

ECOSPHERE

User Manual

Team 2



A GAME BY TEAM 2

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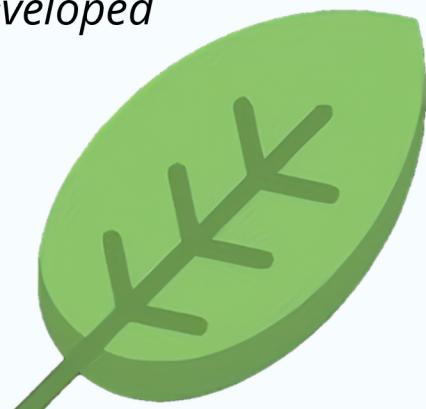
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- *look after when the game will be developed*

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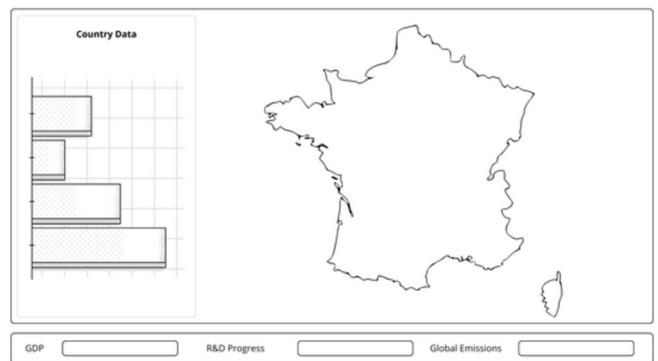
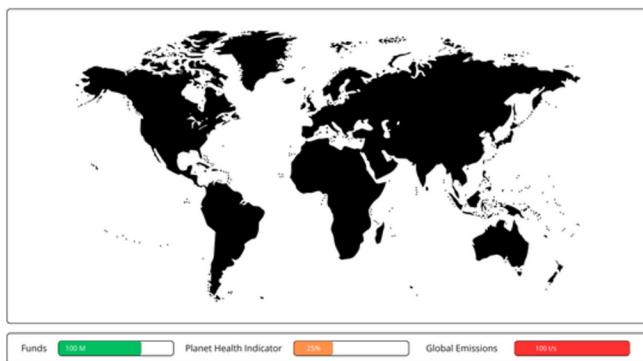
Introduction



Project Overview

For the second project of the year, we were asked to create a serious game about global warming, an important topic due to its current urgency.

To create this game, we use the Godot game engine, with the GDScript language (specific to Godot). Our game is in 2D, since it is a planisphere. The player will have to stop/slow down global warming with the current resources of the country when the player starts (to be clearer, a play who starts in 2024 will not have the same progression of a player who will begin in 2027).



Manuel Organization



This document is a reference to help you avoid diving into the game without information about a particular aspect of the game and how it works. However, if you are looking for technical things like how the code has written or the core of the game, please, refer you to the technical and functional specification respectively. Finally, all the marked words are indicated in the Glossary section at the end of the document.

All the parts of the document are indicated below.

Hardware Requirements: Explains what you need to play our game.

Game Software: Describes the step to follow to install the softwares (game and engine).

Informations about the Game: What is in our game, the main functions and how they work.

How to Play: Indicates the conditions to succeed in the game, to complete it.

Get Help: How to contact us if you have issues in the game and problems concerning the installation steps.

Glossary: Lists all the words that may be too difficult to understand in this document.

Hardware Requirements

Computer

The game you are about to install needed to be launch on a computer with this minimal system configuration (based on the Godot requirements):

- **Minimum:**

- Operating System: Windows 7 or +; macOS 10.12 or +; Ubuntu 14.04 or +
- Processor: From the 2000's processor
- RAM: 2GB
- Graphics card: Can support OpenGL 3.3

- **Recommended:**

- Operating System: Windows 10 or +; macOS 10.14 or +; Ubuntu 18.04 or +
- Processor: From Intel 7th (i5 recommended) and all the AMD Ryzen
- RAM: 8GB
- Graphics card: Can support Vulkan 1.0

