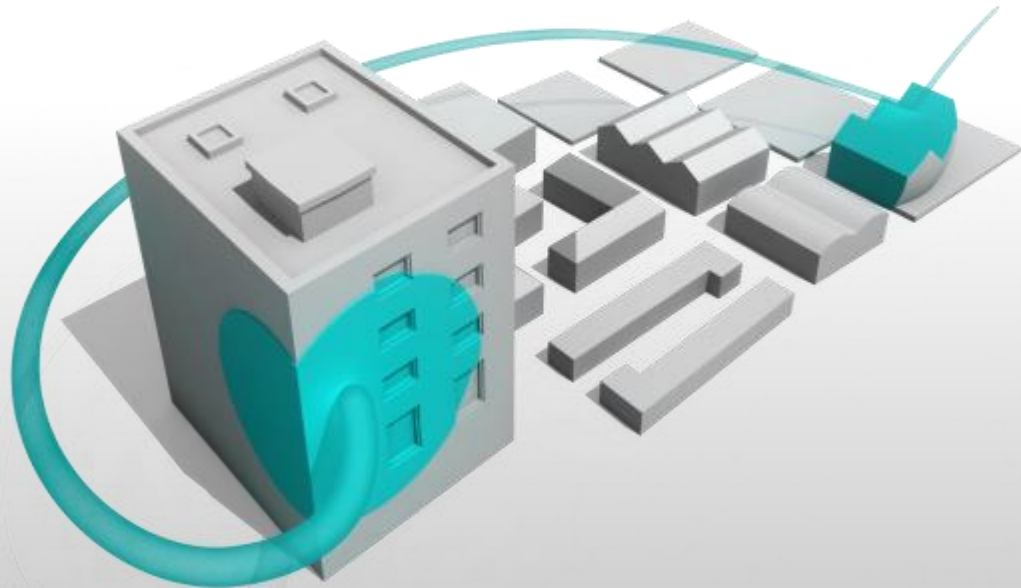


# Deep energy renovations

Ir. Jasper van den Munckhof (MA)

