# Challenges in housing development in an ever changing environment

Guðrún Ingvarsdóttir



### Why are we here today?



- Student housing
- Nordic perspective
- You are the experts!

#### My viewpoint: housing development viewed from different sides of the table



#### **Architects view**

Housing, student housing etc. 1999-2011

#### **Buyer view**

Head of development at Búseti housing cooperative Iceland 2011-2017

#### **Nordic cooperation view**

Workshops and project management Nordisk bolig organisation NBO 2013-2017

#### **Academic view**

MSc in strategic managment 2015 Construction industry competitiveness

#### **Government view**

Leading implementation of national housing strategy 2017

#### **Government buyer view**

Since febuary 2018 CEO at Icelands equivalent of Statsbygg / Senaatti / Bygningsstyrelsen

# Let's begin: What is the current situation



### **Head lines in the nordic countries**

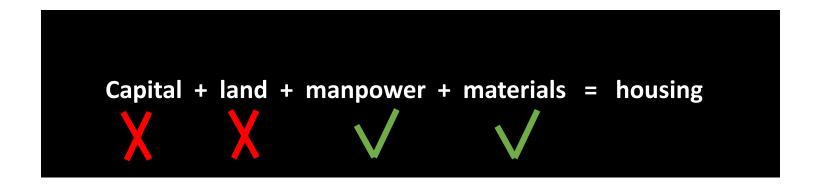


- Housing crisis in urban areas
- Shortage of housing for lower income groups
- Shortage of affordable student housing
- Similar situation throughout the nordic countries

### Why? All we need is this:

Capital + land + manpower + materials = housing

### Parts of the equation an increasing challenge



### **Capital and land: The trend in the Nordic countries**



- Increased gap in income ----> struggle for lower income groups
- Increased gap between generations Young vs. Seniors
- Increased focus on market solutions
- Urbanisation ----> Land shortage in urban areas

#### The nordic welfare model at a crossroad?

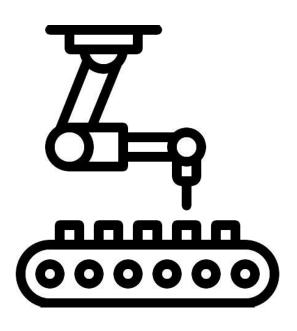


- Do we still provide equal opportunity in the nordic tradition ?
- What are the options for todays students?
- Is the new key question Can mom and dad pay?

# So where do we go from here?



### Last centuries set of rules for meeting surplus demand at a low cost:



- Mass production
- Automisation
- Availability of land urban sprawl



#### And it wasn't all bad!



- Often great plan design
- Mass production + Short lead time ---> affordable
- Available to the masses ----> equality

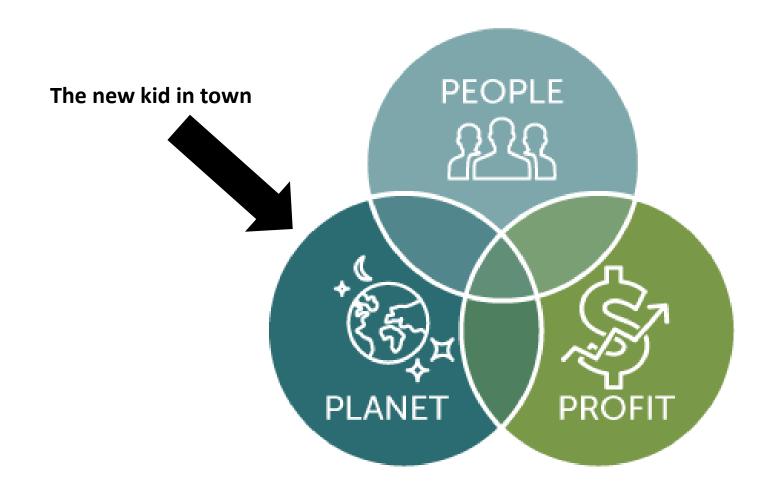


- Homegenity
- Lacking visual qualities
- Lacking social stimulus/identity

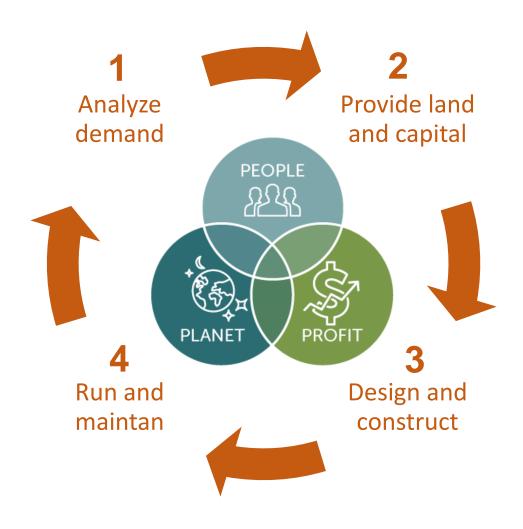
# 21st century: There is a new set of rules