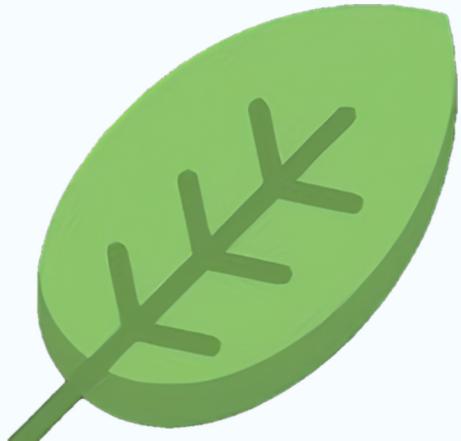
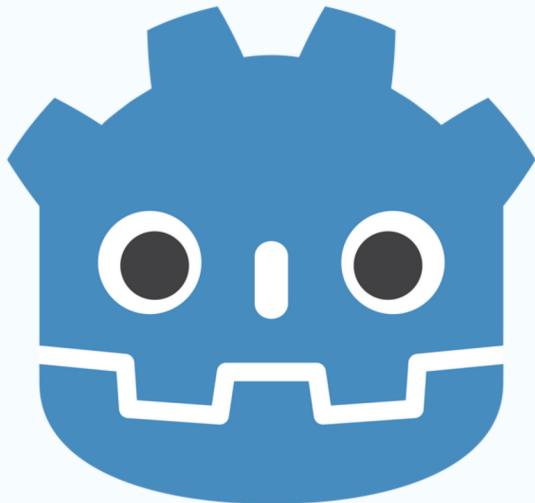


Software

To play our game, you need to have Godot on your computer.

If you have them, you can pass/ignore the 2 sections below and go [here](#) (*clickable link*).

For those who haven't them, please follow the steps on the page just below to setup the engine.





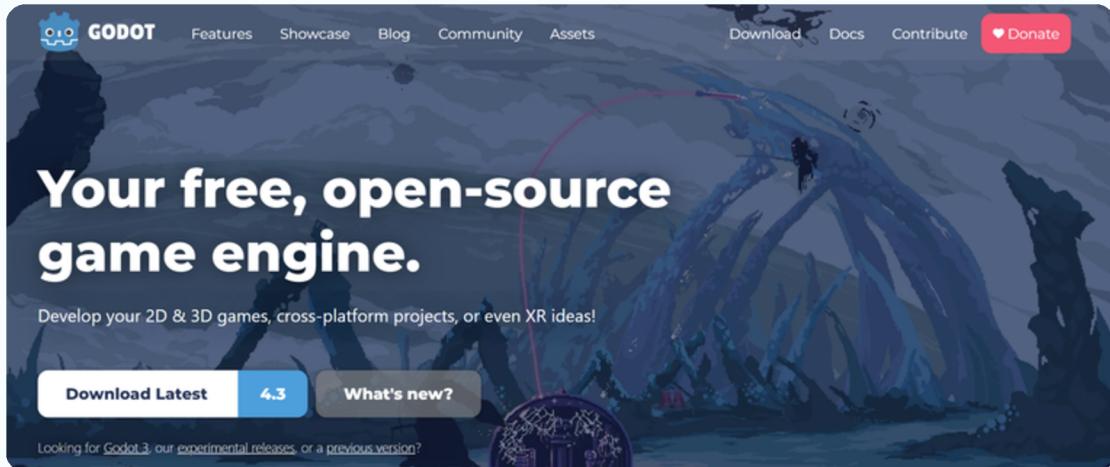
Game Software



Computer

We are going to install Godot firstly.

- 1) For this, please go to the [Godot website](#) and click on “Download Latest”



- 2) Once done, choose “Godot Engine”



