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Master thesis  
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**Packaging for luxury products:  
Sustainability and innovation in the conditioning of  
Champagne**

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## Abstract

Packaging, like other sectors, is subjected to new environmental and social constraints. Global issues are constantly evolving, and products must follow those new rules without impacting the users.

Luxury products have, for a long time, been exempt from these changes but have now been caught up by the awareness of actors and consumers.

The work carried out focuses in particular on the study of Champagne and Spirituans packaging. They are multifaceted products whose tradition and uniqueness belong to the luxury world.

The project was reinforced by in-depth analysis of many case studies, to understand the relation between the packaging of luxury brands and the customers, and analyze the environmental, social, and communication performance skills.

*What is the next packaging for luxury products regarding the new environmental and social awareness of the customers and the brands?*

Finally, the result of the Master thesis is a guidelines proposal, based on the linear system of wine exploitation and production, that includes a larger strategy focused on a symbiosis with the environment.

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# Chapter 1

## Luxury market

The relationship between luxury and fashion is interesting as fashion does not completely belong to the Luxury world but overlaps with luxury in its most expensive and exclusive segments. Both luxury and fashion share the common need for social differentiation, but they differ in two major aspects: the timeless aspect as fashion is ephemeral and the self-rewarding aspect. (Kapferer 2012).

### 1.1 Luxury DNA

#### 1.1.1 Notion of Luxury

Luxury goods are goods whose price is high, and the number of pieces produced is small. Sometimes the rarity of the product is even organized by the brand, as a concept named limited edition product, a commercial approach.

From the Cambridge definition, the luxury market is a market for expensive goods that are not necessary but are bought for pleasure.





A Luxury item is not a necessary product but highly desirable within. Items tends to be sensitive to a person's income or wealth, that can also refer to services. Thus, creating a big elasticity of demands, and explaining why the luxury market is more sensitive to changes in the economic environment than other markets.

### 1.1.2 Classification of luxury

D'Arpizio proposes a 3-level classification of luxury. These are validated by the Fashion and Luxury insight of Bain & Altagamma.

The first level is **ABSOLUTE LUXURY**. This level is accessible only for luxury brands that are characterized by elitism, uniqueness, and heritage. (e.g., Cartier). The history of the brand is associated with manufacturers of precious products that are traditionally the drivers of the market.

The second level is **ASPIRATIONAL LUXURY**. This level is reachable by luxury brands that achieve their status by being distinctive and recognizable (e.g., Louis Vuitton).

The third level is **ACCESSIBLE LUXURY**. This level is obtainable by luxury brands that are more affordable, purchased by middle class households (e.g., Hugo Boss).

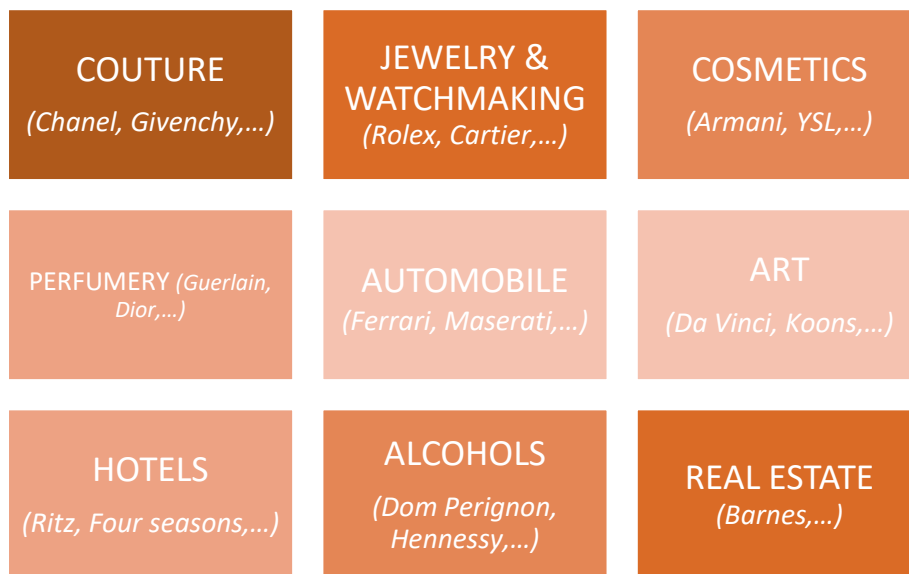
## 1.2 different luxury items

Today, the luxury market is made up of several sectors and few things that bring them together, as the products are very different from their nature (Burnel).

Luxury Items can be different depending on the point of view. Castarède proposes a division of luxury into seven sectors, each corresponding at several activities:

- The cultural Market: market of art

- The transportation sector is composed of automobile, yachts, and private jets
- The personal equipment composed of Couture and Haute Couture, Fine jewelry and fine watchmaking, Shoes, High cosmetics, Perfumery, and fine perfumery
- Hobbies: Cruise, Palace, Castle, Luxury hotels, luxury sports (golf, hunt, polo)
- Home equipment mainly with art de la table: crystal, porcelain, goldsmith, earthenware
- Alimentary: Wine, alcohols and spirituals, luxury food and restaurants

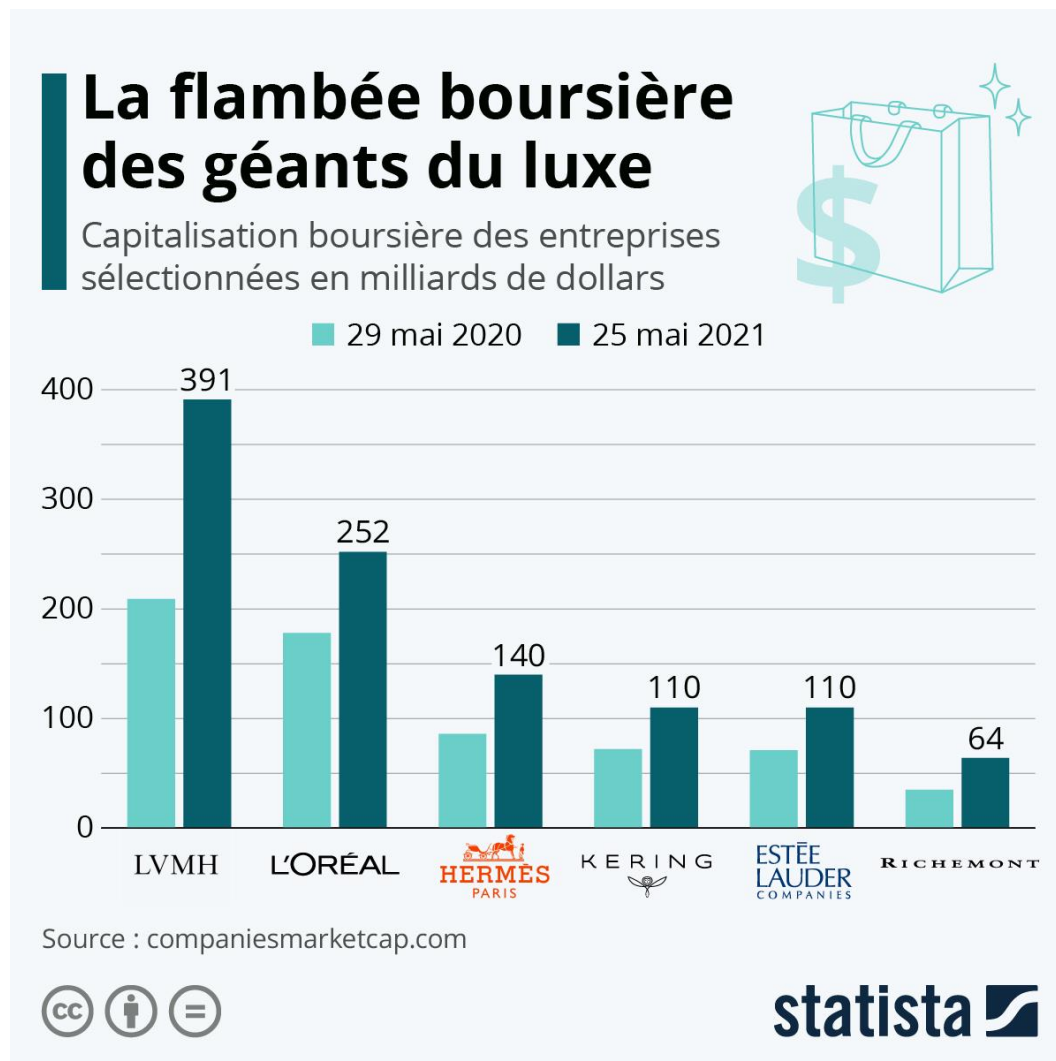


### 1.3 A growing market

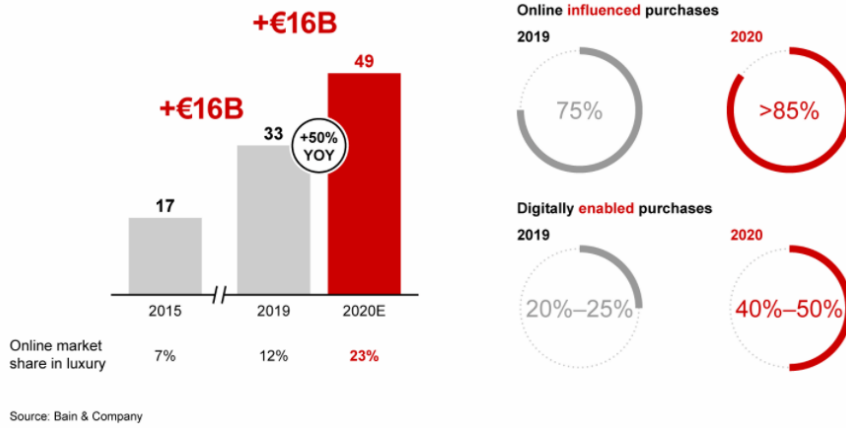
The luxury market is constantly growing and is thus consolidating its leading position.

