



# IT'S TIME TO HELP!

PROJECT DURATION: 1 SEPTEMBER 2014 - 31 AUGUST 2016



**Olaines 1.vidusskola**  
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## Erasmus+ Strategic Partnerships School project



## Olaine Secondary School No1

April 2015, Meeting in Bassum, Germany



1. WHAT ENERGY RESOURCE DOES YOUR SCHOOL USE FOR HEATING, WATER WARMING,...? (COAL, GAS, WOOD, ELECTRICITY, ....)

DOES IT INFLUENCE THE ENVIRONMENT IN A LESS HARMFUL WAY?

For heating and water heating we use gas. It has got lower environmental impact than coal, but more than wood.





2. WHAT IS THE ENERGY CONSUMPTION PER PERSON/PER A YEAR? IT IS POSSIBLE TO COMPARE WITH THE PERIOD BEFORE INSULATION OF YOUR SCHOOL BUILDING OR BEFORE IMPLEMENTATION OF ANY KIND OF ECO-FRIENDLY MEASURES.

Energy consumption is read every month by school headmaster's assistant in economic issues.

Energy consumption before the old building insulation:  
MARCH 2008 : -Old building 89 MW/h  
- New building 51 MW/h





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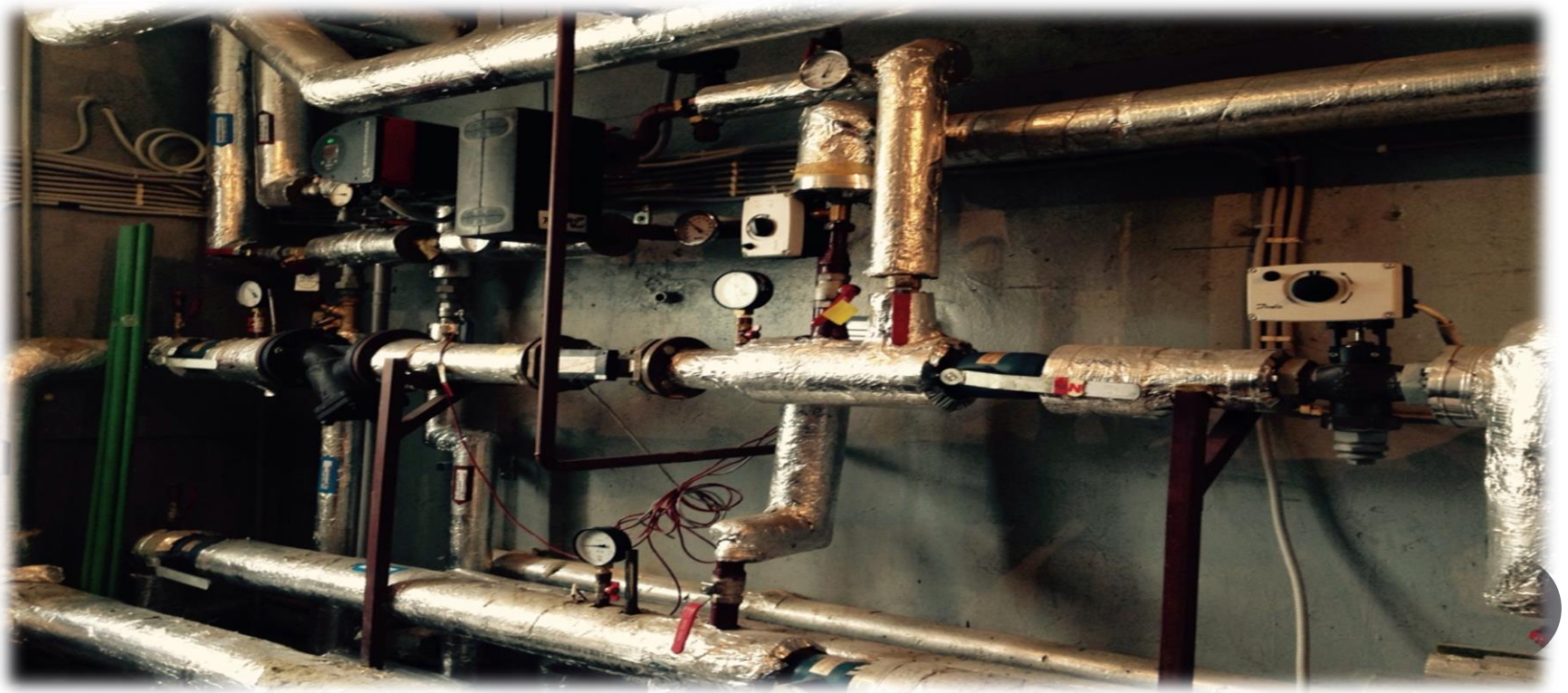
The energy consumption after old building insulation in summer 2008:

NOVEMBER 2009: -Old building 59 MW/h  
-New building 48 MW/h

The energy consumption after old building roof insulation in autumn 2014:

FEBRUARY 2015: -Old building 52 MW/h  
- New building of 60 MW/h

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### 3. WHO MONITORS THE ENERGY CONSUMPTION, HOW OFTEN?

