

# How receptive is the new-built residential market for energy efficiency and sustainability?

The current situation, challenges and future

**Zsombor BARTA, MRICS**  
HuGBC President



# HuGBC

Magyar Környezettudatos Építés Egyesülete  
Hungary Green Building Council

Philippos Protopapas, Architect  
Pioneers in Practice, Climate-KIC





# Purpose

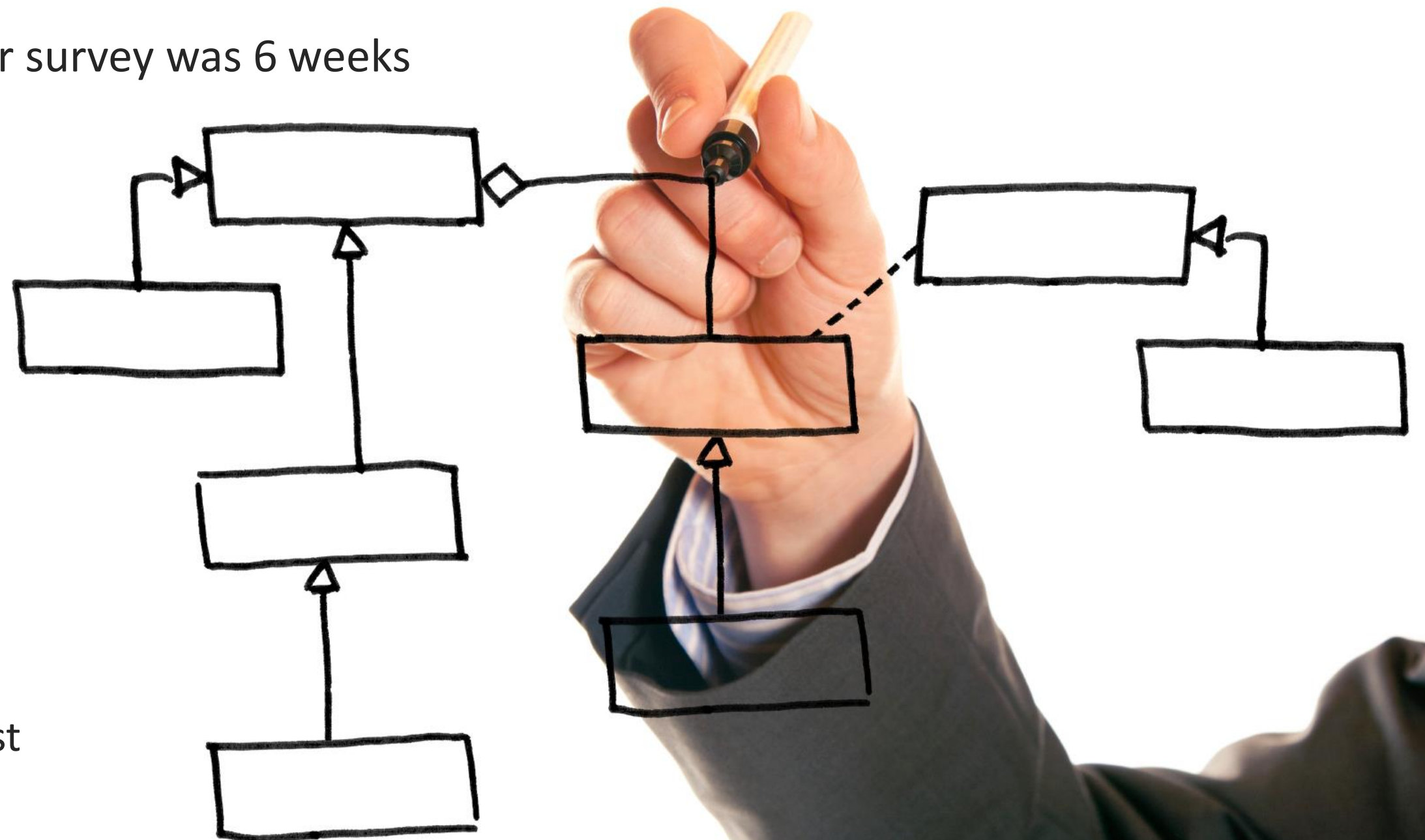
- Understand what **sustainability means** to developers.
- Investigate the current **needs and expectations** of customers and how developers/investors respond to these.
- Investigate what the **barriers** are for sustainable home developments and how these can be surpassed.
- Evaluate what the **potential** is for growth for sustainable apartment developments for the next 5 years.
- Investigate if there will be **gaps** between Hungary and international trends in the next 5 years.
- Find out how much interest there is for a **national residential green rating** system.





