## **2IMPREZS Newsletter #3**

### What's the Issue?

Most schools in the North Sea Region (NSR) were built in more careless timesthey have a high and forever more costly energy consumption that is not in line with today's CO<sub>2</sub> reduction emission policies. 2IMPREZS fosters both behavioural and technical energy efficient saving measures in existing schools, reducing energy consumption and thus reducing CO<sub>2</sub> 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 (teachers, students, management), as well as on the project partners' experiences, 2IMPREZS will create 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.

In 2020, these local Energy Challenges will open up to a cross-border Energy Challenge initiative, in which students collaborate internationally to find the best ways to reduce energy consumption in their schools.



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#### Save the Date!

**North Sea Region Programme** Conference — 26th June, Västra Götaland, Sweden

2IMPREZS Partner Meeting-3rd-5th Oct. Sønderborg, Denmark

Interreg Project Slam 2019-8th-10th Oct., Brussels

**Funding Programme: Interreg VB North Sea Region** Programme

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

## 2IMPREZS in the Long -Term



Learning from the 5+ 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, three 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 CO<sub>2</sub>) 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.





European Union **European Regional Development Fund** 



### **2IMPREZS Energy Challenges 2019 Finale**

## The Dutch Energizers celebrate seven years of Energy Challenges

Over 450 pupils and their teachers from 17 schools celebrated yet another successful year of energy saving at the Dutch Energy Challenges Finale in Leek, Netherlands this May.



Following the 10 A.M. arrival of the 450 fanatical Energizers, the finale was kicked off by local celebrity Raynaud Ritsma, the face of Energy Challenges in Holland. Ritsma "woke up" the Energizers with a high energy opening and presented the jury members and prizes on stage. This year, there were again three fanatical judges: Hielke Westra, Alderman for Sustainability of the Municipality of Westerkwartier; Marita Schreur, Supervisory Board of Energy Challenges Foundations; and Nienke Homan, Provinvial Executive of Groningen. Madeline Langlois of German 2IMPREZS partners European Institute for Innovation was present to judge the international competition. The prizes this year: grand prize (primary school), grand prize (secondary school), highest savings, exposure, event, public vote, Crazy 88 and 2IMPREZS international.

Before the finale officially began, the Energizers of the secondary schools presented their energy saving efforts and innovative solutions to the jury. In the theatre of the Rodeburghal Hall, four groups gave great presentations on the sustainability initiatives in their schools, with the winners going on to offer input for the decision of the primary school Energy Challenges winners. Later, the primary school Energizers presented their schools' energy campaigns at the Energy Market while the jury ran to assess all the stalls. A highlight of the finale was the "Crazy88" challenge-a game with 88 energy-related assignments to complete in record time. The Energizers raced to check off assignments such as the egg race, the photo booth, hydrogen tests, smoothie bikes and the "Energy Truck of Tomorrow". Check out all the fun here on YouTube!

The Dutch finale closed with all Energy Challenges participants receiving well-deserved medals. The main prize of a class trip to a popular amusement park and zoo in the Netherlands went to the **Pendinghe** from Groningen, while the grand prize winner of the very competitive international 2IMPREZS went to the Energizers of **De Windroos.** Until next year, Energizers!



Madeline Langlois (Elfl & 2IMPREZS) announces the international Energy Challenges 2019 winners

### Energy Challenges 2019 goes international



In order to encourage knowledge transfer and interregional cooperation amongst young pupils in their efforts to reduce carbon emissions in their schools, the Energizers of the Netherlands, Belgium, Denmark & Germany scheduled an international video conference. The Dutch Energizers were composed of representatives from the three schools that participated in the International Energy Challenges 2019—the very *impressive* **Bisschop Bekkerschool**, **De Windroos** and **Brederoschool** primary schools. The Belgian schools of **Sancta Maria**, **De Knipoog** and **Qworzo** tuned in from their funfilled Energy Fest in Lier, the Dutch Energizers from their 2019 finale, and the remaining pupils from their individual schools. Together, they sent a powerful message into the world: global climate change requires cross-borders, global climate action.

## **Energy Challenges across the NSR**

Students from 17 Flemish schools proudly present their climate actions at the 2019 2IMPREZS Energy Fest



On Friday, the 24th of May 2019, students from 17 Flemish schools participating in the European project "2IMPREZS – Energy Challenges" presented their climate actions from the past school year.

