

IEA-EBC Annex 61 Graz



Social urban retrofit – the future of our energy bills

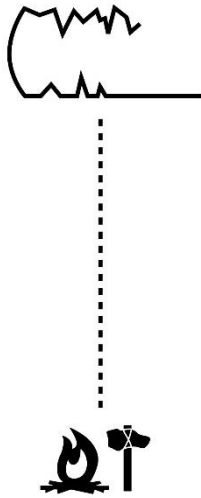
about systemchanges and where to start

**a mixture of
vision and
experience**

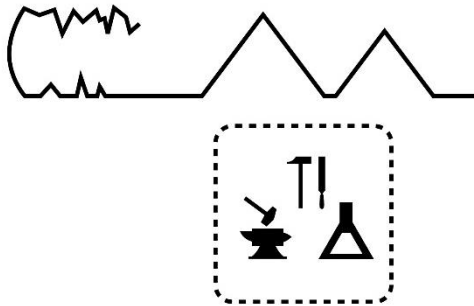
It all started in a cave



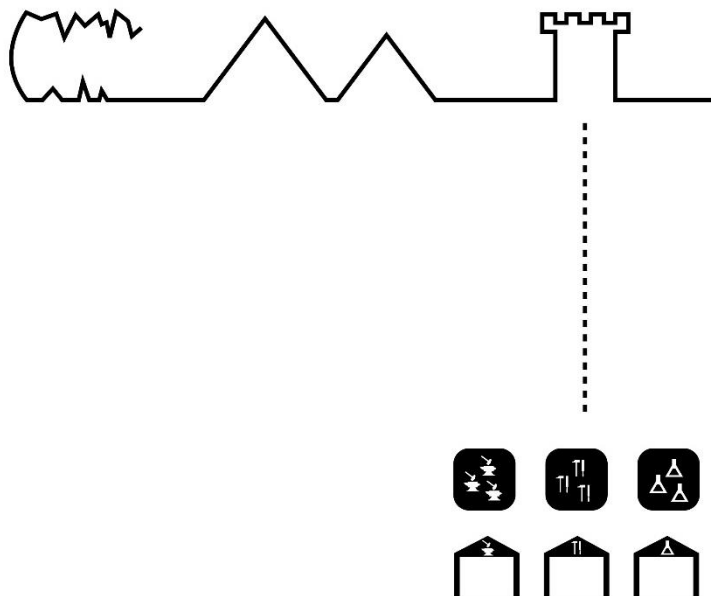
The ultimate do it yourself



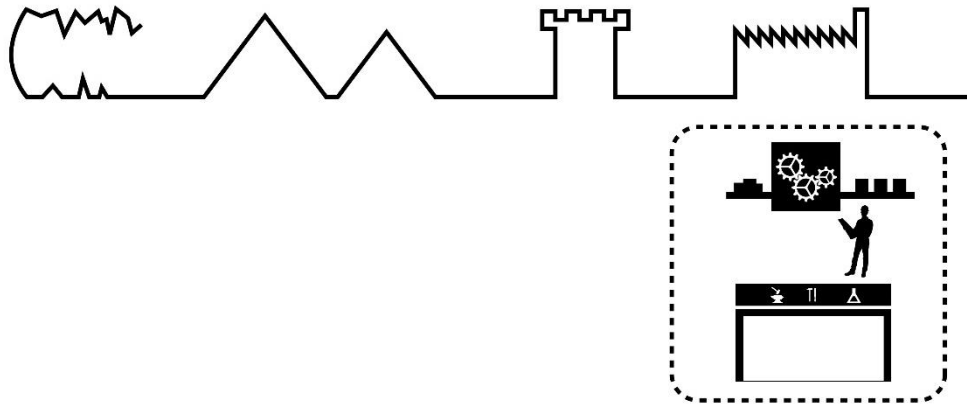
Specialization



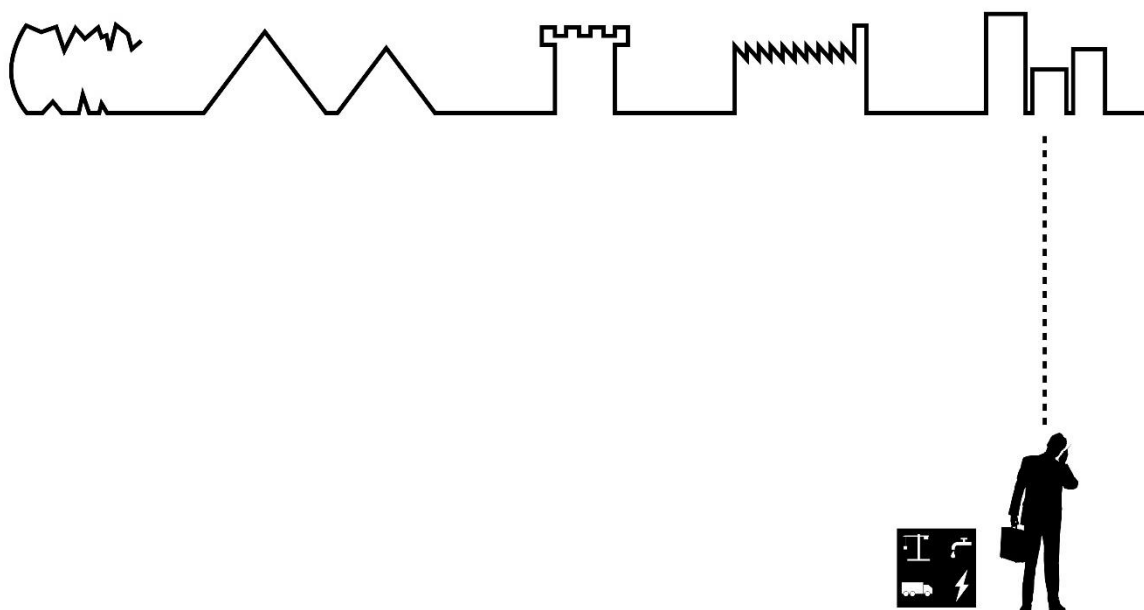
Cooperation



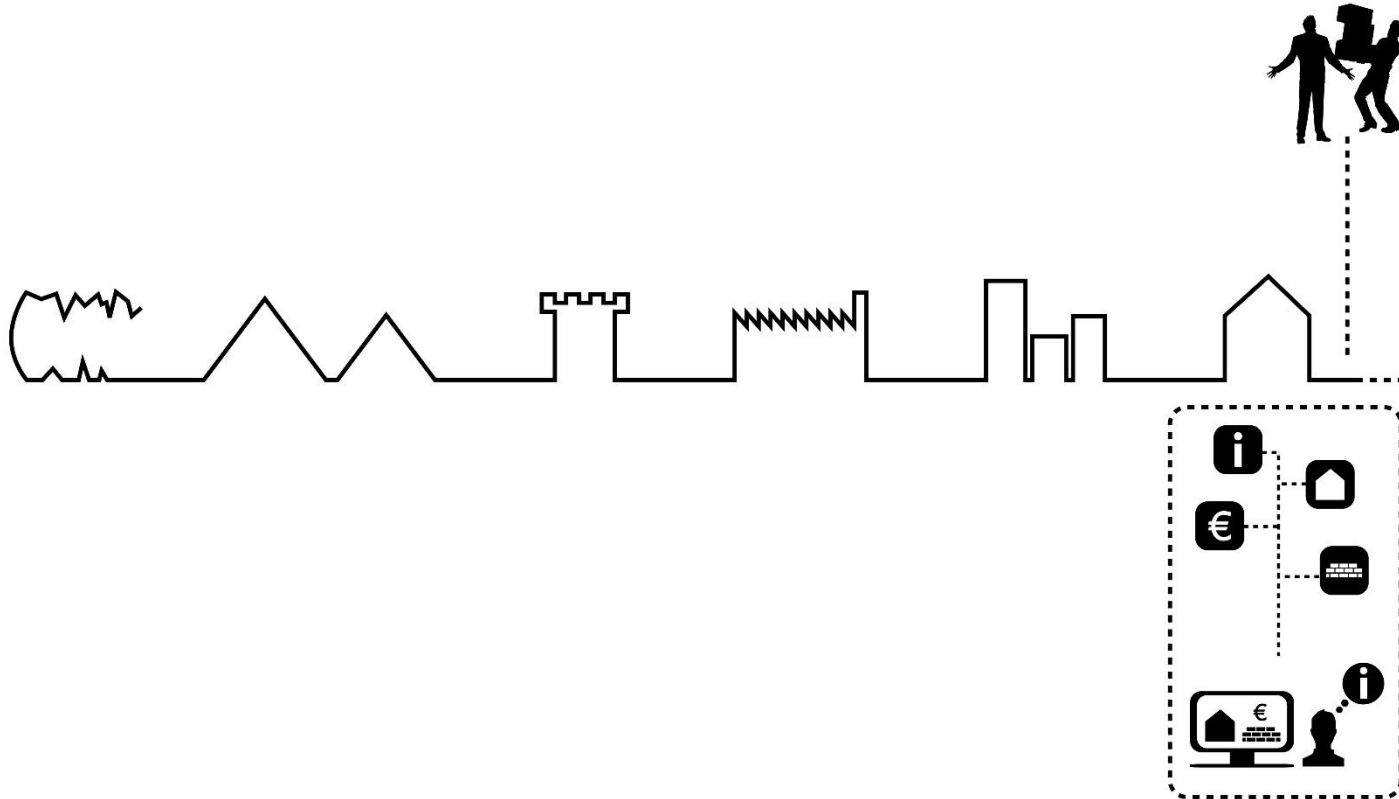
Industrialization



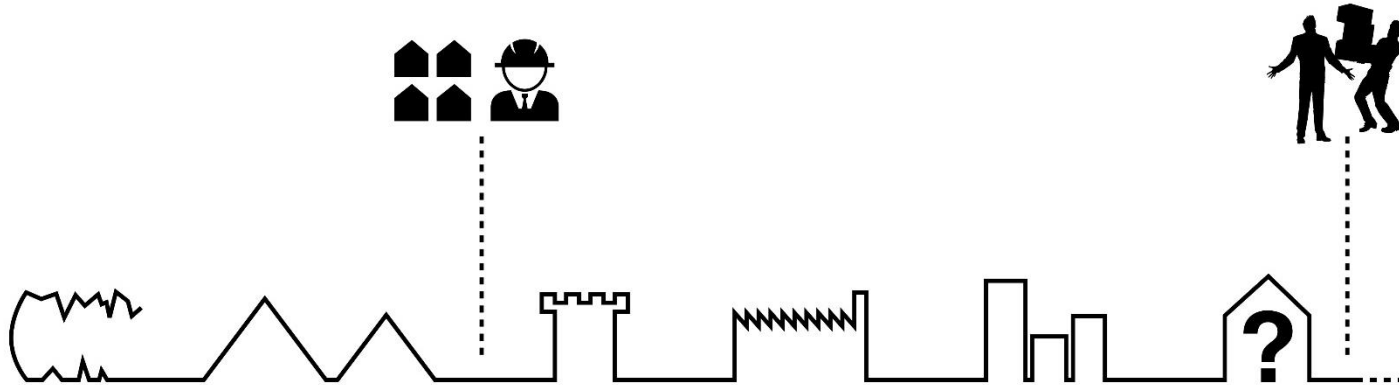
Service



Information



Why are our homes still medieval?



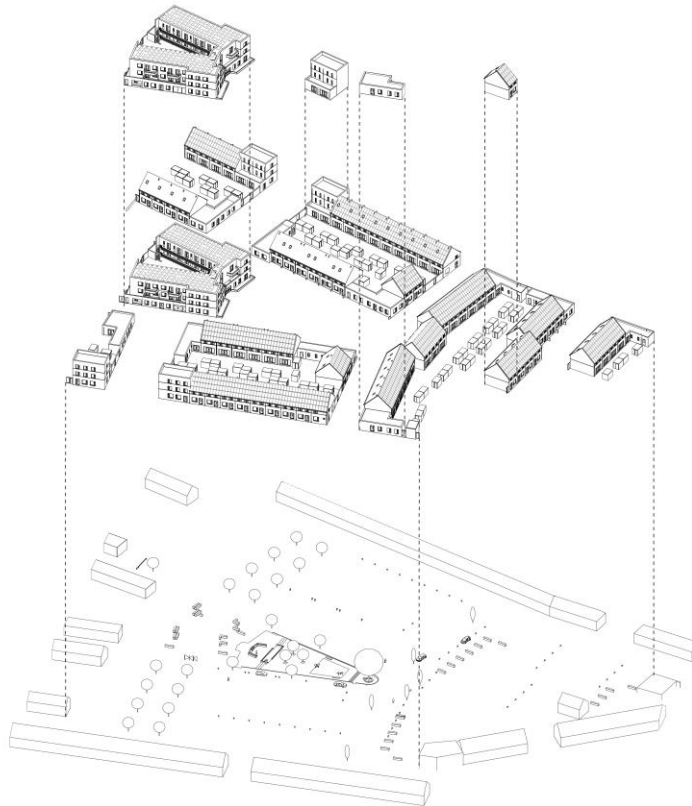
111 energieneutral social homes

Demolition and building proces within 25 days



111 energieneutral social homes

Demolition and building proces within 25 days



111 energieneutral social homes

Demolition and building proces within 25 days



