

2IMPREZS Newsletter #2

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 **foster both behavioural and technical energy efficient saving 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 Energized!

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.

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.



2IMPREZS in the Long -Term



Learning from the 5+ years of experience of our Dutch partner, **Energy Challenges Foundation**, this behavioural change can result in at least **15% energy savings in schools** alone. At this time, 3 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.



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Save the Date!

Energy Challenges Kick-off 2019— 25th January 2019, regional launches

2IMPREZS Partner Meeting— 3rd-5th April 2018, Antwerp, Belgium

Energy Challenges Finale— 24 May 2018, NSR

Funding Programme: Interreg VB North Sea Region Programme

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

Energy Challenges 2018 Finale

The Energy Challenges Finale 2018 is a great success!

On Friday the 29th of June, over 400 pupils ('Energizers') gathered together in the EM2 Barn in Groningen for the finale of the Energy Challenges (Noord Region) — a campaign where children become owners of their schools' energy bills & playfully come into contact with sustainability and energy.



The Energizers celebrated the conclusion of the 2018 Energy Challenges in the Netherlands (North) in the EM2 Barn, a beautiful former warehouse with an alternative and sustainable touch. Upon entering, many tense but especially enthusiastic faces exchanged glances. Who would win the prizes?

A jury, with representatives from the political and industrial spheres was to determine which schools were awarded prizes. And there were more than enough prizes to win! No school went home empty-handed!

The main prize in primary education was awarded to



The Energizers of Groningen show off their Energy Challenges achievements at the Energy Fair of the 2018 Finale

De Windroos, a school from Zuidhorn. They stood out because they have achieved all the stars in a very unique way! Het Lauwerscollege from Buitenpost won the prize for secondary education. It became a difficult choice for the jury, since all Energizers have worked incredibly hard in the past six months. All the achievements were allowed to show on the Energy Market.

Energy Challenges once again proves that if you let kids become the owners of their energy bills and let their brains loose on sustainable solutions and innovations...the world benefits! Energy Challenges believes in the power of the Energizers...which is why next year's campaign will be even bigger and better!



De Windroos Primary School takes the gold!

Energy Challenges: An international affair



The 2IMPREZS project brings together partners from 5 different countries to spread the Dutch concept of Energy Challenges across the North Sea Region. The 2019 Energy Challenges—tailor-made to adapt to differences in each country—will be kicked off this January in the Netherlands, Belgium, Denmark, Germany and the UK.

The goal for the 2020 Energy Challenges? An **international competition** in which winners from each country gather to celebrate saving energy and sustainability! Three of the 30 schools participating in Energy Challenges in the NL—the **Windroos in Zuidhorn**, **De Brederoschool in Groningen** and the **Bisschop Bekkerschool in Groningen**—have already signed up!

Energy Challenges across the NSR

Belgian partners kick-off the Energy Challenges campaign in their schools

This autumn, Belgian partners kicked off the campaign in their schools. The Belgian approach with the steppingstones was optimized, and shared with the other partners, who were very enthusiastic. All schools were visited and are now getting started on site.

On the 23th of October, teachers of participating schools were brought together at the **Thomas More University** in Geel to learn more about how pupils can use their 'energy boxes' in their classrooms. The boxes contain materials like temperature- and CO₂-loggers, energy meters and so on—all materials that students can easily use in their classroom to learn more about energy consumption.



Flemish teachers convene for a training sessions about Energy Challenges—including the Energy Boxes & Stepping Stones

The teachers were also briefed on the Energy Challenges "Stepping Stones"—the Flemish adoption of the Dutch concept of earning "stars" for completing certain tasks throughout the challenges. The stepping stones are a tool that teachers and pupils can use in their classroom to support their Energy Challenges-campaigning at school. There are 8 different stepping stones to structure their campaign (e.g. identity, action, exchange, measure, compare, knowledge...).

Furthermore, the **Province of Antwerp** created a network event for school building managers, through which managers of participating schools can exchange

knowledge and learn more about possible energy saving measures. This network event met for the first time on the 25th of October in a provincial school in Mechelen. On the agenda: an introduction of the project, inspiring best practices for small energy saving



Network event for school building managers in Belgium

measures, renovation-advice and a guided tour around the hosting school. There also was some time to network. This network event will be organised biannually.

In the meantime energy surveys have been conducted in many of the schools. In these surveys schools are provided of a list of possible measures in their buildings. The report of this survey can form the basis to decide what measures to perform in a school.



"Stepping Stones" for the 2018/2019 Energy Challenges in BE

Gearing up for the 2019 Energy Challenges

The art of beating plastic pollution



The Energy Challenges take on a new form in Southend-on-Sea, UK, as the main focus this year is on energy saving as well as beating plastic pollution.

With the help of 300 pupils from Chalkwell Hall Junior School, Southend-on-Sea Borough Council launched a plastic pollution awareness this summer at The Forum (Southend), where the public could view an exhibition of art work by primary school pupils about plastic pollution and why we must take action to reduce our use of single-use plastic items, such as plastic bottles, shopping bags and straws.

