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Content

Urbanization Process and Requirements for Urban Transformations in Turkey	11
ByMaker Civic Tech Game facilitating children participation in smart cities	13
Which measures can contribute to a sustainable project? Case Stavanger rådhus.....	15
Promoting social sustainability through comprehensive sustainable design approach for refurbishment and adaptations in the historic context of rural China	16
Questioning the core business of a city: Understanding an urban-scale facility management.....	18
Ensuring Ethical FM services performance control	19
Accessibility barriers and sustainable solutions: Case Elgeseter street, Trondheim.....	21
Promoting the creation of smart work environment in construction sites: proof of concept for smart insole technology for older workers.....	22
NET4Age-Friendly - International interdisciplinary network on smart healthy age-friendly environments	24
The Need for Well-being and Social Sustainability Assessments	26
Ambitions and challenges of re-use of building materials in renovation and refurbishment projects among Norwegian property owners	27
Window view and sustainable development of urban space in relation to social infrastructure.....	29
Turning the wheels of the re-use market, an implementation of a guide for re-use mapping in Norway.	31
The significance and illusion of design in the prevalent value system of urban planning.....	33

Competences for the development of future settlements	34
New models of architecture in the real estate market	35
Access to social infrastructure in new privately developed neighbourhoods: Case of Kosovo	37
Faciality Management's contribution to creation of Positive Energy Districts: Efforts to improve awareness about the profession	38
Land use of transport infrastructure in the Republic of Slovenia	40
Blockchain and digitization impacting on real estate	42
Acquisition of real estate by elderly foreigners in Turkey	45
Methodological approaches to research on the “dark side” of the AEC industry	47
Policies and Co-creation: Citizen's empowerment to increase the cooperation rate for future smart, sustainable, healthy cities.....	48
Methods to investigate city planners' opinions about future sustainable, healthy, and happy cities.....	50
Age-friendly environment in Prishtina- a study report based on needs and satisfaction of population aged 65 +.....	52
The quest for placetinations along the main street in Belgrade	53
Quality of living in the housing estates in Slovenia: Preliminary analysis of survey results.....	54
Evaluation of Application Opportunities of Metaverse in the Real Estate Market in the Developing World.....	56
The Need for Institutionalization of Asset Management Companies and Real Estate Asset Management Businesses in Turkey	58
The Influence of Covid-19 Pandemic on Resilience of Turkish Real Estate Markets.....	60
Financing of Real Estate Projects with Sale and Leaseback Method and Evaluation of Practices in Turkey	62

An Evaluation of Management of Office Buildings, Rental Incomes and Occupancy Rates and Their Effects: The Case of Office Buildings Market in Ankara Province.....	64
Real Estate Acquisition and Management in Municipalities: The Case of Ankara Metropolitan Municipality	66
Analysis of Access to Housing and Policy Recommendations during and in the aftermath of the Pandemic Period in Turkey ..	68
Joint Use of Agricultural Lands and an Evaluation of Group Farming Practices in Turkey	70
Acquisition of Large-Scale Agricultural Land in Africa by Non-African States in the Context of Sustainable Development Goals	72
Housing preferences of residents of Roma settlements.....	74
Preliminary investigation on the combined use of vertical greenery and the exploitation of energy from photovoltaic panels in building facades in Scandinavian Countries	76
The Development of the Outsourced Facility Service Market in the EU	78
Identifying strategies for increased active mobility – Case Elgeseter gate	79
The smart silver villages through the linses of the slovenian rural inhabitants	80
Social Value of the Age Friendly Housing in Lifetime Neighbourhoods	82
Impact of covid-19 on long-term care facilities in Slovenia	84
Determination of Environmental Cost in Urban Wastewater Systems Based on the Polluter Pays Principle: The Case of Merzifon District (Amasya Province, Türkiye).....	85
An assessment on the taxes and tax burden on the real estate sector in Turkey.....	87
Sustainable management of public institution	89

**Urban resilience in the light of sustainable development of the
built environment.....90**

Urbanization Process and Requirements for Urban Transformations in Turkey

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The urbanization evolvments in Turkey, which started in the republican era, accelerated in the 1950s due to rural-to-urban migration. Unfortunately, the cities were not ready to accommodate this situation, which gave rise to the foundations of unhealthy urbanization. The urbanization process, accelerated by industrialization, has brought with its uncontrollable growth in cities such as Ankara, Istanbul, and Izmir, which have received intensive migration. The urban spaces that have emerged for these reasons need to be transformed and renewed. In almost every province, some areas do not conform to regular urban development, with a lack of technical infrastructure and facilities, economically weak, and social subsidence with high crime rates. In the last sixty years, when the legal and physical infrastructure of urbanization evolvments began, the share of the population living in cities and their share in the total population have been determined and keep increasing regularly. The development of modern techniques in urbanization studies and the experiences gained in urbanization have helped to increase the living rates in cities. This has also led to the saturation of the urban population and a decrease in the urban population growth rate. One of the important indicators of the need for urban transformation is the existence of dilapidated areas and the size of the population living in these areas. Accordingly, the abundance of dilapidated areas reveals the problems in urbanization and the need for physical transformation. The decrease in the share of the population living in dilapidated areas in the total urban population since the 1990s is seen as an important indicator in terms of eliminating these problems and the need to accelerate physical transformation efforts. Within the framework of the "Urban Transformation Action Plan" announced by

the Ministry of Environment, Urbanization and Climate Change of the Republic of Turkey in 2019, it is aimed that approximately 1.5 million houses from 6.7 million houses that need to be converted will be transformed urgently within 5 years. With this framework, 300,000 housing transformations will be made every year, 100 thousand of which will be in Istanbul. Among the decisions taken within the scope of the action plan is that each city should have an urban transformation master plan. In addition, municipalities should approve projects in line with plans, and the needs of people living within the project should be collected in the region before declaring the transformation areas. Similarly, priority should be given to on-site transformation while multi-story buildings should not be allowed in urban transformation areas. The 2023 targets set out in the Eleventh Development Plan envisage urbanization to be people-oriented, respectful to natural life and historical heritage, providing basic urban services in a fair and accessible manner and simultaneously producing cities and settlements with high quality of life and value. In addition, it was also stated that urban transformation efforts are aimed at transforming the areas under disaster hazard and risk as well as the lands and plots where risky structures outside these areas are located, by the norms and standards of science and art, in a way that is based on healthy and safe for living. It should be emphasized that inter-institutional coordination is of great importance in the cause of maintaining healthy execution of urbanization works and it would be beneficial to expand the cooperation between the Ministry - Housing Development Administration - Municipality - University, where theory and practice can be carried out together, and to develop different financial models and project implementation opportunities.

Keywords: Urbanization, slum areas, risky structures, transformation needs analysis, measurement of project development, and implementation success.

ByMaker Civic Tech Game facilitating children participation in smart cities

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Cities are increasingly facing the consequences of climate change, it is therefore urgent to take actions to reach the targets set by the UN Sustainable Development Goals. By 2050, 70% of the world population will live in cities, engaging citizens in the sustainable transformation of the built environment is crucial. Moreover, children and youth require specific attention to secure their active participation in the process. Civic Tech is an emerging market to support the relationship between governments and citizens, using information and communication technologies. ByMaker is a civic tech game developed to facilitate the participation of children and youth in sustainable urban transformation. The objective of ByMaker is to improve the knowledge about sustainability and raise awareness on the importance of making balanced decisions. While the environmental dimension is already well covered and assimilated by children and youth, the social and economic ones remain more challenging to understand. The method uses a 3D map of the concrete city, interactive elements of popular landmarks and friendly characters of local historical figures. The players are invited to experiment multiple combination of choices corresponding to different scenarios of urban development such as road and transportation, urban nature, residential buildings and public space. The impact of their decisions on the overall sustainability of their city is presented as visual feedback. Scenarios in the game focus on the realization of SDGs' ambitions and objectives. The vision is both mid-term oriented, addressing the climate urgency and long-term

focused to anticipate future needs. Furthermore, ByMaker presents innovative technological solutions to play with. The game was tested in four classes in primary schools in Trondheim, Norway. The feedback guided the further development and improvements such as better visualization, interaction features and simplified scenario descriptions. By playing with ByMaker, children succeeded to learn, experiment, and create their sustainable city.

Keywords: smart city, transformation, decision-making, gamification

Which measures can contribute to a sustainable project? Case Stavanger rådhus

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The background for the rehabilitation project is that the Stavanger rådhus building dates from 1962, and therefore needs to be upgraded to reach current standards. The goal of this research is to look into the major causes for the rehabilitation of Stavanger rådhus, as well as how proposed actions can lead to a more long-term project. The research was done using a mix of literature and case studies. In addition, there were interviews. The major reason for the renovation is that the structure does not meet modern criteria and demands. This includes, for example, the need for universal design and technological conditions, as well as the need for more sustainable solutions. Preparing a full LCC analysis, developing maintenance plans in partnership with facility management, and supporting all three components of sustainable development will be recommended methods to produce a more sustainable project. The inference is that the Stavanger rådhus is a key building in an urban environment and that the city may profit from a successful rehabilitation effort. The advantages might include serving as a signal building for other current and future development projects. As a suggestion for future investigation, consider how the final building performs in relation to the project's objectives. This is due to the fact that the recovery process is still in its early stages

Promoting social sustainability through comprehensive sustainable design approach for refurbishment and adaptations in the historic context of rural China

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Over the past few decades, China has experienced explosive economic growth. Today, it is the world's most populous country, with 22% of the world's population. However, the country has access to only 7% of the world's arable land. Major economic reforms have caused significant changes in the rural areas of China since the late 1970's including an extensive transition from agricultural to non-agricultural employment and a massive rural-to-urban migration. This trend continues today, often leaving rural villages mainly inhabited by older family members and young children. Their life is primarily based on agricultural activities that provide very low income. Many people living in these villages experience poor living conditions, lack of modern facilities, and lack of job opportunities. This socio-economic situation stagnates the development and growth of the rural areas and thus leaves the Chinese economy vulnerable. However, these villages can also be identified by high historical value. The context of such built environments poses serious challenges for designers aiming to develop architectural responses that also promote social sustainability. The purpose of this paper is to present a comprehensive approach to solving those contextual design challenges for refurbishment, restoration, and adaptation of historic buildings in regard to social, environmental, economic, and cultural sustainability. A literature review has been conducted to build an understanding of the complexity of the context and create tangible interpretations based on the background information in order to identify particular challenges and set boundary conditions for an adequate architectural response. An adaptation concept for a residential unit prototype, for the Liu House in Houji Cun

village, has been designed and presented as an example of such an architectural response based on the developed approach. The expected outcome of developing a comprehensive sustainable design approach for refurbishment and adaptations in historic context is to help designers address all aspects of sustainability, help them create a contemporary living environment with respect to the cultural, historic, environmental, and socio-economic context, address alternative solutions for livelihood, social cohesion, economic growth, and make informed design choices.

