BUSINESS PLAN

A secure and flexible way to
initiate the end of lockdown.
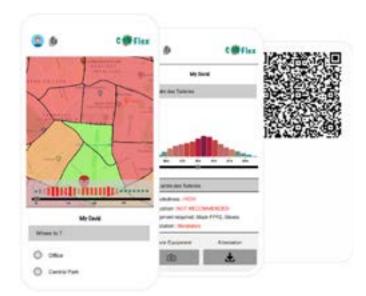
SUMMARY :

Executive summary

Business Overview

CoFlex is an mobile application designed to help governments and citizens initiate a flexible and progressive end of lockdown. We offer the distribution of authorizations based on prior risk assessment of areas and people, therefore allowing exits without compromising citizen's safety.

Using Covid-19 daily data, prior site risks assessment and visitors' personal information, we offer a real-time area risk assessment. Linked with personal information allowing us to estimate personal risk, we offer personalized authorizations, containing allowed areas, date and time, and mandatory protections.

We provide concerned citizens, governments and municipalities a secure and flexible way to initiate the end of lockdown on a large scale.

Team overview

The CoFlex concept was envisioned by a team of 5 following their cursus at the ENS Paris-Saclay. The diversity of the team has allowed them to work efficiently on developing a strong base for the growth of CoFlex.

Valentin Abbadie is CoFlex's CEO. Him and Sam Perochon, our developper, manage all of CoFlex's data and resources that are vital to our risk prediction system. Thomas Saulou is our web designer, in charge of graphics and building a instinctive user interface available to all. He works closely to Julien Hauret, our business developper, in charge of the development of CoFlex's mobile application. Finally, Anne Mokhtari handles the business end of CoFlex, in charge of the strategy, marketing and financial overview of the project.

Opportunity

Market opportunity : Covid-19 and Global lockdown

The current sanitary crisis has called for immediate and tough decisions to protect the citizens of the EU. Most Europeans countries initiated total lockdown to prevent the spread of Covid-19, and this solution has proven to be effective.
Yet, the current lockdown has already had dreadful effects on growth forecast, unemployment rates, business activity and poverty. As we are facing the economic and social consequences, it is clear we must attempt finding a path out of it.
It is however necessary to ensure that the tiptoe out of lockdown is done safely to prevent cases to spike again. Therefore, the need for developing innovative solutions allowing the re-opening of economies while limiting potential second waves is striking.

Our solution

We provide concerned citizens, governments and municipalities a secure and flexible way to initiate the end of lockdown. We wish to provide additional exit authorizations to citizens based on the danger of their itinerary, the quality of their protection and their personal risks.

Taking into account personal risks
COVID-19 doesn't affect everyone equally. This is why we must adapt lockdown to every individual. When registering on the app, our user interface allows user to easily enter information do determine whether or not they are at risk. We take into account not only their age, but also heart diseases, diabetes and other conditions that require a higher level of precaution.

Defining areas at risk

It is necessary to take into consideration the crowdedness of an area, but also the number of cases in the region to determine whether or not an area is safe. Based on these parameters, and authorization requests by our users, we are able to create a real time heat map of danger zones.

Creating time and place-specific authorization

Defining areas at risk allows us to distribute authorizations based on the itinerary/ exit requested. After defining a time and place for the exit, if the risk prediction is not too high, the user is able to request an authorization.

Including user protection

Based on the severity of the risk in the area, the user can be advised or forced to wear protective equipments, such as masks or gloves. Verification of such equipment could be implemented through the user's camera using a photograph of the equipment.

Market analysis

Market overview

A new market: COVID-19 applications

Many governments have turned towards applications and real-time data to help fight the Coronavirus pandemic. It allows the use of geolocation, personal data and crowdedness data to ensure the safest exit of lockdown.

These applications usually allow citizens to check if they have been in contact with people that have COVID-19. A few countries worldwide have official contact tracing apps, such as China, Singapore or Norway. The most discussed initiative is the south korean coronavirus-tracker app to steer clear of outbreak areas, as it alerts users if they breach a 100-meter (328-foot) radius.

Our advantages

Yet, most applications do not take advantage of crowdedness data and personal characteristics to provide quality information to their users. We offer a deeper risk assessment taking into account area risk through crowdedness, personal risk and personal protections.

Raising concerns

Privacy concerns have been raised following the development of these applications, and alternatives are being developed through the use of Bluetooth Low Energy, allowing privacy-preserving contact tracing.

Target Market

Governments and municipalities

We wish to offer our solution to governments and municipalities envisioning an exit out of lockdown, yet wishing to ensure the safety of their citizens. This, of course, would require high level of flexibility from our part regarding specific requirement which we are willing to offer.

Citizens at risk

After the crisis, our solution could help people at risk who care about their health and would want to ensure of the safety of their exits long after the end of lockdown. We are aiming at citizens concerned for their health and that of their loved ones, wishing to ensure their safety during the exit of lockdown in their country. Especially as summer holidays are on their way,it would be highly useful for travellers to know the real-time risk in the areas around, to ensure a great trip without any risk for their safety.

