

## Vent2U behind innovative ventilation solution that raises the quality of the indoor environment at low cost

---

26. august 2022

**The pressure on the indoor environment has increased during the last few years. This year, researchers have mapped and documented that poor indoor environment affects concentration difficulties and risk of airborne infections. A poor environment can be solved with an effective ventilation system. Therefore, Vent2U ApS has focused on optimizing the indoor environment and developed a unique ventilation solution. Vent2U Solution, has focused on providing everyone in a room with as much fresh air as possible. Air that is as little mixed as possible with the consumed and polluted indoor air.**

More than 60% of Danish students are in rooms with a poor indoor environment on a daily basis, which contributes to a poor learning environment. This means that they breathe air with a high concentration of carbon dioxide throughout the day, which is proven to have a negative effect on their cognitive abilities, especially difficult academic matter..

Studies have shown that an efficient ventilation system can make a big difference to the indoor environment in the room, but often the ventilation solutions are considered too expensive to install, service and operate when money needs to be found in the budget.

### **Passion led to innovative solution**

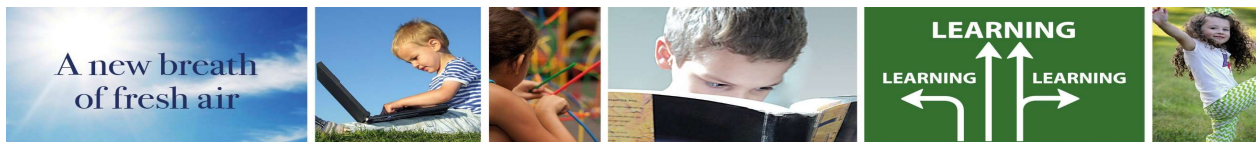
However, for Lillian Katrine Kofod, who is behind Vent2U, it is a key issue that the talents of the future are taught under the best conditions, so with her many years of experience with indoor climate, ventilation and cooling, she has developed an innovative solution that significantly improves the indoor environment. At the same time, costs are lowered so that more people will have the opportunity to get more air in the economy.

The basic idea is to develop a solution that ensures high air quality right where you breathe in the room. It has become a revolutionary system that can be tailored to deliver high air quality to the individual in the room. The solution has provided a wide range of benefits. Here we can talk about

## ***"Less is More"***

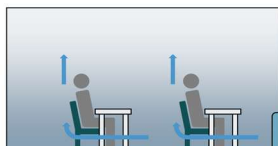
### **Vent2U Solution – most fresh air for everyone in the room for less**

Vent2U inflates air with an air pattern that leads the outside air to the area in which you breathe. This means that as much fresh air as possible is supplied at the height at which you breathe, sitting as well as standing. Vent2U is specially designed for the room, to achieve a fresh air zone at the right height. In this way, you can decorate the room arbitrarily, however, there will be areas in which there is the best air quality. Vent2U ensure a supply of fresh air exactly where it is needed.



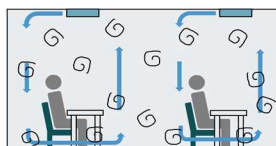
## Traditional Ventilation

### Fortrængning



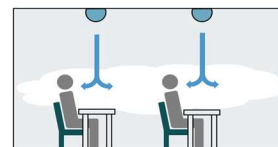
- Høj luftkvalitet i nærheden af armatur
- Høj luftflow
- Luft i berøring med gulv og inventar
- Høj køle effekt
- Zoner – ikke til ophold

### Opblanding



- Højt luftskifte
- Luft blandes med alt i lokalet
- God til køling
- Dyr i drift
- Høj investering

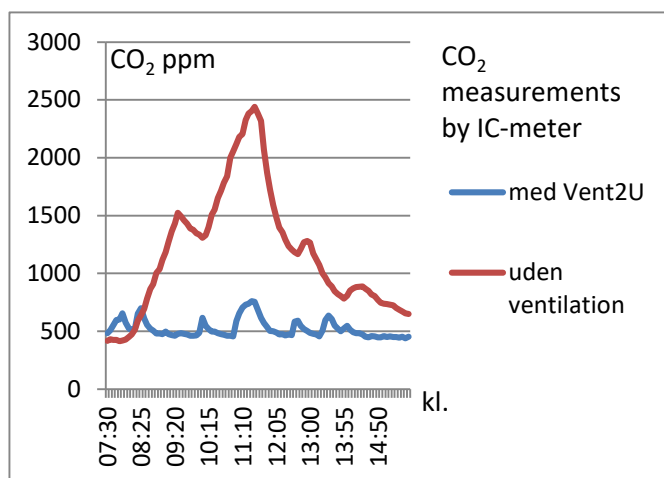
## Vent2U to the classroom



- Høj luftkvalitet i respiration zone
- Lavt luftflow uden større opblanding
- Lav investering
- Lav drifts- og vedligehold
- Højere grad af sundhed for ophold

The advantages of Vent2U are many, but the most significant are:

- Takes up less space
- Lower costs for both construction and operation
- Reduces airborne transmission and infections



CO2 measurements over the course of a day measured in two different classrooms. The places where the curve falls are an expression of the fact that the room is either abandoned or has been created through with outdoor air. Where the increases equal activity in the room. The blue curve shows a classroom where Vent2U is installed, and here the CO2 level is a maximum of 760 ppm with an average of 491 ppm. The orange curve shows an ordinary classroom without mechanical ventilation and here the CO2 level rises up to 2440 ppm in the middle of the day with an average above 1,000 ppm.

A cognitive study conducted by the Harvard T.H. Chan School of Public Health in collaboration with SUNY shows that given information is used 299% better when the carbon dioxide concentration drops from 1,400 ppm to 550 ppm. Vent2Learn can actively improve students' ability to absorb and apply what they learn.

Finally, the ventilation system is cheaper to acquire per classroom than traditional ventilation solutions, while being far more energy efficient and sustainable than other ordinary systems and therefore cheaper to operate. In addition, Vent2U takes up less space, which means that Vent2U can be used in existing rooms without problems, and this is of great importance for as many people as possible to improve the indoor environment.

Want to read more about Vent2U: <http://www.vent2U.dk/>