After being hit hard in 2020 by the health crisis, it has recovered even more strongly since the shops reopened.

Various options have been put forward such as the idea of "revenge shopping" after the months of confinement. However, almost a year after the reopening the figures continue to climb, and luxury will have its best year ever in 2021.



Global online personal luxury goods market (€ billions)



## 1.4 survey

In progress!

# Chapter 2

## Sustainable Luxury

Sustainability and innovation are two concepts that appear far from the Luxury sector. The word collides with the new developments in brand management, consumer behavior, advertising, design thinking, processing, and marketing. The transformation of the luxury market is happening with the new luxury business model with narrowing, sharing (Loussaief et al, 2019) especially personal goods with the new generation of consumers.

### 1.1 definition

Sustainable luxury can relate to all kinds of sectors, and all kinds of luxury brands. The objective of sustainable Luxury embedded in sustainable ethics, principles and practices inside a brand or a luxury product.

Migel Angel Gardelli defines it as the concept of going back to the essence of luxury.

With today's new challenges, luxury brands are adopting this concept. As Jean Noel Kapferer state the interconnections between sustainability and luxury, Luxury goods are very close to sustainable concerns in nature, because they are nourished by rarity and beauty, so there is an interest in protecting them.

There are two main aspects of the sustainable production relevant to the luxury sector:

- the social aspect
- the environmental aspect

## 1.2 Challenges and issues

Today, Luxury brands have the power to influence consumer behaviour and its aspirations. The influence can be through the design, the marketing, or the distribution of the product. They can also influence the use time of a product.

Luxury brands have the power to promote sustainable consumption. This leads to different challenges, responsibilities, and issues.

In the past years, voluntary corporate action took place to boost environmental and social accomplishment. Lots of luxury brands publish annual reports detailing their environmental and social impacts, lots of firms have been certified as compliant with a scope of independent voluntary standards.

This approach not only involves strict compliance with national laws but is also committed to meeting international standards and social expectations. It involves enabling stakeholders to understand and manage potential corporate risks, build trust in society, stimulate innovation, enable new business models, and enter new markets more effectively. Sustainable luxury involves innovative products and business processes that effectively respond to social and environmental challenges we face today.

- 1- Social affiliation: Consumer desire to have a social affiliation by following the “fashion” but always with the quality of luxury. This means changes and inflated production cycles.
  - The practice of sustainable luxury can change the consumers perception of buying sustainable luxury products and change the habits of the customer, always following the “fashion”.

*As an example, Cartier Group is a member of the Responsible Jewelry Council, that certifies good social and environmental conditions for diamonds and gold used in for the luxury products every year.*

2- Convergence: The geographical expansion of the luxury sectors means that brands are growingly selling in areas and markets that are highly unequal and with outstanding poverty. Furthermore, local styles converge making it difficult for the compatibility with local climates.

- One of the challenges could be to prompt the convergence of producers in producing sustainable luxury, by developing processes, techniques and materials that are consistent with the demands of sustainable development.
- Luxury brands could cheer affluent consumers in China or India, known to save a relatively big proportion of their income to spend more on luxury goods and services

*If we take the example of Lacoste, on f the best seller shirt for years, reputed for his high quality and softness. It's made with the Pima cotton, coming from Peru. Each shirt needs 25km long fibers. Buying cotton from sustainable trade would demonstrate Lacoste's support to local producers in emerging countries with the same or better quality of cotton of course.*

3- Autonomy and Personalisation: Different choices and designs makes it difficult to assure the sustainability of the process. Creative autonomy makes it also difficult to create it eco sustainably.

- Encouraging actors and industries to develop aesthetically appealing designs that are high values for eco sustainability and change of processes. Need of a process of internal change, fostering sustainable business practices in all parts of the

organisation and its supply chain. The brands can influence to set sustainable trends and spill it over.

*For instance, Jérôme Drevfuss, launched the Agricouture Brand - a clothing label supporting local supplies, recyclable materials and vegetable leather.*

4- Symbolisation and imperialization: Luxury brands have the power to influence consumer behaviour and its aspirations, behind a stylistic trend change. The symbolisation of the brands can pass through a celebrity endorsement seen as a reflection of the brand's personal values... Supporting socially and environmentally underperforming brands can damage the reputation of these celebrities and undermine the good cause they support.

- Encouraging luxury brands to leverage on, create a symbol with a proactive message on environmental issues and cares.
- WWF-UK has created some principles for the celebrities to undergo in order to be coherent with the values they share and support and the brand's endorsement.
  - *To recognise their potential to influence consumer behaviour.*
  - *To encourage both consumers and companies to be aware of the social and environmental aspects of their activities.*
  - *To consider the social and environmental performance of companies before endorsing them.*
  - *To obtain expertise on a subject before endorsing the brands.*



- *To address any public concerns over the sustainable performance of the brands*
  - *To tell professional colleagues about their commitment to the Star Charter.*
- In the future, luxury brands can represent the greatest positive contribution that any product or service can make to mankind and the planet, as they see luxury consumers as people who have both the means and the motivation to ensure that others are not affected.

*For example, Angelina Jolie, the celebrity representing Guerlain is endorsing the Brand with the Fragrance Bees. Angelina Jolie is encouraging people to take care about sustainability. She is launching a project for the protection of the bees in Samlot in Cambodia. The objective is to collaborate with local people to inform them about the bees, and Guerlain is supported the project*

5- Fast Fashion: The development of luxury goods is accelerating due to technological innovations in communications and production. Although these mass retailers and brands can usually imitate product attributes, they may not be able to match deeper value elements such as high ethical standards in procurement, effective use of materials, low-impact manufacturing, assembly and distribution, and the provision of repairs and upgrades service. All of this provides an opportunity for luxury brands to justify their share in the wallets of wealthy consumers.

- Traceability is a key point for luxury and can be a key point for sustainable luxury.
- Luxury can present integrity all along the business model and embrace the sustainability in terms of economic, social and ecological terms.

*To respond to the fast fashion, YSL designed the collection "New vintage" made with recycled materials from previous seasons*

*Hermès launched the "Petit h" collection, using cast-offs and scrap coming from the workshops to build the collection of accessories, toys for children and apparel, in order to denounce the linear model of*



- 6- Counterfeiting: The technology and the production enabling the fast fashion is also used to make fake and counterfeit luxury products. According to a study (Davenport Lyons Law), the number of counterfeit luxury goods, fakes and copies are increasingly accepted by consumers.
- In response, the luxury goods industry lobbies the governments to impose stricter regulations and inspections on manufacturers and traders and take direct legal actions against those involved in the counterfeit market.

*The police are tracking a lot of products like Lacoste the most counterfeiting brand. Some luxury goods are even designed by the illegal manufacturers like the Louis Vuitton cap that we can see in the streets with the logo, and Louis Vuitton did never design any cap.*

- 7- Social Network: Today, the use of social media is a market point. The rise of social media has witnessed the democratization of the luxury market and the opening of new customers. Customers pay more attention to the new expectations brought about by the luxury experience.

For example, some other brands such as Hermès never use Instagram or other media, and with it comes the secret impression of rarity and luxury.

Similarly, with the booming e-commerce, brands have played their role by focusing on packaging as a means of recreating the tactile physical retail experience at home. The social media "unboxing" trend and countless

influential posts dedicated to filming the unboxing of shopping carts have made people pay more attention to packaging. Excellent "Instagrammable" product design usually equates to more likes, sharing and hype.

### **1.3 Sustainable luxury for packaging**

Sustainable luxury calls for integrating sustainable development and social environmental strategies inside of Luxury packaging brands through the life cycle, the regulations of the brands and through the supply chain.