# METHODOLOGY

- 1h interviews with developers and real estate agents
- Questions related to sustainability, client needs, market trends & challenges
- The time period for survey was 6 weeks



## LIMITATIONS

- Interviewees - the majority are big developers
- and from Budapest

# QUESTIONS

- INTERPRETATION OF SUSTAINABILITY (TECHNICAL & SOFT ASPECTS)
- WHAT IS THE CLIENT'S CRITERIA?
- HOW DO DEVELOPERS MEET CLIENT'S CRITERIA?
- IS THERE A SHIFT IN CLIENT'S CRITERIA?
- ARE THE CLIENTS WILLING TO PAY MORE? WHAT'S ABOUT THE FUTURE?
- THE ENERGY CERTIFICATION
- RESIDENTIAL BUILDING CERTIFICATIONS





# INTERPRETATION OF SUSTAINABILITY

## TECHNICAL ASPECTS



### TECHNICAL ASPECTS – ,A'

- Insulation
- Windows
- *Heat Pump systems*
- *Ceiling heating and cooling*
- Solar Panels
- Central/District heating

### TECHNICAL ASPECTS – ,B'

- *Smart home systems*
- Ventilation
- Airtightness
- Water saving and recycling
- LED lights
- Electric car features
- Non-toxic materials
- Energy efficient appliances

### TECHNICAL ASPECTS – ,C'

- Rain-water management
- Construction materials
  - lower waste
  - lower embodied energy
  - recyclable
  - natural materials etc.
- Building Management System
- Life-Cycle Analysis
- Smart city solutions



# INTERPRETATION OF SUSTAINABILITY



## SOFT ASPECTS

### PRIMARY SOFT ASPECTS

- Green spaces
- Comfort criteria
- Mixed use buildings (retail, office, residential)
- Meeting places, playgrounds, event spaces
- Better natural light
- Better orientation

### SECONDARY SOFT ASPECTS

- Quality of surrounding environment (Clean air, Sanitation, Safety)
- Layout of apartment (avoiding deep plans)
- Low noise levels
- Visual comfort – block views to traffic
- Water features



# WHAT IS THE CLIENT'S CRITERIA?



## PRIMARY CRITERIA

- Location
- Price
- Size & Layout



## SECONDARY CRITERIA

- Cost of utility bills
- Energy certificate
- Experience/References of contractor
- Quality of work
- Design
- Green spaces
- Parking conveniences
- Other aspects of sustainability





# DEVELOPERS MEETING THE CLIENT'S CRITERIA



Focus on the **PRIMARY** client criteria.  
Follow current regulations and do not go beyond.



In some aspects do more and are better than the requirements of the current regulations. (Client's **SECONDARY** criteria)

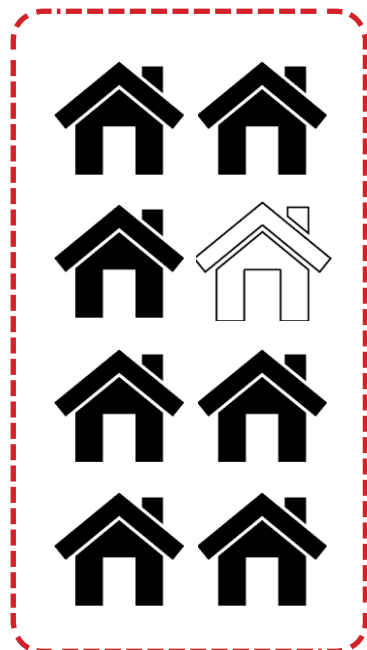
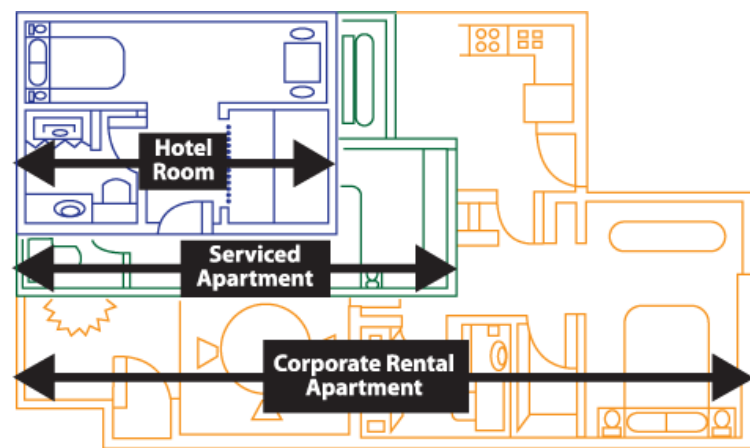
LOCATION



