



Sustainable Entrepreneurship (SUSEN): A Game-Based Exploration for lower Secondary Schools

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Future of Education

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This project has been funded with support from the European Commission. This communication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



- The SUSEN Project:
 - Project partners and basic information
 - Objectives of the project
- The PowerPlayer game:
 - Conceptual design
 - Game materials and basic rules
 - Website
- Piloting / Evaluation



- Funded with support from the European Commission within Erasmus+ programme
 - Key Action: Cooperation for innovation and the exchange of good practices
 - Activity: Strategic Partnerships for school education

- Duration of the project: 01-Dec-2014 to 30-Nov-2016



Project partners and basic information



UNIVERSITÄT
KOBLENZ · LANDAU



CVO Antwerpen
centrum voor volwassenenonderwijs



Pädagogische Hochschule Freiburg

Université des Sciences de l'Education · University of Education



The project involves

- Development of a game-based learning tool
- Participation of teachers and learners
 - primary schools (12-year-olds)
 - lower-secondary schools (13-15-year-olds)
- Piloting the game (Poland, Belgium, Germany, UK)



The objectives include:

- Key competences and skills
- Enhance creativity and innovation in school education
- Assessment of transversal skills such as
 - digital competence
 - learning to learn
 - a sense of initiative and entrepreneurship
- Encourage a heightened
 - sense of community
 - civic engagement
 - personal responsibility



- Strategic games as successful tool in Entrepreneurship Education
- Several advantages of a game-based approach
- Besides quantitative results, success is assessed by:
 - impact on environment
 - reputation
 - satisfaction of company's employees
- Applicable to different curricular settings
- Appeals to a bigger target group



