NOTE OF INTENT

Summary:

I. Problem

Context:

Currently, even if there exists a declining tendency, the vast majority of French consumers still continues using super and hypermarkets as their main source for purchasing goods. It has to be underlined that the way of production of industrials in this sector is one of the most polluting because of the overproduction, the overwrapped of products, the use of pesticides or the fact that some products need to travel thousand of kilometers for example (1).

Even if a real ecological transition for food consumption would be to develop a more local, organic consumption, associated with less waste material the reality of today illustrates that for some part of France, it is difficult to set up this type of consumption. We have to keep in mind that most of French consumers have no choice than going to a supermarket. However, one of the principle issues here is that they are not aware of the environmental impact of their products - and so, cannot make their consumption decision with this variable.

Before going any further, it has to be added that currently for the French consumers, the price is not the principal criterium for buying. According to Kantar Worldpanel institute, in 2016, 50% of french consumers will prefer a product with a good quality rather than a product at a better price (2). Moreover, french consumers are more and more preoccupied by the localisation of the products that they are buying. Thus, they might select the merchandise produced closer from their living place. Hence, the quality of a product as well as its traceability are now becoming more important factors in his decisions.

Except for the traceability of products, consumers are never aware of the environmental impact of their goods. We think that making consumers more conscious about the ecological footprint of their product would allow them to make different decisions. This alternative behaviour will permit to give more importance to a local food economy with less material waste and more organic products, which will, in turn, have an impact on the reduction of greenhouse gases. According to the Ministry of Ecology and Energy Transition, in January 2017, in France, 56% of french people interviewed thought that a display on the environmental impact should be imposed on all products (3).

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(1) (INITIATIVE DE TRANSFORMATION DES MARCHÉS : LES 25 ENTREPRISES FRANÇAISES QUI IMPACTENT LE PLUS LES ÉCOSYSTÈMES MONDIAUX, 2016)
(2) (Floch, 2019)
(3) (L'affichage environnemental, pour une consommation plus verte, 2017)

I. Problem

This will somehow force hypermarkets and manufacturers to change the design of their products, creating products that are more environmentally friendly.

Problem related to:

This explored problem relates to the issue of food sustainability, more specifically to the transparency of the food supply chain and the accessibility of information about it to consumers. Consumers are becoming increasingly concerned with quality - origin and traceability - of food options available to them.

While investigating the matter, we examined several business strategies which aim to inform the consumers about the origin of the foods and the environmental impact produced at each stage of the production process.

As of now, the following start-ups specializing in ensuring food transparency have received the most attention: Label Insight, Fresh Surety, Harvest Mark. Most of such companies operate according to a Software as a Service (SaaS) models which allows users to use cloud-based apps over the Internet. Consumer labels are digitised and information about the products can then be directly accessed via a smartphone.

Following the aforementioned horse meat scandal, Arc-net, an Irish provider of analytics, received £2000000 to come up with a long-term solution to the issue of traceability. The company developed a unique technique of using GPS data or associating meat products with DNA records to enable users of its interface to receive detailed information on the production of the food.

On the legislative level, each state develops its own strategy in terms of enforcing transparency and traceability principles - e.g. Food Standards Agency is the body responsible for implementing these principles in the United Kingdom. Nonetheless, overall direction is given by the European Union, especially in its EU General Food Regulation 2019/1381, adopted in September 2019.

II. Proposed concepts

Our project can be summarized in one sentence : we want to make possible for consumers to change their consumption behaviour by buying products which have a lower ecological impact. Doing so, it could oblige supermarket distribution companies to change their model of production and thus reduce their environmental impact as well. Before going any further in the explication, it is much needed to explain our inspiration. In fact, we did have a look at the app Yuka, an application grading products according to their nutritional quality. We also studied the Nutriscore index.. It has to be said that according to Kantar Worldpanel, 20% of French people are actualing using this kind of app, and among them, ¾ declared that they have changed their consumer behaviors. Thus, this app first permitted to change buyers comportment but also allow a change in industries as they started to change the composition of their products by being more adequate with the will of consumers.

In order to solve this problem and guide the user towards a more responsible and greener consumption, we would like to develop an application -similar to some extent to the Yuka one- to scan products that make up an average basket and indicate the environmental impact of each product according to a scale - a kind of Nutri-score of the environment. The application may suggest a similar product which is more environmentally friendly. Being aware of this variable, the purchase may differ from another product with a better rating.