additional investment

sustainability | living quality | organization | contextual quality of architecture

Home for elderly with dementia



Petterhusterstaete Stiens
rural region North-NL

Total cost of ownership

building | social | sustainable | economic

Development & Design
Building construction

100

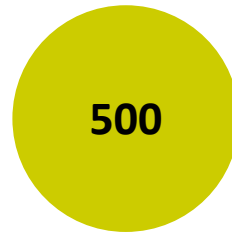
Total cost of ownership

building | social | sustainable | economic

Development & Design
Building construction



Maintanace
Energy costs



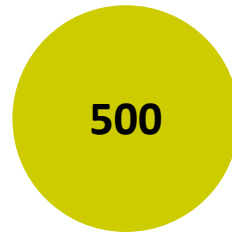
Total cost of ownership

building | social | sustainable | economic

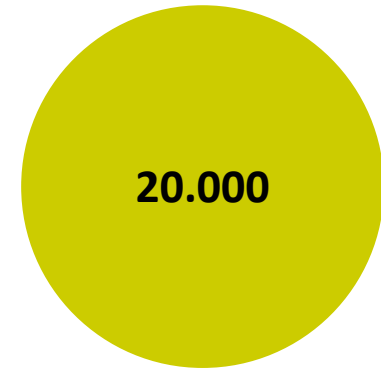
Development & Design
Building construction



Maintanace
Energy costs



Activities
Staff



Total cost of ownership

building | social | sustainable | economic

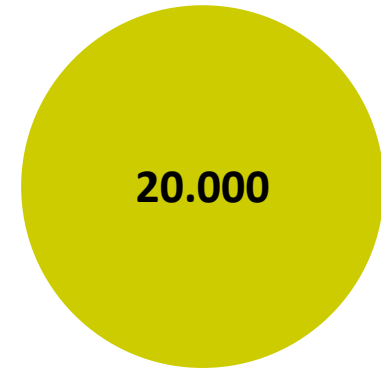
Development & Design
Building construction



