

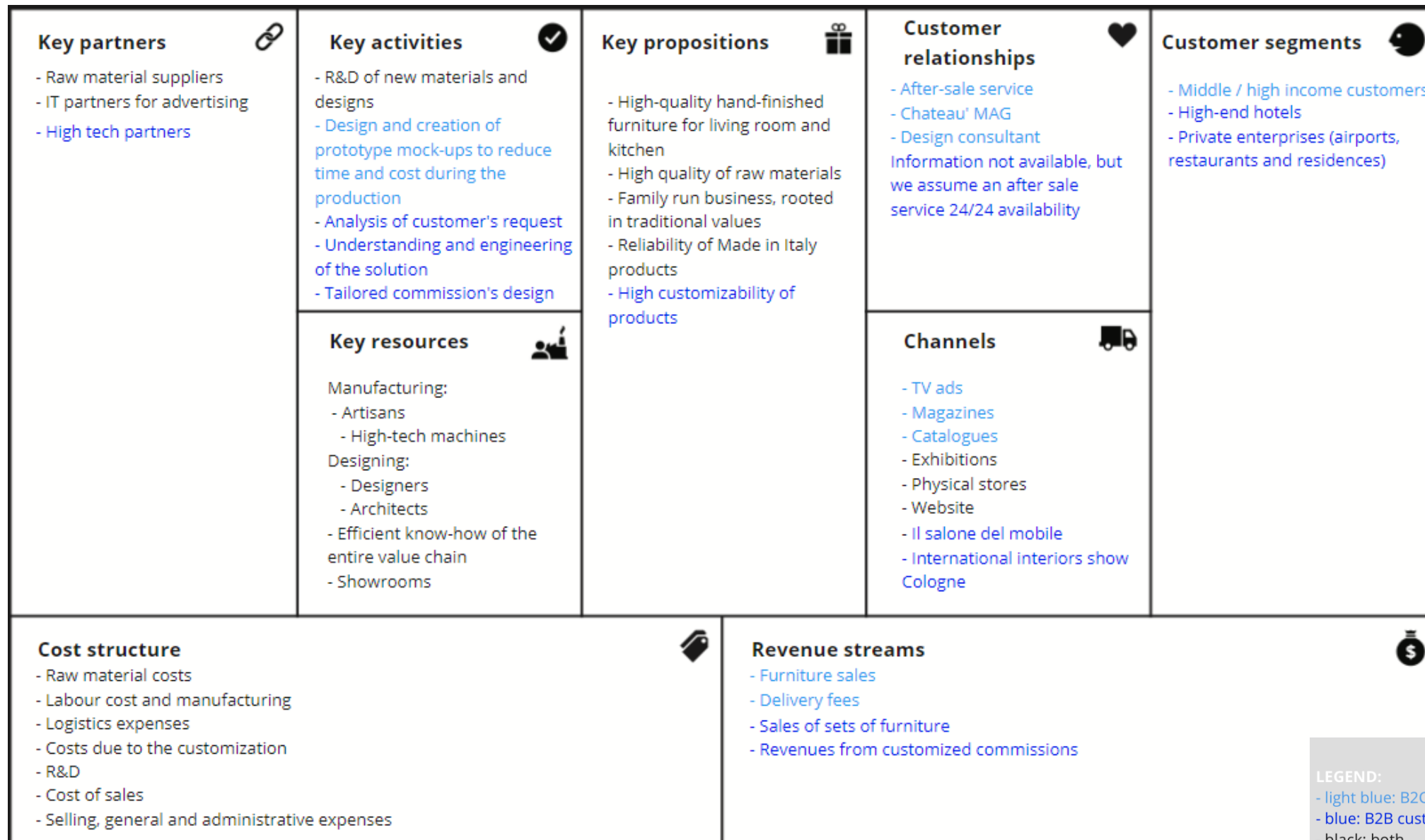


Chateau d'Axx®



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Current Business Model Canvas



In this presentation we will try and explain our ideas and propositions for a new Chateau d'Axe sofa, as well as other ideas and lines of development for new raw materials, approaches to the showroom and circular economy efforts. As of now, let's try and analyse the current Chateau d'Axe's BMC as well as their current positioning.

In recent years the company has tried to move from a lower to medium income target towards a wealthier one, although struggling to get recognition for the quality of their products and the efficiency of their production.

While this is certainly true in the B2C market, the company also has a very relevant position in the B2B market, especially towards high-end hotels and other private commissioners, who commission custom furnishings of their facilities.

This part of their business is often neglected, while it could obviously be exploited to get further recognition.

LEGEND:
 - light blue: B2C customers
 - blue: B2B customers
 - black: both

Let's start off our analysis trying to get a grasp of the trends and main influencers in the furnishing markets Chateau d'Axe is currently operating in, particularly in Italy, through a STEEP analysis. We then proceed to highlight some of the most relevant macro trends in order to understand if and how they can be exploited throughout our project.

STEEP

Social:

- Average income € 21600 from which a medium/low availability of expenditure can be deducted
- Employment rate 57.8%
- Increase in green consciousness.

Technological:

- High concern for technology and innovation that can be found in the home automation trend: an increasing number of people are interested in purchasing devices to make their home smart and integrated.

Economical:

- Slowdown in the growth rate of the economy
- Uncertainty about the medium-term prospects for the Italian economy which are negatively affecting both households' propensity to consume and business investment.

Environmental:

- Increasing concern about CO2 emissions
- Integrate sustainability into the architecture of the hotel and effort towards official recognition of the eco-sustainability of a structure.

Political:

- «Bonus mobili» tax relief incentive 2021 for those who have carried out renovations no earlier than 2020, which could have a positive impact on demand.

MACROTRENDS:

Augmented Reality: technology is used to overlap digital contents, which are levels of information (e.g. texts or images), to real environment amplifying the perception of the world.



One of the most relevant application cases is L'Oreal, which uses AR both with end consumers, letting them test products directly via their smartphones, and with retailers, who will be able to see how exhibitors and products are displayed in 3D when visiting the dedicated exposition Area in the store.

Virtual Reality: through technology it is possible to create a digital environment that delivers an immersive experience, completely replacing the real world, and in which it is possible to move as if you were physically there.



