2IMPREZS Newsletter #4

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 CO_2 reduction emission policies. **2IMPREZS fosters both behavioural and technical energy efficient saving measures in existing schools, reducing energy consumption and thus reducing CO_2 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.

2IMPREZS in the Long -Term

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, 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_2) 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.

Interreg North Sea Region 2imprezs
European Regional Development Fund
EUROPEAN UNION

What's Inside?

Save the Date!

Energy Challenges kick-offs — October 2019-January 2020

2IMPREZS Partner Meeting— March 18th-20th. Amsterdam, Netherlands

Energy Challenges finales— March-June 2020

Funding Programme: Interreg VB North Sea Region Programme

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

European Union
European Regional
Development Fund

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International Exposure for 2IMPREZS

2IMPREZS takes the gold at the Interact Project Slam in Brussels!

Out of 40 EU project submissions, 2IMPREZS was selected as one of 8 finalists to present their impact at the 2019 EU Regions Week in Brussels, for which they took home first place.

Ward Moeyersons (far left) and Charlotte Macken (mid-left), students from Sint-Jan Berchmans Secondary School are joined by Madeline Langlois of 2IMPREZS partner organisation, European Institute for Innovation (EIfI) onstage to accept the grand prize

Presenting onstage at the EU Regions Week 2019—Europe's largest cohesion policy event between politicians, decision makers, EU projects and more—Madeline Langlois from the German 2IMPREZS partner organisation, European Institute for Innovation (EIfI), and Charlotte Macken and Ward Moeyersons, two star pupils and ''AMIGOS'' from local 2IMPREZS pilot school, **Sint-Jan Berchmans Secondary School** in Puurs, Belgium, explained how the pilot school improved energy efficiency by 22% within 2IMPREZS. In their impressive live performance, Charlotte (12) and Ward (14) explained their school was no ordinary school. The pupils of Sint-Jan Berchmans Secondary School have developed a brilliant approach to engae students in energy savings: each year the students hold elections to select a new student government, which includes a subcommittee of students focused solely on making the school greener, called the ''AMIGOS''.

Langlois expressed onstage and in following interviews that young pupils have a strategic and very valuable role in the 2IMPREZS project. ''They are considered 'agents of change' and are involved in the core project activities, including carrying out energy audits for their schools, assessing the schools' current energy set-up and designing a plan for improvements and energy savings.'' The judges, the audience in the Silver Hall of The Square conference venue, backed 2IMPREZS and their impressive work to reduce energy consumption by nominating the project as grand prize winners.

To see 2IMPREZS become the stars of the Project Slam 2019, visit the Interact website. For an engaging snapshot of 2IMPREZS's recent win, check out our feature in the North Sea Region Blog.

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 fun-filled 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 North Sea Region

Belgium launches their 2019-2020 Energy Challenges

On September 24th 2019, several teachers from participating Belgian schools in the 2IMPREZS Energy Challenges project gathered to learn about the project and get inspired to work with their pupils.

Organising partner **MOS** offered a wide spread of subjects in order to fully prepare the teachers for this school year's energy-saving actions. Working with the ''energy suitcases'', learning how to involve the pupils and setting up E-twinning accounts to communicate internationally were some major topics on the agenda. A testimonial from last year's participating school, **PTS Boom**, showed the teachers all the possibilities to integrate the project into their day-to-day lessons.

The conference in Mechelen targeted both new schools in the project as well as schools continuing last year's good work. Twenty-three schools of the Flemish partners Province of Antwerp, IGEMO, MOS, Djapo, Thomas More and IOK are participating in the 2019-2020 2IMPREZS Energy Challenges.

A teachers' workshop on September 24th prepares the Belgian teachers for the next year of energy saving with 2IMPREZS

Belgian 2IMPREZS teachers think outside the box

Albert Einstein once said: "You cannot solve problems with the same mindset as they were created with." Luckily, children are already amazing out-of-the-box thinkers.

But how can a teacher harvest these ideas in the context of energy-saving behaviour? And how do you get from a wild idea to a concrete action? The teachers from primary schools De Verrekijker en Klimop in Ravels (Belgium) plunged into Djapo's (2IMPREZS partner) session ''Creative thinking about energy saving'' and eventually resurfaced with a whole batch of ideas to implement in their classrooms.