The Eco-score could be measured through several criteria sources such as:

- A Swiss company, Beelong, has created an indicator to measure the environmental impact of food based on 5 criteria: origin, production method, climate and resources and processing. For the moment, the company only has a BtoB model by offering its indicator to restaurants. We could use this indicator in France for our BtoC service (5).
- In the Energy Transition Law for Green Growth, the French government has put in place "a rigorous framework allowing consumers to be provided with clear and reliable information on the environmental impacts of the products and services offered to them". This framework is accompanied by a ADEME database, called IMPACT. Still a work-in process, it could, in the medium term, become an additional database (6).

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(4) (Floch, 2019)
(5) (Beelong, 2017)
(6) (Base-impacts.ademe.fr, n.d.)

II. Proposed concepts

- Finally, the creation of a label merging the organic and CE labels would encourage companies to share information about their products in exchange for a label demonstrating their action to reduce their environmental impact. This reputational incentive (similar to the one resulting from the Nutri-score recently created for a nutritional criterion) would allow us to position ourselves as an intermediary facilitating access to information and support for purchasing decisions, with a view to reducing consumers' environmental impact.

These indicators will enable us to calculate the ecological footprint of a product and give it a grade. Such action would allow the consumer to exactly know what is the ecological impact of the good he is buying and to adapt his consumption behavior through this new variable in mind.

The ecological grade of a product will also be established thanks to consumers feedbacks.

In order to make the consumer use the app, we will also develop a "green" loyalty card in all the hypermarkets. This "green card" could be linked to the application in order to measure the environmentally friendly purchases. It would create a pool of loyal users. Our objective is to reduce 25% of the carbon footprint of the average French basket in 5 years. Thus, through the application and monitoring of the products consumed, we will be able to measure the evolution of the environmental footprint of consumer basket. At the same time, the consumer will have access to this monitoring and will be encouraged to change his/her behaviour: he/she will be able to win product baskets - fight against waste. A virtuous cycle for the consumer (rewards linked to responsible consumption, challenges on the application, monitoring of shared evolution) and for companies (the more they share information, the better they can improve their scores and recommended products and thus purchased) can be created in the medium/long term.

The strength of our project lies in its originality and the fact that it fits perfectly with the demand of the current context. Indeed, for the time being, we note that no consumer initiatives have been put in place in recent years. The initiatives existing on the market today (State project, Beelong...) are only aimed at companies (manufacturers, restaurants...) in order for them to display a good eco-score and therefore, for consumers to be more attracted by their products.

In fact, it exists now both a consumer demand for this type of information and a demand from the legal framework - here the French State with its law on the energy transition. This represents a real opportunity for an integration into this market.

II. Proposed concepts

Moreover, if this type of information on the environmental impact of products already exists, it is only accessible in BtoB. We have an opposite approach since our service is directly addressed to consumers and want to measure all the products in an average basket, and not only the products promoted by certain companies. As a result, the long-term impact will be to change the way companies produce in order to promote more local and environmentally friendly products. Furthermore, our application meets a real current demand and could revolutionize this sector by combining original ideas with consumer services.

III. Expected positive impacts

The benefits of this solution are numerous:

First, we will have better informed consumers. On the long run, it would change their way of buying: thanks to clear indicators, we believe that we can transform the consumer's approach to his buying habits. It will also lower the common basket's carbon footprint drastically: the change of consumer's behavior will be translated by a drop in carbon footprint.

Secondly, it has an economical impact. Consumers will earn money from this solution, both from the loyalty card, and from buying "green" products which tend to be cheaper (because produced locally). Hypermarkets will lower their cost of logistics because products sourced locally will be promoted through this indicator.Local, or regional producers will see their business grow as well as environment friendly industries. This can be translated in more investments in those regions, or by the creation of new jobs.

Finally, the competition between producers will be transparent thanks to a public ranking and will lead to better informed choices, accessible from many platforms (website and app). This solution would launch a virtuous circle pushing more and more actors to join the app, to be at the top of the ranking so that consumers buy their products. At the same time, the environment impact of a product will become a decisive criteria when making a choice for the consumer.

Allies and ressources:

- **Supermarkets & Hypermarkets chains**: they are at the center of the solution and will benefit directly from *Impact*. Attracting more traffic to their shops could push them to help us in developing this solution.
- **Public authorities**: Promoting the environment thru an efficient innovative solution for all is for sure something the government and administration will push for.
- **Local & Regional Producers**: close to the market producers will be valued as they have a smaller carbon impact. This might translate in more investments and jobs or at least make sure these producers can have better incomes regarding their work.

IV. Major risks and action to reduce them

Disadvantages and risks:

Different disadvantages and risks can be noticed in the elaboration of this project.

