



CENTRE FOR
SYSTEMS
SOLUTIONS

CONTENT REPORT

2 0 1 6

STRUCTURE

03 PROJECTS

04	Green Games
06	Wspólne zarządzanie przyrodą (Joint Management of Nature)
07	Budget Game
09	EDUCEN
11	CNH
12	Nowa Ziemia (New Earth)
13	ACCURENT
15	InnoEnT
16	Games4Sustainability

18 GAMES

19	Laudato Si
20	Energy Transition Game Water-Energy Nexus Game
21	Gifts of Culture Flood Resilience Game

22 OTHER EVENTS

PROJECTS



GREEN GAMES

LIBRARIES AND NON-GOVERNMENTAL ORGANIZATIONS INVOLVE YOUTH IN THE GAME FOR NATURE



Green Games. Libraries and non-governmental organizations involve young people in the game of nature is an education and ecology oriented project whose aim was to increase the knowledge of young people (from middle school to university students) on biodiversity, climate change and economic value of ecosystems. The learning process took place in a very attractive way - through games. The project was inspired by the idea of serious games - that is such games that not only entertain but also provide reflection, enhance transfer of knowledge or help acquire skills. Within the project, two board games on ecological issues and two online games on climate change have been prepared and implemented. We distributed almost 200 game-sets and workshops scenarios for free and provided the participants with information and promotional materials. We trained 175 workers of school and public libraries and non-governmental organizations. The trainings took place in the 7 major Polish cities. More than 8.5 thousand young people from towns and cities participated in the project.

The project was implemented by the Centre for Systems Solutions Association in partnership with the Foundation for the Development of the Information Society and the Foundation for Sustainable Development within a PLO2 Biodiversity Programme, financed from the funds of the EEA.

DURATION

May 2014 - december 2016

PROJECT COORDINATORS

Jakub Damurski, Marcin Serweta,
Wioleta Hutniczak

KEY EVENTS

April

■ *Green Games - Games for Sustainability Festival*

On April 4th, 2016 the *National Festival of Games for Sustainable Development* took place in Warsaw. One of the most important goals of the festival was to collect and present a wide range of games focused on ecology available on the Polish market. The participants had the opportunity to get some information about already tested games that can be used at trainings, workshops, and lessons.

The festival was the culmination of efforts to exploit the potential of serious games in education for sustainable development. The event was addressed to trainers, educators, teachers, animators, and all those who are interested in using this kind of games in their educational activities.



grazklimatem.zielonegry.pl

Gra z Klimatem 2.0

W mobilnej Grze z Klimatem 2.0 gracze wyruszają na podboj zielonej wyspy niekniętej dotąd ludzką ręką.

Nowi mieszkańcy muszą zmierzyć się z problemami związanymi z zarządzaniem wspólnym lasem i zabudową wyspy, a także z decyzjami swoich współmieszkańców. Decyzje te mogą wywołać zmiany klimatu, które z kolei powodują huragany i zalewanie wyspy.

Gra nie odwzorowuje wiernie rzeczywistych procesów prowadzących do zmian klimatu, ale stanowi ich doskonałą analogię, dzięki czemu umożliwia graczom zrozumienie najważniejszych ich przyczyn.

Przestrzeń



Czas min. max.
Czas trwania 1 2h
Czas na przygotowanie 10 15 min.
Rodzaj gry internetowa
Sprzęt tablety.

Ludzie

min. max.
Liczba graczy 5 30
Liczba osób prowadzących 1 3
Wiek 10 +

Grupa odbiorców

Uczniowie ●●●●●
Biznes ●●●●●
Studenci ●●●●●
Społeczności lokalne ●●●●●
Administracja publiczna ●●●●●
NGO ●●●●●

Kontekst

Zmiany klimatu ●●●●●
Zarządzanie dobrami wspólnymi ●●●●●
Nierówności ekonomiczne ●●●●●
Biodiversity ●●●●●

Jak zdobyć grę

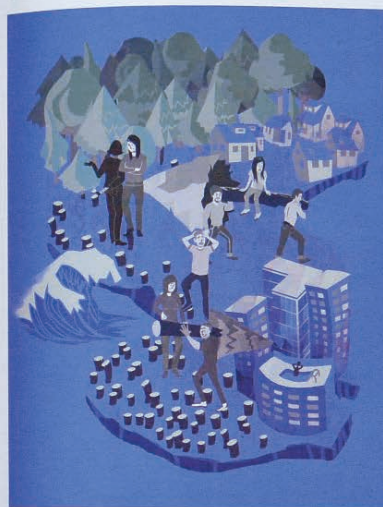
Ogólnodostępna gra internetowa. Instrukcję oraz dostęp do panelu moderatora znajdziesz tutaj: (grazklimatem.zielonegry.pl).