Maintanace
Energy costs



Activities
Staff



● - 2%

Total cost of ownership

building | social | sustainable | economic

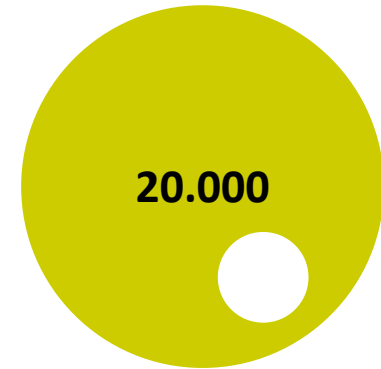
Development & Design
Building construction



Maintanace
Energy costs



Activities
Staff



● - 2%

● - 0,45%

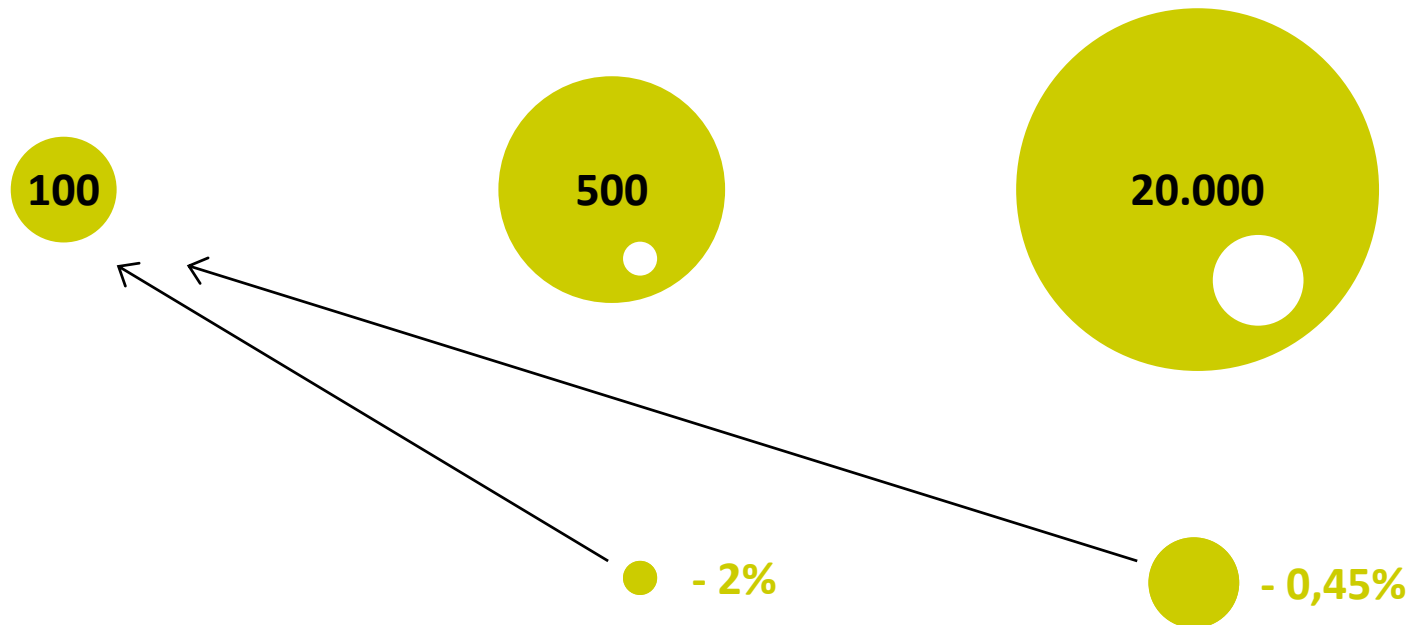
Total cost of ownership

building | social | sustainable | economic

Development & Design
Building construction

Maintanace
Energy costs

Activities
Staff



“Veilige Veste” [Safe Fortress]