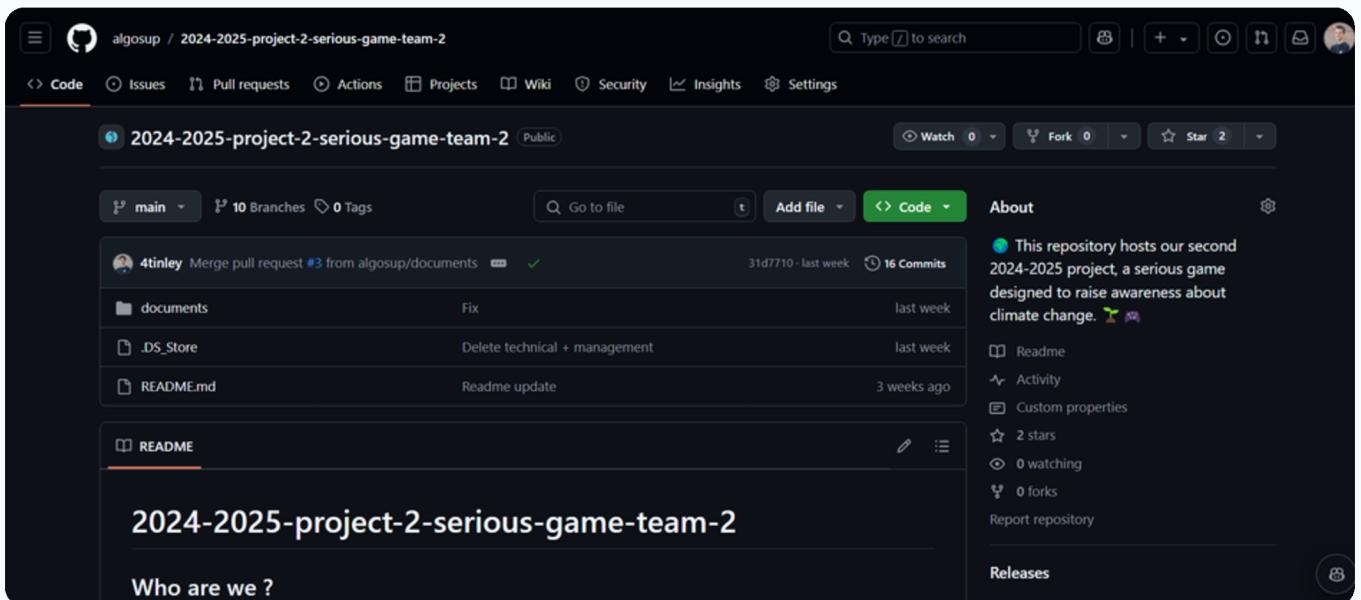
- 3) When the file is downloaded, un-zip it from your File Explorer in the folder of your choice.
- 4) The Godot engine is ready to be launched .

How to install our Game?



When Godot is successfully installed, good job, we have done the half of the work. Courage, you are not far away!

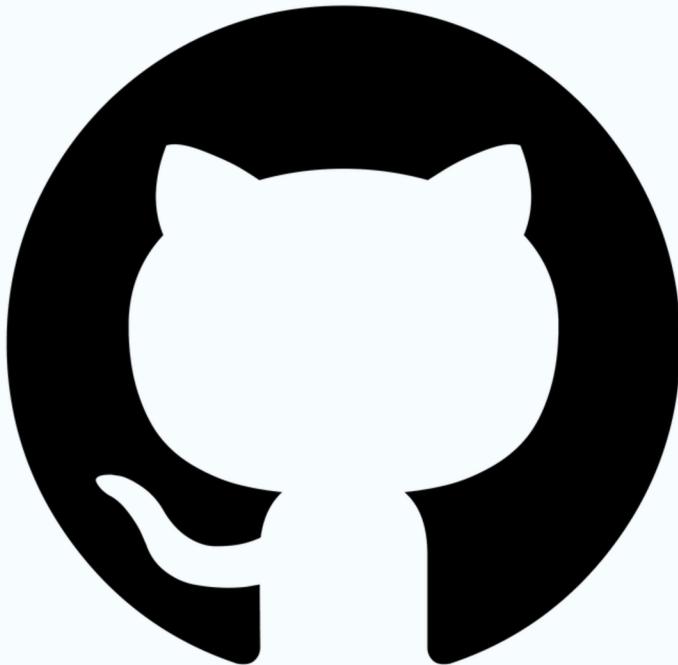
- 1) Visit our [GitHub repository](#)



The screenshot shows a GitHub repository page for '2024-2025-project-2-serious-game-team-2'. The repository is public and has 2 stars. It shows a main branch, 10 branches, and 0 tags. The README file is visible with the text '2024-2025-project-2-serious-game-team-2' and a link to 'Who are we ?'. The repository is described as hosting a second 2024-2025 project to raise awareness about climate change.

