NOTE OF INTENT: *MOINS SHARE*

PROBLEM

Looking at our past experiences, we have come across the fact that generally students have a very limited budget, but still buy numerous durable goods of lower quality. These constraining expenses represent a non-negligible part of their budget. A study conducted by SeLoger.com has tried to evaluate those costs: on average they spent 344 euros on kitchen accessories, 377 euros for housekeeping commodities or even 700 euros for furnitures.

If we look at this situation within the scope of student residences, they gather individuals faced with the exact same constraints and necessary expenses. Provided with a reduced purchasing power, they oftentimes buy commodities of lesser quality only because they cannot afford better. Residences vividly lack a system that would connect the demand and supply of goods. Quite paradoxically, someone in need of a vacuum cleaner will buy one, while his neighbor may have one that he could borrow.

In addition to budget constraints and price issues, overconsumption of goods poses a colossal environmental challenge. Forty-five tons of raw materials are used each year to produce the entirety of goods found in our homes in France. One good's manufacturing cycle accounts for six tons of CO2 released in the atmosphere. The individualization of goods in today's society thus greatly participates to the environmental overheating the industry is creating.

Another important point to address is the issue of what comes next for goods when students leave residences. It is easy to realize that many throw them away, or keep some with them, while they could undoubtedly leave them to future residence's occupants. A system that would allow residents to leave goods to the community would hence be of use and prevent additional waste.

This problem is particularly resonating today as it adds up to numerous generational issues. Looking first at the environmental impact, it pushes upward our consumption patterns that prompt more and more waste. This ultimately invigorates even more our consumption, while by sharing commodities we would greatly reduce this hazardous trend. Furthermore, with the wave of digitization that our world experiences we believe social cohesion is sometimes reduced to a bare minimum, and this can be noticeable in student milieus.

PROPOSED CONCEPT

We came up with a project that we named *Moins Share* aiming to address this issue of inefficient/overconsumption on three levels: environmental, social and technical. *Moins Share* will try to solve this particular problem by efficiently pooling resources together and streamlining the process of sharing among the students living in student housing. *Moins Share* is a project articulated around a mobile application of the same name, a common storage unit (*Le Local*) and the creation of an autonomous association.

The service will create a common storage unit accessible for all the students that are members of the association and that live in student housing; and the mobile application will help students communicate their needs regarding home appliances and organize the use of these

items; while also facilitating donations at the end of the year when students are expected to leave their housing unit.

For *Moins Share* to be effective, the application will have to be able to accurately keep the inventory of the appliances available to the members in the storage unit and keep track of which user borrowed which item and if it was properly returned. It has to be compatible with a smart anti-theft system that will allow the *Local* to function without a permanent human presence. Indeed, we plan for the *Local* to be a completely autonomous, as it will be locked and unlocked thanks to the QR codes users will be provided on the app. The app will also need to feature a system allowing the members to communicate their needs for the purchase of future appliances for the *Local* and to vote on how to allocate the budget.

Moins Share is a relevant solution to the issue of overconsumption because it uses technology to bypass the roadblocks usually associated with pooling resources together to achieve a common goal. *Moins Share* facilitates cooperation effort through a mobile app linking together member of a community having the same needs and restrictions (quality appliances but small budgets).

EXPECTED POSITIVE IMPACTS

Considering the current problem of overconsumption, the solution we offer would be an efficient way to avoid waste as much as possible. As students, we know that when we move in, we have a lot of spendings and we try to reduce them by buying cheap and shoddy goods. It is actually not helping because they are extremely likely to be damaged quickly and we would have to buy another one. This is an absurd dilemma: avoiding spendings creates other unnecessary spendings within a few months. It represents an economic problem: we have to pay twice or more for poor-quality goods. Let's imagine that a student pays 40 euros for a vacuum cleaner, about 30 more for different cooking tools, 20 for an iron and so on. If they pay 40 euros a year to have access to the *Local*, they would at least save 50 euros and they would get better-quality goods that are less likely to break.

It is also an environmental issue as we have seen while describing the problem in terms of raw material consumption and CO2 released in the atmosphere. If students buy goods they do not use on a daily basis, sharing them would avoid to buy one per person and would then share the CO2 released to build the object between everyone that uses it. Our solution would also allow a community to optimize daily goods' management and to avoid waste by buying better goods and using them wisely. We would then rely on quality more than quantity in a way to create a sharing ecosystem. It would promote economic, environmental and social benefits. Indeed, our app could favor social links through intergenerational sharing thanks to donations and social life thanks to the *Local*.

MAJOR RISKS AND ACTIONS TO REDUCE THEM

Our project is not financially risky. The first year, we have planned to launch a donation campaign to collect second-hand goods in very good condition such as vacuums or irons. Simultaneously, we will organise a subscription campaign, for the fall semester, among the

students. We will also borrow money to cover the rest of the expenses. Our real challenge is to convince students of the project's reliability. An official partnership with the CROUS (public service aiming for improving students' living standards) could help address this problem. However, it is difficult to anticipate if the students will trust the initial *Moins Share* team in charge of collecting the money. If *Moins Share* turns out to be not as successful at it was planned, goods could still be resold.

