



Co-funded by the
Erasmus+ Programme
of the European Union

Agreement n° 2017-1-EL01-KA203-036303

Project Acronym: **SUSTAIN**

Project title: **Game-Based Learning on Urban Sustainability**

Funded under the ERASMUS+ Programme, Key Action 2 - Strategic Partnerships

Start Date of the Project: 01 October 2017

Duration: 30 Months

Intellectual Output 6 - supplement

Organization name of lead partner for this deliverable: Ergo Ludo

Revision: Final

Project Funded by the ERASMUS+ Programme		
Dissemination Level		
PU	Public	X
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

Deliverable Form	
Project Reference No.	2017-1-EL01-KA203-036303
Document Title	Output 6 – Board Game (deluxe first scenario)
Nature:	Board Game
Dissemination Level:	Public
Document version:	1.0
Date:	28/2/2020
Authors:	Luigi Ferrini, Alessandro Lanzuisi, Marta De Carvalho, Francesco Tassone
Document description:	This is a 'deluxe' version of the first scenario of the SUSTAIN game. It is a supplement for Intellectual Output 6.

Disclaimer

This project has been funded with support from the European Commission. This publication 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.



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

SUSTAIN, THE BOARD GAME ('deluxe' version)

This is a 'deluxe' version of the first scenario of the SUSTAIN game. It is a supplement for Intellectual Output 6.



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

DEPARTMENT OF INFRASTRUCTURE

CONGRATULATIONS!

You have just been nominated as the head of Department of Infrastructure.

You are partially responsible for keeping an high **Standard of Living**.

You should also keep an eye on the location of new residential buildings, in order to **keep people happy** with their accommodations.

HOW TO INVEST

- **During the investment phase**, at your turn, you may put one or more coins on a single project (public solution cards or personal buildings, see image on right).
- **You may also invest** in Personal Buildings of unused Departments, as long as they are available to everybody (this happens in the event that there are less than 6 players).
- **If the requested amount is fulfilled**, draw the appropriate buildings (if any) on the map, discard coins and completed solution cards (your personal buildings are always available).
- **Otherwise, if the request is not completed**, keep the coins on it: a solution may require many years to finish!

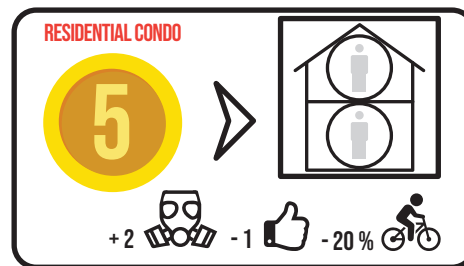
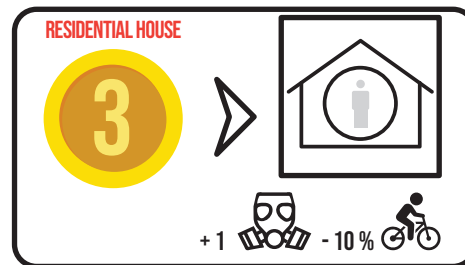
SCORE

- At the end of the game, you score:

+ 1  for each Residential building (House or Condo) adjacent to a Bus Stop, a Bike Lane or a Pedestrian Walk.

+ 2  for each FREE man space () on the map.

PERSONAL BUILDINGS



DEPARTMENT OF ENVIRONMENT

PERSONAL BUILDINGS



CONGRATULATIONS!

You have just been nominated as the head of Department of Environment.

Your task will be to promote **sustainable solutions for waste and pollution management**. You are responsible for **lowering the CO2 emissions** and keeping the **city's pollution levels** at the minimum.

HOW TO INVEST

- **During the investment phase**, at your turn, you may put one or more coins on a single project (public solution cards or personal buildings, see image on right).
- **You may also invest** in Personal Buildings of unused Departments, as long as they are available to everybody (this happens in the event that there are less than 6 players).
- **If the requested amount is fulfilled**, draw the appropriate buildings (if any) on the map, discard coins and completed solution cards (your personal buildings are always available).
- **Otherwise, if the request is not completed**, keep the coins on it: a solution may require many years to finish!

