2IMPREZS Newsletter #6

2IMPREZS takes the gold in EU-level exposure

The Interreg NSR 2IMPREZS project has won the 'People in Focus' Award as a part of the North Sea Region Video Contest 2020.

The North Sea Region Video Contest 2020 was open for applications beginning in Spring 2020, which was then extended to Autumn 2020 due to the COVID-19 pandemic. This year, there were an outstanding 24 entries in total; 16 in the explainer video category and 8 in the people in focus category. A jury of 14 judges composed of two representatives from each of the countries in the programme was appointed by the North Sea Region Programme's Monitoring Committee. Based on the votes of the jury, a winner and runner up in each of the two categories were selected.



To conclude the North Sea Region Conference 2020, held online in light of the COVID-19 pandemic on 10th November, the winners of the contest were announced.

And the winner is...2IMPREZS! The 2IM-PREZS project took home the gold medal in the 'People in Focus' category. The winning video of course highlights the people at the very core of all 2IMPREZS project activities: the Energizers.



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Save the Date!

2IMPREZS Partner Meeting— April 2021, Netherlands

COVID-19 Updates: The transnational 2IMRPEZS Energy Challenges Finales will be held digitally in Spring 2021

Funding Programme: Interreg VB North Sea Region Programme

Eligible Budget: 3,743,597 € ERDF Funding: 1,871,799 € Funding quote: 50%

Keeping communication alive during COVID-19



The COVID-19 global pandemic first swept Europe in March 2020 and left us in a position in which we could no longer safely make physical contact at the schools. In order to stay in touch with the partici-

pating schools, our Dutch 2IMPREZS partners, **Energy Challenges**, designed short films with their *raging reporter* (a representative from Energy Challenges NL who ensures the Energy Challenges are operating smoothly in the schools and monitors progress/results). These short films, which were sent digitally every two weeks, contributed to the awareness of the children to save energy, at school, but also at home during the pandemic.

(continued on page 6...)



European Union European Regional Development Fund



Energy Challenges across the North Sea Region

Flemish schools in the Province of Antwerp received CO₂-meters

The 2IMPREZS partner, the Province of Antwerp, has donated 39 CO₂-meters amongst fifteen schools in the region, including ten 2IMPREZS schools.



One of the most advised measures to reduce the spread of the COVID-19 virus in schools is proper ventilation of classrooms. Not many schools have an automated ventilation system, so the only solution is to open windows and doors to let fresh air in.

This causes a surge in energy use, as heating systems are not shut down every time a window opens. During autumn and winter times, cold outside air will enter the classrooms, creating a higher demand for constant heating.

A CO_2 -meter, on the other hand, can help indicate when a classroom needs to be ventilated, thus optimising the air quality and reducing the energy loss due to unnecessary open windows. The Province of Antwerp, a Belgian partner in the 2IMPREZS project, has therefore distributed 39 CO_2 -meters amongst fifteen schools in the region, including ten 2IMPREZS schools.



Pupils learn to work with a CO₂-meter at Campus Kajee in Schoten, Belgium

A CO_2 -meter indicates objectively when the levels of CO_2 are too high in a given classroom, resulting in poor air quality. Naturally CO_2 concentration in outside air is around 440 ppm. As soon as a classroom reaches 900 ppm, ventilation is advised. When reaching 1200 ppm, it is necessary to open all windows.

By installing a CO_2 -meter, teachers will be alerted when the best time to open a window is, avoiding unnecessary ventilation and thus reducing the amount of energy loss. As a bonus, teachers can use this equipment to interactively enthuse the pupils about energy and sustainability, giving them ownership of the measured data and actions.

Dutch secondary schools pilot the 2IMPREZS Energy Challenges

In November 2020, the Dutch Energy Challenges team plans to join the "Mondriaancollege" secondary school in Oss for one week. With an official kick-off and a grand finale, the goal is to inform the pupils of the importance of a sustainable school.

The Dutch secondary school, "Mondriaancollege", is partaking in a new pilot project of the Energy Challenges NL geared specifically toward secondary school pupils. During a week-long energy event, students will conduct an energy scan and create a report on the school building with the help of the Energy Challenges technician. Through this, they will be able to learn and how they can enhance the school building for sustainability — whether this is via technical, behavioural and/or small smart adjustments.

In a variety of workshops, they will learn more about energy saving, energy transition and sustainability. This will help them throughout the school year to implement their energy saving ideas to reduce consumption in school by at least 15%.

Afterwards, they can monitor their progress on a daily basis with the Energy Challenges online monitoring tool, which is already linked to their meters. This tool provides daily insight of energy consumption/savings.

This is a hands-on approach, where students come to understand how the campaign works from start to finish within a week. If this proves to be successful, Energy Challenges NL will implement this in all secondary schools within the Dutch North Sea region.

Energy Challenges across the NSR

Digital Energy Challenges in Lower Saxony



In response to the COVID-19 pandemic, the German 2IMPREZS partner, atene KOM GmbH, have completely restructured the German Energy Challenges programme, leaving less room for physical contact and more room for transnational engagement.