- 2) Click on *look for that later, don't know if we're going to publish a release or simply let the Zip folder*
- 3) Download the .exe file / Zip package
- 4) Unzip the folder and execute the .exe file to launch our game.

Good job, you can now play our game 🎉.



Informations about the Game

Main Menu

Our main menu is displayed like this, with 3 possibilities:



- The **PLAY** button which launches the game
- **HOW TO PLAY** that show the game mechanics (same as what is displayed here bellow)
- The **QUIT** button which simply close the game

In-Game



Our game is a planisphere displayed in 2D. Each country is selectable with the mouse and once is clicked on, another in-game page opens showing the map of the country and informations about its GDP, its Research and Development and its Global Emissions in the form of a progress bar. Also, all its statistics are available on the left of the screen.



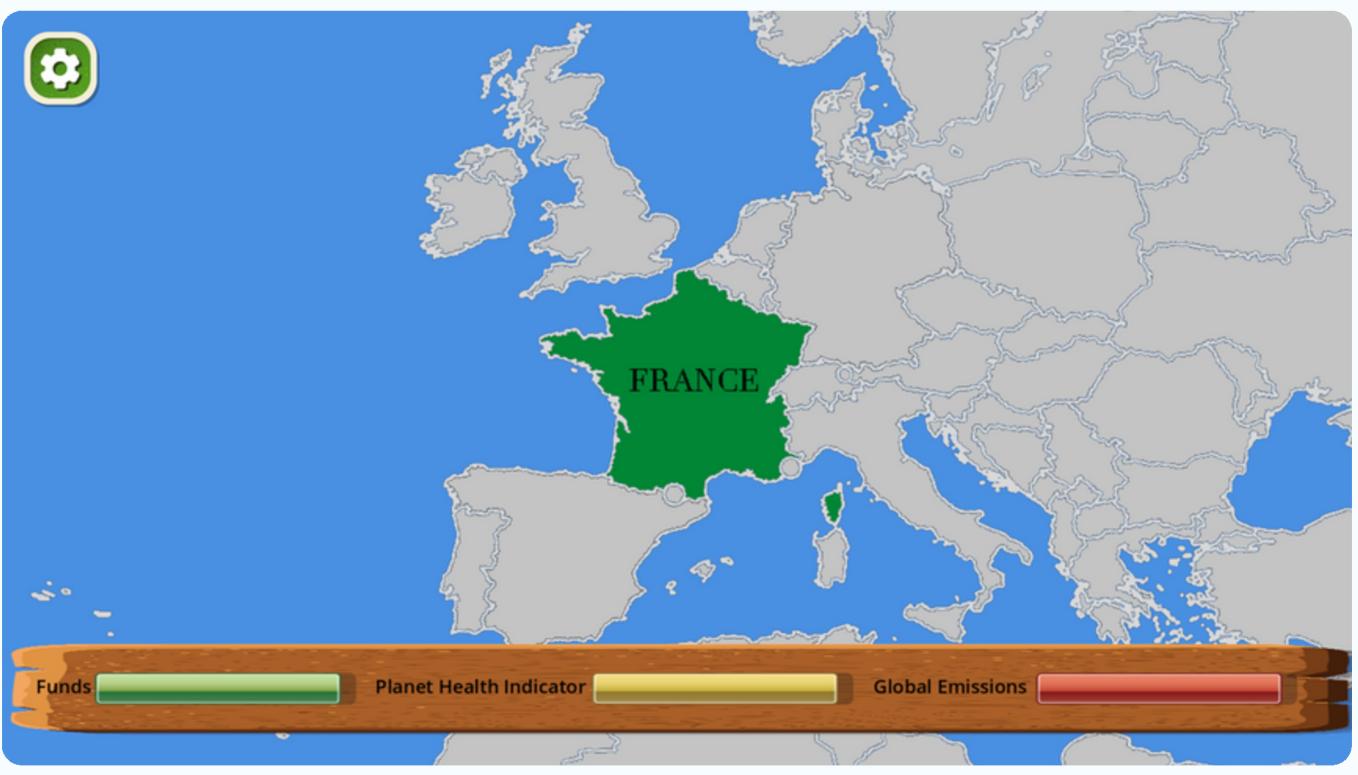
For the GDP bar: The fuller the bar, the more money you have to buy R&D

For the R&D Progress bar: The more the bar is filled, the more global emissions can be reduced (You still have to make the right choices, because the power is in your hands).