The participants first learned what creative thinking entails and why it is not only useful, but also important. Then, the major part of the two-hour course focused on experiencing methods to support creative thinking.

The 2IMPREZS Energizers with their Energy Eater friends at last year's Belgian Energy Fest (Copyright: Compagnie Fotografie for Province of Antwerp)

The groups of teachers first designed energy consuming classrooms and shared their design. It contained a lot of electrical devices that were always running, radiators blasting heat while children were sitting in T-shirts and there was no renewable energy source in sight.

After the architectural brainstorm, the teachers came up with concrete actions on how to reduce unnecessary energy usage. The exchange of ideas that followed showed that creative thinking is not only an excellent tool for pupils, but also for the teachers.

Energy Challenges across the NSR

Southend achieves their goals

The British Energy Challenges have come a long way since the pilot school of Chalkwell Junior Hall School — Southend-on-Sea now boasts twenty 2IMPREZS schools dedicated to saving energy.

Over the last 6 months, Southend Borough Council has worked collaboratively with the **Young People's Trust for the Environment (YPTE).** They have sourced 10 new schools and received confirmation that the old schools are still happy to continue with the project. The results from last year were very positive and it showed that the children and teachers had taken their energy saving seriously.

The 2019-2020 Energy Challenges kicked off in the UK

Since the start of the new school year, we have launched the Energy Challenges UK website (https://www.energychallenges.org.uk/). This is exciting progress as it allows the schools to track their learning and energy usage in real time. The website features all the resources for each term and a function for them to input the schools energy figures, which produces a graph to show a year on year comparison. The schools are then also able to utilise each other's ideas as they share details of the activities they have carried out.

Lower Saxony celebrates some serious energy savings

On the 1st of July, the German 2IMPREZS Finale 2019 marked the end to a fantastic first pilot year of energy savings in Lower Saxony.

To wrap up the 2018-2019 2IMPREZS campaign in Lower Saxony, the **European Institute for Innovation (EIfI)** held the national German 2IMPREZS Finale. The

The German 2019 Energy Challenges brought together 100+ pupils ranging from ages 6 to 15

three pilot schools for the 2IMPREZS project — **Grundschule Eversen**, **IGS Achim** and **Halepaghen-Schule Buxtehude** —convened in the large auditorium of the IGS Achim to celebrate their successes during the 2018-2019 2IMPREZS energy-saving campaign, which was initially launched at the Rotenburg Rathaus (City Hall) back in February 2019.

As with the German 2IMPREZS kick-off event, the **3N Kompetenzzentrum** of Lower Saxony (Niedersachsen) was in attendance to provide hands-on activities and trainings in the wonderful world of energy. Following the opening remarks, the excited pupils from each school held their creative presentations—ranging from choreographed dance to well-organised poster boards—to explain all they have done in their schools to save energy throughout the campaign, plus any challenges to learn from in the future. After the lunch break, the winners of the challenges were announced: although it was a tight race, **Grundschule Eversen** (primary school) went home with the grand prize!

(continued on p. 5…)

Energy Challenges across the NSR

The Energy Eater workshop at the finale. The pupils released the creatures into their homes to mark energy-consuming devices

After the hands-on aspect of the fun-filled finale came to a close, the visiting pupils gathered their Energy Eaters and hopped onto their buses for home. It was a very energetic day focused on the ever-increasing importance of lowering energy consumption and thus carbon emissions throughout the North Sea Region and beyond.

2IMPREZS in the Netherlands

The first year of 2IMPREZS in the Netherlands was a success! In total, four schools participated in the international challenges pilot year with great results, which the Energizers presented during the 2019 Finale on the 24th of May.

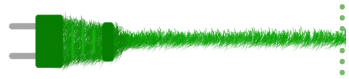
The **De Windroos** school organised an event, during which the Energizers demonstrated various energy experiments to a large audience. They made a presentation of what they achieved and what they want to achieve in the future. The pupils also approached different companies and asked what they were doing to practice sustainability. The schools also made plans to create a totally ''green'' playground.

The Energizers from **Bisschop Bekkers** are very fanatic and have made a lot of commotion during the Energy Challenges. For instance, they wrote an energy newspaper with the latest news in the field of energy, interviewed the local public transport company, baked goods without packaging, wrote and performed a play and built a perfect eco-friendly world in a game.