Packaging and its functions in product protection, waste prevention and safety can indeed play a huge role" (Nordin, Selke, 2010).

Sustainable luxury has different factors that need to be considered such as the consumption trend, the market segmentation, the client behaviour toward the product, distribution innovation, ethics of the product...

In the Luxury field, those factors could conflict with the sustainable development, that's why some organizations are trying to provide guidance in decision making in favour of sustainable development. For instance, The Sustainable Packaging Consortium (SPC) in the United States and the Sustainable Packaging Consortium (SPA) in Australia attempt to express a common understanding and provide different guidelines (Nordin and Selke, 2010). SPA (2005) defines sustainable packaging with four dogmas: effectiveness, efficiency, periodicity, and safety.

Traditionally, Packaging systems have been developed around waste management systems (reduction, reuse, and recycling) (Johnson, 2008). Nevertheless, sustainable packaging will still focus on the entire life cycle of the entire life cycle by evaluating all opportunities for improvement, transformation, and optimization. The system has now been developed to include raw materials, packaging processors, manufacturers, distributors, and retailers (Vrolijk, 2006).

The key role of packaging is to ensure that the product is in the best condition in the hands of consumers, while also meeting consumers' expectations of reducing the product's environmental impact. Moreover, for the sustainable luxury packaging, the customer demand is a crucial factor.

The luxury packaging should be sourced responsibly, designed to be effective and safe, manufactured efficiently using renewable energy, and meet market standards for cost and performance. Finally, at the end of the process, once used, recycling or effective reuse should provide precious resources for future generations.

# Chapter 3

## Packaging

### 3.1 definition

#### 3.1.1 short history

According to the definition, packaging refers to the "visible wrapping of the product". It appeared in ancient times to transport foodstuffs and many traces of these containers can still be found today in archaeological excavations. Purely functional, they were soon used as a support for various art techniques: painting, mosaics or engravings. A first type of communication was then born.



The history of packaging then adapted to different eras and lifestyles and was transformed by technical innovations. Indeed, with the economic boom of the thirty glorious years and the growing power of globalization, brands quickly developed strong marketing strategies based on advertising and packaging (laundry detergent advertising, soup...). It thus became a real communication tool.



### 3.1.2 definition and concept

The modern way of life is closely linked to the use of packaging. Every product or foodstuff is packaged in one or more elements that make up its packaging. Consumption is such that almost 10 packages are used and thrown away per day and per person.

The word "packaging" alone represents several things and functions. In many languages, the English word is used because it is not translatable in its current state.

It is defined as follows by Lendrevie and Lévy:

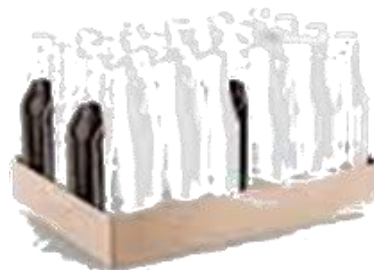
"Material elements that are sold with the product in order to allow and facilitate its protection, transport, storage...".

Different levels of packaging can be identified today. They each have their own characteristics and objectives:

- **Primary packaging:** this refers to packaging in contact with the product. This can be a bottle, a perfume bottle, a shoebox. It is in direct contact with the consumer.



- **Secondary packaging:** which groups together several primary packages. Like the primary version, it is not in direct contact with the user. In fact, it can be seen and touched, but it will be discarded very quickly in order to access the primary packaging and the product.

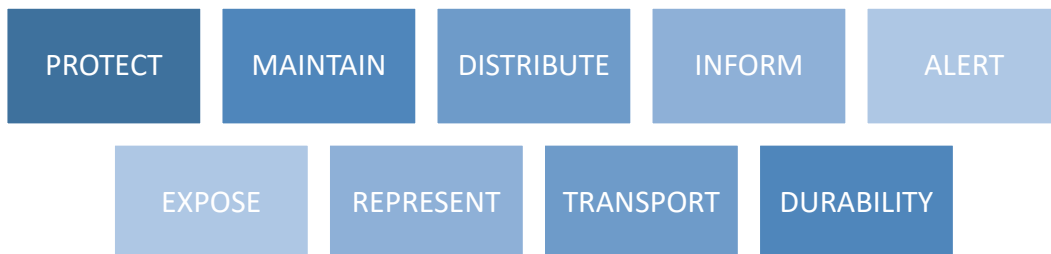


- **Tertiary packaging** combines the first two. It is sometimes called transport packaging. It is the key element in logistics. It will be used by purchasing centers and transporters to facilitate their work and to group together several secondary packages. It can be wooden pallets or transport crates.



### 3.2 objectives and functions

Packaging must be very versatile. Indeed, depending on the product it is going to surround, it will have to meet different criteria, more or less challenging. It is a real asset for the different actors in the life of a product. It will enable the company that designs and manufactures the product to identify and protect it. It will be a key element in the sale for the retailer and finally it must inform the consumer.





Thus, the functions can be both technical and communication related.

### **3.2.1 Protection et conservation**

This is the main function of packaging. From food to luxury goods, the protection of a product is a key element. The packaging will then act as a physical barrier against the various elements that occur during the storage, transport, and use phases.

Protecting a product ensures its quality and integrity. Indeed, the consumer must be able to use or consume the product at the right time. This main function is present in all sectors of activity from food to super luxury. A bottle of perfume must arrive in the user's hands in perfect condition, just like a deodorant or a telephone.

Thus, different characteristics are applied to the packaging depending on the product it will contain: waterproof, hermetic, opaque... these elements are chosen at the product design stage.

### **3.2.2 transportation**

Packaging will simplify the handling, transport, and storage of products. Indeed, often standardized and rectangular in shape, tertiary packaging plays a key role in product quality. It is during this phase that the product will be confronted with numerous shocks and movements.



This function is constantly reinforced by the explosion of online sales on platforms such as Amazon. This acceleration was intensified during the Covid crisis when many companies had to respond to the needs of mail order.

### **3.2.3 Inform and alert**

The packaging will convey a lot of information about the product: such as legal information, instructions for use. It will also convey the brand image.

It is thus like a salesman, a representative of the brand. It must seduce the consumer by its appearance and convince him that the product it contains is the best.

However, he must also alert consumers to the dangers that the product may represent for the consumer as well as for the environment.



### **3.2.4 Represent**

The packaging of an article must reflect its product category. Brands therefore associate visual codes with each category (blue and white for milk, for example).

The packaging will convey the identity of the brand, its positioning, its distinctive features

This characteristic is omnipresent in the luxury market where packaging is a symbol of dreams and absolute desirability. Brands have understood this and play with their packaging codes to intensify this vision.

It has even become the central element of the Hermès and Chanel fashion shows.



### **3.3 Consumer perceptions and impacts**

#### **3.3.1 Perceptions**

Packaging is designed to attract consumers and influence their choice. Thus, it is not uncommon that the success of a product depends on its packaging. According to marketing research, consumer perception can be divided into three distinct parts:

- Cognitive perception: the packaging can give the idea of longevity, prestige or belonging

- The affective perception corresponds to the emotion that the product will create on the consumer
- The behavioral perception which will succeed in creating attraction or on the contrary disgust in the person who observes the packaging.

Nevertheless, the consumer's perception of the packaging will be nuanced because it is dictated by his tastes and education.

### **3.3.2 Impacts**

These perceptions will have an impact on the consumer. Indeed, a packaging will communicate by the image it sends back, the quality of the product it contains. It is on this point that the work of a marketing team is based.

Indeed, the packaging is discovered progressively by the consumer. He will first be attracted by a color, then a shape before being able to read the name of a brand or even to take the object in his hands.

#### *3.3.2.1 Chromatic impact*

The colors give the product and the brand its character and personality. It is a non-verbal communication that is established between the product and the one who looks at it.

Today, the favorite colors of consumers in northern countries are blue and red. On the contrary, the least liked are green and purple. Brands rely on these studies when developing new products.

However, some colors are also associated with a type of product well defined such as coffee, butter ... Finally, other colors are associated with an idea or a symbol such as gold that will have a luxurious image, or red that will touch, depending on the context to love or blood.

Finally, the colors will also have an influence on the dimensions of the product. Thus, the so-called cold colors will tend to visually reduce the object while the warm colors will make it appear more massive.

### 3.3.2.2 *shape*

The shape of the packaging is a determining element. It can be an eye-catcher, making competitors look bland and justifying a higher than usual price.

Research in 1935 showed that round shapes were perceived as sentimental, reminiscent of the curves of a body, while straight lines were perceived as serious and masculine. These shapes are also associated with precise dimensioning. The golden ratio has always been a symbol of perfection and aesthetics. It is frequently used to determine the height/width ratio of packaging.