For the Global Emissions: The emptier the bar, the less the global emissions are and the better the country is doing (the planet thanks you 🌱).



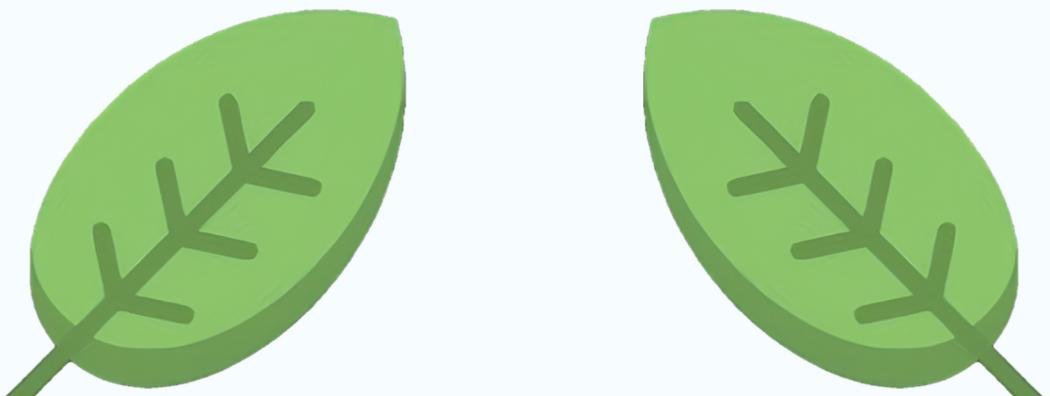
Let's go back to the main game, that's to say the planisphere.



The 3 bars are still present, but this time they represent global metrics:

- The total Funds (rather than the GDP of a single country),
- The Planet Health indicator (which reflects how your current choices impact the planet's well-being),
- The Global Emissions. The latter is directly linked to the Planet Health bar: when the Emissions bar is emptier, the Planet Health bar becomes fuller.

Also, each country is colored in a specific color related to its CO² Emissions, green being the best (the country is not consuming a much) and black the worst (the country uses fossil fuels, the cars are still used a lot).

