

Green Challenge

by DEMAIN

Problem

- *What problems are we answering? What's at stake?*
- *What needs? What constraints?*
- *Why is this important?*

Current **patterns of consumption and production** are **not sustainable** and are **responsible** for many problems that are very complex to solve, such as climate change and increasing inequalities. Indeed, according to a 2015 study, ¹ **household consumption** is contributing to more than **60% of global greenhouses emissions** and between 50% and 80% of total land, water, and material use. This study also shows that the footprints are unevenly distributed across regions, with wealthier countries generating the most significant impacts per capita. So consumers from rich countries, like France, have a bigger responsibility in global change and more flexibility to change. The three most important consumption categories across the environmental footprints are shelter, food and mobility.

It is in relation with several hot topics, such as the **HT1 : “Stopping Biodiversity Destruction and Ecosystems Degradation”** or the **HT2 “Accelerating the Energy Transition”**. This makes a priority for political leaders and international organisations to find the most appropriate way to introduce a new pattern of ecological transition towards a more sustainable economic model, but it is also crucial that **citizens** themselves take initiatives in this direction, especially in a context where the global temperature is expected to increase from 1.5°C to 4.5°C in the century, according to the United Nations Intergovernmental Panel on Climate Change², and where the greenhouse gases emissions of the countries that emit the most important amount of greenhouse gases - as China - in the atmosphere are still increasing. Citizens awareness and involvement can be a tool for change. Indeed, the economist Elinor Ostrom promotes a “polycentric transition” meaning that more than trying to find a global (and impossible) solution to climate change and environmental crises, we should promote a **bottom-up approach** that encourage experimental efforts at multiple levels.³

¹ IVANOVA Diana, “Environmental Impact Assessment of Household Consumption”, Yale University, December, 18, 2015. URL : <https://onlinelibrary.wiley.com/doi/full/10.1111/jiec.12371>

² BIELLO, David, “The Most Important Number on Climate Change”, *Scientific American* [Online], November 30, 2015. URL : <https://www.scientificamerican.com/article/the-most-important-number-in-climate-change/>

³ OSTROM, Elinor, “Beyond Markets and States: Polycentric Governance of Complex Economic Systems”, Prize Lecture, Indiana University, Bloomington, December 8, 2009.

One problem is that at the individual level, even among those who accept that climate change is a real and present danger, there is **a lack of will and motivation to change** their lifestyle. Since a few years and thanks to many campaigns that promoted a more sustainable way of life, especially in developed countries, people are more willing to take in account environmental challenges in their daily consumption choices. For instance, recent studies have shown that people are more likely to consider a car's carbon emissions when buying a new vehicle. A survey by Harris Interactive showed that 7 out of 10 French people are considering buying a hybrid car.⁴ However, are they are really less inclined to drive the short distance to the bakery on a rainy day ? Likewise, people might be shocked when seeing pictures of the Great Pacific Garbage Patch or the amount of plastic being swallowed by seabirds, but can they maintain their hastily made resolution "never again to buy plastic toys for their kids or plastic cutlery for a party" ?

If the world is slowly becoming aware and environmentally conscious about the depleting resources around us and if there are researchers and governmental and intergovernmental agencies working at the macro level to mitigate the environmental issues, it is necessary that the common citizen develops a real interest and motivation to act in a way that could be beneficial to the well-being of the planet and the society. Hence, the point is to find a way to **make the adoption of a sustainable lifestyle either 'trendy', 'cool' or 'fun'**, or all of these, so that people see it as a personal will or pleasure rather than a constraint, either imposed by the government, environmental movements or the threat of a depleting environment.

The main constraint to this problem is **time**. Indeed, according to the scientists from the Intergovernmental Panel on Climate Change, we only have twelve years before we hit the 1.5°C tipping point in temperature increase that will put the planet at a point of no return, with disastrous consequences in terms of the increase of the sea level, leading to the migration of million of people, but also in terms of the destruction of ecosystems, extreme weather events, etc.

