Mini Heat Pump’s
Innovative solution for multiple family houses

DI Andreas Kahr, HP Business Manager - Vaillant Group Austria GmbH
Vaillant heat pumps for every requirement

For more than 25 years we offer environmentally friendly heat pumps - technology for all relevant installation situations
Current heat pump solutions for the apartment buildings

Classic
Ground source heat pumps

Classic
Air source heat pumps
Why does it need innovation in the multiple family houses?

1. Compact and customized system solutions for modernization and new built of high rise buildings.

2. Vaillant comes up with a new innovative solution for flats especially in cities.

3. Renovation Wave initiative from EU. Heat Pumps easiest solution to fulfil building requirements.

4. Unique solution which allows stepwise modernization, powered by high efficient wall hanging multi source heat pump.
The solution

1. **Air source heat pump** flexoTHERM with aroCOLLECT as source.

2. Buffer tank / heat source storage

3. **Mini geoTHERM** VWS 36/4.1 in each flat allows end-user as required:
   1. Heating (radiators or underfloor)
   2. Passive cooling
   3. Domestic hot water

4. Decentralized **domestic hot water solutions** in each flat

5. Photovoltaic system

6. Intelligent system management
Sustainable modernization project in AT

- 12 flats supplied by mini heat pump
- Heat distribution in the flats with existing radiators
- Domestic hot water tanks with 150l
- Required space in the flat - Important
- Distribution lines of heat pump source through old installations shaft
- Design of a new boiler room in the attic
Innovative System solution in new build project

- Nearly energy autonomous village
- 62 flats
- Mini heat pumps for
  - Heating
  - Passive cooling
  - Domestic water
- Photovoltaic system
- Electric charging station for cars
- Intelligent system management
Wall hang heat pump for heating, domestic water and passive cooling for every apartment

High CO₂ savings due to innovative energy concept.

Multi source heat pump: Air, geothermal energy, groundwater Low-EX district heating

Use in new buildings and modernization Innovative use cases

High sustainability
Reduction of the ecological footprint

Also possible as a hybrid system

Minimal space requirement partial renovation possible

Reduction of heating costs per flat Easy to operate for house owner’s
Thank you for your attention

DI Andreas Kahr
Heat Pump Business Manager
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TAKING CARE OF
A BETTER CLIMATE
INSIDE EACH HOME AND THE WORLD AROUND IT