In February 2020, the City Hall of Rotenburg Wümme in \Rightarrow Lower Saxony was packed with over 90 German pupils launching their international Energy Challenges competition in cohesion with the five other participating North Sea Region countries. Gearing up for the 2021 Energy Challenges, the idea of 90 pupils huddled closely together, however, seems outrageous in this post-COVID world. The German 2IMPREZS partner, atene KOM GmbH, is thus dedicated to creating a collaborative, engaging digital version of the 2IMPREZS Energy Challenges that is tailored to the needs of the teachers and pupils.



The German Energizers at the 2020 2IMPREZS kick-off

The 2IMPREZS partnership, above all, wishes to ensure the heath and safety of teachers, parents and pupils during this devasting COVID-19 pandemic. This being said, the 2IMPREZS partnership is also concerned with increased energy consumtion due heating in schools and frequent ventilation. Energy consumption from transportation to and from school is going to rise, as well, due to more individual transportation. Water consumtion (and heating) will also increase due to more frequent cleaning and hand-washing. In addition, the pupils are not able to move arround the school building to explore, learn about or locate sources of heat or energy loss. The pupils are also not allowed to exchange their expereinces directly (physically) with other pupils like it has been done by 'Energy Sherrifs' in most German 2IMPREZS schools.

To combat these COVID-19-related concerns, the German 2IMPREZS partners aim to:

- \Rightarrow Transform the programme into a digital format
- Build a bridge between the pupils' homes and the schools: Explore and analyse the home and discuss the findings at school

Pupils will be instructed to analyse their homes on the basis of the Energy Challenges key performance indicators (KPIs). The Stars Posters—which normally keep track of the Energizers' progress in the Energy Challenges, e.g. communicating energy-saving ideas or hosting awareness events—will be exchanged with a set of questions and tasks, which will target the various energy aspects like electricity, water consumption, mobility, etc. in the home. The Energizers will also be able to access various energy-related games and activities through the 2IMPREZS Interactive Fact Sheets from their homes. Optimised communication via an online platform, such as Microsoft Teams, is currently being explored. Even during a global pandemic in which health and safety remain the top priority, *Energie sparen macht Spaß*!

How aware are you of your carbon footprint?

The 2IMPREZS Energy Awareness survey being conducted by Danish partner, House of Science, will be completed by the end of the project in Autumn 2021.

Throughout the 2018-2019 school year, Danish 2IM-PREZS partner, House of Science, oversaw the distribution of an energy awareness questionnaire, translated into local languages, across the 2IMPREZS Energy Challenges pilot schools. The results from this initial questionnaire will serve as the baseline for measuring the effectiveness of the 2IMPREZS Energy Challenges in relation to increasing awareness of energy-related topics, such as the effect of individual behaviours like leaving sumption and ultimately the climate. Data collection for these surveys has normally taken place at the finales and kick-off events of the 2IMPREZS Energy Challenges across partner countries—and this may be no different even in times of COVID-19. At the moment, the partnership is considering incorporating the data collection into the transnational finales, even if they are to be held digitally. Stay tuned - updates to come!

Watt's up with E. Wattson?



The Southern Denmark University Mads Clausen Institute (SDU MCI) provides a comprehensive update energy optimising decision making model (IEODM) to be developed within the 2IMPREZS project.



Prior to the emergence of the COVID-19 pandemic, the development of E. Wattson (IEODM) was hit by delays. Even after a new programmer was assigned to the task of developing the E. Wattson, COVID-19 entered the stage. SDU MCI staff were sent home from the university and it proved difficult to keep development at speed. Despite these challenges, MCI was able to launch new features, but the resources spent on E. Wattson during spring were primarily directed at sorting out the back-end system.

The shut down of the university unfortunately put a temporary halt to the finalisation of the E. Wattson Classroom Climate sensor boxes. SDU re-opened to students in late June, but it was not until semester start in September that the work could progress. Materials have been long overdue in delivery but have now finally arrived and the finalisation of the sensor boxes are imminent. This means that all 2IMPREZS

the TV on when leaving the room has on energy con- partners soon will be able to equip school classes with a tool that allows them to check the indoor climate of their classroom to ensure a fruitful learning environment. Instructions and set-up of the sensor box are available through the E. Wattson itself.

The second tool connected to E. Wattson is the Organic Solar Cell Kit. The development of the kit also halted due to the COVID-19 shut-down of the university, as it was not possible to order or receive materials during the lockdown. However, MCI reports that the kits are nearly finalised, and at the recent online partner meeting in October 2020, MCI staff presented the kit and how it works to partners. Each 2IMPREZS partner on the development of E.Wattson, the interactive will receive a kit with the sensor box, and operation of the kit will be built into the solar cell scenario of the 2IMPREZS E. Wattson.

> After the re-opening of SDU, progression of E. Wattson has continued at a much increased pace. Many new features and improvement of features have been added. Furthermore, a multimedia designer now works on improving the visual/graphic expression of the system and to ensuring graphical coherence with the Interactive Fact Sheets (in E. Wattson, this is called School Energy Data).

> The MCI expects that by year-end, E. Wattson will be finished, lacking only minor optimisation work and bug fixing.