The PowerPlayer game – Conceptual design



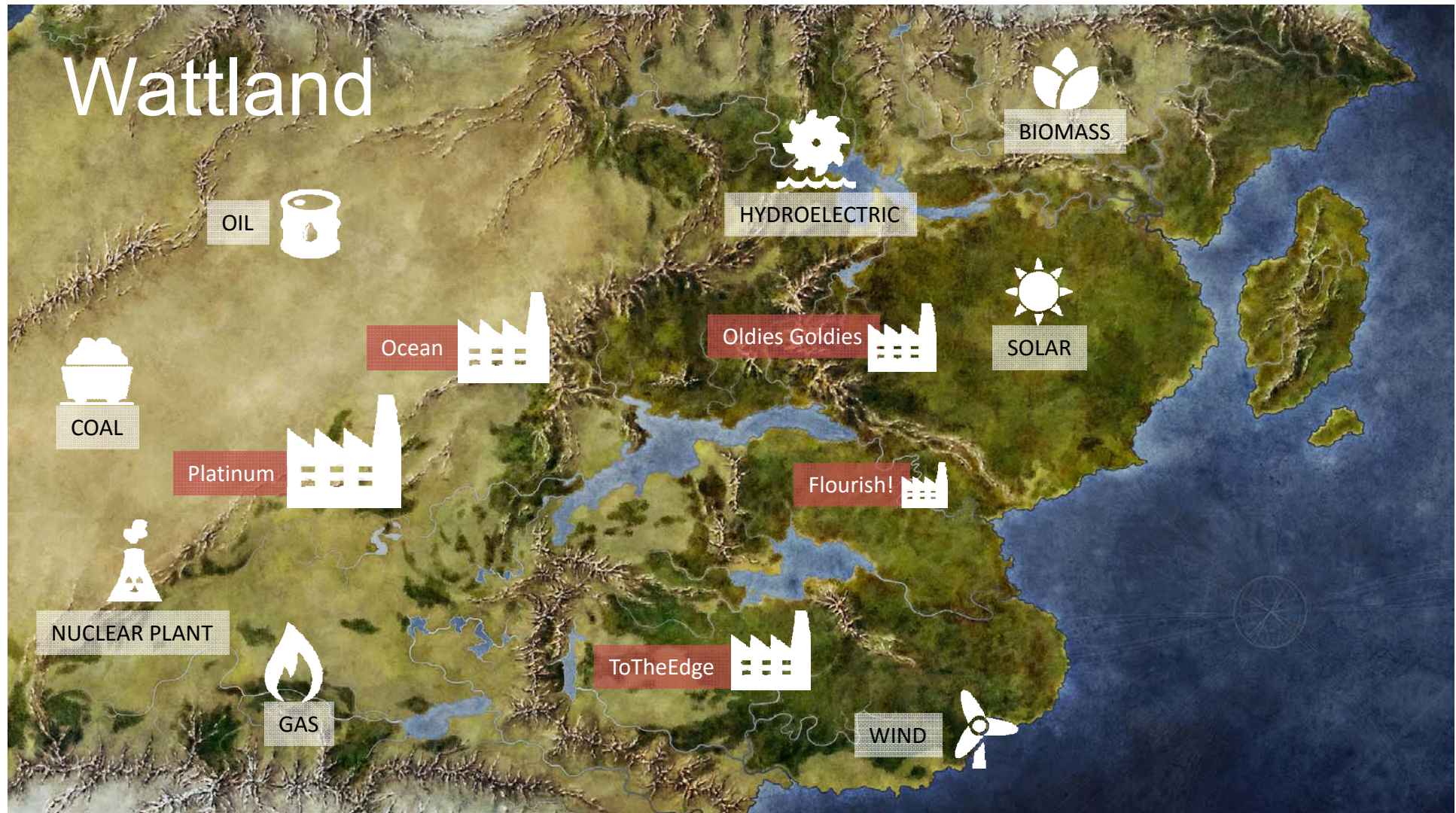
PowerPlayer



[Das Spiel](#) [Über Uns](#) [FAQs](#) [Kontakt](#)