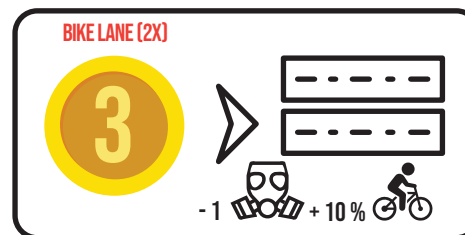
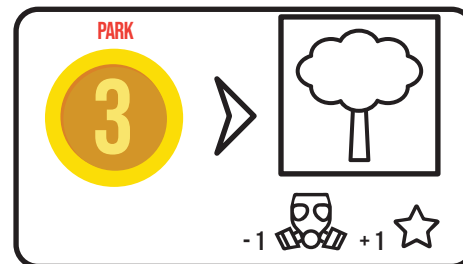
SCORE

- At the end of the game, you score:

+ 2  for each Park.

+ 1  for each Residential building orthogonally adjacent to a Pedestrian Walk or to a Bike lane.

- 1 for each point of 



DEPARTMENT OF CULTURE

CONGRATULATIONS!

You have just been nominated as the head of Department of Culture.

Your task is to ensure that the **citizens have equal and open access to cultural, educational and leisure activities**, so that the **Standard of living** of the citizens remains high.

HOW TO INVEST

- **During the investment phase**, at your turn, you may put one or more coins on a single project (public solution cards or personal buildings, see image on right).
- **You may also invest** in Personal Buildings of unused Departments, as long as they are available to everybody (this happens in the event that there are less than 6 players).
- **If the requested amount is fulfilled**, draw the appropriate buildings (if any) on the map, discard coins and completed solution cards (your personal buildings are always available).
- **Otherwise, if the request is not completed**, keep the coins on it: a solution may require many years to finish!

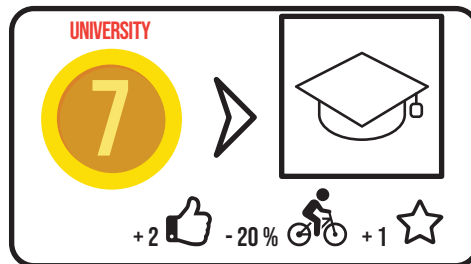
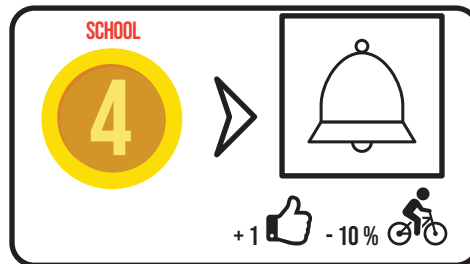
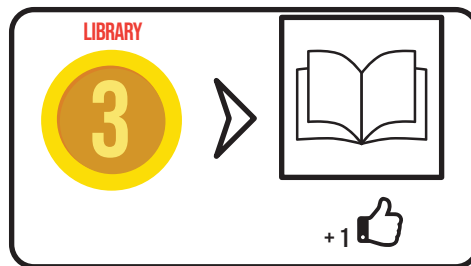
SCORE

- At the end of the game, you score:

+ 2  for each Residential building orthogonally adjacent to a Library or to a University.

+ 1  for each School.

PERSONAL BUILDINGS



DEPARTMENT OF TRANSPORT

CONGRATULATIONS!

You have just been nominated as the head of Department of Culture.

You will be responsible for **efficient transport within the city**.

It's important that **residential buildings are connected with public services**; you have to face all the problems related to **sustainable transport**.

HOW TO INVEST

- **During the investment phase**, at your turn, you may put one or more coins on a single project (public solution cards or personal buildings, see image on right).
- **You may also invest** in Personal Buildings of unused Departments, as long as they are available to everybody (this happens in the event that there are less than 6 players).
- **If the requested amount is fulfilled**, draw the appropriate buildings (if any) on the map, discard coins and completed solution cards (your personal buildings are always available).
- **Otherwise, if the request is not completed**, keep the coins on it: a solution may require many years to finish!

