Boosting Energy Retrofits in Condominiums

Approach and experiences of the European ACER project

Jonas Geissler

Municipal Energy Agency Frankfurt

01/12/2020



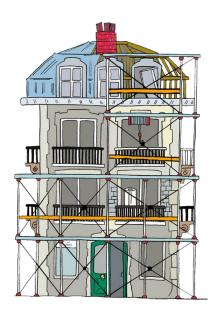


- **1. The challenges with condos**
- 2. The ACER project
- 3. Project results
- 4. Project findings





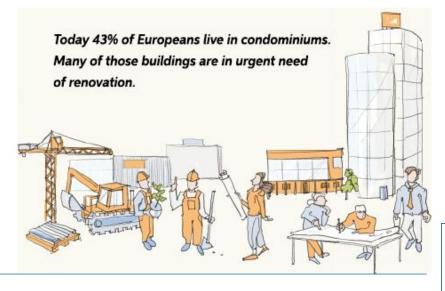






The Challenges:

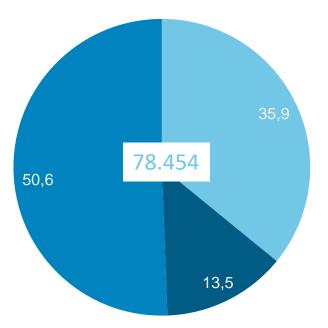
- 43 % of Europeans live in condominiums
- > 80 % of these buildings are privately owned
- 70 % of these are built before 1980
- Challenging legal requirements for retrofitting works
- Technical assessment of condo buildings not established
- Many elderly residents





Residential buildings and units in Frankfurt

Residential buildings

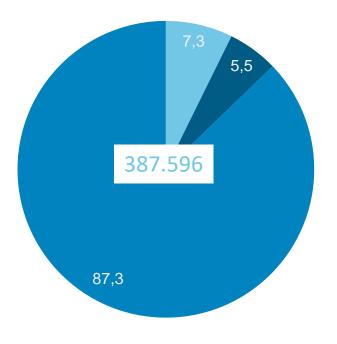


■ Single family houses ■ Two-family houses

Multi-family houses



Residential units



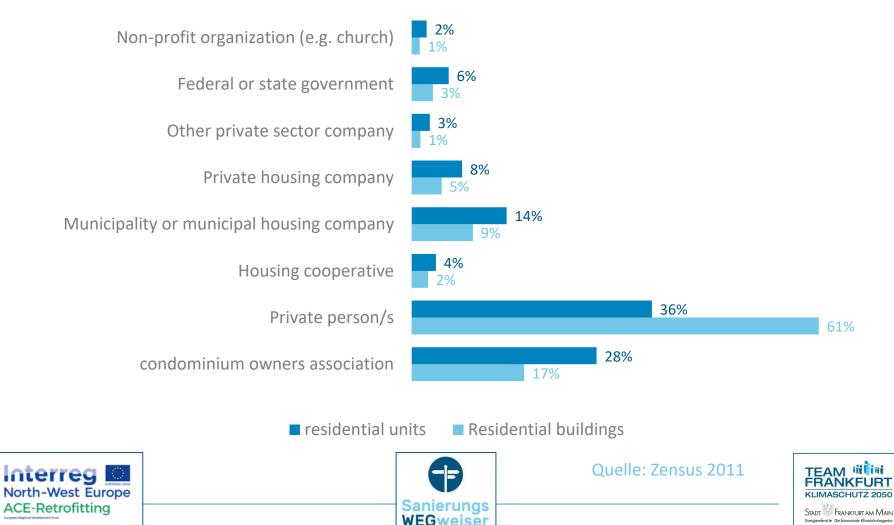
■ Single family houses ■ Two-family houses