Keywords: sustainable refurbishment, residential building, social sustainability, historic and cultural values

Questioning the core business of a city: Understanding an urban-scale facility management

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Whether public or private sector, in-house or outsourced, building-level or urban-scale, the key role of facility management (FM) is to support the core business activities of an organization in achieving its objectives. Through the services it manages and provides, FM impacts the health, well-being, and quality of life of people. While there is no difficulty in defining the core business of a corporation, organization, or institution in order to specify the supporting components required to fulfill its goals, defining the core business of a city as an institution is not widely discussed in the urban-scale facility management literature. Using a narrative research approach from the available literature, this study seeks to shed light on potential explanations for a city's "core business". The preliminary findings indicate that a city serve as administrative, commercial, religious, and/ or cultural hubs for its larger surrounding areas, with the primary goal of ensuring the well-being of their citizens; a group of individuals who will take responsibility for making their community inhabitable. Conclusions and recommendations are going to be made based on the people, place, process, and technology point of view.

Keywords: facility management, FM, urban FM, city, urban, core business

Ensuring Ethical FM services performance control

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The purpose of this paper is to examine the ethical implications of Facilities Management personnel, to determine the structural reasons for these dilemmas considering how such a service is controlled and operated, and to propose ethically sound solutions to these problems from the client's perspective. In addition to literature review, this paper undertook with a qualitative interview in which ten interviewees were inquired about their direct knowledge and experience with FM Services. The qualitative approach then revealed challenges with respect to organization, strategy, and provision of services in cleaning and property services, which strongly influenced the emergence of ethical challenges in the execution of these services within the FM sector. The organizational challenges were characterized by general challenges, the degree of control, the line of command, and the consequences of the services approach. Moreover, the personnel encountered wage theft, exploitation, worker's dissatisfaction, and financial greed as the ethical challenges experienced in the management and delivery of services. This was supported by the finding that such organizational and ethical challenges arise as a result of Service Level Agreement discrepancies, workers' financial difficulties, autonomy, and unawareness of one's rights. In fact, the services level agreed on proved impossible to reach. This causes a series of challenges such as exploitation, wage theft, etc. In this paper, operational control characterized by strict adherence to scope, effective communication, straightforward SLA, and follow up/feedback has been outlined as the primary direction the client must then focus on, as clients only rely on the tangibility in service quality to validate the efficacy of services rendered in FM. Based on the analysis of the qualitative study's results, these operational controls propose a

solution for addressing ethical challenges from the client's perspective. These findings from this paper will be valuable for discovering enhancements not only to Property and Cleaning services, but also to other disciplines within the FM service sector.

Keywords: facilities management, ethics, client, cleaning services,
property services

Accessibility barriers and sustainable solutions: Case Elgeseter street, Trondheim

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The study aims to identify the accessibility barriers and provide a sustainable solution in a built environment for all users while keeping the heritage value of buildings. The study focuses on the accessibility barriers of Elgeseter street in Trondheim, Norway, which was built in the early twentieth century. The area's accessibility, including the main street and the old buildings beside the street, is difficult for all users. The study covers the main Elgeseter street, including pedestrian lanes, bike lanes, intersections, internal and external environment of the buildings beside the street. The parking spaces in the neighborhood are included in the study. The study was conducted using site observation, and an online survey. The researcher used these methods to identify the accessibility barriers in Elgeseter street and develop user-friendly solutions by engaging all users while keeping the heritage value of the buildings. The results show that the current accessibility of Elgeseter street is riddled with barriers that make it difficult for everyone to use. The main reason for the difficulty in making the street accessible is the less attention given to the area due to diverse viewpoints among decision-makers on how to develop the street, including the old buildings. Regarding sustainability, the future development of the main street and the old buildings should take everyone into account. The study includes sustainable solutions for the current accessibility barriers while keeping the heritage value of the old buildings. Future development should involve all stakeholders to make the street pleasant for everyone. However, this study covers in-depth the involvement of the public. The study demonstrates the accessibility barriers for all users in the built environment, and suggests possible sustainable solutions to the problem while keeping the building's heritage value.

Keywords: accessibility, sustainability, built environment, universal design, Elgeseter area

Promoting the creation of smart work environment in construction sites: proof of concept for smart insole technology for older workers

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Population ageing is one of the most significant demographic and social trends of the 21st century, affecting nearly all the countries in the world. Increasing life expectancy is a remarkable achievement of development and health care. However, it also poses challenges due to the desire for a longer and healthier working life. The work presents the SI-FOOtWORK project testing a technology based on sensors to evaluate ergonomics risks for old workers. The topic of working conditions is important from a practical standpoint and has generated much research works recently. The solution is incorporating sensors and digital technologies that offer support for 50+ blue-colour workers that are exposed to back pain due to their daily work activities. It is a proof of concept of a new digitally-enabled adaptive solution, promoting the creation of a smart work environment for older adults, supporting them to remain actively involved in professional life, increasing awareness of their behaviour and improving safety by reducing back-pain incidents and supporting the facility management in the construction and urban development. The solution focuses on improving the living and working conditions of older adults while strengthening the digital transformation in the workplace. The prototype and preliminary research seek to look at work environment and ageing and the opportunities it presents, bearing on the future direction of a broad range of policies such as those on the construction environment, 50+ employment, work environment, life-long learning and preventative healthcare thus supporting the Silver Economy goals. The use of the SI-FOOtWORK solution brings benefits for various

stakeholders in the society: for the employees (primary users) - better work and health conditions, better monitoring of health and prevention of back pain; for employers - less health-related sick leaves, attractive workplace conditions, increased productivity and healthier employees; for the governments – fewer expenses in healthcare, healthier population, lower unemployment rate.

Keywords: digitalization, digital tools, sensors, smart technologies, smart work environment, health and wellbeing, facility management

NET4Age-Friendly - International interdisciplinary network on smart healthy age-friendly environments

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NET4Age-Friendly, COST Action CA19136 is an international interdisciplinary network working on the promotion of social inclusion, independent living, smart living environments, and active and healthy ageing in society. NET4Age-Friendly has established an international and interdisciplinary network of researchers from all sectors to foster awareness and support the creation and implementation of smart and healthy indoor and outdoor environments for present and future generations aiming toward better health and wellbeing in an age-friendly digital world. The demographic old-age dependency ratio (people aged 65+ in relation to those aged 15-64) is predicted to increase significantly in the EU in the coming decades, from 25% in 2010, up to nearly 52% by 2070 leading in challenging in health and public funding, housing, economy etc. To tackle some of the issues above and to empower older people to actively participate in society, WHO developed and published in 2007 the concept of age-friendly environments, which embeds the concepts of age-friendly buildings, neighbourhoods, cities, and communities (*WHO: Global age-friendly cities*). NET4Age-Friendly builds further on these concepts and also continuous develops of Smart Healthy Age-Friendly Environments (SHAFE) framework. The main approach of NET4Age-Friendly is the establishment of new local and/or regional ecosystems or expanding existing ones in each European COST country involved, to work on the implementation and development of age-friendly environments. The network has now 335 participants from 51 countries worldwide and promotes the creation of ecosystems that consist of citizens, public authorities, SMEs and large industries, NGOs and research/academia.

The methodology of developing and implementing new concepts, methods, and tools and promoting and creating awareness for citizens, public authorities and industries is supported by five thematic Working Groups: i) User-centred inclusive design in age-friendly environments and communities, ii) Integrated health and wellbeing pathways, iii) Digital solutions and large-scale sustainable implementation, iv) SHAFE impact and sustainability: policy development, funding forecast and cost-benefit evaluations. The outcomes of the four thematic Working Groups will be obtained in the work of one dedicated Working Group to create a synergised output as Reference Framework. The overarching goal of the network research is to overcome the fragmentation and critical gaps at both conceptual and pragmatic innovation levels on responsive, age-friendly and sustainable environments in order to address the development of the cities, smart build environment, and social and cultural needs of the population and the research-policy future requirements of Europe. NET4Age-Friendly is used as a connector for involving and hosting regular themed sessions with local and regional stakeholders and users' representatives from various countries and backgrounds and for fostering the knowledge among researchers and promoting the involvement of Early Career Investigators, Inclusiveness Target Countries, public authorities and entrepreneurs.

Keywords: age-friendly living environments, smart living, wellbeing, health

The Need for Well-being and Social Sustainability Assessments

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Our understanding of sustainability requires balancing three major aspects: the environment, the economy, and the social environment. Despite recent trends in the sustainability assessment framework and tools for buildings and neighborhoods to address environmental and economic factors, the concept of social sustainability has received less recognition since social sustainability has been defined as a measure of human welfare that can be varied by context. A significant gap is described in the literature regarding developing a global tool to evaluate social sustainability. Several authors have proposed ways to assess and measure social sustainability in buildings or neighborhoods in different countries. However, hardly any articles have compiled and summarized the research on developing a framework to assess and evaluate social sustainability. As a result, this work aims to look at and sum up the existing literature in this field. This paper is looking to find the place of social sustainability in the current ranking system like LEED and BREEAM and undertakes a scoping review of the neighborhood's social sustainability to address the most important criteria and methods employed to measure social sustainability. Based on the findings, none of the ranking systems takes a holistic approach to social sustainability, and there is a lack of specific assessment in this area. Also, multi-criteria decision-making MCDM are the most used to evaluate neighborhood social sustainability. The study's findings would be valuable to professionals and academicians in developing an approach for evaluating and assessing social sustainability. They would add significant value to the field's body of knowledge.

