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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)	

Deliverable Form	
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Document description:	The final tangible output of the SUSTAIN project is this downloadable and printable board game (along with the guidelines on how to play it). The game design was translated to an actual board game. The team envisages that the game distils the knowledge of all the previous outputs into a gaming session that informs, allows students to experience and is fun.

Disclaimer

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1. SUSTAIN, THE BOARD GAME

1.1 A new project

The SUSTAIN project, Game-based Learning on Urban Sustainability, is a new project in many ways. It is new in the first place because it develops a board game taking as a model some fundamental aspects of System Dynamics (www.systemdynamics.it), a modeling approach for the simulation of complex systems based on a holistic view of the various problems under analysis and taking into account the interdependencies between the various components of the system.

Secondly, because the system itself is the complex and articulated system of a modern city: the economic, productive, social and environmental components are strongly connected and in very complex ways. As modelling shows us, the system can react to managerial actions even in highly counter-intuitive ways. The game has among its objectives to demonstrate this aspect as well: the dynamics recreated in the game is in fact the one that leads the players to clash on the qualitative aspects of the decisions and then see their effects in quantitative terms. Compared to the proposed model, the selection of indicators to be controlled during the game has been reduced to a limited subset of aspects but, although it is to all intents and purposes an abstraction of the model, it has the merit of illustrating with very few parameters a complex situation made up by the perception of the well-being of the city, the percentage of sustainable mobility and the production of pollution in all its forms. The same methodology has also been used to develop the online simulator, accessible from the project's website, which allows further in-depth analysis of urban management issues.

The board game, however, has a different objective from the thematic depth of the simulator, and this is a further new element: it is in fact a game not didactic but designed for teaching. Typically, managerial didactics make use of "playful" but not strictly "playing" tools: gamification solutions are not infrequent in didactics, but they are precisely didactic tools, which exhaust their function in conveying information contents within controlled and extremely piloted environments, often coordinated by a facilitator to whom all forms of mediation and interaction between players are delegated. Alternatively, board games or role-playing games are used in didactics, or playful environments (such as "adventure parks") to reinforce transversal skills such as leadership, teamwork or highlight negative dynamics within working groups. In these cases, the skills conveyed are almost never vertical, strongly linked to the contents of the courses, but generic as they are based on commercial games created for purposes other than training.

SUSTAIN's challenge, instead, was to create a real board game, playable in itself even outside of training environments, but which would still serve as a support tool for educational activities by conveying the vertical contents in an experiential way. This challenge, we feel we can say, has been won; and this thanks to the collaboration of an extremely varied and competent team that has seen in Ergo Ludo Editions only the last link in a very strong chain.

1.2 From the first draft to the final version

Following theoretical modelling, one of the partners (Centre for System Solution) has in fact developed a first draft of the game from a “serious game” paradigm. The game already in this form would have been suitable for a didactic use, according to the model described above, but in the project one more step was required, that is to transform the product into a real board game that could be played even without the presence of a facilitator.

Therefore, starting from the many good ideas present in the first draft, especially with regard to the thematic contents (the Departments impersonated by the players, the events, the requests from the citizens...) the game flow has been rethought (and, in many ways, distorted) according to the requirements that have been identified together with all the partners.

The first knot to untie, and which paradoxically turned out to be the most difficult one, was the number of players: a commercial game is usually designed to seat 2 to 6 players around the table and this seemed too much of a limitation for the game to be enjoyed in a class (which by its nature has very variable and potentially very high numbers). The choice was therefore to propose a modular solution in two different ways: the game therefore accommodates from 2 to 6 players (and certainly makes the best with the maximum number of 6), but also allows you to play with larger groups. You can choose to set up several tables and then, during the debriefing phase, compare the outcomes of the different games to assess how the different behaviours have led to different conclusions; alternatively or even in addition, each department within a single game can be played by a small group of players who will decide together the moves to be performed. Although the final version of the game already provides for a high level of interaction in terms of debate, adding a level of discussion can certainly have a greater educational function, although accommodating a very large number of people around the same table can be problematic and should therefore be assessed on a case-by-case basis.

For this reason, a path of flexibility in terms of game materials has also been chosen. In addition to the “De-Luxe version” which features professional materials and graphics (made by Back2Brain studio), the game also relies heavily on the downloadable “print&play” version: this version is accessible to anyone expressing a manifestation of interest in the project and allows both to make more copies at low cost (to have more tables) and to make a single copy with greatly enlarged materials (to allow greater usability to large groups).

In both versions, instead of providing numerous tokens and markers to identify the buildings and structures built in the city, it was decided to take advantage of a mechanics that is currently very fashionable in commercial products, namely that of writing on game materials. Whether you use markers on erasable blackboards or pens and pencils on freshly printed sheets, the effect is the same: the city takes shape thanks to the graphic contribution of all players and in the end, it will look absolutely unique.

1.3 Winning alone, losing together

Another aspect that required a close discussion with all the partners was the conditions for victory. Often in serious games the conditions of victory are almost superfluous: what matters is not winning,

because the game emphasizes the cooperative spirit, expressly asking players to play the role of someone who has an interest in making the best choices for the common good. In a board game this can't happen: you need conditions of victory and precise and effective scoring systems, because these are the engines that create the dynamics of interaction between players. That the game should be cooperative was an assumption shared by all from the beginning: the construction of the "public thing" is common, and failure has common causes and consequences. But in a board game cooperation only works well if the game "fights" against the players, and in the case - like this one - where all the information is public and communication is free, the lack of discordant goals among the players produces an extremely negative dynamic, so the game is not fun and is prone to a defect coded in literature as "alpha player", when a player, who has better understanding of how the game works than the others, or simply has more strength in expressing their ideas by virtue of a natural leadership role in the group, plays for everyone by suggesting the best moves.

After all, even the proposal to have a completely competitive game led to the wrong consequences: one lost the perception of how everyone's actions could compromise victory for everyone. The game would then be reduced to a mere calculation of how to score more points for your side.

This time too, the solution went through the most difficult way, the semi-cooperative game! Each player follows a personal agenda and will score points differently from the others, but acting solely for their own benefit will make everyone lose. There are in fact three ways to achieve a collective defeat: accumulate too much CO2, produce discontent in the population and erect buildings without criteria, occupying all the urban space. If you can avoid these three situations, you will get to count the points of each one to determine a single winner.

1.4 Requests and solutions

Another mechanics present in the first game model, that of the "Requests" of the citizens, has been integrated in a preponderant way in the final version: in particular a very brilliant idea proposed by CSS has been kept almost intact. It is a "tutorial" that explains the game through the events that are drawn during the game itself. In this way you can tackle the first scenario of the game without reading the rules at all, but making the game itself explain how it works. A complete reading of the rules will then be possible before starting the second scenario, to refresh and possibly clarify doubts about the game modes.

Let's close with a final note on the mechanics, which allows us to understand how we have managed to remove the need for an "omniscient facilitator" from the dynamics of the game. In fact, in the face of precise requests provided by the game and a number of possible solutions, the first version provided for a human intervention that explained the precise effect of each solution adopted in relation to the present requests. Wanting to free the facilitator from this demanding role, but also wanting to avoid the very presence of the facilitator if the game takes place outside a classroom, it was decided to exploit the two sides of the "solution" cards in order to make them become simultaneously the engine for discussion and the one for the resolution of the effects.

On one side of the cards, therefore, the proposed solution is presented in terms of financial commitment and with a purely qualitative description: both these factors are a stimulus to the

discussion among the players as to whether or not to pursue the solution. Only once the solution has been adopted can the card be turned around, thus revealing the effects on the game indicators and possible side effects.

1.5 Conclusions

In addition to the tutorial scenario, which is a full-fledged scenario in which some waste management issues are addressed, four other scenarios have been designed to confront the players with many challenges: building communication infrastructure, water rationing, industrial investment, the effects of corruption, energy production and consumption, etc.

All scenarios were used in the Management course at the Business Faculty of the University of Macedonia, Thessaloniki (Greece), partner and coordinator of the project, with positive results. It is also considered that the product can be used with similar success in higher education courses on sustainable development and Agenda 2030 (<https://unric.org/it/agenda-2030/>).

Finally, it is not excluded that new developments and new ideas may be introduced in the near future, e.g. to create a replayable scenario with unpreordained events and outcomes; or to develop a slightly simplified version for a younger student (high school) audience. Finally, the use of Internet-based board game platforms such as Tabletopia.com, already successfully tested with the first scenario during the Covid-19 lockdown, could become an established practice to propose the game in its entirety even during online courses and lessons.

2. Print and play section

The reader may freely print and play the following material!



