments that allow the city to position itself and take a leading position in rapidly changing markets of goods, services and information. At present, the positioning of the urban environment in the world is based on sustainability policies. Triple Bottom Line considers three dimensions: economic, social and environmental. In order to ensure the sustainability of the city, all the processes within the city should overlap all dimensions of Triple Bottom Line. However, there is still discussion whether and at what level the sustainability in urban environment is possible. The authors used literature review to explore the interaction between economic, social and environmental dimensions in urban environment. Results show that there are great links among them. It is often necessary to sacrifice elements of one dimension in order to get advancement in another. Conflicting interests between employer and employee cause the main conflict between economic and social sustainability. Even though social and economic dimensions are conflicting, they are vitally crucial for each other. The greatest future challenge is the conflict of economic and environmental dimensions as the economic growth of the city and biodiversity conservation are headed opposite directions.

Keywords: *economic sustainability, environmental sustainability, social sustainability, sustainable development, urban environment.*

JEL Classification: R11, Q01, Q56

ENERGY EFFICIENCY IMPROVEMENT CONCEPT AND RENEWABLE ENERGY STRATEGY IN THE OFFICE SPACE SECTOR OF REAL ESTATE INDUSTRY

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Abstract. It is believed that energy efficiency can make a significant contribution to achieve a low-carbon economy and fight the climate change. In the European Union (EU) buildings account for 40% of total EU energy consumption. Based on the current trends, the office real estate sector will continue to develop, and this will lead to an increase in energy consumption. To compensate for the forecasted increase in energy consumption and reduce the greenhouse gas emissions, the EU has decided to implement measures to reduce energy consumption and foster the use of renewable energy in buildings. Authors used literature review and statistical analysis to evaluate perspectives of energy efficiency measures and the use of renewable energy sources in real estate sector in Latvia. The study considers potential solutions for increasing the energy efficiency of office buildings in Latvia and the use of renewable energy resources while taking into account a number of factors: a requirement to support concept of sustainable development; current trends in office space sector of real estate industry; microclimate deficiencies of office buildings and related significant energy consumption; increasing competitiveness by exploiting the potential of renewable energy sources and reducing electricity consumption. Results show that the office space sector is developing rapidly with constant increase in competition among the relevant stakeholders. With the increase of overall level of society's awareness, office space tenants prefer to rent cost efficient premises that use renewable energy resources. Nowadays companies and their employees are paying more and more attention to the impact of the real estate and their business activities on the environment. One of the most significant development trends in the office segment is the development of applied technologies that implement energy efficient solutions and use renewable energy, thus increasing competitiveness and contributing to reduction of the greenhouse gas emissions. In order to promote the sustainability of the planet and the growing competition in the office segment, it is necessary to invest in office buildings to improve energy efficiency and the use of renewable energy resources to ensure the future competitiveness.

Keywords: *climate change, energy efficiency, office buildings, renewable energy resources, sustainable development.*

JEL Classification: Q01, Q40, Q42, O13

MITIGATION OF ENERGY SECTOR`S INFLUENCE ON CLIMATE CHANGE

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Abstract. Climate change is one of the world's most pressing challenges that will burden future generations. The rapid increase of the world's population over the last two centuries has significantly increased the impact on climate change. And satisfying the increasing needs of global population adds pressure to ecosystems contributing to climate change. The consequences of omitting the principles of sustainability can be catastrophic, hence, a balance must be reached so that the Earth will continue to be the home of humanity. Authors used literature review and statistical analysis to explore influencing factors of climate change. Results reflect several factors influencing climate change in energy sector. Considering the growing energy demand, the current energy production model, which is dominated by non-renewable energy sources, is not sustainable. Adequate and secure energy supply with the least possible negative impact on the environment will play important role in ensuring sustainability of the energy sector. It is important to acknowledge that, although the estimated investment required to reduce greenhouse gas emissions is high, the economic cost of tackling the climate change would by far outweigh the investment required to mitigate the consequences of the climate change. Energy production must move from non-renewable energy sources to biomass, solar, wind, geothermal, hydropower and nuclear energy. In the long term, renewable energy can help to improve the competitiveness of various industry sectors and have a positive impact on regional development and employment. With the advancement of technology, the solutions and related costs of using solar and wind energy systems have become affordable. European Union policy intervention has influenced market conditions that are rapidly evolving in favor of renewable energy. However, significant additional investment in renewable energy is needed worldwide and in the European Union to ensure a 100% renewable energy supply by 2050. Great potential in reducing anthropogenic impact of climate change lays in changing individual and collective behavior and consumption patterns of global population.