Therefore it is really **crucial to act now** to make people, especially in developed countries, where there are more resources to **develop alternative consumption and production patterns** without any risk concerning basic human needs, really want to act and change their lifestyle towards a more sustainable approach, with **fun and motivation**.

⁴ Harris Interactive, *Électriques, hybrides, les Français prêts à franchir le pas* [Online], 2017. URL: http://harris-interactive.fr/opinion_polls/electriques-hybrides-les-francais-prets-a-franchir-le-pas/

Proposed concept

Green Challenge

To solve this problem, we imagined a tool that can be rapidly developed as an effective way to motivate people to change their lifestyle. In our increasingly digitized world, we thought that a **mobile application** was an appropriate mean to tackle this problem. Indeed, the economist Elinor Ostrom explains that *“Having others take responsibility can be more effectively undertaken in small- to medium-scale governance units that are linked together through information networks and monitoring at all levels”*.

Hence, we developed “Green Challenge”, a **free playful** mobile application, which **encourages consumers to adopt a more sustainable lifestyle**. It would first be marketed in France, where the rate of adoption of smartphones, in 2018, was 76,6%.

This application is structured around the following aspects:

- **Following accessible and impactful challenges:** Each user can choose one or several objectives, concerning various environmental challenges. We have chosen to present at the beginning four challenges : *“I want to reduce my carbon print”*, *“I want to adopt a 0-waste lifestyle”*, *“I want to reduce my water consumption”*, *“I want to become vegetarian”*. Depending on the objective chosen, a small program is proposed to the user, with different steps or levels over time. For instance, if a user chooses the “I want to become vegetarian” challenge, the objectives will be, for the first week, to only eat meat once a day, the following week, only three days per week, then only one day, until they definitely succeed the challenge. Once someone has reached one’s goal, the challenge does not stop, and the application takes in account for how long you continue to have this sustainable habit.
- **Winning points useful in real life:** People generally need incentives to start changing their behaviour. In this case, the incentive is the collection of points called hazels each time someone reaches an objective. The hazels can be exchanged against real-life rewards, that is, vouchers in stores, websites, companies that are ecologically responsible and located in the region where each user lives. For instance, it can be biocoops, clothes brands, magazines, restaurants, etc. The aim is to first provide an incentive for people to change their behavior, and then they will get habits that they will carry on without receiving a reward.
- **Sharing your new way of life:** The reason why people will be willing to download this application, to try it and to continue to use it over time is because it is made to be playful and social. One of the major aspect of Green Challenge, which is a key factor of success, is its very strong social dimension. It is really social media oriented, with the possibility to share one’s successes on social media (Facebook, Twitter) and also to defy friends or family members on precise challenges. The application is thought as a game as each user is represented by a small avatar and while reaching upper levels in the “game”, it is possible to have a more personalized avatar, with more

outfits and chosen details. You can also share your level with friends or family, since, as we will see later, this application has a strong social dimension.

Feasibility of “Green Challenge”

Developing this application is feasible by Sciences Po students. Indeed, to create the basic product, we need to work with a web developer: we can contact IT schools (a university, the School 42) to know whether some of their students would be interested to participate in our project. We also thought of working with a startup, Simplon, that offers formations to the digital professions to a public isolated from the job market (refugees, ex-prisoners, etc.). By including this social aspect to our project we would relation it with the **HT4 “The purpose of the corporation - Alternative forms of capitalism”**.

Then, concerning the various **partnerships** with companies and shops, a lot of them are looking for cheap advertisement and this is what we would offer them, hence convincing them to participate in our project is doable. Regarding the marketing and communication strategy, we also do have the resources and competencies to implement it by ourselves.

The originality of this concept does not lie in its objective - there already exist applications aiming to help us changing our lifestyle - but in its **playful and social aspects** that should result in an increase number of daily long-term users. Our application will also have a **social network aspect** that would make it unique. Also, the key point is that you really see a real-life impact of your contribution to the environment through the vouchers or presents, which is generally not the case of mobile applications.