PRICE



SIZE

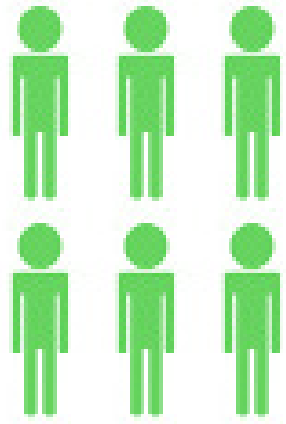


Diversification  
Add value  
Extras



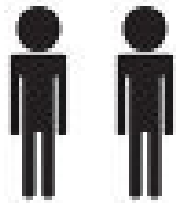


# SHIFT IN CLIENT'S CRITERIA



**There is a shift towards more sustainable apartments (small to big shift)**

- To lower utility bills
- Due to regulations
- Some high-end building engineering systems are now more common in average apartments



**There is no demand**

- Recent improvements are good enough
- Very few clients interested in sustainability & high-end solutions



**Lack of previous market experience to be able to compare**



# Are the clients willing to pay more now? What about in the future?

*30% of the clients would pay more today*



*People are interested but not always willing to pay.*



*I do not have the information on this.*



*Less than 10% would pay more. This will increase due to the regulations*



**There is no agreement on this issue.**

*80-90% of the clients would pay more. Could reach 100% in the future*



*Depends on many factors - price, content, location etc.*



*They would not pay more. This will not change in the near future*





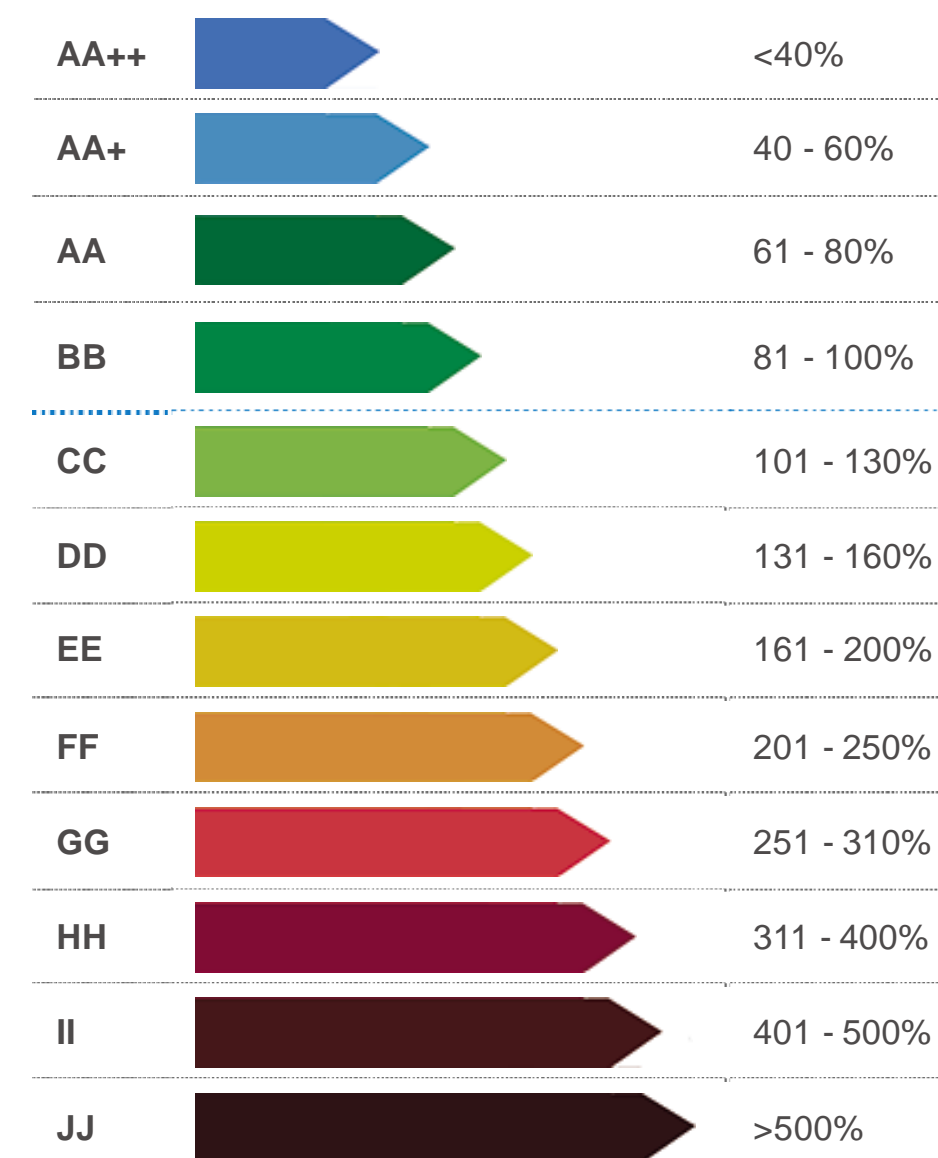


# THE ENERGY CERTIFICATION

- **Clients in general ask about the energy performance of the apartment.**
- **Although it is a secondary concern but high in the list of secondary criteria.**
- **Does not influence heavily their decisions.**

New apartments compared to old ones have a big difference in terms of energy savings and the cost of utility bills. Therefore, clients are happy if their minimum concerns regarding the insulation, new windows and the heating system are satisfied. (Diminishing returns)