Ambitions and challenges of re-use of building materials in renovation and refurbishment projects among Norwegian property owners

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Re-use of building materials (BM) in refurbishment and renovation project has a great potential to capture Circular Economy principles (CE). In Norway, there is a growing interest of re-use of BM as well as refurbishing existing building stock to reach national SDG's. However, considerably challenges need to be overcome to reach the SDG's before 2030. To look at today's practise of re-use of building materials among a selection of property owners and to gain knowledge of challenges faced with re-use in refurbishment and renovation projects. We search to answer the following research questions: 1) What are todays practise among property owners with high ambitions for re-use? 2) What are their strategies? and 3) What are the challenges? Literature review of national and international research literature, document study of national and EU policy documents, business strategy documents, semi-structured in-depth interviews of a selection of public and private property owners (11) and relevant actors (10) involved in re-use projects. The property owners have seemingly strong focus on reuse in their renovation projects today, even though in many cases, no specific goals and ambitions are found in the strategy documents. The property owners report that the challenges faced in the projects is lack of competence among contractors, complex design processes in re-use projects as well as access of available materials and products when needed. This is in line with the findings reported in the literature. The competence in the construction sector of re-use mapping, re-design and disassembly contractors are

developing but still immature. The building owner should develop their strategies and set goals to increase re-use of building materials. The property owners suggest the necessity of developing the procurement competence as well as collaboration models in complex re-use projects that requires high involvement of expertise in the early phase and re-use design phase. They also underpin the need of access of materials and storage capacity. Further development of digital platforms for information about type of product, material properties and performance is expected. Also, the change of the regulation, that allow alternative documentation of the performance of the product when this is lacking.

Keywords: re-use, building materials, circular economy, owners, procurement competence

Window view and sustainable development of urban space in relation to social infrastructure

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The share of the urban population worldwide is growing and in the developed world it is already around 80%. Nowadays, due to increased urbanization, there is a high density of large-volume buildings in cities. The buildings are located close together, which limits the access of daylight but also decreases the quality of window views and offer increasingly fewer opportunities for green recreation. The trend of urban densification will continue in the future, as urban areas are also condensing due to sustainable development and limiting the spread of cities outwards. The window view in connection with the social infrastructure can be considered above all in relation to public space (squares, parks) but also art & culture (architecture and heritage), safety (maintenance, adaptation to climate changes), information (view of activities, weather) and other. Very importantly, several studies imply that it affects health and wellbeing. Recently, many studies have found that greenery is a component that is very important. Numerous studies find that looking at nature has similar effect to actually being in nature. Some authors also argue that a close window view of nature positively correlates with life satisfaction. Recent research also shows that not all window views are equally attractive and that when studying the advantages of motifs, their characteristics or message should be considered. The aesthetic value of the elements included in the motif and the composition of the motif are also important in assessing the

window view. When comparing the regenerative potentials of urban motifs such as streets, buildings and industrial areas without greenery and similar environments with greenery, but not in the form of parks or gardens, we see that an urban environment with greenery, in contrast to an urban environment without greenery, offers a much higher rate of regeneration. The study considers how the window view influences or supplements other elements of social infrastructure. A survey was conducted for this purpose. The results show that the respondents reacted very consistently to window views, and responded more positively to views with elements of greenery. This is consistent with a series of previous studies that examined different populations as well as place affinity theory and found similar. However, with green facades, respondents often answered that the facade has become more dynamic. We found that the facade maintenance and compositional quality have a very pronounced influence in window views with facades without greenery. Surface quality is also important. Many examples of window views without greenery, although compositionally interesting and well-maintained, were rated extremely negatively in the survey. This means that despite the interesting architectural approaches, there is still “something missing” in the view.

Turning the wheels of the re-use market, an implementation of a guide for re-use mapping in Norway.

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This article investigates the effects of the implementation of a guide on ordering re-use mapping in Norway. According to EU and the UN, the shift to a circular economy is necessary to reach the climate goals and avoid climate disaster. This applies especially for buildings, which contributes to 36% of the emissions in EU, with a large portion as embodied emissions in new materials and components. In addition, the construction industry stands for a large fraction of the waste production globally. There is in other words no doubt that circular economy and re-use are some of the most important measures for the construction industry to reduce climate change. However, first an assessment of the potential for re-use in the existing buildings needs to be done to re-use, and for the assessment one need to contract a consultant. In 2021 the re-use market in Norway was relatively new, and due to the lack of competence and a market with clutters, the Norwegian Green Building Council (NGBC) and the Public Building Developer, Statsbygg, decided to develop a guide on how to order a re-use mapping. This article looks at how the guide has affected the market, and more precisely addresses the following question: has the implementation of the guide led to increased competence in ordering re-use mapping and an increased “common language” around re-use in the industry? The goals are specifically set by NGBC and Statsbygg in conjunction with the implementation of the guide. The method used to answer the research question is semi-structured interviews with both consultants and procurers of re-use mapping, combined with a literature review to get an overview of the barriers and incentives for re-use in the market. The findings show that those who ordered re-use mapping and used

the guide have increased their competence in ordering and communicating with the consultants. The consultants confirm that the guide has led to better communication, and a shift towards a common language. However, there are some obstacles that are not met by the guide. This article therefore suggests some improvements to the guide to further increase the competence in the market, as well as some suggestions for the government to reduce the barriers in the market.

Keywords: re-use, mapping, communication

The significance and illusion of design in the prevalent value system of urban planning

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The paper deals with the relations between architectural theory and urban planning theory. The paper is based on the underpinning value system of contemporary urban planning, with reference to global values, as stated in the Habitat III agenda and the Sustainable development goals. Most theoreticians, coming from architectural or design backgrounds, often superimpose »beauty or the three-dimensional object«, akin to urban planning theories of the 19th century or social engineering, akin to the 20th, to the rationality, public interest, costs of public investment, needed to support a project or programme, environmental considerations and other criteria of urban management of the 21st century. Even many well-respected theoreticians often claim, that the theory of urbanism is equal to the theory of architecture. The paper claims the opposite, mainly that contemporary urban planning theory should encompass the material nature of architecture but also the social dimension of urbanism. Interesting enough, even ancient texts, when carefully read, disclose that the big picture of physical development should be in the forefront of public interest and detailed articulation and materialisation of the physical reality can follow in the second step. The paper also debates standing documents of the European Union and Republic of Slovenia with regard to the legal nature of architecture and planning, with close reference to regulation of licenced professions.

Keywords: urban planning, architecture, urban management, Habitat

III

Competences for the development of future settlements

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The combined challenges of war, epidemics, food and energy security, and climate change require new skills and competences for the people shaping future settlements. An expert system, RESPO, has been developed for systematic monitoring and improvement of these competences to support decision-making in the selection of educational programs. The RESPO system collects information on the required competences and available training programs. Individual learners track their progress using the RESPO application, which recommends the best sequence of dynamic education and training programs to achieve the required target competences. Preliminary results and recommendations for applications in future settlement design are presented.

Keywords: competences, expert system, future settlements

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New models of architecture in the real estate market

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The real estate market transforms the built environment radically in past two decades. Therefore architectural practice as well try to respond by attempts of establish contemporary paradigms of objective reality which used to be determine by specific functional typologies and standards in the past period of socialist modernism in Macedonia. Under the influence of socio-economic, cultural, political and market proprietary changes today, the emerging architectural mixed use or hybrid typologies are evidence of transformations, and need to be research as phenomenology of build space. The problem area of this research is redefinition the role of architectural practice in commercial real estate market where building is product that is used specifically for real estate business or income-generating purpose. In order to respond to global and regional economical development of real estate market today and create more community oriented sustainability of buildings today, it's very important to define the particular program to meet the needs of future users of buildings. Through research of recently emerging architectural concepts of hybrid/mix-used buildings, the purpose of this paper is to recognise model of integration through program and determine the factors that have a decisive influence on real estate buyers and also have the potential to provide rental income as well as capital appreciation for investors. The research is focused

on public mix-used buildings with disparate program contents and program integrated hybrid models, as case studies. Research process will investigate and observe the flows in the commercial real estate market in order to quantify the program. Through statistical methods of particular stakeholders, this research will recognize a models for sustainable economy of build environment. The expected results of the research will determine the economy and social factors that triggers transformative processes from existing toward new models of architectural typologies. The assumption that mix-used/hybrid models gives the possibilities for sustainable market economy, this research re-presents architecture as contemporary paradigms of build environment. The unifying character of mix used and hybrid buildings are ready to accommodate planned and unplanned activities in the city. The hybrid scheme proposes environments that mix already known typologies and create allies that improve existent conditions.

Keywords: hybrid models, transformative typologies, public buildings, architectural concepts, commercial real estate, contemporary paradigm

Access to social infrastructure in new privately developed neighbourhoods: Case of Kosovo

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Access to social infrastructure is a precondition to developing human capital and ensuring the quality of life. This paper considers the development of social infrastructure in new neighbourhoods in Kosovo. Social infrastructure development is based on spatial development legislation and national, regional and municipal spatial development plans. Internal regulations within the neighbourhood detail them. As part of great importance in the context of residents' satisfaction are urban design and access to green spaces, general and specialist medical services, kindergartens, primary and secondary schools, catering shops, neighbourhood safety, social facilities for older adults, public transport, etc. The main question is what the demands of inhabitants in new settlements are and how they are satisfied with access to the social infrastructure in Kosovo. The first phase of this research was conducted in which 36 inhabitants participated who bought a housing unit recently. They answered the questions about their satisfaction with the social infrastructure. After statistical processing of their answers, we confirmed the hypothesis that residents are satisfied with the economic infrastructure but not with the social infrastructure. We looked for the reasons for this in unregulated legislation. New private neighbourhoods do not have acceptable accessibility to public medical services, public kindergartens and primary schools, public transportation and other social infrastructure, while all have been assumed to exist in the new settlements.

Facility Management's contribution to creation of Positive Energy Districts: Efforts to improve awareness about the profession

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The energy transition target has moved from the scale of buildings towards district levels, creating new concept of Positive Energy Districts (PEDs) on the agenda of the European Commission. Scholars have convincingly argued that the collaboration and early engagement of key technical and non-technical stakeholders who feel ownership can contribute to successful co-creation strategies throughout integrated design and implementation phases. Facility Management (FM) scholars and practitioners claim that they can be enabler and implementer of sustainable urban ecosystem if they can be involved in the planning and decision-making processes, being able to communicate and enlarge their role and impact. Due to their day-to-day interactions with variety of stakeholders, including citizens, they can play a central role in urban governance networks. However, to date there are still people who don't really appreciate and to certain extent are misguided on the roles and responsibility of FM. Facility Management has gained a foothold as a discipline and profession within the property and construction industry. Today, its contribution is expanding from real estate management and building maintenance to include people, knowledge, process, governance, well-being etc. Therefore, its popularity is on a steady upward trend. Different governance actors locally and globally may have their own definition of FM, which creates complexity and disagreement about its objectives,

scope, potential impact and role. Every country has its own culture, type of organization and leadership resulting in different levels of FM at different stages of development. This paper is based on the results of the research, in which seven interconnected challenges for implementing PEDs are identified. The paper tries to understand how FM can contribute to solving any of these challenges that are as highest to the lowest as the following: governance, incentive, social, process, market, technology and context.