''And the winner is….'': Madeline Langlois (Elfl) announces the winning Dutch Energizers of the 2019 international competition

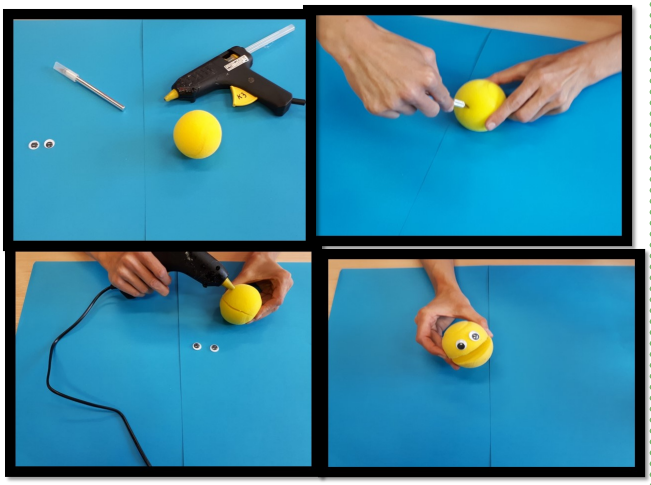
Nine ''golden'' rules to be followed by all students at the **Brederoschool** have been introduced. They already saved a lot of energy over their six years of Energy Challenges and keep this *(continued on p. 6…)*

2IMPREZS Energy Eaters



Energy Eaters are the little creatures devised by some Belgian Energizers that mark energy-intensive 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 and home!



An exciting close to the 2019 Energy Challenges

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very steady. But the Energizers wanted more, so they met with the residents of the flat next to their school. Together they set up ''golden rules'' that apply to the flat. They also went to the municipality to see how they can make the apartments in the neighbourhood more sustainable.

After much discussion between the jurors, the **De Windroos** school won the 2IMPREZS prize. The **Bisschop Bekkers** won for best exposure.

Sønderborg students experiment with carbon emissions

The Student Council of the Rinkenæs School in southern Denmark reduce CO_2 emissions linked to the transport to and from school.

A young pupil at the Rinkenæs School measures the amount of carbon released from driving to school

The Danish **Rinkenæs School** already has good experiences in participating in the national event, "Alle Børn Cykler" (''All Children Bike'') and the local event, "Giv dit barn lov" (''Let your Child Bike''), in which they won both competitions. Therefore it was not such a challenge to them at all when the **House of Science** (2IMPREZS partner) taught the pupils to calculate the CO_2 emissions linked to the various methods of transportation this November.

The idea was to calculate carbon emissions before and after their campaign, and finally later during the year. To show the results of the calculation, the pupils used paper-cut balloons that symbolised a certain amount of CO_2. The Student Council tested the calculation on themselves and reduced their emissions from 10.3kg to 3.8kg CO_2 per day by changing their habits.

The pupils also learned about the other positive effects from active transportation, such as improved physical fitness, concentration and mood — in addition to lower costs for society. Overall, the school project has been a success in increasing the pupils' awareness of the effects of transportation on the environment, knowledge that can empower them in future endeavours to mitigate climate change.

Mad about saving energy: The Mads Clausen Institute presents 2IMPREZS to local stakeholders

Local stakeholders learn about 2IMPREZS in Sønderborg

The Mads Clausen Institute (MCI) of Southern Denmark University (SDU) presented 2IMPREZS high school activities for stakeholders at a House of Science Steering Committee meeting. Besides the MCI, the Steering Committee consists of principals of high schools in the municipality of Sønderborg. The principals were given a walk-through of the 2IMPREZS best-practice model for high schools, which is comprised of four workshops dealing with energy. When finished, workshop material for the 2IMPREZS best-practice model for high schools will be spread to other high schools in Denmark.

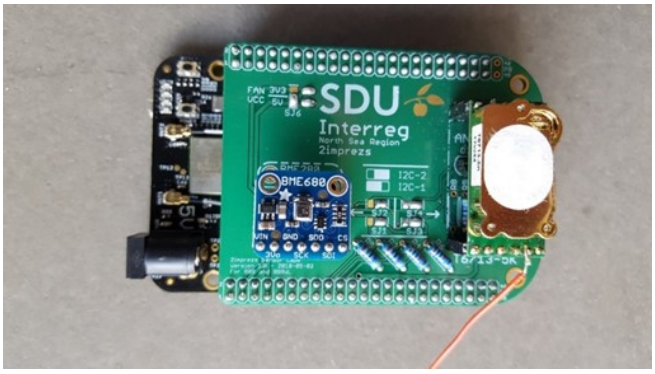
To allow high school students to receive a first-hand impression of the energy research activities at the MCI, this Danish partner has developed engaging modules for high school students, including Smart Energy Technology, Solar Energy, Business Models and Hands-on Research.