To test the viability of this application, and before launching it, we will **test** and **investigate the market** by interviewing potential users, in order to get a list of specific needs and goals that the application should solve, to be sure that we can either respond to a need or create a need in the users. Then we will create a **prototype** to test with the people previously interviewed in order to have additional feedback, that we can modify and test again before launching the final product.

Expected positive impact

- Quantitative and / or qualitative sustainability of the solution

Our application has **two main positive impacts**: while **users** get used to more sustainable habits, our **partner companies**, that are also ecologically responsible, get visibility and hence can develop better.

First, by using Green Challenge, users will discover that adopting a sustainable lifestyle is not boring, and can even be playful. The point is that they **first** adopt these behaviors due to the **incentives** provided by the vouchers and also due to the competition or game context created by the application. **Then**, over time, they should start to consider those behaviors as **natural**, part of their daily routine and so continue to do them without all the time expecting a reward.

At the same time, the **shops** that we have partnerships with **get advertisement** and new customers thanks to the vouchers that people win and then want to spend in these establishments. As the vouchers are for shops that are located in the direct neighborhood of the users, or are for websites, it is easy for users to discover them. And then they can take the habit of going there. For instance, they may realize that it is easier and in the end cheaper to buy their vegetables in the organic cooperative shop a few minutes walk from their house rather than taking their car to go to the supermarket. In the case of people living outside big cities, where there are less shops and especially less ecologically responsible shops, we can develop partnerships with **organic agricultural producers cooperatives**. Another solution is to create very specific partnerships with large retailer shops as supermarkets, that have a traditional economic model, on very precise products such as their local and organic fruits and vegetables. The aim is to make those big companies understand that adapting their business model to a more eco-conscious vision is a way to keep their clients, who have growing demand for a different consumption pattern.

In the end, regarding the direct positive impacts, we have a **sustainable and virtuous circle of people adopting a sustainable lifestyle while** helping innovative, ecologically responsible and near companies and stores to develop. The application also has a positive indirect economic impact through **job creation** and the growth of new businesses that function on the **model of circular economy**.

Major risks and actions to reduce them

There are several **risks** that are faced by Green Challenge, hence we thought about various actions to reduce them.

First, there already exist a large number of mobile applications, and a few are already designed to promote a sustainable lifestyle and environmental protection. Hence, Green Challenge must really **be unique**, and must differentiate itself from what already exists on the market, by its playful and social aspect as well as the vouchers that can be won that provide a direct real-life incentive. In order to prevent our application to be drowned among those applications, we need to **develop partnerships** with the latter, so that they can understand that **we are not a competitor but that we have the same goal**, that is, to promote a more sustainable lifestyle and to protect the environment. Those partnerships can for instance take the form of the possibility to transfer the benefits from one application to another. For example, the points that are won on Green Challenge may be used on another application to win a voucher or any other advantage this application may provide to its users.

Another risk is that people download our application, start to use it but become quickly bored about it and stop using it. To prevent this, the **social dimension** is crucial because creating a community of users will make them surrounded by solicitations to continue doing well on their ecological challenges: on social media but also from the people they see everyday, their family and friends.

There may also be **oppositions from some actors** :

- First, companies that use a traditional economic model, and not circular economy, will want to keep their market share against the small shops ecologically responsible we want to promote. Hence, a way to have pacific relations with them may be to develop a few very specific partnerships with them, on a few products that are evaluated as ecologically responsible (produced locally and in an environmentally respectful way).
- Other **critics** may be some environmental activists who may consider that such an application is based on the **use of smartphones**, which are not ecologically responsible since their production has an important carbon and social print as they require the use of rare metals as aluminium and cobalt, for which the mining requires much energy and leads to many violent conflicts and hard working conditions. They might also say that the assemblage of smartphones is made in several countries, which requires a lot of transportation. They will be right about the fact that smartphones have a negative impact on the environment. However, what we can do to prevent any conflict is to **negotiate** with the leaders of important environmentalist NGOs, such as Greenpeace, Sea Shepherd, WWF, Earth Liberation Front, so that they can understand our project and the fact that in a digitalized world, smartphones, that are used a lot of time every day (in Europe, 16-24 years old spend on average 168 minutes on their smartphone a day, 35-44 years old 78 minutes and 55-64 years old 30 minutes) can be a very effective means to make people adopt a more sustainable lifestyle. We can also collaborate with **Fairphone**, a social enterprise company which aims to develop smartphones that are designed and produced with minimal environmental impact. Their mobile devices are produced in fair labour