It is true that there is a potential market and opportunity risk that could prevent some students from subscribing. We could start the first year with a limited range of goods accessible. Some students might then argue that they do not see the interest on paying twice a year for a very small offer. Some may prefer having their own goods and keeping them for themselves.

We could have some challenges with new technologies. Our team will need to know how to solve technical problems such as power cuts in the *Local* or bugs in the student shopping basket. That is why we are planning on implementing a detailed FAQ on the app for the newcomers.

We have finally anticipated the risks related to the civil liability of our project. The *Moins Share* association will secure liability insurance, a multi-risk coverage for the room and the goods borrowed. It will include a large set of guarantees from robbery to deterioration.

DEPLOYMENT STRATEGY AND MAJOR MILESTONES

Our first goal in implementing such a project is to focus on a single student residence hall and deploying the entirety of our desired services there. Student residences seem to be the perfect breeding grounds for such a project. Consequently, we have chosen to develop a pilot project to assess the sustainability and success of our offer on Paris' "Cité Universitaire Internationale".

Within that Student Residency Hall, there are internal steps and goals in order to monitor our progress. Each step or goal would have different dimensions or frame of time. Those steps include owning certain equipment ratios (2 hand vacuum cleaners for 50 students/1 iron for 50 students), attaining a given percentage of monthly subscribers per step, and yearly objectives like reducing carbon emissions of 2 tons in a year. We could also have more subjective criterion, like students' satisfaction. After a given amount of time (say 6 months to a year), we could assess the situation in that student residency hall according to percentage of subscription, number of users, total turnover, overall maintenance costs, total amount of money saved for students, total reduction of carbon emissions, amount of goods left behind by students. Depending on these different criterion, we could be able to adapt our offer, either through price or proposition.

Instead of being pecuniary, the bulk of our milestones would have to do with the amount of people we are servicing, the amount of money we've allowed them to save, the number of locations in which we are implanted as well as their type. One of our first major milestones would be to have fully developed our first Student Residency Hall, with student subscription rates neighbouring 50%, a fully developed pool of equipment, and a yearly turnover of 6200€.

If students are highly engaged with our solution, we could further develop the model and accelerate its implantation in many different Student Residency Halls across Paris first, and then the rest of France, while applying the same criterion to measure the relative success of each Student Residency Hall.

Furthermore, the model could then be replicated in any given neighbourhoods. The priority would be given to lower income, densely populated districts which present similitudes to the student accommodation in that they possess lower quality, unsustainable appliances that place a strain on their limited budget. We could imagine premises in any given district for the whole neighbourhood to share appliances or directly in a building, with integrated software that would restrict the use to the building's community. The criterion for monitoring progress in these situations would be similar to those of the Student Residency Halls.

RETURN ON INVESTMENT ANALYSIS

Our objective during the first years is not to make any profit but to spend as much money as we draw from our subscriptions to help students. We thought it best to fix our entrance membership at €20 for 6 months.

At the moment, there are every year on a rolling basis 12 000 students split into 40 residences in the City University of Paris. In addition to this, there is currently a project to create 10 new student residences before 2020 so that the capacity would rise by 31%. Hence, if you make some calculations, you arrive at this projection in terms of number of students and number of residences:

2018: 12000 for 40 residences so 300 students per residence.

2019: 14000 students for 45 residences so approximately 310 students per residence.

2020: 16000 students for 50 residences so 320 students per residence.

During the first year (2019), we will test our business model on one residence e.g. we will carry out a study to assess the impact of our project on 300 students. We considered that a student subscription rate around 50% will be a very good start so that 155 students will adhere to this new idea per year. Our first annual revenue will be 155*20*2 = €6200.

Now, let's talk about the costs we have to engage in before the development of the *Moins Share* solution. Firstly, we want to implement a QR code access device in order to enter the space. For that, we need a connected lock. We estimated this price around €200.

Secondly, for the app we want to develop, we relied on different websites to create a quote. Here are the assumptions we made:

- Great value (in terms of cost and quality)
- Available for Iphone and Android
- In-app purchase
- Log in system through email and social media
- Users have their own profile
- App available in various languages

The cost for this mobile application is €13600. Obviously, we need this application before the launch of the product.

Thirdly, concerning the marketing aspect of our product, we considered that we would not need, at the beginning, to spend money in this for different reasons: we have designers in our team, we all have different backgrounds and consequently a large network and finally, some

members are currently living in student residences so that they could easily approach building managers.