In recent years, the consumer has become increasingly aware of the so-called "thief" packaging. This perception occurs when the container appears disproportionate to the size of the content (half-filled bottle for example). This problem regularly occurs on perfume packaging, for example, where the bottle has a very thick glass bottom or is slipped into a cardboard case that is too large.

Therefore, the design of a packaging is a crucial element in the development of a new product. It alone will play a role in the commercial success of a launch.

### **3.3.3 Limits**

This development cannot be done randomly. Indeed, certain constraints must be considered when developing a packaging:

- What will it contain?
- How will it be produced/packaged?
- What is its lifespan? Its typical use?
- Who is it intended for?

These questions are crucial. It would indeed be a shame to package a product in something unsuitable.

The sector is something predominant. A good example is the perfume industry. Men's and women's perfumes are very different in terms of packaging. Indeed, they come to rely on strong visual codes to make understand, at first glance what it gives off. Some brands like Azzaro or Mugler propose very strong shapes like a gun barrel or a galactic star. These shapes have been chosen for the targeted customers and the desired use. This is a good example of a well-developed packaging.

Cost constraints must be taken into account. Packaging can represent a significant amount in a product price. It is calculated according to the materials used, the decoration techniques and the size.

The shipping areas are also a very important factor to take into account. Indeed, the colors and shapes do not all have the same meaning around the globe. Thus, it will be necessary to make differentiated packaging or to choose from the brief the adapted colors.

Finally, the legal aspect is very important. The packaging must provide certain regulatory information such as the expiration date, the percentage of alcohol for example.

### **3.3.4 Environment and innovation**

Environmental protection is a major concern in our society today. Manufacturers must reduce their ecological footprint in order to remain attractive to consumers or to meet legal obligations.

The solutions are numerous:

- Weight reduction
- Elimination of controversial materials

- Refillable packaging

Eco-packaging can create a real economic advantage. Companies have understood this and communicate on their social networks their environmental programs with strong objectives.

Veuve Clicquot has invented packaging made entirely from grape waste, and Mugler has launched the first refillable perfumes.

A new idea of packaging is therefore being put in place. It is now an integral part of the product and brands communicate on the whole. Armani has released the first perfume with a neutral carbon footprint (packaging + juice).

Beyond ecological concerns, packaging is also evolving thanks to new technologies.

Today, packaging is becoming intelligent. It is able to inform the consumer about the state of the product and to give information to the brand about the user. This has been made possible thanks to the implementation of QR codes (which will eventually replace the EAN codes) and RFID chips integrated into packaging.

Mumm champagne launched the first connected champagne bottle, and Paco Rabane the first perfume.

A new era is opening up for packaging design, driven by consumers and companies to keep up with technical progress and environmental awareness.

# Chapter 4

## A specific product: Champagne

With more than 200 million bottles produced per year, champagne has established itself as the leading alcoholic beverage. Opened and drunk at the most important events, is this product considered today as a luxury product?

### 4.1 A luxury product...

Luxury refers to anything that is "expensive, refined or sumptuous". This definition varies according to time, culture, and especially geographical area.

Certain specific criteria have now been attached to a luxury product:

- An irreproachable quality
- A substantial price
- An exceptional heritage and know-how
- A powerful aesthetic image
- Rarity and protected exclusivity
- Non-necessity

As these criteria are considered by some as essential or intrinsic to a luxury product, it is interesting in this study to associate them with champagne

#### 4.1.1 An irreproachable quality

In the public opinion, these two words are immediately associated, and thus become almost synonymous. This is because it is created through the use of



superior raw materials, processed according to exceptional know-how. This combination ensures the longevity of the products and guarantees a constant quality.

Champagne is subject to strict regulations which govern and control each stage of production. In addition, the origin of the product, as well as the grapes used, are subject to precise specifications allowing the product to be given an “appellation d'origine contrôlée” (AOC). There are many different types of champagne today, with many different tastes, but they are all recognised as references for sparkling alcoholic drinks

#### **4.1.2 A substantial price**

By questioning consumers (regular or not) of luxury products, we quickly understand that the equation luxury = high price is a standard. Indeed, it allows the user to reinforce the idea of quality in a more or less conscious way. The high price is thus felt to be the logical consequence of the quality of the product. It is therefore easy to say that the price proposed by the brand offers the consumer an idea of security and legitimacy of the product. The monetary value of a product can be exorbitant and thus be an obstacle to purchase. This feeling will amplify the idea and the image of dream conveyed by the product and consequently the desire to buy and possess it. Finally, the symbol of a brand or a product makes it possible to justify and claim a high price (such is the case of the Kelly and Birkin bags from Hermès).

Champagne has the image of a relatively accessible product compared to other luxury sectors (jewelry, handbags,). Today, bottles can be found for an average of thirty euros or more. Some supermarkets manage to break the prices, making champagne accessible to all. These short-term commercial operations can damage the luxury image of a product. Fortunately, this does not concern the

major Champagne houses, which offer ranges well over a hundred euros (Dom Pérignon, Krug). Other bottles can exceed a million euros when brands associate champagne with packaging made of diamonds and crystal, for example.

The positioning of champagne is thus unstable with regard to price. With a very wide price range, it manages, thanks to the great houses, to meet the price requirements of luxury products

### **4.1.3 An exceptional heritage and know-how**

Each luxury product is associated with a heritage, a story. The houses, for their part, constantly use, almost to excess, storytelling, and the pillars of their history to reinforce their image and the idea that time has no effect on their products. Moreover, symbolism and tradition can be directly associated with a product, as is the case with the diamond that is given to celebrate love.

Champagne is a perfect candidate for this need for heritage. It can be associated with many legends, from its creation to its tasting ritual. We can think of Don Pérignon who is said to have discovered and perfected the champagne method in his abbey, or of the champagne glasses that were molded directly onto the chest of Marie-Antoinette, then Queen of France. Today, certain traditions or conveniences persist, such as the ritual of tasting champagne in flutes or glasses, and always without ice.

### **4.1.4 A powerful aesthetic image**

A luxury product must be beautiful (Castarède, 2014; Dubois & al., 2001). In addition to being visually aesthetic, it must awaken the consumer's senses by being pleasant to hear, touch and taste (Dubois & al., 2001). Aesthetics is becoming such a priority that the product can become a work of art and be the

centerpiece of a painting (Andy Warhol and the number 5) or the masterpiece of an exhibition (Louis Vuitton, Cartier, etc.).

Again, champagne is a very good student. Indeed, according to a Sparflex study, nearly 70% of consumers are influenced by the aesthetics of a bottle of champagne and its box at the time of purchase. The champagne houses have understood this and are basing themselves on tradition with sober and elegant packaging, or showing extravagance and originality during limited editions that can be luminous or in collaboration with other brands or personalities...

#### **4.1.5 Rarity and protected exclusivity**

Based on the above characteristics such as quality or ancestral know-how, it can be deduced that mass production is not something easy. The scarcity of a luxury product can be artificial, dictated by the brand as a marketing tool or based on long and complicated manufacturing processes using a limited quantity of raw material. This controlled scarcity increases and maintains the prestige of the product and its exclusivity. Similarly, a limited and controlled distribution network offers the consumer the luxury dimension of the product and the associated purchasing experience.

Champagne, thanks to its protected appellation, has a maximum quantity of bottles produced per year (360 million). Its distribution is diverse with many different channels: supermarkets, wine shops, nightclubs, etc. However, it has a special place in luxury boutiques when it is offered to customers at the time of their purchase. It thus contributes to the atmosphere and the shopping experience. It thus creates a feeling of exclusivity for the consumer and an idea of luxury that is experienced and sometimes shown.

### **4.1.6 Non-necessity**

A luxury product must finally be different from an everyday product, it must therefore be superfluous with the sole aim of pleasing oneself.

Champagne intrinsically has this characteristic. It does not meet any necessary need.

*In conclusion, champagne meets these six main criteria and is therefore a luxury product.*

## **4.2 With a strong story and area...**

### **4.2.1 Champagne**

Name of a large region in the north-east of France, it gave its name to this sparkling wine produced with grapes from three distinct varieties:

- Pinot Noir (40% of the Champagne region)
- Milling (30%)
- Chardonnay (30%)

The different houses then compose their champagne by varying the percentage of each grape variety in their champagnes. It is in fact a sparkling wine known as a blend, which allows each brand to create an inimitable and identifiable taste. This

particularity also allows the intensity of the drink and the alcohol content to vary (extra-brut, brut, dry, semi-dry, sweet).

Some champagnes break this "rule" by being mono varietal, i.e., made from grapes from a single type of vine: Blanc de Blancs (Chardonnay) and Blanc de Noirs (pinot noir or pinot Meunier).

The Champagne region is distinguished by its soil and climate, which give the champagne its characteristics. It is following this argument that the region was delimited and protected in 1927 by the National Institute of Origin and Quality. Today, the appellation covers nearly 35,000 hectares and 300 communes.

