

### The energy challenge

Half of Switzerland's energy production is used by buildings. Most of them will overuse it. This energy loss is mainly due to the following events:

- Keeping rooms at 21°C when not occupied
- Keeping water in the heater at 60°C when it is not needed
- Not taking into account the heat available from the sun

yord's objective is to act on this energy waste with its yox optimiser. Its main goal is to reduce CO2 emissions from buildings and thus offer a proactive and efficient solution to climate change mitigation.

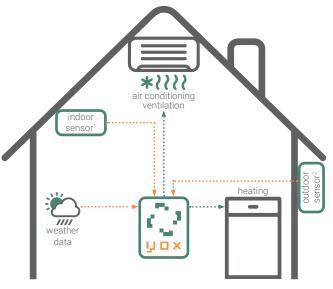
# Our solution - yox

yord has developed the yox optimiser, capable of reducing the energy consumption of HVAC systems (heating, ventilation and air conditioning) in buildings. It's operation is simple:

While guaranteeing your comfort, yox improves autonomously the control of HVAC systems by rationalising the habits of the users and occupants of the premises. To achieve this, yox contains an optimisation algorithm developed by yord team, the algorithm is the core of its research.

This major advantage allows yox, once connected to a new or existing plant, to predict the building's energy consumption according to the weather conditions and indoor and outdoor temperatures to optimise the HVAC system continously.

#### How it works



<sup>1</sup>sensor including temperature, humidity, CO<sub>2</sub> and luminosity <sup>2</sup>sensor including temperature and humidity

Indoor and outdoor sensors allow yox to understand how the building functions. After assimilating its dynamics through a calibration (a method defining how well the building is insulated), it will be able to control the central system in an optimal way.

This optimisation is done autonomously and continuously. The better yox understands a building, the greater the energy savings.



yox prototype, our optimiser

#### Some figures

# 1.6 billion / year

This is the cost, in Switzerland, of wrong manipulations and inefficient control on HVAC systems.

The mismanagement of our buildings emits as much CO2 as

# half

of the Swiss cars in use.

# Your savings

30% It is the energy gain you could benefit thanks to the yox optimiser.

An average saving of 15% represents a reduction in CO<sub>2</sub> emissions of:

# 1'000 kg / year



For a 150m<sup>2</sup> house with heating and hot water production using heating oil

# 7'000 kg / year



For a 20000m<sup>2</sup> school with heating and hot water production using heating oil

# Benefits of yox



#### Control optimisation

Heats and cools only when necessary



#### Fast learning

The energy savings start after one day of calibration



#### Various functions

Optimal control, building efficiency benchmarking, air quality, real-time monitoring, etc.



#### Easy set-up

Does not require any modifications of the HVAC system



#### Data protection

Data is your property and will be stored on Swiss servers



#### Confort for the users

yox works autonomously and cares of vour comfort

#### Who are we?

Four engineers who are actively committed to the energy transition by offering pragmatic solutions to society's challenges in order to positively impact future generations with consistency and ethics.









# Become an actor of change

Do you share our values and want to have a positive impact on energy utilization? Then we want to meet vou!

We are looking for people willing to invest or get invested in our company to finalize, test, and market our product.

If you are interested in our project, please contact us www.yord.ch • info@yord.ch • +41 79 939 74 59

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