conditions for the workforce, it prevents conflicts for natural resources and all all the components are repairable.

- Last, climate skeptics will also criticize our objective of making people change their lifestyle by claiming either that the Earth is not undergoing a global change or that it is not due to human activity. It is possible to try to convince those skeptics by showing them scientific data, but in general, it does not work because they may believe that it is manipulated. However, some factors may be convincing, such as showing them that there are climate-related events that happen not far from where they live, which makes global change more noticeable.. We can act on this by helping environmental NGOs conduct their campaigns.

Deployment strategy

- How is the project implemented, with what steps?

The deployment strategy of our new application has seven steps.

1. **Idea generation and screening:** first, we asked ourselves whether Green Challenge was a great idea, compatible with our values, objectives, strategies and resources (our skills as students and the potential partners we can find). We have to investigate what is our audience and our competitors (which in fact are complementary since we have the same final objective). We need to conduct a market research to determine who are the potential users of Green Challenge, on which zone it will be launched (Paris, Ile-de-France, France...). This research can be one by using both primary and secondary research. Regarding primary research we can realize qualitative research such as one-to-one interviews as well as quantitative research with a survey interviewing a large number of people at once about their consumption choices and the potential incentives that may make them change their behaviour.
2. **Concept development and testing:** we now have a feasible idea. The next step is to develop it as prototype and conduct tests with potential users to know if it answers to a need or creates a need, if they would be willing to try Green Challenge on the long term. We also need to start a relation of collaboration with web-developers.
3. **Marketing strategy development:** we need to find a cost-effective marketing strategy. We do not have much financial resources so we have to be very careful about all the potential costs.
4. **Business analysis:** Green Challenge has to meet our profit goals. We do not plan to make much benefits, but our cost are low too: the main objective is to find partners that will be willing to finance our activity, in exchange for visibility in our application.
5. **Product development:** based on the prototype and feedback from users, we need to create a technically and commercially sound product.
6. **Market testing:** launching the product on platforms to buy applications has to happen at the same time than an important communication campaign, on social media, through NGOs, also potential partners such as schools, companies and universities as well as through the close relations of the member of Green Challenge's development team.
7. **Commercialization and assessment:** it is essential to monitor downloads and the use of Green Challenge to check whether it meets our expectations: that is, to see a real change in people's behaviour (as it may be difficult to assess the direct environmental impact of Green Challenge).

Return on investment analysis?

- Estimated costs and gains

The **aim** of Green Challenge is **not to make profits in the first place**. Indeed, it will be available to free download on platforms as the AppStore and Google Play.

We should not have many costs since to create the application we can work with students from an IT university or school who find our project very interesting. Regarding the communication campaign, we will focus on **cost-free channels** as digital marketing, communication on social media, events such as interventions in startup hubs and universities, and word of mouth with our friends and family members. Then, finding partners that will provide us vouchers and gifts should not be costly since it is an opportunity for them to develop their business.

At the same time, the financial gains from Green Challenge will not be huge either. Indeed, as said, the application will be available for **free download**. To develop Green Challenge, we will ask for **subventions** from institutions such as Sciences Po's incubator, the Banque Publique d'Investissement, territorial collectivities and Paris City Council. At the same time, we can participate in pitch contests for startups or calls for projects in order to gain visibility as well as subventions. However, **later**, after having a certain number of users, we may be able to **charge** some ecologically responsible stores or companies that want to have **advertising** on our application.