The energy consumption is controlled by a school headmaster's assistant in economic issues once a month.







## 4. WHAT IS THE HEATING RESOURCE OF YOUR SCHOOL? DOES IT TAKE ADVANTAGE OF RENEWABLE SOURCES OF ENERGY (SOLAR ENERGY, BIOMASS,..)?

- Our school has been centrally heated.
- It has been ensured by SIA «Olaines water and heat».



AS OLAINES  
ŪDENS UN SILTUMS



## 4. WHAT IS THE HEATING RESOURCE OF YOUR SCHOOL? DOES IT TAKE ADVANTAGE OF RENEWABLE SOURCES OF ENERGY (SOLAR ENERGY, BIOMASS,..)?

- In the new building we have got heat-controlling radiators.
- Unfortunately, in our school there aren't any solar cells, but may be it's time to think about their introduction.





## 5. THE WAY OF HEATING CONTROL – ACCORDING TO YOUR PREVIOUS EXPERIENCE, TEMPERATURE, SCHOOL RUN, RECUPERATION....?

We have got an automatic heating control system. The building is heated according to the air temperature outside. The colder air temperature, the hotter heating temperature is at school and vice versa.



## 6. IS IT POSSIBLE TO INFLUENCE/AFFECT TEMPERATURE IN YOUR CLASSROOMS, HOW?

It is possible to change temperature only in the the classes in the new building. It's possible to change it from 1 to 5. If it is too hot you can switch the radiator off.





## 7. HAVE YOU SET ANY THERMOMETERS IN YOUR SCHOOL BUILDING AND WHERE? DO YOU RECORD THE TEMPERATURE REGULARLY?

- Our school has thermometers
- Our school headmaster's assistant in economic issues determinates the air temperature inside and outside
- Thermometers are in the school gym and in the new school building
- School temperature is checked frequently and is regulated all the year round to make the most comfortable temperature for work





## 8. WHAT IS THE AVERAGE AIR TEMPERATURE DURING THE HEATING SEASON IN YOUR CLASSROOMS, ON CORRIDORS/HALLS, IN A GYM?

The average temperature at school is 20°C - 25°C.

It depends on whether the windows are open and how heater is regulated.





## 9. WHAT TYPE OF WINDOWS DO YOU HAVE IN YOUR SCHOOL BUILDING?

Most of the windows in our school are made in Germany or Italy. These are standard economical class windows. Their frames are mostly made of plastic or aluminium. We have concluded that these windows are made in Latvian company Glaskek but some parts were made in Italy and Belgium.



**REHAU®**

**GLASKEK**  
The Perfect View

**fapim**



Made in Italy





## 9. WHAT TYPE OF WINDOWS DO YOU HAVE IN YOUR SCHOOL BUILDING?

While researching the windows we found out that they are made for harsh climate. Manufacturer has got a lot of international fire safety and quality control certificates.



## Certificate of Factory Production Control

No 1781/2011

Inspecta Latvia has granted this certificate as proof that

**Internal doors made of aluminum profile systems „CS 59Pa” (profile system manufacturer: „Reynaers Aluminium NV” (Old Liersebaan 266, 2570 Duffel, Belgium)),**

placed on the market by:

**„GK Holding” LTD.**

„Lauki”, Ādažu nov., Stabriņi, LV-2164; reg. No. 40103322649

AND PRODUCED IN THE FACTORY: „GK Holding” Ltd., „Lauki”, Ādažu nov., Stabriņi, LV-2164.

CERTIFIED ACCORDING:

Certification scheme 2+, based on evaluation of Factory and Factory production control and surveillance, which includes evaluation of FPC.

Product complies with the requirements of standard:

**prEN 14351-2:2009 „Windows and doors. Product standard, performance characteristics. Internal pedestrian doorsets without resistance to fire and/or smoke leakage characteristics” declared properties.**

This Certificate remains valid as long as the conditions laid down in the above mentioned standard, related provisions, the manufacturing conditions in the factory and the product specification of the certified type are not modified significantly.

Issue date: 07.04.2011.

Martins Maskavs, Certification Manager

**CEOC**  
INTERNATIONAL

European Confederation of Organizations  
for Testing, Inspection and Certification

Certificate is issued on 1 (one) page.



