

New control technologies for residential ventilation, *ISH 2017*



Your Speaker

Klaus Lang, Dipl-Ing, (FH)

Product Area Director Residential Ventilation

- Education: Energy and Heating Technology Engineering Diploma
- Employed at Systemair since 2001
- Born in 1966 (but still young)





Successful brands with energy efficient products



Ventilation and
AC Products



Air Curtains &
Heating products



Ventilation Products
North America



Air Handling Units



Air Handling Units

Systemair – an important part of everyday life

AIR HANDLING UNITS



AIR CURTAINS AND HEATING PRODUCTS



AIR CONDITIONING



FANS AND ACCESSORIES



AIR DISTRIBUTION



SWIMMING POOL VENTILATION



TUNNEL VENTILATION



CAR PARK VENTILATION



RESIDENTIAL VENTILATION



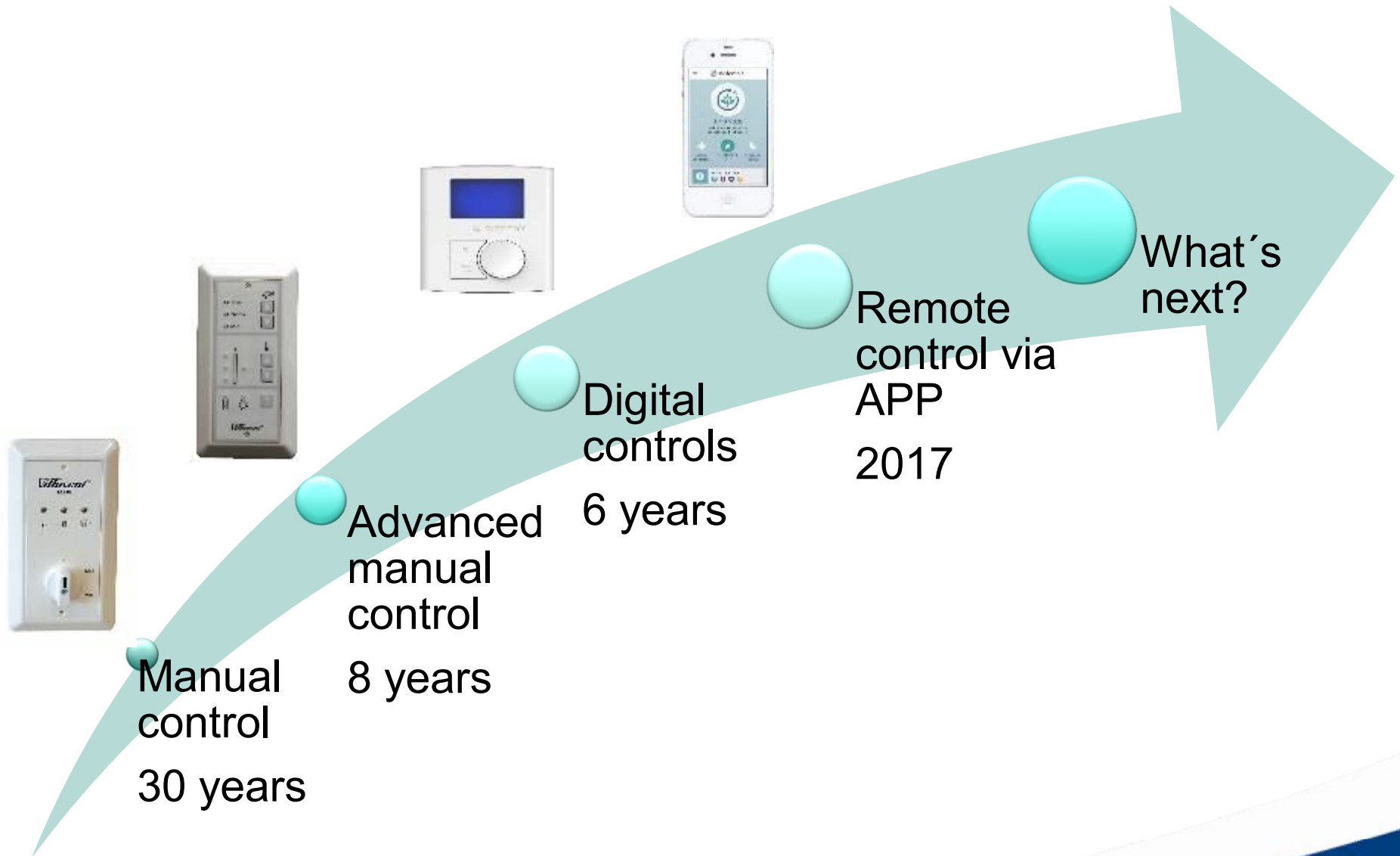
FIRE SAFETY



Residential controls



Time is running – products developing



New residential controls

New age with

- automatic controls
- Ventilation on demand
- Sensor driven IAQ control
- QR-code, all informations about the unit directly available



Automatic control of...