### **Sustainability**



### Impacts every step in the housing process



### My main focus today: The developement angle



### **STEP 1: ANALYZE DEMAND**



### The general trend



- Changing demographics increased demand for smaller units
- Job market change: Shorter time in each job
- International job market ---> Increased migration
- Increased tourism AirBnb effect on housing market

---> challenges in analyzing both current situation and long term demand

### **Iceland**



- Massive growth in number of tourists in the last years
- 565.000 in 2011
- 2.224.000 in 2017
- Icelanders are 350.000 !!!
- Increased number of foreign workers
- A dramatic shift in the nature of housing demand

Current data analyses age, gender and listed home but not much more.....

### **Student housing in Iceland**

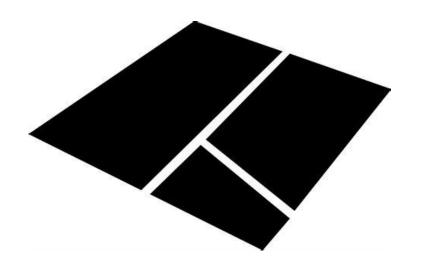


- Strategy for student housing up to each municipality
- No cohesive strategy left up to chance
- Pioneers like FS are keeping things going
- Housing banks new analysis unit good news!

### **STEP 2: PROVIDE LAND AND CAPITAL**

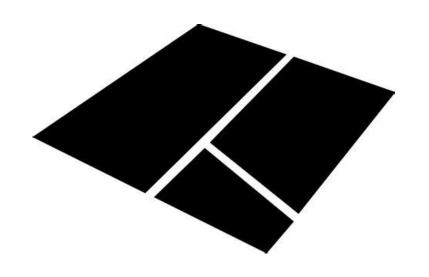


### Land – the current situation



- Scarcity of land in urban areas
- Higher cost of land raises prices of each unit
- Students not a "sexy" target group for profit driven companies
- Affordable land for student housing depends on the will of municipalities
- Long term plans vs. Political stability ?
- Inernational laws on market and competition can hinder government and municipalities even if the will is there

### **Iceland**



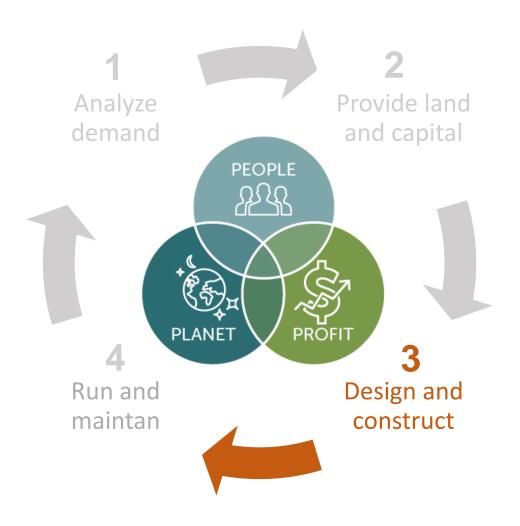
- Availibility of land for student housing is dependant on the political view in each municipality
- No central rules or cohesive strategy
- Reykjavik doing well but the neighbouring communities doing next to nothing
- Need to adress some key changes in laws as stimulus for municipalities

### **Capital**



- Situation in nordic countries varies surprisingly much
- But Iceland is a separate act of it's own!
- Small currency that fluctuates
- High interest rates
- The good news is new funding "Almene boliger"
- Funded by state and municipality
- A few actors starting but dependant on political will

### **STEP 3: DESIGN AND CONSTRUCT**



### This is where the magic happens.....

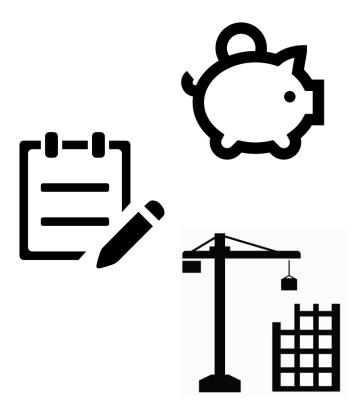


- The chance to meet all three parts of the sustainability model
- A pleasant and stimulating place to call home
- A construction method and total design that fosters a low environmental imprint (materials, process and way of life)
- And how can we plan this so the final cost is reasonable for young people going out into the world?