The exhibition is part of the “Let's Turn the Tide on Plastic!” initiative, which has been introduced at Southend-on-Sea Borough Council to reduce the amount of single use plastic items used by staff. This initiative is now being extended to 10 primary schools during the 2018-2019 academic year, thanks to the council-run Energy Challenges project.

Energy Challenges will provide funding for the Young People's Trust for the Environment to work directly with pupils and help them understand what action they can take to reduce their use of single use plastic. There will be opportunities for local businesses to support participating schools by sponsoring a litter-picking kit, which will be used by pupils to keep their school grounds, local parks and beaches litter-free.



Peter Littlewood of Young People's Trust for the Environment (YPTE) leading an engaging presentation on the danger of single-use plastic at the 2018 Energy Challenges Kick-off in Southend

Energy Challenges in Germany

The next milestone for launching the German Energy Challenges in Lower Saxony—the 5-school teachers' meeting and debriefing on the campaign—has been organized and set to the 5th of December 2018. On this date, the representatives of the participating schools are going to meet at the Halephagen Schule in Buxtehude. The [Halephagen Schule](#) is a high school and UNESCO School with 1100 pupils.



The goal of the teachers' meeting on the 5th of December is to introduce the responsible teachers to each other and to provide all relevant information as well as clearing up any questions.

To prepare for this initial meeting, the schools will provide their Key Performance Indicator (KPI) energy data, which will serve as a starting-point for measuring the achieved energy savings in the schools across the North Sea Region. The KPIs will also serve as the base-point to create a fair comparison between the Energizer teams in their very different school surroundings in an international context.

In addition to the **Halephagen Schule**, the other schools participating in the first ever German Energy Challenges are listed below:

The **Integrierte Gesamtschule (IGS) Achim** is a school currently in its initial phase, as the school merges two former schools, which are going to be closed. The IGS is going to use the buildings of the other two schools. The school type of IGS covers several types of schools and integrates them into one teaching-structure. The IGS Achim has currently 245 Pupils.



Gearing up for the 2019 Energy Challenges

The **Grundschule Eversen** is a very small primary school in the countryside. This school has due to the age of the kids and the small size a very strong connection to the kid's parents. The Grundschule Evers has 52 Pupils.

The **Astrid Lindgren Schule Edeweicht** is a school for pupils with special needs. We are very proud to have them in our portfolio, as it is a unique chance to address this special group of pupils with the topic of sustainability. The content of the Energy Challenges is going to be adapted in cooperation with the responsible teachers to the needs of the pupils. The school has 145 Pupils

The **Robert Bosch Gesamtschule** is our second Integrierte Gesamtschule and well established. The school has 1400 pupils and is our biggest school. The Robert Bosch Gesamtschule is a grand prize winner of the German school price and a UNESCO school.

Summitting Sønderborg

Nine out of 17 public schools in the municipality of Sønderborg, Denmark are now participating in the 2IMPRESZS project. One of these schools is Nordals-Skolen, which has been working hard with 2IMPRESZS since the beginning of the school year.

After visiting all 17 public schools in the municipality of Sønderborg, where we introduced the 2imprezs-project to the principals and some of the teachers and



invited them to come along, nine of the 17 schools chose to take part in the journey. That is a success rate of 53%, and it has brought a lot of good energy into the project. The nine schools are as most schools different both in culture and building-wise. Therefore, we decided to have an open structure, so each school can use their skills and talents to more or less form their own approach in the 2imprezs project. And it seems so far to be a good idea!

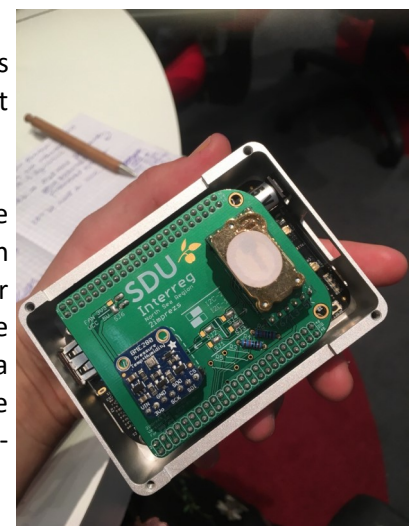
One of the schools among the nine participating schools is **Nordals-Skolen**. Nordals-Skolen is a medium-sized school with 340 students and is located in the northern part of the municipality. The school participates particularly with a group consisting of fourteen young, fresh, and curious boys from 5th grade. They make up the energizers and the **EnergyCrew**, who has the main responsibility for lowering the carbon footprint of the school.

(continued on p. 6...)

Meet E-Wattson—the energy detective!

The IEODM has a mascot – an animated character which reacts to CO₂-levels in a class room. If the level exceeds the maximum exposure level, the mascot will first become tired, then slump over and eventually completely collapse.

The first prototype of the IEODM was presented for project partners at the recent partner meeting in Southend-on-Sea in early October. It has long been an issue to rename the IEODM into something more catchy and suitable for school children. Thus, all partners were active in trying to find a new name for the IEODM and the mascot. After a small idea generation workshop, a selection of possible names came up and a vote was made via an online voting system. The result was that the name of both the IEODM and the mascot now is called “E. Wattson – the energy detective”!



