

About

Most schools in the North Sea Region have high and increasingly more costly energy consumption that is not in line with today's CO₂ emission reduction policies. 2IMPRESZS will stimulate change by fostering both behavioural and technical efficient energy 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—the behavioural, the technical and the financial approaches—rather than focusing on one specific field.

The implementation of the project's comprehensive transnational strategy will aim to reach 30% energy savings in 141 schools in the North Sea Region, representing an emission reduction of 7320 tonnes of CO₂ and will examine how to transform four schools into nearly zero-energy buildings.

By reaching schools and experts throughout the North Sea Region, 2IMPRESZS will be able to collect and share experiences but also develop an energy saving programme, compiling measures that are proven to be efficient in various settings. So far, 2IMPRESZS has reached 83 schools in five countries.

Project progress

WP1 Project management

A partner meeting was scheduled in Amsterdam for the 18th-20th of March 2020 but was cancelled due to COVID-19. Partners held a digital meeting in its place and stayed in touch through regular online WP-meetings. The partnership welcomed two new partners, 'atene KOM GmbH' and 'Energy Challenges', and said goodbye to 'Elfi' and 'Energy Challenges North'.


The responsible beneficiary of this Work Package (WP) is IOK.

WP2 Communication activities

In the beginning of 2020, WP2-leader Elfi was replaced by atene KOM GmbH. Lucky us that the same people could stay on board!

During this reporting period, atene KOM oversaw the development of a new platform—the Interactive Factsheets (IFS). The platform showcases participating schools and their energy saving results by participating in the transnational 2IMPRESZS Energy Challenges. The IFS are being developed and shall be migrated to the Energy Challenges website, where they shall continue to be hosted even after the project end, and will be launched in the following reporting period. Additionally, atene KOM and IOK prepared an application for the REGIOSTARS Awards but decided it would be better to apply next year when the partnership can communicate more tangible energy-saving results. To increase EU-level project exposure, preparations for the next North Sea Region video contest in Autumn 2020 are underway.

atene KOM uses the input of the project partners to regularly update the 2IMPRESZS communication channels (webpage, Facebook, Twitter, Instagram, LinkedIn...). Additionally, atene KOM organises regular virtual



meetings to discuss communication topics. Partners provide regular input for communication channels through pre- and post-event templates. Based on this information, a fourth 2IMPRESZ Newsletter was published in Winter 2019 and a fifth in Spring 2020.

The responsible beneficiary of this WP is atene KOM GmbH.

WP3 Energizing School Agents with the capacity 2IMPRESZ

Unfortunately, Energy Challenges North had to withdraw from the 2IMPRESZ project. However, they found a great new partner, Energy Challenges Foundation, which is a nearly identical organisation, but located in the Province North Brabant.

The partnership established regular contact with local schools to develop a tailor-made approach to saving energy across the five partner countries. Furthermore, the project was launched in new schools in the beginning of the 2019-2020 schoolyear. The project partners further collected energy data from the schools to complete the KPI spreadsheets, renamed 'Energy Challenges Results Calculator'.

In January, partners organised a 'kick-off' event for participating schools. The transnational finale events, originally scheduled for April-June to reward students for their efforts to save energy at schools, were cancelled due to COVID-19 – although this did not stop the Belgian pupils already on the way to their transnational exchange event in Denmark (due to safety precautions, the event was cancelled shortly after their arrival) from bumping into Greta Thunberg on the train ride! Regular online WP3-meetings and contacts with partners continued to be held online to discuss the approach at school and to follow-up activities at participating schools.

At this point, 119 schools in the North Sea Region have joined the project.

The responsible beneficiary of this WP is Energy Challenges Foundation.

WP4 Energizing financial capacity and supporting 2IMPRESZ business models

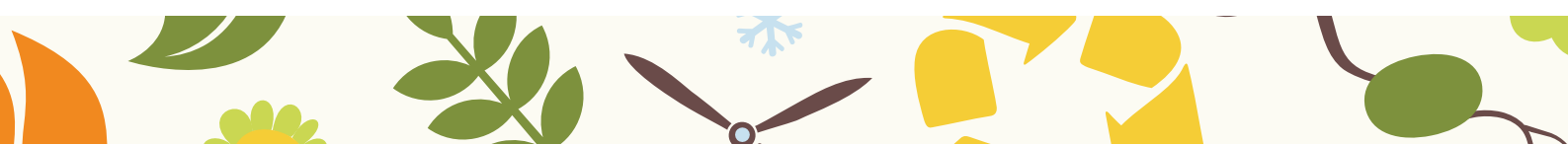
What's going on with 'E.Wattson, The Energy Detective'? Prototypes were presented at the previous partner meetings and the platform was tested by the different partners and children of participating schools. The partnership is also working on incorporating new energy scenarios into the platform.

The current version of E.Wattson can be accessed here <http://2imprezs.sdu.dk>. Please note that CO₂-levels and the mascot are only shown when the sensor box is in operation.