First of all, it is the difficult access to informations can be an issue in the development of the app. In fact, in order to develop the calculation of the footprint or in other words this ecological grade, we need to obtain all kind of informations. Besides, elements concerning the total waste linked to a product, or the energy used for its production, can be first challenging to encounter and secondly, can be first challenging to encounter and complicated to determine.

Furthermore, this kind of app will have a high cost of development as well as an important charge for Research and Development and thus, requires a large investment for starting.

Finally, one of the risks here can be the dysfunctioning of the application because of crash or bugs of it that lead to a non-use of *Impact*.

Refractories, opponents:

We suppose that some entities will be opposed to our project, as it can decrease their selling part. We especially thought to lobbies and big companies. However, as we have seen with Yuka, rather than boycotting the application, these companies have intended to adapt their products to the new desires of the consumers. For example, in France, Carrefour became aware of the necessity to offer products with a better quality and has shift its brand image in that way through a new movement: Act For Food. We truly believe that app like Yuka did have an impact on this change and do believe that our app can also have this kind of repercussion on big companies, especially because of the current climate change context and the raising consciousness about it.

How to avoid disadvantages and risks? How to get the grade ups?

Some of the risks previously enunciated can be easily dismissed. Concerning the well functioning of the application, a frequently update application is required here to avoid those kind of issues as well as a friendly interactive outward appearance.

IV. Major risks and action to reduce them

The issue relating to high costs can be overcomed by having a solid project with a business plan that will interest future investors and allow us to raise enough funds to start the app. We also had a look at Yuka business plan in order to perhaps develop a similar approach. Yuka started thanks to a first place won at a contest, allowing them to have some self-financing. It was based on a BtoC model and developed at first a complete free app to gain as much users as possible. Currently, their business model is sustainable thanks to dotation from users and also from charged annex activities proposed through the app such as a nutrition program or a fruits and vegetables season calendar. Thus, we probably have to think to other activities which could be develop according to our project. The creation of an environmental friendly label has been thought; this label will allow productors to be recognized as an entity having a lower impact on the environment. Thus, we will have a financing via an eco-responsible label to participate in the rewards of the green loyalty card, in conjunction with hypermarkets.

Finally, it is probably the difficult access to information that will constitute the more difficult task at first. Nonetheless, a good strategy we could elaborate would consist in using all the information we have access to now, and then, in complexifying the algorithm through time by the progressive obtention of this data. Again, if we compare to the Yuka model, they have succeeded in developing thanks to an open database - similar to Wikipedia one- about nutrition. Further researches as to be made to find a similar database for our product.

V. Deployment strategy and major milestones

How could your solution be implemented?

1. ***Research:***
   a. Work on how to be transparent, how people believe the information given is true.
   b. Configure criteria for rankings.
2. ***Develop:***
   a. Create a Demo app and demo loyalty card.
   b. Collect data.
   c. Test the app with some first partners.
3. ***Promote:***
   a. Embark supermarket chains on the project.
   b. Get help from the government.
   c. Promote the solution to environment friendly producers that can be read at the launch of the solution.
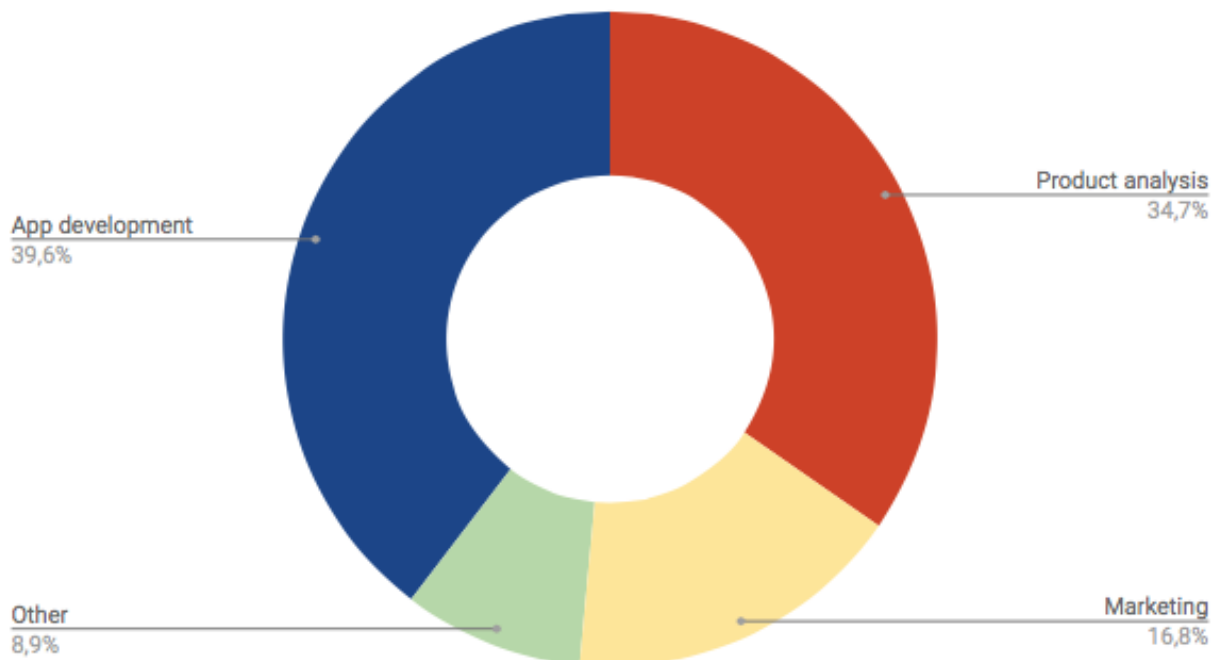4. ***Launch***