Interakcje

- Konflikt
- Negocjacje
- Przywództwo
- Wykluczenie
- Współpraca: wspólne wypracowywanie zasad i podejmowanie zbiorowych decyzji
- Rywalizacja
- Jazda na gapę (free-riding)

Wyzwania

- Zadbanie o to, żeby wyspa przetrwała i w przyszłości wciąż mogła pozostawać źródłem utrzymania jej mieszkańców
- Zrównoważone gospodarowanie wyspą i porastającym ją lasem
- Porozumienie z sąsiadami, którzy mogą mieć inne cele i aspiracje



Decyzje

- Użytkowanie lasu
- Sadzenie nowych drzew
- Rozwój – stawianie nowych budynków
- Monitoring działań innych graczy
- Nakładanie sankcji na innych graczy

Konsekwencje decyzji graczy:

- (-) negatywne
(+) pozytywne
- (-) Kurczący się las
 - (-) Wzrost stężenia gazów cieplarnianych
 - (-) Zmiany klimatu: wywołujące huragany i stopniowe zalewanie wyspy
 - (-) Nierówności ekonomiczne pomiędzy graczami
 - (+) Dobrze zarządzany las przynosiący stałe dochody wszystkim graczom
 - (+) Dobrze współpracująca społeczność mieszkańców wyspy

Lekcje

- Nadmierne zużycie surowców prowadzi do wyczerpywania się zasobów naturalnych, co wstrzymuje produkcję i rozwój gospodarki.
- Zmiany klimatu mogą spowodować katastrofy naturalne (huragany, powodzie).
- Działając w pojedynkę, nie da się osiągnąć założonych celów. Przy nadmiernej rywalizacji wszyscy tracą.
- Niekontrolowany rozwój gospodarczy ma wpływ na zwiększoną emisję gazów cieplarnianych, co prowadzi do zmian klimatu.

■ The Games for Sustainable Development Publication

The publication constitutes a collection of experiences and reflections on the application of games in education for sustainable development. The authors present good practices and helpful tools for the effective introduction of topics such as, i.a., climate change, management of common goods, and biodiversity. The publication contains several guest articles, including *The Rhetoric of Video Games* by Ian Bogost.

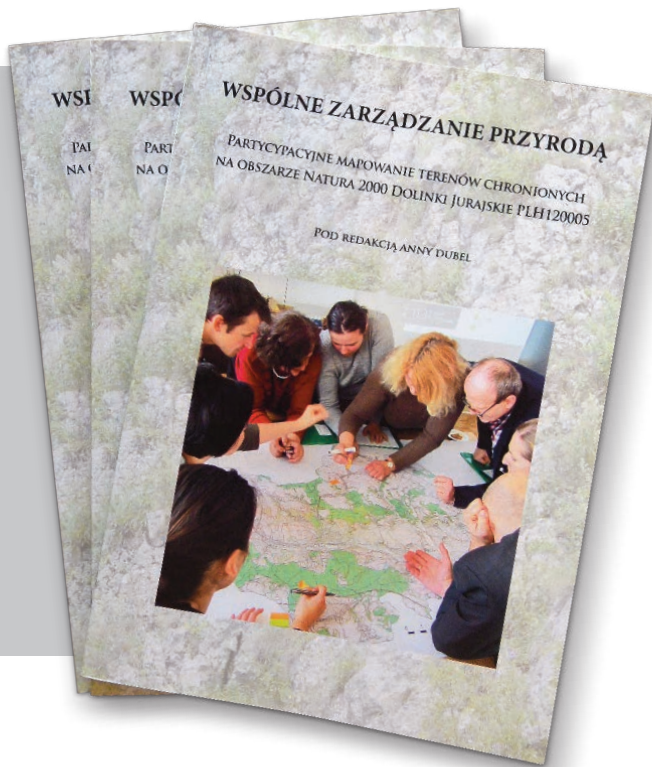
The book is addressed both to people who are already familiar with the concept of educational games and those who are considering incorporating them into their actions. Both groups will find some inspiration and concrete examples of games that may be useful to achieve the desired aims in education. The downloadable e-publication may be found under the following [link](#) or on the [project's website](#).



Przez doświadczenie i refleksję do zrozumienia i odpowiedzialności

WSPÓLNE ZARZĄDZANIE PRZYRODĄ

JOINT MANAGEMENT OF NATURE



The project aimed at improving the participation of local communities in the management of the Natura 2000 protected area of Dolinki Jurajskie. This objective was achieved via the model process of dialogue with the use of an innovative Internet tool based on participatory mapping technique (the so-called PP GIS). This enabled a large (800 people) and diverse group of stakeholders (including residents, heads of municipalities, entrepreneurs, developers, politicians, non-governmental organization representatives) to express their needs and preferences in regard to land management. The implementation of the project has strengthened the position of citizens in land management processes, enabled to deepen a dialogue between the stakeholders and provided a diagnosis of social perception of the protected area. The partner of the project - the Regional Directorate of Environmental Protection in Kraków, involved in the consultations and meetings at every stage of the project, ensured that the project results were applied in the process of participatory establishment of the plans referring to the protection tasks.

The project was financed by the Stefan Batory Foundation in the framework of the *Citizens for Democracy* program financed under the EEA Grants.

DURATION

April 2015 - april 2016

PROJECT COORDINATOR

Anna Dubel

KEY EVENTS

April

■ *The Conference on Joint Management of Nature - a participatory mapping of protected areas*

On April 22nd, 2016 a summary conference was held at the Małopolska Agricultural Advisory Centre in Karniowice. The conference was mainly focused on the joint management of the Natura 2000 area of Dolinki Jurajskie. During the meeting, the results of the project and the outcomes of the participatory mapping were presented and discussed.

An interesting part of the conference was a panel discussion with the students-volunteers who had taken part in the project. They shared their experiences in geological surveying they had been conducting on the inhabitants of Dolinki Jurajskie. They assessed the results as a useful source of knowledge on the needs and expectations of the residents. The participants of the subsequent panel discussion, as well as a plenary discussion, pointed out that the method of participatory mapping is not only interesting but display great potential for being applied in environment protection and spatial planning processes.