A home for victims of violence, prostitution and human trafficking



The old policestation Leeuwarden

How we found it



The “new” Veilige Veste

How we left it



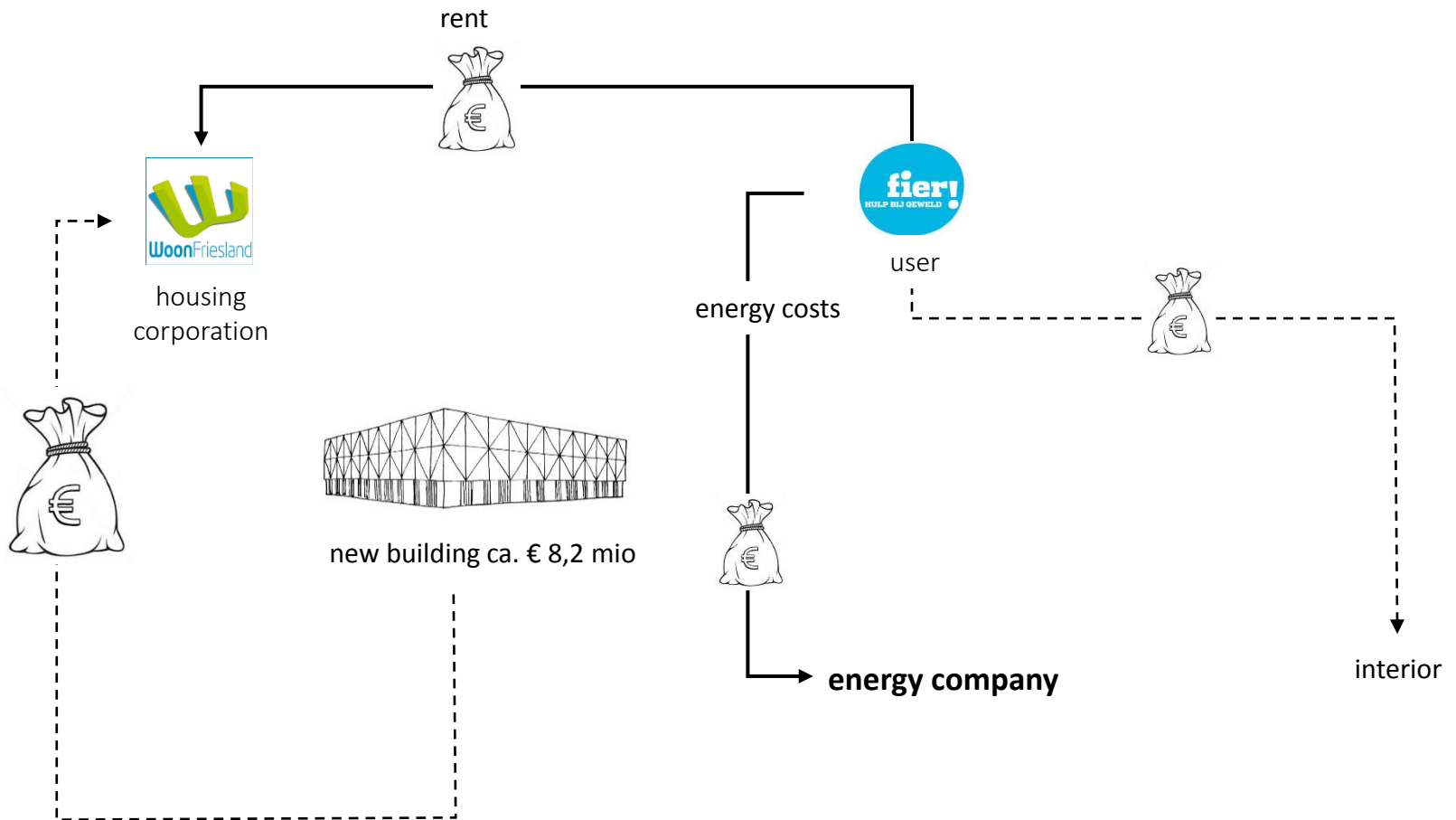
The “new” Veilige Veste

From prison cells to home



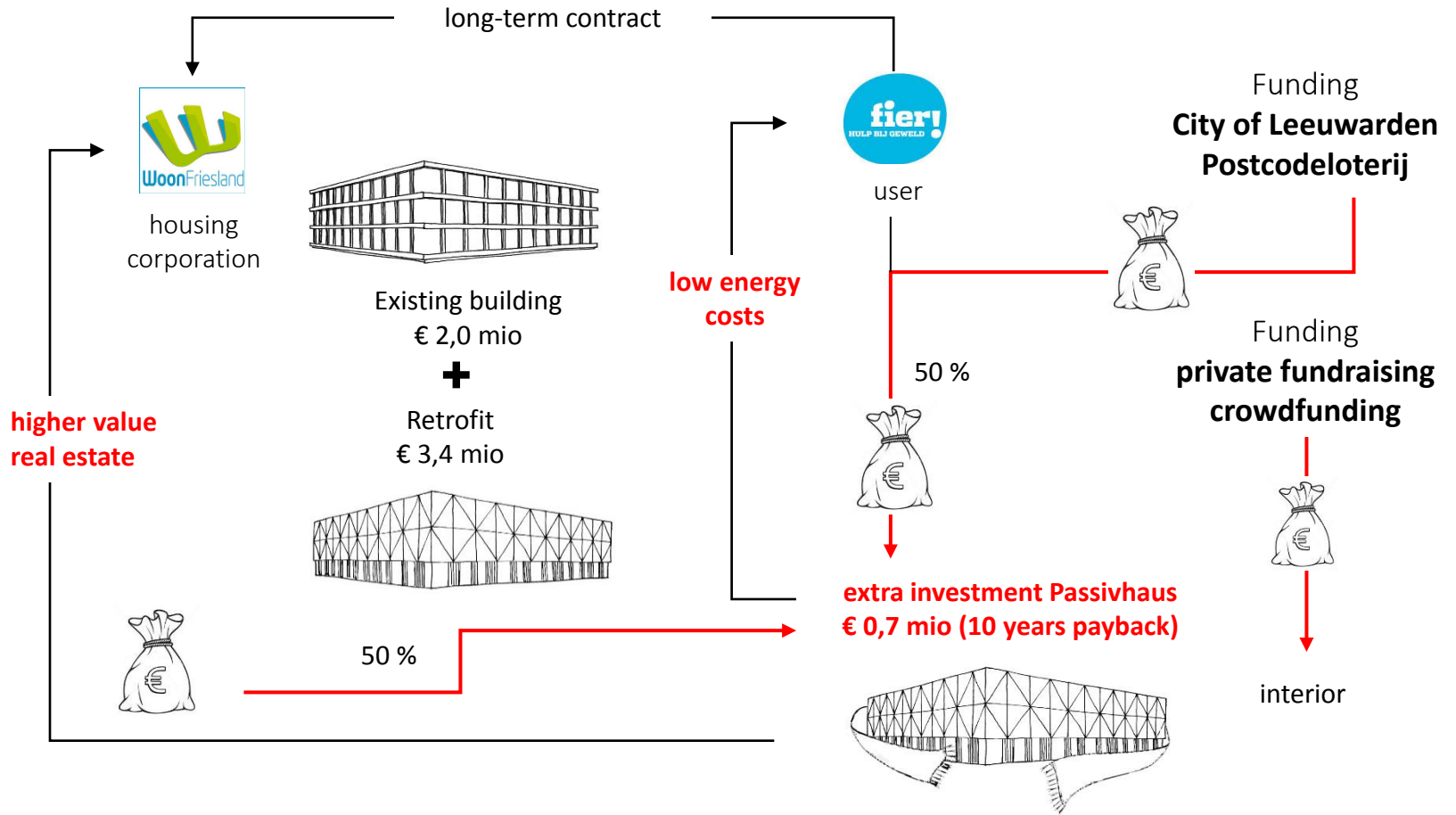
Financial relations

Investments and results through sustainable, high-standaard energy-saving retrofit