VI. Return on investment analysis

Costs relating to the project realisation may be split in the short-term and long-term costs. In the first stage they include prior research, the application development, product portfolio analysis, testing and marketing to increase brand awareness.

The development of the application is estimated to cost up to $28000, depending on the workforce involved. The costs of gathering a base of products or supermarkets may be reduced through leveraging partnerships with governmental bodies, but the analysis of the data and its implementation into the app may still require additional funds.

The application would be first launched in several regions, rather than cover the whole country, thus online and offline marketing channels would be limited to these designated regions and target consumers with psychographic profiles correspondent to the trends established in the beginning of this note. In order to so, research must be carried out so that resources are allocated effectively - this is another potential cost.

Short-term costs

App development
39,6%

Product analysis
34,7%

Marketing
16,8%

Other
8,9%

VI. Return on investment analysis

To finance the project, a crowdfunding campaign would first be launched in order to get enough capital for the initial investment. Our team also applied to multiple prizes to get funds and support through the development phase.   Such funds would have to cover the costs for the development of the application (hours of work of the engineer), the first elements of marketing and a market study to collect data and quantify our indicators with precision (to elaborate our strategy on solid analytics).

On the long-term, the creation of a label encompassing sustainability criterias of different existing labels (CE, Bio) would allow the application to be funded through the collaboration of big companies that would share information with us. Such label would enable us both to get the data concerning products and enough funds on the long run. This would also participate to support a virtuous circle by which companies want to get the label for reputational concerns and then really improves their methods so that they get better grades on the application and so higher demand by consumers. The higher the cooperation, the transparency of companies and their attempts to be more sustainable, the higher the grade of a product on Impact, the better the image for the consumer, the higher their demand for it and their consumption, all generate incentives for companies to collaborate.Following Yuka's type of funding, our project would follow a BtoB model. The application Impact would be first totally free in order to create a solid client basis. Then profitability could be increased thanks to the development of diverse activities (challenges, calendars and programs to ease daily consumption) in the framework of freemium applications. In the end, the spectrum of products analyzed would be extended to a widened basket of consumption encompassing cosmetics, cleaning products...

 A summarized document of investment can be found in annexed on the Github platform

VII. Organization

Partners, sponsors:

The project described would be of interest to various actors, first of all supermarkets.

Supermarkets would benefit from partnering with our project because increasing information transparency would lead to an increase in customer loyalty as well. Then, if a given supermarket performs well, it could be featured on the application as "the featured supermarket of the month" or be placed high in the ratings on the application, so it could potentially attract new customers.

A partnership with supermarkets could generate revenues if a fee is imposed for evaluating their stock, their methods of handling products and finally to include the supermarket on the evaluation list.

Supermarkets may also act as clients in the context of our project - in the future, consultations on the actions to be undertaken to improve the score (transparency, ecological impact, etc.) may be offered.

The portfolio of products evaluated present in the supermarkets may be expanded through partnerships with manufacturers directly.

Further, the project may be of interest to national and supranational non-profit organisations, for instance, the French Ministry of Agriculture and Food or UN Food and Agriculture Organization (FAO).

It should be noted that socially responsible companies may participate in sponsoring the project too, as long as the standards of operational independence and objectivity are upheld. Examples of such may include companies with a focus on sustainable development, for example, Intel.

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