■ *A publication summarizing the project Joint Management of Nature - a participatory mapping of protected areas*

On April, 30th, the project *Joint Management for Nature - a participatory mapping of protected areas* was finalised. Its results are collected in a book available under the following [link](#).

BUDGET GAME

OBYWATELSKIEGRY.PL

DURATION

March 2014 - february 2016

PROJECT COORDINATOR

Anna Koch

KEY EVENTS

January

■ *Budget Game. How to involve citizens in co-deciding processes? A conference in Wrocław*

The event was addressed to the representatives of public institutions, NGOs, and companies. The guests included, i.a., the representatives of the following cities: Wrocław, Lublin, Łódź, Warsaw, Kraków, Poznań, Gorzów Wielkopolski, Ostrów Wielkopolski, Toruń, Białystok. Numerous local government officials came to Wrocław from different cities of Lower Silesia, such as, Oława, Strzelin, Trzebnica, Oleśnica and Świdnica.

An important part of the conference was devoted to the presentation of an innovative tool for public consultation, that is, a serious simulation game. We asked the participants to share their experiences and observations regarding the application of the game. Among the speakers, there were, e.g., the Director of the Association of Polish Cities, Andrzej Porawski; the Deputy Director of the Association of Polish Cities, Tomasz Poikański; the Deputy Director of the Civic Participation Office in Wrocław, Katarzyna Szymczak; the representative of the Centre for Systems Solutions, Piotr Magnuszewski; the representative of the Icelandic Citizens Foundation, Gunnar Grimsson; and the representatives of the third sector organizations and the cities that had already implemented innovative tools strengthening citizen participation in city management.



The Budget Game. Activation of Lublin and Świdnik Citizens in the Field of Participatory Budgeting promotes an active citizen participation in municipal budgeting processes. The main part of the project was a simulation game inspired by *Budget Games* created by Innovation Games®. The original American game had been in use since 2011 and had helped the residents and authorities of San Jose (USA) participate in a debate on city budgeting processes. The game was adapted to the Polish reality, and its aim was to increase citizens' sense of responsibility for their city financial policy. The games were applied in the budget consultation in Lublin City District Council and in the process of participatory budgeting in Świdnik.

The project was implemented by the Centre for Systems Solutions in partnership with the municipalities of Lublin and Świdnik, the Association of Polish Cities and Citizens Foundation within the program *Citizens for Democracy*, funded by the EEA Funds.

■ **The Budget Game Publication. The Tool for increasing participation in city management.**

The purpose of this publication was to address the issue of civic engagement in city management, to present best national and international practices regarding this topic, and to describe an innovative tool for improving citizen engagement: the *Budget Game*. The publication was targeted towards local government officers, non-governmental organizations, and community activists who want to learn more about tools that can be used for citizen activation. It addressed some of the important issues regarding citizen participation and the implementation of participatory budgeting in Polish cities. We posed a question: why more than a half of Poles show no interest in the problems of their cities, municipalities or even their closest neighborhoods and how can we introduce a positive change in this respect? Finally, we presented the gaming tool that can help citizens and local authorities to pursue a discussion about city budgeting. We also provided all necessary information on how to use this tool: description of the method, and detailed instructions for preparing and conducting the game in every city and municipality in Poland.

June

■ **Involving democracy. How serious games enhance participation - Civic Participation Forum**

Civic activation with regard to the decision-making processes is one of the most important challenges in contemporary Poland. The research *Decydujemy Razem 2012 (Let's Decide Together)* shows a social tendency to protest against decisions rather than affect them by taking part in civic activities. It is easier to criticize than to undertake real actions aimed at introducing positive changes. How to make participation more attractive? Anna Koch from the Centre for Systems Solutions addressed this question during the breakfast session at the Civic Participation Forum. The participants of the breakfast meeting were introduced to the *Budget Game* simulation by CRS, and had the opportunity to experience its potential by partaking in a [breakfast gameplay](#) - an energizing way to start a new day.



■ **WBO 2016**

Two games revolving around Wrocław Civic Budget were organized by CRS in partnership with the Municipal Office of Wrocław. The games were prepared on the basis of projects submitted to WBO2016 (*Wrocław Civic Budget* program). We invited project managers, activists, social workers, city users and residents to participate in consultations with the use of innovative serious simulation game based on the *Budget Game*.

The gameplays were held in June 2016. The results of the citywide game (including the projects submitted from all over the city) and the results of the game which was based on the projects submitted from Region 2 (Kleczków, Karłowice, Różanka districts) may be found [here](#).

October

■ **Budget Game in Częstochowa**

The *Budget Game* organized in partnership with the Centre for Systems Solutions attracted a big audience, arousing many positive emotions and constructive discussions. The representatives of various social groups present at the event had the opportunity to see that even competing needs and interest may be addressed in the deliberation process.

EDUCEN

EUROPEAN DISASTERS IN URBAN CENTRES: A CULTURE EXPERT NETWORK



Cultural factors and cultural diversity may give rise to challenges for the communities that are exposed to disasters. However, if used properly, culture holds solutions applicable to prevent, mitigate, prepare for, cope with and adapt to disaster risks. The project EDUCEN (*European Disasters in Urban Centres: a Culture Expert Network*) focused on the role of culture in disaster and risk management in European cities. EDUCEN is an interdisciplinary consortium consisting of 10 participant organizations from 7 different countries.