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AGREEMENT N° 2017-1-EL01-KA203-036303

PROJECT TITLE: GAME-BASED LEARNING ON URBAN SUSTAINABILITY

FUNDED UNDER THE ERASMUS+ PROGRAMME, KEY ACTION 2 - STRATEGIC PARTNERSHIP

RULEBOOK

In this game, each player represents a different Department in a growing city. You will have to face many issues and solve them based with other players' decisions.

Only one player will win the game, but it is also possible that everyone loses if you make the wrong choices!

YOUR FIRST GAME

For your first game, there is no need to read the complete rulebook. You may instead learn how to play following the first Scenario. You may read the complete rulebook after the first game.

Place the **City Map** in the middle of the table, take the **Event** and **Solution decks** for **Scenario 1** and place them on the table without shuffling them! If you shuffle a deck by mistake, put the cards back in order, following the numbers on the card (the “1” card is the first to be drawn, then the “2” card, and so on). The Solution cards must have the **gray side up and visible**.

Place the **Indicators Board** on the table; place the four wooden cubes on the lower square of each of the four tracks (“Standard of Living”, “Attractiveness of the city”, “Sustainable transport” and “Pollution”).

Each player should have something to write with (pen or pencil).

Randomly choice a first player who will draw the first card of the Event deck and will read it out aloud.

You are ready to begin!

COMPLETE RULES

SETUP

Place the **City Map** in the middle of the table; along with the other players, choose a name for your city! Take the **Event** and **Solution decks** for the Scenario you are about to play and place them on the table without shuffling them, make sure the card with the “1” is on top of the deck. The Solution deck must have the **gray side visible**; the cards in the Event deck must be face down.

Place the **Indicators Board** on the table and place the wooden cubes on the lower square of each of the four tracks (“Standard of Living”, “Attractiveness of the city”, “Sustainable transport” and “Pollution”). The “**Unhappy Population**” and “**CO2 Accumulation**” values can only go up, so when you gain a point in these tables, you will mark the first free square (from left to right) by **writing a sad face (for Unhappy Population) or a cross (for CO2) on it. If you mark all the squares in either table, you immediately lose the game!**

Each player should have something to write with (pen or pencil).

Each player chooses a **Department sheet** (or they can be handed out randomly) and reads it carefully. If there are fewer than 6 players, the unassigned Departments will be placed on the table where everyone can reach them, folded so that only the right-hand side is visible; this way, the Building options are visible to all players.

Randomly choose a **first player** and give to her/him the Event card I-11 from Scenario 1 as a **First Player Token**.

ROUND SEQUENCE

Each round represents a **year of the City life**. At each round, follow these steps in order.

Important: the first round starts at step 4 (Events).

1. Adjust the indicators

The owner of First player Token passes it **to the player on her/him left**.

Read the Indicators Board from top to bottom and from left to right, then adjust the indicator values based on the position of the other indicators. The indicators cannot go over the highest value or below the lowest value of the tracks.

In other words, you have to first check the Unhappy Population and modify the Standard of living indicator accordingly (example: if you have 2 Unhappy people, your Standard of living will decrease by 1). Next, check the Standard of living and modify the Attractiveness of the city accordingly. Then, check Sustainable transport and Pollution and increase the CO2 Accumulation accordingly. Finally, check the CO2 Accumulation and modify the Standard of living again.

2. People increasing

Check the Attractiveness of the city value and increase your population accordingly: you have to **draw a man on a free Housing space on the Map** (e.g. on Residential Houses). If you don't have a free space, you have to **mark a square on the Unhappy Population table**.

The Unhappy Population, marked in this way, represents all the homeless and commuters that come to your city every day.

3. Budget allocation

Check the Standard of living value and take the **amount of Budget** written on the left side of the track: this budget (represented by **Coins**: each Coin worth 1 million Bucks) must be **equally shared amongst all the players**. Round down the amount: all the exceeding budget is set aside and will be added to the total budget for the next year.

4. Events

If any card or cards are **in play from a previous round** and require to be checked "on the Event phase", check this now.

After that, the new first player **draws the top card from the Event deck and reads it aloud**. Some event cards may require drawing another card, so continue drawing until a card says to stop.

All the cards marked as “**REQUEST**” **stay on the table until resolved**. You have to discard all the other Event cards after reading them, unless otherwise indicated.

5. Solutions

Draw the top **three cards from the Solutions deck** and place them on the table, together with the other unused Solution cards from previous rounds. The cards must be placed **with the gray side up**: don't look at the other side for now!

6. Discussion

The first player will be also in charge of **managing the clock**: you have a maximum of **five minutes** to discuss the policies you wish to adopt. You may make promises and deals, but none of them will be binding: you may promise and betray freely. **You may also give one or more of your Coins to another player** if you think it is a good idea for her or him to have a bigger budget. If all players agree, the discussion may be closed and concluded before the time runs out.

7. Investing

Starting from the first player, each player takes turns performing **one investment action**. At your turn, you have to place **one or more Coins on a single investment space**. There are investment spaces on Solution cards and on Department sheets, but the way to invest is the same for both.

Only you can invest on the Buildings on your Department sheet. If any Department is out of play because there are fewer than six players, all players may invest on those Buildings.

If the amount of Coins on an investment space is less than the requested amount (the number in the circle), leave the Coins on the investment space. **If you reach the requested amount, the solution card is fulfilled**: discard the Coins in the pool.

If the solution involves a Building, you have to **choose a free space on the City Map and draw that Building on it**.

Almost all the Buildings must be drawn on the big squares of the Map. Some kinds of Buildings require different spaces: Bus Stops must be drawn on little squares on the corners between big ones; Pedestrian Walks and Bike Lanes must be drawn on long spaces between big squares. When a card says to evaluate “distance” or “adjacency” between squares, only orthogonal connections must be considered: ignore diagonal adjacencies.

Then, **if you have invested the full amount on a Solution card**, it's time to flip it! **Reveal the white side** and discover the effects of the adopted solution. **Apply the effects on Indicators** and then discard the Solution card.

If you have invested on a Department sheet, apply the effects on Indicators in the same way. This investment space is now available again.

If, at your turn, you can't or don't want to invest coins, you must **pass**. Once you've passed, your round is over; **you keep all the unspent budget for the next round** (year).

When all players have passed, the round is over and a new round begins!

All the Coins on the unfulfilled investment spaces stay there and are not removed.

END OF THE GAME

The game ends with a **defeat** for all the players if the **Unhappy Population table**, the **CO2 table** or the **City Map** is full.

Otherwise, the Event cards of the Scenario will say when the game ends. **Each player counts the points that she or he has accumulated** with their own Department sheet. The player with the highest point value is the winner! In case of a tie, victory is shared.

WHO IS PARTICIPATING IN SUSTAIN?

Coordinator:



University of Macedonia (Greece)

<http://www.uom.gr>

Partners:



System Dynamics Italian Chapter (Italy)

<http://www.systemdynamics.it/>



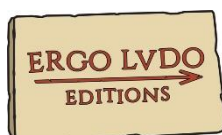
Centre for Research and Technology Hellas (Greece)

<https://www.certh.gr>



Centre for System Solutions (Poland)

<https://systemssolutions.org>



Ergo Ludo Editions (Italy)

<https://www.facebook.com/ergoludo.it>



Asociatia "Societatea pentru Consum Responsabil" (Romania)

<http://responsibleconsumption.info/>

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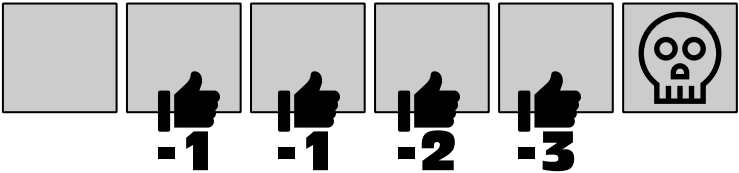


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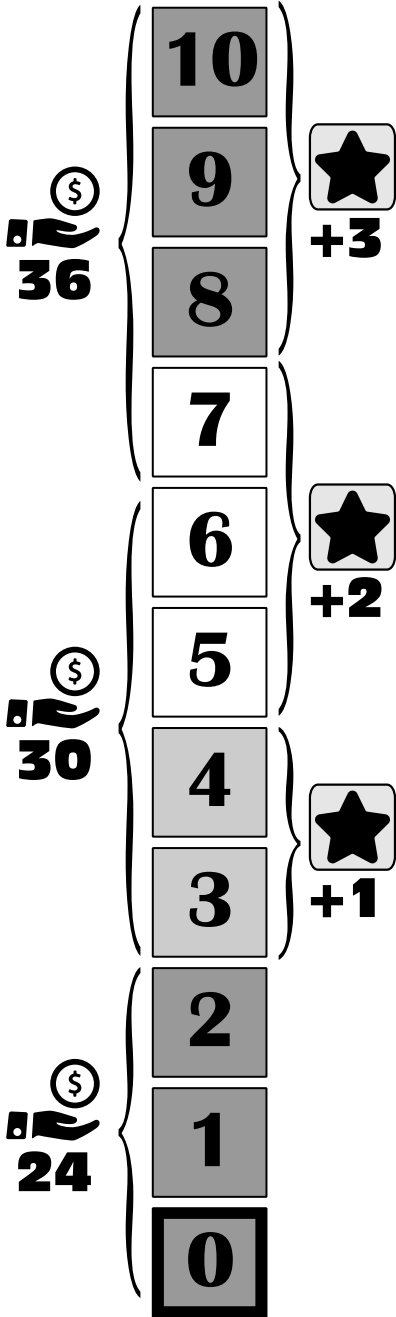
SUSTAIN