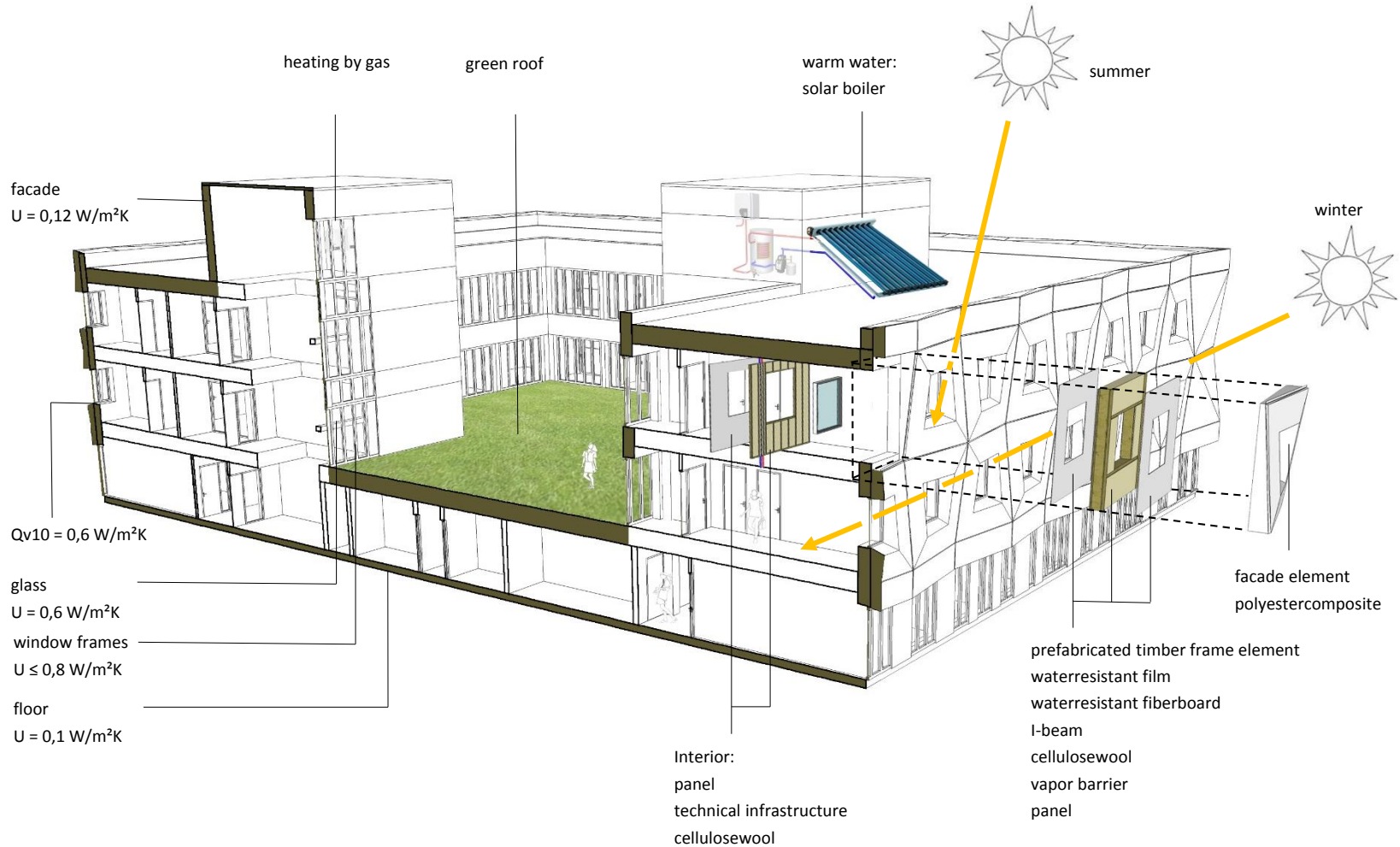
Financial relations

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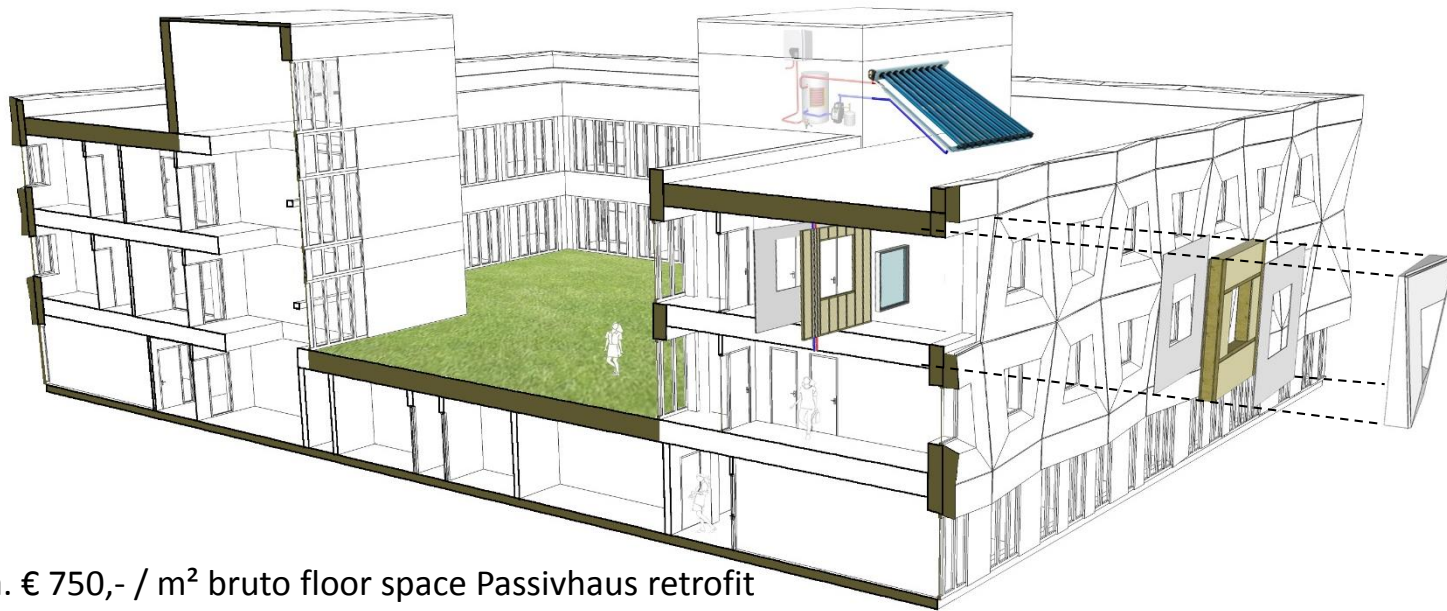
The concept

low costs | high quality



The concept

low costs | high quality



ca. € 750,- / m² bruto floor space Passivhaus retrofit

ca. € 1.100,- / m² bruto floor space complete object

ca. € 1.400,- / m² netto floor space

Calculatede reduction use of gas from 210.000 m³ to 25.000 m³ / a (in use 21.000 m³)

Construction time: 8 months

A cooperative performance

Hedy d'Ancona Award 2014
Sustainable Award 2012
Nomination Passivhaus Award 2012
1. Renovation of an office building Passivhaus NL