Organization and positions

- Organization, resources and skills required
- Partners, sponsors of the project

Our teams already has already seven members, but we are thinking about including other people if some skills or resources are needed.

The organization of Green Challenge's team is skills-based, and a we are a small team for the moment, not that hierarchic, since we can easily report to other members and meet on a regular basis.

Content creation and app conception

Maitena, in charge of app design and conception:

Maitena is a student in Digital Transformation and Innovation and also pursues a master degree in Ethics specialized in environmental issues. She will use her creative mindset to develop a friendly user experience in conjunction with the project values.

Sara, in charge of content creation:

Sara is a student in Finance and Strategy. She has professional experience in communication and sales. She will be in charge of gathering knowledge from specialized actors to create new challenges, and create content to enrich the challenges (recipe, tutorials and daily tips).

Communication and Marketing

Mohamed, in charge of marketing:

Mohamed is a student in Marketing and Studies. In charge of the Marketing development, he will develop and design products in such a way to fulfill consumers' needs and expectations about our application. His team will design all of those products through marketing skills as finding out interesting insights and so on.

Mathieu, in charge of communication:

Mathieu is a student in Communications, Media and Creative Industries. He will use his knowledge and mastery of social media to create digital ad campaigns that will give Green Challenge more visibility and will attract new users. Very active on social media, he will help foster a strong community of Green Challengers ready to change the world together.

Business development and funding

Julie, in charge of funding and relations with the partners :

Julie is a student in Human Resources and Organisation Management. She has a lot of experience in fundraising as she has been involved in a humanitarian association for four

years now. She will look for partnerships and public subventions in order to develop the application.

Thibault, in charge of business development:

Thibault is a student in Finance and strategy. In charge of the business development, he will develop our project. His aim is to become one of the main apps about climate change. He will look for funds and partners, so that our project is sustainable.

Nolwenn, in charge of accounting and budget control and allocation:

Nolwenn is a student in Finance and Strategy. Hence, thanks to her skills in financial analysis and her taste for numbers, she will focus on the financial dimension of Green Challenge, as well as the short and long-term strategy of our business.

We may also include other people in our team, especially for IT development (the development of our application) since we do not have the skills required in this domain.

Partners and sponsors

The development of Green Challenge requires to collaborate with various partners and sponsors. Without them, we will not be able to reach a large audience and to keep people using our application.

The first actors that we will work with are **ecologically responsible stores, producers, brands and websites**. We need to contact many of them in the regions where we want to develop our application since the aim is to provide users with a large choice of vouchers for producers shops and restaurants located next to where they live, to promote a local economic activity. Among them are organic cooperatives, responsible textile brands, organic producers: with whom we will cooperate by offering them visibility on our platform in exchange for funding, vouchers or special offers for the users of Green Challenge.

For instance, we can ask big french **companies** which are **committed** in fighting climate change. Danone, Schneider Electric, Alstom, Air France, etc. already claimed their will to make changes in their companies in order to be sustainable. On top of that, these companies could also encourage their employees to use our app. They would also be helpful if they can fund our app, so that our business would be self-sufficient. Public institutions, such as ADEME (Agence de l'Environnement et de la Maîtrise de l'Energie) could also sponsor us, and give us some subsidies so that we can improve our app.

We also think about **alumni from Sciences Po or teachers** from our school who have an important media coverage or contacts in the business and the political sphere to promote Green Challenge in the media or directly around themselves, by word of mouth.

Other possible partners are **applications** that also aim to make people have a more ecologically responsible lifestyle. Among them are Mummyz, Save it Easy, Ecosia, Too Good to Go. For example, we are currently thinking about a partnership with Yuka, a French application that allows people to scan products in the shops to obtain information about their composition: for instance, this application focuses on products' impact on health, but maybe that in relation with Green Challenge, we could develop a common project of adding their

impact on the environment. As Yuka is a well-know application, this type of partnership would really help us to increase our visibility to potential users.