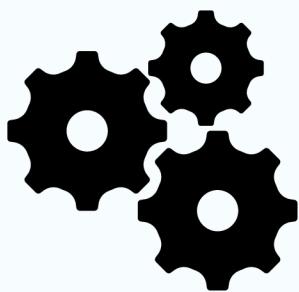
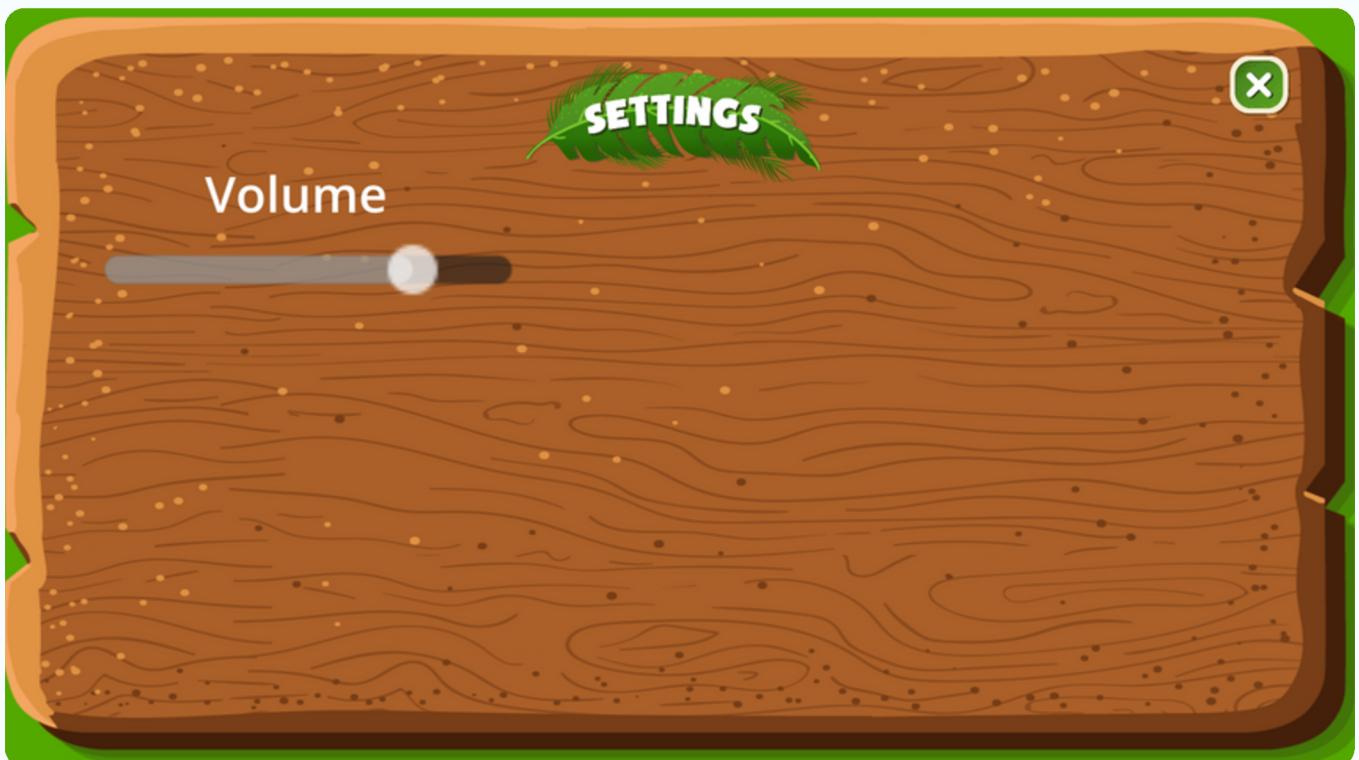


Settings



The settings are available here. They include the following:

- Volume: Allow the player to lower or increase the game music without going through the general PC parameters.





How to play



Main Page

On the main page, also named as *Planisphere* page, you have a visual access to all the country in the world. Then, at the bottom of the screen you can see **3 bars**; they are explained in the previous section. To reach the temporary end of the game (since it never ends), you have to reduce the **Global Emissions** bar to the maximum (0%).

For this, you have **funds**, representing the total money you have (all countries combined), but we will come back later to this later in the indicator by country.