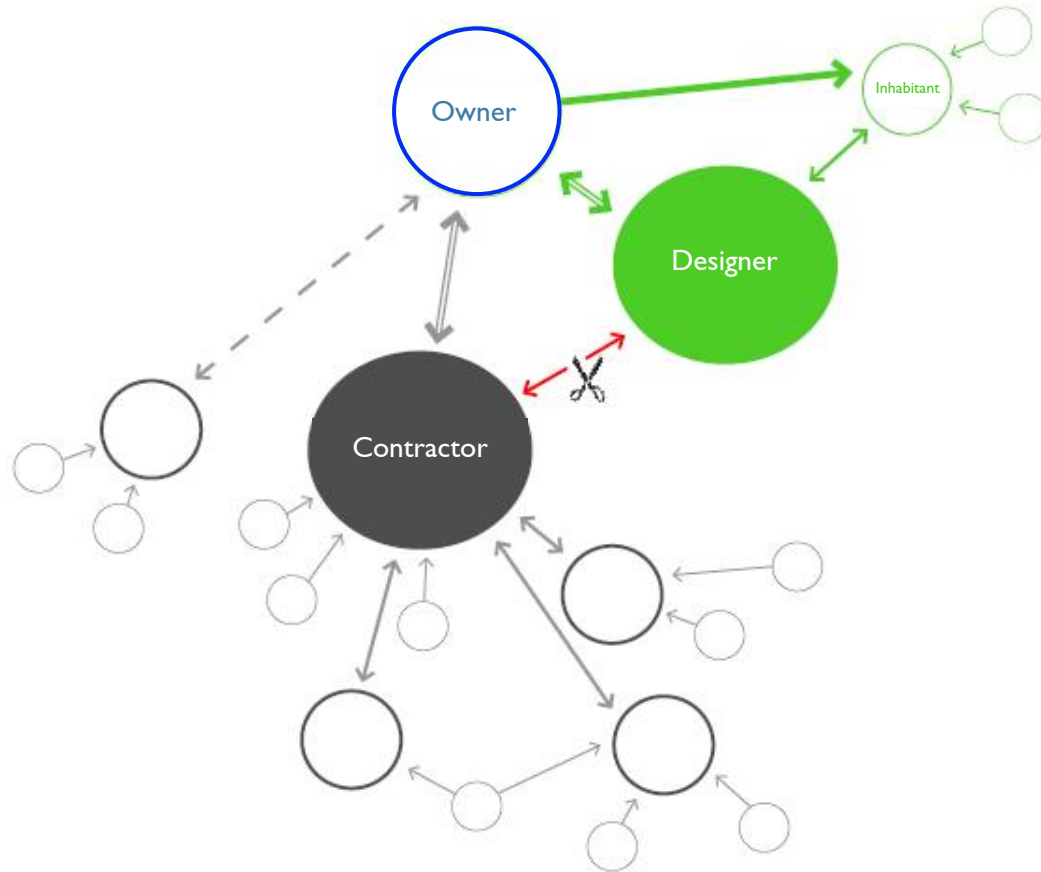
Kooperative Architecture Workshop

Start: 1. May 1976



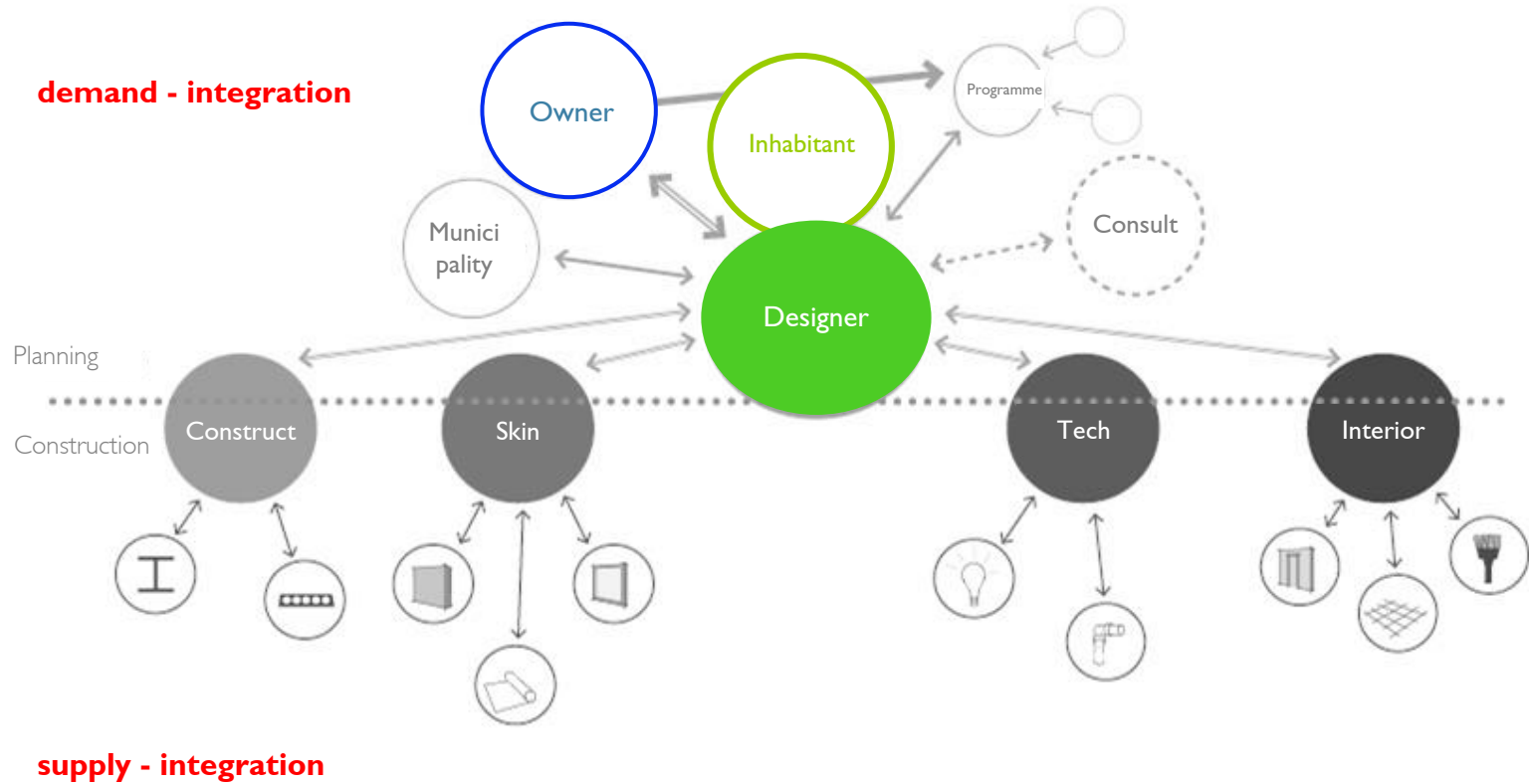
Traditional model

Against each other | competition



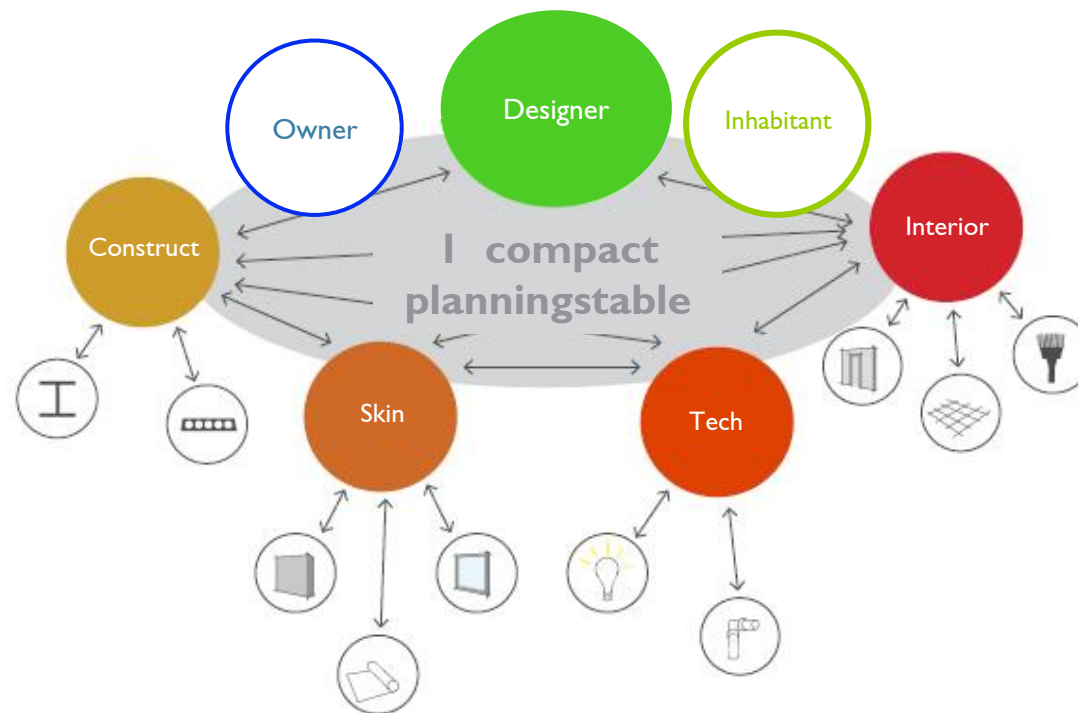
Innovative

Together | cooperation | integral team



Cooperative

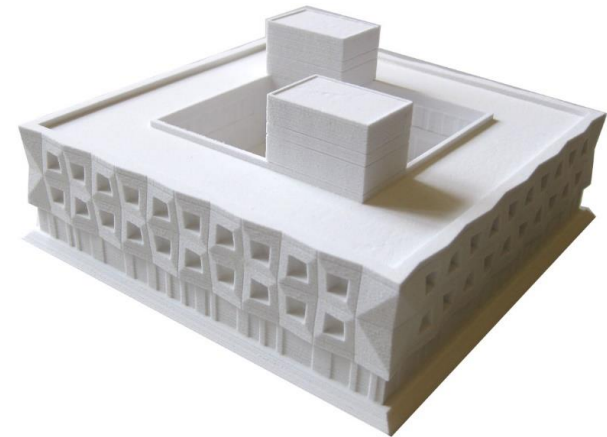
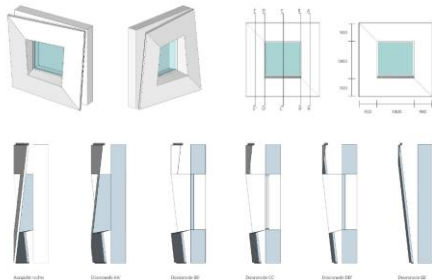
Working together for the same goal