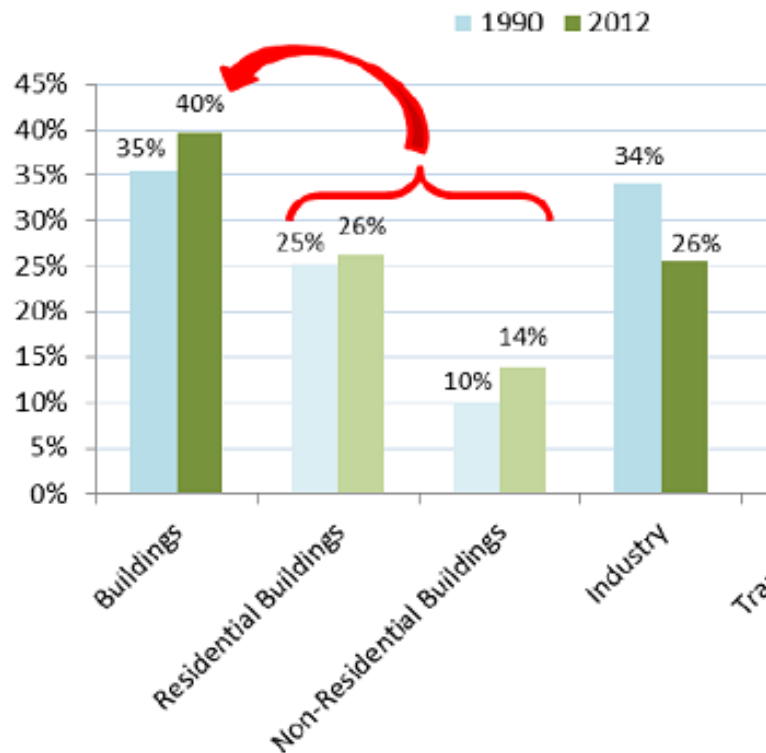




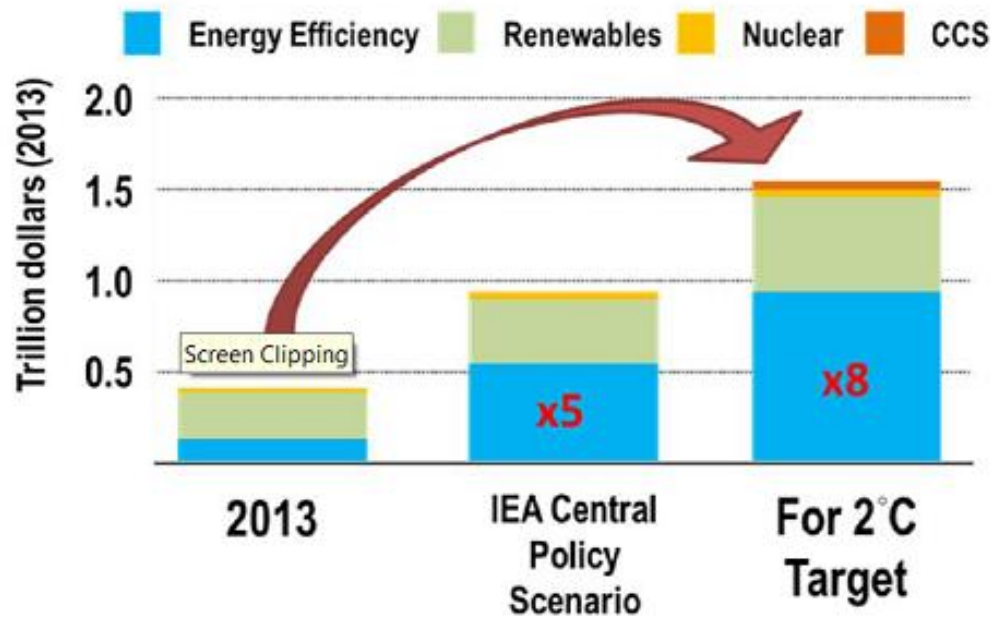
CTRL+CLICK on