Furthermore, the costs of the different products we want to put in the room is to be estimated. Here are our assumptions: in a student residence of 300 people, there are 6 floors, 50 students in each. For each level, we have estimated a pool of utilities that should be available (see table in annex). The total cost of those reaches €2158.49. Those will have to be renewed every 2 years.

Finally, we would like to make a partnership, maintenance included, with the CROUS to rent a room in every residence hall in a return of €500 per month (for 10 months) if 15% of our annual revenue is below 500*10 = €5000, 15% of our annual revenue if above. Obviously, in the first year of the project, we'll have to pay €5000 for the room to the CROUS as our annual revenue won't be too high. As such, the first-year costs are 200 + 13600 + 2158.49 + 5000 = €20958.49

To make the project viable, and thanks to the CROUS support, we can use a bank loan of €20000, whose principal is repaid at the end. Currently, the interest rate for a 5-year loan is around 1%. You will find in the annex an amortization table.

To conclude about this first year, we receive €6200 from subscriptions plus €20 000 from bank loan. The cash exits reach €20 958.49 plus €220 from interests. Hence, we have a positive cash flow of €5021.51. Nevertheless, our net income equals €6200 - €20 958.49 - €220 = (€14 978.49). Indeed, the launch of the app was a major expense this year.

We anticipated a growth of our business in terms of targeted student residences in 2020. Our product is offered to 4 new student residences and 180 students in each location adhere to our solution. This figure will increase by 10 students per location and per year. We hope that the CROUS will allow us to evaluate our app within the new locations currently in construction. In 2021, we'll gain 5 more locations for a total 10 student residences. In 2023, our objective is to affect the 16000 students of City University of Paris. You can find in the annex our estimated income statement for the next 5 years.

ORGANIZATION

As we aforementioned, we need to develop a strong collaboration with them and with other partners such as the CROUS and household appliances manufacturers.

Moins Share is based on the students' participation, which is why it is crucial to inform them about the benefits they can reap out of our service. This will be done through an information campaign we will conduct. Moreover, students must participate in the equipment collecting. To foster this, we will organise an event at every end of the semester where students leaving the building will have the opportunity to give the household appliances they don't want to take with them.

In order to concretize our project we also need a partnership with the CROUS, and this for two different reasons. First, to get the space that will serve as our common storage unit. Second, the CROUS can help us inform the students and the new entrants about our service and its benefits.

Furthermore, our project is ambitious and must be led hand in hand with other external partners such as French manufacturers of household appliances and electrical goods. Brandt, Seb, Moulinex and Tefal are four powerful French companies specialized in household appliances and we must examine the possibility of developing a sponsorship with at least one of them to get price reductions on the equipment.

ANNEX:

Estimates of utilities needed for each floor of residences

- 1 iron→ 1 * €26.99 (Deik Model)
- 1 ironing board → 1 * €42.99 (Leifheit 71625 Classic Model)
- 2 hand vacuum cleaners → 2 * €51.99 (Holife 6KPA 3-en-1 Model)
- 1 broom → 1 * €7
- 1 bucket → 1 * €5
- 2 blenders → 2 * €56.99 (Duronic BL10 Model)
- 1 cake mould → 1 * €10
- 1 raclette/pancake machine → 1 * €24.98 (Cosylife CL-R8C Model)

The sum of all these costs equals €334.92 for each level so that it will cost €2009.52 for one student residence. Furthermore, we add the following supplies in the room:

- 1 table → 1 * €29 (Tarendo Ikea Model)
- 2 shelves → 2 * €34.99 (Langria Model)
- 1 printer/copier → 1 * €49.99 (Canon PIXMA MG2550S Model)

Amortization table

			Interest rate	1,1%
Year	Balance	Principal	Interest	Annuity
1	20000	0	220	220
2	20000	0	220	220
3	20000	0	220	220
4	20000	0	220	220
5	20000	20000	220	20220

Estimated income statement for the next 5 years

Year	2019	2020	2021	2022	2023
Number of users per location	155	180	190	200	210
Number of residences	1	5	10	30	50
Annual revenue	6 200,00 €	36 000,00 €	76 000,00 €	240 000,00 €	420 000,00 €
Application and development costs	13 600,00 €	1 000,00 €	1 000,00 €	1 000,00 €	1 000,00 €
Interests paid	220,00 €	220,00 €	220,00 €	220,00 €	220,00 €
Rents of the room/Fees to the CROUS	5 000,00 €	5 400,00 €	11 400,00 €	36 000,00 €	63 000,00 €
QR Codes	200,00 €	800,00 €	1 000,00 €	4 000,00 €	4 000,00 €
Furnitures	2 158,49 €	8 633,96 €	10 792,45 €	43 169,80 €	43 169,80 €
Renewal of furnitures			2 158,49 €	8 633,96 €	12 950,94 €
Repayment of debt					20 000,00 €
Net Income	(14 978,49) €	19 946,04 €	49 429,06 €	146 976,24 €	275 659,26 €