- Strategic classroom game
- Online companion
- Teacher support pack





WMarket



- Energy required: 1500 kWh/month
- Budget available: 3500 Watties



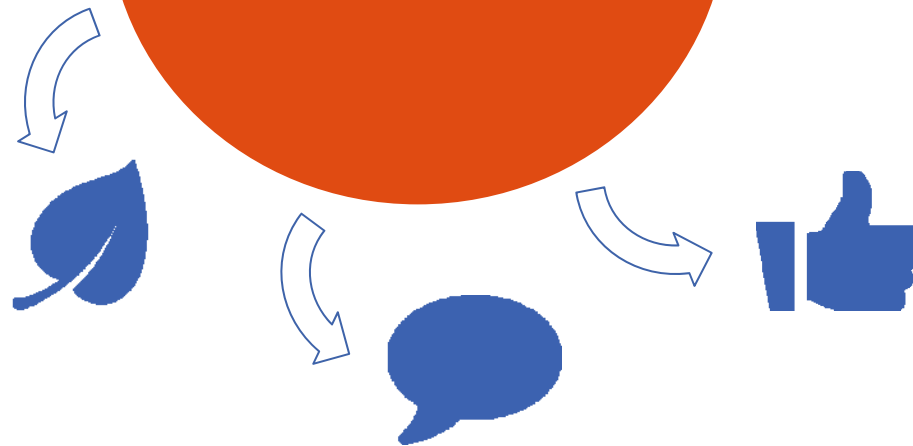
WMarket



1500 kWh/month

3500 Watties

IMPACT





Game materials and basic rules



ENERGY	kWh/m	100	200	300	400	500	600	700	800	900	1000
Coal	Cost	100	200	300	400	500	600	700	800	900	1000
	Environment	-300	-600	-900	-1200	-1500	-1800	-2100	-2400	-2700	-3000
	Reputation	-200	-400	-600	-800	-1000	-1200	-1400	-1600	-1800	-2000
Oil	Cost	200	400	600	800	1000	1200	1400	1600	1800	2000
	Environment	-200	-400	-600	-800	-1000	-1200	-1400	-1600	-1800	-2000
	Reputation	-100	-200	-300	-400	-500	-600	-700	-800	-900	-1000
Gas	Cost	200	400	600	800	1000	1200	1400	1600	1800	2000
	Environment	-200	-400	-600	-800	-1000	-1200	-1400	-1600	-1800	-2000
	Reputation	-100	-200	-300	-400	-500	-600	-700	-800	-900	-1000
Nuclear	Cost	200	400	600	800	1000	1200	1400	1600	1800	2000
	Environment	-100	-200	-300	-400	-500	-600	-700	-800	-900	-1000
	Reputation	-200	-400	-600	-800	-1000	-1200	-1400	-1600	-1800	-2000
Hydro-electric	Cost	300	600	900	1200	1500	1800	2100	2400	2700	3000
	Environment	100	200	300	400	500	600	700	800	900	1000
	Reputation	200	400	600	800	1000	1200	1400	1600	1800	2000
Wind	Cost	300	600	900	1200	1500	1800	2100	2400	2700	3000
	Environment	200	400	600	800	1000	1200	1400	1600	1800	2000
	Reputation	100	200	300	400	500	600	700	800	900	1000
Solar	Cost	400	800	1200	1600	2000	2400	2800	3200	3600	4000
	Environment	300	600	900	1200	1500	1800	2100	2400	2700	3000
	Reputation	300	600	900	1200	1500	1800	2100	2400	2700	3000
Biomass	Cost	300	600	900	1200	1500	1800	2100	2400	2700	3000
	Environment	100	200	300	400	500	600	700	800	900	1000
	Reputation	100	200	300	400	500	600	700	800	900	1000

Example 1:
1500
kWh/month
 (Required energy)
3500 Watties
 (Purchase price)

Example 2:
1500
kWh/month
 (Required energy)
3500 Watties
 (Purchase price)

ENERGY	kWh/m	Cost	Environment	Reputation	Satisfaction
Coal	100	100	-300	-200	-200
Oil	100	200	-200	-100	-100
Gas	100	200	-200	-100	-300
Nuclear	100	200	-100	-200	-200
Hydroelectric	100	300	100	200	100
Wind	100	300	200	100	100
Solar	100	400	300	200	300
Biomass	100	300	100	100	200




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ROUND 1

Congratulations! Your company is ready to go!

Here there is your budget and the energy you need to secure to have your plants and offices working:

	 Budget	kWh/m
Ocean	4300	1600
Oldies Goldies	3200	1200
Flourish!	2700	1000
ToTheEdge	3700	1400
Platinum	4800	1800



Make your choices and keep in mind that to achieve success you need to balance budget, environmental sustainability, reputation and satisfaction.



- Project website:
<http://powerplayer.info>

The website includes:

- Basic information about the project and the partners
- Information about the PowerPlayer game
- Game resources, including teacher support pack
- Answers to frequently asked questions (FAQs)
- Contact form

PowerPlayer

The game About FAQs Contact

ARE YOU READY TO TAKE THE POWERPLAYER CHALLENGE?

PowerPlayer is a classroom based game with online companion that will introduce the topic of sustainable entrepreneurship with 12-15 years old. The game will be combined with service learning which is a method of teaching that combines classroom instruction with meaningful community service.

DISCOVER POWERPLAYER!

- GAME MATERIAL**

Strategic sustainable entrepreneurship game for 12-15 years-old, based around clothing manufacturers.
- ONLINE COMPANION**

Students use this companion to help complete the classroom-based game and start work on further tasks.
- TEACHER SUPPORT PACK**

Teachers can use our Support Pack to help guide their class through the game and to promote group discussion. The support pack also contains all the materials and rules needed to play the game.
- PICTURES**

Area for partners and students participating in the game to share best practice photos, videos and experiences.



PowerPlayer

UK IT DE ES NL

The game About FAQs Contact

GAME MATERIAL

You are here: [Home](#) » [Game Material](#)

Click here to download the game material:

- > [PowerPlayer Energy board](#)
- > [PowerPlayer Company profile sheets](#)
- > [PowerPlayer Action cards](#)
- > [PowerPlayer Round sheet_1](#)
- > [PowerPlayer Round sheet_2](#)
- > [PowerPlayer Round sheet_3](#)
- > [PowerPlayer Round sheet_4](#)
- > [PowerPlayer Score sheet](#)



Choose...

Team	<input type="text" value="Ocean"/>
Round	<input type="text" value="Round 1"/>

What's your solution?