It would be more helpful for clients if they could relate clearly the energy rating of the apartments with the cost savings in the utility bills.





# RESIDENTIAL GREEN BUILDING CERTIFICATIONS



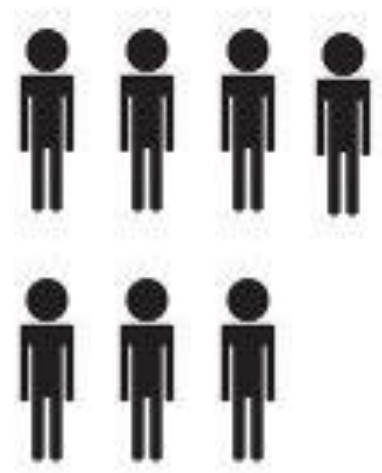
*Green Building certifications are mainly popular in commercial buildings. Having these certifications is a proof that a building will have improved environmental performance, lower maintenance costs and the label gives prestige.*

### Not common in residential projects because of:

- High Cost
- Complex methodology
- Currently no strong demand from buyers
- Currently no positive influence on sales at the moment



## What if there was a national residential building certification?



### Don't reject the idea but it should be...

- ✓ Low cost
- ✓ Easy to use
- ✓ Easy to understand by people
- ✓ Monetise the benefits
- ✓ Independent -Third party or International
- Uncertainty if it will influence peoples' decisions
- No real demand for this today



In order to achieve as much as possible, better to have a bigger initial goal; the existing green building certifications are a good way to achieve this.



No effect in the residential projects. Not much influence in price. Matters only if the client is specific about this.



# CHALLENGES I.



## Education

- Change needed in peoples' mentality as sustainability is currently not a high priority issue.
- Raise awareness on issues related to sustainability and green buildings.
- Raise awareness on how buildings can minimise energy consumption and waste & emission generation and increase the overall efficiency.
- Educate people on how new systems work in buildings.
- Investment in long term goals and planning regarding sustainability.