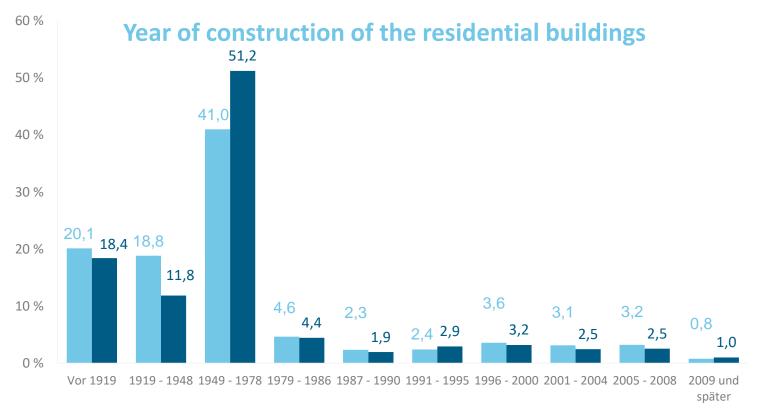
Multi-family houses

Source: Statistisches Jahrbuch Frankfurt 2018



Type of ownership





Share of buildings Share of apartments





Quelle: Zensus 2011



Condominiums in Germany and Frankfurt

		Residential buildings	Residential units	Residents
Germany	Total	18,8 Mio.	40,3 Mio.	82,5 Mio.
	Share of condos	7,5 – 9,3 %	20,1 %	20,1 %*
	Number of condos	1,5 Mio.*	8 Mio. *	16,5 Mio.*
Frankfurt	Total	83.000*	400.000*	750.000
	Share of condos	17,1 %	28,1 %	
	Number of condos	14.000*	112.000*	200.000

* = upon own calculations/ estimations





Source: Zensus 2011



Energy situation of condos (in Frankfurt)

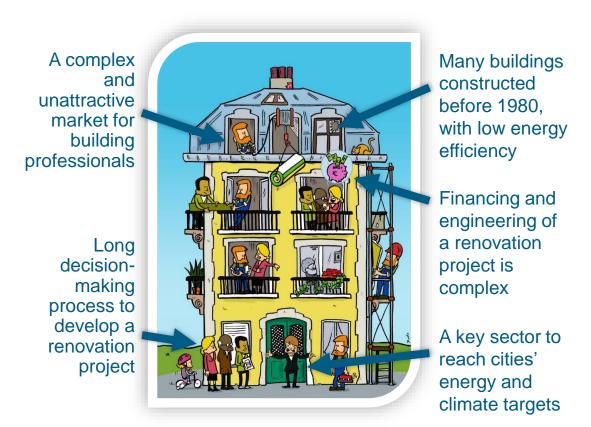
- 87 % of residential units in Frankfurt in buildings with 2+ residential units
- 67 % of residential buildings in Frankfurt built before 1970
- Condos are group of owners with lowest renovation rate (IWU 2018)
- Main income recipients of dwellings in MFH built before 1990: 1/3 over 65 and 2/3 over 50 years old
- → Large proportion of residential units in cities in rather unrefurbished condos owned by the generation 50+
- → Climate targets are hardly achievable without a breakthrough in condo refurbishment







Common challenges



www.nweurope.eu/ace-retrofitting







www.nweurope.eu/ace-retrofitting





Project Partners



9 Partners (6 of them Municipalities):

- 1. Energy Cities (Lead)
- 2. Agence Parisienne du Climat
- 3. Frankfurt Energy Agency
- 4. Aberdeen City Council
- 5. Energy House Antwerp
- 6. City of Maastricht
- 7. University of Maastricht
- 8. City of Liège
- 9. Changeworks

<u>www.nweurope.eu/ace-retrofitting</u>



Basic data of the project

- ACER: ACcelerating Energy Retrofitting in condominiums (flats, tenements, multistorey blocks)
- EU-Funding by Interreg North-West Europe of € 2.55m
- From Autumn 2016 to June 2020
- General idea:
 - Transnational approach to collectively develop effective solutions to refurbish ageing condos
 - Holistic approach to tackle and link both demand & supply side
 - Territorial cooperation and best-practice learning to operate alongside national policies
 - Adapting and improving CoachCopro Tool to other MS
 - Create 6 pilot territories in 5 different countries (BE, FR, DE, NL, UK)