## Certificate of Factory Production Control

No 1766/2011

Inspecta Latvia has granted this certificate as proof that

**Curtain walling made of aluminum profile systems „FW 50+” and „FW 50+SG” (manufacturer of profile systems „Schüco International KG” (Karolinenstrabe 1-15, D-33609 Bielefeld, Germany)) according to Annex,**

placed on the market by:

**„GK Holding” LTD.**

„Lauki”, Ādažu nov., Stabriņi, LV-2164; reg. No. 40103322649

AND PRODUCED IN THE FACTORY: „GK Holding” Ltd., „Lauki”, Ādažu nov., Stabriņi, LV-2164.

CERTIFIED ACCORDING:

Certification scheme 2+, based on evaluation of Factory and Factory production control and surveillance, which includes evaluation of FPC.

Product complies with the requirements of standard:

**LVS EN 13830:2004 „Curtain walling - Product standard” declared properties (resistance to wind load, watertightness, thermal transmittance, air permeability) and ETAG 002-1**

This Certificate remains valid as long as the conditions laid down in the above mentioned standard, related provisions, the manufacturing conditions in the factory and the product specification of the certified type are not modified significantly.

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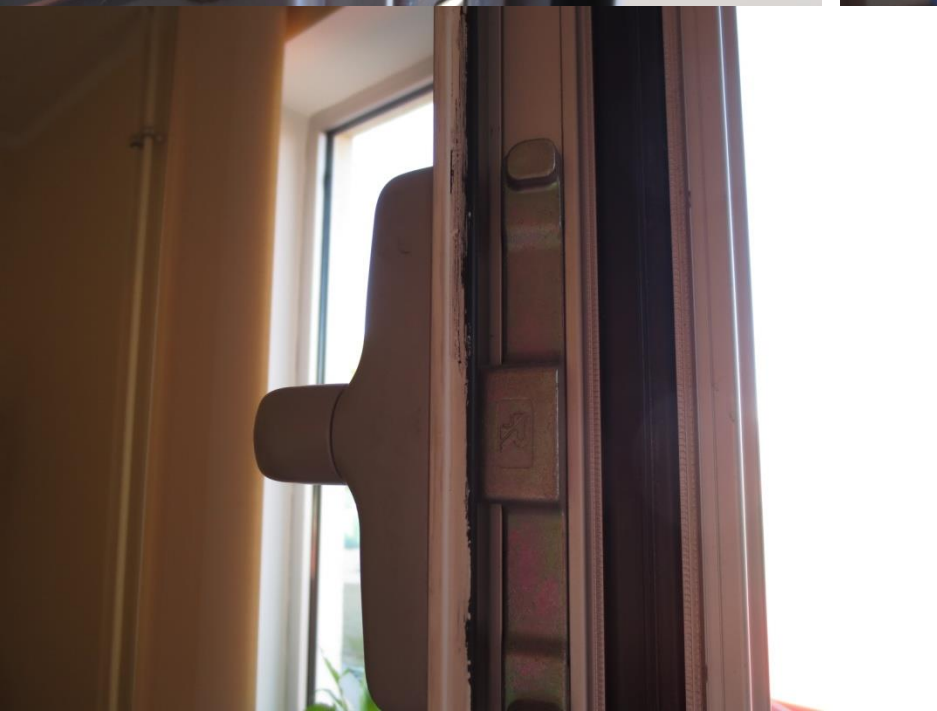
Certificate is issued on 1 (one) page  
and it enclose Annex on 1 (one) page.













## 9. WHAT TYPE OF WINDOWS DO YOU HAVE IN YOUR SCHOOL BUILDING?

### Advantages:

- Insulation
- Beautiful design
- Fire Safety
- High Quality
- Easy to clean

### Disadvantages

- Heavily
- Not safe for young children (easy to open)