## Renewable Energy Sources (RES)

- Limited opportunity for solar panel use in high-rise buildings. Have to turn to other solutions.
- The scale of project influences the viability and cost of some renewable energy solutions.
- Fast changing technology and people do not know when to invest in this.
- Current energy prices are relatively low which makes the return of investment not worthwhile.
- Obstacles in mixing renewable and non-renewable energy sources.

# CHALLENGES II.



## Construction Industry

- Quality of finishes and assembly. More attention to detail and skilled labour is needed.
- Professional skills and education for new regulations
- Technical aspects of RES and other systems. The general direction is given but more studies and details are required on the best way to implement these.\*
- Prefabrication is not common. It could improve speed, efficiency and quality of work.\*

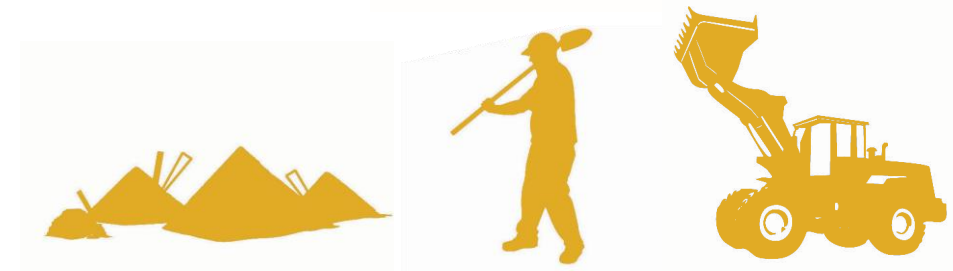
## Regulations

- nZEB regulations increase costs
- Ownership - Decisions regarding property management and energy upgrading are difficult with multiple owners.
- Improve regulations regarding the accountability on contractors.
- Some regulations increase costs unnecessary i.e. parking in city centre
- Expensive and difficult to certify and bring new products on the market.\*
- Some planning procedures need improvement i.e. because of time delays\*



# INTERNATIONAL COMPARISON

No major differences in the methods of construction, the technology and the materials used in the construction industry;

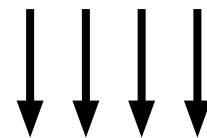
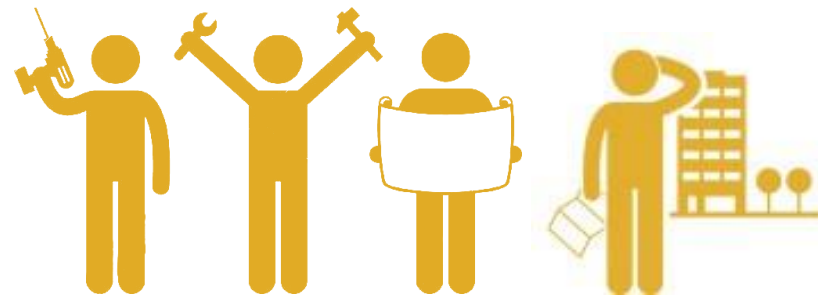


