THE SUSTAINABLE HOUSING AND STRATEGY 2030

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ABSTRACT
Same as the emerging economies achieve the living standards of the advanced industrial world, grows a global energy consumption. It is estimated that by 2030, world energy demand will increase from currently by 50 percent, while fossil fuels will account for 80 percent of the stock. It will increase dependence on imports, while the EU will import almost two-thirds of its energy. In addition, the availability of energy and other essential resources likely to be adversely affected by climate change and, according to many forecasts, by 2030 will encounter some serious power shortage. Price volatility and supply uncertainties will also be exacerbated by political volatility in energy-rich countries. Although the growth in renewable energy will be faster than in traditional sources, in 2030 renewable energy will continue to represent only a small part of global energy supplies. This trend exacerbates our inability to reduce the loss of biodiversity, with serious implications for long-term economic sustainability. In the paper we devote sustainability to tackling sustainable housing.
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Costs of ensuring the sustainable features of buildings during its construction are lower compared to the savings during their use. Professionals in the construction estimate construction costs of green buildings by 17 % higher, than the cost to build a conventional construction, but saving energy and maintenance costs is within the councils tens of percent.

1. INTRODUCTION

The Europe 2020 strategy is built on three, mutually coherent and mutually reinforcing policy areas: smart growth that is developing an economy based on knowledge and innovation, sustainable growth, thus supporting a more resource efficient, more resource-efficient and inclusive growth, thus supporting the economy a high-employment economy delivering social and territorial cohesion. In connection with the proposed strategy, José Manuel Barroso said, "Europe 2020 is about what we do today and tomorrow in order to return the economy in the EU to growth path. For the treatment of our weaknesses, we must decide to act and we must build on that, not a little area, where we are strong. We must create a new economic model that is based on knowledge, environmental management and a high level of employment. To this fight is necessary to endeavour everybody acting in the Europe." Already in 1996 in Copenhagen held the Conference of European Ministers responsible for housing on sustainable housing policy, based on the charter to launch the "European Campaign for Sustainable Cities, which was adopted by representatives of eighty European cities, or the issue of the so-called "Green Paper on the Urban Environment" in 1990 and other related documents.

2. SUSTAINABLE GROWTH

The UN General Assembly in 1983 requested the then Norwegian Prime Minister, Mrs Gro Harlem Brundtland, to develop a comprehensive program to manage the environmental crisis that threatens the Earth. Committee headed by Mrs Brundtland in 1987 gave its report entitled "Our Common Future". The principles set out in the report became known worldwide as the principles of sustainable growth. According to the Bureau sustainable growth "... meets the demands of today the way, in the meantime, it does not compromise the ability of future generations to meet their demands." Term of sustainable growth in the wider sense means sustainable economic, environmental and social growth, making them harmonized, in the strict sense maintaining natural resources and the preservation of their quality. In terms of sustainable growth used to distinguish three groups of natural resources: renewable energy (hydro, biomass, etc.), non-renewable (minerals) and partly renewable (soil fertility, waste assimilation). One general requirement for sustainable growth is the use of renewable natural resources are not higher than a recovery of these resources. The second basic requirement is that the rate of waste was less or equal than capacity to take wastewater environment, which determines the assimilation capacity of the environment. Another requirement is that the finite sources of energy should be used reasonably, which partly determines the substitutability of finite energy resources and partly technological progress. Violation of the above principles, sooner or later leads to the lack of energy. While growth is not sustainable, it cannot curtail their needs and satisfaction. The requirement is that we meet those by using less material and energy to minimize the polluting effects of production. Sustainable growth means integrating a social and economic objectives, and deciding to take into account the costs and benefits of all factors. Maintaining equity between the generations means that the current generation should not achieve economic growth at the expense of the potential for survival and development of the next generation. Economic growth, which in this sense is the value and the quality is not identifiable with the quantitative aspects of growth, and can ensure an environmentally friendly manner suitable transformation, harmonization of structures and resources of the forming system of values, respectively conversely, can sustain the economic growth that take into account the values and environmental protection. This heading covers applications of renewable resources instead of finite resources, finding ways of recovering waste and analysis of products life cycle.