City of

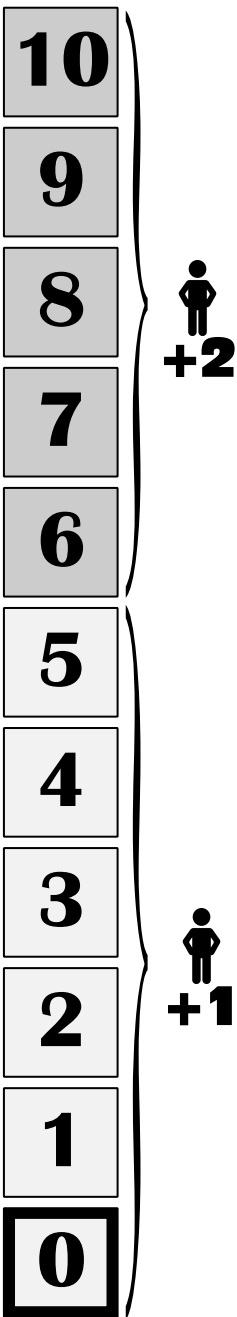
UNHAPPY POPULATION



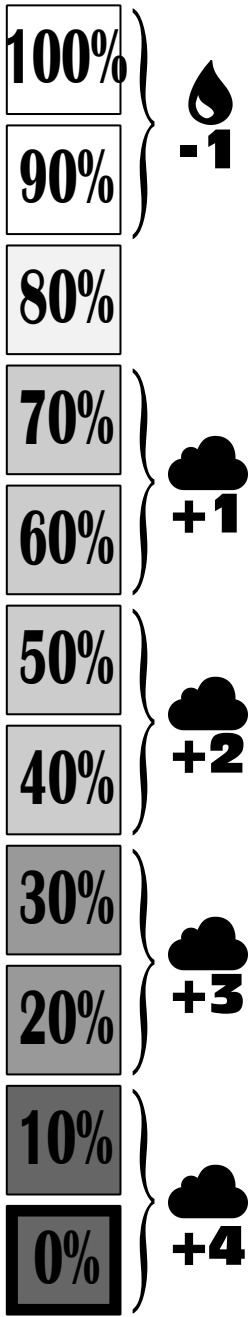
STANDARD OF LIVING



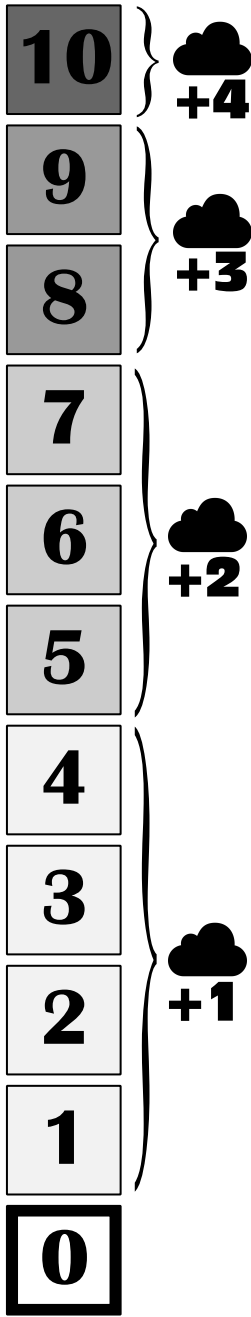
ATTRACTIVENESS OF THE CITY



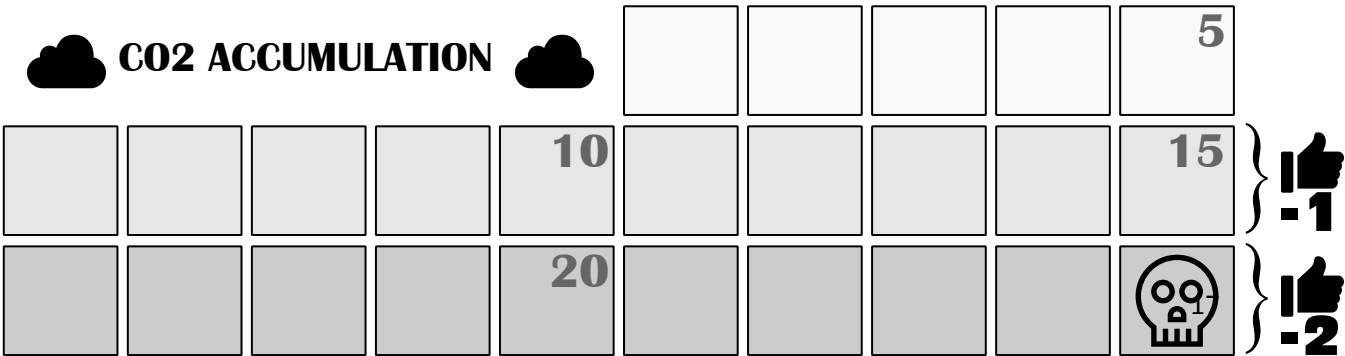
SUNSTAINABLE TRANSPORT



POLLUTION



CO2 ACCUMULATION



DEPARTMENT OF WELFARE

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  over 5

PERSONAL BUILDINGS

CLINIC

3

➤

+

+1 
+1 

HOSPITAL

7

➤

H

+2 
-20% 
+1 

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

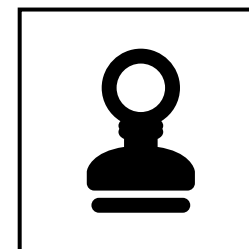
At the end of the game, you score:

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

1  for each Public Office

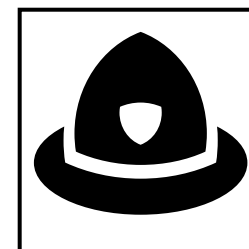
PERSONAL BUILDINGS

PUBLIC OFFICE



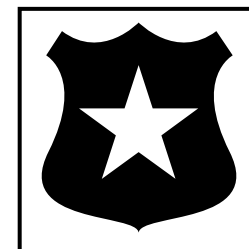
-1 
-10% 

FIRE STATION



+1  +1 

POLICE STATION



+1  +1 

DEPARTMENT OF TRANSPORT

Congratulations!

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

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:

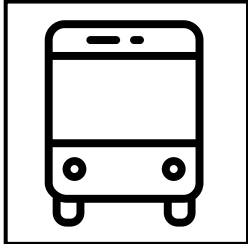
2  for each Bus station

1  for each non-residential building (big squares on the map) diagonally adjacent to at least a Bus stop

-1  for each point of 

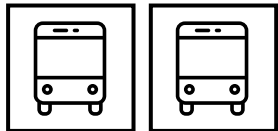
PERSONAL BUILDINGS

BUS STATION

+10% 
+1 

BUS STOP (x2)

+10% 
+1 

Place the Bus stops in the little squares at the crossroads.