Over the years, this protection has been reinforced on several occasions. First in 1887, with the acquisition of the word "Champagne" by the champagne houses' union. The product was recognized as: "wine both harvested and produced in Champagne, an ancient province of France, geographically determined and whose limits can neither be extended nor restricted". This was followed in 1935 by the award of an appellation d'origine contrôlée. These measures make it possible to manage the end-to-end quality of the product and guarantee its authenticity by avoiding counterfeiting.

### **4.2.2 Origins**

The composition and creation of champagne has evolved over the years to perfect a unique technique still used today.

We have to go back to the Roman era to discover the first traces of viniculture in the Champagne region. At that time, red wine was produced, which became sparkling through a fermentation process.

These drinks were not sought after and were even considered defective. It was not until 1675 that they were successful. Some of the producers let the juice ferment a

second time and it became fizzy. As production was not easy, only a few notables were able to obtain bottles, and it was not until the end of the 18th century that the million bottles produced were reached. After difficult periods, linked to the political and social context, the sales of champagne increased to reach 30 million bottles in 1950 and eventually exceeded 320 million bottles annually today.

There are many legends surrounding the discovery of champagne. The most popular is that of Don Pérignon. He is said to have developed the traditional Champagne method with the blending and vinification processes. He is also responsible for the bottle, which is thicker than a wine bottle to withstand the pressure of the fizzy drink, and the cork.

Since its discovery in the 18th century, champagne has been regarded as a symbol of French joy and luxury. Considered the drink of kings, it appeared very early on European tables until it was at the center of banquets for Marie-Antoinette, or Winston Churchill for whom champagne was a daily pleasure.

### **4.3 For a powerful market...**

Champagne, like all luxury products, is distinguished by the cohabitation of large houses and family producers. With an annual growth rate of nearly 3%, the champagne market is a major player in the sale of drinks.

Despite this solidity, the champagne market remains dependent on numerous factors such as the price of raw materials, market fluctuations, and economic and social crises. The unprecedented health crisis in 2020 highlighted this fragility with a 20% drop in sales due to successive confinements, and the decrease in air traffic. With the resumption of a near-normal lifestyle signified by the reopening of restaurants and travel, sales have picked up exponentially with results up 48% compared to the year 2020 (first half results).

If we look at the figures, we can understand the scale of the champagne industry and its importance in the wine and spirits' sector. Despite the health crisis, champagne generated 4.2 billion euros in sales in 2020, including 2.6 billion euros in exports alone. This lower result is due to reduced growth and lower shipments. The sector has managed to maintain a decent turnover thanks to actions taken by producers such as reducing production to avoid flooding the market and thus devaluing the product. Forecasts for 2021 are good and would exceed the 5 billion achieved in 2019.

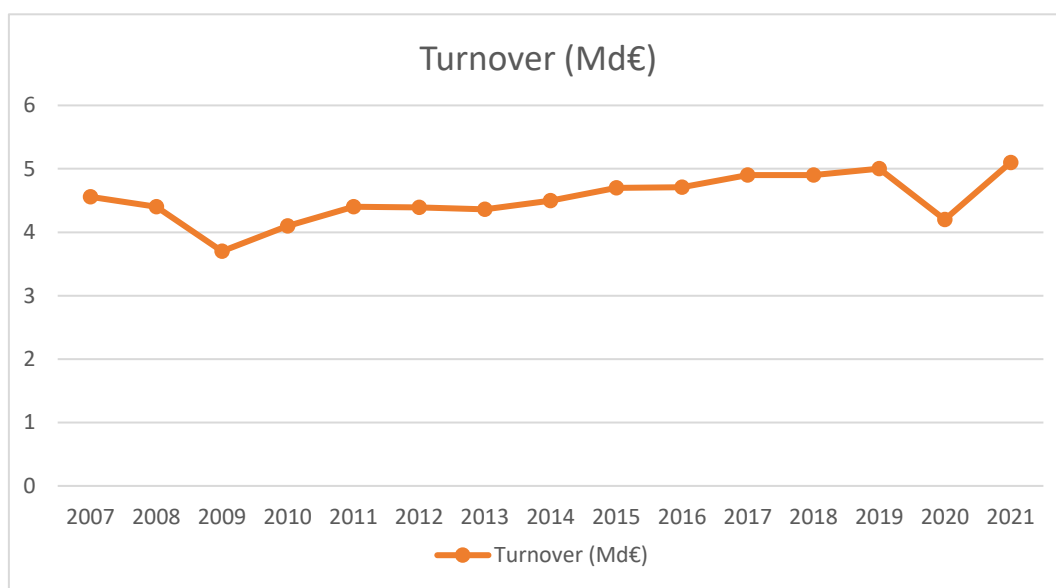
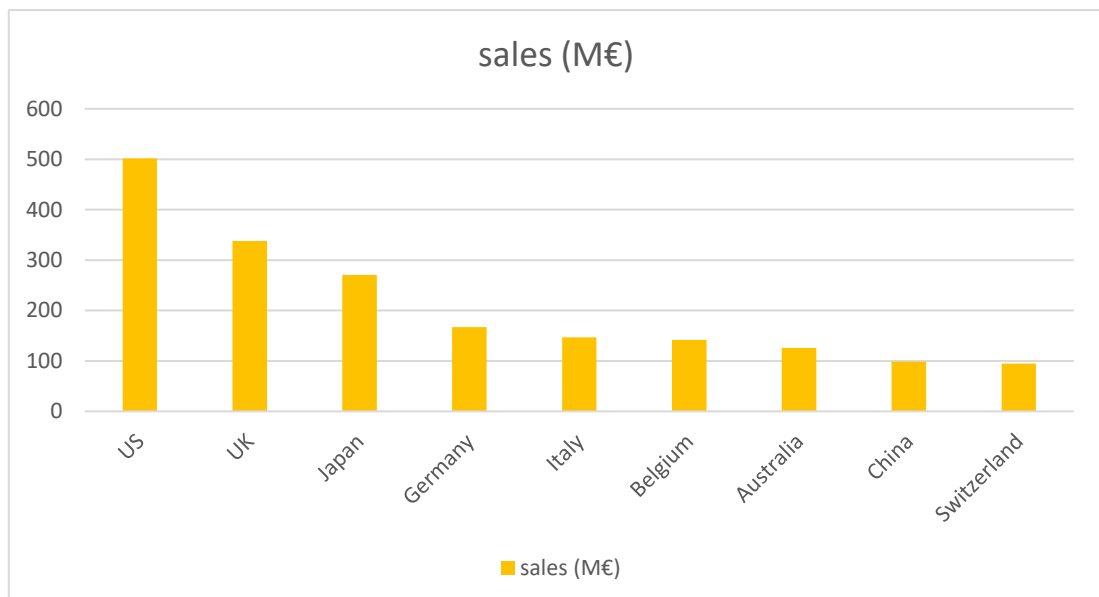


Figure :

The graphic above represents the turnover of champagne from 2007 onwards. It highlights the decreases linked to the economic and social problems of recent years such as the subprime crisis in 2009, or the health crisis of 2020. However, this graph also highlights the reactivity of the market and its elasticity, with relatively constant figures that very quickly return to their pre-crisis levels, exceeding them.

Worldwide, champagne represents 9% of the sparkling wines produced each year (Prosecco, crémant, etc.) but 33% of total consumption for only 0.5% of the wine-producing territory. In 2020, 53.6% of the production was exported to nearly 190

countries. These countries alone account for more than 60% of the turnover of champagne sales. France is the leading consumer of champagne in the world with almost 50% of the annual production (4.7 liters per person per year). It is followed by the United Kingdom and the United States thanks to the stable economic climate and a lifestyle similar to that of the French. Third countries (Japan, Australia...) are gaining market share every year and are becoming major players in the import of champagne.



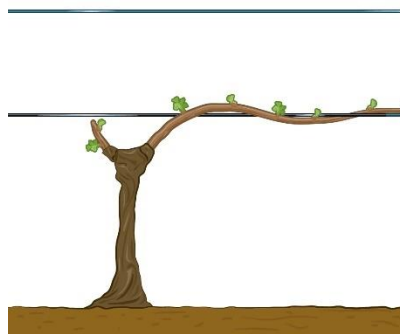
## 4.4 Dealing with traditional technics and modern packaging

### 4.4.1 Agriculture and transformation

The cultivation of the vine is mainly used for wine production, but other products are also produced from this agriculture, such as table grapes, soft drinks, and vinegar.