Sustainable development requirements

The European Union is the world's largest energy importer - it imports up to 53 percent, representing an annual cost of around € 400 billion. It is therefore essential

- That the rate of use of renewable natural resources is less than or equal to the rate of their natural abilities or guidelines regeneration (recovery)
- That the level / rate of waste was less than or equal to the rate of capacity reception environmental pollution, which determines the assimilation capacity of the environment, prudent use of finite resources rate, which in part determines the substitutability of finite resources with renewable resources, partly technological progress.

3. BUILDINGS AND RESOURCES

Buildings account for 75% of electricity and for almost 70% of all waste. At the same time they use 12% of our water and generate more than 30% of greenhouse gas emissions. More than transportation, or any other industry, the construction industry and the buildings operation can contribute to better management of scarce resources and reduce greenhouse gas emissions (mainly CO2). For these reasons, buildings and improvements they equipped with one of their main tasks, changing commonly used building technologies, materials and by construction of passive buildings. In Fig. 1 show the share of energy. Fig. 2 shows energy consumption by each of purposes related to the use of buildings.

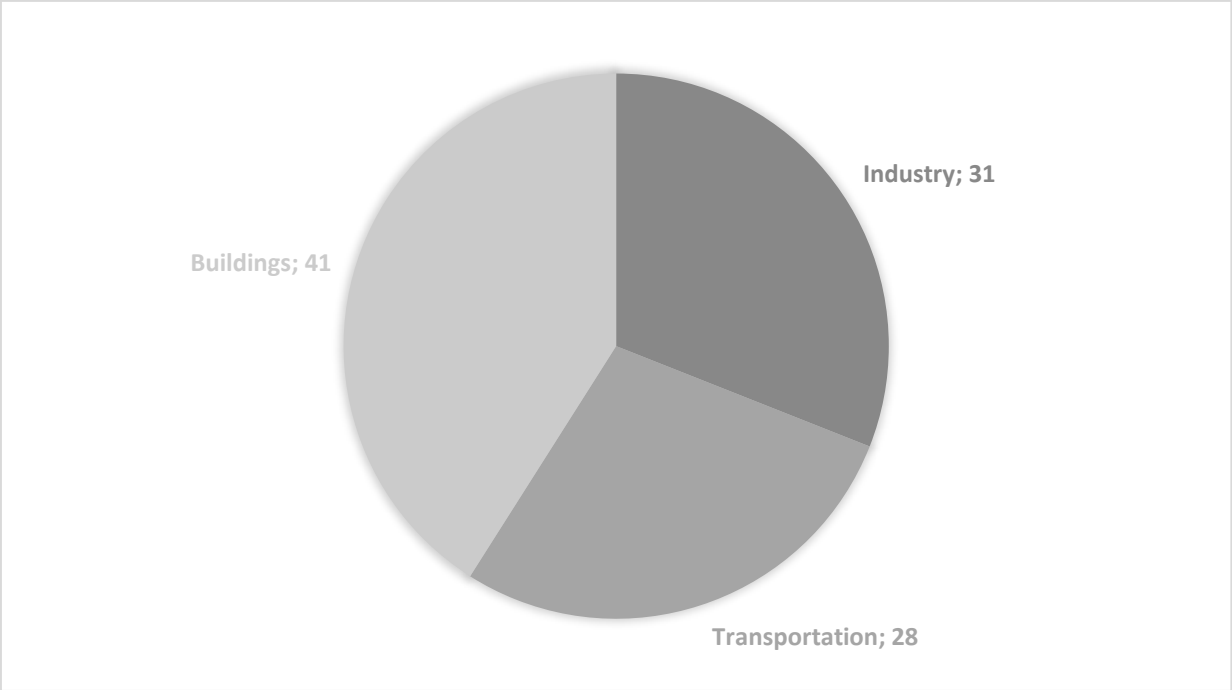

Figure 1 Energy consumption by sector in %. (Source: US EA. 2012)

As an example that demonstrates the imperfection of our housing by comparing of the two highest buildings. The first, probably the highest livestock building is the termite mound and the second one, the highest human, is the Burj Khalifa in Dubai. A closer analysis of the two buildings we come to the conclusion that there is no aspect in which it would be "human project" better than the "natural". Animal built in nature (termite mound, hives etc.) have high ingenuity and optimal, efficient use of components of its natural environment (e.g. in said termite mound is stable at the temperature of the outside temperature fluctuations up to 40 ° C). These buildings do not need any special building materials, engineering, control system and still provide ideal conditions for the survival of individuals within them. It is important to note that these ideal conditions are created without any need for energy and without the help of material, construction, electrical and other specialists - engineers).