Objectives of the project (September 2016 to Juin 2020)







Accompanying coowners and coowner associations ('demand') Making demand and supply meet:

Cities acting as facilitators

('linking')

Federating and increasing the competencies of building professionals ('supply')





Main targets and tasks

- Output targets:
 - 6.000 households with improved energy class
 - 400 retrofitting plans for condominium buildings voted
 - 8500t CO2equivalent annual decrease of GHG
 - 1000 building professionals coached
 - 25 other local authorities implementing the governance arrangement
- Main tasks:
 - A "CoachCopro-like" platform established at every municipal partner
 - Building professional directories created
 - Create condo energy consulting approaches
 - Implement long-term renovation strategy for condos et every municipal partner, which involves key-stakeholders





Partner tasks and deliverables - Frankfurt:



WP Demand Side

- Advising 100 Condominiums
- Develop quickscans und Tools
- Information Videos
- Good-Practice
 examples



WP Supply Side

- Directory of professionals
- Masterplan
- Annual supply side Workshops
- Brochures for suppliers



WP Linking

- Online-platform on basis Coach-Copro
- Organise 2 Matchmaking events (Frankfurter Sanierungstag)
- Develop financing guideline



WP Longterm

- Long term strategy
- Training curriculum for local authorities (LA)
- Convincing LA to action
- Organise a (trans)national meeting for LA



WP Communication

- Promoting the project
- Create
 publications for LA
- Presentations on workshops and conferences
- Etc.







Main results

- Project evaluation by Interreg not yet fully completed
- The project partners believe all essential project goals were achieved

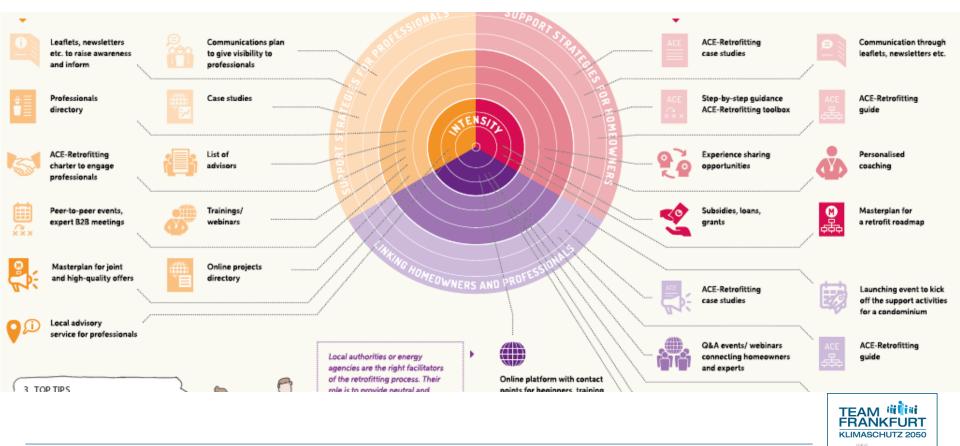
Key target results:

- 5897 of 6.000 households with improved energy class
- 9564t of 8500t CO₂-equivalent annual decrease of GHG
- > 4.000 of 1.000 professionals coached
- > 80.000 co-owners coached
- 235 different deliverables finalized
- Most output indicators such as target groups, etc. achieved



Main results

• Toolbox with a huge set of measures created :





Main results

- Demand side activities :
 - Develop assessment tools for condo buildings
 - Coaching of many different condominiums
 - Before-After retrofitting audits
 - Many demand-side-oriented events
 - More than 80 case studies published
 - Develop step-by-step guidance tool to refurbish condominiums
- Supply side activities:
 - 6 need assessments
 - Jointly developed training module
 - 6 independent condominium retrofitting professionals directories
 - Identification of condominium ambassadors
 - 24 local training workshops
 - 40 case studies for building professionals