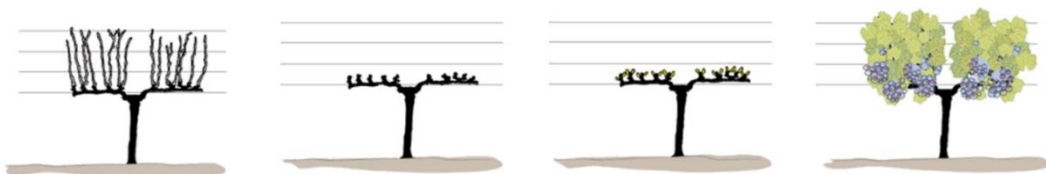


The production process starts with the planting and cultivation of vines. The environment and the soil will determine the size of the vine and the shape of the vine to obtain the best yield and above all the best quality. There are different methods of shaping the vines, the most commonly used today is the Guyot method, which consists of keeping only the fruiting branch, which is then guided to the right or to the left.



This pruning takes place every year in the autumn in preparation for the next season. It allows the vine to prepare itself to face the winter in a phase called dormancy before budding in the spring.

Then begins the fertilisation phase which will allow the soil composition to be adjusted to allow the plants to develop at their best. After 3 years, the vine is finally ready to be used for the production of grapes.



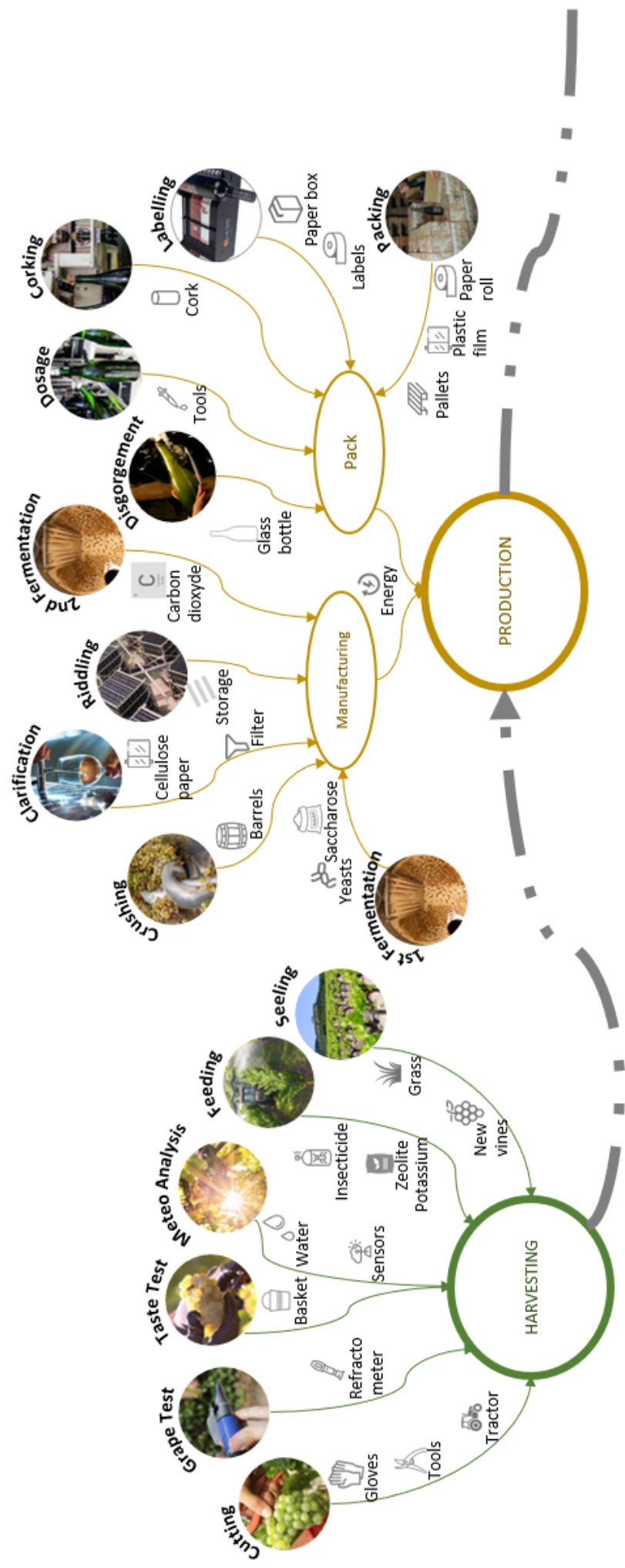
Finally, the harvest takes place between August and October. It is launched when the bunches are ripe, when the sugar level in the grapes is optimal. Numerous controls are carried out to determine the best date for the harvest.

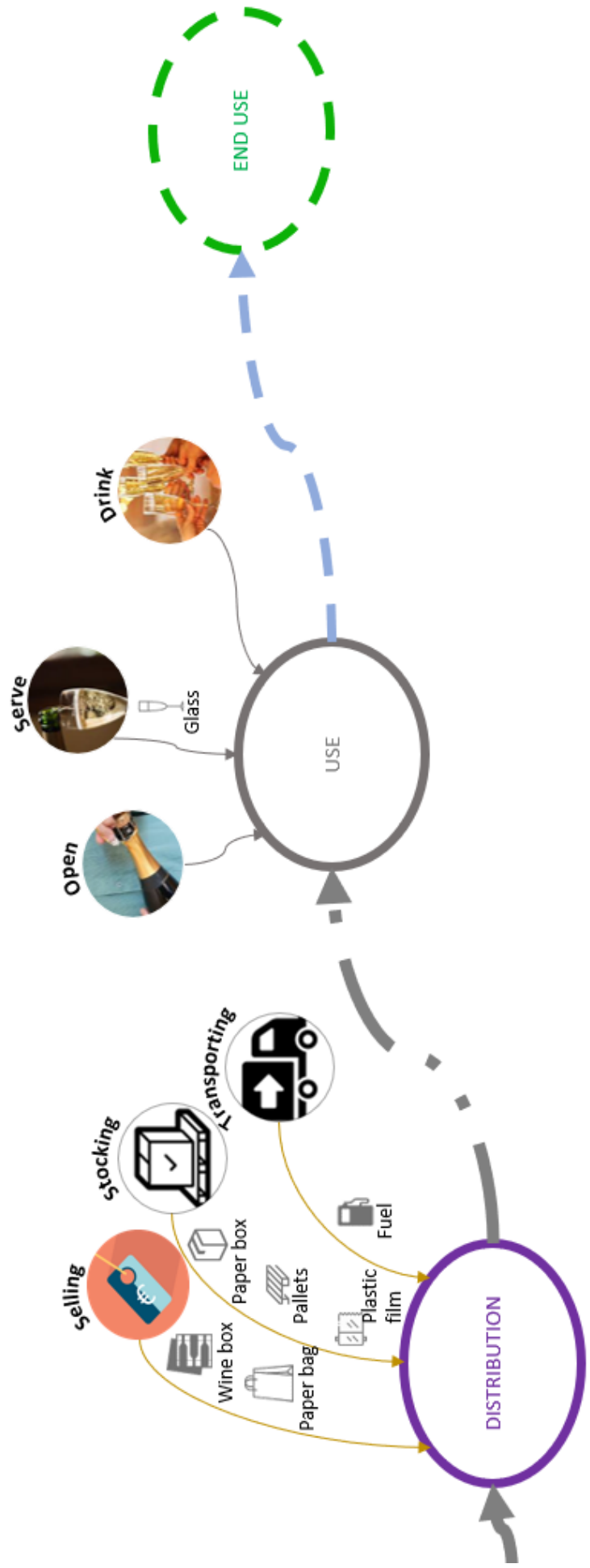
Once harvested, the grapes are ready to begin their transformation into champagne.

The first step in the wine making process is **weighing**. The grapes arrive at the winery by shuttle and are then weighed and tested. This allows the producer to obtain the first information on the quantity and quality of the grapes. The second operation is **the crushing** of the bunches and the grape stalks to extract the must. Historically done with the feet, this pressing operation is now done mechanically. The result of this operation is then put into vats and yeast is added for a **first fermentation**. This enzymatic operation is carried out at 25°C and allows the transformation of sugars into alcohol. The solid particles (grape skins, etc.) then tend to rise and form a layer on the surface of the vat called the marc cap. The liquid obtained is then filtered by decantation to guarantee optimal clarity by removing the particles in suspension. The result is a non-sparkling, single-variety wine that will be blended with other varieties as well as with so-called reserve wines to preserve the character and taste of the champagne year after year. This is what is known as the "**assemblage champenois**", an ancestral technique, specific to each house and producer. The resulting mixture is then **bottled** with the addition of a liqueur composed of wine, sugar and yeast before being hermetically sealed. The **second fermentation** (or "prise de mousse") will then start. The bacterial reaction created will release carbon dioxide which will remain trapped in the bottle making the wine sparkling. The bottles are then left **to age**, flat, for between 1 and 3 years. They are then tilted, neck down, and regularly turned over so that the deposit is positioned at the neck: this is the **riddling**. The next step will allow the deposit to be expelled during **disgorging**. To do this, the deposit is frozen and then expelled by pressure. Once this has been done, the missing volume is completed with a "liqueur d'expédition" (wine and sugar), which will determine the nature of the cuvée (brut, sweet, etc.).