SCORE

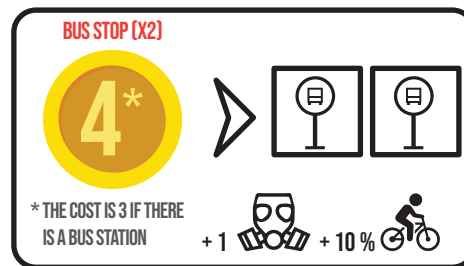
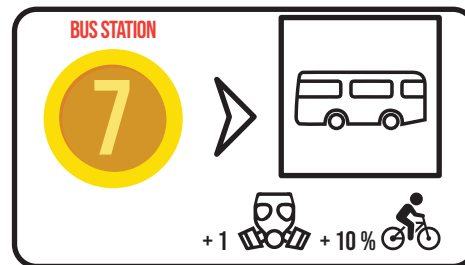
- At the end of the game, you score:

+ 2  for each Bus Station.

+ 1  for each non-residential building (big squares on the map) diagonally adjacent to at least one Bus Stop.

- 1 for each point of 

PERSONAL BUILDINGS



DEPARTMENT OF PUBLIC SERVICES

CONGRATULATIONS!

You have just been nominated as the head of Department of Public Services.

As such, you are **responsible for the Standard of living** of the citizens.
Make sure that the city is **well protected against crime and unexpected events**.

HOW TO INVEST

- **During the investment phase**, at your turn, you may put one or more coins on a single project (public solution cards or personal buildings, see image on right).
- **You may also invest** in Personal Buildings of unused Departments, as long as they are available to everybody (this happens in the event that there are less than 6 players).
- **If the requested amount is fulfilled**, draw the appropriate buildings (if any) on the map, discard coins and completed solution cards (your personal buildings are always available).
- **Otherwise, if the request is not completed**, keep the coins on it: a solution may require many years to finish!

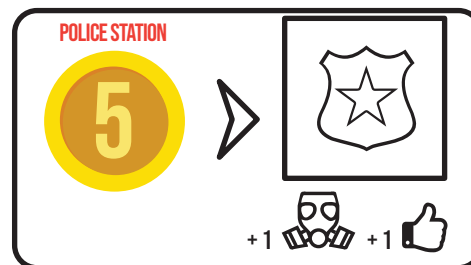
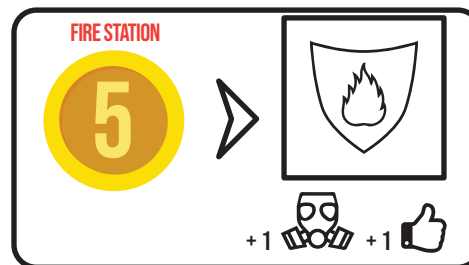
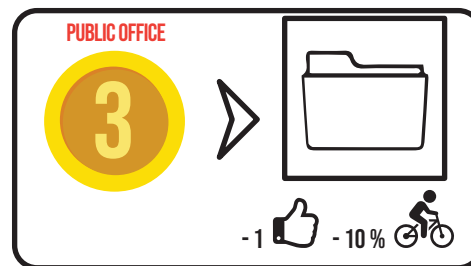
SCORE

- At the end of the game, you score:

+ 2  for each Residential building orthogonally adjacent to a Police Station or a Fire Station.

+ 1  for each Public Office.

PERSONAL BUILDINGS



DEPARTMENT OF WELFARE

PERSONAL BUILDINGS



CONGRATULATIONS!

You have just been nominated as the head of Department of Welfare.

Therefore, the **Standard of living** of the citizens is in your hands.
Ensure your people have **access to medical facilities and health services**.