Coal	<input type="button" value="-"/>	0	<input type="button" value="+"/>
Oil	<input type="button" value="-"/>	0	<input type="button" value="+"/>
Gas	<input type="button" value="-"/>	0	<input type="button" value="+"/>
Nuclear	<input type="button" value="-"/>	0	<input type="button" value="+"/>



[The game](#) [About](#) [FAQs](#) [Contact](#)

TEACHER SUPPORT PACK

You are here: [Home](#) » Teacher Support Pack

WHAT IS PROVIDED IN THE PACK?

The support pack includes instructions, game rules and ideas for "service learning" tasks.

Click here to download the support pack:

- > [PowerPlayer Teacher guide](#)
- > [PowerPlayer Glossary](#)
- > [PowerPlayer Introductory slides](#)
- > [PowerPlayer Class sheet](#)
- > [PowerPlayer Summary sheet](#)
- > [PowerPlayer Service learning materials](#)

HOW TO USE THE PACK

Teachers have the freedom to use these resources in any manner they see fit. The pack gives suggestions, hints and tips on how to use the classroom game/online companion and we hope it is useful for teachers and fun for learners!



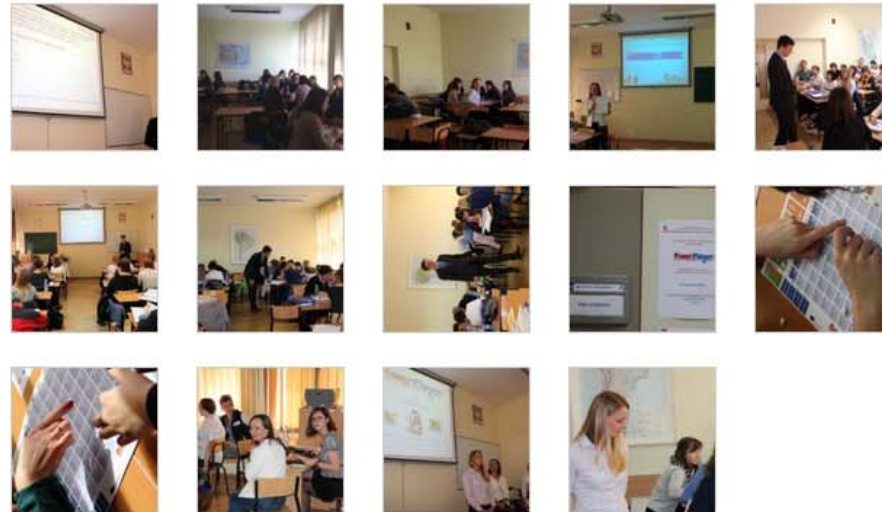
[The game](#) [About](#) [FAQs](#) [Contact](#)

PICTURES

You are here: [Home](#) » [Pictures](#)

SUSEN teacher training 23/04/2016

We (Wioletta Kilar, Marcin Semczuk, Tomasz Rachwał) as the trainers were supported by 3 teachers (Liliana Domszy, Małgorzata Olorzut-Wyponał, Joanna Sek), which piloted the game – so they present their experiences and supported us during playing the game.



SUSEN teacher training ENGLAND

25 Girls at Streatham and Clapham School in South London spent a day off-timetable playing PowerPlayer. They had such a great time they requested another chance to play again!





Project website – Pictures







Target	Actual
3 classes / 3 schools in each country i.e. total of 12 classes	PL: 6 classes / 75 students (finished) UK: 7 classes / 102 students (finished)
70 students of lower secondary schools pilot the game in each country i.e. total of 280 students	D: 3 classes / 45 students (active) BE: 5 classes / 29 students (finished)
55 teachers attend teacher trainings (PL, D, BE)	(finished)
30 teacher trainees attend and judge game (PL and D)	(finished)

- Majority of teachers sees no problem in understanding the game
- Agreement on
 - the necessity to change attitudes
 - the purely economic orientation of companies
 - that the game adequately models decision structures
 - the methodological effectivity of the game
- Critical responses concerning
 - actual change of attitudes
 - learning motivation

Thank you for your attention!

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Official project website:
<http://powerplayer.info>