Keywords: facility management, positive energy districts, challenges, sustainability, role, governance

Land use of transport infrastructure in the Republic of Slovenia

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This article describes land use set-up and its assessment in the area of state roads in the Republic of Slovenia. The first record of the land use of infrastructure date back to around the year 2000, when the modernization of national spatial and real property registers started. The Ministry of Infrastructure initiated land use data capture under the state road, railway and municipal road infrastructure. Presented here are the history and notions of the land use of transport infrastructure and the implementation of the land use setup of state roads, and also, the final results, with an assessment complementing the data of the land cadastre, nowadays part of the unified real property cadastre. The main research questions is related to the adequacy of the land cadastre data used for capturing the land use of the transport infrastructure of state roads. It explores the issue of recording the land use of state roads in relation to the share of high accuracy land cadastre on state roads. The distribution and quality of cadastral parcels under the state roads in the land cadastre relates to the land use recording quality. In the last few years, the national Surveying and Mapping Authority has implemented a nationwide campaign on land cadastre location improvement, which has also resulted in improved locations of cadastral parcels under the state roads. This has contributed to time savings, and to a higher accuracy of recorded land use. The overall result of the analysis confirmed a sufficiently updated accuracy of cadastral parcels under the state roads, due to the executed location improvements. Another research question is related to the investigation of the mismatch between the actual state of the infrastructure in the field, and the status of the public infrastructure recorded in the state spatial records and land cadastre. The registered

land use and areas of mismatch between the actual state of roads and spatial records were compared, primarily with the consolidated cadastre of public infrastructure. Almost 99 % of spatial records matched successfully with the real locations of the infrastructure in the field. This has confirmed that the results do not represent higher risks to the integrity of the recorded land use of the state roads.

Keywords: land cadastre, land use, Slovenia, state road network,
traffic infrastructure

Blockchain and digitization impacting on real estate

Jan Veuger

Disruption in society and real estate - which are clearly carrying features of this era - and the user are going to impact real estate Veuger (2020b). Disruptive real estate organizations are clearly responding to agility in the built environment and are therefore determining the *raison d'être* of real estate organizations. This also affects the current and future financial and functional valuation of real estate. The added value of the potential applications of digitization of real estate processes is reflected in agility, more effective and efficient transactions, increasing transparency and a better basis for investments. This will develop into greater confidence in fundamental components of the real estate economy. Looking at the influence of digitization on real estate, we could already draw a number of conclusions in 2018 (Veuger 2018): (1) a proven practice is starting to emerge between, for example, Blockchain and real estate, (2) it is expected to develop further in the form of recording transaction processes and a DNA passport of a real estate object and (3) completeness and transparency are the basic ingredients for trust in the system if real estate is to remain agile. In addition, research on Blockchain and real estate has exploded in 2018 (Veuger 2019a and b). To follow up on the aforementioned studies, offensive (digital) behavior of real estate and management is necessary to match the societal demand. Digital behavior also leads to new revenue models of the social and economic spin-off of disruptive real estate such as crowdfunding on Blockchain, for example. If the Dutch real estate sector embraces Blockchain, among other things, and manages to realize innovations, there are opportunities to convert the disruptive nature into new services. The World Economic Forum is also focusing on this with its Blockchain Deployment Toolkit (BDT). But what are further recent developments on digitization and real estate that are of interest? In the research Blockchain for a sustainable building sector

started (Veuger 2020a). In it, the project partners are investigating whether they can develop a secure and reliable building passport that contributes to a more climate-resistant, sustainable, healthier and safer Netherlands. A building passport (Veuger 2020a) in which the various chain partners in the construction industry can share information with each other will result in less material being wasted, allowing for more sustainable construction. They saw that within the real estate sector a building passport is not yet being used across borders. Through Blockchain, we can capture integral data that is irrefutable and therefore build more sustainably but also better modularly because data is irrefutable without privacy data being visible. First results are expected after summer 2020. The built environment and agile buildings will always play an important role in our society. But one question is whether we actually know enough about the buildings in which we live and work and about which all information is available. The Foundation for International Blockchain and Real Estate Expertise (FIBREE) is currently working on the research Unique Object Identifier (UOI). This UOI system serves as a key to access interoperable databases with dynamic information about new and existing buildings and their built environment. With it, it is possible to look more closely at specific information about an object and all its details based on an assigned role and access rights as, for example, when purchasing a home. But can we properly handle extremely large amounts of real estate data? Is artificial intelligence a solution to extremely large amounts of data? Artificial intelligence through algorithmization will increasingly play a role in the decision making of real estate organizations. Harari (2017) already stated that the world could submit to dataism, a data belief that every human action is a matter of the right algorithms and sufficient data processing capacity. Internationally, there are currently limited studies on the influence of algorithms on society and in particular the real estate economy. Another example of the great influence of algorithms is, for example, the algorithm Coin developed by JP Morgan. This is a software program that can read through thousands of contracts in seconds and provide them with an opinion, thus saving 300,000 man hours of ordinary lawyers (Stolze, 2017). It is good to realize that algorithms outsource (thinking) processes and

decisions. A combination of hard and soft factors on which trade-offs are made cannot be done by this artificial intelligence. The question is whether we are using big-data models correctly and not unintentionally letting them lead to inequality and discrimination. That technology develops faster than the adaptability of people is also not new: the parachute was only invented after the first airplane flew. Ethics for individuals and organizations remain important for the proper assessment and use of real estate data (RICS 2007a and 2007b), because we are producing an extreme amount of data that is increasingly difficult to secure (Veuger and Spithoven 2022), but also increasingly difficult to organize, archive and keep accessible. But we do have one certainty: that digitization is going to have a very big influence on social development, real estate processes and with it the real estate economy and the sustainable built environment. The way in which blockchain and real estate will develop in the coming years are not the only obvious. The true meaning of the blockchain technology for real estate still needs to be investigated. I am still curious to understand and clarify the value of Blockchain for real estate processes. Doubt continues to exist and is therefore a feeding ground for further research, because we do not know what we have not seen.

Acquisition of real estate by elderly foreigners in Turkey

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The phenomenon of migration is on the agenda of the humankind throughout the history. Displacement movements have evolved over time from individual mobility to mass movements. The causes of increase on transnational migration may be economic, cultural, social in addition to driving forces of technological developments and the effect of globalization as of the 21st century nonetheless particular consequences occur both in countries that receive immigration and in countries of emigration. When it comes to Turkey, it is seen that the country has become both a transit country due to its geopolitical position and a host for incoming migration movements. The term “foreigner” can be explained as person who is not bound to a state by citizenship in the most basic sense and fundamentally defined as “a person who does not have the nationality of the country in which he/she is located” under the regulations in Turkey. On the other side, people over the age of 65 in Turkey are defined as the “elderly population” by Turkish Statistical Institute, as well as several international organizations. In this study, foreigner people in Turkey, aged 65 and over were accepted as the sample subject and real estate acquisition processes of them were examined in the context of legal regulations thereafter the discussion of international migration mobility issues. The size of the immigration to Turkey between 2015 and 2019, the share of the elderly population in the incoming immigration population and the real estate acquisition processes of the elderly real persons were examined within the framework of legal regulations and secondary data obtained from General Directorate of Land Registry and Cadastre of the Ministry of Environment and Urban Planning and Turkish Statistical

Institute. It is noteworthy that the real estate acquisition by elderly foreigners is mostly on tourism routes. Therefore, it can be said that tourism and investment opportunities play an important role on decision-making period by foreigners, as well as the climate, nature, cultural and historical structure of the country. In this context, Turkey is considered as an important potential country to attract foreign economic resources by means of real estate acquisition.

Methodological approaches to research on the “dark side” of the AEC industry

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Research on the AEC industry is riddled with delicate fields of investigation. This is particularly true with themes placed under the umbrella term “dark side”, that is, practices that are either unethical, criminal or both. This paper presents a reflection on the suitability of methods for investigating such themes. The ambition is to show the implications of industry structures on the suitability of methodological approaches found in the literature. Key aspects discussed are procedures of literature reviews, document studies, and interviews. The main research approach is a review of the literature with the ambition to identify the most used methods within the field. This review of literature is enriched with the authors’ experiences from publishing in scientific journals and peer-reviewed conferences. An attempt to identify potential best practices adapted to the challenges observed constitutes the core of the subject matter. The literature review revealed that little systematic effort has been put into the guidance of practical research on the “dark side” in the AEC industry from an industry structure perspective. General methodological debates are often at a level of abstraction that renders them inaccessible or uninteresting to the researchers. It seems that there are discrepancies between the typical object of research and the adequate research methods. Practical experiences from the use of research approaches are laid out. There is a need for a broad reflection within the different research communities concerning best practices for research methods for construction management in general, and all subjects on the “dark side” in particular.

Keywords: crime, ethics, research methods, qualitative research

Policies and Co-creation: Citizen's empowerment to increase the cooperation rate for future smart, sustainable, healthy cities

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While co-creation could have a considerable impact on the move toward enhancement in future well-being and sustainability through citizens, there are questions about the openness of the public sector and their willingness to invest in methods related to the co-creation of citizens. Co-creation and policies related to future sustainable and healthy cities are two tangible strategies that affect each other. In this study, the focus will be on finding the viewpoints of public sectors on the methods that will increase the amount of citizen cooperation and make it realistic and functional. The aim is to look at what in the present time could be considered high importance factors in co-creation enhancement based on the investors and finding commonalities between public sectors with citizens to enhance public-private-people partnership. This study will use a mixed-method approach. A literature review will be conducted to determine the main concepts and high-importance factors affecting the co-creation results and enhancement. The second method will be a quantitative study to study the rate of factors and to determine the high important ones. The study can define factors that need more investment to achieve a holistic approach and to find the common point between the public and private sectors. The commonalities between policies and possibilities for enhancement co-creation by citizens could define which factors require new policies and which factors will lead to expansion and further investments in order to expand people's cooperation. It is suggested to consider this approach for three main cities and compared the result of different country zones.