picture for Video

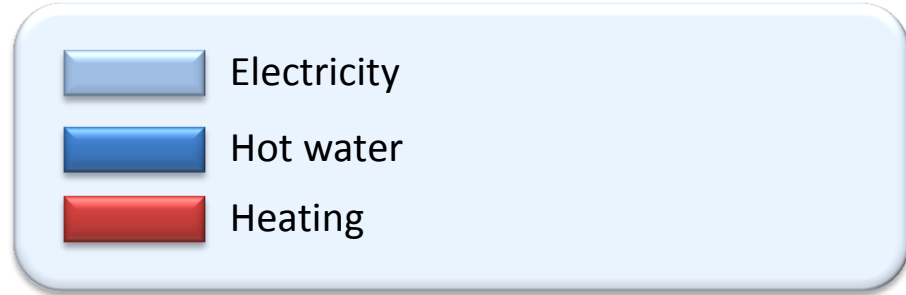
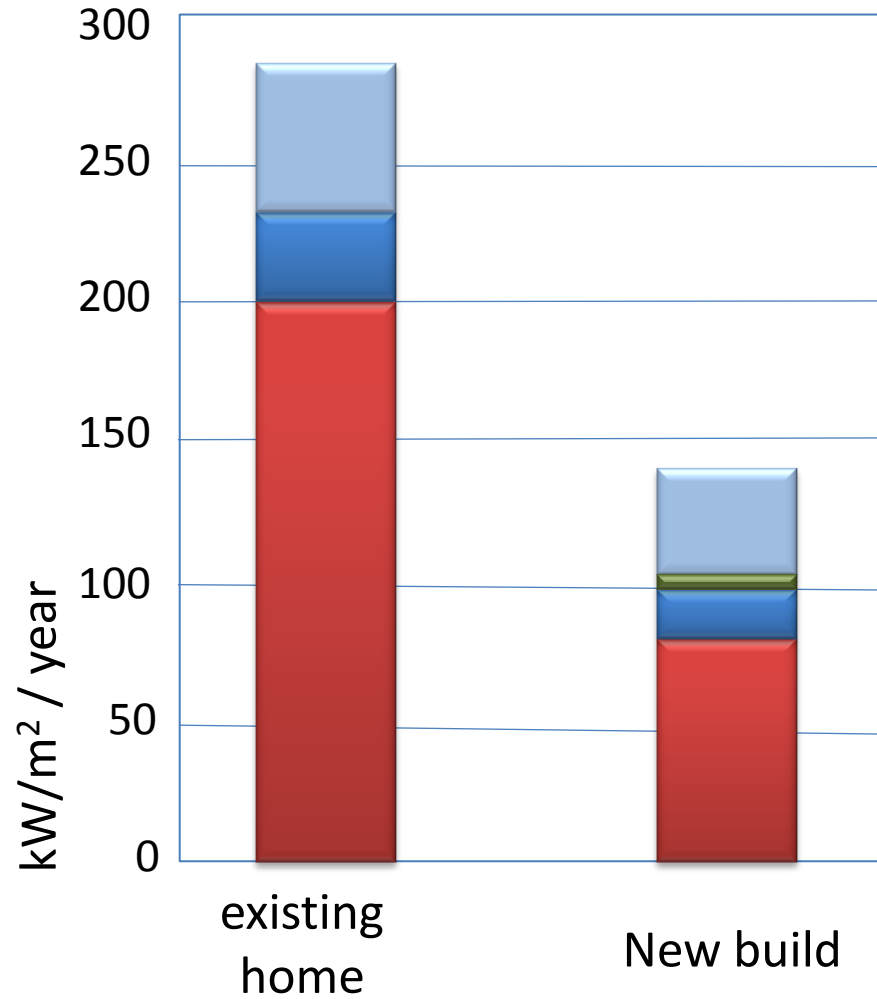