**PROFIT: The economic factor** 

#### **Profit: The economic factor**



- Rising cost of new housing is an increasing problem across the Nordic countries
- Increased segmentation in the construction value chain with a higher number of actors and less transparency
- The last decades: Increased regulations, slower permit process and increased restrictions across the area
- Intense public debate on how far to go: environment, fire code, universal design etc.
- Iceland at a stand still new regulation since 2013
- Some improvements since but more needed

### One of the solutions might be increased alignment in nordic building regulations



- Small market area in each country (Iceland miniscule!)
- Building regulations unique in each country
- Lagging behind in internationalisation
- Historical and cultural reasons
- We are losing out on scale possibilities in solutions
- Huge future potential for increased alignment!
- Win win for the citizens and industry

#### Nordisk bolig organisation NBO pilot project 2016



- Same challenges across NBO's member countries with rising prices of new housing units
- The aim of the project: To shed light the potential in increased construction market alignment across the Nordic countries
- Two projects danish and swedish
- Analysed on the basis of regulation in each country
- Could the houses be built in the other nordic countries?
- What are the obstacles and possibilities ?

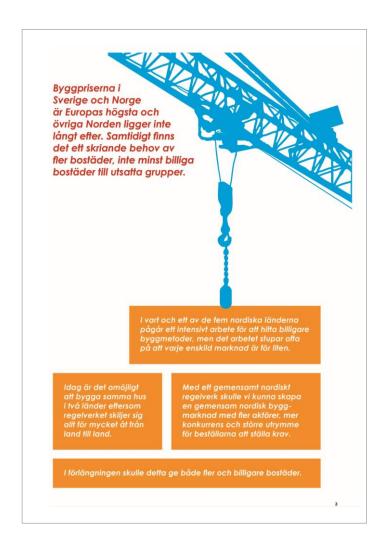
### The projects and workshop





- Almen bolig + Denmark
- SABO's Kombo hus Sweden
- Local experts layout, structure, technical, fire, sound etc.
- Analysis of each project
- Workshop in Copenhagen
- Experience from actors trying solutions across Scandinavia
- IKEA BoKlok
- Skanska
- Obos & NCC Design quattro

### **Main findings**



- Neither of the standard houses can be built in the other countries
- Actors from the industry report walls stopping new solutions across the nordic market
- Sometimes even varying demands between municipalities within the same country
- Current situation hinders competition and uniting market areas
- Nordic governments encouraged to adress this as a united front
- Quick solve in the mean time: A standard project in one country be allowed in others?



**PLANET:** The environmental factor

#### The situation in the Nordic countries



- We are still in the start phase of implementing environmental thought in the design process
- As often the focus in the beginning is on the needed tools
- Again unique solutions in each country!
- Interesting differences between the market influence of environmental solutions in different countries
- In Iceland environmental certification is almost only done in government projects
- In comparison environmental labels have become common in Holland
- Time, cost and paperwork often a challenge in selling the methodology

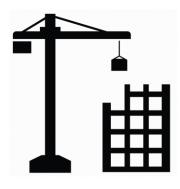
### Iceland and the environmental factor in built environment



- We are on our way but have a long way to go
- Iceland lagging behind the Nordic countries
- Geothermal energy ---> good excuse.....!
- High aspirations from the current government
- Aiming higher than the Paris agreement
- The effect remains to be seen in the coming months and years

# But common sense can get us far...... The basics:



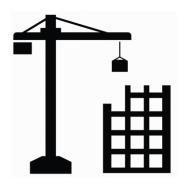


#### **DESIGN SOLUTIONS AND MATERIALS**

- Choose the right materials based on lifecycle
- Use as little of them as possible
- Lose as little material as possible in the process
- Use as little energy as possible in the process

### The basics





#### **DESIGN OF USER INTERFACE**

- Create a design that promotes the lowest possbile environmental imprint
- Energy use and maintenance
- Effective use of area: excess m2 hardly environmental!
- Social factor: How does the design promote and enable environmentally conscious living?
- Choice of transport, garbage disposal, daily use and reuse of equipment etc.