The result of this study can be expanded to facility managers, urban designers, economists, social scientists, architects, and companies related to urban renovation and development.

Keywords: public sector, co-creation, citizen empowerment, sustainable city, urban health

Methods to investigate city planners' opinions about future sustainable, healthy, and happy cities

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Expert opinions about future facility management and urban design as the connection point between public and private sectors are considered vital. Knowing the future designers' and architects' views help to change or enhance the curriculum or provide materials. To understand the experts' viewpoints about the future built environments, we approached seventeen experts by two methods. The first method was questioned in the structure of interview about the present city conditions and then asking about the future and what is the significant factor for future city planners. The second method was to sketch a future city planning on a printed city street for the next five years. This study shows that the method experts want to express their views affect the interest rate of high-impact factors. The degree of importance of the factors took different rates depending on the interview and the sketch process. Several factors were considered significant during the interview like meeting spot, nature, light, different zones, art and design, people, and senses. Besides these factors, the analysis of the sketches shows that two other factors were repetitive and had a considerable contribution to the sketches that were the party section for happiness, and shelters to protect from the rain and to be outside during the winter with a 29.4% interest rate. The result showed a significant interest rate in some factors. Nature with 88.2%, meeting spot with 64.7%, different zones with 58.8%, and environmental senses with 58.8% had the highest rate to be considered for future

urban facility management. The result of this paper could be beneficial to investigations related to the environment and management of facilities, which are related to various environmental factors such as nature, zoning, and communication spots. Using different methods to examine the data will lead to a more reliable result. It could be applicable to different fields of study such as facility management, urban planning, and architecture.

Keywords: city planning, facility management, living environment,
research methods, urban planning

Age-friendly environment in Prishtina- a study report based on needs and satisfaction of population aged 65 +

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Population aged 65+ has doubled in the period of 30 years in Kosovo. A solid number of this population has migrated from rural to urban areas. An increase of building, especially residential buildings has taken place all over the country. This indicates that population aged 65+ ended up living in residential apartments, in completely different lifestyle they used to live in rural areas. Although considered the city with the biggest expansion with building developments, the city of Prishtina has a lot of development to do when it comes to meeting the needs and preferences of elderly people. This paper will try to measure the satisfaction of third age people with outdoor spaces and buildings in Prishtina, focusing only on spaces that are mostly frequented by this age-group. For this purpose, a questionnaire with local people will be carried out and it will be compiled with questions based on features from the WHO Guide on Age-Friendly cities, focusing only on Outdoor Spaces and Buildings component. Based on the literature review and the results from the questionnaire, it will be possible to have the overview of best practices for this age-group in other countries, while the results from the questionnaire will show us where our city stands in this aspect.

The quest for placetinations along the main street in Belgrade

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Based on the principles of pedestrian-oriented design and the need to make supportive environment for walking and relying on the placemaking approach the purpose of this paper is to present a new concept of “placestination” in order to understand and explain broader meaning of open public spaces through the prism of their usability, quality, and uniqueness. In line with this new perspective, the open public space is not seen only as a space which is passed through, but a destination to explore and enjoy, i.e., as a space that allow visitors to engage with the place in more than one capacity: sitting, playing, bicycling, eating, shopping, socializing, or other activities. Such a treatment of open public spaces could result in the creation of places which stimulate happiness and improve quality of life as well as leading its users to form place attachment to these destinations. The potential of this research also lies in the fact that the new concept is scalable and can contribute to developing methods for evaluating urban open spaces on different scales. This research has covered the open public spaces along the Kralja Milana Street, which can also be characterized as the main street in Belgrade. By using a Scoreline framework for evaluation of the open public space quality, the aim is to determine the potential and constraints of individual locations along the street in order to create destinations from them.

Quality of living in the housing estates in Slovenia: Preliminary analysis of survey results

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Housing estates, built mostly of prefabricated building materials and intended as high-density urban settlements, are found in almost every major city in the world. In Europe, the construction of large housing estates particularly intensified in response to the housing shortage resulting from the destruction of World War II. The industrial production of standard building units provided a relatively quick, inexpensive, and fairly efficient way of providing the large quantities of housing required to meet the needs of the rapidly growing urban population. But whereas large housing estates account for only 3–7 percent of the total housing stock in western European countries, this type of housing generally represents 20–40 percent of total housing stock in central and eastern European countries. In western Europe the construction of such mass housing complexes stopped much earlier than in eastern and central Europe, where the construction of these housing estates continued until the late 1980s. This was also the case in Slovenia, which at that time was part of the Socialist Federal Republic of Yugoslavia. These construction ended only after the collapse of Yugoslavia and the introduction of a new sociopolitical and economic system. However, the transition from the former socialist system to a market economy brought about a number of new issues, including changes in housing policy. Among the many changes to housing policy is one that should be highlighted for its relevance to the proposed research project: the abolition of the state's previous role in providing mass housing. This measure actually meant that the construction of large housing estates

ended. Instead, new typologies of collective housing construction began to emerge, mainly characterized by lower apartment buildings with fewer housing units. The key difference is that collective housing estates built after the transition to a market economy are comparatively smaller, both in terms of space and population. There are also many examples of new developments in which smaller multiunit buildings were built as individual detached buildings and are not part of a large housing estate. All this means that after the transition from a socialist to a market economy, the term housing estate describes a completely different form of housing compared to that of the period before the change of sociopolitical or economic system; that is, the socialist period. In this paper we proceed from the hypothesis that the changed social circumstances that characterize the post-socialist period have brought the residents new expectations regarding quality of living, which (may) consequently mean that housing estates from the socialist period have become less attractive to live in, because the residents have higher expectations or demands for a better housing standard and better quality of the residential environment due to changed values with regard to quality of living in housing estates. This hypothesis is based on treating housing as a good with physical and substantive characteristics, which are important indicators of its useful value or key indicators for measuring any changes in residents' social values, which are reflected in their comprehension, perception, and needs regarding quality of living. The data on residents' perceptions and needs regarding the quality of living in socialist-era and post-socialist housing estates built in Slovenia are obtained from a survey conducted in June 2022. This is therefore the first publication of the survey results, their analysis and interpretation.

Keywords: quality of living, housing estates, socialist era, post-socialist era, perceptions

Evaluation of Application Opportunities of Metaverse in the Real Estate Market in the Developing World

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Metaverse is a trending platform for human interactions and virtual activities. As it continues to be tested on how wide the range of applications it can host and how much of the real world it can integrate, it is clear that Metaverse has much more to go before it covers one of the biggest parts of human life and activity, real estate. Accordingly, there is a need to discuss the inclusion of Metaverse within the scope of PropTech (real estate technologies). In this study, the relations between the Metaverse and the real estate market are examined from the real estate perspective. In Metaverse, it is aimed to clarify whether the real estate market can be associated with the real-life real estate market in any way, or in which ways it can be connected, thus investigating the intersection aspects of Metaverse with PropTech. In the study, literature review and analysis of current applications were made, and the relationship between PropTech and Metaverse and the real estate market was discussed in terms of economy and Turkish legislation. In this direction, a questionnaire was applied to real estate consultants-agents-realtors operating in Turkey in order to evaluate the current and potential effects on the real estate market. With the survey study; Awareness of PropTech and Metaverse concepts, their use in current applications (adopting), willingness to use and expectations for the future of these concepts in Turkey were evaluated by real estate consultants-agents-realtors. As a result of the study, it is understood that real estate consultants-agents-realtors in Turkey use propTech applications in their activities in relation to their institutional level and

portfolio size. However, when the awareness and adoption levels of Metaverse and its future expectations are compared with the possible future scenarios revealed by scientific research and predictions, it has been understood that it needs improvement. Another finding is that the real estate in Metaverse does not qualify as real estate according to Turkish legislation.

The Need for Institutionalization of Asset Management Companies and Real Estate Asset Management Businesses in Turkey

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The management of movable, immovable, and intangible assets of public and private enterprises and even households is of special importance in today's conditions where risks and uncertainties are widespread. Asset management activities include the acquisition, use, maintenance, operation and disposal of assets. In recent years, it has been observed that public institutions, especially financial institutions, and private enterprises have a significant amount of real estate, but they have not been able to realize corporate real estate management practices and structuring. In fact, it is known that many public institutions do not have an inventory of real estate assets, the current values and use cases of assets cannot be monitored, and naturally, the existing real estate assets are not integrated into the economy. It is observed that there are asset management businesses in Turkey that only provide limited services to financial institutions. The needs of real and private law legal entities for asset management businesses are tried to be met by individuals and institutions that are not experts in this field, and the results of the studies are clearly unsatisfactory. Under the provisions of the Banking Law No. 5411 dated 2005, banks should be able to collect their loans and receivables in the follow-up process either through an agreement with the debtor or through foreclosure according to the provisions of the Enforcement and

Bankruptcy Law No. 2004. The inability to collect bank loans and other receivables adversely affects the balance sheets of banks, and the transaction costs of banks increase as the collection period of such receivables is prolonged. In such cases, it has been identified that banks transfer their receivables with low or no collection ability to Asset Management Companies through tenders, and these companies offer various services such as taking over receivables, follow-up of receivables, restructuring and consulting services to debtor companies, and fulfilling the functions of management and development of the taken over assets. 21 Asset Management Companies, which started their operations with the permission of the Banking Regulation and Supervision Agency, are required to examine the current and fixed assets of debtors and focus on the collection of receivables. However, it is noteworthy that it is a necessity for wealth management companies to employ experts in the real estate markets to be successful, as debtors generally tend to avoid follow-up by transferring their assets to trusted others before they are followed up. In addition, it is observed that debtors need consultancy, corporate asset management and debt restructuring services from asset management companies before they are followed up. In conclusion, it should be emphasized that asset management in public and private institutions, and especially real estate asset management, should be restructured and asset management expertise should be defined.