Process tools

What we use

3D modelling BIM



3D print models

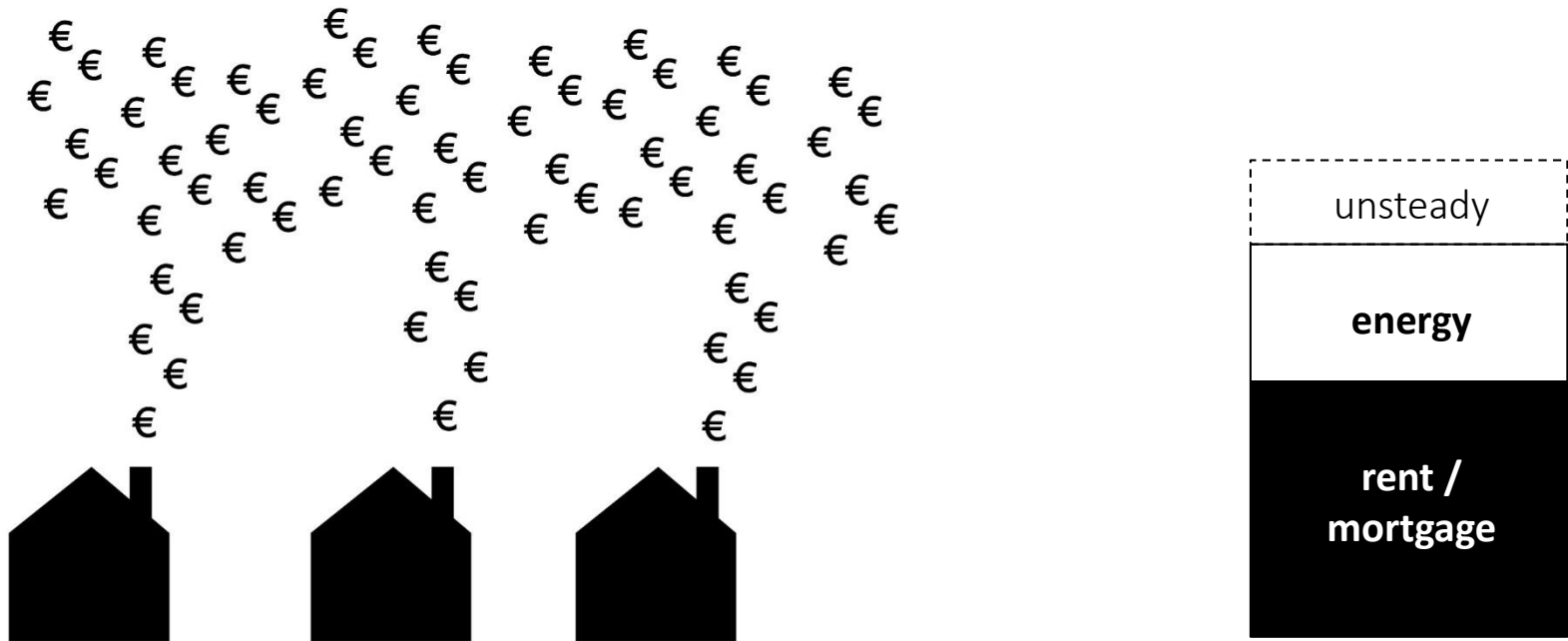


Online Platform

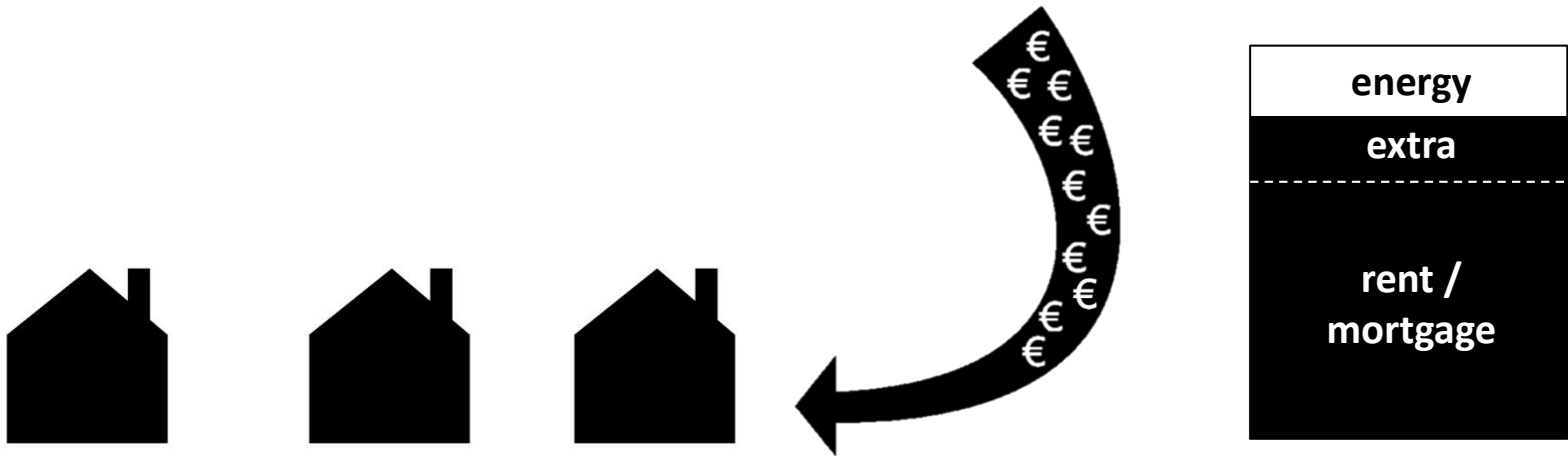


Communication strategy

The future of our energy bill

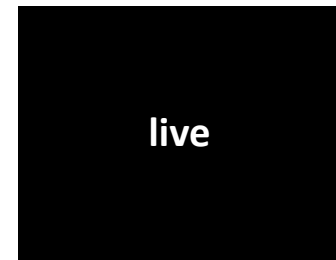


Why not spend the money better?

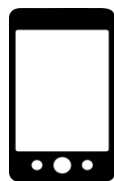
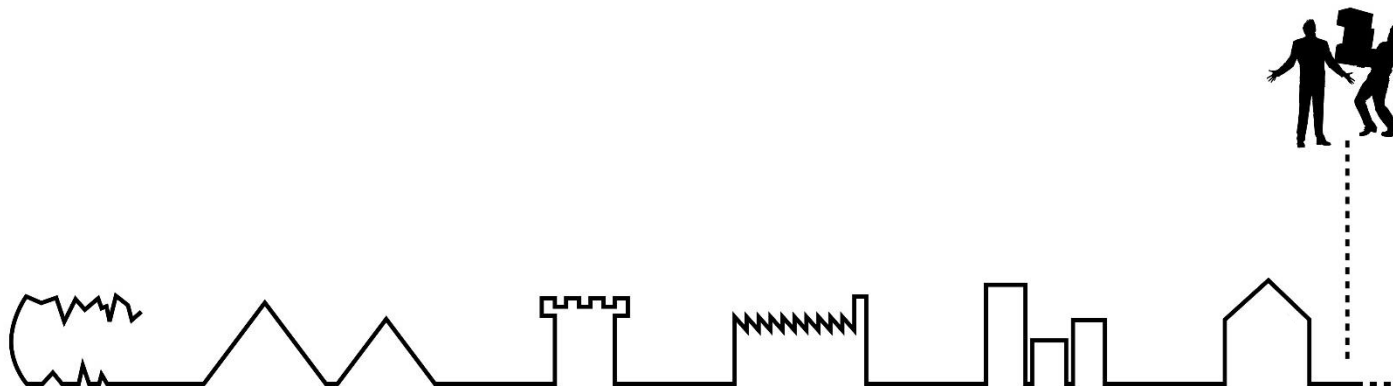


Nul-op-de-meter (NOM) as funding for sustainable retrofit

about € 45.000,- invest
fixed price
energybundle



Why not bring home to the present times?



communication



mobility



information

Why not buy retrofit like a regular product in a supermarket?