HOW TO INVEST

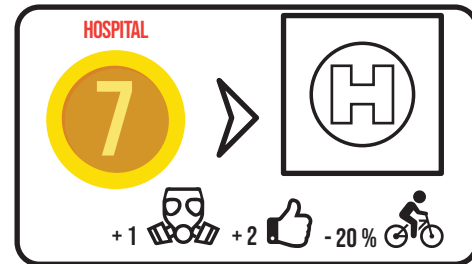
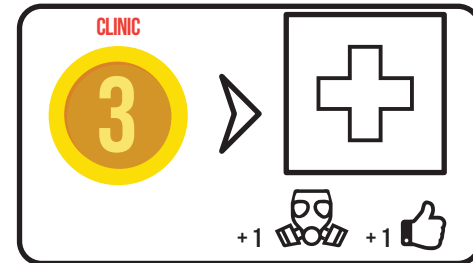
- **During the investment phase**, at your turn, you may put one or more coins on a single project (public solution cards or personal buildings, see image on right).
- **You may also invest** in Personal Buildings of unused Departments, as long as they are available to everybody (this happens in the event that there are less than 6 players).
- **If the requested amount is fulfilled**, draw the appropriate buildings (if any) on the map, discard coins and completed solution cards (your personal buildings are always available).
- **Otherwise, if the request is not completed**, keep the coins on it: a solution may require many years to finish!

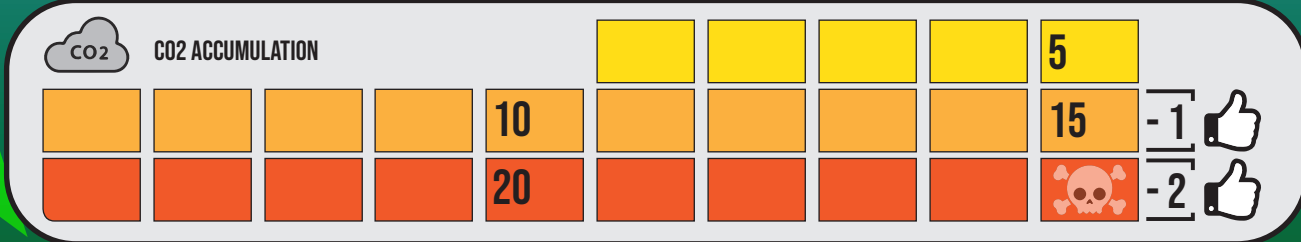
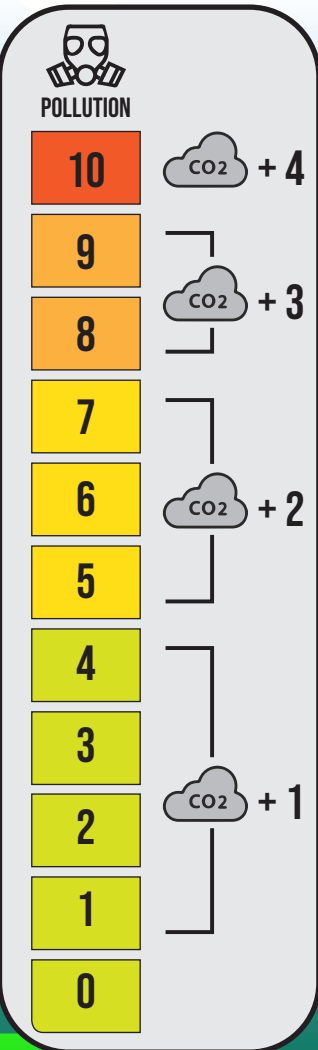
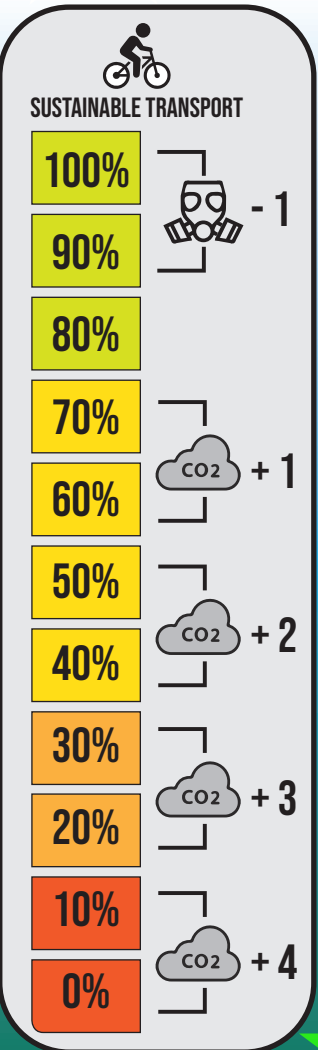
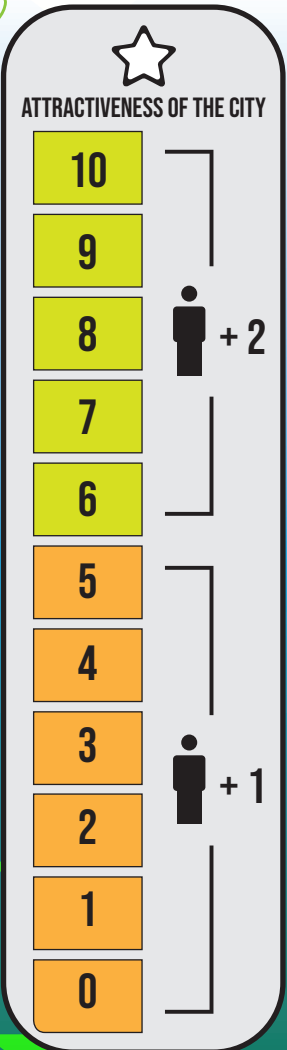
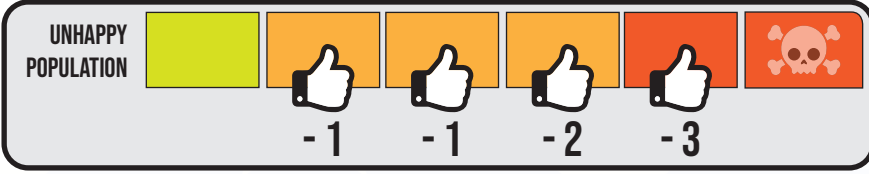
SCORE

