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Knowledge Innovation Community



# Carbon Neutral Districts - Energy Supply Cooperative -

Lucienne Krosse, 8<sup>th</sup> October 2019, Santiago de Compostella

# Accelerating sustainable energy innovations

400+

Products

€500m

EIT InnoEnergy investment

430+

Partners across Europe

230+

Start-ups accelerated

960+

Master's & PhD graduates



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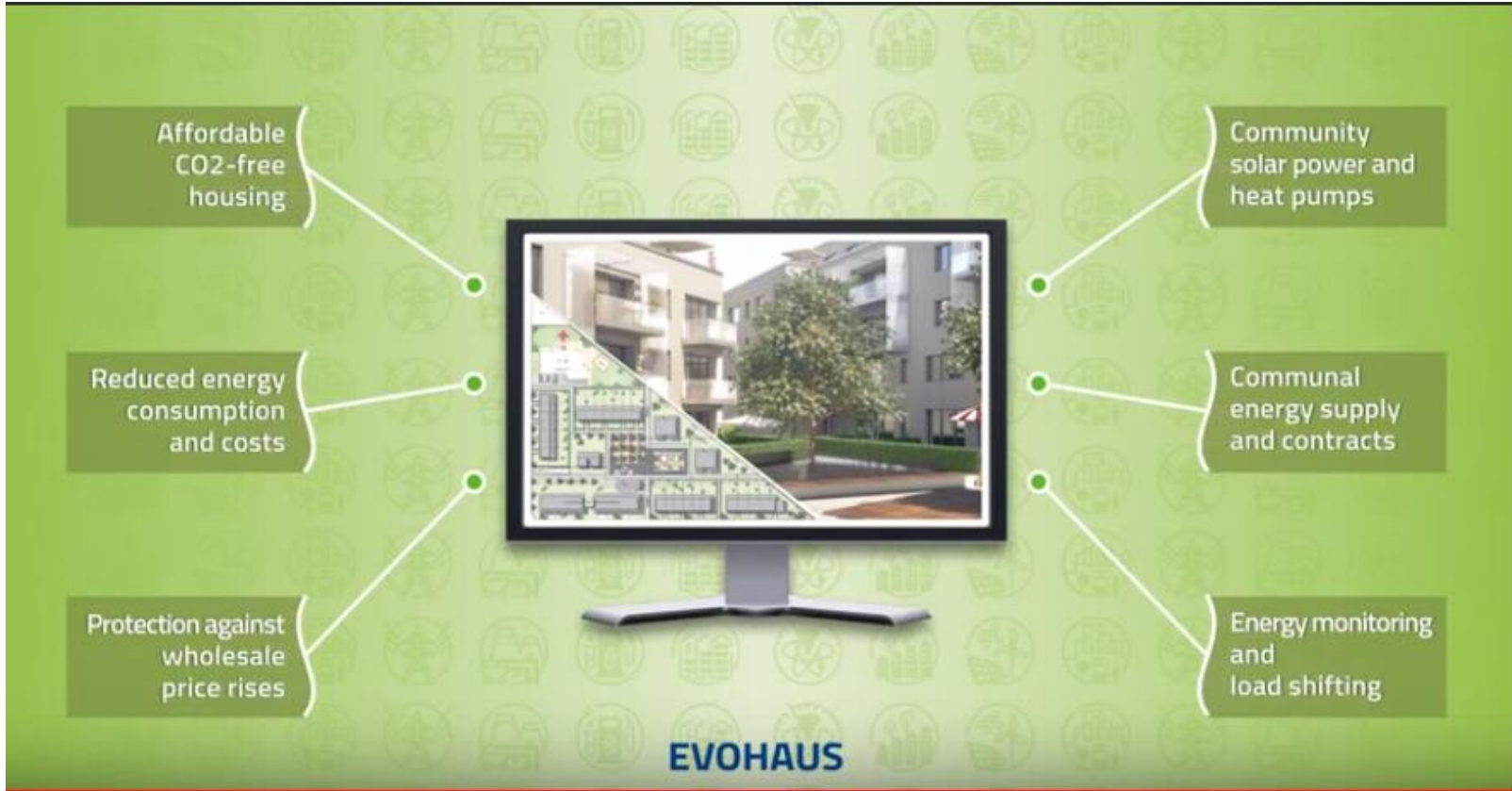
evohaus  
Gesellschaft für energiesparendes  
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The specialist in CO<sub>2</sub> neutral districts: from planning up to realisation

Affordable housing is the next big challenge. More than ever, we need state-of-the-art residential areas with new building materials, intelligent, self-learning energy management systems (EMS), integrated mobility concepts, **CO2-free and affordable** - even **for middle and lower incomes**.







## CO2 neutral district

- ✓ Detailed monitoring
  - ✓ Optimisation and load shifting
  - ✓ Control
  - ✓ User feedback and interaction
  - ✓ Predictive maintenance
  - ✓ Billing
- 
- ✓ Off-the-shelf hardware
  - ✓ Engaged prosumers!





## Cologne Widdersdorf

- Turn key development
- 90 apartments
- 11.500 m<sup>2</sup>
- Nearly passiv haus
- PV, HP, Q-stor, EMS
- District acts as active consumer
- Operational since 2016



## Hilden

- Turn key development
- 72 apartments
- Downtown development
- Geothermie, PV, HP
- Operational since 2017



## Mannheim - Hochwald

- Software license
- 350 apartments (1<sup>st</sup> phase)
- 500 apartments (2<sup>nd</sup> phase)
- Nearly zero energy buildings
- Operational since 2018



## Install base in Germany: ca. 1000 dwellings/apartments

### New district

- ✓ Focus lower and middle incomes
- ✓ Guaranteed 100% CO2 reduction
- ✓ Yearly energy bill reduced from ca. €1700,- to €400,-

### Renovation existing districts

- ✓ Due to 20 years experience, guarantees possible up to 80% CO2 reduction.





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