In the project, the CRS team was responsible for the development of open simulations used during the case studies conducted i.e. in Spanish Lorca (exposed to flood risk) and Italian L'Aquila (exposed to earthquakes).

The project was funded from the European Union's *Horizon 2020* program.

DURATION

May 2015 - april 2017

PROJECT COORDINATOR

Piotr Magnuszewski

KEY EVENTS

May

■ Project meeting in L'Aquila, Italy

EDUCEN case study meeting took place in L'Aquila, Italy at the beginning of May. The data gathered from the stakeholders during the meeting were used to design a new simulation aiming at testing the effectiveness of the emergency response plan. In addition to collecting data, the participants presented interesting views and ideas on the subject of disaster risk management in the context of cultural diversity.

In his presentation *Games for Resilience: How to Apply Gaming Methodologies to Explore the Role of Culture in Disaster Risk Management?*, the representative of CRS, Piotr Manguszewski explained why games may fulfill „serious” purposes.

July

■ Project meeting in Volos, Greece

On July, 7th-8th, a subsequent EDUCEN project meeting was held in Volos, Greece. The Centre for Systems Solutions was represented by Łukasz Jarzqbek. The main subject matter undertaken at the meeting was the relationship: *Cultural memory - City - Disaster management*. The participants discussed the ways culture and cultural memory can enhance the spread of information on crisis management and what can be done to improve this process.

November

■ *Gatekeepers, Volunteers, and Communication Strategies* workshop

The *Gifts of Culture* game, created within the project **EDUCEN**, visited Stockholm. Piotr Magnuszewski from CRS took part in the Second Workshop on Culture and Learning *Gatekeepers, Volunteers, and Communication Strategies*.

During the workshop, Piotr Magnuszewski conducted a special session of the *Gifts of Culture* which was held in 3 languages: Italian, Spanish, and English. As a result, the participants had to face not only communication barriers embedded in the game but also real linguistic limitations. Yet, although cultural diversity can lead to misunderstandings, it can also hold valuable assets, which proved just right in the case of the workshop in Stockholm.



December

■ Project meeting in Valladolid, Spain

Łukasz Jarzqbek took part in another EDUCEN project meeting in Valladolid, Spain where he organized a short course for the *Flood Resilience Game*'s moderators. The participants had the opportunity to play the *Evacuation Challenge Game* which was focused on disaster response and evacuation in a culturally diverse environment.



CNH

THE EMERGENCE OF ADAPTIVE GOVERNANCE ARRANGEMENTS FOR TROPICAL FOREST ECOSYSTEMS

The main problem referring to conventional forest protection programs is that they rely on centrally imposed solutions which ignore the complex dynamics of local socio-ecological systems. The proposed project aimed at generating new knowledge on long-standing questions about the origins of adaptive forest governance. During the research, three dynamic relations that are of particular importance for understanding the differences in the effectiveness of locally developed adaptive governance systems were identified. The main hypothesis of the project was that the emergence of adaptive governance is critically linked to three factors: local ecological knowledge; cultural values and beliefs, and socioeconomic inequalities.

DURATION

September 2011 - december 2016

PROJECT COORDINATOR

Piotr Magnuszewski

KEY EVENTS

December

■ Publications summarizing the CNH project

Several articles collecting and summarizing the survey results were published at the end of the project. The first publication analyzed the impact of payments for ecosystem services on the common goods management. The second article was focused on personal values in decision-making in the context of the common goods management. The third article described decision-making in a dynamic model of common goods management. The authors included, i.a., the representatives of the Centre for Systems Solutions: Piotr Magnuszewski, Michał Pająk, Joanna Stefańska, Jan Sendzimir, and Katarzyna Ostasiewicz.



NOWA ZIEMIA (NEW EARTH)

RELIGION EDUCATORS INCREASE THE CLIMATE SENSIBILITY AMONG YOUNG CATHOLICS



The project *Nowa Ziemia (New Earth) - Religion Educators Increase the Climate Sensibility among Young Catholics* was implemented in partnership with Obserwatorium Społeczne (Social Observatory). The main aim of the project was to raise the young Catholics' awareness of and sensibility towards the climate change issues. To do it, the organizers referred to the message of the Pope Francis's encyclical *Laudato Si'*, and prepared a set of innovative interactive educational tools that were handed to the religion teachers to make their lessons more attractive and informative.

Each religion teacher participating in the project received a set of educational materials including 5 boardgames addressed to young people aged 10-15 along with detailed instructions and lesson plans. The project involved 47 religion teachers who conducted lessons for 4700 students.

DURATION

July - december 2016

PROJECT COORDINATOR

Magdalena Liszka

KEY EVENTS

July

■ The official inauguration of the project *New Earth*

A meeting for the project partners took place. For the purpose of the project, a board game and lesson plans were created. All the materials were inspired by the message included in the Pope Francis's encyclical *Laudato Si'*.

October

■ Workshops for religion teachers

As part of the project, a workshop on the *Laudato Si'* game was organized in Wrocław. It was addressed to the religion teachers (47 altogether) from Lower Silesia. The game and the lesson plans met with an enthusiastic reception.

December

■ *New Earth* Project on Radio Rodzina

Jakub Damurski was invited to the Radio Rodzina studio to give a short interview about the *New Earth*. The recording from the interview can be found under the following [link](#).