A particular case is IKEA which, through VR headsets, has made it possible for customers to place themselves in a fully furnished room, with the possibility of customizing every single item in it. They can imagine their dream house and furnish it, but first of all they can check how products look before buying.

Sharing Economy: an economic model in which goods or services are shared and reused.



Sustained by the development of digital technologies, this model follows a pure circular economy model.

According to PWC's estimations, the business in the European market will reach a value of €570 billion by 2025. This explains why it is important to take it into consideration.

Some quick and successful cases are Uber, Airbnb and Waze, which using digital applications are able to perfectly match supply and demand.

Smart Environment: ecosystem of interacting objects with embedded sensors through which devices can network to each other. This also includes many computational elements providing services to improve human life, so that these objects are able to self-organize, while also being able to control the environment.

An application field is the smart home, where, through IoT and an app, it is possible to automate a series of activities, such as light switching and temperature control, with the aim of optimizing home management.



SWOT Analysis

According to the STEEP analysis and the macro trends we previously discussed, we discovered some exploitable opportunities, as well as some threats that should be carefully analysed. This leads us to a **SWOT analysis** that highlights also the points of strength and the weaknesses we identified in the whole business case. We mostly focused on some main points of the STEEP analysis such as the environmental and technological ones. For what concerns macro trends, instead, we focused on the one regarding *Smart Environments*, since it is the closest one to our idea, but we are strongly convinced that also the *Augmented Reality* could be a hot trend (especially if applied to showrooms). Thus, our main line of thought maps the great quality of Chateau d'Axe products to opportunities like the ones of the increasing *Home Theatre market*'s size and the *positive inclination* of people towards *environmental topics*.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none">Quality of materialsCompany's historyProducts durabilityHigh quality of manufacturing and hand finish	<ul style="list-style-type: none">Brand awarenessUnclear Italian nature of productsMissed perception of the value of productNot delivered emotional supportPoor design and innovationLack of adequate e-commerce platform
OPPORTUNITIES	THREATS
<ul style="list-style-type: none">Potential partnershipsNew technologies developmentHome Theatre marketPositive inclination towards environmentally friendly products (B2C) and regulations (B2B)	<ul style="list-style-type: none">Textile industry restrictionsEnvironmental sustainability regulation and responsibilityOnline showroomsRelevance of e-commerce

From this SWOT analysis, some **strategic alternatives**, that can be considered to create a sustainable **competitive advantage**, arise:

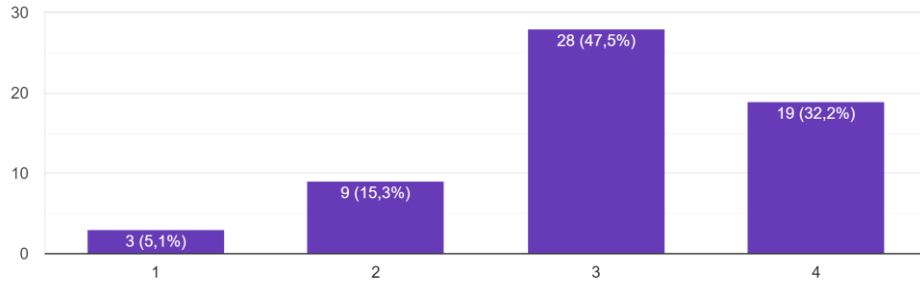
1. launch of new products, that will strengthen the quality of materials and components
2. exploitation of the positive impact of the environmental trend through the quality of the materials
3. brand strengthening
4. binding between brand proposition (aligned with the environmental requirements) and product value
5. focus on the possibility for customers of perceiving the quality of products in physical showrooms
6. enhancement of the strength of physical touchpoints (showroom)
7. exploitation of e-commerce
8. creation of an emotional appeal in the customer given by the physical showroom

	OPPORTUNITIES	THREATS
STRENGTHS	Strategies to make use of Opportunities through Strengths 1 2	Strategies to prevent Threats through Strengths 5 6
WEAKNESSES	Strategies to make use of Opportunities to minimize Weaknesses 3 4	Strategies to minimize the potential dangers lying in sectors where Weaknesses meet Threats 7 8

Why this segment?

Sei interessato/a a tematiche ambientaliste (materiali ecosostenibili, consumi di CO2, riciclo dei materiali, ...)?

59 risposte



From the conducted external analysis, we can clearly see the tendency of people to look for more eco-friendly products. Thus, the chosen market segment is the one referred to environmentalist people, i.e., those people who are concerned about CO2 emissions, how to avoid wastes (e.g.: through the reusability of materials), and so on. Also, since the segment consists for the most part of young people (because they are generally more receptive to these "new" trends), we thought that it could also be an interesting idea to introduce some *smartness* in the products of Chateau d'Axx. This point will be discussed later on, when we will talk about the product innovation, but for now we can anticipate the fact that we tried to take advantage of the growing Home Theatre Market. For further information, we report two links reinforcing our idea, plus one for the eco-sustainability trend:

- <https://switchtothefuture.com/domotica-e-smart-home-levoluzione-smart-delle-abitazioni/>
- <https://www.grandviewresearch.com/industry-analysis/home-theatre-market>
- <https://www.globenewswire.com/news-release/2020/10/28/2116073/0/en/>

This could give us the **accessibility** to the considered market segment, which we have further proven through a poll ([Poll 1](#)). The latter showed that the **size** of the market segment including people interested in environmental topics consists of 47 people (**79,7%** of the total). Thus, this sample demonstrates that with appropriate marketing actions it would be possible for the company to obtain the segment of customers concerned with environmental-friendly topics. Other properties satisfied by our idea are **duration** (we can see in the previous links how the Home Theatre Market is growing in the next 3-5 years and this is also true for the eco-sustainability trend) and **importance**, that would justify the orientation of the company towards those trends.

