



Aim of the game

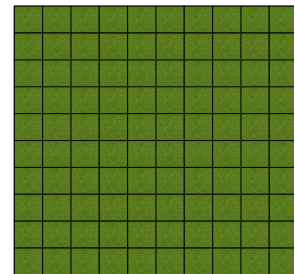
The objective of the game is to build an arctic eco-city. This is a competitive game for teams of 5-6 members. The winning team will be announced the Kings and Queens of the World! ☺

What is an eco-city?

Eco-cities incorporate **environmentally friendly technology** solutions for building, energy, transport, waste management and water systems. Eco-cities are also **economically prosperous**, provide employment for their citizens and are places of commerce. Eco-cities also care about the **well-being of people**, provide the necessary services and satisfy also social, cultural and recreational needs. Eco-cities will have places where people can meet, interact or relax. Keep these in mind when creating your city – a place you'd like to live in!

Playing the game

- The city is to be built on a foundation of 100 grids, as seen on the right →→→
 - Each grid represents a 500m x 500m area.
- You will also have a starting budget of 60 “diamonds”
- Using your budget, you will build a city of min. 20 000 people on this area
- Your citizens will need to have the following to supply them:
 - (1)Buildings, (2)Food, (3)Energy, (4)Water, (5)Waste management, as well as (6)Industry and (7)Services, (8)Transportation and (9)Recreation
- There will be 9 checkpoints where you can buy solutions/technologies for each



Consider the following age breakdown of your citizens:

- 50% are in working life – They will need to have jobs!
- 5% are small children - Remember kindergarten for them!
- 20% are senior citizens
- 25% are students – They will need schools!
 - 8% in lower grades
 - 10% in higher grade and secondary school
 - 7% in university - If you do not have a university, this 7% needs to be employed as well!






← The technologies and services at the 9 checkpoints can be bought on cards as seen on the left. The cards are of a size of 1-4 grids, representing the area each technology or building would occupy in your city. You will need to place these cards directly on your city foundation. The technology is described on the backside of the card as you can see on the right →→ indicating the advantages and disadvantages of each solution. The experts at checkpoints can give you further information.




Biomass power plant
 Power plant that generates electricity and heat by burning wood and other plant biomass.
Pros:
 - Provides district heating
 - Can use local fuel and agricultural byproducts
Cons:
 - CO₂ emissions
 - Varying quality input can be difficult to control

Watch out for a number of synergy cards – some of the cards need to be together with some other. Like some buildings can be bought if you have a district heating systems, or if you have a university or a certain industry, you need to have an airport. Read the info on the back of the cards carefully!

Card markings







Each card is distinguished by the following markings:

 = Price
The number of diamonds indicates the cost of cards (1 - 3). Manage your budget wisely; divide among all categories and technologies.
 = Level of sustainability
The sustainability score indicates how environmentally friendly, socially acceptable and economically feasible a certain choice is. The more stars, the better the solution is for the community.
 = Unsustainable solution
The cards with a black star is an unsustainable solutions. It is a negative score, so for every black star a gold star will be deducted.

 = Inhabitants
This symbol marks how many inhabitants the building option houses within the given land area. You need to have a min. 20 000 inhabitants!
 = People served
This symbol indicates how many people the solutions benefits or services. You will need to match the total amount of people served to the amount of inhabitants.
 = Jobs
This symbol indicates how many people this technology or service employs. It is important that the cities have employment for all of working age.

Critical services

Critical services are those that you will need to closely balance to the number of inhabitants. These are: **jobs, food, energy, water** and **waste** management. For each of these, you will lose 1 gold star for every 1 000 person not in balance. These you will have to sum up on your city foundation as you can see on the right →→→→

	=	<input type="text"/>	Food 	=	<input type="text"/>	Water 	=	<input type="text"/>
	=	<input type="text"/>	Energy 	=	<input type="text"/>	Waste 	=	<input type="text"/>

Changing cards

You can return or change cards while the checkpoints are open. They will close ½h before the game ends.

Extra cash

Each group will be provided three quizzes of 5 questions. You can answer and return them to the quiz-master at any time for extra points. For each correct answer, the team will get an extra diamond.

Evaluating and scoring

At the end of the game, each team will be evaluated and debriefed. The winner is the one with the highest number of gold stars! Mind the balance of critical services! Transport is not a critical service, but if your city relies solely on cars, reserve an empty grid for parking places, or loose a gold star! The evaluators will also want to know the reasons behind your choices. Why was the city developed in a certain way? What was the logic behind? Did you go for a city of a certain profile? Heavy industry, high-tech, greentech, academic? Why? Were some expensive or land consuming choices made for the development of some particular technology or with a particular model in mind? We encourage you to build a city you would to live in! The thought behind your city will be decisive in case there are two groups with the same amount of gold stars.

Important hints

Reserve about 20-30 grids for buildings, and divide the space for the rest. Begin with critical services. They are mandatory expenses and there are good points to begin shaping the profile of your city. Time is limited as well! Get the most out of your team; decide who takes charge of which aspect of the city, who goes to the checkpoints, who keeps track of the balance of inhabitants and critical services, who answers the quizzes, etc. Do not hesitate to ask for help or advise from any of us!

Enjoy and have a good time! 😊