

# THE COMFORT HOUSES in Vejle

## 10 Danish passiv houses



# The idea...shortly

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- We are building 10 passive houses in Denmark
- The houses shall be build:
  - according to PHPP requirements
  - according to Danish building traditions
  - on a common parcel – to be used as an area of development and followed by exhibitions (professionals and future building owners).
- The project is finished when all houses are sold

# The organization of the project



- Registered a company (Komfort Husene A/S) with a share capital of app. 300.000€ + loans granted of app. 5 mill. €
- Middelfart Sparekasse and Zeta Invest owns the company
- ISOVER has taken the initiative – and leads the project
- A Phd-student will be working on the project



# The project

- The client is the company KOMFORT HUSENE A/S, represented by Zeta Invest and Middelfart Sparekasse.
- The company buys the 10 houses of 10 different contractors or consortiums
- The houses are to be build and sold on normal market conditions
- The houses shall be certified passivhouses
- 1; 1½; and 2 floors – heavy and light constructions
- In a common area of development



# The houses

- To be placed in a beautiful area close to facilities attracting families
- The houses shall:
  - be built according to Danish building traditions
  - be built in modern Scandinavian architecture
  - be functional
  - be comfortable for a family of 2-3 children and 2 cars
  - show comfort in all senses
  - be part of the neighbourhood



# Variety of the 10 houses



5 1 story  
1 1½ story  
4 2 story's



4 Heavy cavity walls  
6 Wood framework



4 Brickwork  
3 Plasterwork  
1 Concrete  
2 Wood-clading



# Cooperation and innovation

## CREATING

Knowledge is created through cooperation



## SHARING

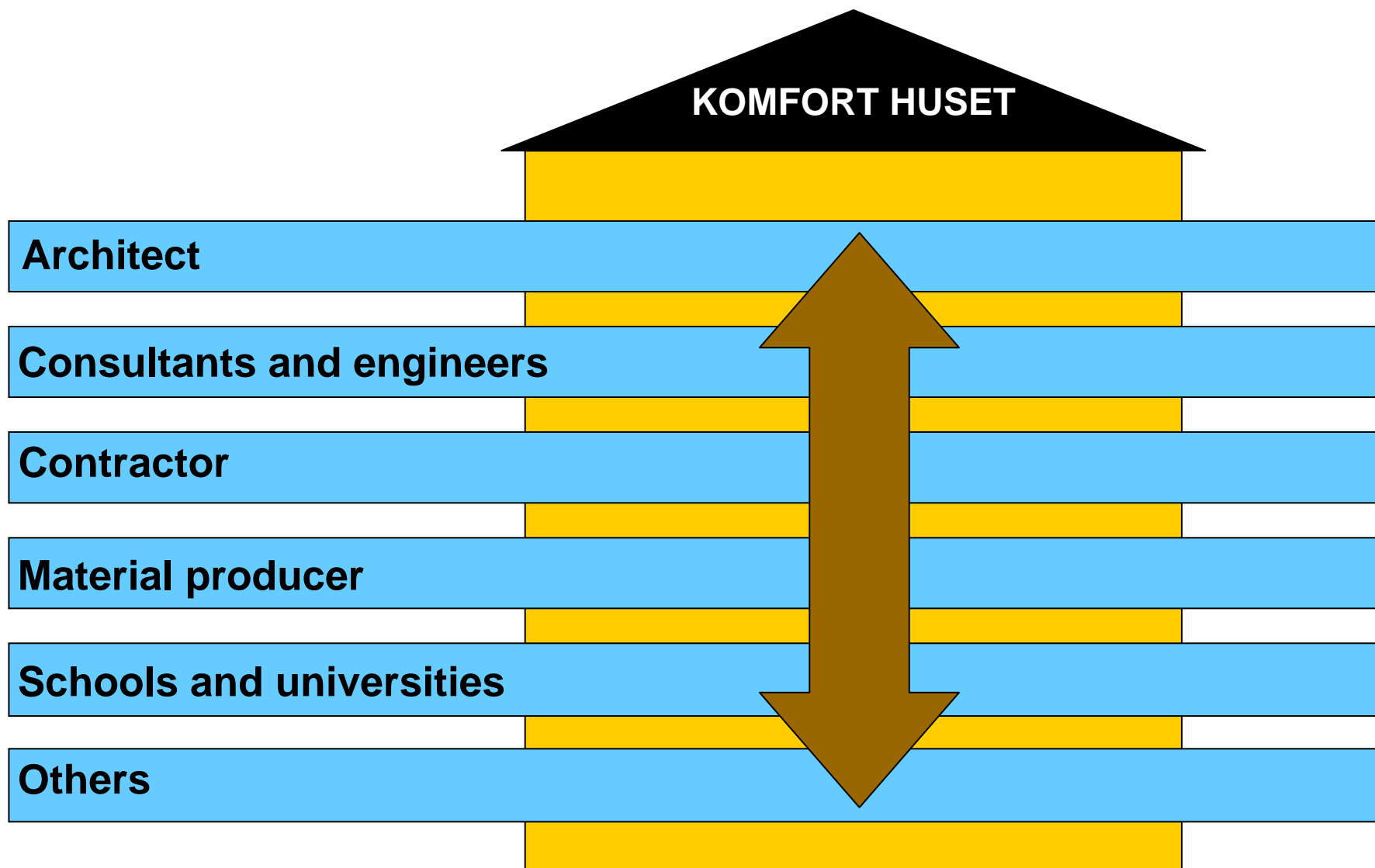
When knowledge is shared – new knowledge rises