Keywords: asset management, indebtedness and non-performing loans, asset management businesses, real estate asset management and asset management specialization

The Influence of Covid-19 Pandemic on Resilience of Turkish Real Estate Markets

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Real estate markets have been influenced by the emergency of the Covid-19 pandemic and therefore, this study aims to examine the resilience of Turkish real estate price indices. To investigate this, monthly Turkish residential real estate price indices from 2010 January to July 2022 are used. The data was later subdivided into prior to and during the Covid-19 pandemic periods. The study focuses on the Turkish residential real estate price index (as benchmark price index) and residential price index at the state level which comprises Ankara residential real estate price index, Istanbul residential real estate price index, and Izmir residential real estate price index. This study focuses on three states in Turkey because those states are the most populated provinces in Turkey as of 2019; Istanbul with a population of 15.52 million, Ankara with a population of 5.64 million, and Izmir with a population of 4.37 million as those states collectively have 25.53 million population and the population growth rates of three provinces is around 1%. This study used Johansen cointegration, vector autoregressive (VAR) models, and granger causality to investigate the influence of the Covid-19 pandemic on long-run and causality relationships among Turkish residential real estate price indices. The findings reveal the existence long-run relationship between the Turkish benchmark price index and residential price indices at the state level as well as among

different dwelling price indices. There is statistically significant evidence that speed of adjustment due to deviation in the short-run as a result of shocks is struggling to establish a long-run relationship among Turkish residential real estate in a pre-Covid-19 pandemic. However, during the Covid-19 pandemic, only Istanbul residential price index shows statistically significant evidence of the short-run speed of adjustment toward the long-run relationship among Turkish residential real estate price indices. Similarly, there is evidence of a unidirectional and bidirectional granger causality relationship among Turkish residential real estate price indices. These findings established that Turkish residential real estate indices are influenced by the Covid-19 pandemic. As a result, this study suggests that there may be a need for authority intervention if the impact of the shocks persists and residential price indices are unable to establish a faster speed of adjustment during the post-pandemic period. The limitation of this study is that it focuses on Turkish three residential price indices but the limitation does not negatively affect the study in predicting the influence of the Covid-19 pandemic on Turkish real estate price indices as those states constitute substantially populated provinces in Turkey.

Keywords: Turkish residential real estate markets, residential price indices, cointegration, VAR Models, speed of adjustment, impulse response functions, granger causality, pre-and during Covid-19 pandemic.

Financing of Real Estate Projects with Sale and Leaseback Method and Evaluation of Practices in Turkey

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Due to the developments in the financial markets, financing methods of real estate projects and investments are being diversified and as a result of the increase in the market depth, financial leasing is also being utilized in addition to the traditional financing methods. In many areas, methods such as financial leasing, operational leasing, sale and leaseback are preferred. The sale and lease back method attracts attention as an Islamic financing model in financing of commercial real estate investments and housing acquisition. The sale and lease back method, which is widely used in many countries, has been put into practice in Turkey with the Financial Leasing, Factoring, Financing and Savings Financing Companies Law dated 2012 and numbered 6361. The basis of this method is that a business in cash shortage sells its own property to a leasing company in order to improve its financial situation and continues to use the same property with a lease agreement. The sale and lease back method differs from other types of leasing in that it is mostly carried out on a medium and long-term basis, eliminating the risks related to ownership, facilitating the leasing of assets with high economic value, and making a positive contribution to liquidity. The legal, economic and technical aspects of financial leasing in the Turkish real estate sector were examined and the development of financing real estate investments through financial leasing was evaluated in the study. In particular, the effect of the sale and lease back method on real estate investments, increasing the efficiency of this method in financing real estate projects and evaluating

its implementations are evaluated within the framework of both general and selected practical examples. As a result, the financing and payment facilities provided by the use of the sale and leaseback method in the financing of real estate projects, which have an important place in the fixed capital investments of the enterprises, as well as related tax advantages, advantages of using real estate without owning property and the effect of valuation in these transactions are evaluated within the framework of a sample project. According to the results of the research, the share of financial leasing in total fixed investments in Turkey in the 1998-2020 period was around 4%, excluding 2007, and it was 1.85% in 2020. The share of sale and lease back method in financial leasing has varied in the band of 20 to 30 percent. It is observed that the share of residential and commercial immovables in the sale and lease back transaction volume of the real estate sector is high, while the share of industrial, agricultural and social immovables remains at low levels. Subjecting real estates that are necessary for the activities of industrial and commercial enterprises and that require high investment to the sale and lease back method contributes to minimizing the fixed capital costs that an enterprise must bear and increasing the profitability of that enterprise by using the sales revenue obtained in the financing of working capital and new investments. In addition, it has been identified that low and middle income persons can easily acquire housing by financing residential real estates with this method.

Keywords: real estate market, financing of real estate investments, financial leasing, sale and leaseback and real estate investments, Turkey

An Evaluation of Management of Office Buildings, Rental Incomes and Occupancy Rates and Their Effects: The Case of Office Buildings Market in Ankara Province

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With the altering usage conditions and advancing technologies, changes in office use become inevitable and it is observed that office usage habits have been changing, especially due to the COVID-19 pandemic. The widespread use of flexible working methods such as remote working and online meetings has an impact on the frequency of use, the size of the required space and the usage capacity of offices. Changing working conditions and usage habits are expected to reduce the frequency of use of offices, which is expected to result in an increase in the vacancy rates in office structures, a decrease in operating incomes and investment values, and a slowdown in the development of new office projects. At the same time, it is inevitable to change spatial usage decisions in office projects that are yet to be produced and there is a requirement to focus on the production of technology-intensive offices in new projects and the transformation of existing offices in line with new trends as much as possible and their integration with technology. In this study, the current situation of office buildings in Ankara, the change in rent and vacancy rates in office buildings and their effects were analyzed and the changes in the preferences of office users and their spatial use decisions, especially in the post-COVID19 epidemic period, were evaluated based on the findings of field studies. It is observed that there are changes in the

user and investor tendencies related to offices, and that there are important economic and spatial consequences of vacancies and thus income losses in the office structures in line with the investor trends, and it is inevitable that there will be changes in the development, design and management of office projects depending on user demands. Based on the results of the research, a situation analysis was made regarding the spatial characteristics and management models for existing and new office projects; long-term effects of the change in usage habits in new office projects and the analysis of the change in the use, income and value of office structures to be designed according to new trends were made; and in addition to the management of office buildings, especially the consumption of energy, water and other materials and the change in operating costs are identified. According to the results of the field study conducted in Ankara, it has been evaluated that the radical change in office investments at local, regional and national levels can directly affect investors, users and managers, and that the findings obtained can guide office investors and developers.

Keywords: office structures, spatial analyses and office designs, technology-intensive offices, usage habits, office management and users' satisfaction.

Real Estate Acquisition and Management in Municipalities: The Case of Ankara Metropolitan Municipality

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In Turkey, local administrations are public legal entities, the foundation principles of which are specified by law and the governing bodies are elected in order to meet the local common needs of the people of the province, municipality or village in accordance with Article 127 of the Constitution. For the fulfillment of municipal services, the acquisition of movable assets and real estate using financial resources is imperative. Municipalities can acquire real estate through various ways such as zoning implementation, expropriation, purchase, transfer, allocation, donation, consolidation, construction in return for flat or land, build-operate-transfer, restore-operate and transfer. There are deficiencies in the legal regulations regarding the acquisition, use and disposal of real estate in municipalities, exacerbated by the problems associated with lack of awareness of the mandatory provisions of the legislation and their implementation at local levels. In addition, municipalities do not have reliable real estate inventory records and it is observed that there are deficiencies in registration mechanisms as well. Due to these reasons, real estate and asset management in municipalities does not fully work, and as a result, problems such as inadequacy for institutional development of municipalities and weak financial structure are encountered. Since the income sources of the municipalities are not sufficient, the sale of existing real estates is generally preferred to increase revenues. However, the use of methods such as establishing

right of easement (particularly superstructure or construction rights), leasing, public-private cooperation, foreign grant and foreign credits remains limited. The concepts of real estate and asset management are gaining importance in public and private institutions, and corporate real estate management models are being developed. However, it is observed that the real estate and asset management structures in many public institutions, especially in municipalities, in Turkey have not been fully functional so far. In this study, the subject of real estate and asset management in municipalities was first discussed in general and then, the current situation and problems of real estate assets and real estate management of Ankara Metropolitan Municipality were analyzed. The inventory of real estates under the ownership and management of Ankara Metropolitan Municipality and the structure of the real estate information system were examined, and in this framework, the acquisition, qualifications, share status, zoning and usage conditions of the real estates of the Municipality, as well as their possibilities for development, were evaluated. Based on the administrative records of the Real Estate and Expropriation Department and other relevant units of the municipality and the results of face-to-face interviews with the employees, real estate acquisition, holding and disposal transactions and problems were examined and solution proposals for the problems experienced in this area were presented with a participatory approach. Problems such as the lack of dynamic real estate inventory and information systems, the inability to establish the ownership-acquisition method-zoning-use-actual situation relationship, the inadequacy of human resources and lack of corporate real estate management models do not allow successful real estate management in municipalities. Based the results of the examination, the need for a real estate and asset management system and a corporate real estate management model has been established.

Keywords: Real estate acquisition in municipalities, real estate management, real estate information system, asset management and Ankara Metropolitan Municipality.

Analysis of Access to Housing and Policy Recommendations during and in the aftermath of the Pandemic Period in Turkey

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The right to housing is one of the most fundamental rights, and it is one of the most important issues to be addressed by nationwide policies. The concepts of social housing and affordable housing have started to come to the fore in almost every country, especially after the Covid 19 pandemic, due to the economic recession, increase in inflation rates, and other factors. The high inflation experienced in Turkey in the last two years, increase in construction costs, increased uncertainties about the future and negative expectations have all led to a decrease in the number of new project development and construction permits, and as a result, the supply of new housing decreased significantly. With new homes produced each year, the number of houses is increasing, but the number of people living in the households is decreasing, and also the rate of home ownership is decreasing, and the rental housing users and the rental market are growing. Due to the fact that real estate, as an investment tool, has a higher long-term return and lower risk compared to other individual investment instruments, the demand for investment properties increases during periods of economic recession. In addition to this, increasing immigration, especially in big cities, domestic problems experienced in families who are enclosed in their homes due to the pandemic, and the decrease in the average household size have also increased the demand for housing.

Economic and demographic trends, pandemic conditions and health risks all cause changes in housing demand and use. Analysis of variables such as household demand for housing, housing prices and household income levels, and analysis of housing affordability are of particular importance for the development of low-cost and affordable housing policies. The objective of this study is to comparatively examine the problem of affordable housing acquisition or access to housing, which can be defined as the ability of individuals to own housing with appropriate financial models and favorable repayment conditions, while maintaining their welfare level, by analyzing and evaluating the macro data of recent years. On this end, data regarding the two-year period between June 2020 and June 2022 in Turkey were analyzed using descriptive statistics, and indicators such as the relationship between housing price increases/household income increases as well as the share of social and accessible housing numbers in the total housing supply were evaluated and the results were presented comparatively. The results of the research clearly establish that the low- and middle-income households in Turkey have been encountering even greater difficulties in accessing affordable housing, and there is a need for medium to long-term policies and new financial models, especially for social housing production.