■ Press conference on the *New Earth* project

A press conference summarizing the *New Earth* project was held on Ostrów Tumski (Cathedral Island). The project coordinator, Anna Koch had the opportunity to share its results with a broad public. You can read [the report](#) summarizing the *New Earth* and visit [the game's website](#).

ACCURENT

ACCELERATING URBAN ENERGY TRANSITIONS



The project is aimed at developing and market-testing a capacity building tool that supports energy transition initiatives, with a special emphasis put on transition from fossil fuels to renewable energy sources. The tool consists of a simulation game, the *Energy Transition Game*, followed by a facilitated two-day session during which the participants were working on developing systemic innovations necessary for renewable energy adoption. This approach allowed the participants to gain new insights and improved collaboration between actors in the energy system by exploring unique synergies between technological, institutional and social factors. The systems thinking combined with unique participation-oriented strategy is believed to accelerate local or regional transformation with respect to renewable energy generation, energy efficiency, and social innovation. Depending on local needs and challenges, the tool can be adapted to suit the individual goals.

The project was addressed to communes and municipalities, business dealing with energy issues (start-ups included), and other parties involved in urban energy processes (e.g. scientists and researchers). The workshops applying the *Energy Transition Game* were held in 3 different countries: Poland, Germany, and Estonia.

The project was implemented within the framework of the *Climate-KIC Pathfinder* program, funded by the European Commission (Climate-KIC) in partnership with Wuppertal Institute for Climate, Environment and Energy, Climate and Radiation Department, Estonian Ministry of the Environment, and Stowarzyszenie Wolna Przedsiębiorczość (Free Entrepreneurship Association).

DURATION

July - december 2016

PROJECT COORDINATOR

Jakub Damurski

KEY EVENTS

October - november

■ The first workshop within the *ACCURENT* project

Within the *ACCURENT* project, the *Energy Transition Game* visited Berlin. The event was organized in collaboration with the *Wuppertal Institut* and *THEMA1* and implemented within the *Climate-KIC Pathfinder* program, funded by the European Commission (*Climate-KIC*).

The registration for the event was possible via the following [website](#).

In November, Berlin hosted the first workshop within the *ACCURENT* project. The participants had the opportunity to play the *Energy Transition Game*, and decide about the future of energy sector. The workshop was addressed to communes and municipalities, business dealing with energy issues (start-ups included), and other parties involved in urban energy processes (e.g. scientists and researchers).

December

■ Polish ACCURENT workshop

A Polish edition of the two-day workshop within the ACCURENT project introduced the *Energy Transition Game* to Polish stakeholders dealing with energy sector. The workshop was held in Świdnica, in the Centre for Energy Technologies - the participants were surrounded by solar panels and wind turbines, which offered an additional reference to the main theme of the project. After the game, the audience had the opportunity to listen to experts' talks and participate in a discussion on Polish energy sector's condition. The second day of the workshop was devoted to energy clusters. The participants strived to develop effective common strategies in regard to energy management.



■ The ACCURENT workshop in Tallinn, Estonia

The *Energy Transition* workshop in Tallinn, Estonia was aimed at engaging a wider public in a dialogue on strategies of exit from oil shale sector. As usual, the first part of the workshop, that is - the *Energy Transition Game*, was conducted by Piotr Magnuszewski. The second part, devoted to reflection on the present and future of energy sector, was moderated by Felicjan Rydzak.



INNOVATION FOR ACCELERATED ENERGY TRANSITION



The purpose of this short professional training was to increase support for entrepreneurship and innovation in an international and intercultural environment focused on energy transition. As part of the training, a simulation, the *Energy Transition Game* and a facilitated session were conducted. Systems thinking combined with a unique participation-oriented approach helped the participants see the synergies between technological, institutional, and social factors, accelerating energy transition from fossil fuels to renewable energy sources. The training was addressed to the representatives of public authorities, energy managers, energy start-ups, academics, and researchers. The project was funded by the European Commission (*Climate-KIC*).

DURATION

24-25 november 2016

PROJECT COORDINATOR

Jakub Damurski

KEY EVENTS

October

■ Registration for the *Innovation for accelerated Energy Transition* training

The training consisted of a simulation, the *Energy Transition Game*, and a facilitated session.

The registration was open until the end of October.

November

■ The *Innovation for accelerated Energy Transition* training

On November, 24th-25th, we brought the subject of energy transition in cooperation with Climate-KIC Poland. The two-day course was inaugurated with an exciting simulation, the *Energy Transition Game*. The game introduced players to the topic of energy transition, presenting the greatest challenges arising in the process. Each participant had the opportunity to create his own strategy and watch the results of the decisions taken. On the second day of the course, Felicjan Rydzak discussed the topic of innovations used to enhance energy transition. The participants, divided into smaller groups, were developing new ideas and planning how to implement them.

GAMES4SUSTAINABILITY

DURATION

2014 -

PROJECT COORDINATOR

Piotr Magnuszewski

Games4Sustainability serves as a source of inspiration for lecturers, trainers, teachers, activists, and other educators who want to use the game in their activities aimed at sustainable development. The website of the project offers an updated *Sustainability Gamepedia* where more information is presented on different existing games and more than 100 articles on the use of serious games in education.