Since we are positioning the company in an environmental-friendly market, we are distinguishing ourselves from competitors, but at the same time we are maintaining **homogeneity** in the company's value proposition because we are still offering high quality products. This component is further enhanced by the employment of "less common" materials (we will return on this point later on). The **measurability** of this market depends on how large it could be and what is the buying power of the considered segment. In order to demonstrate that we can satisfy this property, we conducted another poll ([Poll 2](#)) which allows us to estimate the buying power (the poll shows a range of €2000-€5000 for 37,1% of respondents) and the number of potential buyers. The latter can be easily calculated knowing the number of workers in Italy (which is 24,8 millions, according to [this link](#)). We have:

$27,2\% * 24,8 \text{ millions} = 6,7 \text{ millions} \rightarrow$ about **7 millions** of potential buyers (in Italy, among current workers).

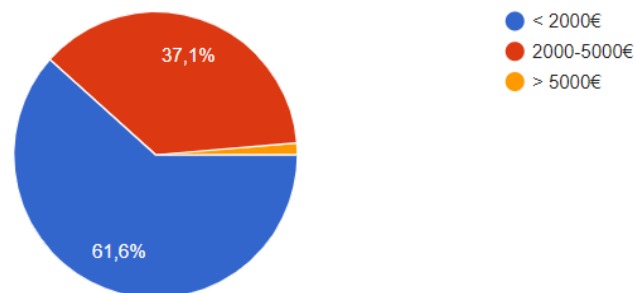
N.B.: since the percentages of people above 25 years and people that are currently working is almost the same, we can state that there is a correspondence between them and that they all voted for the €2000-€5000 range of price; thus, from now on we will consider their opinion rather than the others' one (also because that is the main market segment).

Poll 1:

- 88,2% of people think that a sofa company should be more eco-friendly
- 61% of people would prefer a "smart" sofa to a classic one
- 79,7% of people would have a break in the "café area"

Quanto saresti disposto a spendere per un divano di qualità?

151 risposte



Poll 2:

- 28,8% are people with an age of 25+ years
- 60,9% of people are engaged, married or live together
- 27,2% of people are currently working (the others are students or unemployed)

Buyer's Personas

NAME

Elisa Toscano

TYPE

Rational

Skills

Problem Solving



Python skill



Availability



Conversational skills



Needs

Looking for quality in the products she buys, valuing durability over convenience without renouncing to the design appeal. She's also fascinated by technological integration in the home environment. Wanting to enjoy the time spent home maximizing the comfort she gains.

Interests

- Movies
- Technology
- Fitness
- Self-care

Background

Bachelor's degree in Computer Science.

Motivations

- Working with a career-focused effort
- Interested in the integration of new technologies for home appliance

Frustrations

- Struggling to find products that match her expectations given the price
- Environmental concerns

Quote

“Buy less. Choose well. Make it last. Quality, not quantity. Everybody's buying far too many clothes.”

-Vivienne Westwood

Demographic

Female 30 years

Italy

Married

IT consultant specialized in CRM support for B2B in the field of telecommunications

€19.800 annual income

Channels



B2C

Let's now try and give an insight of the buyers composing the segments we want to target with our new product. We'll try and focus on the B2C and B2B markets separately, addressing their specific concerns and strongpoints.

There is obviously some common ground between the two markets: first of all one of the main focuses of the new product line is obviously addressing one of the most relevant trends in recent years, that of eco-sustainability. Targeted buyers ought to have an adequate concern for the impact that production of new goods has on the environment. A growing interest is emerging more and more commonly among younger generations, but it is also being progressively accepted by wealthier and older segments of society.

One other common aspect can obviously be underlined In the fact that we want to address a public that takes its decisions consciously, that means that they are highly rational customers, who do not tend to be influenced by mere publicity, instead putting serious thought in what they buy and always addressing the problem they're facing with the most convenient answer possible.

Regarding the B2C market in particular our main effort is to focus towards women that have already started their family, and that in most cases are the ones responsible for the decisions regarding furniture in the family, being that men are usually much more instinctual in these kind of decisions. In this particular respect we want to emphasize the necessity for our customer to have a knack for qualitative and durable products, since that is what Chateau d'Axe as a company manages to offer consistently among all its products.

NAME

Martina Ferrari

TYPE

Guardian



Demographic

Female 35 years

Italy

Married

2 children (4 and 2 years old)

€62000 annual income

Key Characteristics

Budget control



Organization Influence



Availability



Needs

She need a set of customizable furnitures that fits the request of her hotel: High quality materials, handmade with care-production, and modern design features but able to create a welcoming environment. The furniture must be easy to clean cause it will be done frequently. Moreover the product must be aligned with the Sustainable path pursued by the hotel.

Interests

- Finance
- Design
- Horeca channel
- Exhibitions
- SDGs
- Philosophy

Channels



Background

Masted degree in Luxury Management
bachelor degree in economics and
administration
Volunteering for Onu and Unicef

Frustrations

- Environmental concerns
- Awareness about her business impact on global health
- Financial and economical health of the hotel (going concern)

Position

5 stars Hotel Manager

Activities: Operational and
financial supervisor

Decisional power: first
consultant of the owner, who
trusts her

Motivations

- Eco-friendly and sustainable development innovation
- Quality of materials

Quote

“ Hospitality is not to change people, but to offer them space where change can take place.

- Henri Nouwen

B2B

Regarding the B2B market, we can highlight just a few aspects when compared to the general considerations valid also in the B2C market: Chateau d'Ax should try and pioneer the role of large scale and high quality eco-sustainable furniture producers, given that as of now many more businesses, like hotels and offices, are trying to invest in more eco-friendly solutions, that also help the company attain a better standing among its customers, while also being in line with newly introduced regulations.

NAME

Hugo Rovira

TYPE

Rational



Demographic info

Male 54 years

Spain

Single

Professional level

€80,000 annual income

Background

Bachelor's Degree in Business and
Economics
Master's Degree in Business
Administration

Position info

Owner - Entrepreneur

Supervises hotels chain

Management for 15 years of
hotels direction

Role in the buying
process: decides what to buy in
order to improve the value
proposition of his hotel chain
and has the final word on the
decision of the best alternative
between the proposed ones

Key Characteristics

Budget control



Organization Influence



Availability



Decisional Power



Organizational goals and priorities

Individual goals include the will to construct a high luxury hotel chain. In order to achieve this, the main focus is to have key resources, coming from key partnerships, that help in delivering the best comfort to customers. Focus on improving the quality of service in the hotels chain he manages while developing a further expansion of the business in high luxury hotel market.