2IMPREZS Energy Data & Interactive Fact Sheets

2IMPREZS Interactive Fact Sheets

The 2IMPREZS Interactive Fact Sheets (IFS) are an interactive digital tool that allows pupils, teachers and parents track the results of their energy-saving efforts across the North Sea Region.

The main feature of the 2IMPREZS IFS is an interactive map that allows pupils to select individual schools across the North Sea Region to view their achieved energy savings and thus carbon emission reduction after having participated in the 2IMPREZS Energy Challenges. The energy savings and carbon emission reduction data per 2IMPREZS school will be automatically updated into an interactive online platform when partners upload their energy calculator key performances indicator (KPI) sheets developed within the 2IMPREZS project.

The platform also will offer digital resources such as energy-saving or energy-related activities and games, as well as background information on the 2IMPREZS Energy Challenges — this digital tool will also support in the rollout of the digital Energy Challenges campaigns taking place in light of the COVID-19 pandemic. Ultimately, the Interactive Fact Sheets demonstrate that the 2IMPREZS Energy Challenges can be replicable across various countries and cultures.

Are you switched on to Save Energy? Join us at the 2IMPREZS Energy Challenges project and make a difference

Interreg



The 2IMPREZS project

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DISCOVER MORE

The 2IMPREZS Interactive Fact Sheets will be live by the end of the year to support with the delivery of the transnational 2021 2IMPREZS Energy Challenges campaign.

2IMPREZS Homework: Energy Eaters DIY ('Do-it-yourself')

Energy Eaters are the little creatures devised by some Belgian Energizers that mark energy-intensive technology in schools! The little Energy Eaters are very easy to make:

- 1) Take a tennis ball-size ball (this could be an old tennis ball from a nearby tennis court, or a foam ball)
- 2) Cut a mouth in it, so you can fit it over a screen, a door handle, radiator, your grandma (just kidding), etc...
- Glue some eyes on it if you don't have access to a hot glue gun (to be used with parental supervision!), you can draw the eyes on.
- 4) Be creative and make them as funny as you like
- 5) The Energy Eaters are ready to invade your school and home! #stayhome



What is **2IMPREZS**?

What's the Issue?



Most schools in the North Sea Region (NSR) were built in more careless times—they have a high and forever more costly energy consumption that is not in line with today's CO₂ reduction emission policies. **2IMPREZS fosters both behavioural and technical energy efficiency measures in existing schools, reducing energy consumption and thus reducing CO₂ emissions.** For the first time, this project will tackle the whole spectrum of energy efficiency measures by using behavioural, technical and financial approaches instead of focusing on one specific field.



Let's Get Energised!

Based on active participation and initiatives of school stakeholders (e.g. teachers, students, management), as well as on the project partners' experiences, 2IMPREZS creates a joint energy saving programme through Energy Challenges in schools and an innovative decision making model, developed, tested and validated to best incorporate cost-effective educational, technical and financial measures.

The project had planned to open the local challenges to a **cross-border Energy Challenge initiative** in 2020, in which pupils would collaborate internationally to find the best ways to reduce energy consumption in their schools. Learning from the 6+ years of experience of our Dutch partner, **Energy Challenges Foundation**, such behavioural changes can result in at least **15% energy savings in schools** alone. At this time, four schools that have already taken all necessary energy efficiency

measures are raising their ambitions and striving to become near zero-energy schools by implementing renewable energy technologies.

The main project result is an estimated carbon reduction of 30% (7320 tonnes CO₂) in the 141 schools directly involved. The main output is a joint energy saving programme, tested in different school environments and conditions and replicable in and beyond the North Sea Region, which will support the new 2030 Framework/EU Strategy for climate & energy for a sustainable Europe.

Keeping Communication alive during COVID-19 (continued from page 1)

Energy Challenges NL's short films were a big success; therefore, the digital newsflashes will be integrated into the transnational energy saving programme. They will be upgraded in content and appearance and distributed (digitally) to the schools every two weeks. In the film, Energizers (and stakeholders) will receive a short update on the energy saving campaigns from participating schools across the North Sea Region. It will also include a topic provided by our skilled raging reporters, who will give ideas regarding energy saving, energy transition or sustainability. The goal is to help the pupils stay focused during their campaigns to reduce consumption in their schools.



Outside of this, the 2IMPREZS partners have continued hosting regular work package leader calls— focused on topics specific to the work packages, such as communication or the development of the E. Wattson— and holds intensive international partner meetings online, rather than in person. These virtual meetings allow the international partnership to keep on track on the road to project completion in Autumn 2021.

2IMPREZS Newsletter #6

The 2IMPREZS Partnership



Country

Belgium

Netherlands

Germany

Denmark

Belgium

Denmark

United Kingdom

Project partner information

Partner IOK (Lead Partner) www.iok.be

Energy Challenges www.energychallenges.nl

atene KOM GmbH www.atenekom.eu

House of Science www.houseofscience.dk

Province of Antwerp www.provincieantwerpen.be

SDU Mads Clausen Institute www.sdu.dk/mci

Southend-on-Sea Borough Council www.southend.gov.uk

IGEMO www.igemo.be

Djapo www.djapo.be

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