## UTILIZING

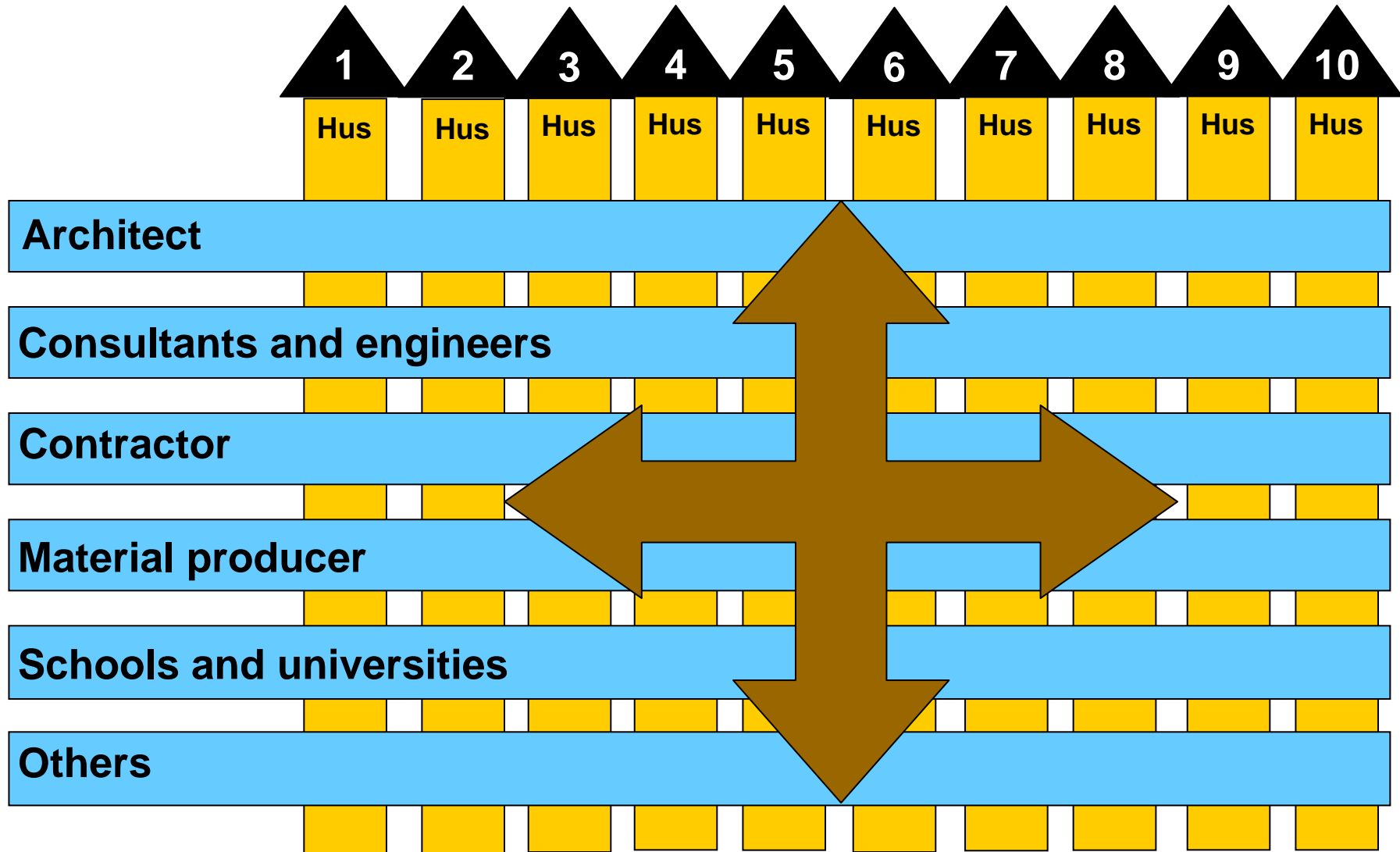
Utilization of knowledge increases competitive power and financial growth



# Cooperation and innovation



# Cooperation and innovation



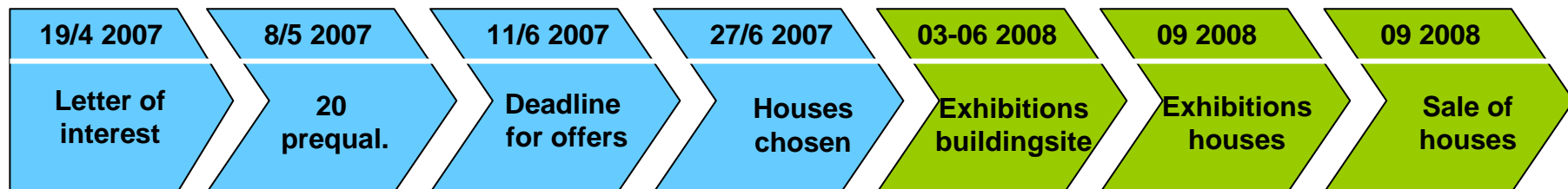
ISOVER has employed a PhD-student on the project. Her job is to:

- develop and evaluate new solutions on constructions
- analyze the architectural and technical qualities of the houses
- analyze how the different qualities of the buildings affects the home owners and their comfort



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# Time scedule of the project



**The project is finished  
when the houses are sold**

# Summary

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- 10 interesting and inspirering suggestions on the Danish passive house of the future
- great creativity in design and high focus on comfort in the building
- great variety in constructions – most common types are represented
- energi demand for heating is app. 7 – 9 kWh/m<sup>2</sup> year (BE06) = 13-15 kWh/m<sup>2</sup> year (PHPP)
- Size is app. 140 – 250 m<sup>2</sup>
- Prices = 500.000 – 800.000 €