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

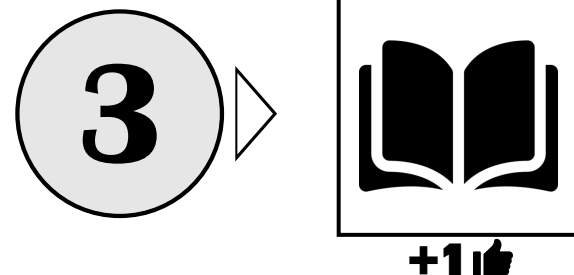
At the end of the game, you score:

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

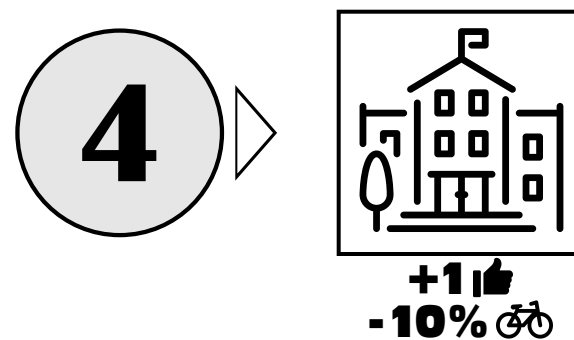
1  for each School

PERSONAL BUILDINGS

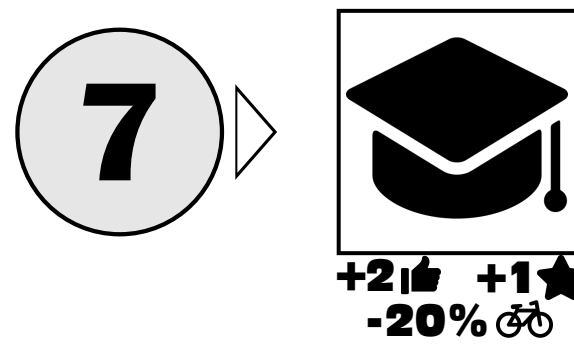
LIBRARY



SCHOOL



UNIVERSITY



DEPARTMENT OF ENVIRONMENT

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 

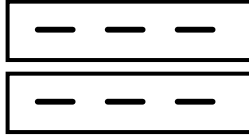
PERSONAL BUILDINGS

PARK



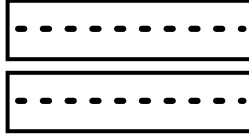

+1 
-1 

PEDESTRIAN WALK (2x)

+1 
+10% 

BIKE LANE (2x)

-1 
+10% 

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!

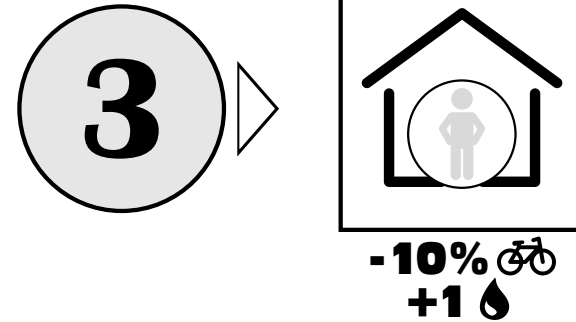
SCORE

At the end of the game, you score:

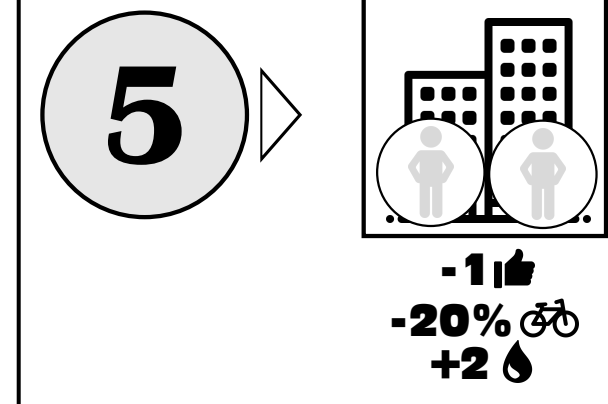
- 1  for each Residential building (House or Condo) adjacent to a Bus Stop, a Bike Lane or a Pedestrian Walk
- 2  for each FREE man space () on the map

PERSONAL BUILDINGS

RESIDENTIAL HOUSE



RESIDENTIAL CONDO



Welcome to our city! <i>Read me aloud!</i> 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! I - 1	How to begin? <i>Read me aloud!</i> 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! I - 2	A new town is born <i>Read me aloud!</i> 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 Residential 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 placed their buildings, next person draws another Event card! I - 3
The Indicators <i>Read me aloud!</i> 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! I - 4	CO2 is increasing! <i>Read me aloud!</i> 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! I - 5	The Population <i>Read me aloud!</i> 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! I - 6
Your budget! <i>Read me aloud!</i> 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: all the exceeding budget is set aside and will be added to the total budget of the next year). Ask if everyone understood. Everyone take their budget from the bank. Next person draws another Event card! I - 7	What's going on? <i>Read me aloud!</i> 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! I - 8	Garbage everywhere! <i>REQUEST</i> 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! I - 9

What are the solutions? <i>Read me aloud!</i> 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 5 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! I - 10	Quick Overview 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 5 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! I - 11	Have you solved the issue? <i>Read me aloud!</i> 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 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! I - 12
What a bad smell! <i>REQUEST</i> 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! I - 13	My son deserves to be smarter! <i>REQUEST</i> 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 Events for now! I - 14	What did you do about garbage? <i>Read me aloud!</i> If an Incinerator has been constructed: -1 🍌, -1 ★ If recycling policies have been introduced: -2 💧 In both cases: discard the "What a bad smell!" request card. If neither of those solutions has been adopted: get a 😊, +2 💧, this card stays in play and will be checked again at the beginning of the next Event phase! Stop drawing Events for now! I - 15
Class assignment <i>Read me aloud!</i> 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! I - 16	Where can I park? <i>REQUEST</i> There are a lot of vehicles that circulate inside the city, and finding a parking place is very difficult. Stop drawing Events for now! I - 17	CO2 is increasing! <i>Read me aloud!</i> 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! I - 18

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 sheet and scores 🏆 accordingly.

Next person draws another Event card!

1 - 19

End of scenario

Read me aloud!

The first scenario ends here.

If you have won, check your 🏆:

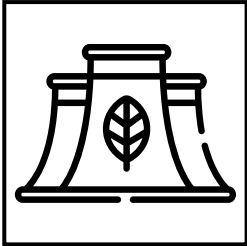
whoever have the most is the winner!

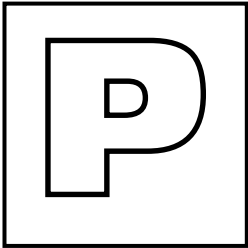
Now it's time to have a short debriefing about your work.

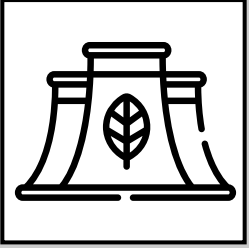
Try to discuss about the game you just played.

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

1 - 20

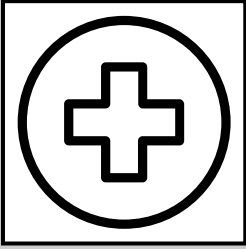
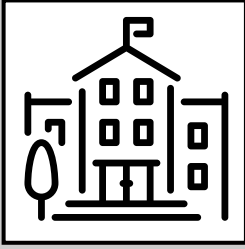
Build a new Landfill Area    -1 +2 I - 1	Awareness campaign on how to live healthy  +1 I - 2	Designate a special bus lane   +10% +1 I - 3
Introduction of recycling policies   -2 +1 I - 4	City electric vehicle sharing programme   +20% -1 I - 5	Build a new Waste Incinerator    -1 +3 I - 6
Establish tax breaks for young entrepreneurs  +1 I - 7	Establish a municipal bicycle sharing system    +20% +1 -1 I - 8	Establish a new playground for children     +1 +X +1 X = number of adjacent Residential Buildings I - 9

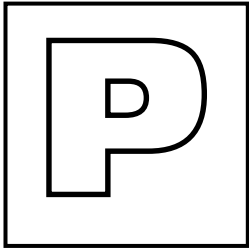
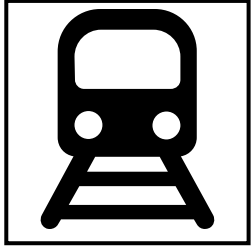
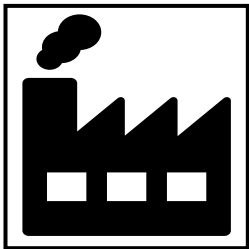
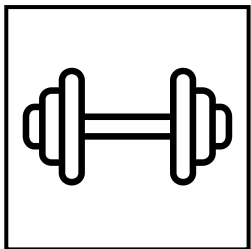
Build a new Parking Area     +1 +2 -10% I - 10	Training on Road Safety and Traffic Rules   +10% +2 I - 11	Establish a film festival  +2 I - 12
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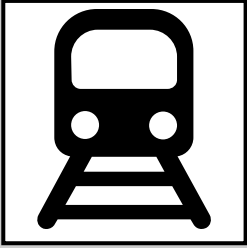
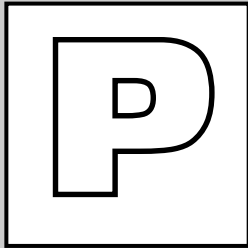
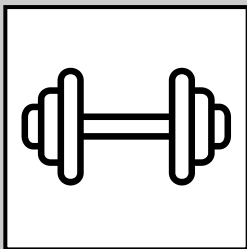
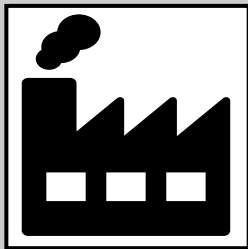
3 Designate a special bus lane This special Lane may contribute to solve traffic congestion. I - 3	2 Awareness campaign on how to live healthy  may be affected by this solution. I - 2	Build a new Landfill Area 5  You have to choose wisely where to place this Area. I - 1
Build a new Waste Incinerator 7  The Incinerator could also contribute to energy production. I - 6	5 City electric vehicle sharing programme Adopting this solution will make your city more attractive! I - 5	6 Introduction of recycling policies Will this expensive solution be enough to satisfy the requests? I - 4
Establish a new playground for children 3  All families will come here from all neighborhoods! I - 9	5 Establish a municipal bicycle sharing system  will surely be increased! I - 8	3 Establish tax breaks for young entrepreneurs This is a policy to attract new funds! I - 7