In the long term : future pandemics

Furthermore, we have seen in the past 20 years the multiplication of local epidemics such as H1N1, Ebola, dengue fever… The scientific consensus is that those epidemics are going to occur even more frequently. The long term project is that CoFlex helps preventing the propagation of any new epidemic that may occur.

Legal Regulations

Our application has different kinds of data : ID cards, GPS tracking and health information. All of this data constitutes personal data; some of it even special category personal data in the meaning of Art. 9 GDPR.

Every processing of (special category) personal data requires justification by one of the legal justifications listed in the GDPR (and/or national data protection laws). Otherwise, data processing is just not permissible.

At a first glance, we will have to obtain the user's explicit consent beforehand any processing, and we will provide documents to do so. Then, we will comply with the data protection principles introduced by the GDPR (such as data minimisation, data accuracy, transparency etc.). Particularly, we will inform users of any processing beforehand; we will process ata only as long as strictly necessary for the pursued purpose; develop software in a way that it is designed in line with the privacy by design and default.

Lastly, we will comply with general requirements (such as keeping records of processing activities, implementing a restriction and deletion concept etc.).

Execution

Marketing & Sales Plan

CoFlex is a mobile application designed to help initiate a flexible and progressive end of lockdown, and monitor the risk of contamination of an area.

Target customers
We have identified three target customers :
Concerned citizen with personal risk during the exit of lockdown
Travellers during the summer holliday who wish to enjoy their stay while monitoring the danger of their exits
Governments and municipalities who wish to exit out of lockdown while still protecting the safety of their citizens

Business to customer
Regarding customer relationships, we wish to provide a free to use experience to help any person, whether at risk or not, to access our services.
As customer use is an important source of data we wish to expand its use to the maximum.

Business to government
We wish to partner with governments to offer a secure way out of lockdown. This would allow us to enforce a legal base to our attestations, preventing to the maximum any second wave from happening. This way, we could explode the entire potential of our area risk assessment system at the benefit of a safe and progressive exit out of lockdown. We could partner with governments as a white label solution, allowing us to obtain the required funding for the development of our CoFlex.

Partnerships
We have identified mobile carriers as a strong potential partner. Their will to innovate in services could be paired with our, all looking to innovate in services.

Technology

CoFlex aimed at being built on Android and IOS devices.

Mobile Development
- Android studio
- iOS

Algorithms
- Cython
- Javascript

API
- Google Search API

Data Collection
- Potential carrier partner
- Data against Covid
- https://www.cdc.gov/library/researchguides/2019novelcoronavirus/databasesjournals.html
- https://www.who.int/emergencies/diseases/novel-coronavirus-2019/global-research-on-novel-coronavirus-2019-ncov

Milestones

Being able to develop CoFlex as rapidly as possible is crucial, as the economic and social consequences require that an end of lockdown be put in place within the next month. The app would require to be coded quickly (a couple of weeks).

Discuss partnership with Orange
We have identified mobile carriers as potential preferred partners to develop CoFlex. We wish to initiate discussion with Orange, as the main mobile carrier in France, where we would implement CoFlex first.

Acquire density and virus incidence data

Real-time population density : our partnership with orange would allow us to acquire GPS tracking.

Virus incidence: freely available on the Internet, so this would result in building pipelines from the Internet to the backend of the app.

Model areas' risk assessment and heat map generation

We would implement a model of areas contagion risk through AI coded with Python. To create the map, we will use Google Maps APIs to get data of delimitations of administrative regions.

We will also have to hire the services of epidemiologists to determine under which level of risk an exit would be judged safe and would be allowed.

Further design on the user interface

Development of user interface to further facilitate the use of the application.

Coding the user intterface

We will have to code the user interface design internally for the CoFlex application on both Android and iOS systems.

Area risk assessment, heat map generation and coding of the user interface would lead to hiring 6 developers, and buying or borrowing servers to allow our app to function.

Financial Plan

Fundings

Public partnership could be signed to provide governments and municipalities a solution to initiate a secure exit out of lockdown, through the use of attestations qui QR to regulate the density of areas. In return, we would benefit from the financial support of said governments to develop our solution.

Another source of funding would be through agreements with mobile carriers who wish to fund an innovative solution, as a development of their corporate social responsibility. We could also benefit from their data resources, reducing our expenses in data acquisition.

Revenues

Depending on the development of CoFlex and the parterships implemented, we have identified to possible revenue plans :

Private partnership
In case of a private partnership, our revenue plan would come from in app advertising, which would be included in the heat map.
We have identified two types of advertising that would not interfere with user experience :
- branded pins : pins like store signs which show up on the heat map around the user's location
- search ads : ads displayed on top of the search result when a user searches for a store, restaurant etc.

Public partnership
Should a public partnership be settled in a country/area, we could exclude private advertising from our application as a service of general interest. Revenue could be partially or completely provided by said government/municipality.

Expenses

We have identified a series of expenses for the development of CoFlex application:

- Acquisition of data regarding real-time density population
- Designer for further development of user interface
- Hiring developers for user interface, modelisation of area risk assessment and heatmap generation
- Epidemiologist advice to determine area risk and user protective equipment link