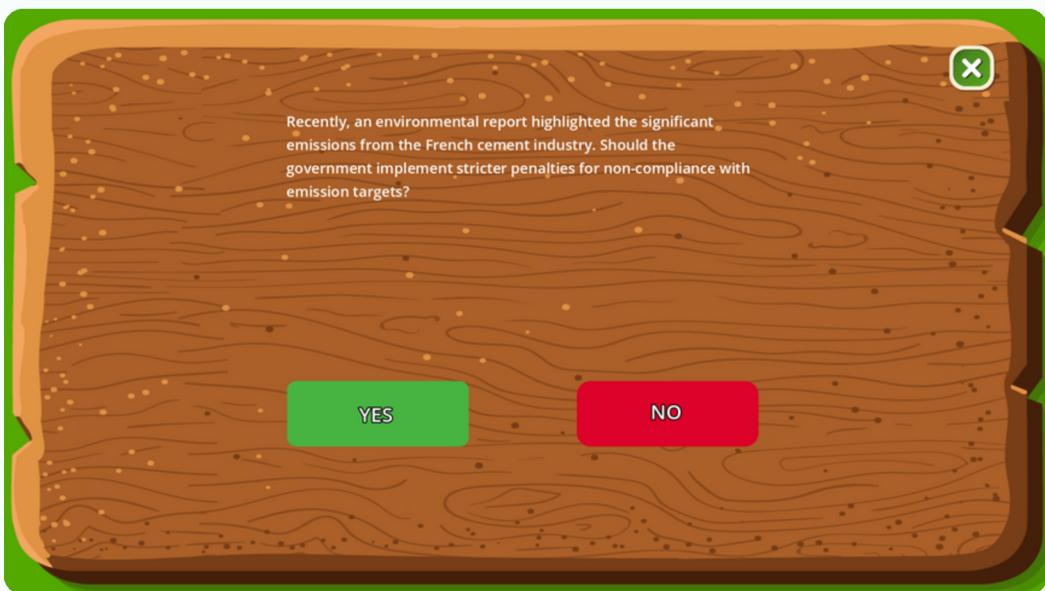


When you click on one country, another page opens (as explain before) and like on the Planisphere map, there are 3 bars at the bottom. However, these last ones represent other thing that the previous ones. Indeed, they show the **GDP**, the **R&D** of the country and finally the **Global Emissions**.

When you are in the country page, some icons will appear gradually.

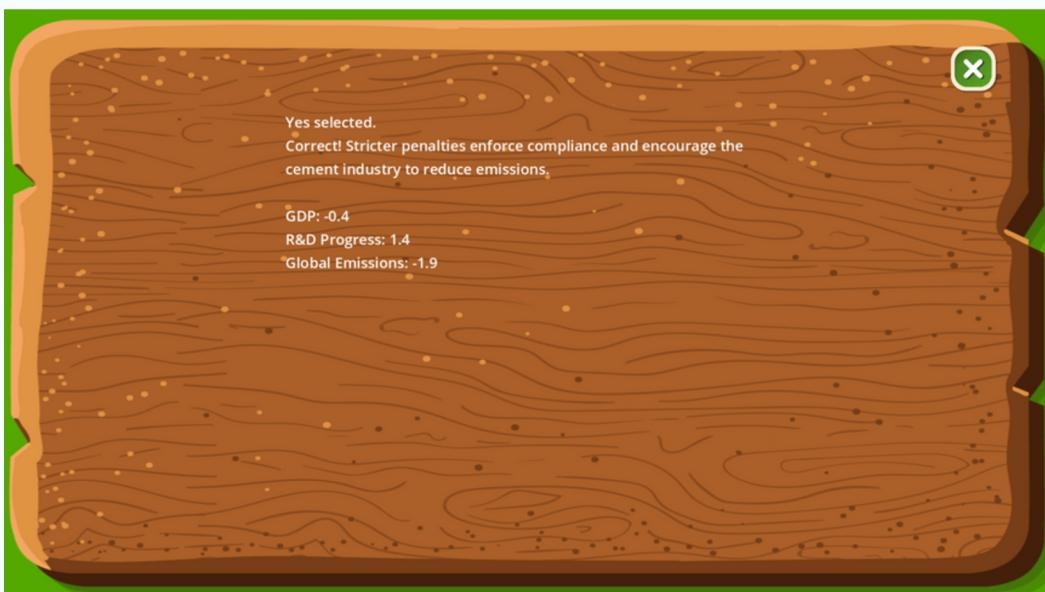


When you click on one of them, a question is displayed, and you have to choose between "Yes" or "No". Make the choice according to the best choice for the planet environment.



If you choose the correct option, you will lose **GDP** (if “Yes” is the correct answer), earn **R&D** and reduce the **Global Emissions** (*Example below*).

If not, you will lose **GDP** too (if you chose “Yes”) but increase the **Global Emission** and the **R&D** will not change.





Get Help



Contact Us

If you encounter problems during the installation process, during the game or if you simply have questions about our game that are not covered here, feel free to contact us, our team is here to help you! You can reach us through the following informations:

- **By Mail**✉: If you want direct help, you can reach us at enoal.adam@algosup.com. If all goes well, you could receive a reply within 2 working days (from Monday to Friday).
- **By GitHub**💻: You can contact us through [GitHub](#) by the GitHub Issues (direct redirection if you click on GitHub just above). When you are on the website, click on “New issue” in the top right-hand corner and just after, add a title then a description of the problem.