5 Establish a film festival Our city needs to be known for cultural happenings! I - 12	2 Training on Road Safety and Traffic Rules Sustainability starts from education of the new generations! I - 11	4 P With many cars crowding the roads, you need to find a way to accomodate them easily. I - 10
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Welcome back! <i>Read me aloud!</i> Welcome to the second scenario of SUSTAIN! You should already know all the rules. If not, please play the Scenario 1 or read the rulebook carefully. In this scenario, you will have to try to not let the city grow too quickly. Follow the Setup rules. Then, next person draws another Event card! II - 1	The town takes shape <i>Read me aloud!</i> According to their departments, players draw buildings on the map: - Dept. of Infrastructure draws 1 Residential House. - Dept. of Public Service draws 1 Public 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! II - 2	The new Shopping center <i>Read me aloud!</i> A big new Shopping center has been built in the city! Many people will be attracted by the new job and leisure opportunities! You draw it on the map: After drawing the Shopping center, next person draws another Event card! II - 3
The indicators <i>Read me aloud!</i> For this scenario, set: - Standard of Living (👍) to 5; - Attractiveness of the city (★) to 6; - Sustainable transport (🚲) to 0%; - Pollution (💧) to 1. Increase the Population now, then assign the Budget for the first year. Next person draws another Event card! II - 4	They will come soon! <i>REQUEST</i> A large number of people is supposed to come to the city soon. In order to accomodate the new people, you need to make sure all the infrastructures and services are ready. Stop drawing Events for now! II - 5	The City is growing too fast! <i>Read me aloud!</i> You need to have a minimum amount of public services available. For each 3 🧑 on the map (round down) you must have: - two Bus stops, - one School or University - one Clinic or Hospital - one Fire station or Police station If you don't meet the requirement, add 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! II - 6
I don't feel safe! <i>REQUEST</i> With the increasing population, you notice that many people are complaining about theft and pickpockets. You need to fight these crimes. Next person draws another Event card! II - 7	An apple a day <i>REQUEST</i> There don't seem to be enough for emergencies: the citizens demand a strategic plan for healthcare. Stop drawing Events for now! II - 8	To serve and protect <i>Read me aloud!</i> Discard the "I don't feel safe!" Request card. Crime is increasing: if you have at least one Residential building at a distance greater than 2 squares from a Police Station: get a 😞 -2 ★ Next person draws another Event card! II - 9

Find private investors for health care 2  If you can't afford the expenses for public care, maybe finding private investors could be the solution. II - 3	Find private investors for education 3  If you can't afford the expenses for public education, maybe finding private investors could be the solution. II - 2	5 Establish a shuttle service to the Shopping center People will certainly appreciate this service! II - 1
3 Class training in healthy living If you know about healthy living and fitness, your life will improve. II - 6	4 Establish incentives for citizens to purchase firearms People can defend by themselves! II - 5	3 Run a public self-defense course People can defend by themselves! II - 4
5 City electric vehicle sharing programme  will surely be increased! II - 9	5 Establish a pedestrian zone in the City center  will surely be increased, but people may be not too happy about this decision... II - 8	5 Establish a plan for increased use of public transit  will surely be increased! II - 7

Build a new Parking Area   +1  +2  -10% II - 10	Host a "Sustain Pumpkins" concert (famous rock band)  -1  +2  +2  +4 II - 11	Build a Train station   +2  -1  +10% II - 12
Build a Manufacturing Plant   +1  -1  +2  +6 II - 13	Build electric car charging columns  +1  +10% II - 14	Build a new Sports center   +2 II - 15

Build a Train station 6 ➤  A train station is a fundamental improvement for a modern city. II - 12	6 Host a "Sustain Pumpkins" concert (famous rock band) The fame of the city will receive a great boost with this event! II - 11	Build a new Parking Area 4 ➤  With many cars crowding the roads, you need to have a way to easily accomodate them. II - 10
Build a new Sports center 3 ➤  <i>Mens sana in corpore sano!</i> II - 15	5 Build electric car charging columns Electric car owners will appreciate this solution very much. II - 14	Build a Manufacturing Plant 8 ➤  This will create more jobs, but it will also impact the enviroment. II - 13

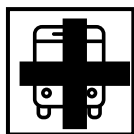
Welcome back! <i>Read me aloud!</i> Welcome to the third scenario of SUSTAIN! You should already know all the rules. In this scenario, you will have to face the fact that the roads of your City will have much more traffic. Follow the Setup rules. Then, next person draws another Event card! III - 1	The town takes shape <i>Read me aloud!</i> According to their departments, players draw buildings on the map: - Dept. of Infrastructure draws 3 Residential Houses <i>on the map's border</i>. - Dept. of Public Service draws 2 Public Offices <i>not on the map's border</i>. - Dept. of Transport draws a couple of Bus Stops. - Dept. of Culture draws a School. If any Departments are not playing, random players take their roles. When each player has drawn their buildings, next person draws another Event card! III - 2	The indicators <i>Read me aloud!</i> For this scenario, set: - Standard of Living (👍) to 1; - Attractiveness of the city (★) to 0; - Sustainable transport (🚲) to 10%; - Pollution (💧) to 4. Increase the Population now, then assign the Budget for the first year. Next person draws another Event card! III - 3
Services in the City center! <i>Read me aloud!</i> Services are far from Residential buildings, so people must travel a lot. Add a 😞 if there is at least one Residential building that is not adjacent to an Office or to a Bus stop. This card stays in play and will be checked again at the beginning of the next Event phase. Next person draws another Event card! III - 4	The bus is running late! <i>REQUEST</i> People are complaining about the inefficiency of the Bus lines. They notice a large delay in scheduled times, crowded vehicles and very long transit times because of the high traffic. Stop drawing Events for now! III - 5	How about Bus lines? <i>Read me aloud!</i> If a Bus Station has been built, the bus network increases its services, but a great number of new commuters comes to the City: Immediately add a 🚶 and discard "The bus is running late!" Request. Otherwise, people will be upset: add 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! III - 6
City Slickers <i>REQUEST</i> The urban jungle is too noisy and dirty for the citizens! An angry mob protests under the City Hall insisting of having more green areas near the residences. Next person draws another Event card! III - 7	Corruption! <i>Read me aloud!</i> It seems that a large amount of public funds that was allocated for the Underground network has been invested in a non-transparent way. Someone is making money illegally from the Metro building sites! Discard half of the Coins (round down) on the "Metro system" card. If a Police Station has been built, discard only 1/4 of the Coins. This card stays in play and will be checked again at the beginning of the next Event phase. Stop drawing Events for now! III - 8	Parks and Recreations <i>Read me aloud!</i> It's time to check if you are correctly investing in green areas! For each Residential building adjacent to a Park, +1 👍. Then, for each Residential building <i>not</i> adjacent to a Park, -1 👍. If no Park is present in the City, add a 😞. Discard the "City Slickers" request. Next person draws another Event card! III - 9

I can't breathe! <i>Read me aloud!</i> The monitoring center says that the PM10 level in the City is very high! If 🚲 is 40% or less and 🔥 is 4 or more: -2 👍. If 👍 is 0, add a 😞. This card stays in play and will be checked again at the beginning of the next Event phase. Stop drawing Events for now! III - 10	I'm stuck in traffic! <i>REQUEST</i> Citizens are complaining about all the time they spend stuck in traffic. They demand new roads in order to decrease commuting time. Stop drawing Events for now! III - 11	The perfect traffic jam <i>Read me aloud!</i> If you have enacted these cards: - Increase the number of Buses: +1 👍 - Build a Highway: +1 👍 - Build Roundabouts: +1 👍 - none of these: add a 😞. Discard "I'm stuck in traffic!" Request. Next person draws another Event card! III - 12
It's a small world after all! <i>REQUEST</i> The world is so small... this is the reason why we can't find a parking place! A lot of traffic is created by cars that are searching for a parking spot! Stop drawing Events for now! III - 13	Another one bites to park <i>Read me aloud!</i> If a Parking area has been built on a square on the border of the map: -1 👍 +1 ★ -1 🔥 If a Parking area has been built on a square not on the border of the map: +1 👍 -1 ★ +1 🔥 If a Parking area has not been built, add a 😞. Discard the "It's a small world after all!" Request. Next person draws another Event card! III - 14	And finally... <i>Read me aloud!</i> If 👍 is 5 or more, ★ is 5 or more and 🔥 is 5 or less, congratulations! You win! Count the 🏆 according to your Department sheet: whoever has the most, is the winner! Otherwise, sorry: the game is lost! Now it's time for a short debriefing: try to discuss about the game you just played. III - 15