It is obvious that buildings are the biggest polluters of the Earth as well as the largest consumer of energy resources and raw materials. This fact is also confirmed by the Energy Performance of Building Directive (2002/91 / EC), which was created due to the high negative impact of buildings on the environment and not due to purposeful energy conservation (upgraded Directive of the European Parliament and Council Directive 2010/31 / EU, known as Strategy "20-20-20").

The cause of the increased consumption of resources is our lifestyle. Way to work from greater distances and also food imported from various parts of the world. Potato truck ride from abroad burns biodiesel from rapeseed, which is bred in our place for potatoes which were equally able to grow directly from us we probably does not make sense, but this demonstrates the cause of senseless management of resources and the absence of the concept of sustainability. Broader analysis of comprehensive planning of the building we can see that in the evaluation of the building in terms of sustainable housing, we must to include to its concept another very important fact, namely energy sources and the food, as its form the energy flows (inputs) to buildings with high environmental impact.

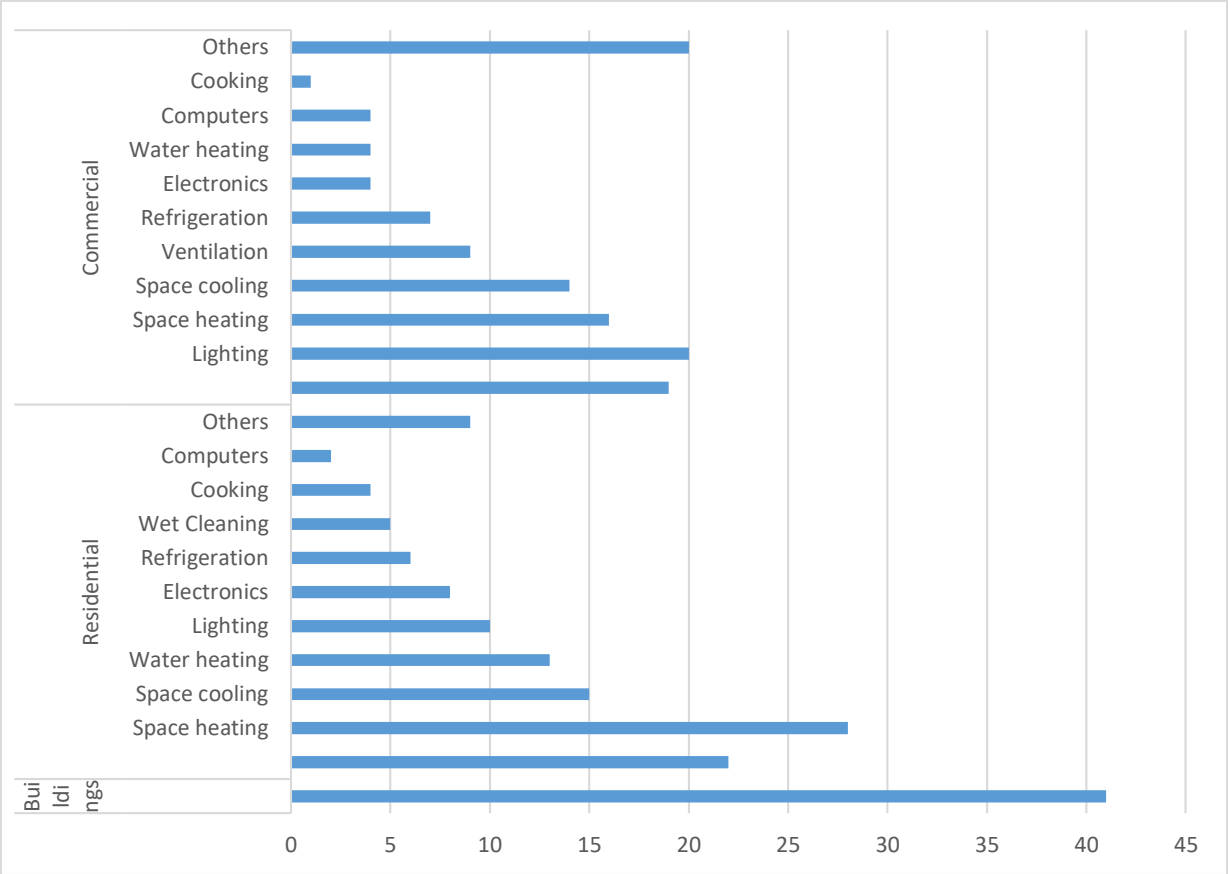

Figure 2 Energy consumption in buildings by purpose in %. (Source: US EA. 2012)

That concept has far-reaching impact on the consumption of resources, environmental pollution and the very to lifestyle itself. Achieving energy savings in industry, transportation and construction as well as in domestic appliances is the most effective way to reduce greenhouse gas emissions and external dependency. It is also the fastest way for the EU to achieve tangible results. Of course, the cheapest and cleanest energy is that which is not consumed. Increasing energy efficiency is not new, it nevertheless needs to be expanded and strengthened as a key objective in all Member States. To this end, the main objective in the area of energy efficiency was part of a