Main results

- Long-Term activities:
 - Local ACE 2020 to 2030 strategies developed
 - All partners developed coaching coursework for local authorities
 - Development of policy analysis and recommendation paper
 - Development of an engagement charter and 19 signatures
 - Each partner hosted a transnational meeting for LAs
- Linking activities:
 - Implementation of local "CoachCopro" platforms
 - Analysis how EPC an other innovative financing schemes can be used for condominiums
 - Testing of EPC in buildings across partner territories
 - Organize 2 matchmaking forums per partner
 - Implementation of online monitoring tools for the progress of the governance arrangement







Relevance of condos:

- Significant and further growing sector:
 - >40% resp. 28% of housing units in EU resp. Frankfurt are in condos,
 - This percentage is growing
- Huge Potential:
 - >80% of FRA housing units built before 1980
 - Condominium sector has lowest retrofitting rate
- → Despite huge potential, there is too little awareness and focus of political actors and programmes on the target group



Interest of stakeholders:

- Difficult identification and addressing of target group
- Challenging process to motivate stakeholders
- Housing owners are very grateful for support
- Trustee / building managers are rather no retrofitting drivers
- Strong dependency on political framework conditions
- Political framework conditions often require improvements



- \rightarrow Condos play a crucial role to achieve municipal savings targets in many cities
- \rightarrow project identified very promising steps towards retrofitting of condos
- \rightarrow Further actions and better framework conditions required

"3 Top Tips" for local authorities addressing condominiums:

3 TOP TIPS

- Take a holistic, big picture approach (beyond energy)
- Adopt a multi-pronged strategy (target homeowners, retrofitters, financiers, etc. at once)
- Coach and connect all stakeholders in the most tailored way





Further collection of project experiences:

Our guide to boost condominium retrofit

- **<u>L</u>** Read the guide in English
- 🛓 Lisez le guide in français
- 🛓 Lees de gids in het nederlands
- Lesen Sie den Ratgeber auf Deutsch



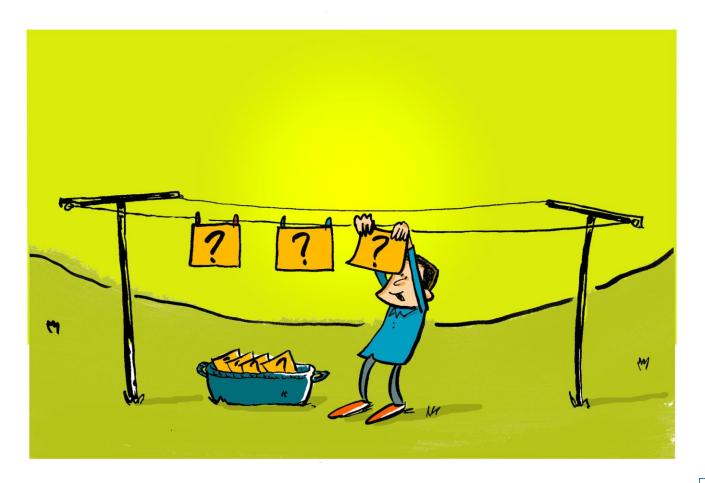


Useful Links:

- Interreg-Website:
 - <u>https://www.nweurope.eu/projects/project-search/accelerating-</u> <u>condominium-energy-retrofitting-ace-retrofitting/</u>
- Link to Frankfurt's web platform:
 - www.sanierungsWEGweiser.info
- Link to all web platforms:
 - <u>https://www.nweurope.eu/projects/project-search/accelerating-</u> <u>condominium-energy-retrofitting-ace-retrofitting/#tab-4</u>
- Guide of experiences (in English):
 - https://www.nweurope.eu/media/8349/guide_ace_en_bd_v2.pdf



Any questions?





Thank you for your attention