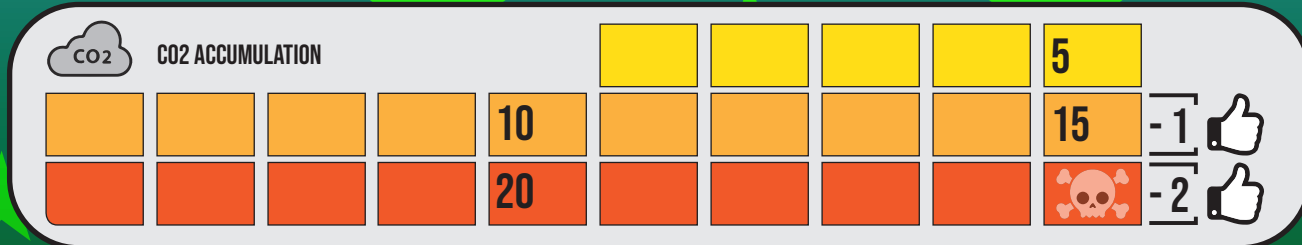
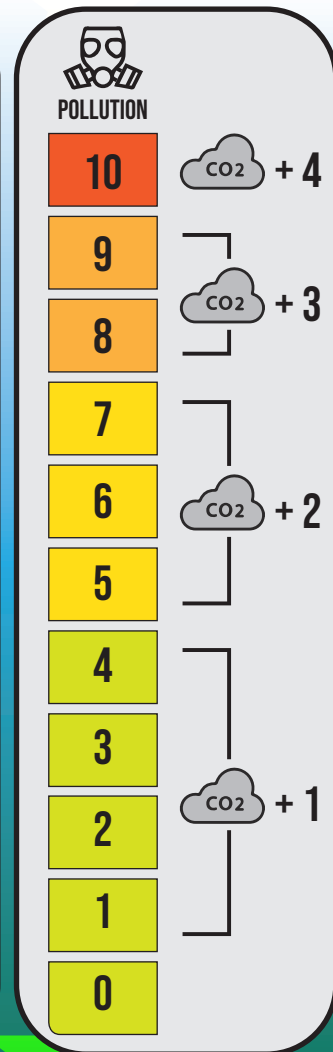
- At the end of the game, you score:

+ 2  for each Residential building orthogonally adjacent to a Clinic or a Hospital.