Keywords: *climate change, demographic change, energy production, greenhouse gas emissions, non-renewable energy, renewable energy sustainability, sustainable development.*

JEL Classification: A12, R11, Q01, Q40, Q42, O13

OPPORTUNITIES FOR IMPROVING HOUSING AFFORDABILITY FOR YOUNG ADULTS

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Abstract. This topic is related to the need for housing as a social need for every member of society and its inaccessibility, mainly due to lack of finance. Access to housing is a broad concept that indicates whether households are able to purchase or rent a home, to maintain it and cover other non-housing expenses. Various events that have a significant impact on the national economy, such as the financial crisis, have affected all sections of the population in different countries over time, but it is assumed that the economic downturn has had the most significant impact on young adults' living standards and the level of housing affordability. Therefore, as part of a study of the economic situation in the EU, an analysis was carried out of socio-economic indicators for young adults aged between 20 and 34 as well as a study of the concept of the affordability of housing both in Latvia and elsewhere in the world. The availability of housing depends on many internal and external factors. It has been proven that the level of education and the availability of work are two of the main factors which influence affordable housing for young adults. However, employment for young people cannot be successful without prior access to stable, secure, and suitable housing. The research goal is to analyse the possibilities of increasing the availability of affordable housing for young adults in Latvia.

Keywords: *housing affordability, housing availability, young adults*

JEL Classification: O18, R21, R28

PUBLIC PROPERTY MANAGEMENT IN THE UK

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Abstract. Shopping centres, including IKEA, directly manage or indirectly use extensive territorial infrastructure. Consequently, where trade activity is expanding, part of the total satisfaction of daily needs is also moving - both additional daily services and recreational services. The concentration of trade in larger centres and the provision of other services is no longer possible in Europe's old cities, where special architectural requirements are set, and it moves outside urban centres. In some parts of Europe, medium-sized small commercial businesses, rich in family traditions, often do not keep up with technological developments, and their income are often insufficient to cover rents in Europe's historic city centres. There is now an increasing focus on the benefits and costs of using and managing real estate, including public property. This means that the shopping centre complex must be convenient and suitable for providing the required service, but at the same time also energy efficient. An important precondition is the proportionality of the costs of acquisition, construction, improvement and maintenance of a building or structure to the benefits of its use.

By providing a quality service base regardless of the size of the real estate under management, it is possible to create an effective organizational and methodological structure and system. Based on the above, the role of real estate management is also becoming increasingly important in the operation of large shopping centres.

The aim of the research is to analyse the concept of real estate management in specific real estate (trade centre of IKEA) development in the real estate market of United Kingdom and develop proposals for its improvement.

Keywords: *real estate management, trade centre development, territorial infrastructure*

JEL Classification: O2; R3

SUSTAINABILITY EVALUATION OF THE NEW RESIDENTIAL PROJECTS IN VILNIUS, LITHUANIA

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Abstract. Development of real estate has the potential to advance sustainability in terms of environmental, economic and social criteria. This is particularly important in residential sector as it plays a crucial role in the lives of habitats and directly influences their welfare. As the population grows and cities expand, the demand for real estate increases. Assurance of sustainability in the residential projects becomes a new concern of real estate developers. The aim of present research is to propose multiple criteria assessment based methodology for sustainability evaluation of the new residential projects. The article consists of three main parts. In the first part the concept of sustainable development and its key pillars in residential construction are analysed. In the second part proposed sustainability evaluation methodology, based on multiple criteria assessment methods SAW and COPRAS, explained. In the third part the proposed methodology is applied to evaluate the sustainability of five residential developments in Vilnius, Lithuania. Research revealed that achievement of sustainability in residential projects is directly related to energy efficiency, urban planning, development of convenient infrastructure and community building.