concerted 20 percent in 2020 increased to 50 percent by 2030. The EU can advance towards this objective so it will apply stricter standards for domestic appliances and new buildings, as even more ambitious targets regarding vehicle emissions. It should also encourage innovative public-private partnerships for energy efficient investments while setting and monitoring compliance with the objectives of the effectiveness of the Member States. Meet the basic needs of humanity is not that difficult. The problem is the unequal distribution of resources. Nature, animals, people, even their own employees are only figures in the balance sheet, inanimate objects that can be used and discarded. Sustainable housing is totally dependent on the consciousness of mankind and lifestyle. Relation to housing reflects the actual relationship to life, whereas the housing and building administration, is the largest polluter of nature (consumer resources) and indirectly linked to the segment of buildings usage nearly all other economic sectors. In a rapidly changing urban environment, ensuring adequate and affordable housing is a key priority for all governments. However, the housing concept requires new effective and synergistic solutions of challenges of urban development. The important issue is becoming of urban development in poor countries, where housing provision is often not so much about ecology as a matter of survival and construction of dwellings are not in accordance with sustainable urban development.

4. JESSICA AND SUSTAINABLE LIVING IN EUROPEAN UNION AND IN THE SLOVAK REPUBLIC

In the Slovak Republic as well as in other countries of the European Union in the context of sustainable housing using funds from the Joint European Support for Sustainable Investment in City Areas - JESSICA. It is an initiative of the European Commission, drawn up in cooperation with the European Investment Bank (EIB) and the Council of Europe Development Bank (CEB). It supports sustainable urban development and regeneration through financial engineering mechanisms.