+ 1  for each point of  above 5.







1/1

WELCOME TO OUR CITY!

READ ME ALOUD!



You are working in different city departments. You will face many problems and have to answer to citizens' requests. Each round represents 1 year. Good luck!

Each of you draws a Department Card. If there are less than 6 players, the unused Departments are placed on the table, with the "Personal Buildings" side up and visible (ignore the text on the left side of Department cards).

Next person draws another Event card!

1 / 2

HOW TO BEGIN?

READ ME ALOUD!



First of all, you need more informations about your role!

Each of you should read your Role card carefully.

The player with the Department of Culture (or you, if there isn't one) gives a name to the city and writes it down on the appropriate space of the board.

Check if everyone read their Role cards.
Next person draws another Event card!

A NEW TOWN IS BORN

READ ME ALOUD!



According to their departments, players draw buildings on the map:

- Dept. of Transport draws 2 Bus Stops.
- Dept. of Environment draws 2 Bike lanes.
- Dept. of Infrastructure draws 1 Resid. House.
- Dept. of Welfare draws 1 Clinic.
- Dept. of Public Service draws 1 Office.

If any Departments are not playing, random players take their roles.

When each player has drawn their buildings, next person draws another Event card!

1/4

THE INDICATORS

READ ME ALOUD!



Each round you will adjust indicators on the Indicators Table. Check them from top to bottom and then left to right, in order to apply the modifiers written at the side of the tokens.

For this first scenario, set:

- Standard of Living to 0; 
- Attractiveness of the city to 0; 
- Sustainable transport to 10%; 
- Pollution to 2. 

Ask if everyone understood.

Next person draws another Event card!

1 / 5

CO₂ IS INCREASING!

READ ME ALOUD!



When the indicators state an increase of CO₂, mark a cross on a square of the CO₂ table for each +1  .

If the CO₂ table is full, you lose!
You will begin to add CO₂ starting from the next round. Now you can relax!

Next person draws another Event card!

THE POPULATION

READ ME ALOUD!



The indicator of Attractiveness of the city influences the population increase: you have to find a home for new citizens.

Draw a citizen  in an empty circular space (e.g. the ones on the Residential buildings) for each +1 . Place one now! If you run out of empty spaces, draw a ☹️ on the leftmost free space of the Unhappy population table: they represent commuters and homeless people. If the Unhappy table is full, you lose!

Next person draws another Event card!

1/7

YOUR BUDGET!

READ ME ALOUD!



Each year you will receive a year budget for your departments. Budget amount depends on the Standard of living (👍) indicator and is depicted on the left side of the table.

Share the budget evenly amongst all the players (round down).

Ask if everyone understood.
Everyone take their budget from the bank.
Next person draws another Event card!

1 / 8

WHAT'S GOING ON?

READ ME ALOUD!



At the beginning of each year you will check what's going on in your city: draw a card from the Event deck and apply its effects.

Do it now!

Next person draws a card from the Event deck!

1 / 9

GARBAGE EVERYWHERE!

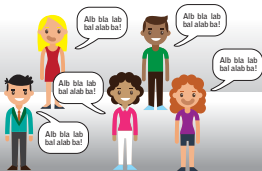
REQUEST



The city is growing very fast and all the new business areas and facilities are generating a huge amount of waste. It seems necessary to build at least one Landfill area for all the garbage.

"Request" cards stay in play until resolved, so keep this card on the table!

Next person draws another Event card!



Draw the first 3 cards from the Solution Deck and place them on the table with the gray side up. From now on, you are in charge of the clock: each year you will count a max of 10 minutes for a short discussion. If everyone agrees, you may stop the discussion at any moment.

Then, starting with yourself, each player takes turns investing at will, as indicated on your Department sheets.