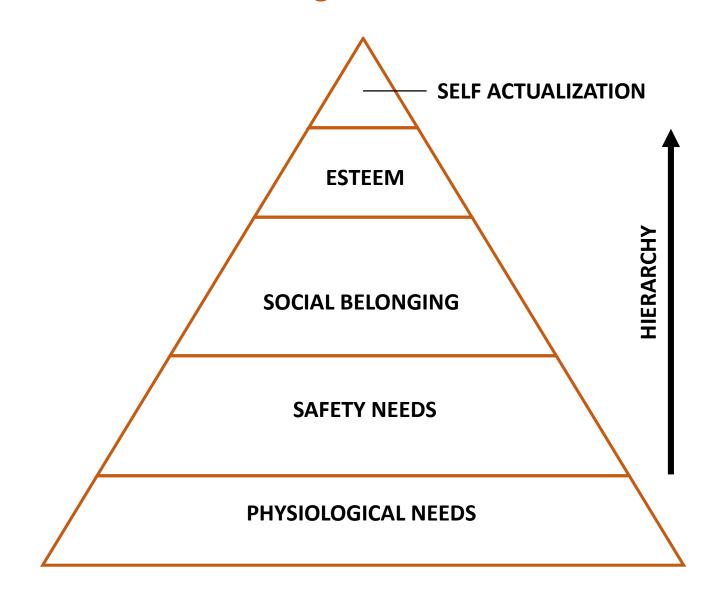
**PEOPLE: The social factor** 

## Student housing from a social perspective



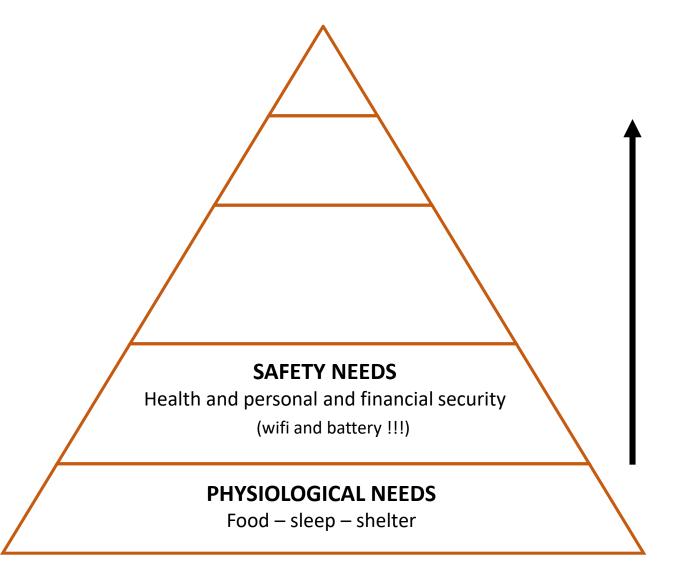
- Student housing is the setting where one learns to make a home
- A key period for molding ones personality and how one lives!
- A type of school ©
- The design has a tremendous impact on daily life and mental wellbeing

## Maslows hierarhy of needs as a barometer for student housing?



## **Regulation standard**





## The social dimension - community





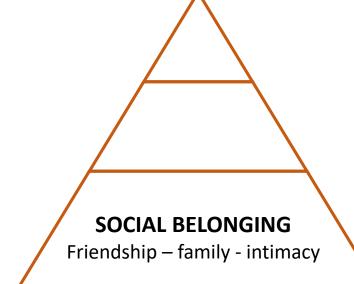












#### **SAFETY NEEDS**

Health and personal and financial security (wifi and battery !!!)

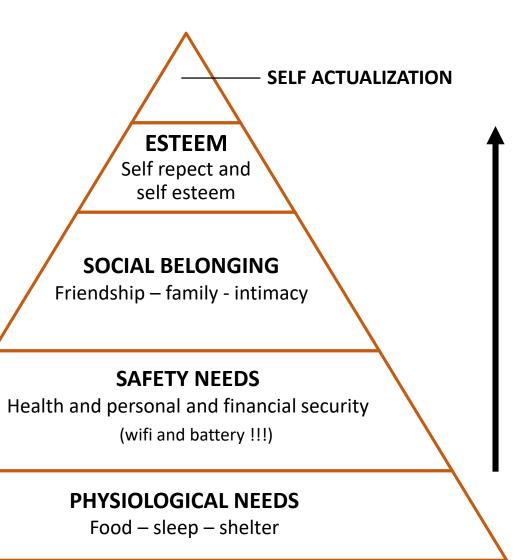
#### PHYSIOLOGICAL NEEDS

Food – sleep – shelter

## **Reaching ones potential**







## **Todays conference is an important statement**





You are here!







The social dimension



**Regulation standard** 

# Watching FS strategy in regards to building community in the last years has been an inspiration



And finally.....

## **NSBO** members have a unique view



- In a segmented industry of housing production you are in a unique position of touching all phases of the housing cycle
- You are in fact a link between the students using the houses, those who design and build them and those who maintain them.
- The life cycle view of your business encompasses all parts of the triple helix

## Use your experience in a proactive manner



- Use every chance to listen to the users and implement their suggestions in the next housing projects and improving older ones
- Use your experience of maintenance to teach the industry what works in maintenance and what doesn't
- If there is one thing that the fragmented construction industry need to day it is holistic FEEDBACK!
- And last but not least use NSBO as an active voice in public debate on the future of student housing in the nordic countries!

I wish you good luck on the important trip you are on here today

















### THANK YOU

