To be well understood by the team, please, provide us the more information you can, in the order:

- What is, according to you, the type of the bug,
 - What happened,
 - The step(s) to reproduce the bug,
 - What you expected without the issue.
- **By LinkedIn** : Finally, you can follow and reach us on LinkedIn. You can find the Technical Writer's profile by the link opposite ([LinkedIn Profile](#)). You'll receive an answer from 1 to 2 days maximum.

Don't hesitate to sometimes check our GitHub repository to verify if an update has been released.



Safety Help



Health Warnings:

 **Epileptic seizures:** A low percentage of people can suffer of epileptic seizure when they are exposed to such visuals captures, especially some bright patterns and stuff. Play video games can expose these people to epileptic seizures. Please, make sure to don't be affected by this kind of problems and if it's the case, contact your practitioner.

 **General problems:** If you feel one of these symptoms before playing or when you're playing video games: eye pain, vision deterioration, headaches, muscular contraction, convulsions, memory lapses, faints or disorientation, please, STOP playing and visit your doctor before restarting the game. Don't hesitate to also take a break every hour minimum to prevent of these problems!

 **Tiredness:** Respect your body limits. If you are too tired, avoid playing video games to reduce the apparition of headaches and eye pain.

 **Monitor:** Be aware to your environment, place your computer/monitor at a reasonable distance from your eyes.

Computer:

 **Ventilation:** Let the ventilation mechanisms work, don't put anything in front of it or you will damage the components of your computer and risk an overheating of.

 The team IS NOT RESPONSIBLE for any damage caused to your equipment if it not provokes by our software.



Q&A



Please, before looking at the steps afterwards, ensure you have the specifications to launch our game.

Q: Why won't the game launch?

A: Let's ensure you're successfully download Godot.

1. If you don't wait more than 2 minutes, pass to the other steps
2. Execute the .exe file in the Zip file previously downloaded from the Godot website.
3. Once Godot is launched, hurrah, just close it.
4. Try to relaunch the game. It should work! (if is not pass to the next Question)

Q: Why the game crashes or lags?

A: Let's reinstall the game.

1. Go to our [GitHub page](#) and download ...
2. Re-launch the game with the most recent file

Q: Why I have visuals bugs (like flashing lights or something directly related to the screen)?

A: Let's check your drivers

1. Go to the PC drivers' website ([Dell](#), [Asus](#), [Lenovo](#), [HP](#), [Acer](#), [MSI](#); for Apple go to the Boot Camp Assistant)
2. If you have an Intel Graphic Card, write Intel following by the general name of your graphic card (for example, Intel UHD Graphics Driver).
3. If you have a NVidia Graphic Card, write NVidia following by the general name of your graphic card (NVidia GeForce GTX e.g.) and choose the correct driver, related of the specific Graphic Card name (NVidia GeForce GTX 680, or 6xx for series 600)
4. Install the latest downloadable version of it.
5. Once it done, go to your File Explorer > Downloads > Click on the newly downloaded driver.
6. Follow the on-screen instructions
7. When it is installed, reboot your PC
8. Try to relaunch the game. It should work!



If none of these questions answer yours or if there are any bugs or issues whatsoever, please contact us by the platforms written above.



Glossary



Godot	An Open-Source Game Engine, created by Juan Linietsky and Ariel Manzur. It was released in 2014 and is cross-platform (i.e. it works on every platform, both on the developer and player side).
GDScript	A scripting language use in Godot which is optimized on it. It looks like to Python with a very similar syntax and indentation system.
OpenGL	An Application Programming Interface (API) used to interact with the Graphic Processing Unit (GPU) directly to obtain a graphic render boosted by the Hardware
Vulkan	An API, successor of OpenGL, allowing more control over the GPU and compatible with the newest Graphic card
GitHub	GitHub is a cloud-based platform where you can work together, store, share with others to write code published document and more.
Zip File	An archive file format that supports lossless data compression. They can compress multiple files (or folders) into one, or just one big file.
Software	A set of programs, procedures, and rules that enable a computer to work. It can be an OS like Windows, an application, etc.
Hardware	The computer science materials used to do something (e.g. computer, smartphone, etc.)