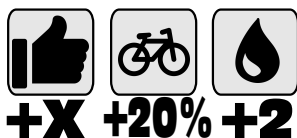
Establish a shuttle service to the City center   +10% -1 III - 1	Urban toll for private cars At the beginning of each year, before the "Adjust the Indicators" step, the first player chooses how high the toll will be. Add this value to the total budget.   -1   -1  -1  +10%   -2  -2  +20%  (This card stays in play) III - 2	Metro system     +3 +2 +40% -1 Discard the "Services in the City center!" request card. III - 3
Establish a pedestrian zone in the City center    +1 +30% -1 III - 4	Run a gardening course  +1 III - 5	Campaign on telecommuting    +1 +10% -1 III - 6
Electric car incentives   +1 -1 III - 7	Replace buses with electric buses   +1 -X X = half the number of Bus Stops on the map From now on, all new Bus Stops will be served by electric Buses: they will not increase . Place this card near the Dept. of Transport sheet in order to remember that. III - 8	Increase traffic controls    +X -1 -1 X = number of Police station on the map III - 9

40 Metro system A very big project: build a Metro network. You'll have to spend a lot of money, but your name will shine in the Olympus of the city administrators. III - 3	3 Establish an urban toll for private cars This solution will surely decrease traffic in town and will give a boost to the yearly budget. But will people be happy about this? III - 2	5 Establish a shuttle service to the City center With a shuttle service, the traffic in the center should decrease. III - 1
4 Campaign on telecommuting If people can work from home, the number of commuters will decrease greatly. III - 6	2 Run a gardening course Everybody wants to eat their own homegrown tomatoes! III - 5	5 Establish a pedestrian zone in the City center  will surely be increased, but people may not to be too happy about this decision... III - 4
3 Increase traffic controls If we run more controls, the safety on the roads will be higher! III - 9	X Replace buses with electric buses X= number of Bus stops on the map Replacing all the Buses with electric ones may be expensive, but the  will surely decrease. III - 8	5 Electric car incentives If people buy electric cars, the impact on traffic will maybe be the same, but the PM10 level will probably decrease. III - 7

Increase the number of Buses



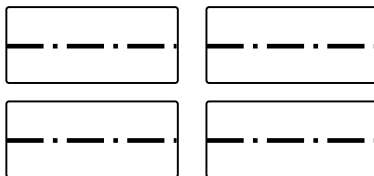
X= number of enhanced Bus stops.



+X +20% +2

III - 10

Build a Highway



+1 +1 -10% +1

III - 11

Build two Roundabouts



+1

III - 12

Smart mobility programme

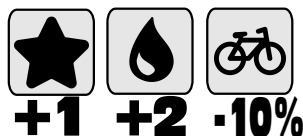
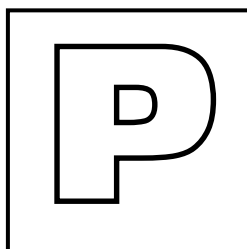


-1 +2 +10% -1

Many people are concerned about cameras on the streets and possible violations of their privacy: add a ☹️.

III - 13

Allow private investors to build a Parking area



+1 +2 -10%

III - 14

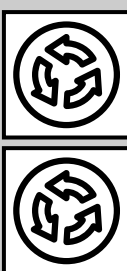
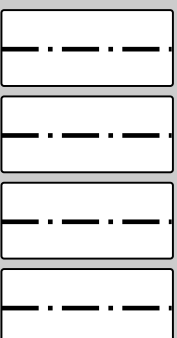
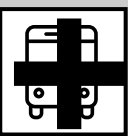
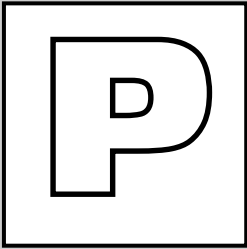
Call an audit for management of funds



-2

The investigation also finds some corruption in your administration: each Department discards half of their current Coins (round down). Discard the "Corruption!" card.

III - 15

Build two Roundabouts 4   Replacing traffic lights with roundabouts is a good choice for improving traffic flow. III - 12	Build a Highway 6   (draw 4 contiguous stretches of Highway) A long highway will allow cars to move faster. III - 11	X Increase the number of Buses  X= number of Bus stops on the map that you want to enhance. When you choose to stop investing, update X Bus stops, then flip this card. More buses, less waiting time! III - 10
5 Call an audit for management of funds An external audit will investigate corruption in your City. III - 15	2   Allow private investors to build a Parking area With all these cars on the roads, to building a Parking area is a good investment for both private investors and administration. III - 14	5 Smart mobility programme By placing sensors at main roads and cameras at every street corner, it will be easier to understand traffic patterns and provide traffic predictions. "Internet of things" is here! III - 13

Welcome back!

Read me aloud!

Welcome to the fourth scenario of SUSTAIN!

You should already know all the rules. In this scenario, you will have to face a lot of water-related issues. Enjoy!

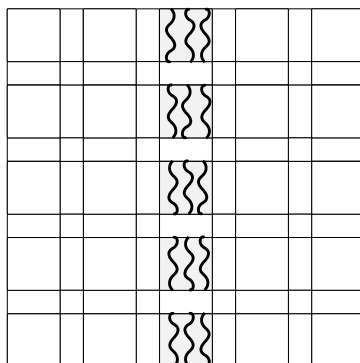
Follow the Setup rules. Then, next person draws another Event card!

IV - 1

Where the river flows

Read me aloud!

There is a big river in your city!
Draw it according to the following:



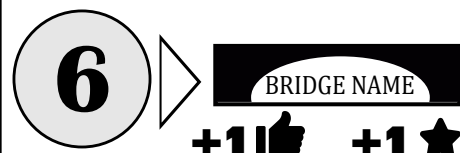
Next person draws another Event card!

IV - 2

Build a Bridge

Read me aloud!

From now on, everyone can build a Bridge across the river. Whoever does, also chooses the Bridge's name! You may build up to four Bridges on the map. In this scenario, you cannot build Bike Lanes or Pedestrian Routes across the river.



This card stays in play.

Next person draws another Event card!

IV - 3

The town takes shape

Read me aloud!

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

- Dept. of Infrastructure draws 2 Residential Houses *on different sides of the river.*
 - Dept. of Culture draws a Library.
 - Dept. of Transport draws a Bridge.
 - Dept. of Welfare draws a Clinic.
- If any Departments are not playing, random players take their roles.

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

IV - 4

The indicators

Read me aloud!

For this scenario, set:

- Standard of Living (👍) to 3;
- Attractiveness of the city (★) to 1;
- Sustainable transport (🚲) to 0%;
- Pollution (💧) to 3.

Increase the Population now, then assign the Budget for the first year.

Next person draws another Event card!

IV - 5

Bridges over troubled water

Read me aloud!

The river splits the city in half. Count the buildings (big squares) on the half with **fewer** buildings: **for each two buildings you will need a Bridge.**

For each missing Bridge you get:

-1 👍 -1 ★ +1 💧

This card stays in play and will be checked again at the beginning of the next Event phase.

Next person draws another Event card!

IV - 6

I want to drink water!

REQUEST

People are complaining about the tap water in their home: it tastes horrible and an analysis from an independent research team reveals that the water from the river contains a high percentage of mercury and heavy metals.

Stop drawing Events for now!

IV - 7

Still waters run deep

Read me aloud!

If a Water purification facility has been built: -2 💧.

Otherwise, if "Campaign against plastic water bottles" has been enacted and there is at least one Residential building that is more than three spaces away from a Clinic or a Hospital, get a 😞.

Discard the "I want to drink water!" request card.

Next person draws another Event card!

IV - 8

Stairway to haven

Read me aloud!

If River Port has been built: +1 💧 and add immediately a 🧑.

This card stays in play and will be checked again at the beginning of each next Event Phase.

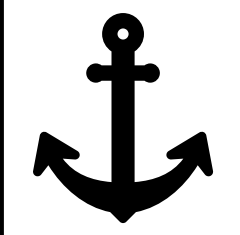
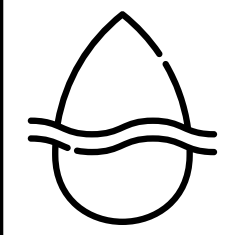
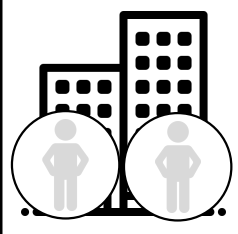
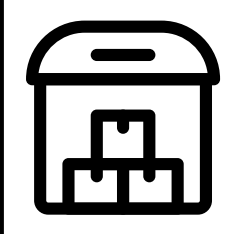
Next person draws another Event card!