Keywords: housing investment, housing prices, household access to housing, affordable housing and housing acquisition and use policies.

Joint Use of Agricultural Lands and an Evaluation of Group Farming Practices in Turkey

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In many countries, the decrease in agricultural lands per household due to population pressure and the decrease in the productivity of and income generated by fragmented lands cause a global food crisis and jeopardize food security. Reasons such as the narrowing and fragmentation of agricultural activity areas, the risks inherent to production and productivity, and the decrease in incomes negatively affect sustainable agricultural policies. There are some precautions that should be taken in order not to face a food crisis in the future and to use the scarce production factors effectively. The most important of these measures are the protection of minimum agricultural land sizes and the prevention of fragmentation and the planned use of the lands, where agricultural activities are carried out, in accordance with the principles of sustainable rural development. In some countries, after the Second World War, increasing agricultural production income and welfare level of rural households through the application of land banking, group farming and other co-processing models in order to reduce the difficulties faced by small-scale producers. Legislative studies, consolidation practices, cooperatives and group farming practices are at the forefront of the policies focusing on land management and prevention of fragmentation of agricultural lands. Group farming is conceptually defined as a production unit, in which agricultural production factors are brought together for a common

purpose or individual agricultural enterprises gather around a common purpose on a voluntary basis for mass production. Group farming was practiced in Turkey for the first time in 1976 by the Seymen Village Development Cooperative, which was established in the Seymen village of Çorlu district of Tekirdağ province, and this was followed by the practice of the Yakapınar village of İzmir. Today, another example of group farming is carried out in the Kabalı village of the Kadişehri district of the Yozgat province. Within the framework of the Kabalı Village group farming practice, 1,800 parcels of land were merged with the cooperation of the state, citizens, and the private sector within the scope of the “Deveci Basin Fruit Growing Integration Project” in 2009 and an orchard of 564 hectares was established. For the purpose of implementing the project, a company was established that only operates based on the transfer of the right of use without touching the property rights of the lands, and integrated production activities were started. After the removal of the borders between the lands within the scope of the project, a total of 300 thousand fruit saplings were planted and a relatively high income was obtained by exporting a large part of the quality product produced. In the study, the development of group farming practices was examined in the first place and then, the group farming practice in the Kabalı village of Yozgat province was evaluated based on administrative data and the results of the survey study. As a result, it was determined that while agricultural productivity and income increased with the land consolidation project, the use of needed vehicles and machinery decreased, which also contributed to the reversal of the migration from the village to urban areas.

Keywords: agricultural land management, land per household, land fragmentation, group farming and the Turkey model.

Acquisition of Large-Scale Agricultural Land in Africa by Non-African States in the Context of Sustainable Development Goals

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The concept of sustainability, which had been used mostly in relation to environmental issues and conservation of species, started to be used along with the concept of economic development in the 1980s, and after the 1990s, the focus was on integrating the principle of “sustainable development” into all sectors of the economy. This concept, framed by the United Nations Conferences on Environment and Development and the report called Our Common Future, has evolved on three basic headings mainly the environment, development and social progress. In the 2000s, the “Millennium Development Goals” initiative was launched by the United Nations with the main goal of combating poverty and while this mobilization was underway, the “Sustainable Development Goals” (SDGs) were adopted by the United Nations as a roadmap planned to be completed by 2030 with the aim of eliminating poverty, protecting the world, and fighting injustice. The 17 SDGs to transform the world were determined and announced as No Poverty; Zero Hunger; Good Health and Well-being; Quality Education; Gender Equality; Clean Water and Sanitation; Affordable and Clean Energy; Decent Work and Economic Growth; Industry, Innovation and Infrastructure; Reduced Inequality; Sustainable Cities and Communities; Responsible Consumption and Production; Climate Action; Life below Water; Life on Land; Peace and Justice Strong

Institutions; and Partnerships to achieve the Goal. These objectives are directly or indirectly related to rural and urban land management and especially agricultural land management. In this study, the effects of large-scale land acquisitions in Africa, which emerged as a new phenomenon with the trigger of the financial crisis that started in 2007 and the food crisis that started in 2008 all over the world, primarily for purposes such as ensuring food security and energy security, were evaluated at the host country, continental, and global levels within the framework of SDGs. Contrary to what is claimed by the proponents of large-scale land acquisition by foreign states or companies under their control in another country, it has been established that this initiative cannot be considered an opportunity for the African Continent struggling with poverty and underdevelopment, and therefore cannot contribute positively to the 17 SDGs accepted by the UN. However, it should be emphasized that it is possible for foreign states to manage the large-scale land acquisition processes in Africa and other continents in different ways so that such processes can contribute positively to the SDGs, and to this end, there should be measures to be taken by both host countries, countries that acquire land, and international organizations.

Keywords: productive farmland supply, supply scarcity and demand,
large-scale land acquisition and sustainable development
goals

Housing preferences of residents of Roma settlements

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As elsewhere in Europe, the Roma remain one of the largest marginalised groups in Slovenia. The European Commission estimates that they are the largest ethnic minority, with an estimated population of 10-12 million, of whom around 6 million live within EU countries. The EU and each EU Member State have a shared responsibility to improve the living conditions and integration of the Roma. The European Union represents a supranational level where policies are developed in parallel with those of the nation states. The main purpose of these policies is to ensure adequate living conditions. These are ensured through a number of rights guaranteed to individuals by national and international law. Roma settlements became part of the rural settlement area through permanent settlement and also achieved a remarkable expansion in the second half of the last century, which is still ongoing. They can take the form of a separate settlement, but are mostly parts of settlements where the majority population is not of Roma origin. An example is the Roma settlement of Kerinov grm in the Municipality of Krško, which also has formal settlement status. We have less data on Roma outside the formal settlement, while the formal designation of the settlement allows for the collection of demographic, social and health data, and provides opportunities for research that is based on credible official data and allows for further planning of the development of the settlement. It is the formation of formal Roma

settlements that has allowed us to study the housing needs of the settlement's inhabitants. For the members of the Roma community who actually live within the Roma settlement, we have checked their preferences regarding the type of housing and the architecture of the housing, as well as their financial capacity regarding the type and location of accommodation. The results of this questionnaire were based on closed-type interview with residents of formal Roma settlements. On the basis of the results, we provide projections of needs and proposals for the future construction of housing for Roma. In doing so, we were mainly limited to developments in the Municipality of Krško.

Keywords: Roma, Roma settlements, demographics, housing, social infrastructure, legislation

Preliminary investigation on the combined use of vertical greenery and the exploitation of energy from photovoltaic panels in building facades in Scandinavian Countries

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In the last years, the global warming, the Covid-19 pandemic, and the recent war in Ukraine have exacerbated the energy crisis and the need of saving energy at different scale, from neighbourhood to buildings and components. In the built environment, the energy savings requirements can be achieved through optimized buildings shapes and forms, through installation of renewable energy systems as photovoltaic (PV) panels, and through energy retrofitting interventions

that aims to improve buildings thermal performances. In this framework, the use of vertical green wall (VGW) is catching on more attention as an environmentally sustainable solution to be applied over or as part of the buildings skin. These vertical green structures have the benefits of both saving energy, acting as a thermal insulation component, and reducing the wall surface temperature acting as a climate mitigation component of buildings' facades. Notwithstanding VGWs allow to increase the amount of greenery in densely built environment, especially where there is a lack of green public and private space thus contributing to societal well-being, human outdoor thermal comfort, energy efficiency and performance of building envelope. To utilize these two strategies (i.e., VGW and PV panels) simultaneously might increase the sole performance of each and the benefit of both. Integrated VGW and PV panels solutions to be applied on building facade are quite recent in the research field and needs more effort to be studied. This paper will investigate the alternative ways to combine vertical greenery and PV panels in Scandinavian countries where the solar energy potential is embedded in the optimal use of vertical green walls and building facades. Meanwhile, the criteria to be considered for the optimal result to design and construct such integrated systems will be listed for the designers and decision-making process.

Keywords: green walls, vertical greenery, PV-panel, building facades, Scandinavian Countries

The Development of the Outsourced Facility Service Market in the EU

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There is a lack of scientific reports about the Facility Service (FS) industry because the FS sector is not presented as a whole in NACE, the classification system for industries in the European Union. Most reports are based on NACE. This article reduces that lack by providing an overview on the FS market size in terms of turnover and companies: How did turnover, the number of companies and the number of employees in the outsourced FS sector develop in the EU and the five largest European economies since 2008? The European norm EN 15221:4 provides a list of all activities that are regarded as FS. Eurostat provides economic measures like turnover, number of companies and others for most economic activities of NACE on a very detailed level. The list of services that are FS from the EN was matched with the list of economic activities of Eurostat and the relevant services for FS were selected. There were many plausibility checks performed to assure data quality. The size of the FS sector was estimated in terms of turnover and companies from 2008-2018. This development is compared between countries and is put into relation with business economy as a whole. Results show that the FS sector in the EU generated more than 1142 billion turnover in 2017. There are almost 2 million FS companies and more than 15 million employees in FS. The development in the EU is stable. The financial crises of 2008/2009 didn't hit the FS sector as hard and fast as the rest of economy in the selected EU countries.

Keywords: facility services, facility management, turnover, market size, companies

Identifying strategies for increased active mobility – Case Elgeseter gate

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Cities are facing challenges such as air pollution, traffic congestion, road accidents, and urban sprawl as the world's population continues to grow at an alarming rate. Cycling and walking are non-motorized modes of transportation that need little infrastructure and do not use fossil fuels. They are also less expensive for consumers and governments to install and maintain than motorized means of transportation. As a result, the goal of my research is to identify methods and tools for increased active mobility. A scoping review of the literature, a document study, a digital survey, and interviews were used to identify metrics that may be used as incentives to increase walkability and bikeability in Trondheim's Elgeseter area. The analysis is conducted in response to the following research question: What can persuade residents who commute to or travel inside the Elgeseter district to modify their habits and start walking and bicycling more? Motivators, impediments, and suggestions for promoting active mobility in the Elgeseter district were found. Even while almost every city in the globe is eager to address these issues, comprehensive planning procedures covering everything from land use to municipal infrastructure design will be required. Such techniques are necessary to encourage people to choose green, sustainable modes of transportation as a lifestyle choice rather than a legal requirement. The study contributes to our understanding of the factors influencing commuters' desire to engage in active mobility in the Elgeseter district.