**But...**

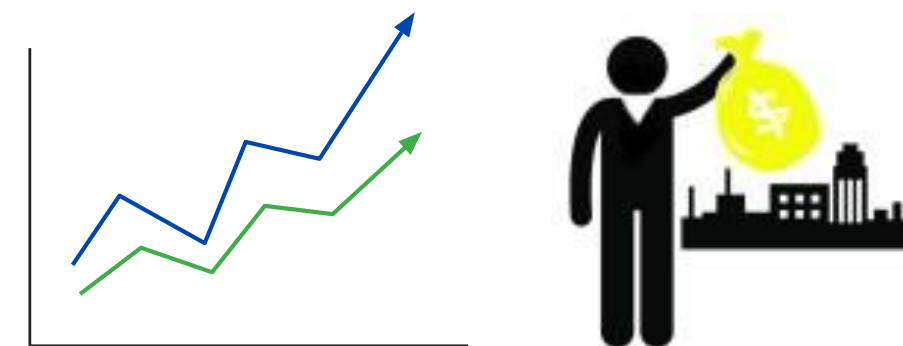
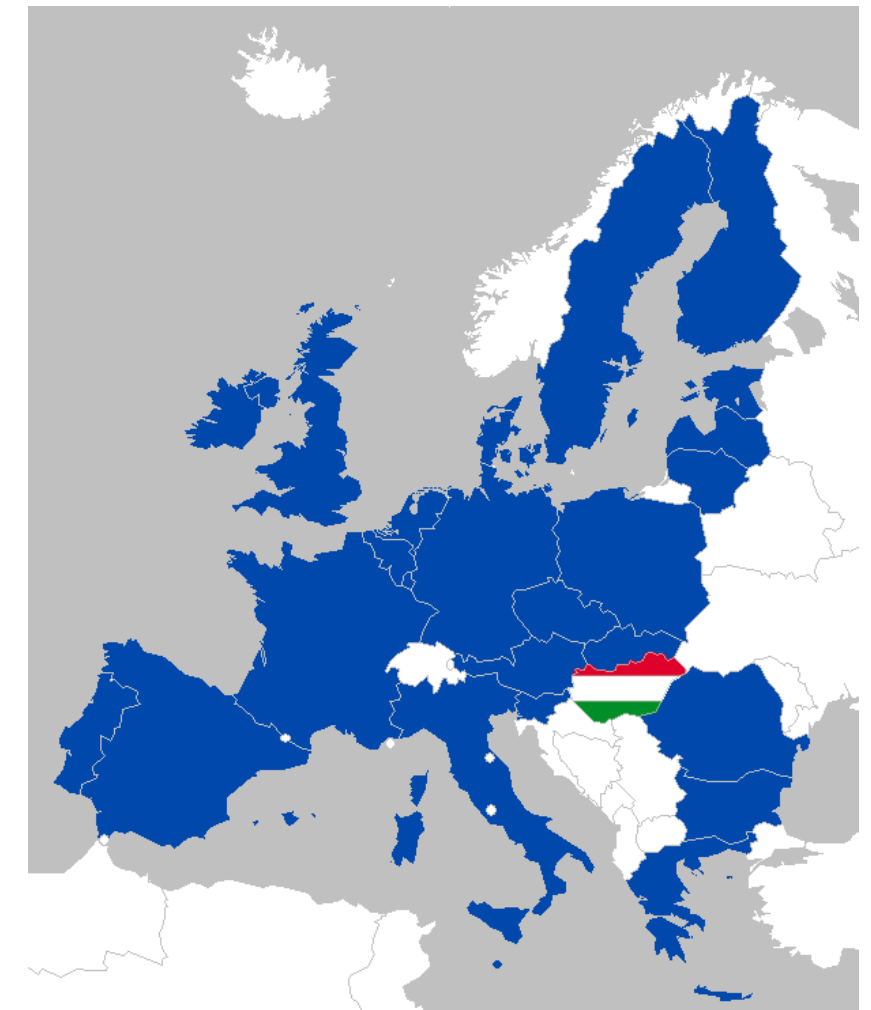
Many feel that Hungary is **lagging behind** in issues of climate change and sustainability compared to other European countries.



The quality of finishes and details needs improvement compared to more developed European countries.



Attributed to the differences in economy and the standard of living.



# CONCLUSIONS

There is some demand for sustainable apartments but it is obstructed mainly by cost and lack of knowledge.



## Motivation for the buyers (Demand)

- To have financial assistance or more purchasing power
- Knowledge of benefits
- Long term perspective
- Increase savings