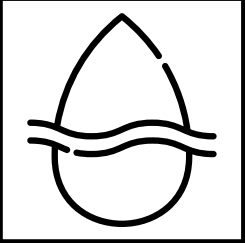
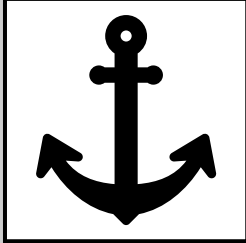
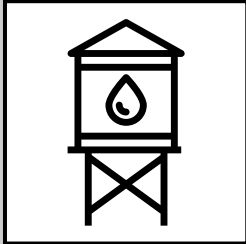
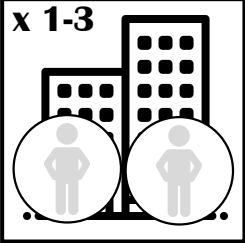
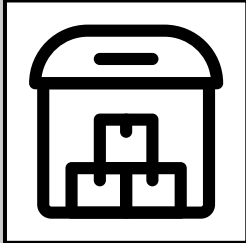
IV - 9

Where is my water? <i>REQUEST</i> The city is growing quickly and so is the need for water. Citizens demand clean water for cooking, washing and irrigation. Next person draws another Event card! IV - 10	City explosion <i>REQUEST</i> An angry crowd gathers at the City hall asking for guaranteed essential services (school, administration and security), based on the growth of the City. Stop drawing Events for now! IV - 11	Your water is here! <i>Read me aloud!</i> If no Water Tanks have been built, take an Unhappy population. Otherwise, you need one token of stored water for every 4 people in the City. For each missing token, -1 🍷. Discard the "Where is my water?" card. Stop drawing Events for now! IV - 12
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The city is ready! <i>Read me aloud!</i> You should have the following buildings: - one School or University - one Police station - one Fire station - one Public Office - two Bus Stops For any of these that you don't have, get -1 🍷. If you don't have 3 or more of these, you also get 😞. Discard the "City explosion" Request. Next person draws another Event card! IV - 13	We are in bad waters <i>REQUEST</i> The weather forecast says that we're going to have a very hot Summer, and water might become scarce. You have to provide water reserves and establish an emergency plan. Stop drawing Events for now! IV - 14	The hottest Summer ever! <i>Read me aloud!</i> If no Water tanks have been built, get 😞😞. Otherwise, you need one token of stored water for every 2 people in the City. If "Campaign for water awareness" has been enacted, add two water tokens to the tanks. For each missing token, -1 🍷. Discard the "We are in bad waters" card. Next person draws another Event card! IV - 15
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0  1 2  3 4  5 6  7 8  9 Quickly decide together if you want to spend a total of 6 Coins to repair the square. Choose if you want to repair the square, pay the Coins, then next person draws another Event card! IV - 16	After the rain Read me aloud! If you have repaired the square, +2 . If you haven't repaired the square, mark it with a cross: the building is destroyed! Apply the following effects according to the destroyed building type: - no building: -1  - Residential: add  - Others: -3  If there is a Fire station within two squares from the flooded square, firemen become heroes and grant you +2 . Stop drawing Events for now! IV - 17	Election day! Read me aloud! It's time to check your performance! If  is 4 or more and  is 4 or more, congratulations: you win! Count the  according to your Department sheets: whoever has the most, is the winner! Otherwise, sorry: the game is lost! Now it's time for a short debriefing: try to discuss about the game you just played. IV - 18
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Campaign against plastic water bottles  -1 IV - 1	River Port      +1 +2 +2 +2 If the River port is not drawn adjacent to the river, add an extra +1 . IV - 2	Water purification facility      +1 +1 -1 +2 IV - 3
Sell land for private residential areas     -1 -20% +2 each (1-3) Gain immediately 4 Coins for each Residential condo built. Dept. of Public Service (or random player) decides how to distribute them amongst players. IV - 4	Water tanks  During the Budget Phase, the First player chooses how many Coins from the total budget to put on this card: they represent stored water. At the end of the round, discard all the Coins from this card. This card stays in play. IV - 5	Water purification facility maintenance   +1 -3 IV - 6
School campaign for nutrition education   +X +1 X= number of Schools and Universities on the map. IV - 7	River port warehouses    +2 +1 If River port warehouses are not placed adjacent to the River port, add an extra +1 . IV - 8	Campaign on water awareness   +1 -1 IV - 9

Water purification facility 8  This could be a large industrial plant that will give you the possibility to obtain drinking water directly from the river. IV - 3	River Port 7  This could be a great opportunity for the development of the city: new jobs, new investors, a new economy. IV - 2	5 Campaign against plastic water bottles By teaching people to use reusable containers, there will be a lower impact on both waste and pollution. IV - 1
5 Water purification facility maintenance <i>(You can enact this Solution only if the "Water purification facility" has already been enacted.)</i> Frequent maintenance is required in order for the water treatment plants to operate correctly. IV - 6	Water tanks 4  In order to prevent water shortage, it might be a good idea to build tanks. IV - 5	Sell land for private residential areas 0  The demand for housing is growing, so selling land to private investors for a new residential area might ensure immediate income. Choose how many condos from 1 to 3, draw them on the map and only then, flip this card. IV - 4
3 Campaign on water awareness Informing people about the best practices for not wasting water will surely increase their awareness! IV - 9	River port warehouses 4  <i>(You can enact this Solution only if the "River Port" has been already enacted.)</i> Adding a Warehouse facility to the Port might be a boost for commerce. IV - 8	4 School campaign for nutrition education Schools are the first choice for educating new generations. With a good school network, such a campaign could be very effective. IV - 7

Sell land for a private shopping center     -1 +2 +2 Gain immediately 6 Coins. The first player decides how to distribute them amongst players. IV - 10	Truck station     +2 +3 -10% If the Truck station has not been drawn adjacent to River port warehouses, add an extra +1 . IV - 11	Crisis management center  Prevent all the negative effects from Event cards. IV - 12
Electric car charging columns   +1 +10% IV - 13	Establish a municipal bicycle sharing system    +1 +20% -1 IV - 14	City electric vehicle sharing programme   +30% -1 IV - 15

Crisis management center 6  This is a facility that a modern city must provide in order to prevent emergency situations. IV - 12	Truck station 5  <i>(You can enact this Solution only if the "River port warehouses" has already been enacted.)</i> A land-based hub for river transport will certainly increase the use of the port. IV - 11	Sell land for a private shopping center 0  Commercial demand is growing, and selling land to private investors for them to build a shopping center might ensure immediate income and improve the economy of the City. IV - 10
5 City electric vehicle sharing programme  will surely be increased! IV - 15	5 Establish a municipal bicycle sharing system  will surely be increased! IV - 14	5 Electric car charging columns Electric car owners will appreciate this solution very much. IV - 13

Welcome back! <i>Read me aloud!</i> Welcome to the fifth scenario of SUSTAIN! You should already know all the rules: please refer to the Rulebook. In this scenario, you will have to face some energy issues. Enjoy! Follow the Setup rules. Then, next person draws another Event card! V - 1	Power Supply <i>Read me aloud!</i> In this scenario you will have to manage energy consumption in the city. Use this card as Power supply. Store 5 Energy tokens (use coins or other bits) on the space below, now and at the beginning of each following year. <i>This card stays in play.</i> Next person draws another Event card! V - 2	Build Streetlights <i>Read me aloud!</i> From now on, everyone can build a Streetlight in a small square on the map. <i>This card stays in play.</i> Next person draws another Event card! V - 3
The town takes shape <i>Read me aloud!</i> According to their departments, players draw buildings on the map: - Dept. of Infrastructure draws 2 Residential Buildings. - Dept. of Culture draws a School. - Dept. of Transport draws 2 Streetlights. - Dept. of Environment draws a Park. If any Departments are not playing, random players take their roles. When each player has drawn their buildings, next person draws another Event card! V - 4	The indicators <i>Read me aloud!</i> For this scenario, set: - Standard of Living (👍) to 1; - Attractiveness of the city (★) to 3; - Sustainable transport (🚲) to 0%; - Pollution (💧) to 1. Increase the Population now, then assign the Budget for the first year. Next person draws another Event card! V - 5	Energy requirements <i>Read me aloud!</i> <i>This card stays in play and will be checked each year (starting from the next) during the Budget allocation phase.</i> Count all the buildings that use power: Each House, Office, Library, School, Clinic, Streetlight, Police station, Fire station consumes 1 Energy. Each Condo, Hospital, University consumes 2 Energy. Remove that Energy from Power Supply. Lose 1 Coin from total budget for each point of Energy that you can't afford. Stop drawing Events for now! V - 6
City explosion <i>REQUEST</i> An angry crowd gathers at the City hall asking for guaranteed essential services (school, administration and security), based on the growth of the City. Next person draws another Event card! V - 7	What a bad smell! <i>REQUEST</i> 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! Stop drawing Events for now! V - 8	Because the night is dark and full of terrors <i>REQUEST</i> A citizen committee shows up saying that the common areas are not well lit: pedestrians could fall, bikers are not visible, green areas are too dangerous and children are at risk. Next person draws another Event card! V - 9