The responsible beneficiaries of this WP are Southend-Borough Council and Mads Clausen Institute.

COVID-19

In general, COVID-19 and the subsequent lockdown had a significant impact on the project. Schools had closed (and some have yet to reopen). Schools were busy with organising digital teaching and implementing health restrictions. Therefore, the schools' focus shifted from saving energy toward keeping children healthy. In some school, the project has been 'on hold' for a few months; other schools looked for digital methods to continue the project or focused more on the technical trajectory. Partners introduced digital alternatives (e. g. Energy Challenges created a weekly online challenge, IOK made an instruction video about the heating installation...), in order to provide schools with educational materials applicable during this COVID-19 period.



Progress per country



ZET DE WERELD OP PUNT



Flemish partners

During this reporting period, lead partner **IOK** put in significant work toward finalising the major change (and corresponding tasks). Energy Challenges North and Elfi withdrew from the project, atene KOM and Energy Challenges were added as new partners.

IOK had sent 'Energy Challenges reporters' to schools in order to gather material to communicate on activities at school, prepared together with atene KOM an application for the REGIOSTARS Awards (but decided to apply next year), and was busy with preparations for the NSR video contest.


Within WP3, IOK established regular contact with schools to develop a tailor-made approach to saving energy. IOK has drawn up a framework contract for the performance of energy audits and the implementation of some energy-saving measures. IOK and local Belgian partners are supporting 27 schools to save energy. One additional school, 'VITO Hoogstraten', plans to join the challenge next schoolyear.

Because there was a change of WP3 leader, IOK has temporarily taken over an important task within WP3: finalising the KPI spreadsheet (the '2IMPREZS Energy Challenges Result Calculator') and collecting all energy data from schools. They experimented with short videos about technical topics, such as 'regulation of the heating installation for schools'.

IGEMO has made a lot more progress towards communicating the results of their schools towards the broad public. They were able to start their campaign with articles in local media, they successfully engaged the school communication managers and managed to let the students themselves communicate on social media.

IGEMO is very happy with the methods they have developed to get a school enthusiastic and involved in the Energy Challenges. They have developed participatory methods for students ranging from 8 to 18. These have resulted in some excellent results:

- Students of the OLVP in Bornem made their very own energy escape room and energy quiz that was so popular on the school that it ran for a week instead of the planned day.
- Students of the College Hagelstein also made their own energy escape room that ran for two weeks. More the 1/3 of the school participated in this.
- Students of the College Hagelstein transformed their school with meme's, urging others to save electricity.



The **Province of Antwerp** organised 2 events for school building managers (14/11/2019 in PTS Boom and 20/02/2020 at the St-Pietersinstituut Turnhout). Various experts presented their findings (i.e. heating systems to check/control, large investments and how to finance them...). Each event was closed with a walk-through of the hosting school to see their measures already in place.

Within 3 private schools (Kajee, OLV-College and Xaverius-College) and 3 public schools (CVO Vitant - Maalboot, PTS-Mechelen, PITO-Stabroek) an energy-audit was executed. These reports provide an overview of what can be improved in these schools to save energy.

The **Flemish partners** organised an Energy Challenges kick-off on the 24th of January in Malle. A keynote speaker illustrated the importance of trial-and-error when it comes to innovation and energy. Later on, the pupils could engage in different workshops concerning energy-saving. At noon there was an online video conference with the Dutch and German kick-off events, which were happening simultaneously.

They also prepared international exchange between several schools from Belgium and schools from partner countries, but most of the arrangements were cancelled due to COVID-19. Only college Hagelstein of Sint-Katelijne-Waver (supported by IGEMO), travelled to Denmark to exchange with local 2IMPRESZS schools (although this event was cancelled shortly after their arrival). On their way, they met Greta Thunberg!

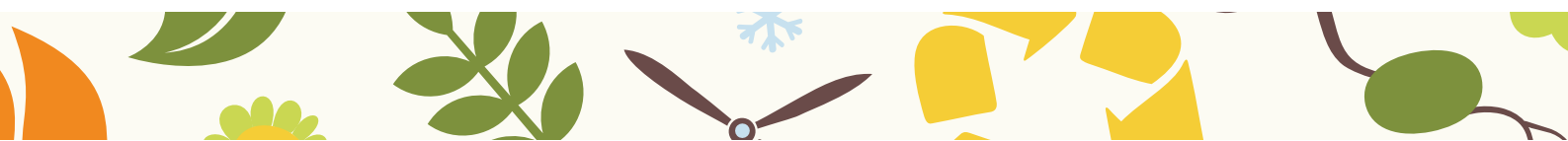
The Energy Challenges finale on the 24th of April was also cancelled due to COVID-19.


Danish partners

In this period, **House of Science** reached their goal of 20 schools engaged in the 2IMPRESZS Energy Challenges. House of Science had planned and arranged a transnational finale with students from Belgium, but unfortunately this had been cancelled due to the COVID-19 pandemic.