Hosted by "Low Impact Man" **Steven Vromman**, the end-of-year Belgian 2IMPREZS Energy Fest 2019 was kicked off with a presentation of different schools on how they integrated the project and its goals into their lessons. First up to show off their energy saving results was **Sancta Maria**, a primary school in Willebroek, Belgium. The pupils came to the stage with large posters full of powerful slogans. They campaigned throughout the year to turn off the lights, set the heating lower and think about a generally healthy climate.



"Low Impact Man" kicks off the national Belgian Energy Fest (Copyright: Compagnie Fotografie for Province of Antwerp)

Pupils from another outstanding 2IMPREZS primary school, **De Knipoog** in Ranst, made 'Energy Eaters' as a part of their energy saving initiatives. First grade pupil, **Pepijn**, explains: "The energy eaters are spread throughout the school. They sit on door handles, the teacher's computer screen, the heating, the windows...[etc.]. If we work together to close all doors and windows and shut down the computer, we can catch the energy eaters."

The 2IMPREZS Energy Eaters, initially brainstormed by Energizers in the Belgian 2IMPREZS schools, have also made their way to the Danish 2IMPREZS schools at the Municipality of Sønderborg's end-of-year energy cele-

bration. Soon, they will bounce into schools all across the North Sea Region – and beyond!



The 2IMPREZS Energizers with their Energy Eater friends (Copyright: Compagnie Fotografie for Province of Antwerp)

Pupils from the primary school **Qworzo** in Merksplas prepared a Viking Clap for the climate. After rehearsing the clap with all Belgian participants, they picked up the phone (or really, the laptop) for an international video conference call to the other NSR countries in the project. Together, they sent a powerful message into the world: 11 claps, representing the years we have left until 2030 to undertake significant climate action before it's too late.

To send the pupils home inspired for the future, "Low Impact Man" Steven Vromman presented his climate show, in which he explained all the different (fun!) ways to save energy. From an outside shower with water heated by the sun, or your own herb garden on the terrace—every little bit helps to make the future bright!



The international student-led Viking Clap for the climate (Copyright: Compagnie Fotografie for Province of Antwerp)

Congratulations to the Energizers of Belgium!

## The 2019 Energy Challenges Finales

# Report cards are in: Teachers in Southend praise 2IMPREZS

Chalkwell Hall Junior School has teamed up with the media students at SEEVIC college to create an introductory video for the 2IMPREZS project's Energy Challenges.

The students at **Chalkwell Hall Junior School** along with nine other UK primary schools are participating in the 2IMPREZS Energy Challenges programme during the 2018-19 academic year. The students have completed their energy lessons and have moved onto the plastic and waste topic following their Easter holidays.

The students have been working alongside some media studies students at the local **SEEVIC College** to create an introduction to the Energy Challenges UK. They have been working with **Peter Littlewood** from **Young People's Trust for the Environment (YPTE)** to brainstorm ideas. The video was filmed and edited entirely by the 16-year-old college students and will be featured on the UK Energy Challenges website for all participating schools to view. The video will also be shown to schools all around the UK to encourage them to sign up to Energy Challenges in the future. Students can be seen participating in "Energy Walkrounds" and partaking in energy saving activities. Teachers at the school are also featured in the video to explain the benefits of the programme. Click on the image below to watch!



Testimonies of the Energy Challenges campaign in Southend, UK can be heard from pupils, teachers & the headmaster of Chalkwell

In the future, Southend Borough Council will team back up with SEEVIC, YPTE and other primary schools to film a similar video for both the Plastic Challenges and Nature Challenges topics.

## The Energy Challenges are kicked off in Lower Saxony, Germany

On the 26th of February 2019, the German Energy Challenges Kick-Off event took place in the Rotenburg Wümme town hall, hosted by the mayor of Rotenburg Wümme, Mr. Andreas Weber.