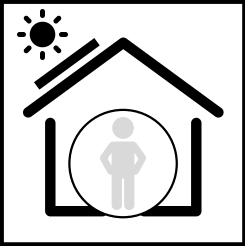
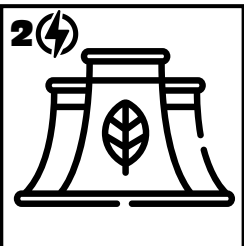
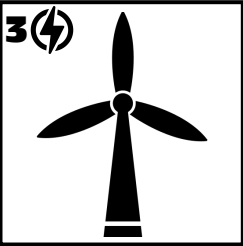
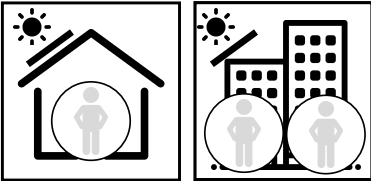
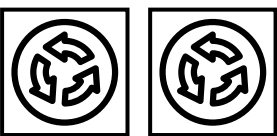
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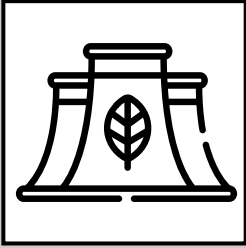
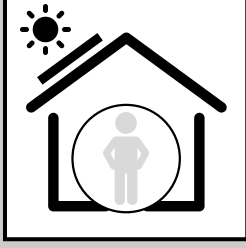
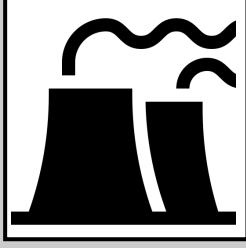
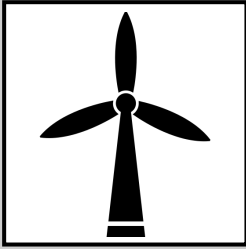
The city is ready! <i>Read me aloud!</i> You should have the following buildings: - one Clinic or Hospital - one Police station - one Fire station - one Public Office - two Bus Stops For any of these that you don't have, get -1 👍. If you don't have 3 or more of these, you also get 😞. Discard the "City explosion" Request. Stop drawing Events for now! V - 10	Bus is running late! <i>REQUEST</i> People are complaining about the inefficiency of the Bus lines. They notice a large delay in scheduled times, crowded vehicles and very long transit times because of the high traffic. Next person draws another Event card! V - 11	What did you do about garbage? <i>Read me aloud!</i> If an Incinerator has been constructed: -1 👍, -1 ★ If recycling policies have been introduced: -2💧 In both cases, discard the "What a bad smell!" request card. If neither of those solutions has been adopted: get a 😞, +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! V - 12
Energy crisis! <i>Read me aloud!</i> Due to international politics, the cost of energy skyrockets! From now on, at the beginning of each new year, the cost of an energy point that you can't afford becomes 3 Coins instead of 1. <i>This card stays in play.</i> Stop drawing Events for now! V - 13	One shaft of light that shows the way <i>Read me aloud!</i> For each Park, Pedestrian walk, Bike lane, School or Playground that does NOT have an adjacent Streetlight, get -1 👍. If these poorly lit locations are 3 or more, take an additional 😞. Discard the "Because the night is dark and full of terrors" Request card. Next person draws another Event card! V - 14	How about bus lines? <i>Read me aloud!</i> If a Bus Station has been built or at least two Bus Stops have been powered by the "Increase the number of Buses" card, the bus network increases his services, but a great number of new commuters comes to the City: immediately add a 🚶 and discard "Bus is running late!" Request. Otherwise, people will be upset: add a 😞, this card stays in play and will be checked again at the beginning of the next Event phase. Stop drawing Events for now! V - 15

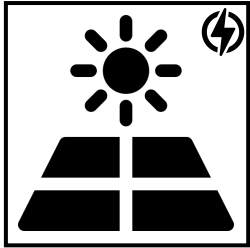
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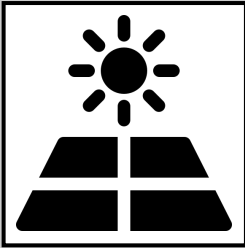
Election day! <i>Read me aloud!</i> It's time to check your performance! If 👍 is 3 or more and the Energy supply contains at least 1 token, congratulations: you win! Count the 🏆 according to your Department sheets: whoever has the most, is the winner! Otherwise, sorry: the game is lost! Now it's time for a short debriefing: try to discuss about the game you just played. V - 16
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> round 6

Build a Carbon Power Plant   -3  -3  +5  +3 The Carbon Power Plant also provides +6 ⚡ at the beginning of each year. V - 1	Build a Near-Zero House   -10%  +1 This kind of House does not consume Energy. V - 2	Build a new Waste Incinerator   -1  +3 The Waste Incinerator also provides +2 ⚡ at the beginning of each year. V - 3
Build Wind Turbines   +1  -1 The Wind Turbines also provide +3 ⚡ at the beginning of each year. V - 4	Introduction of recycling policies  +1  -2 V - 5	Convert Houses into Near-Zero Houses  Add solar panels to all Houses and Condos on the map: that way, they don't consume Energy. From now on, all newly built Houses and Condos will cost 1 Coin more than before and will adopt Near-Zero solution. <i>(remember that by placing this card near the Dept. of Infrastructure sheet).</i> V - 6
Replace Streetlights with Solar Streetlights  Add solar panels to all the Streetlights on the map: that way, they don't consume Energy. From now on, all the newly built Streetlights will have this solar panel improvement. V - 7	Build two Roundabouts   +1 V - 8	Anti-smog masks for all the citizens!  +1  +1 V - 9

Build a new Waste Incinerator 7 ➤  The Incinerator could also contribute to energy production. V - 3	Build a Near-Zero House 5 ➤  Near-Zero solutions provide self subsussistant housing facilities. V - 2	Build a Carbon Power Plant 15 ➤  This could be a great boost in energy production for the City. Carbon plant technology is straightforward and well-known. V - 1
? Convert Houses into Near-Zero Houses <i>(You can enact this Solution only if a "Near-Zero House" has already been built.)</i> The know-how on Near-Zero solutions will allow you to improve all the already existing houses. ? = 2 for each House or Condo on map V - 6	6 Introduction of recycling policies Will this expensive solution be enough to satisfy the demand? V - 5	Build Wind Turbines 8 ➤  These impressive structures can trasform wind into energy. V - 4
X Anti-smog masks for all the citizens! This is an inexpensive solution that could provide a remarkable improvement in the quality of life. X = half the number of  in the City (round down) V - 9	Build two Roundabouts 4 ➤   Replacing traffic lights with roundabouts is a good choice for improving traffic flow. V - 8	X Replace Streetlights with Solar Streetlights An enhancement that may reduce the City's energy consumption. X = 2 + number of Streetlights V - 7

Establish a new playground for children     +1 +X +1 X= number of adjacent Residential Buildings. V - 10	Designate a special bus lane   +1 +10% V - 11	Increase the number of Buses  X= number of enhanced Bus stops.    +X +20% +2 V - 12
Electric car charging columns   +1 +10% V - 13	Build Solar panel fields    +1 -1 Each Solar panel Field provides +1 ⚡ at the beginning of each year. V - 14	Sell land for a private shopping center     -1 +2 +2 Gain immediately 6 Coins. The first player decides how to distribute them amongst players. V - 15

X Increase the number of Buses  X= the number of Bus stops on the map that you want to enhance. When you choose to stop investing, update X Bus stops, then flip this card. More buses, less waiting time! V - 12	3 Designate a special bus lane This special Lane may help to reduce traffic congestion. V - 11	3   All families will come here from all neighborhoods! V - 10
0   Commercial demand is growing, and selling land to private investors for them to build a shopping center might ensure immediate income and improve the economy of the City. V - 15	3X   X = number of Fields on which you intend to build Solar Panels. When you choose to stop investing, draw X Solar Panel Fields, then flip this card. V - 14	5 Electric car charging columns Electric car owners will appreciate this solution very much. V - 13