It is at the end of all these stages that the champagne is created, and ready to be labelled and sold in the various distribution networks.

Thanks to the research work carried out, it was possible to create a map of champagne by identifying the inputs of the different stages of production and distribution.

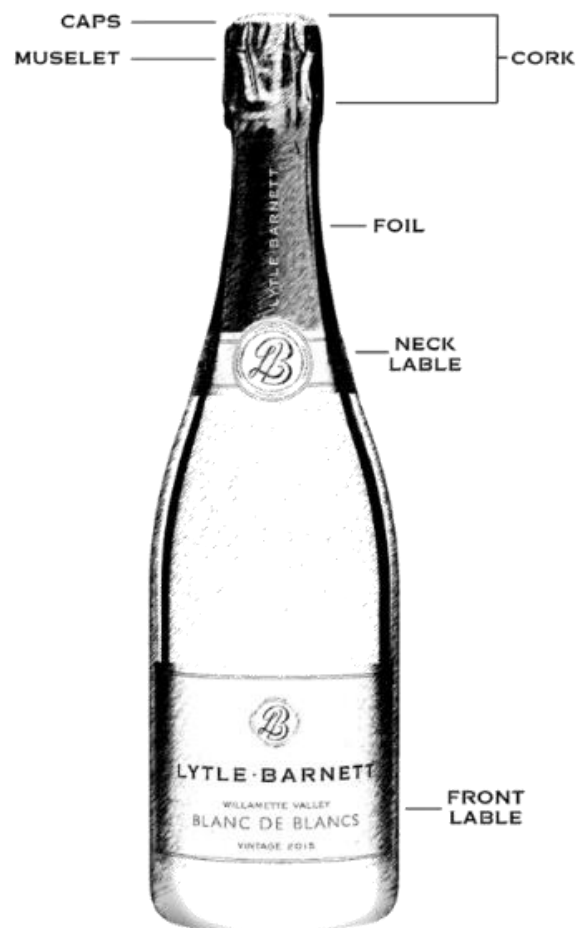




## 4.4.2 Packaging for champagne

The packaging comes into play very quickly in the champagne production process. Indeed, some of the primary packaging appears as early as the blending process.

Traditionally, champagne is packaged in a champagne-shaped bottle made of thick glass to resist the pressure exerted by the carbon dioxide contained in the champagne. It is sealed with a cork stopper held in place by an aluminum wire. The neck of the bottle is then covered with aluminum and label is affixed to the front of the bottle.



These bottles can then be put in wooden or cardboard boxes most of the time, but more and more producers and houses are innovating to integrate more modernity and innovation.

### **4.4.3 Case studies**

In the last few years, packaging has evolved around two axes:

- The environment
- New technologies

It is interesting to study different packaging proposed by brands today to see this richness and diversity. The boxes studied below are based on champagne packaging but also on wine packaging in order to highlight new practices and habits of the wineries.

Thanks to the different information collected, it was possible to create a technical sheet for each packaging studied. Composed according to the same scheme, they propose a global description of the packaging, then expose some environmental, marketing and social characteristics. In order to facilitate reading, these criteria are represented graphically, and the "good, average, bad" evaluation is made thanks to the technical characteristics of each product in order to avoid any subjectivity.

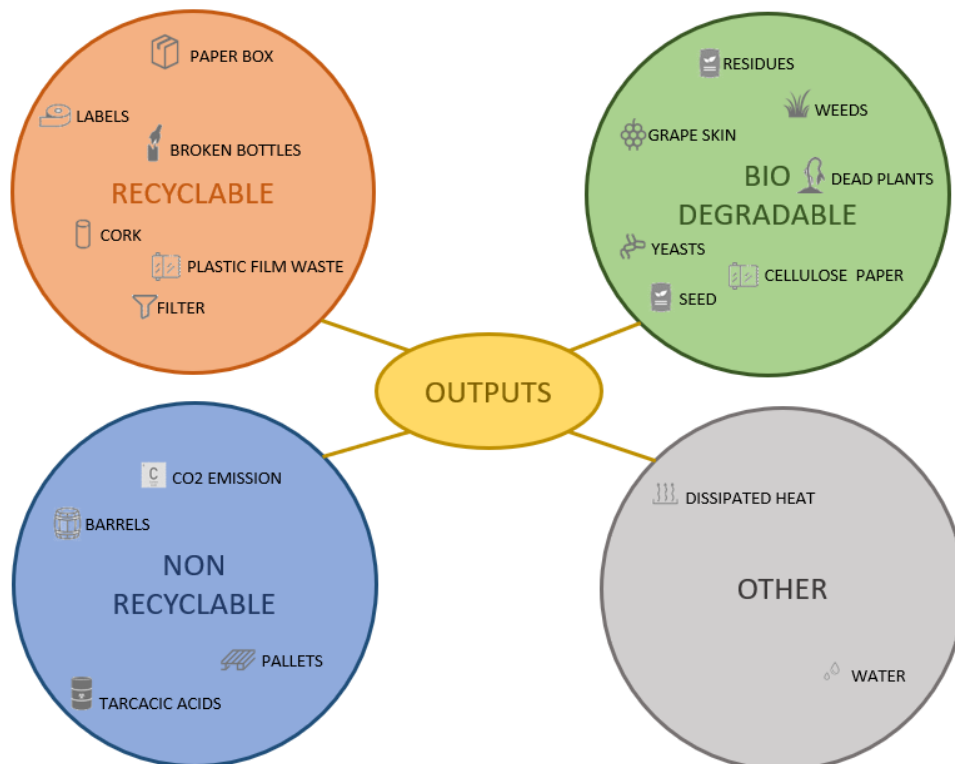
# Chapter 5

## Guidelines

### 5.1 Output analysis

During the process of the wine, there are different types of outputs that are created.

The seeds, grapes skins and stems residues but also the marc are characterized by a right level of sugar fermentation. The legislation helps the management of the production to have less waste.





Pesticide treatments exist to avoid the development of parasites and all kinds of viruses. They are very expensive and polluting. Virus can lead to the loss of crops, a lower quality of the grapes, a total loss of plants and trees). Legislation is rude about virus, producers must verify and eradicate the virus before the spreading, but today every vineyard uses a pesticide treatment such as glyphosate.

Today, insects and parasites developed a form of resistance toward many pesticides, creating a risk for the new years. The use of pesticide is controlled, and many producers are trying a system based on the zero/ limited use of products to eradicate insects. This is good for the environment and can reduce the development of new pesticides. Another different system is the biodynamic one. Bringing the culture closer to the energetic forces, first introduced by Rudolf Steiner. This method aims to reduce chemical products use and encourage the plants' extracts to increase the self-defense of the plants. This is also very nice for the biodiversity, insects do not impact the taste of the wine.



Furthermore, sulfur dioxide is used to prevent oxidation and preserve the characteristics of the wine. It's mainly used for the conservation of the wine because it can inhibit bacteria. It can be dangerous for humans.

The fermentation is a cause of outputs also. CO<sub>2</sub> emissions are coming from the fermentation process. Carbon dioxide is produced during the first and second fermentation by the selected yeasts. About 50 percent of alcohol produced from

the must, the CO<sub>2</sub> emissions produced represent 45 percent of the total products of the fermentation reaction. It's released in the air also so it's a problem for the workers and for the environment.

The heat from the fermentation process must always be monitored but carbon dioxide, and heat are dispersed in the air and this represent a big problem for global warming.