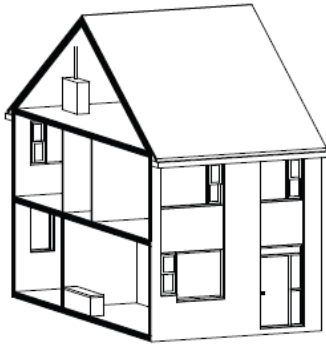


REIMARKT



Retail store in 4 Dutch cities
1st shop worldwide to buy sustainable retrofit

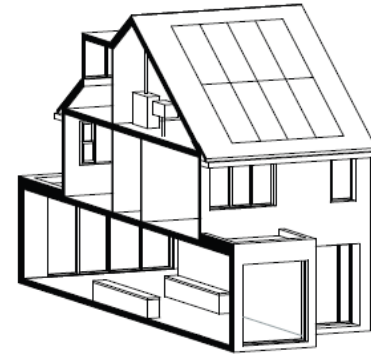
“it’s maintenance-free”

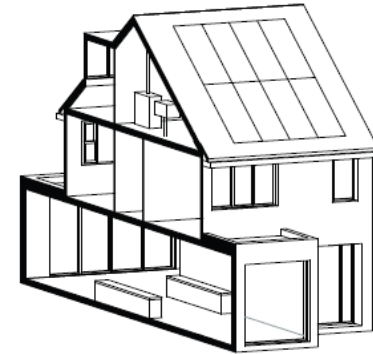
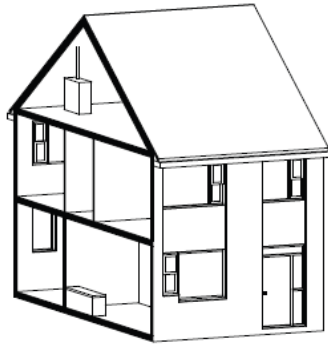


“you get more comfort”



“bigger value”

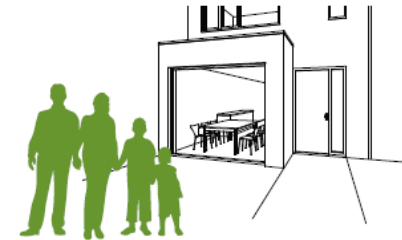




“I can stay home”



“I can chose”



“my house can grow
with my family”



ALLROUND
★★★★★

MINDER ENERGIE
★★★★★

Instappakket voor lagere energiekosten en meer comfort in huis!

REIMARKT ALLROUND



SAFE
★★★★☆

LANGER WONEN
★★★★☆

Met dit product koop je een drempelvrije slaapkamer en een badkamer op de begane grond!

REIMARKT

SAFE



ALLROUND
★★★★☆

MINDER ENERGIE
★★★★☆

Instappakket voor lagere energiekosten en meer comfort in huis!

REIMARKT

ALLROUND




AVANTGARDE
★★★★★

GROTER WONEN
★★★★★

Reimarkt FAMILY voor het grootste gezin in elke woning!

REIMARKT AVANTGARDE



SAFE
★★★★☆

LANGER WONEN
★★★★☆

Met dit product koop je een drempelvrije slaapkamer en een badkamer op de begane grond!

REIMARKT SAFE



ALLROUND
★★★★☆

MINDER ENERGIE
★★★★☆

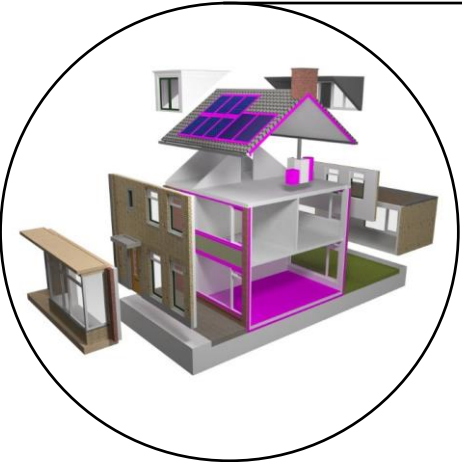
Instappakket voor lagere energiekosten en meer comfort in huis!

REIMARKT ALLROUND




From proces to product

Semi-finished products



Product



XXL



L

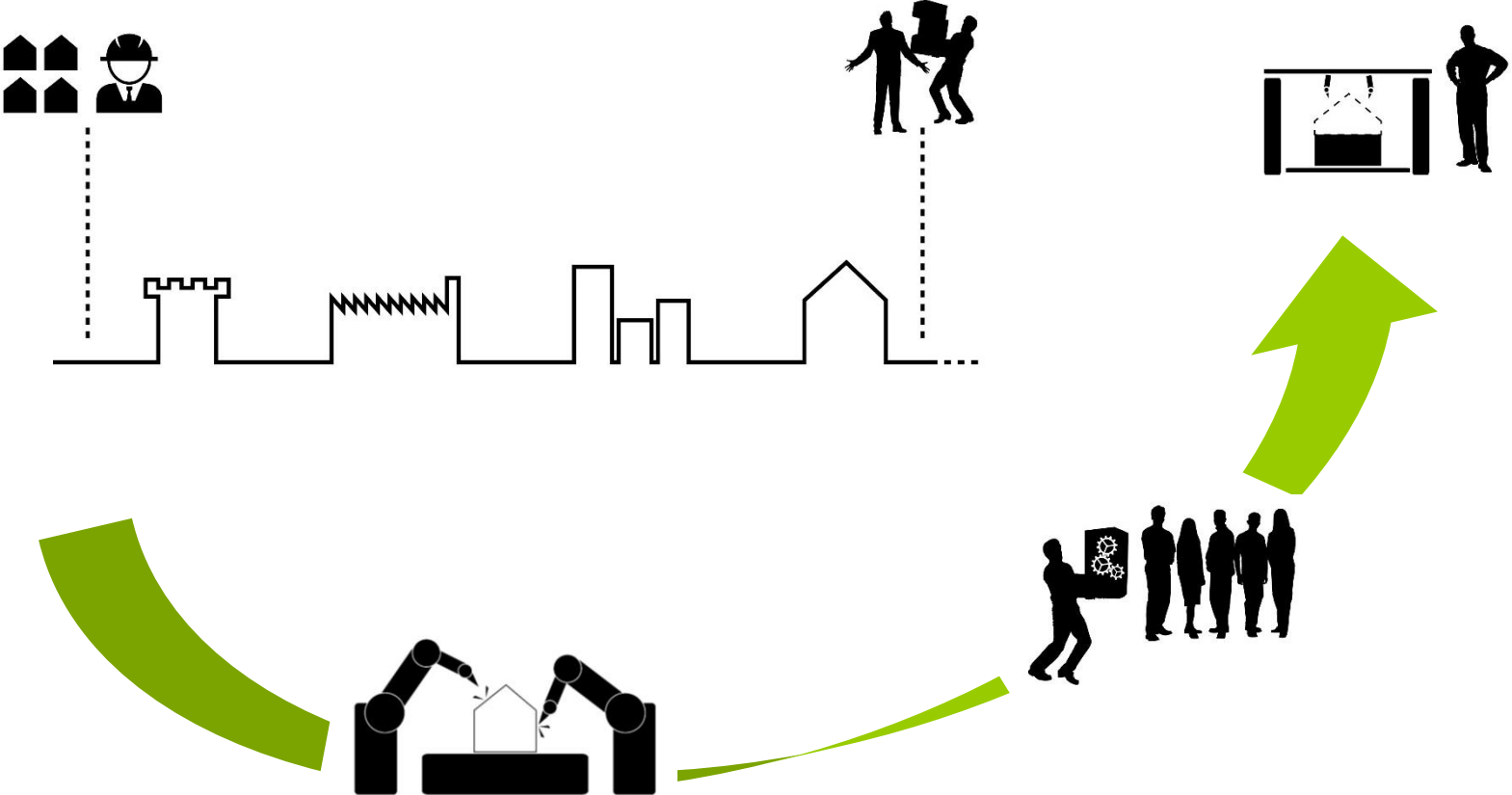


S



Urban patterns and typologies

The next steps



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