KEY EVENTS

March

■ The new initiative on World Water Day

To celebrate the World Water Day, the Centre for Systems Solutions in cooperation with the International Institute for Applied Systems Analysis (IIASA) launched a base of games on water resource management. To visit it, follow the [link](#).

The initiative was officially accepted by the UN-Water.



December

■ A new official website of the *Flood Resilience Game*

An English-language website for the *Flood Resilience Game* was created within the *Games4Sustainability* domain. It enables its users to download the game (for the time being, the game is available in English, the Spanish version is being prepared).

To visit the website, follow the [link](#).

Benefits

- Experience the effects on resilience of investments in different types of "assets", such as financial, human, social, built, and natural.
- Improve understanding of the influence of preparedness, response, reconstruction on flood resilience.
- Demonstrate the benefits of investments in risk reduction before the flood strikes.
- Explore the complex outcomes on the economy, society and the environment from long-term development pathways.
- Discover the types of decisions needed to avoid creating more flood risk in the future, incorporating action before a flood through advancing participatory decision-making.
- Experience all these complex ideas with a simple and concrete game elements so that participants can connect with their daily realities.

Technical details

- Time:** 2-4 hours (depending on the number of players, and on the length of the debriefing)
- Number of players:** 5-10
- Setting:** Table (at least 1x2m) Chair for each participant

Download the game

You can download the game (elements that can be printed) and the instructions on how to run the game.

Please note that you will need also pawns, markers and other elements. More information in the [moderator guidelines](#).

[ENGLISH](#) [SPANISH](#)

Translate the game to your language

You can run the game in the native language of your participants.

Contact us for further information how to do that!

[CONTACT US](#)



GAMES

LAUDATO SI'

In this game inspired by the Pope Francis' encyclical, players manage beautiful green forest full of majestic trees. This forest is their home – it gives them a place to sleep and provides them with everything they need to live and develop their community. And these are the players who bear the sole responsibility for results of the management.

Thanks to the *Laudato Si'*, players:

- experience interdependencies and human impact on nature,
- learn the value of cooperation and dialogue with other members of the community,
- explore reasons behind social inequalities,
- learn the consequences of excessive consumerism and individualism,
- gain the sense of responsibility for the God's creation.

The *Laudato Si'* board game integrates and strengthens mutual bounds. In a simple and coherent way it explains complex issues. The game lets players understand how important the rational management of the resources is. Players become aware of the joint responsibility for the world we live in, and learn how self-oriented attitude inhibits the development of common aims.

The game serves as an educational tool for religion teachers. It was developed by the [Centre for Systems Solutions](#) within the project [New Earth](#) funded by the European Commission ([Climate-KIC](#)). An expert from Obserwatorium Społeczne (Social Observatory) prepared lesson plans to be used by religion teachers. In addition to them, educational materials for parents and educators were also created.



ENERGY TRANSITION GAME

Energy Transition Game is a simulation game in which players decide about the future of energy sector.

In this micro-world, where energy is essential to ensure the wellbeing of citizens, players take on the roles of energy producers and providers, technology start-ups, government departments, or civil society organizations, and create new solutions for the energy system.

Achieving these goals is not as easy as it seems. Energy prices, cost of change, energy demand, harsh competition and consumer satisfaction – they can all affect the outcomes of your decisions. In an open game world, all players can freely interact with each other; make agreements, establish new policies in place, and come up with creative, out-of-the-box solutions. This way, the game not only simulates the real-life complexity of the energy transition, but also creates an environment where innovations are born.

The game was co-funded by the *Climate-KIC* through the project: *Accelerating Urban Energy Transitions*.



WATER-ENERGY NEXUS GAME

The *Water-Energy Nexus Game* gives participants a unique opportunity to get an insight into challenges of water management for energy and food production, at the same time sustaining environmental flows. The game was developed as a training tool to be used within capacity development programs for energy sector in the Southern African Development Community (SADC). Participants strive to address water needs of population, industry, and agriculture, at the same time facing challenges of climate change. The players take on the roles of policy makers in two countries that have access to the same river. They have to match the increasing water demand with adequate supply. In order to achieve this goal, effective collaboration and information exchange must be established between stakeholders both within and across the borders. Since the goals of both countries overlap, the game provides an opportunity for practicing conflict resolution and cooperation at the international level

The *Water-Energy Nexus Game* provides players with a strategic overview of interconnections between water and energy in the context of security and sustainability at the transboundary level.



GIFTS OF CULTURE

The *Gifts of Culture* board game is a role-playing simulation set in a diverse cultural community. Players represent various groups living in the flood-prone valley. Although their views and ideals differ, they are driven by the same goal - to improve living conditions in their communities. How will they achieve this goal under the constant threat of devastating floods? Information exchange and collaboration can greatly enhance the decision-making process, however, diverse cultural backgrounds do not make this task easier.

The *Gifts of Culture* allows players to experience and appreciate both challenging and beneficial aspects of cultural differences, helping to turn diversity into opportunity.

The game was designed and developed as part of the project *European Disasters in Urban Centres: a Culture Expert Network* within the EU Horizon 2020 Program.