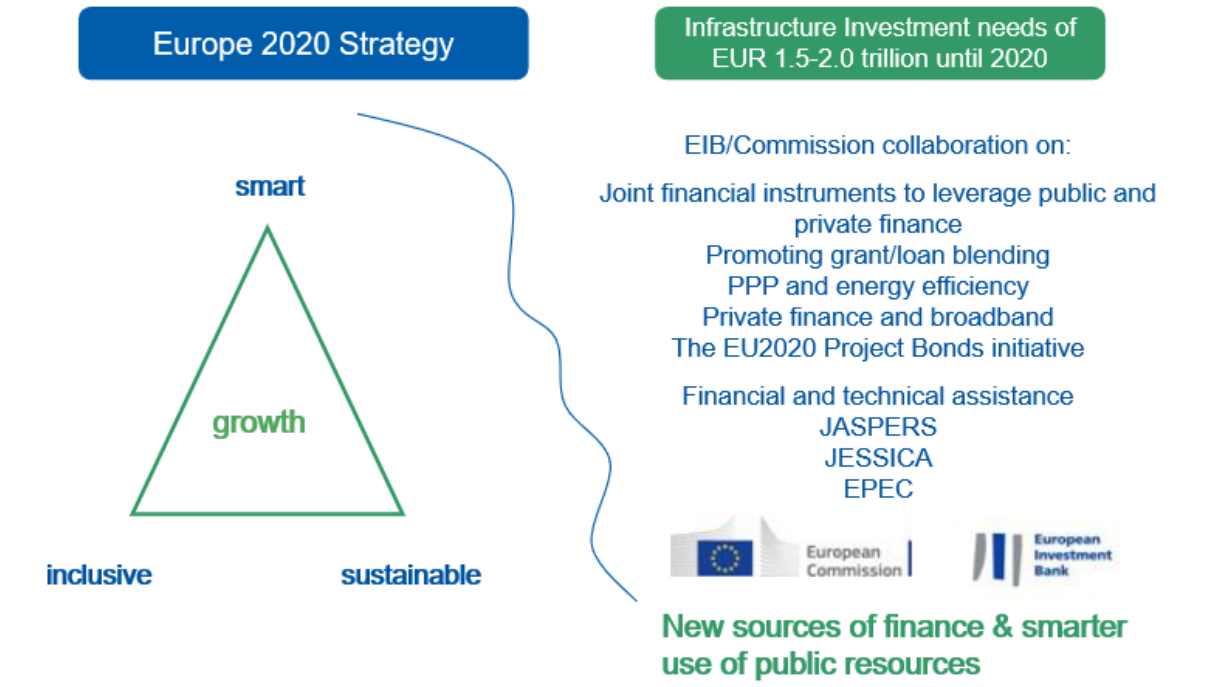

Figure 3 EIB/EC as European Partners to Public and Private sectors.
(Source: Barrett, T. Financing and Procurement od EU Infrastructure. http://slideplayer.com/slide/3380586/)

EU countries may decide to invest part of the funds allocated from the EU structural funds as a revolving fund to support the recycling of funds to increase investment in Europe's urban areas. JESSICA promotes sustainable urban development by supporting projects in the following areas:

- Urban infrastructure - including transport, water / waste water and energy,
- Heritage or cultural facilities - for tourism and other sustainable uses,
- Revitalization of unused space - including the demolition and decontamination,
- The creation of new commercial spaces for SMEs and organizations in IT and research and development,
- University buildings - medical, biotech and other specialized equipment,
- Improve energy efficiency.