Humidity level indoors

At temporary too high humidity level – increase air exchange rate

At overall too high humidity level in small flats or new build houses – either increase the exchange rate and/or reduce moisture transfer (only possible with rotary units)



Automatic control of...

Fresh air supply via adjusting the fan speed
acc. CO₂, VOC, Presence, Humidity...)

Sensors are watching the values of „pollutants“
steadily and initiate the fans to provide the
needed fresh air to „clean up“ the indoor air.



Automatic control of...

Temperature of supply air

in summer and winter time.

1. Heat exchanger for recovering heating and/or cooling energy
2. Heating battery, cooling system



And lot of functions more...

Video

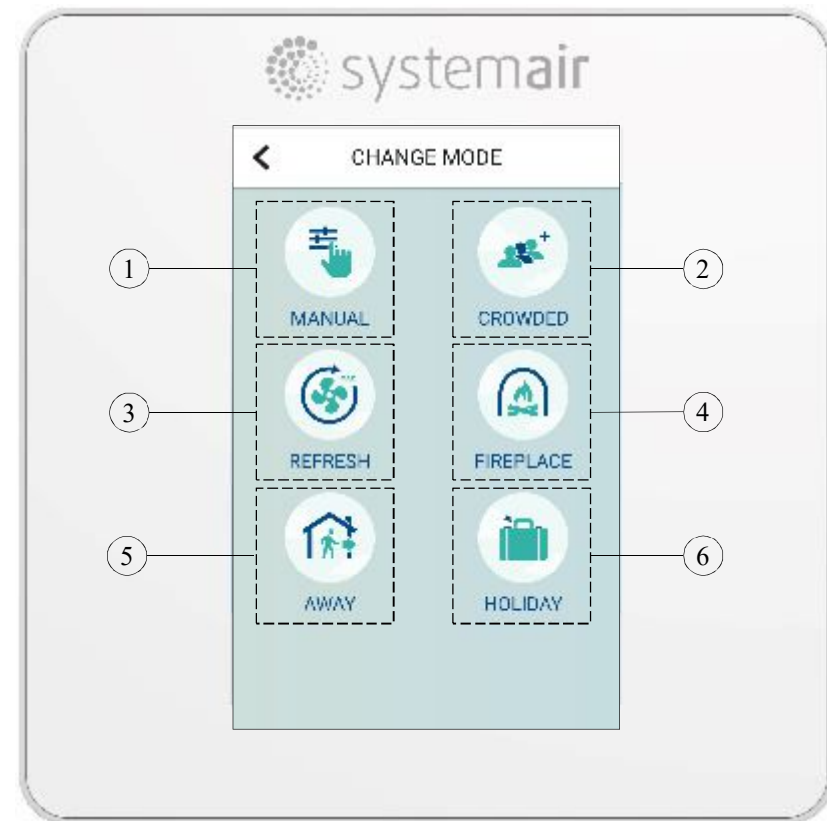


Touch display - User modes

Predefined user modes makes it easy to change depending on the indoor activity.

1. Manual / Auto / Stop*
2. Crowded
3. Refresh
4. Fireplace
5. Away (hours)
6. Holiday (days)

* If activated in service menu



Additional



- Free cooling
- Cooling recovery in summer time
- Seasons detection for automatic heating or cooling support (extra energy savings)
- Automatic controls (sensor control) not according to different fan steps but to a preset air volume range
- ECO mode with offset for re-heater
- Controls can be adjusted according to the users habits, needs and wishes
- Some more...