The Danish 2IMPREZS partners present 2IMPREZS at the House of Science Steering Committee Meeting in Sønderborg

An international partnership

Watt's up with E.Wattson?

From toddler to teenager: E.Wattson – the Energy Detective develops



The 2IMPREZS E.Wattson, developed by SDU MCI, uses a sensor box that is small enough to fit in your pocket

E.Wattson is the first interactive system to be operated by children to convince decision-makers to invest in CO_2-reducing measures at schools. In mid-autumn of 2018, the Mads Clausen Institute (MCI) of SDU delivered the first prototype of the 2IMPREZS interactive energy optimisation demonstration model — IEODM. Since then, E.Wattson has undergone great progress over the course of 2019.

At the 2IMPREZS partner meeting in April in Antwerp, the MCI hosted a post-it session asking partners to give their input for E. Wattson. In late spring and over the summer months, work progressed including input from partners and at this year's second partner meeting in Sønderborg in early October, the MCI was proud to present a more developed E. Wattson. The system is now functional with two energy saving scenarios – lighting and solar energy.

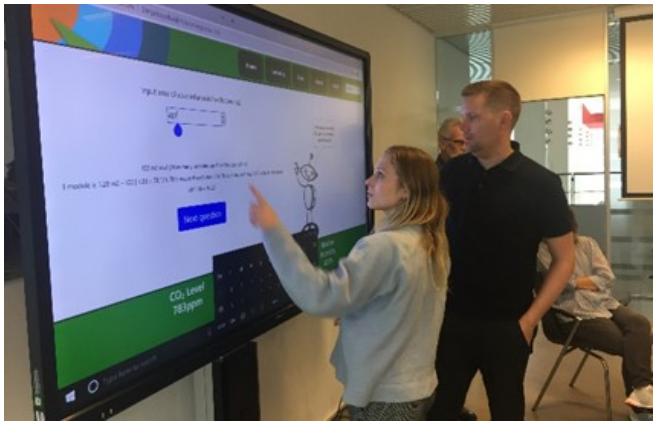
Young pupils can now enter specifications for their own school, and E. Wattson will illustrate savings in energy if investments are made in one or both scenarios. 2imprezs partners were given a thorough introduction to the scenarios at the Sønderborg meeting, and they can now take the system to the schools and carry out user-tests with school kids. Simultaneously, the feature of E. Wattson consisting of the sensor boxes, which school classes can use to measure the indoor climate of their class room, has also entered a new stage. The development of the technology has been finalized and the boxes will soon be released to partners. School kids will thus be able to follow the levels of temperature, humidity and CO_2 level of their classroom over, for example, an entire day and become aware of the consequences of their behaviour (i.e. opening windows, etc.).

Thus, E. Wattson is not fully grown yet but will remain in its teen phase a little while longer. Come March 2020, the MCI expects to be able to present a third version of the system including the financial model scenario. After this, the development of E. Wattson will undergo its final phase before entering adulthood.

5th International Partner Meeting in Sønderborg, Denmark

The 2IMPREZS Project partners rolled up their sleeves at their recent partner meeting held this October in Sønderborg, Denmark.

When 2IMPREZS partners arrived in Sønderborg, situated near the Danish-German border in Southern Denmark, they were ready to dig head first into current project issues. Main topics on the agenda were the cross-border 2IMPREZS Energy Challenges 2020, project management and a new Dutch partner.



The 2IMPREZS partnership tests the E.Wattson interface at the international partner meeting this October in Sønderborg

Prior to the meeting, Danish partners and hosts, House of Science and the Mads Clausen had sent out an agenda revealing both work package working sessions and user-testing of the 2IMPREZS energy optimisation tool for school kids – E. Wattson. The partnership was then able to offer critique and advice for the development of the final energy optimisation model.

2IMPREZS Newsletter #4

The 2IMPREZS Partnership

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