Gearing up for the 2019 Energy Challenges

On the 27th of August, the Danish 2IMPREZS partners visited Nordals-Skolen to introduce the 2imprezs project and announce them to be the **EnergyCrew of Nordals-Skolen**. Here we met a fantastic group of young students who were curious and filled with a drive to reduce their carbon emissions by 15%. At the kick-off workshop the students from Nordals-Skolen heard about climate change, and how waste sorting can limit the carbon emissions. Therefore, they decided to take action, and they are now implementing waste sorting on the entire school, visiting every single class and telling them about the importance of waste sorting and their participation in the 2IMPREZS project.



The bright minds of Nordals-Skolen learning about energy and how it works at their introduction to the Energy Challenges

It has been a wonderful beginning to an interesting project, and Nordals-Skolen has been an excellent example of how quickly we can make a change in our own schools and communities. It is a good thing that we do not measure the energy levels among our enthusiastic and excited students, because they have only increased in the last couple months – and it keeps doing so.

Watt's up with E.Wattson?

The first milestone of the E.Wattson—formally known as the IEODM—was reached at the end of this summer. E.Wattson is the first interactive system to be operated by and assist children in trying to convince decision-makers to invest in CO₂-improving measures at schools.

During spring semester, students worked on aspects of the technology, which the IEODM must contain. With the supervision and guidance of the regular 2IMPREZS staff at MCI, a group of three students developed a very good first prototype of the IEODM. The system consists of a sensor box and a web page. The sensor box can measure the levels of humidity, temperature and CO₂ and display these on a webpage. The system is not quite ready for testing but when running over a longer period, it can supply school kids and high school students with interesting information about the indoor climate of a class room – information which can cause them to reflect on aspects such as “is my classroom too hot – do we open the windows too many times”? “Is the CO₂-level too high and is the learning environment too poor”?



E. Wattson can be accessed on the SDU Mads Clausen Institute 2IMPREZS webpage: <http://2imprezs.sdu.dk>. Please note that levels 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.

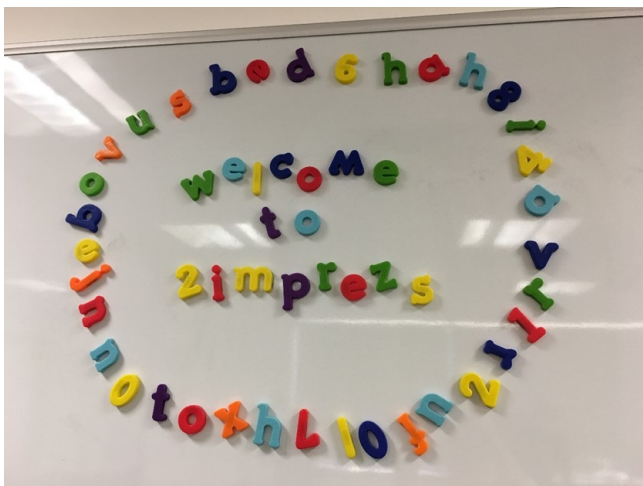


Energy Challenges and 2IMPREZS

3rd International Partner Meeting in Southend-on-Sea, UK

Field Trip! The 2IMPREZS Partnership heads to Southend-on-Sea, United Kingdom to exchange experiences and prepare for the regional 2019 Energy Challenges and international 2020 Energy Challenges.

The international 2IMPREZS partnership convened for a third time since the project's launch in Fall 2017 for a comprehensive status update, study visits to local 2IMPREZS pilot schools and interactive sessions to provide ideas for how to launch the Interactive Energy Optimization Demonstration Model – IEODM.



The meeting was held at the Southend Borough Council, where partners conducted an evaluation of the first report and prepare for the second reporting period. One of the main goals of the meeting was achieved with an in-depth discussion of what is expected from partners over the next six months as they gear up for the regional 2019 Energy Challenges.

The partners meet E.Wattson – formally known as the IEODM

On day two of the partner meeting, the 2IMPREZS partnership focused on the fine-tuning of the Interactive Energy Optimization Demonstration Model – IEODM. Taking place at the iLab of the University of Essex, the cross-border collaboration session on the IEODM development & launch included product demonstration and exploring the possibility to reach the 30% energy savings in schools using the IEODM. Partners



evaluated specific cases in which the IEODM model would be effective, tested out the prototype of the model and most importantly – brainstormed a catchy new name for the “IEODM” — E.Wattson!

Field Trip!



The 3rd International 2IMPREZS Partner Meeting came to a close with a study visit to the launch of the second year of the UK Energy Challenges in **Chalkwell Hall Junior High**, the successful 2IMPREZS pilot school in Southend-on-Sea. Here, **Peter Littlewood** of **Young People's Trust for the Environment (YPTE)** led an engaging presentation on the danger of plastic especially in our oceans—a great kick-off to the Southend-on-Sea's plastic initiative in schools as a part of the challenges. A second study visit to **Temple Sutton Primary School** allowed the partners an inside-look into how our Southend partners have financed and delivered a successful energy efficiency renovation to the school.



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The 2IMPRESZS Partnership



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