Metrics are related to the overall satisfaction of customers and they are evaluated through customers' opinions (reviews, surveys, ...).

Interests

- Follow the market trend
- Finance and stock option
- Golf
- Watches
- Interior design
- Politics

Preferred channels



Drivers and motivators

- Being one of the most known luxury hotel chain
- Brand's image enhanced with strong key partnerships
- Possibility to get high revenues without taking care of specific problems (such as environmental requirements)

Fears and challenges

- Introduction of a too elevated cost structure which lowers the business profit
- Lack of time to manage the whole chain
- Concernment about market trends and variability

Firmographic info

Hotel industry

Resource-driven business
model

Quote

“ Customers may forget what you said but they will never forget how you made them feel.

- Carl W. Buehner

Looking at the planimetry that, nowadays, characterizes houses and buildings, it is possible to understand the need to exploit every square meter available, trying to enhance it and create a multifunctional environment.

By acting on this, the new structure of the sofa must present the possibility of giving it a new mode of use that goes beyond the simple sofa positioned in the living room.

Through the proposal of a sofa that can be divided into a maximum of three modules, two of these with two seats and one with a seat, the aim is to achieve a rearrangement of the space that optimizes the layout of objects within the environment, capable of creating a conversation area among guests or giving the family the excuse to effectively spend time together in a pleasant environment.

Furthermore, referring to two of the biggest popular trends of the industry, the smart home and the home theater, the proposed sofa involves the installation of two LED bands along the extremes of the lower part of the two-seat modules, achieving as a result space delimitation, both in the L-shaped and in the U-shaped arrangement.



The LED bands work through the integration of voice recognition systems, therefore, using one of the possible smart devices (Alexa, Siri, Google, ...) already owned by the user, it is possible to access either all 4 bands or only two in the L layout (at the extremes of both two-seats modules).

Thanks to the growing opportunities offered by artificial intelligence, the sofa can turn into a smart object. The choice of this technological integration takes into account the relatively long life of a sofa (7-10 years) compared to the one of any other technology that could be installed, and which tends to renew itself every 2-3 years.

The insertion of the LEDs, therefore, does not make the sofa obsolete after years, nor does it negatively affect its value, since if there is a malfunction, they are easily replaceable. In fact, their price is very low (about 8€/m) if compared to the price of the whole sofa, while at the same time they would obviously enhance the overall look of the product.

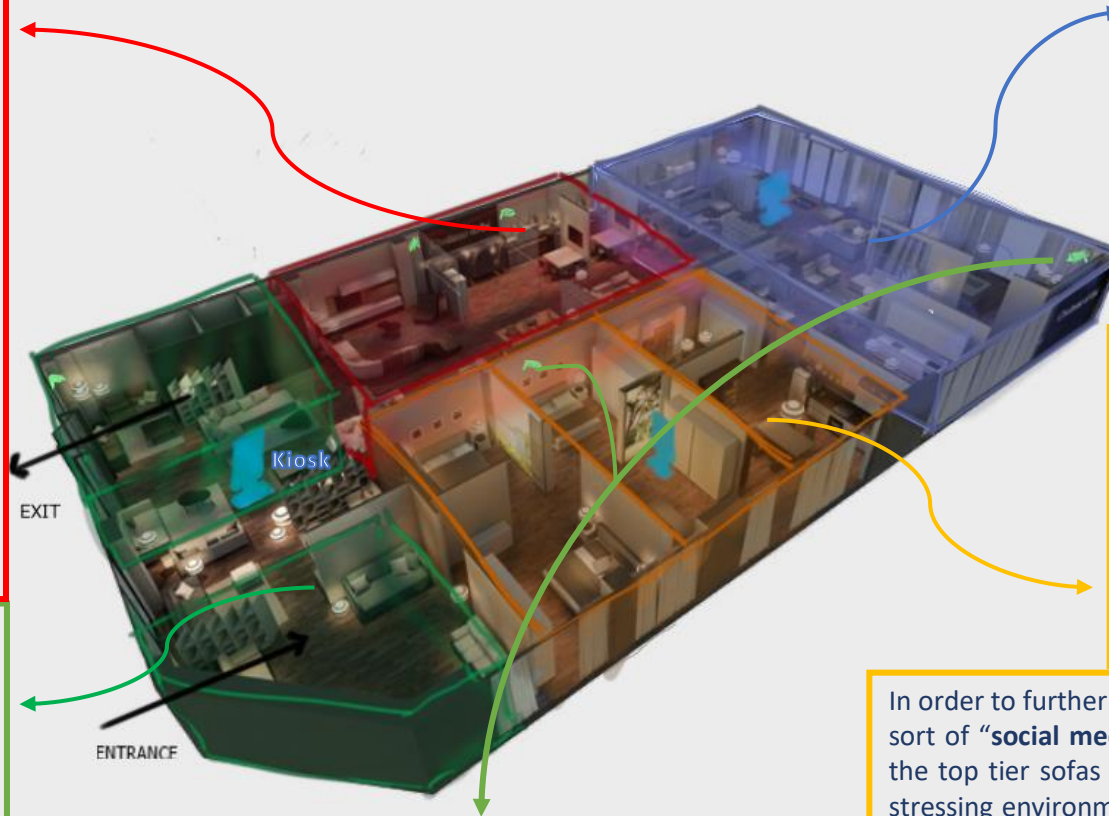
Also, in order to give some sense of cohesion, a possible solution to consider is to add some extractable hooks at the two ends of each sofa. This will also make the three sofas more stable when used in the L-shaped configuration.

Product Showroom

Showrooms housing Chateau d'Axe expositions ought to be renovated in order to give visitors a more entertaining experience and make them more prone to visiting more often. The main goal to reach is to **differentiate several areas** and devote them to different purposes, making the visitor go through all of them following a “mandatory path”. This is done with the aim of generating interest in each area and giving incentive to come back in a short period of time for a change in dispositions and themes:

An entire section of the showroom can be repurposed as a **conference / cinema hall**, with the installation of a stage and the capability of providing seating for many people. The showroom could lend this area to local initiatives as well as to external contributors in order to make the showroom a place of sharing, where one could find entertainment with a variety of hosted activities. In showrooms with a large enough area, that is relatively separated from the other ones, there could also be the possibility to organise an area to be rented out for occasions and events. According to the necessity of renters, the showroom could provide adequate furnishing of this area, that could be used as a conference hall, to host a party and other similar activities that further develop the objective of creating a **social hub**, where people go not only to see possible furniture purchases, but also to enjoy themselves and spend their leisure time.