The German Energizers all come from the three German 2IMPREZS pilot schools within Lower Saxony:

- City of Eversen/Bergen Primary School: 8 pupils and 1 teacher
- IGS Achim (Achim): 9 pupils and 1 teacher
- Grammar School UNESCO Halephagenschule (Buxtehude): 26 pupils and 6 teachers



Following an introduction by the mayor, the pupils heard from climate change celebrity and polar expedition leader, **Sven Achterman**. Achterman talked to the pupils and teachers about climate change and the effect on the Arctic and Antarctic. Following this presentation, **Sebastian Martin** of the **European Institute for Innovation** informed the Energizers of the "why, what, how" aspects of the Energy Challenges to give the pupils a clear picture as to how they will proceed with their campaigns. After a short break, each individual group of pupils showcased their videos and presentations, and the Stromagenten ("Energy Agents") of the small but mighty primary school, **Grundschule Eversen**, performed their <u>Energy Dance</u>.

The pupils were then split into two groups, and the primary school kids were given the opportunity to paint their own "Climate Influencing Banner". This banner quite literally painted a colourful image of what they learned throughout the morning.

## Gearing up for the 2019 Energy Challenges



The 2IMPREZS secondary school Energizers of Lower Saxony conducting energy experiments at the 2019 kick-off

Meanwhile, the older pupils participated in an "Energy Parkour" session, organised and provided by the **3N Kompetenzzentrum Niedersachsen**, during which they explored the importance of kinetic (motion) energy in our bodily movements through a series of fun exercises. They had the opportunity to experience energy in various aspects, like producing energy on a special bike for inflating balloons, using FLIR cameras and doing various small energy experiments.

The teachers greatly appreciated that the event was well structured so as they could sit back and have the kids take over the show. The teachers also appreciated the **Klimaschutzagentur Niedersachsen** providing materials to create interesting "energy saving" school lessons. Due to the successful event and positive feedback, the mayor of Rotenburg registered the IGS Rotenburg for next year's 2IMPREZS Energy Challenges.

The German 2019 2IMPREZS finale will take place on the 1st of July this year...so stay tuned!

## Sønderborg celebrates one year of energy saving!

More than 170 students from 11 schools in the Sønderborg Municipality, Denmark had a great time together at the annual 2IMPREZS Energy Challenges celebration this May.



The end-of-year 2IMPREZS Energy Fest in Denmark

Rather than hosting a competitive finale event, the Municipality of Sønderborg—along with the Belgian 2IMPREZS partners—have chosen to hold collaborative Energy Challenges campaigns in which everyone is a winner. Thus, the Danish (and Belgian) Energizers enjoyed a national celebration of their energy savings over the past year! To kick off the event, Danish comedian **Thomas Wivel** made sure that the large sports hall in the centre of Sønderborg was vibrating with good vibes and positive energy during his exciting performance. The participants were all dressed in yellow T-shirts – the colour symbolising the highly important solar energy, of course!

#### (continued on p. 6...)

### 2IMPREZS Energy Eaters



Energy Eaters are the little creatures devised by some Belgian Energizers that mark energy intensive—or energy eating—technology in schools! The little Energy Eaters are so adorable, and 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, door handle, etc...
- 3) Glue some eyes on it
- 4) Be creative and make them as funny as you like
- 5) The Energy Eaters are ready to invade your school





## An exciting close to the 2019 Energy Challenges

### (continued from p. 5...)

The pupils prepared exhibition stands to show what they had been working with for the last year. The exhibitions demonstrated lots of creativity surrounding the important energy topics of electricity, water, heat, transport and even permaculture gardening.



The Danish Energizers of the Sønderborg Municipality organised exhibition stands focusing on various energy topics of their choice

Similarly to the Dutch Energy Challenges "Crazy 88", in which the Energizers race to complete 88 different energy-related activities, the Danish celebration featured a "Crazy 22" workshop. Here, the Energizers created their own "Energy Eaters", small "creatures" that mark energy-intensive devices throughout schools and homes—amongst other exciting experiments. The Energizers were able to take their cute creations home to "imprezs" and educate their parents and siblings, thus bringing Energy Challenges outside the classroom and into the home.

All participating schools received a diploma for their hard work and amazing presentations at the end of the celebration. Check out the inspiring <u>video of the</u> <u>Danish Energy Challenges celebration</u> on our website.

## Watt's up with E.Wattson?

Meet E.Wattson – the Energy Detective, soon to be connected to research-based solar cells.

The development of E.Wattson has progressed over the course of the semester, as a group of nine students from different engineering study programmes at SDU was given the task of constructing a sun-tracking device with organic solar cells and collect data regard-

ing the performance of the cells. This 2IMPREZS group was ready to present their solution at a major public event at SDU's TEK Expo, which is held annually. At the TEK Expo, all engineering students present the semester projects made during their Autumn semester. Thus, around 300-400 persons – family members, local company representatives, fellow students, as well as two primary school classes and two high school classes – learned about the new organic solar cell device.