Now draw another Event card (with a rules summary) and start the timer and the discussion!



At the beginning of each year:

- Pass this card to the player on the left
- Adjust the indicators
- Draw citizens on the map (or ☹️ on the Unhappy population table)
- Receive your budget
- Event phase: draw an Event card
- Add 3 new Solution cards to the display
- Have up to 10 minutes of discussion
- Take turns in investing until all pass
- A new year begins!

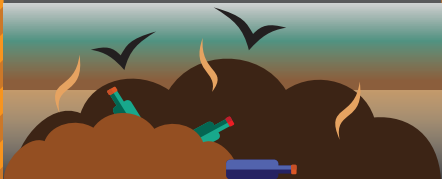
Keep this card visible to everyone!

Stop drawing Events for now!

1/12

HAVE YOU SOLVED THE ISSUE?

READ ME ALOUD!



If a Landfill has been erected:

if there is at least one residence within two squares from the Landfill, draw a ☹️ on the Unhappy table. Discard this card and the "Garbage everywhere!" card.

If a Landfill has NOT been erected:

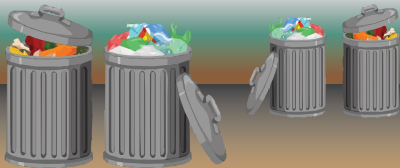
draw a ☹️ on the Unhappy table, +2 🗑️. This card stays in play and will be checked again at the beginning of the next Event phase.

Next person draws another Event card!

1 / 13

WHAT A BAD SMELL!

REQUEST



The city is producing a big amount of waste. This generates a bad smell and the citizens are not happy!

You have to invest quickly in activities in order to reduce the amount of waste!

Next person draws another Event card!

1 / 14

MY SON DESERVES TO BE SMARTER! REQUEST



Many new young families complain about the lack of educational activities offered for their children.

They start planning to move to a neighbouring town that offers many different educational options.

Stop drawing Event cards for now!

1 / 15

WHAT DID YOU DO ABOUT GARBAGE?

READ ME ALOUD!



If the following solutions have been adopted:

Incinerator: -1  -1 

Introduction of recycling policies: -2 .

In both cases: discard the "What a bad smell!" request card.

If neither of those solutions has been adopted: get +2  and a , this card stays in play and will be checked again at the beginning of the next Event phase!

Stop drawing Event cards for now!



If at least one School has been built:
discard the "My son deserves to be smarter!" request card.

Otherwise:
get a ☹️, this card stays in play and will be checked again at the beginning of the next Event phase.

Next person draws another Event card!

1/17

WHERE CAN I PARK?

REQUEST



There are a lot of vehicles that circulate inside the city, and finding a parking place is very difficult.

Stop drawing Event cards for now!

1 / 18

CO2 IS INCREASING!

READ ME ALOUD!



If a Parking area has been built, car traffic increases:

-1 

-20% 

+3 

If  is lower than 50%, get a 

Discard the "Where can I park?" request card.

Next person draws another Event card!

1 / 19

ELECTION DAY!

READ ME ALOUD!



Check your city indicators.

If  is greater than 5:

Congratulations! You've done a good job and your administration will be confirmed!

Otherwise: You lose! Try again next time!

Each player checks the goals on his Dept. sheet and scores  accordingly.

Next person draws another Event card!

1 / 20

END OF SCENARIO

READ ME ALOUD!



The first scenario ends here.
If you have won, check your  :

Whoever have the most is the winner!
Now it's time to have a short debriefing
about your work.

Try to discuss about the game you just
played.

Now you're ready to take on the next
scenario. Good luck!