Entrance and exit areas ought to be separated as to clearly define the path a visitor should follow. Other than that they have to showcase the ongoing themes of the expositions hosted in the showroom as well as publications of future events. They should also aptly introduce the visitor to the applications and programs that allow them to fully utilize the technological components scattered throughout the various areas, in particular one of the **kiosks** should be placed right before the exit. This area could also be characterised by the presence of a “**guest area**”, where periodically people of particular relevance in the sector of furniture can be hosted and can help in creating awareness regarding certain topics, while also promoting Chateau d'Axe, given that in many cases they have rather large followings on social media.



A section of the showroom could be dedicated to the realization of a **café and seating area**, allowing visitors to take a break during their visit. This also gives the showroom the opportunity to become more than a stop for interested customers, like a meeting place for passers-by. This kind of lounge bar would attract people in and make them walk through areas of exposition, showing them the products. As already mentioned for some other areas, this one could be another prime target for the presence of a Kiosk, allowing visitors to check out pieces of furniture that intrigued them during a break.

The showroom should obviously have some **dedicated exposition areas** like those in present showrooms, showcasing various combinations of furniture according to a given theme. Those exposition areas in fact should be as small and diverse as possible, with frequent interchange between exhibited pieces as to attract customers into visiting and checking out the new disposition. They should be organised and thought out with clear theming in mind and remain faithful to it.

In order to further develop the advertising component coming from visitors a sort of “**social media dedicated area**” should be set up. In this area one of the top tier sofas should be exhibited, put in an adequate setting, like one stressing environmental concerns and showing the efforts made by Chateau d'Axe in that field, where visitors can take photos and spread the message as well as brand recognition.

Finally all exhibited products should be associated with a particular three or four digit code, that can be noted down and used in designated kiosks by visitors. This allows them to be provided with much more detailed information about the product, as well as some interactive tools letting them position the piece of furniture in a virtual environment that can be set to replicate their own house. Thus, visitors can better understand how the eventually bought product would stand in their own home.

The showroom could be outfitted with new cameras allowing to perform studies and elaborations from **heatmap technologies**. This could obviously allow to gather statistics on what areas are the most appreciated ones in terms of visitors, dwell time and most of all to measure the change in visits compared to normal showrooms. Finally the application of this solution may prove useful with a relatively small investment, around 1000-2000 euros in a small setting, rising to an expenditure of 10000 euros in a bigger sized showroom. ([Link](#))

For what concerns the choice of raw materials, we have taken into account the provided materials as well as new ones. We tried to find something suitable for our analysis, thus we followed the eco-friendly trend by looking for materials with a high percentage of recycling and with high benefits for the environment.

The materials we are talking about are:

Polyurethane foam derived from sugar: polyurethanes are versatile materials with thermoplastic, elastomeric, and thermosetting grades. They excellently resist to abrasion, wear, UV and poor elevated temperatures. Other possible features are flame retardant grades and transparent grades. Together with this material, we consider also a layer made of polyester fibre which is already used by Chateau d'Axe for its 3D Comfort padding.



Cork: light material, insulating against heat and sound, high coefficient of friction, resilient, wear resistant, impervious to liquids, chemically stable, buoyant, fire resistant. The tree does not need to be cut down to harvest the cork and the trees' normal growth is not damaged. Production releases only 10% the CO2 released during production of plastic stopper, and 4% of an aluminium stopper. Cork is also resistant up to 90000 bends.



Orange Fiber: patented material from citrus juice by-products, repurposing them to create beautiful, sensorial materials that reshape the sartorial experience.



Piñatex: this material is light, breathable, elastic and has been tested following the international ISO standards for light resistance, resilience and colours fastness. It can be dyed, printed and produced in different circumstances. It has got features that make its usage perfect not only for accessories and garments, but also in different industries. Its Spanish designer thinks that Piñatex fabrics can be improved in order to transform them in breathable and antibacterial upholsteries for medical purposes, and in an insulating material for residential buildings. Interesting data on Piñatex state that, in order to produce 1 m² of material, it takes 16 ananas plants (or 480 leaves). Then, by using waste of the first 10 countries where ananas is grown, 50% of the global production of leather could be theoretically substituted without planting one single ananas.



Vegea: characterized by a high content of vegetal/recycled raw materials such as vegetal oils and natural fibres from agroindustry. Its main fields of application are fashion, furniture, packaging, automotive & transportation. Currently existing Vegea products are compliant with the most stringent European regulations (REACH), they are solvent free, animal friendly and Made in Italy. An important data in support of this material concerns the fact that there are about 13 millions tons of waste coming from the global farming industry every year.



Cotton fibre: soft, cool, known as breathable fibres and absorbent. Cotton fibres can hold water 24–27 times their own weight. They are strong, dye absorbent and can stand up against abrasion wear and high temperatures.



Wool fibre: soft, durable, safe in nature, and has high wear and tear resistance. It has good characteristics such as elasticity, resilience, poor resistance to alkalis with good resistance to acids, and good insulation property.



Silk: it has a smooth, soft texture that is not slippery, unlike many synthetic fibres, and it is one of the strongest natural fibres. Despite its immense tensile strength, it is generally prized for other reasons. Its softness has made it a hotly desired commodity throughout history, and this simple fibre has built legendary trade routes and transformed cultures throughout the Old World.



N.B.: Since cotton and wool are already used by Chateau d'Axe, we include them in our Analysis for two reasons:

- 1) to compare their CO2 emissions in order to reposition the brand
- 2) to consider their re-usage in the reverse logistic service planned for the circular economy

Another material, similar to Vegea, that we are not taking into account is **Ligneah**, which is a vegetal and vegan leather. It has been created thanks to an innovative technology that allows to cut thin wood papers in order to paste them on cotton supports. Woods where this material is originated are certified, and during the whole production phase there is no usage of toxic materials that are dangerous for the environment as well as the human health.