Currently, E.Wattson is in its prototype phase. The tiny sensor box can measure levels of humidity, temperature and  $CO_2$  and display these on a webpage. In the future, the system can supply primary school pupils and high school students with interesting information about the indoor climate of a classroom.



E.Wattson can be accessed on the SDU Mads Clausen Institute 2IMPREZS webpage: http://2imprezs.sdu.dk. Please note: measurements and mascot are only shown when the sensor box is in operation. The development of E.Wattson now continues with a strong focus on implementing solar energy to the solution.



The E.Wattson organic solar cell tracker and 2IMPREZS group at TEK Expo SDU in December 2018

## An international partnership

## 4th International Partner Meeting in Antwerp, Belgium

This April, the international 2IMPREZS partnership convened for the fourth partner meeting. Hosted by 2IMPREZS partners, the Province of Antwerp and IGEMO, the meeting was held in the province's new CO<sub>2</sub>-neutral office building in Antwerp, Belgium.



Main topics on the agenda were how to calculate the results & winners of the schools participating in the cross-borders 2IMPREZS Energy Challenges, the organisation of the international Energy Challenges Finale 2020 and how the 2IMPREZS interoperable energy optimisation model, E.Wattson, is coming along.



An organic solar cell developed by Danish 2IMPREZS partner, the University of Southern Denmark (SDU) Mads Clausen Institute (MCI).

## 2IMPREZS to perform live at the Interreg Project Slam in Brussels

2IMPREZS is pleased to announce that our project has been nominated for the EU-level 2019 Interreg Project Slam, an EU competition within the annual European Week of Cities and Regions in Brussels.

This **2019 Interreg Project Slam** contest, hosted by the **Interact Programme**, is an official part of the EU's top annual Cohesion Policy event, the **EU Week of Regions and Cities**, which takes place in Brussels every October. This year, the Project Slam is expected to be bigger and better than ever, with projects from Interreg programmes signing up in record numbers!

2IMPREZS has secured a spot as being one of the eight finalist projects appearing on stage at EU Regions Week in October 2019 out of nearly 40 submissions received from across the whole Interreg community. **Madeline Langlois** of 2IMPREZS partner, the **European Institute for Innovation (EIfl)**, will represent the 2IMPREZS project with the help of a few outstanding Belgian pupils from local 2IMPREZS pilot schools. The social media competition will begin in August and voting will be open until the end of September. All votes will be cast by liking videos on Facebook, so make sure to watch our 2IMPREZS Facebook page!

## Meet E.Wattson



E.Wattson is the first interactive system to be operated by children to convince decision-makers to invest in C0<sub>2</sub>-reducing measures at schools.

In mid-autumn of 2018, the Mads Clausen Institute (MCI) of SDU delivered the first prototype of the 2IM-PREZS interactive energy optimisation demonstration model — IEODM. With help from the 2IMPREZS partners, the MCI has also found a new name for the system and its mascot: **E.Wattson** – **the Energy Detective**. E.Wattson is also the name of the programme's animated mascot, who reacts to CO<sub>2</sub> levels in a given classroom. If the level exceeds the maximum exposure level, the mascot will first become tired, slump over and eventually completely collapse. The goal of the E.Wattson is to ultimately utilise energy data from the 2IMPREZS schools to help pupils make energy-saving decisions in their schools.

## **2IMPREZS Newsletter #3**

## The 2IMPREZS Partnership



#### **Project partner information**

Partner	Country
IOK (Lead Partner) www.iok.be	Belgium
Energy Challenges http://energychallenges.nl	Netherlands
European Institute for Innovation www.eifi.eu	Germany
House of Science www.houseofscience.dk	Denmark
Province of Antwerp www.provincieantwerpen.be	Belgium
SDU Mads Clausen Institute www.sdu.dk/mci	Denmark
Southend-on-Sea Borough Council www.southend.gov.uk	United Kingdom
IGEMO www.igemo.be	Belgium
<b>Djapo</b> www.djapo.be	Belgium
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#### Are you 2-IMPREZSed?

Keep up with all the 2IMPREZS events and news by following our project on social media!