## Buildings 40% share in final energy consumption in EU-28



## Global Annual Investment Need (2010-2020, IEA)





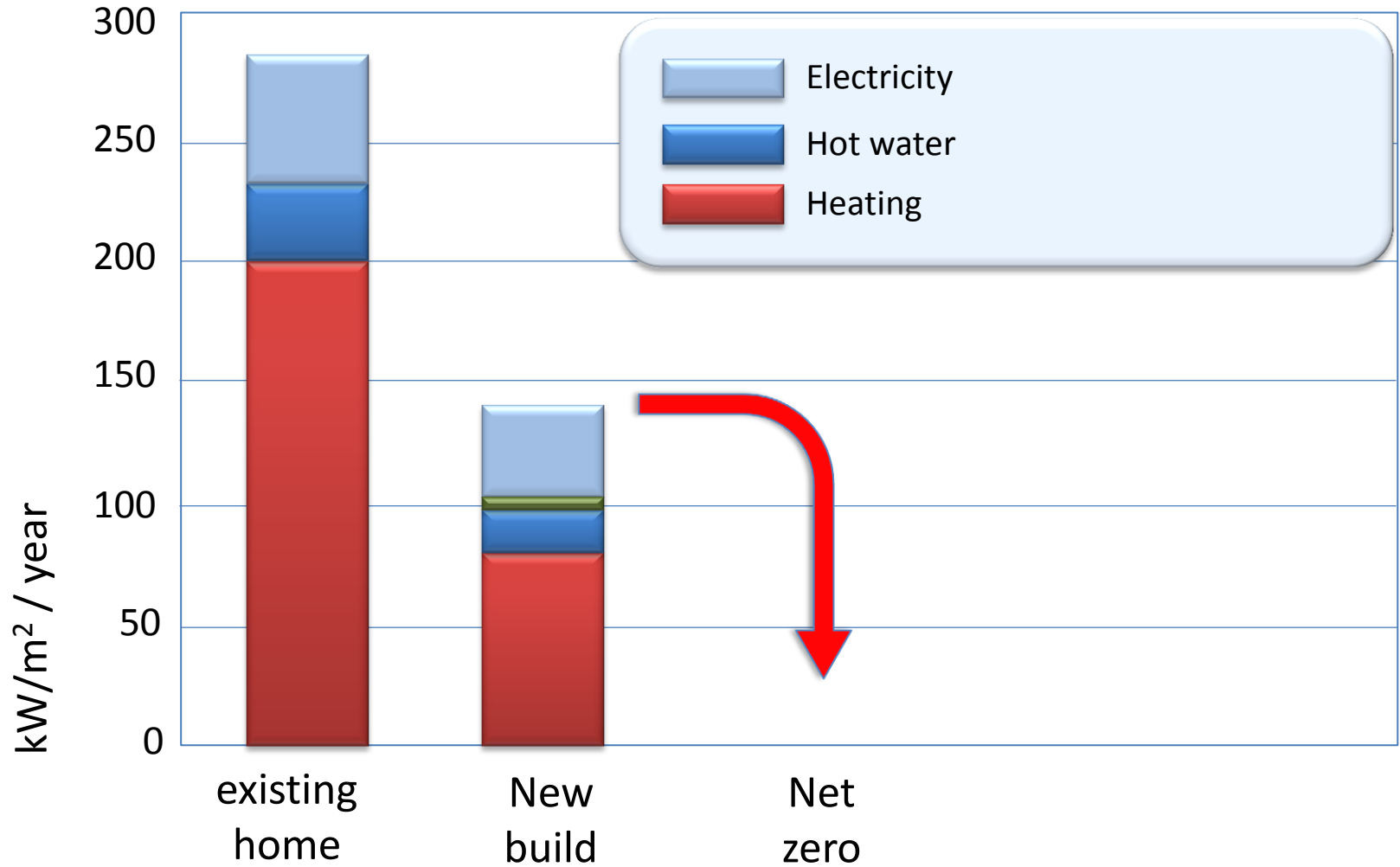
A long, straight line of white wind turbines stretches across the horizon of a sea platform. The sky is a vibrant orange and yellow, indicating a sunset or sunrise. The turbines are silhouetted against the bright sky, and their reflection is visible in the dark water below. The overall scene is serene and emphasizes renewable energy.