Furthermore, Ligneah has other applications such as in clothing, bags, shoes and fashion accessories industries.

Raw materials we considered so far have very low CO2 emissions rates (during the primary production phase), except for silk and wool fibre, which are still emitting a lot of CO2 and could negatively impact the new image the brand would assume according to our idea.

Data on polyurethane foam are those of the "classic" one since we were not able to find data on polyurethane foam derived from sugar, but we think that emissions for this material are pretty much the same (if not even better for the one derived from sugar). Together with this data, we reported also the embodied energy (during the primary production phase) and the water usage, but we did not use the latter in our analysis for sake of simplicity.

In the table below there is also another column, that is the density, which helped us in the calculation of the final cost structure (discussed in next slides).

N.B. (1): unfortunately, since we did not find any data of these kinds on orange fiber, piñatex and vegea, we made some assumptions on the cost of these raw materials in order to get a consistent cost structure.

N.B. (2): all of these data come from **CES EduPack** software.

Material	Density (kg/m^3)	Embodied energy, primary production (MJ/kg)	CO2 footprint, primary production (kg/kg)	Water usage (l/kg)
Polyurethane foam	65,00	92,75	5,04	295,00
Cork	300,00	4,00	0,20	700,00
Orange Fiber	no data	no data	no data	no data
Pinatex	no data	no data	no data	no data
Vegea	no data	no data	no data	no data
Cotton fiber	405,00	45,00	0,90	7800,00
Wool fiber	1314,00	48,45	18,00	170000,00
Silk	1305,00	1840,00	171,00	1000,00
Leather	860,00	107,50	4,30	1100,00

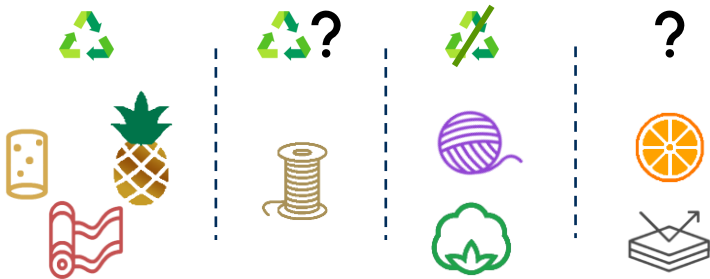
Table 1.

Among these, there are some recyclable materials:

- **cork**;
- **silk**;
- **piñatex**, which becomes fertilizer at the moment of its disposal;

as well as non-recyclable (or partially recyclable) materials:

- **wool fiber**;
- **cotton fiber**.



There is also a last category consisting of materials for which it is not (or we are not) sure if they can be recycled, such as orange fiber and the **polyurethane foam** derived from sugar. **Vegea** stays quite in the middle, because researchers are still trying to find a sustainable way to transform waste bringing it back into the value chain.

We decided to take into account all these data related to CO2 emissions because we wanted to discuss how Circular Economy could be integrated in our general idea of innovation.

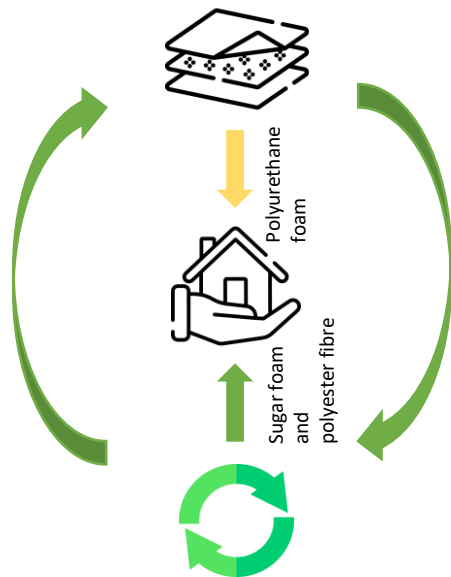
Circular Economy

Re-thinking the current take-make-waste model and looking beyond it, we could redefine the steps of the process, trying to give a new value and a new life to the main raw materials already in use and including the new proposed ones, aim at zero-waste models.

Assuming that the withdrawal of old sofas is performed by intermediaries with whom Chateau d'Axe has a *partnership*, it is necessary they make a preliminary assessment of the sofa which must attest their condition. Here we describe the process for each part of the sofa:

1. Padding

- **Polyurethane foam**: must be supplied to a construction company
- Sugar foam and polyester fibre: if the quality check certifies the goodness of the state, then they are brought back in to the process and reused; otherwise, if they have 50% or less of their initial characteristics, they are supplied to a construction company (in fact 90% of insulation products will have at least 50% of recycled content, without compromising their technical characteristics.)



2. Fabric

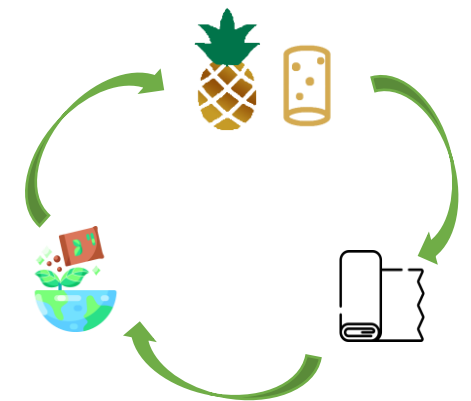
- **Cotton**: can be recycled, but not indefinitely (at maximum 2 times) because the plot shortens every time, and for this reason we won't re insert it into the process. It could be anyway possible to find some partners taking care of the cotton to be recycled and reused by Chateau d'Axe. The recycled cotton can be combined with recycled plastic bottles to make clothing and textiles. If reduced to fibrous state, cotton can be used for applications like seat stuffing or home insulation. Even though the recycling process reduces the possibility of creating new items, the fibre is biodegradable, so if it isn't recyclable anymore it can be composted.
- **Wool**: can be renewed at maximum for 4 times because the plot shortens, and after that as for the cotton it could be used for insulating materials and padding.