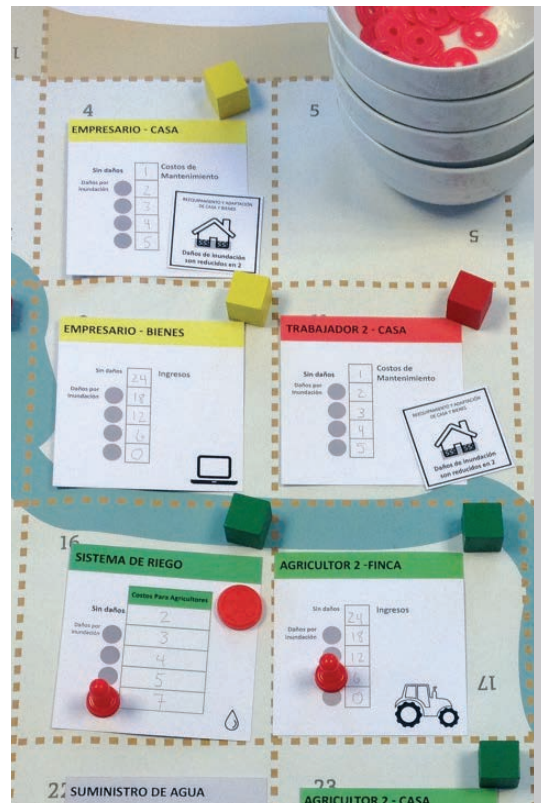
FLOOD RESILIENCE GAME

The *Flood Resilience Game* is an educational game that allows players to experience, explore and learn about the flood risk and resilience and develop strategies to adapt to life in environment exposed to floods and their effects.

The game is designed to help participants – such as NGO staff working on flood-focused programs – to identify novel policies and strategies which improve flood resilience.

The game is set in a community living in an area exposed to floods occurring with different severity. Players take on the roles of different citizen groups (e.g. workers, farmers, entrepreneurs, financial services agents, the local government and water board officials). The direct interactions between players create a rich experience that can be discussed and analysed, leading to concrete conclusions and actions. Players experience real problems and examine different solutions. This allows players to explore their vulnerabilities and capacities leading to an advanced understanding of interdependencies and developing the potential for working together.

The game was developed in collaboration with the International Institute for Applied Systems Analysis and funded by the Zurich Flood Resilience Alliance.



OTHER EVENTS



February

■ *System Innovation Lab* in Berlin

In February, the *Energy Transition Game* was used in a workshop held in the *System Innovation Lab* in Berlin. The workshop revolved around the transformation of the energy system.

March

■ *Green&Great* for SFBCC

Łukasz Jarzqbek and Michalina Kułakowska conducted the *Green&Great* workshop for the members of the Student Forum Business Centre Club in Wrocław.

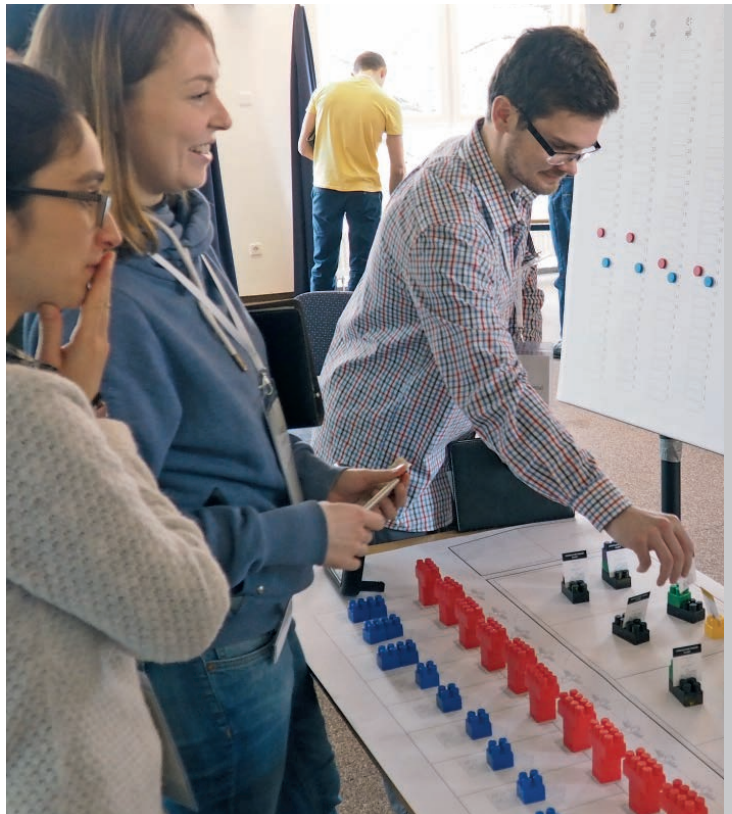
Players assumed the roles of managers in large consulting firms and tried to deal with competition and the expectations of their employees and customers.

■ World Water Day at the International Institute for Systems Analysis (IIASA)

To celebrate the World Water Day 2016, we established cooperation with the International Institute for Systems Analysis (IIASA). In order to draw people's attention to water-related problems and challenges, we applied games and simulations. Thus, Piotr Magnuszewski presented in Vienna a simple, yet effective game focused on water shortage and its consequences.

■ *Personal Democracy Forum* in Gdańsk

Jakub Damurski and Anna Koch from the Centre for Systems Solutions participated in the *Personal Democracy Forum* in Gdańsk where they conducted a workshop to demonstrate how the *About That Forest* game can help build understanding for and dialogue between different interest groups.