917 PJ

60.000  
turbines

150

144



A photograph of a port at sunset. In the foreground, a large black container ship is docked, with the name 'CMA CGM CORAL' visible on its side. A smaller white tugboat is positioned in front of it. The background features a large industrial facility with several tall smokestacks emitting thick white plumes of smoke. The sky is a mix of orange and grey, suggesting dusk. The overall scene is industrial and busy.

€ 13 billion

+/- € 260 billion







## QUALITY

*Long-year warranty energy performance house*



## NON-INTRUSIVE

*Refurbishment within one week*



## AFFORDABLE

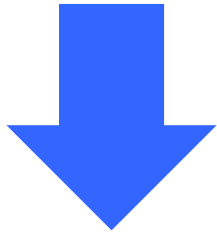
*Financeable from energy cost savings*



## IMPROVE LOOK & FEEL

*Make the neighbours jealous*

# Project and craftsmanship based



# Industrial product, quality, Sales channels and marketing





CTRL+CLICK on picture for Video







106

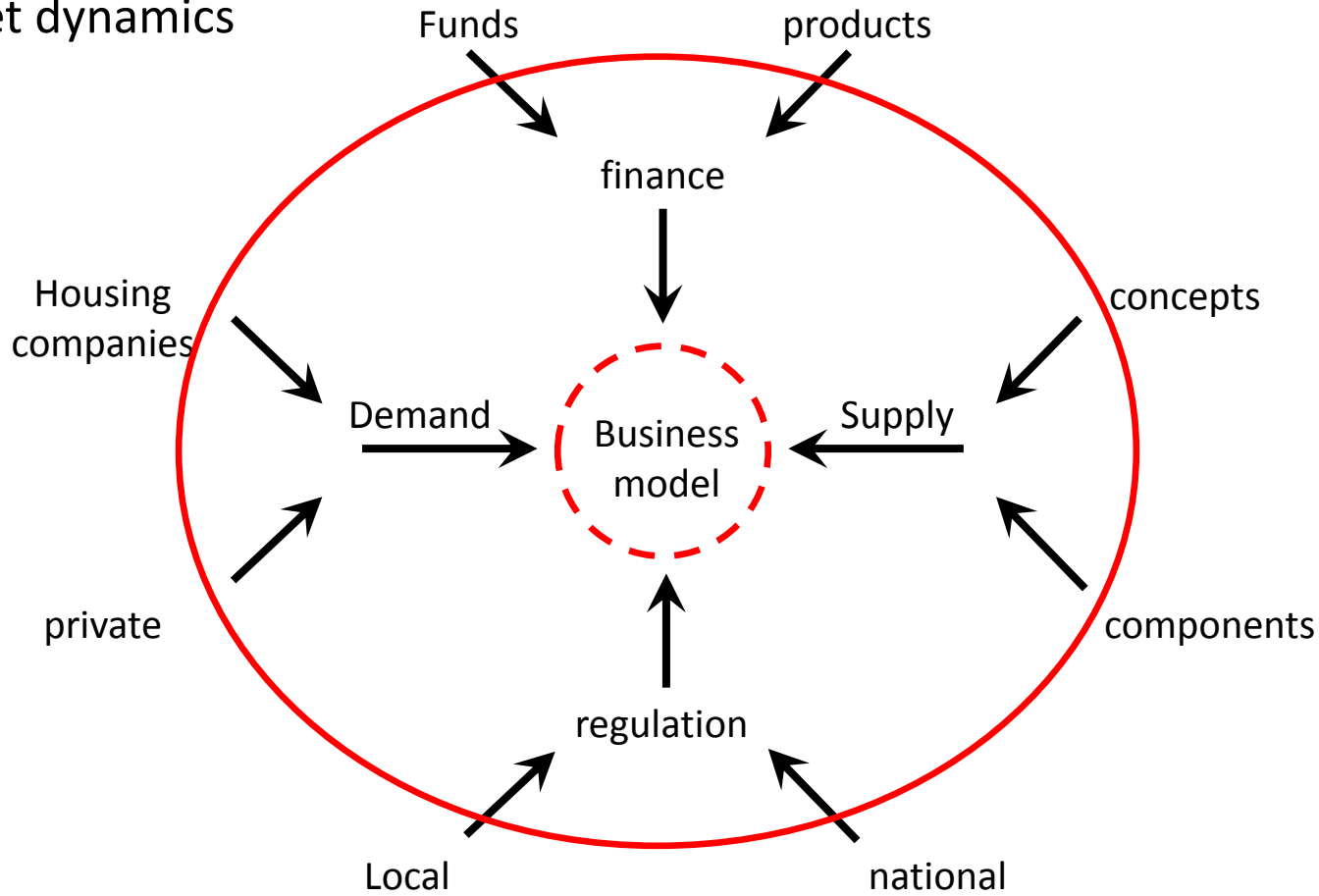








# Market dynamics





lefi<sup>er</sup> +30  
wonen met karakter

Funds

products

finance

Housing companies

concepts

Demand

Business model

Supply



+20

private



+15

components



regulation

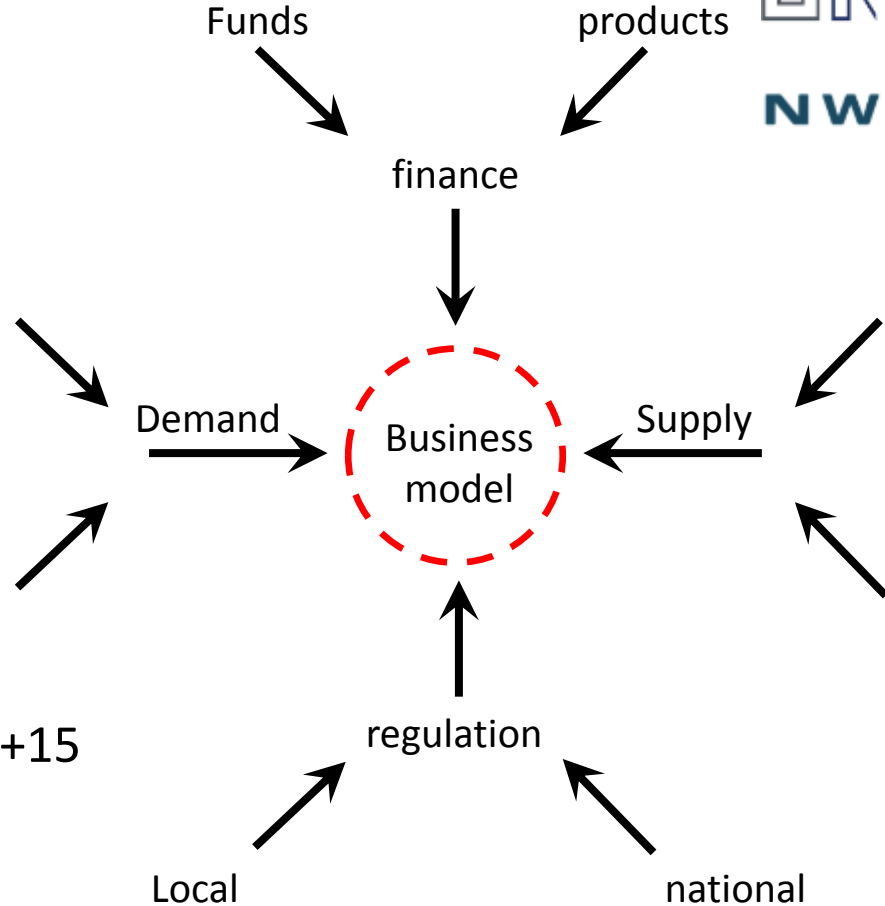
Local

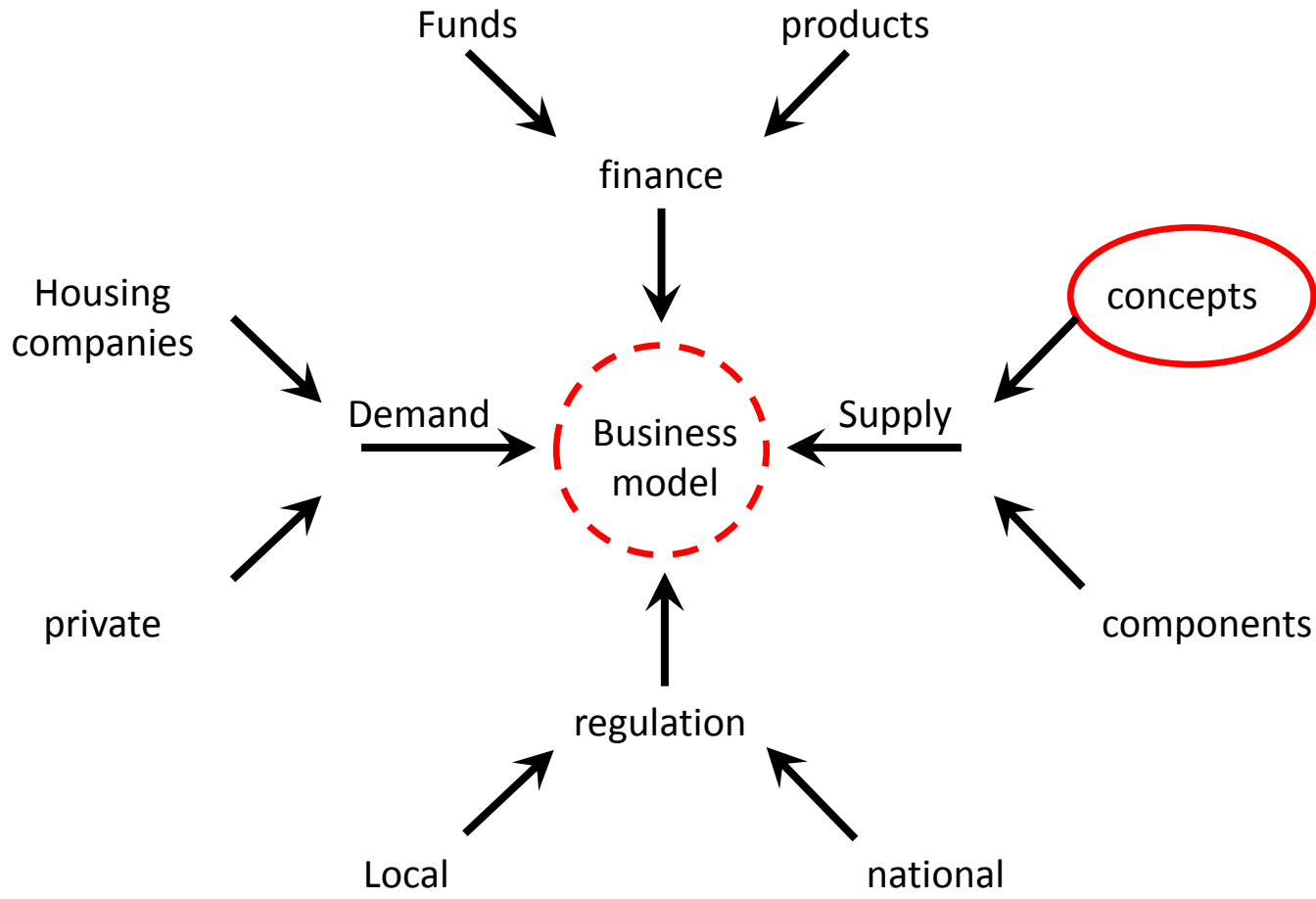
national

*Planning permits*