3. Vegan Leather

All the following materials want to offer themselves as valid substitutes for animal skin, and since they are already produced from wastes they are considered valid within the circular economy. However, their further recycling to transform the waste of the "new production" bringing it back into the value chain is still under development.

- Cork
- Orange fiber
- Piñatex
- Vegea

Cork can be used as fertilizer at the end of its useful life and this is also the same future goal **piñatex** wants to achieve.



The introduction of these new eco-sustainable raw materials, will not affect the investments that Chateau d'Axe needs to sustain because they will be bought directly from external suppliers, to be included among strategical partners, while we assume that cotton continues to be produced internally. On the other hand, these raw materials will impact positively on the company's CO2 emissions.

We can assume that about 96% of the sofa Environmental impact is derived from raw materials and their manufacturing process.

So, involving the new raw materials conceived, it is possible to perform a carbon footprint that shows the CO2 emissions for each of them.

To compute the emissions we considered the data about the volume of a classic Chateau d'Axe sofa, from which we derived the upholstery surface needed to cover it (see *table 3*).

Moreover, we assumed a similar emission of CO2 among the classic polyurethane foam and the one derived from sugar.

As it is possible to see from the graphs below, we grouped materials in categories of similarity, that is silk-like and upholstery materials, in order to compare their CO2 emissions.

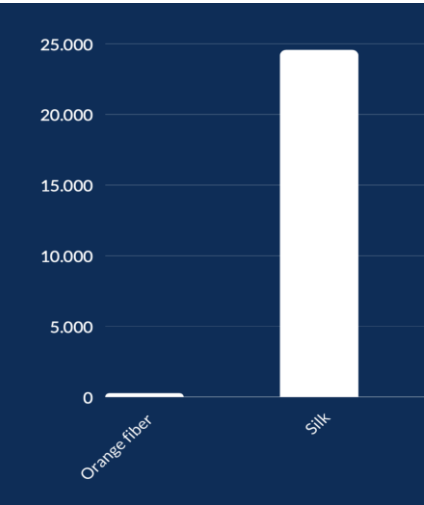
Material	Price per sofa (€)	Cost of production per hour (€/h)	CO2 emissions per sofa (Kg)	Price (€/kg)
Polyurethane foam	426,34	73,27	317,00	9,37
Cork	237,60	2,29	6,63	7,20
Orange Fiber	*267,50	no data	*246,33	*25,00
Pinatex	246,10	no data	246,33	23,00
Vegea	*267,50	no data	*246,33	*25,00
Cotton fiber	139,44	34,81	39,87	3,13
Wool fiber	401,82	121,59	2601,72	2,78
Silk	5655,87	4585,99	24547,05	39,40
Leather	662,20	176,57	406,78	7,00

Table 2.

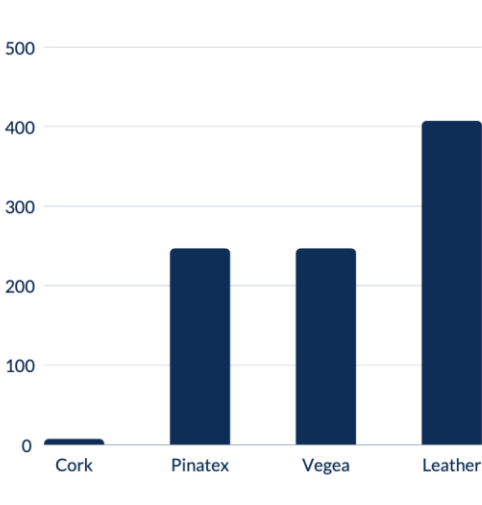
*supposed data, considering about 25€/kg as price of supply

Type of data	Value	Unit of measurement
Upholstery surface (for 1 sofa with 2 seats)	10,71	m^2
Upholstery volume (for 1 sofa with 2 seats)	0,11	m^3
Padding volume (for 1 sofa with 2 seats)	0,7	m^3
Medium price for energy	0,0625	€/kWh
Scaling factor (MJ to kWh)	0,2778	-

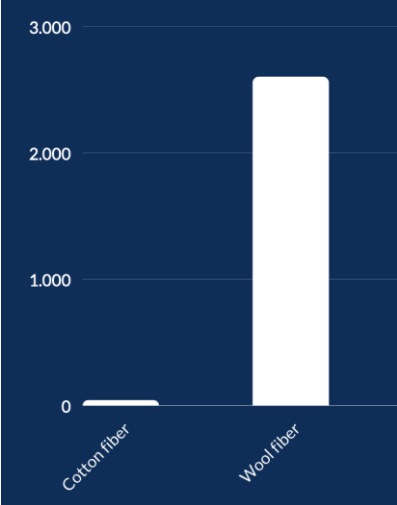
Table 3.



CO2 emissions for silk and «silk-like» solution



CO2 emissions for leather and «leather-like» solutions



CO2 emissions for common fabric

In an effort to better display the savings on emissions and make them more easily understandable by potential customers, we evaluate them in terms of travelled kms by a modern petrol car, which has an average emission of 0,181 kg of CO2 per km. This way customers have a more familiar metric through which to understand the huge impact of their decisions and be led towards a path of increased ecological consciousness in their purchases.

In doing so we find out that:

- Substituting silk with Orange Fiber in the production of all the padding in a sofa would net us a saving in terms of emissions comparable to travelling from Sagres in Portugal to Khasan in Russia, a trip of around 14.000 km, for almost ten times;
- On the less extreme side using vegea or piñatex would save us the emissions of a trip from Turin to Naples (around 890 kms), while using cork would save the equivalent of a trip from Rome (IT) to Granada (ES), 2206 kms long.

For the sake of completeness, we also include the emissions of cotton fibre and wool fibre, already used by Chateau d'Axe in upholstery.

1. Defining pricing objective

The defined pricing objective stays quite in the middle between an orientation towards the market, aimed at increasing the volume of sales, and towards the external environment, wanting to strengthen the brand image in the consumers' mind, as well as increasing intermediaries' loyalty.