Keywords: *complex proportional assessment (COPRAS) method, multiple criteria assessment, new residential projects, simple additive weighting (SAW) method, sustainable development*

JEL Classification: C30, R31, R58

STRATEGY OF INCREASING THE EFFECIENCY AND COMPETITIVENESS OF THE CONSTRUCTION COMPANY

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Abstract. Modern construction companies often offer low-quality products or services at lower costs to citizens and society. That could rise the situation that such companies after some time will became less competitive in the market. It is important to discover whether it is possible to increase the competitiveness of a construction company and what strategy to use to increase the efficiency of a company. The aim of the research is to create an effective operational management strategy and solutions for increasing competitiveness in construction business. To achieve the goal of the research, the real estate market is analysed and the factors influencing the development of construction business are determined. The authors are looking at effective strategy development methods and research methods that would be able to ensure successful results for the construction company. Opportunities to increase competitiveness in order to be successful and focus on the target tree of the construction company and its strengths, weaknesses and opportunities and threats as well been considered. In the research there are used the results of a survey in which businesses participate, with the aim of identifying current issues and competitiveness criteria. As the result of research there are an effective strategy for the construction company to increase its competitiveness is developed. Different methods in the research have been used - general scientific methods, empirical research methods. The authors conclude that successful strategic management ensured by the set goals, which are included in the management process.

Keywords: *strategy, construction company, competitiveness, efficiency*

JEL Classification: R30

IMPROVEMENT OF ACTIVITIES AND SYSTEM OF REAL ESTATE MANAGEMENT COMPANY

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Abstract. Many of the real estate management companies in Latvia have not introduced any quality management system to control operation of the management company yet. They are failed to arrange the employees' work sites and standardized processes, by applying any of the quality management theories, improve work process efficiency that is the reason that justify the urgency of the study. The management companies are targeting at rendering services. The major problems refer to the fact that management companies focus on various repair operations only when an accident has occurred. Sometimes at the management companies the personnel use the working hours inefficiently, by waiting for emergency notifications or customer calls. Thereby labour force used inefficiently. The aim of the study is to analyse introduction problems of quality management system and elaborate potential solutions thereof the real estate management companies. The study methods are used – analysis of literature, quantitative method (closed – ended questionnaire), qualitative method (semi - structured interview), graphical method, analysis and synthesis method, deduction and induction method, statistical method. The authors conclude that management companies need to use the QMS Lean process for business efficiency, by introducing the service efficiency processes, which provide for the problem identification and awareness creation within the company.

Keywords: *real estate management company, management, administration, improvement*

JEL Classification: R30

THE CONCEPTS OF GREEN CITY AND SUSTAINABLE CITY

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Abstract. With emergence of urbanization and climate change new solutions for maintaining and improving the quality of life in cities are required. Presence of public green urban areas have positive impact on biodiversity, climate, human well-being and air quality. The word ‘green’ means different things to different people. Both environmental and socio-economic problems are common in cities. Due to the great variety and interpretation of problems, several definitions and approaches have emerged for the term ‘green city’. The authors used literature review to analyse definitions of ‘green city’ and related concepts. The results show that private and public organizations use the word ‘green’ as a reference to environmental performance and sustainability. Green city is a special type of sustainable city, in which the advancement of sustainable development goals is achieved by reducing the environmental impact of the city. A green city is linked to healthy natural environment, healthy people and growing economy. Environmental and economic studies show that investing in sustainable and green urban infrastructure, such as public transportation, energy efficiency of buildings and waste management, could save up to 40% of energy consumption by 2050. Further research directions are linked to applying the concept of circular economy to cities.

Keywords: *circular economy, climate change, green city, sustainable city, sustainable development, urban environment.*

JEL Classification: R11, Q01, Q53