The ‘energy crews’ at each school have demonstrated various ideas on how to save energy and thereby reduce CO₂ emissions at school. For example, pupils from Nordals Skolen gathered information about how to save money by saving energy through lighting that could be used on management level. At Rinkenæs Skole, the energy crew looked into how much CO₂ can be reduced through changes in how to get to school, e.g. bicycle vs. car.

Furthermore, sorting trash as a means to reduce CO₂ emissions, and gathering trash in the nature as a way of obtaining an empathic understanding of nature, has been in focus—especially for younger pupils. The basic understanding of resources and how to reduce





any unnecessary waste is fundamental to gain a behavioural change of consumption and discharging of greenhouse gases.

At the 2IMPRESZS partner meeting in early October 2019 in Sønderborg, technology partner **Mads Clausen Institute** presented the next version of the E. Wattson web universe with two functionable energy saving scenarios – lighting and solar energy. MCI staff and a hired programmer had worked over summer and beginning of Autumn to get the new version ready.

The development of E. Wattson faced some challenges (e.g. changes of staff, software difficulties, COVID-19 related delays...). In sum, the development of E. Wattson web universe is still somewhat delayed but the work is progressing.

German partner



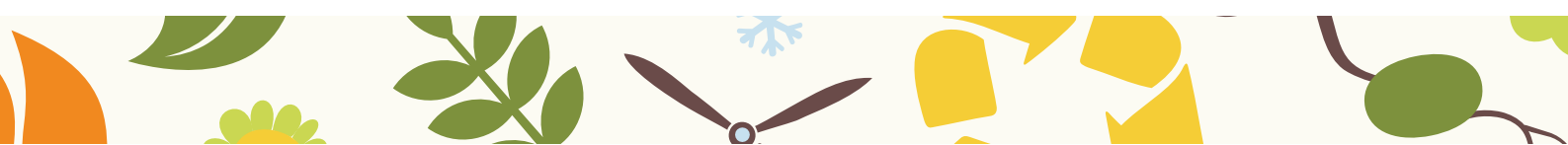
During this reporting period **atene KOM** became an official partner of 2IMPRESZS. atene KOM replaced Elfi as partner with all participating staff from Elfi transferring to atene KOM, so there was no impact on the deliverables. During this reporting period the COVID-19 situation took hold, with planned partner meetings being cancelled – rearrangement of these have been planned, however. Partners are cooperating and exchanging information through regular digital meetings during these difficult times – on the bright side, these video conferences prevent long distance travelling and thus also prevent greenhouse gas emissions. The Energy Challenges within German schools have also been affected; however, in Germany some activities remained through digital learning facilitated by atene KOM in collaboration with the participating schools.

Communication activities have taken place during this reporting period, although somewhat different approaches have been deployed. All partners use the various channels created by Elfi to communicate efficiently to their target groups. News & event articles/updates have been regularly edited and/or written to populate the project website and social media channels (webspaces, Facebook, Twitter, Instagram, LinkedIn) in order to deliver the agreed core messages and results / project impact: CO₂ emissions reduction via energy savings of the project to its various identified 2IMPRESZS target audiences.

For WP4, the second online prototype of the IEODM (E.Wattson - The Energy Detective) was presented to all partners. Based on the feedback, MCI/SDU have been working on a new prototype for heating - atene KOM has fed in information in an effort to make it more decision-making oriented, rather than a focus on children.

Dutch partner

During this period, the **Energy Challenges Foundation** was mainly concerned with starting up the activities for the Energy Challenges,



as the foundation was established in September 2019. Preparations for the campaign have started, with a particular focus on recruiting schools to participate in the Energy Challenges/2IMPREZS, recruiting sponsors and subsidies from companies and local governments.

In addition, Energy Challenges established the administrative organisation during this period. Preparation meetings were held with teachers and large-scale kick-off meetings were organised.

In addition, technical measures have been taken at all schools, inventory has been calculated and the technical report has been delivered.

UK partner



Southend-on-Sea Borough Council has been continuing to promote Energy Challenges UK in partnership with Young People's Trust for the Environment (YPTE), and have achieved the target of engaging with 20 schools in the UK at the beginning of 2020. Unfortunately, due to the impact of COVID-19 pandemic all engagement with schools has come to a standstill since March 2020, but they are optimistic that they could resume their work with the schools in the coming academic year.

The first set of KPI reports demonstrated that the schools that have taken part in the 2IMPREZS programme benefited greatly as their energy usage has reduced significantly in the past year, compared to the baseline data. By completing the energy surveys last year, participating schools are now able to make decisions on selecting the type of technical improvements to undertake to help with further energy savings.

The Financial Capacity Report is being completed by Southend with the help of an external consultant Z/Yen, and will soon be ready to be disseminated throughout the North Sea Region.