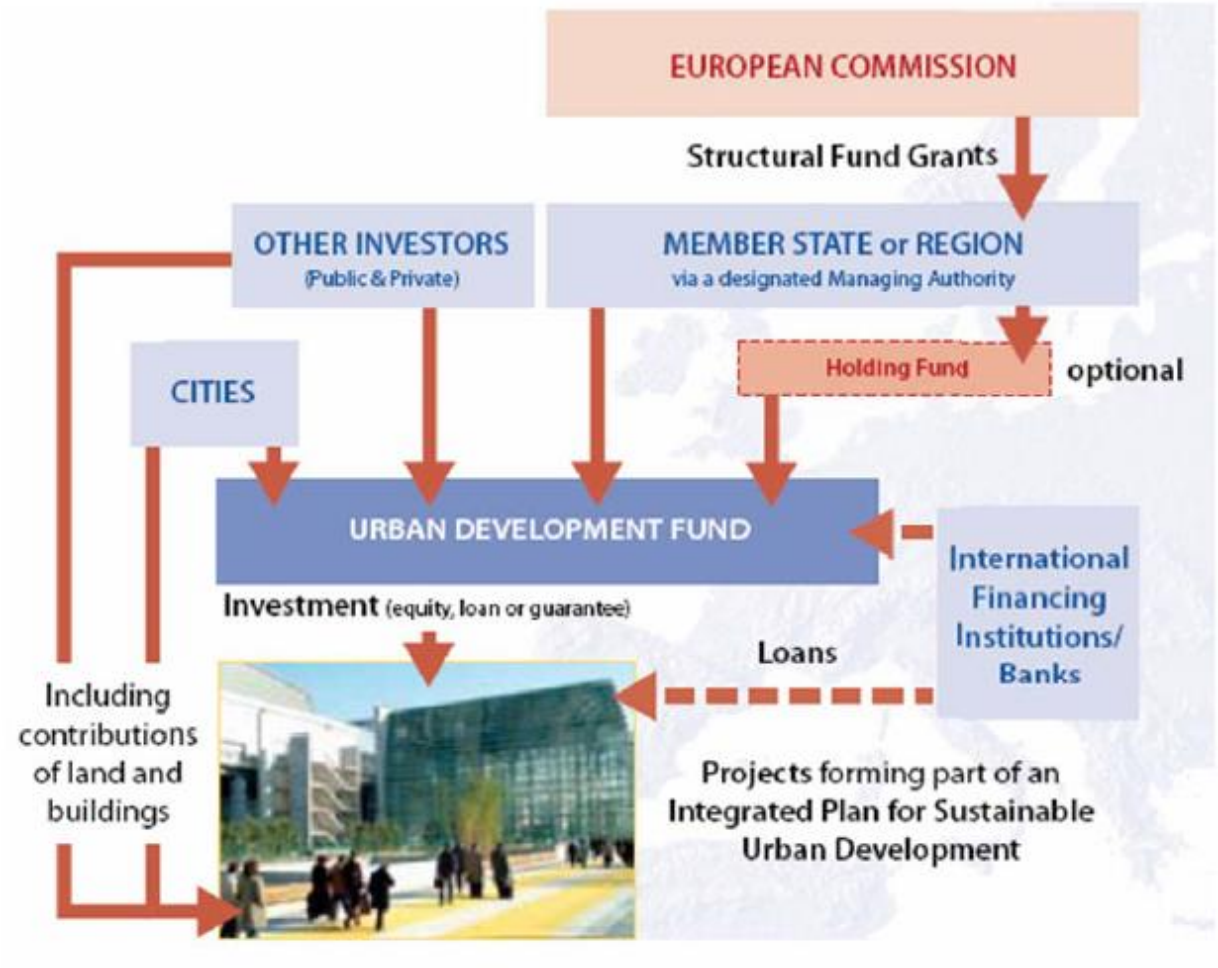

Figure 4 Energy consumption in buildings by purpose in %. (Source: JESSICA - A new way of using EU funding to promote sustainable investments and growth in urban areas (EIB 2008))

Contributions from the European Regional Development Fund (ERDF) will be transferred to urban development funds (UDFs), which will invest in public-private partnerships or other projects included in an integrated plan for sustainable urban development. These investments can take the form of equity, loans and / or guarantees.
Regulatory authorities may decide to transfer resources to the UDF using Holding Funds (HF) set up to invest in several UDFs.
This procedure is not required, but provides a governing body to delegate certain tasks necessary for the implementation of the JESSICA to professional experts. Thanks to the revolving nature of these instruments, the investment income reinvested in new urban development projects, contributing to the recycling public funds and promoting the sustainability and impact of EU funds and public resources of the state.

5. CONCLUSION

Sustainable housing is totally dependent on the consciousness of mankind by lifestyle. Relation to housing reflects the actual relationship to life, whereas the housing and administration buildings, the largest polluter of nature (consumer resources) and indirectly on the segment occupied buildings linked nearly all other economic sectors. In a rapidly changing urban

environment, ensure adequate and affordable housing is a key priority for all governments. However, the concept requires new housing effective and synergistic solutions to pressing challenges of urban development. Becoming important issue of urban development in poor countries, where housing provision is often not so much about ecology as a matter of survival and construction of dwellings are not in accordance with sustainable urban development. To ensure quality, sustainable housing as defined in the UN Charter on sustainable housing, civil society organizations play an important role in representing and both sides, t. j. owners and users, and cooperation with them. The Committee recommends to address organizations such as the International Union of tenants, the association of owners of apartments and homes, construction teams, architects and urban planners.

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