May

■ Summer School 2016 Planetary. *Boundaries Art of Modelling*

In May, Piotr Magnuszewski conducted a workshop with a simulation game during the Summer School 2016 Planetary in Zvenigorod, Russia. The participants of the Summer School had a chance to try one of the Centre for Systems Solutions' game – the *Lords of the Valley*. The game allows its users to practice strategies and cooperation skills in a complex environment. This year's Summer School program is available under the following link: mmschool-2016.ru/program



June

■ *Pioneers into Practice* workshop

The main aim of the international workshop *Pioneers into Practice* was a networking with a special emphasis put on developing soft skills in an international context. The workshop was co-conducted by Michał Pajęk from the Centre for Systems Solutions.

July

■ *Systems Dynamics Conference* in Delft, the Netherlands

Piotr Magnuszewski and Felicjan Rydzak from the Centre for Systems Solutions participated in the *Systems Dynamics Conference* in Delft, the Netherlands. During the workshop sessions, they played *Energy Transition Game* in which players assume the roles of decision-makers and experience challenges associated with transit from fossil fuels to renewable energy sources.

The game presents general problems associated with system changes, thus it can easily be rendered into system transformation.

The workshop was followed by the presentation *Experiential Learning Environments as a Means for Transformation* prepared and carried out in collaboration with Paul Monus from BP.



■ **The *Water-Energy Nexus Game* test**

The *Water-Energy Nexus Game* was tested at IIASA. The gameplay was attended by the IIASA workers and co-workers involved in the game's development. The game illustrates the link between water resources, food, and energy production.

September

■ **The exhibition *Patrz w przyszłość. Dolnoślązacy w programie Horizon 2020* (*Look into the Future. The Residents of Lower Silesia in Horizon 2020 Program*)**

Wrocław University of Technology and Wrocław Centre of Technology Transfer organized a street exhibition *Look into the Future. The Residents of Lower Silesia in Horizon 2020 Program* at Kuźnica in Wrocław. The exhibition allowed us to share the results of the **EDUCEN** projects with a wide public.

■ **The *Energy Transition Game* was applied to celebrate the 30th anniversary of the German Ministry of the Environment**

The Centre for Systems Solutions team participated in the celebration of the 30th anniversary of the German Ministry of the Environment. The event *Environmental Policy 3.0 - The Festival of the Future* was held on September, 10th-11th in Berlin. The participants had the opportunity to attend panel discussions conducted by the German Minister of Environment, Barbara Hendricks; the Luxembourg Minister of the Environment, Carole Dieschbourg or the former president of Kiribati, Anote Tong. In addition to that, they could take part in many interesting workshops, including the *Energy Transition Game* conducted by our partners from **Thema1** with the support of Piotr Magnuszewski. Photos from the workshop are available on **Facebook** or **Instagram**.

■ **The Balaton Group Meeting**

The main theme of the meeting was *Migrants and Migration*. As usual, the members of the **International Network of Resource Information Centre** met at the Hungarian Lake Balaton to talk about the problems affecting today's world. During the meeting, Piotr Magnuszewski from the Centre for Systems Solutions conducted a series of workshops with *Climate Game* and *Gifts of Culture* games which are focused on sustainable development. Both games met with an enthusiastic reception.



■ *Students' Science Conference* in Wrocław

The representative of the Centre for Systems Solution, Michał Pająk took part in the *Students' Science Conference* in Wrocław. His article *Multi-agent tournament in a common-pool resource research* was awarded in the category of Management and Algorithm. "Sustainable management of common-pool resources (CPRs) is a key factor in the long-term protection of many ecosystems. The problem called 'the tragedy of the commons' is connected with overusing them which inevitably leads to their depletion. It is attributed to the conflict between individual and group rationality."

The whole article in English is available under the following [link](#).



November

■ The conference *Virtual Game Method in Higher Education* in Poznań

Michał Pająk from the Centre for Systems Solutions and Karolina Daszyńska Żygadło from the Wrocław University of Economics took part in the conference *Virtual Game Method in Higher Education* in Poznań. Their presentation *Educating about Complexity and Sustainability through Serious Games* focused on education for sustainable development in the context of complex problems and the potential of serious games in learning process.

The conference participants discussed the role of virtual strategy games as a method of education, taking into account the theoretical and practical standpoints. The article written by Michał and Karolina can be found under the following [link](#). All the articles written by the conference participants are collected in a post-conference publication entitled *Perspective on Computer Gaming in Higher Education*.

■ Workshop at Stockholm Resilience Centre

Piotr Magnuszewski conducted the *Gifts of Culture* workshop at [Stockholm Resilience Centre](#). Piotr focused on using game's methodology to solve complex problems and to improve the process of political decision-making in uncertain situations. Games allow policy-makers to analyze the emergence of problems in complex systems. Because games are usually experienced as real, players are able to remember more information and learn faster. This may positively affect the decision-making process in the real world. As a result, games are gaining popularity among local and national officials.



December

■ *Green & Great* at Collegium Civitas in Warsaw

As part of the post-graduate course *CSR Manager* which is organized by the Collegium Civitas in cooperation with CSRinfo, we conducted a simulation game, *Green&Great* in Warsaw. The participants had the opportunity to practice their business management skills. The workshop was led by Piotr Magnuszewski.

■ The screening of *Before the Flood*

The Centre for Systems Solutions organized a screening of the film *Before the Flood* at the CRS office in Wrocław. The film focuses on climate change and is linked to both *Laudato Si'* and *Energy Transition* games - developed by the CRS' team. The open public screening was available for anyone.