Benefits for the user



- Somebody takes care when you are sleeping or not at home
- Easy action on abnormal conditions (user functions)
- You have control from distance about what happens in your house
- Technical support of manufacturer can easily optimize your system
- Automatic software updates (new functionalities)
- Easy service, ordering right spares.... Saving time and money

Benefits Manufacturer



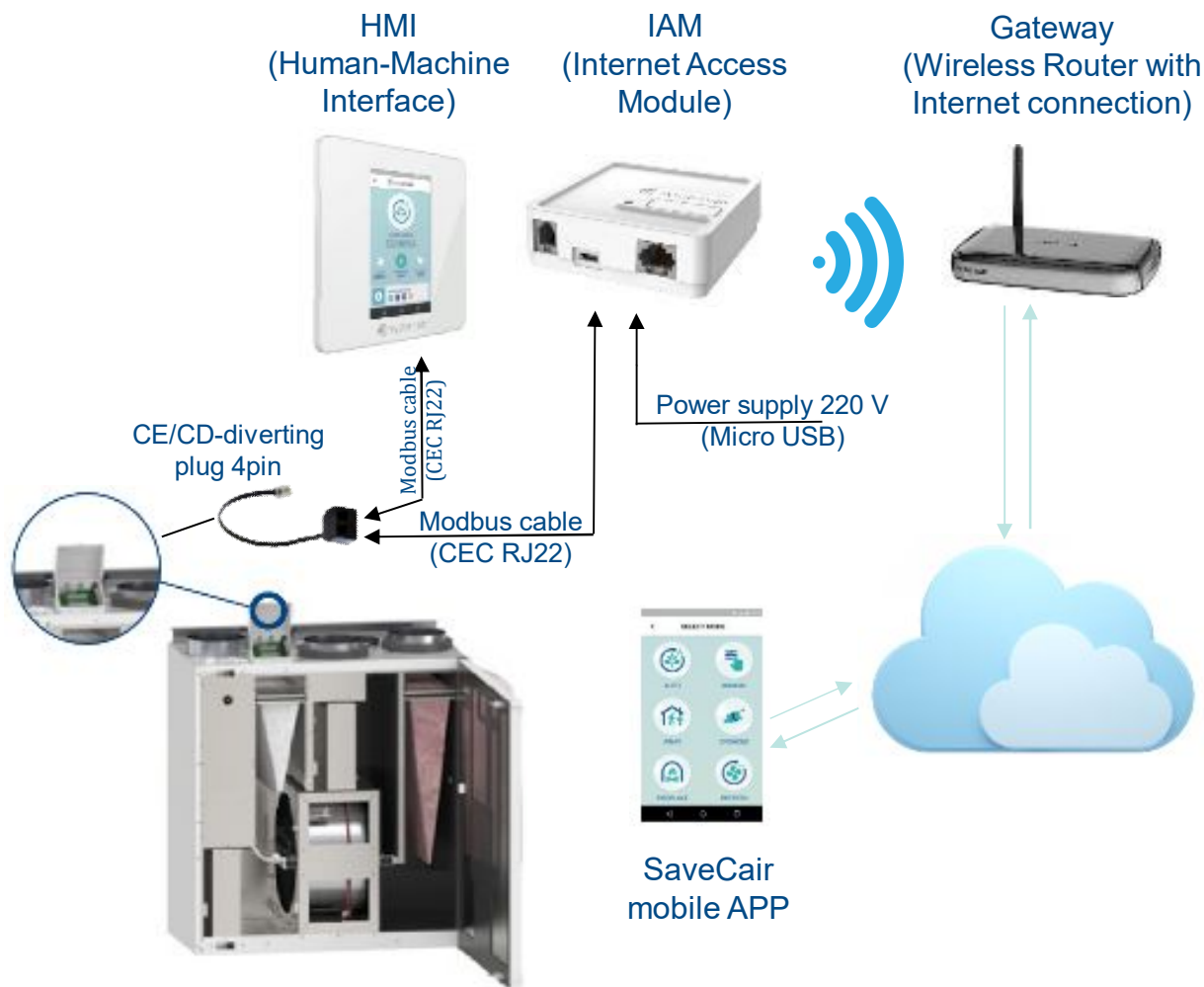
- Check if the product is working good
- Learning about real circumstances (laboratory is not life)
 - > Product improvements
- Troubleshooting + Service from distance

Set up of Smart home control

With IAM and wifi in the building you get access to the unit over internet..



IAM (Wireless Connection)



- Internet Access Module (IAM) is connected to the Connection Board (CB) on the unit side and via WiFi or Ethernet to the internet gateway.
- Software updating - fully automatic control by the Cloud server .
- The IAM has an Interface which can be accessed through the browser.
- Possibility to use in either Cloud or Local Modbus TCP to RTU mode.

HMI

Unit



Wall



Smartphone



... Tablett
... Laptop

SAVECair

The new smart control system

Thank you!

Residential ventilation by



systemair