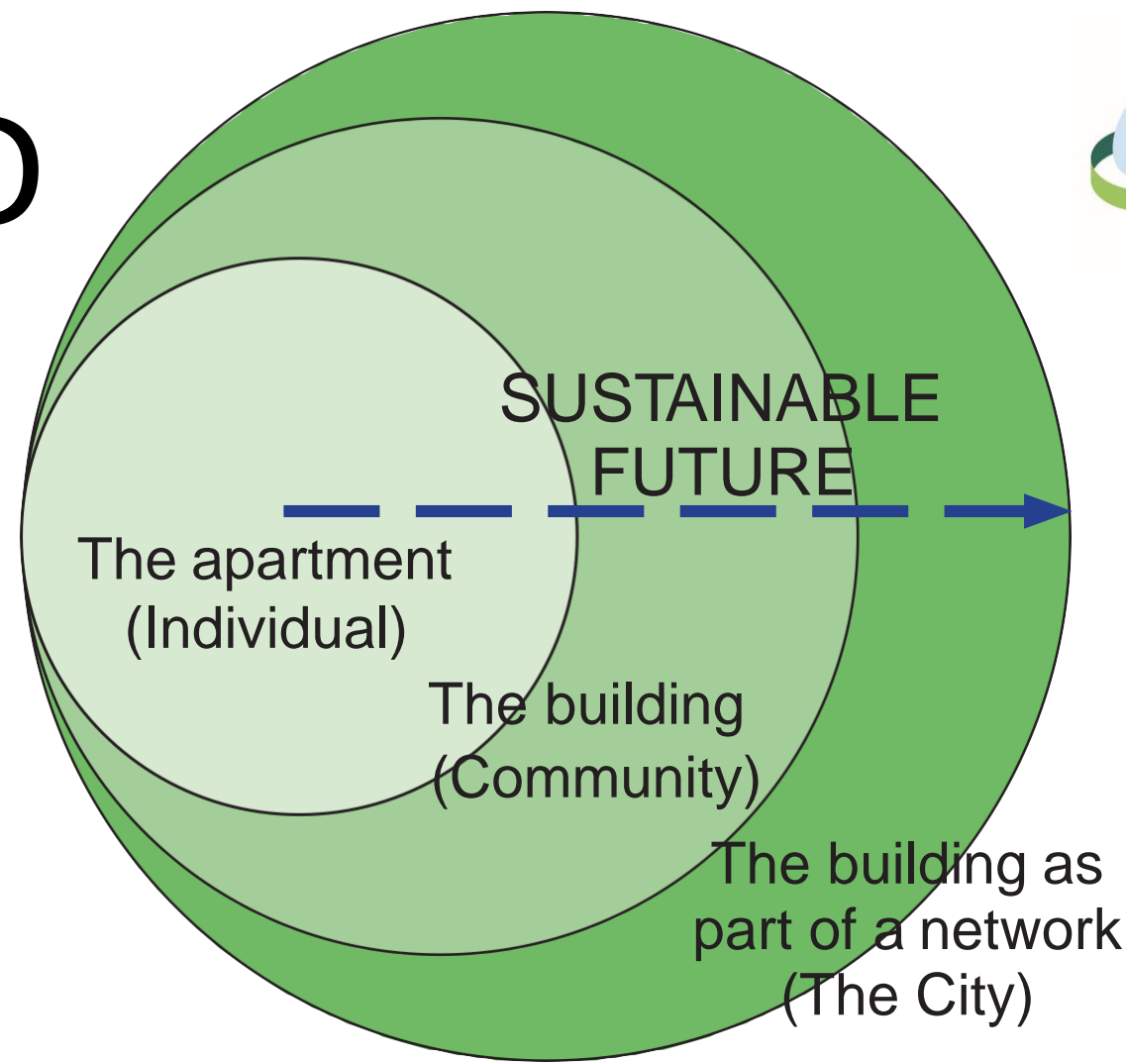
## Motivation for the developers (Supply)

- Increase revenue
- Diversification to compete
- Minimise Risk & add Value
- Compliance with regulations
- Practical solutions for RES and other energy saving systems





# MOVING FORWARD



Based on the interviews, currently the discussion about sustainability is mainly concerned with technical systems within the apartment and to some extent the building.

However, “much work has been carried out on establishing the links between poor housing and bad health, and increasingly on the links between sustainable, well-designed homes and better health and wellbeing in residents. However, this evidence has not yet had an impact in the market.”

*UKGBC*




It is time to start thinking about sustainability in terms of physical, mental and social wellbeing.





# HuGBC

Magyar Környezettudatos Építés Egyesülete  
Hungary Green Building Council



Köszönöm a figyelmet!  
Thank you for your attention!

[hugbc.hu](http://hugbc.hu)  
[info@hugbc.hu](mailto:info@hugbc.hu)