1/1

BUILD A NEW LANDFILL AREA



+2



-1



1 / 2

AWARENESS CAMPAIGN ON HOW TO LIVE HEALTHY



+ 1

1 / 3

DESIGNATE A SPECIAL BUS LANE



+ 1



+ 10 %

1 / 4

INTRODUCTION OF RECYCLING POLICIES



- 2



+ 1

1 / 5

CITY ELECTRIC VEHICLE SHARING PROGRAMME



- 1



+ 20 %

1 / 6

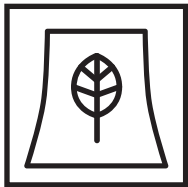
BUILD A NEW WASTE INCINERATOR



+ 3



- 1



1/7

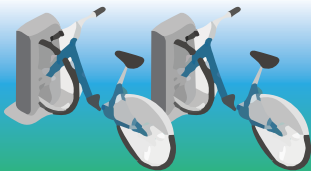
ESTABLISH TAX BREAKS FOR YOUNG ENTREPRENEURS



+ 1

1 / 8

ESTABLISH A MUNICIPAL BICYCLE SHARING SYSTEM



- 1



+ 20 %



+ 1

1 / 9

ESTABLISH A NEW PLAYGROUND FOR CHILDREN



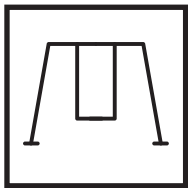
+ X



+ 1



+ 1



X = NUMBER OF
ADJACENT RESIDENTIAL
BUILDINGS

1 / 10

BUILD A NEW PARKING AREA



+ 2



- 10 %

+ 1



1/11

TRAINING ON ROAD SAFETY AND TRAFFIC RULES



+ 2



+ 10 %

1/12

ESTABLISH A FILM FESTIVAL



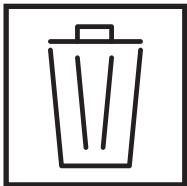
+2

1/1

BUILD A NEW LANDFILL AREA



YOU HAVE TO
CHOOSE WISELY
WHERE TO
PLACE THIS AREA.



1 / 2

AWARENESS CAMPAIGN ON HOW TO LIVE HEALTHY



YOU MAY AFFECT 
WITH THIS SOLUTION.

1 / 3

DESIGNATE A SPECIAL BUS LANE



**THIS SPECIAL LANE
MAY CONTRIBUTE
TO SOLVE
TRAFFIC CONGESTION.**



**WILL THIS
EXPENSIVE SOLUTION
BE ENOUGH
TO SATISFY THE REQUESTS?**

1 / 5

CITY ELECTRIC VEHICLE SHARING PROGRAMME



**ADOPTING THIS SOLUTION
WILL MAKE YOUR CITY
MORE ATTRACTIVE!**

1 / 6

BUILD A NEW WASTE INCINERATOR



THE INCINERATOR
COULD ALSO
CONTRIBUTE
TO ENERGY
PRODUCTION.



1/7

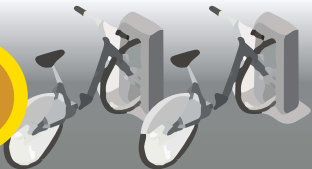
ESTABLISH TAX BREAKS FOR YOUNG ENTREPRENEURS



**THIS IS A POLICY
TO ATTRACT
NEW FUNDS!**

1 / 8

ESTABLISH A MUNICIPAL BICYCLE SHARING SYSTEM



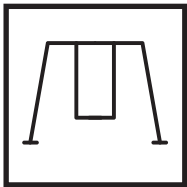
**WILL SURELY
BE INCREASED!**

1 / 9

ESTABLISH A NEW PLAYGROUND FOR CHILDREN



**ALL FAMILIES
WILL COME HERE
FROM ALL
NEIGHBORHOODS!**

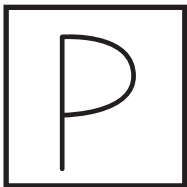


1/10

BUILD A NEW PARKING AREA

4

WITH MANY CARS
CROWDING THE
ROADS, YOU NEED
TO FIND A WAY
TO ACCOMMODATE
THEM EASILY.



1/11

TRAINING ON ROAD SAFETY AND TRAFFIC RULES



**SUSTAINABILITY STARTS
FROM EDUCATION
OF THE NEW GENERATIONS!**

1/12

ESTABLISH A FILM FESTIVAL



**OUR CITY NEEDS
TO BE KNOWN FOR
CULTURAL HAPPENINGS!**