2. Forecasting demand

We assumed an elasticity in the range of [0.80, 0.90], given the type of product, but also considering the positioning that Chateau d'Axe wants to attain. So, the proposed sofa is part of the shopping good category but with a tendency to be a specialty good, due to its intrinsic luxury connotation. The perceived value would thus make the product valuable in the customers' mind in such a way that the customer would lose responsiveness to an eventual price increase with respect to common goods.

3. Cost estimation

We considered job-order costing as a driver for our estimation, with the assumption that the direct labour cost per hour is about 9€.
See **Table 4**.

Costs in euro	Upholstery	Leather	Padding	Direct labour
Sum of VC and FC	312	760	500	1620
Price to Public	2845,44	3369,6		
Markup	0,17			

Table 4.

4. Analysis of competitors' behaviour

Looking at the market price, set by competitors, we got the data shown in **Table 5**. These data show that Chateau d'Axe would maintain a lower price with respect to competitors, maintaining all the rest equal to now, without renouncing to its trademark quality show.

Company	Upholstery	Leather
Divani&Divani	€ 4.520	€ 5.710
Lago	€ 7.500	n.a.
Chateau d'Axe	€ 2.850	€ 3.370

Table 5.

5. Selecting the pricing method

In fixed costs (FC) we included the raw materials cost, considered as such because the production scale is not estimated to vary, and also because the production schedule requires a steady monthly supply. This leads us to estimate a demand of $E[Q]=1945$ units/year (for each type of sofa). We instead considered the cost of production and the direct labour cost as variable costs (VC). Thus, to reach the Break-Even Point it is necessary to produce about 47 upholstery sofas and 162 leather sofas in a month. The derived prices are lower than the prices applied by competitors with a positioning similar to the one Chateau d'Axe would reach, but such a difference in price could be attributable to the fact that competitors have a stronger brand image in customers' mind.

6. Price Decision

Before setting the final price, we can state that the average price for sofas covered with upholstery fluctuate between 2850€ and 3000€, while the ones covered with leather fluctuate in the range of 3370€-3500€. Notice that the upper limit must be defined in order to have both an overall view of what the final price will be and a control over the psychological factor given by the quality over price schema followed by consumers during the purchasing process. As a result of all the previous steps, the prices we previously set are **internally coherent** with the costs sustained and consistent with the company positioning. There is also an **external coherence** given by the customer's willingness to pay for a quality sofa (confirmed by the survey discussed for the segment analysis).

New Business Model Canvas

Key partners <ul style="list-style-type: none">- Raw material suppliers- IT partners for advertising- High tech partners- New raw materials supplier- Partners for technological integration: Led provider and installer- Partnership with and intermediary tasked with evaluating the product conformity that decides whether to send it to construction companies or Chateau d'Axe for repurposing- Partnership with a company that recycles cotton	Key activities <ul style="list-style-type: none">- R&D of new materials and designs- Design and creation of prototype mock-ups to reduce time and cost during the production- Analysis of customer's request- Understanding and engineering of the solution- Tailored commission's design- Reverse logistic and quality check conformity- Events in showrooms and monthly rotation of expositions Key resources <ul style="list-style-type: none">Manufacturing:<ul style="list-style-type: none">- Artisans- High-tech machinesDesigning:<ul style="list-style-type: none">- Designers- Architects- Efficient know-how of the entire value chain- Showrooms- Events in showrooms- Heat map analysis in showroom	Key propositions <ul style="list-style-type: none">- High-quality hand-finished furniture for living room and kitchen- High quality of raw materials- Family run business, rooted in traditional values- Reliability of Made in Italy products- High customizability of products- Products conforming to future social phenomena related to increasing environmental concerns- Recognition as an ecological and innovation driven trend setter	Customer relationships <ul style="list-style-type: none">- After-sale service- Chateau' MAG- Design consultant Information not available, but we assume an after sale service 24/24 availability <ul style="list-style-type: none">- Social Hub Channels <ul style="list-style-type: none">- TV ads- Magazines- Catalogues- Exhibitions- Physical stores- Website- Il salone del mobile- International interiors show Cologne- Events in showrooms- Social media	Customer segments <ul style="list-style-type: none">- Middle / high income customers- Eco-sustainability enthusiasts- High-end hotels, in particular the ones already conforming to soon-to-come sustainability standards*- Private enterprises (airports, restaurants and residences)
Cost structure <ul style="list-style-type: none">- Raw material costs- Labour cost and manufacturing- Logistics expenses- costs due to the customization- R&D- Cost of sales- Selling, general and administrative expenses- Investments for showrooms- Investments for new machinery			Revenue streams <ul style="list-style-type: none">- Furniture sales- Delivery fees- Sales of sets of furniture- Revenues from customized commissions- Discounts from suppliers- Government funding for ecological policies- Income from café areas in showrooms	

LEGEND:
- light blue: B2C customers
- blue: B2B customers
- black: both
- light green: B2C customers new
- dark green: B2B customers new
- grey: both new

We finally reach the conclusion of our presentation with a detailed look at the new BMC for Chateau D'Axe.

As one can observe we have put particular attention in specifying which are the new customer segments that will be especially targeted by new products as well as the introduction of many new aspects among Customer relationships and Channels related to the new and innovative role of the showroom, with those same aspects also being counted among the key resources and key activities. Other important components that bring in many new aspects are the innovations introduced through new raw materials as well as the enhanced aim to better analyse and handle the lifecycle of materials, striving towards circular economy. This obviously implies many new costs and partnerships, that in the long run will contribute to making Chateau d'Axe a leader in this forthcoming eco-sustainable furniture market.

*we expect an increasing trend of compliance to these standards in the coming years, due to the higher environmental concern that will lead to the enactment of new regulations.

Events in the showroom and periodic changes in the exposition can be considered as key activities since other than being just a way to induce more customers in the store and with more frequency, it can be set up with an established schedule, becoming an effort for the company to always provide the customers with something new and entertaining to see.

Final Repositioning

Chateau d'Axx®

Through the proposed ideas in the strategy and development of a new sofa and the re-evaluation of the role of showrooms, we expect to achieve a repositioning objective compliant with the prefixed one: proposing a company with very high quality products, but also fully immersed in current innovations and ready to answer to customers' most compelling desires. Provided solutions will then exclusively exploit customers' wants, given the innovations brought with the new product.