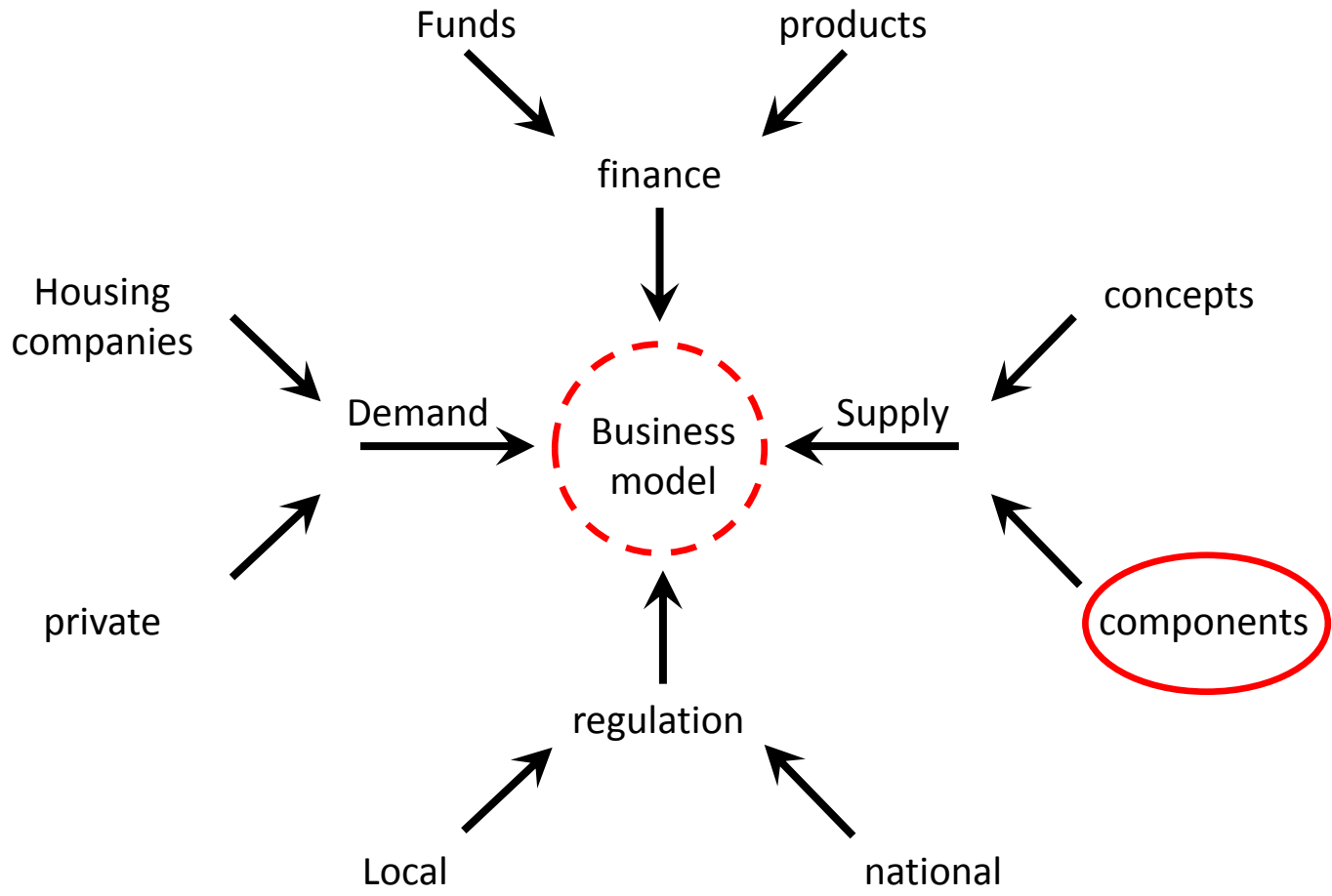
*Energy plan and Net metering*

+60











**roof**

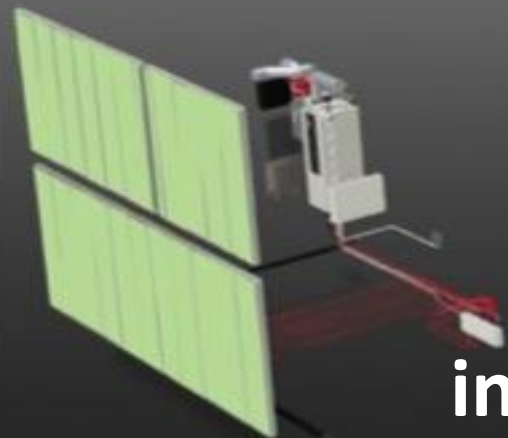


**floor**

**facade**



**instalation**







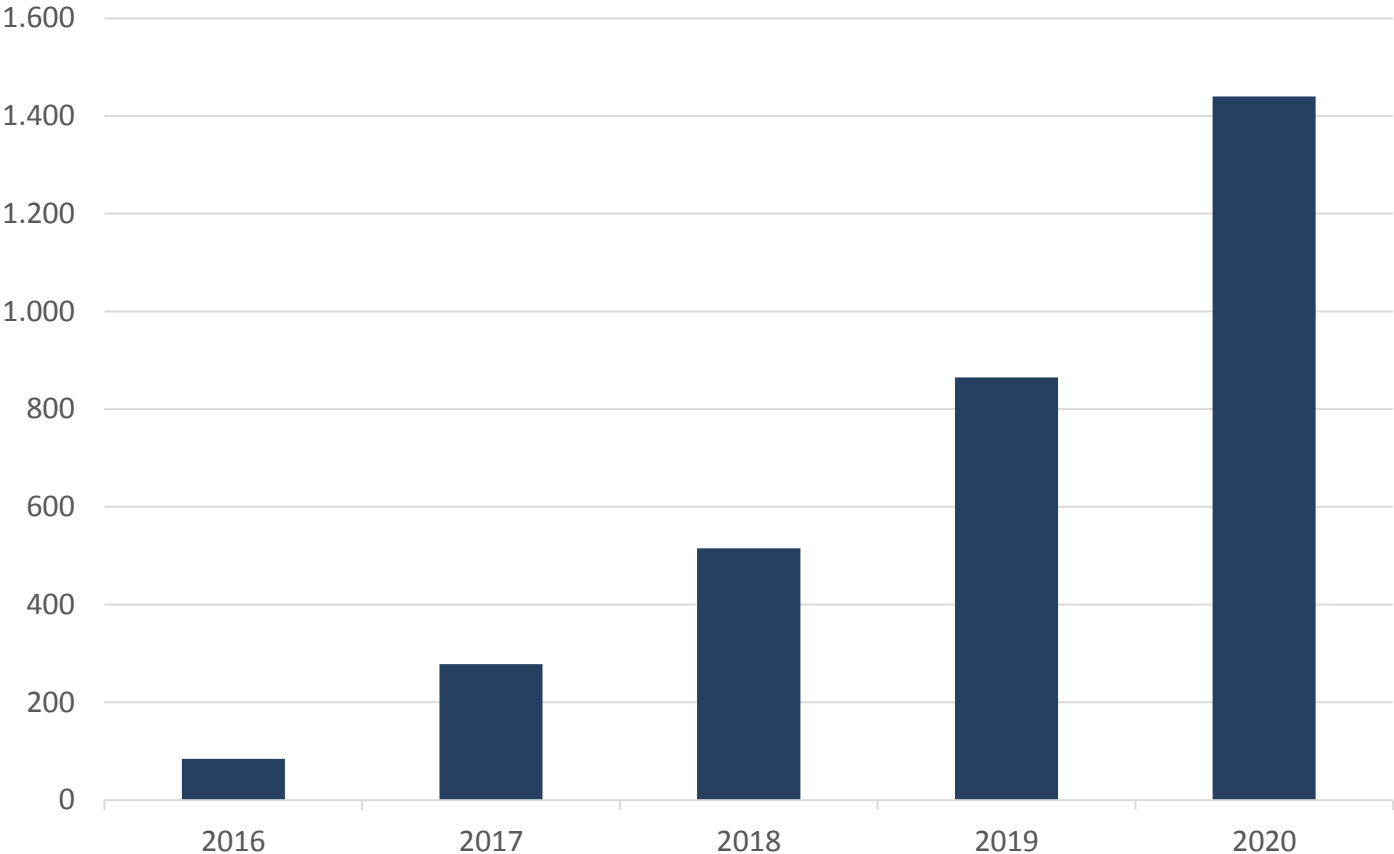
20<sup>th</sup> century solutions  
scale essential to transform







# turnover NOM-retrofit and newbuild EU (mio eur)



# Questions



Jasper van den Munckhof  
[Energiesprong.eu](http://Energiesprong.eu)