

Welcome to the Eco Designer game!



Introduction

Waste and pollution are largely the result of how we design different things. We need to change the way we are thinking to be able to create a new system that can meet our needs within planetary boundaries. Knowledge about eco design is becoming a valuable asset and necessary to support change towards a sustainable direction.

Ecodesigner is an engaging game experience merging elements of digital (app) and print out games. It is a tool not just to learn about eco design, but also to create an experience of the different factors influencing the decisions connected with product design.

The game is designed to create group learning experience both for university students, who will create our planet's future and for companies who are struggling with changing their way of thinking.

Through the game participants playfully gain knowledge about the principles of eco-design in a company perspective, where every decision counts.

Target group	University students and companies
Learning objectives	Create awareness about eco-friendly product design Learn about eco-design principles and methods Experience the complexity of product design decisions in a company perspective
Players	+2 groups (2-6 players/group)
Duration	2 -2,5 hour

THE GAME

Eco Designer can be played by 2-6 groups (2-6 people/group) and a facilitator is needed to guide the players. The facilitator's role is to prepare the game elements, explain the rules, inspire the innovation group work and ensure the timeline is followed.

Facilitator prepares the game (30 minutes)	Introduction and preparation (15 minutes)	Game play (60 minutes)	Pitch (10 minutes /group)	Reflection (20 minutes)
Reading and understanding the game Prepare elements: Download, print, cut	Introduction to Eco Design Game elements and preparations Game rules	The game is six rounds. Each round: Companies earn resources based on market share. Spend resources on R&D, materials or action cards. Describe their company's storyline Results change the market shares.	All group present their storyline Groups evaluate each other based on given criteria. The winner is announced, based on how eco friendly their product became and the results of their presentation.	The groups are dissolved and everybody reflects on what they have learned through the game.

Game elements

- The game board and cards have to be printed before the game.
- The Eco Designer app is connected to the game and helps the players reviewing alternative solutions. Every group should have access to the app.
- The slides that can be used by the facilitator which guides the players throughout the game step by step.

PREPARE THE GAME

(30 minutes)

The elements of the game has to be downloaded, printed and cut and you will also need some equipment in order to play the game. The facilitator has to prepare the game.

1. **Go on** <https://w4t.seriousgames.net/ecodesign>
 - Download:
 - Game elements for players and the for facilitator
 - Eco Designer Game Guide (this document)

- Eco Designer App
- Eco Designer facilitator slides

2. Prepare the physical elements.

- Print the game elements for players and for the facilitator
 - (1) Life Cycle Overview (1 pr. group) (player)
 - (2) Pitch Storyline 2 pages (1pr. /group) (player)
 - (3) Company Scoreboard (1pr. /group) (player)
 - (4) Quick Reference Card (1pr. /group) (player)
 - (5) Competition Overview (1 / 2-4 groups) (facilitator)
 - (6) Pitch Evaluation Card (1pr. /group) (player)
- Print and cut the cards (facilitator)
- Needed equipments:
 - Tablet, computer or phone with internet connection/group
 - 4 dice/group or participants can use a dice app (for example: Dice from Apple store)
 - a projector to show the slides during the game

3. Prepare yourself as a facilitator

- Understand the game before you present it to the players
- Read through the slides and the game elements
- Check out the Eco Designer companion app
- You can make the game more relevant and interesting by
 - preparing with good examples for eco-friendly products or processes
 - challenging them with interesting questions
 - Inspire them to be creative and think out of the box

PLAY THE GAME

The slides guide you and the players through the whole game process step by step. We made sure that you get all the needed information at the right time. This is a short description of the game process.

1. Introduction and preparation for the game

The facilitator introduces the players to eco design and the main goal of the game. The players form groups and get all necessary print-outs. Each group is a company with their own product, resources and development levels who are competing for being the best.

Game narrative

Imagine that your company has the task to reduce the environmental impact of its product while being in a hard competition against other companies. Your task is to make your product as eco-friendly as possible while considering the changes in legislation, market variables and customer preferences.

You have to minimize your product's environmental impact, make decisions, optimize, compete with other companies and satisfy your board of directors by giving a plausible explanation about the events of the game.

2. The companies get to know their products' CO₂ emission based on the life cycle overview that lists the environmental impacts in the life cycle stages. Each year the companies can take actions to improve products environmental impacts by making research & development or changing the materials used for manufacturing. The Eco designer app helps them to see the alternative materials' properties and price.
3. The companies are operating in a context, therefore it is crucial that they are considering other factors besides environmental issues. They are in competition with other companies and different cards allow them get a certain advantage or to hinder other groups. Furthermore, there is an unexpected event each year which triggers changes on the market and forces companies to act on them.
4. After six years (6 turns) of hard work it is time for evaluation. The board of directors played by other groups are ready to hear the companies' story. All groups have to create a plausible explanation on how and why things happened in a certain way, convincing the board of directors that they did their best under the specific circumstances. The company who managed to reduce their product's CO₂ emission and made the best presentation wins the game.
5. Finally the players all reflect on what they have learned through the game, which reinforces their learning experience.

ECO DESIGNER is part of the European Union's WASTE4Think project.

Waste4Think project's main objective is to lay the foundations of the circular economy through a series of different initiatives, which include tools for waste management as well as empowering and engaging citizens by creating awareness, motivating and educating them.

Serious Games Interactive's contribution is a unique package of engaging educational games that are taylormade for different groups in order to support behavioral change and social awareness.

Eco Designer is a significant element of this game package addressing university students and companies' need to better understand the complexity of eco-friendly product design.

Why games?

The answer is easy, because they are effective, engaging and entertaining not only for kids, but for adults as well. Serious Games Interactive has many years experience in creating digital learning experiences in order to make the learning process effortless and fun.