The smart silver villages through the linses of the slovenian rural inhabitants

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"The Smart Village Initiative« was first put forward in the European Parliament in 2017, to "map out challenges and opportunities in rural areas, provide a definition of 'Smart Villages', and identify good practice examples and case studies on the topic". In this document, it is concluded that "the opportunity for smart villages comes from key drivers of change in the countryside, including the impact of existing and emerging digital technologies, environmental activities related to the conservation of the rural landscape and the circular economy, bio-economy, new short supply chains, new patterns of mobility and better transportation and communication with cities". In the EU policy for rural development, the concept of smart villages emerged to address the need of EU 2020 strategy to be implemented, with the priorities as intelligent, sustainable, and inclusive development. It should be the answer to the search for the sustainable development of rural, especially shrinking villages in peripheral areas. The conceptualization and operationalization are formulated more as an analogy to the smart city, containing six basic dimensions: management, economy, mobility,

natural and social environment, and quality of life. The goal was the cohesion and strengthening rural development, but the spatial planning and transportation issues were not considered enough. We wish to also add these dimensions to the spatial planning and smart silver village construction. To reach this goal we considered how the inhabitants in Slovenian rural areas consider the development of smart silver village. Through the answers to over 100 questions on these topics we got 577 answers which led us to the list of conclusions given in this paper. The challenges of the development of social infrastructure including social farming and the barriers in the Spatial planning act have been exposed.

Keywords: smart village, long-term care, social infrastructure,
geographical gerontology, ageing

Social Value of the Age Friendly Housing in Lifetime Neighbourhoods

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Older adults are the fastest growing demographic group in Europe. Their functional capacities are decreasing, and they require better adapted housing stocks for more independent living. In parallel young families are not able to get proper housing. After reviewing several policy reports and highly ranked journals with academic papers related to the social value of housing stock adapted to all generations, the relationship between properly built barrier-free housing units with improved accessibility and other technological adaptations for older inhabitants as well the problems of young families became clear. A strong contingency is found between poor and inadequate housing and increase in health problems such as falls, winter deaths because of insufficient heating and accessibility, cardiovascular diseases, and reduced mental health of those living in poorly adapted housing units. We can find evidence of the benefits of adjusted housing units for older people. In the document of Housing Europe (2022) titled THE STATE OF HOUSING IN EUROPE 2021 we can follow the directions to built better public and especially social housing for all generations. We show how these benefits can be quantified. Based on the literature review and the multistate transitions model, which we developed for evaluating the needed structure of housing stock suited to the needs

of all generations, we present how properly built and equipped housing stock in this structure creates social value and how to evaluate this social value. In the paper, we developed a model for forecasting the demand for social housing structure for all generations in case of the expected migration flows and in case of no-migration projections. Based on actuarial modelling, we also show how the optimal policy requires higher dynamics of constructing purposely built barrier-free housing units for older adults and enable more housing for young families.

Keywords: social value, lifetime neighbourhood, age-friendly environment long-term care, social infrastructure, geographical gerontology, ageing

Impact of covid-19 on long-term care facilities in Slovenia

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The COVID-19 pandemic has altered the lives of long-term care facilities residents. Nursing homes were divided into different zones, the infected and the potentially infected were isolated. The residents and the staff had to be regularly tested for coronavirus. A lot of therapies and activities had to be limited and visits of the loved ones were not allowed. At last year's CIRRE conference we presented a literature review on possible measures for protecting and comforting people with dementia during COVID-19 pandemic. As a follow up, we are interested in implementation of these recommendations in the nursing homes in Slovenia. We reviewed the literature on the opinion of residents, health care workers and families on the supply of personal protective equipment, consistency of testing for coronavirus and access to health care professionals. We were interested if the residents and the staff consistently followed the preventative measures, how they perceived such changes, as well as their attitude towards vaccination. Due to the social isolation among residents and the restrictions on visits the elderly suffered from loneliness. To bridge that problem long-term care facilities provided "safe corners" where residents and their loved ones could meet without having direct physical contact. Healthcare workers experienced emotional exhaustion. As it does not seem likely that we will soon return to the pre-pandemic state, these measures, especially the ones involving social isolation, should be implemented with consideration and for the shortest duration possible. Comprehensive national policies for long-term care that consider the aging population, safety and comfort of the residents, and shortage of the staff are urgently needed.

Keywords: covid-19, social isolation, facility management, literature review

Determination of Environmental Cost in Urban Wastewater Systems Based on the Polluter Pays Principle: The Case of Merzifon District (Amasya Province, Türkiye)

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In this study, it is aimed to determine the environmental cost in urban wastewater systems within the framework of the Merzifon district example. Sewerage system and secondary wastewater treatment plant are operated in Merzifon district. Considering the sewage system and the existing wastewater treatment plant expenses, the unit wastewater cost for 2020 has been determined. In addition, the environmental cost was found by determining the external cost based on the advanced treatment level to be made by considering the addition of nitrogen phosphorus units to the current treatment level. Data for 2020 were used to determine the environmental cost. Cost and water consumption data regarding the sewage system and the operation of the wastewater treatment plant were obtained from the municipality. In determining the depreciation amount of the sewage system and wastewater treatment plant, the costs were determined using the İlbank unit price charts for 2020. By making a cost-based evaluation, the cost of existing measures in the prevention of environmental damage and the costs necessary to prevent environmental damage up to a certain point are discussed. Considering the total costs of the sewage system and the amount of billed water, it was determined that the unit m³ wastewater cost was 2.12 TL and the unit cost of further treatment was 0.17 TL, and the total

environmental cost was 2.29 TL. This cost should be reflected to the water users and used in the realization of these services.

Keywords: Environmental resources, environmental cost, wastewater systems, external cost and pricing approaches for wastewater.

An assessment on the taxes and tax burden on the real estate sector in Turkey

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The concept of real estate basically includes land and structures and some rights connected with them. Real estate can also be defined from the undeveloped land to the well serviced plot ready for building. Real estate within the scope of the building can be classified as residential, commercial real estates, industrial real estates, agricultural real estates, and special purpose real estates. Among the real estates produced, houses and residential real estate reflects highest economic value and trade. In this sense, residences contain special features that has the largest share in the real estate sector and drags the sector. In addition, as an important economic element for the country, housing is a social need in terms of meeting the housing needs for the people. Countries, whether developed or developing, have to determine and maintain housing policies in order to meet their housing needs. In this sense, housing production and housing market have directly or indirectly effect into more than one sector in the economy. Housing production includes a long-term and complex process that includes the transformation of undeveloped land into serviced land, the continuation of the construction work on the land, and the marketing of the completed houses. The housing sector also includes many works and transactions such as the exchange of second-hand houses, the valuation of houses, maintenance and repair. The housing production process in this way covers more than one economic business, action, legal transaction and activities, and all transaction processes constitute the subject of taxation. In the study, the taxes on the parties involved

in the housing construction process, which has an important place in the real estate sector, have been systematically explained. In this direction, the study aims to reveal the tax burden that has to be undertaken by the relevant parties in the housing production process and also to raise awareness in the relevant stakeholders. The scope of the study was limited to the tax burdens in the housing production process within the real estate sector and the effects on developers, contractors, investors and other parties were generally evaluated. As a result of the evaluation, the findings and suggestions obtained in the study, it is expected to determine the tax burdens undertaken by the relevant parties in the housing production process, to reduce the existing double tax burdens and to reduce the complexity of tax regulations on the sector, and also to provide valuable information to the relevant parties.

Keywords: Real estate investment, housing investment, taxation, tax burden, and housing developers

Sustainable management of public institution

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The article arises from the unavoidable fact that the globally set Sustainable Development Goals (SDGs) and other sustainably driven guidelines have a great impact on the governance of countries around the globe. In recent years, progress concerning national policies has been recognised. In addition, public institutions have changed in this regard - not implying only the content and the core business of their work, which is more and more aligned with the SDGs, but also through their own management. Nevertheless, we should not be too enthusiastic, there is an obvious lack of communication within public sector in managing the sustainability and sustainable policies, but the initiation deserves recognitions. Sustainable management of public institutions and the concrete measures to implement sustainability are slowly setting new rules that will have a great influence on other aspects of state policies. It is far more expedient for the private sector and society in general to follow the good examples of the state driven performance of SDGs. What is often called "greening the institution" is a trend that deserves to be warmly welcomed, but unfortunately often represents just the environmental part of the three-pillared sustainable development. Economic aspect can be easily justified by the simple fact that actions taken by public (or any other) institutions focusing on sustainability may have specific cost at the beginning, but in a long-term, lower consumption of (public) funds is required for facing the negative consequences of the environmental changes. Those financial calculations are the reason why private sector or at least its most advanced part is often ahead of public institutions in adopting sustainable actions. However, the social prospect as the third pillar of the implementation of the SDGs is far more challenging. Although first steps of efforts are being made within public institutions, there are enormous opportunities for improvements, especially in the field of sustainable management of human resources and work related conditions.

Keywords: sustainable development, management, public institutions

Urban resilience in the light of sustainable development of the built environment

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The study of urban resilience (UR) in the context of sustainable development (SD) is a relatively new chapter, so we give it our full attention in this article. We seek to link UR and SD by understanding the complexity of current natural and anthropogenic hazards. In our study, we go a step further and create a hypothetical model based on hazards that links the key factors of UR and SD. We set the following two objectives: whether and how research incorporates newly perceived conceptual hazards (pandemic, war) and whether all groups of factors are explored equally and simultaneously. We focused on articles from 2019 – 2022. The study showed that newly perceived conceptual tensions (pandemic, war) related to UR and SD have not been adequately explored. The study confirmed the lack of existing research in the broader context of understanding resilience of the built environment, and thus the lack of studies that provide a foundation and perspective for SD of the built environment. Therefore, we believe that further research should specifically focus on the plurality of approaches to understand the complex interactions, their impacts, and feedbacks in the context of multidimensional urbanization to understand UR as a perspective for SD.

Keywords: urban resilience; sustainable development; build environment; natural hazards; anthropogenic hazards; systematic review