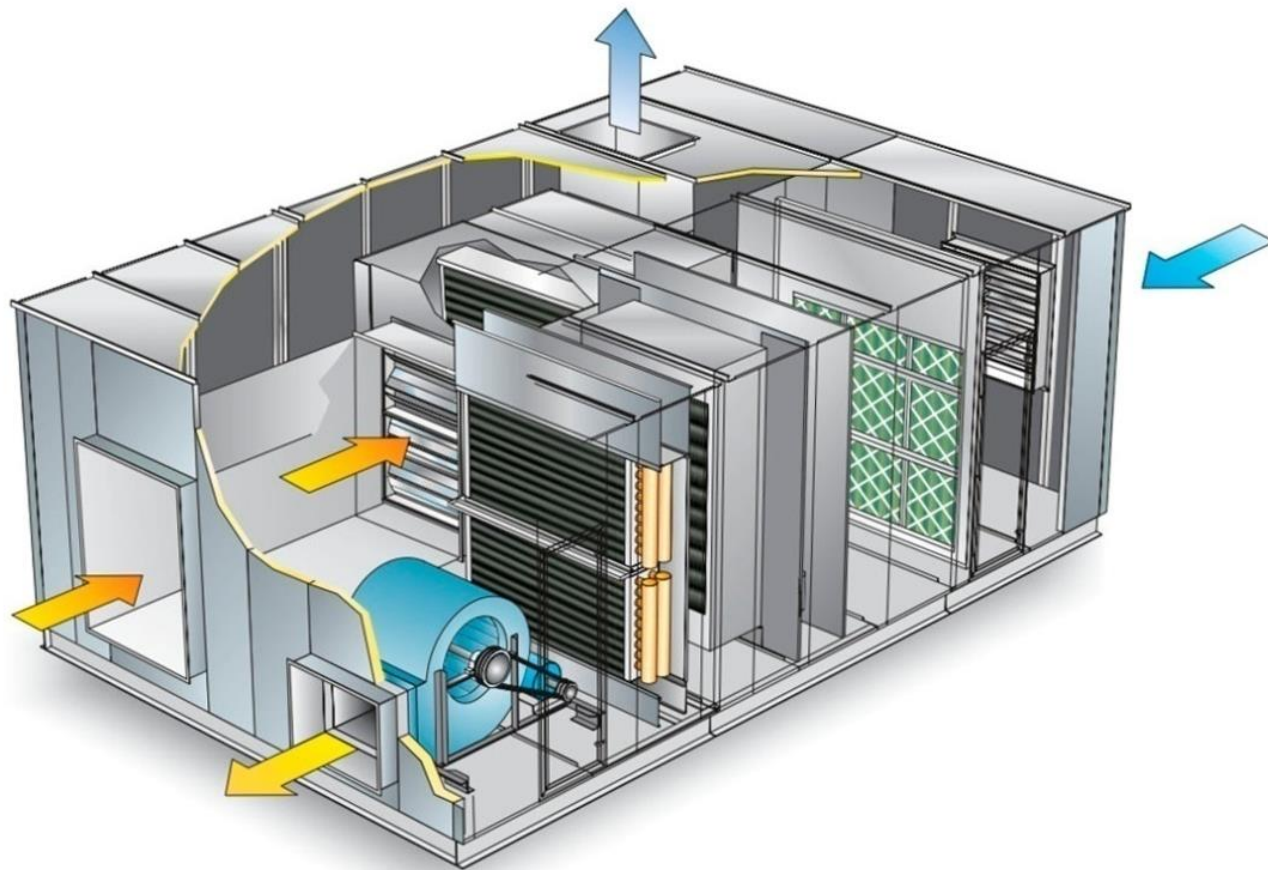
## 10. WHICH WAY DO YOU USUALLY VENTILATE? DOES THE SCHOOL USE RECUPERATION?

School uses recuperation system. This is energy and material reuse technology.

Thermal energy from existing indoor air is transmitted to incoming air source, then fresh air is transmitted to the classrooms.



# 10. WHICH WAY DO YOU USUALLY VENTILATE? DOES THE SCHOOL USE RECUPERATION





## 10. WHICH WAY DO YOU USUALLY VENTILATE? DOES THE SCHOOL USE RECUPERATION?

### **Old building**

Ventilation system is not good enough and is unable to provide full air circulation. To compensate this, teachers always open windows to ventilate their classrooms, which contribute to heat loss. This year, the school library is being renovated. There will be two new ventilation systems.







## 10. WHICH WAY DO YOU USUALLY VENTILATE? DOES THE SCHOOL USE RECUPERATION?

### New building

It is equipped with a full ventilation system.  
Teachers effectively ventilate classrooms for a short while widely opening the windows, thus creating small heat losses.





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# 11. WHAT APPLIANCES DO YOU KEEP IN STANDBY MODE?

In standby mode we keep:

- Computers
- Interactive boards





## 12. WHAT SOURCES OF LIGHT DO YOU USE AT SCHOOL, HOW MANY OF THEM? ARE THEY ENERGY-SAVING/ECONOMICAL?

In our school there are day-light lamps, some are “warm” light lamps”, some “cold” light lamps, they provide 350 – 500 lux.

In our school there are some energy saving lamps.





13. WHICH WAY DO YOU AFFECT WASTING OF ENERGY FOR LIGHT? (NOTICES LIKE: SWITCH OFF THE LIGHT!, SWITCH OFF THE LIGHTS WHEN NOT NECESSARY, IN BREAKTIME, ....)

Inappropriate light using in our school is prevented by:

- windows, because in our school there are a lot of windows (the windows are different in size), they provide light into the school
- at light switches there are notices “Save electricity”, “Turn off the lights”.





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# Thank you for attention!