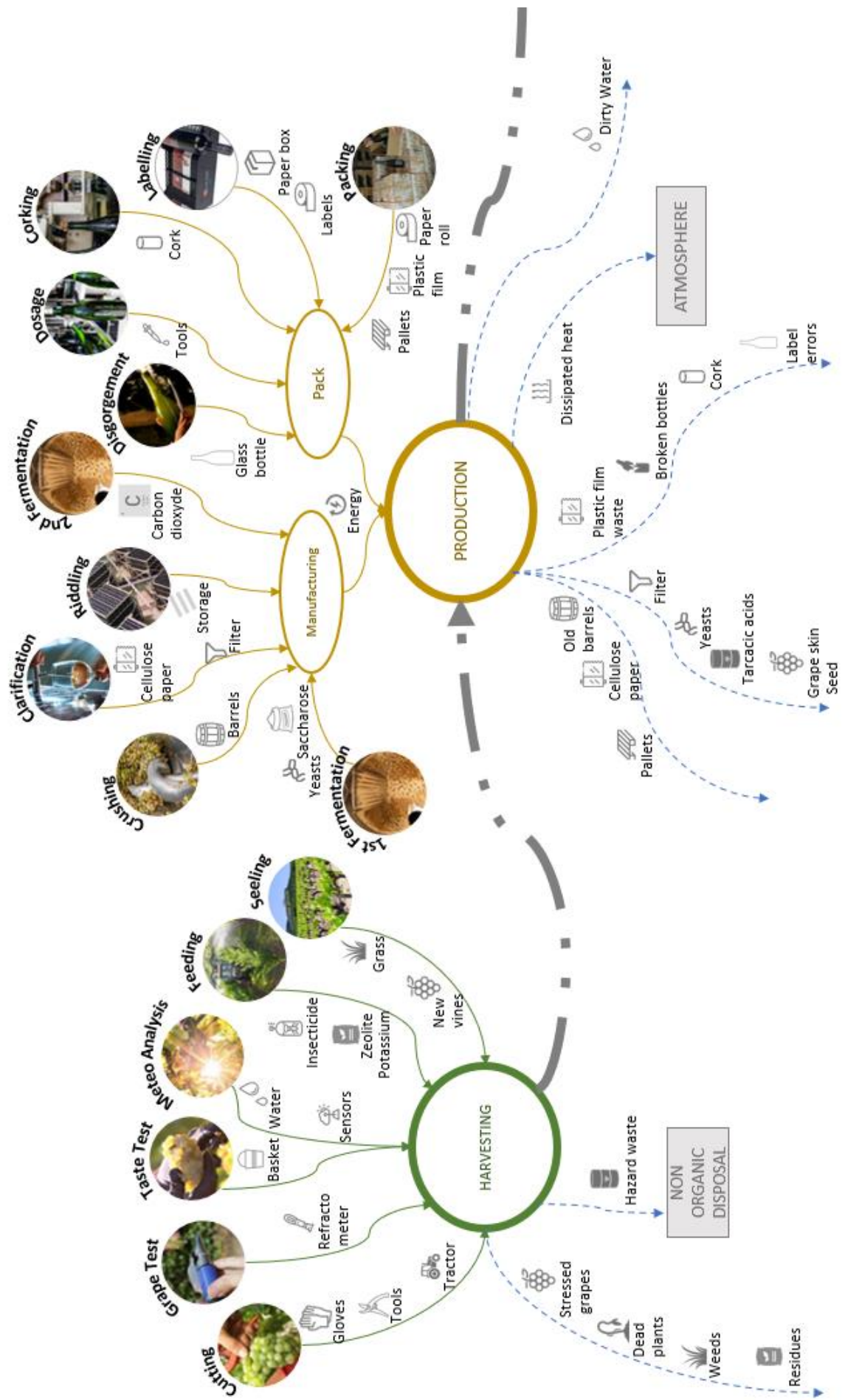
The Packaging sector has many outputs.

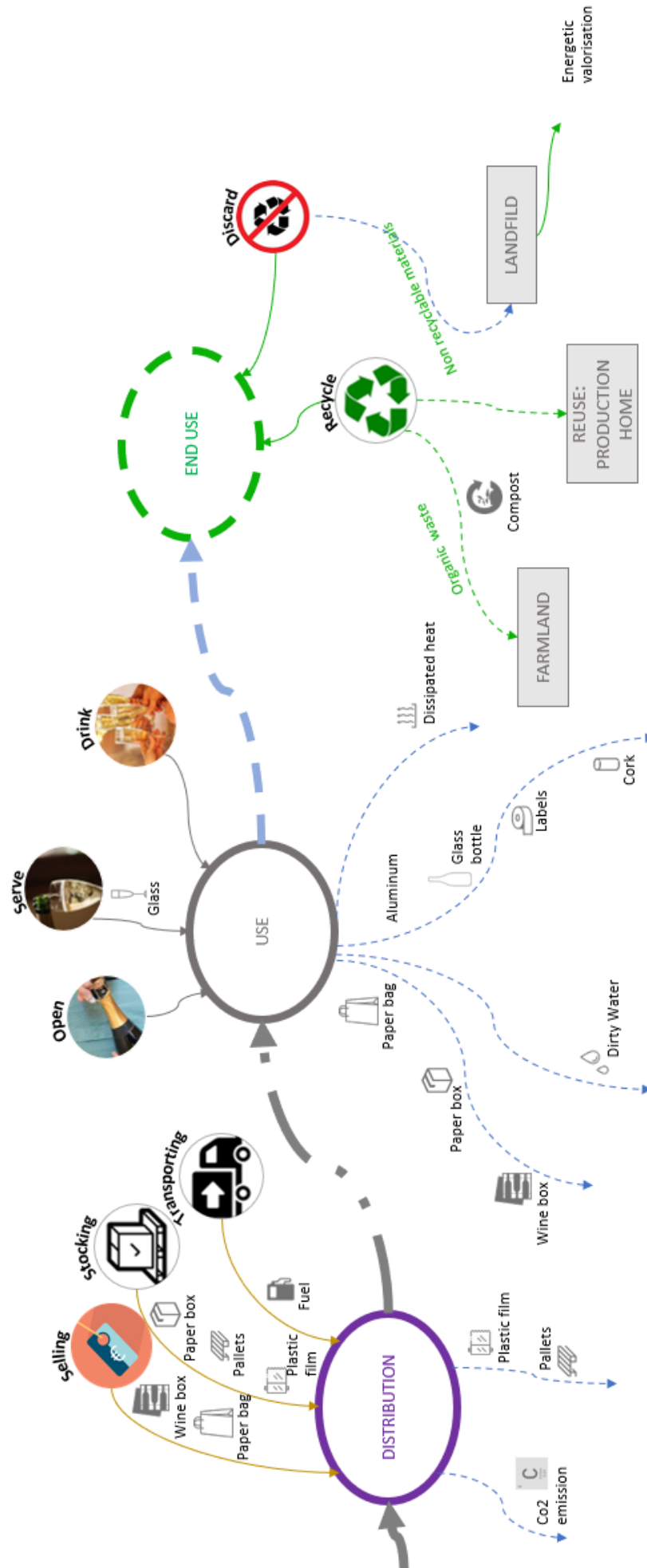
During the bottling, corking and packing process, a huge range of materials are used: cardboard, plastics, wood, paper, especially for the luxury sector... The packaging is supposed to protect the final product but from the packaging of the packaging itself. For instance, glass bottles are packaging in a plastic film, the caps in cork, with is filled with plastics around and all contained in cardboard boxes, and the cardboards are filled with plastic film on the pallet. All of this with the color of the brand.

Often the wood to make the ageing barrels, the caps, and the bottles for packaging, the raw materials come mainly from foreign countries. This creates a big problem of pollution due to the transportation, airplanes, road transport which emit high quantities of CO<sub>2</sub>.

-

Moreover, the electricity used for the overall production is based on non-renewable resources and in large quantity. The heat generated is mainly lost.





C1 - Internal use

## 5.2 Guidelines proposal

The research proposes some guidelines, new attitudes that are included in a larger strategy focused on a symbiosis with the environment.

The use of systemic design methodology allows putting in the front scene the connections and the relations between actors and the systems.

This chapter aim to define some general guidelines suitable for a specific context, wine exploitation and production based on the cases studies focused and the outputs highlighted.

The systemic design approach represents the methodological tools that define new potential opportunities for the development of the territory and for the environment. All this to encourage good manners, good practices to reduce waste, according to the elements of the territories for the enhancement of local know-how and the promotion of the systemic approach as a cultural experience.

This is really far from the today's luxury production, that's why we can say that the new packaging strategies could go after this attitude's:

- Use of outputs of the beverage system to produce sustainable input such as cork
- Use of grapes skin and seed to produce cardboard and paper used for the labels and the boxes
- Use of recycled materials to reduce the part of virgin materials to prevent deforestation, mining... For instance, for glass bottle cardboard, labelling, pallets
- Use of certified materials (FSC, PEFC) to ensure the regeneration of flora and fauna
- Use for the secondary packaging paper scotch/roll to eliminate the plastic in the production

- Use of cellulose film instead of plastic. For example, NatureFlex™ by Futamura has developed cellulose film packaging materials that are resistant to oils and fats, with the use of heat-seal resins that makes the material safe for use in microwave or oven applications. The cellulose is derived sustainably harvested wood pulp and can comprise up to 99% of bio-based materials.
- Use ink and glue without solvent
- Privilege the local packaging supplier (bottle, cork, boxes) to densify the local economy and reduce the transportation and Co2 emissions.
- Strengthen the connections between the cultural industry and the other productive sectors of the territory.
- The cultural landscapes provide a lot of attractive points for the designers. From the product design, to the service, the communication until the productive system.
- Reinforce the communication about recycling process to the user
- Favorized the packaging where all the different components of the pack are easily separable
- Privilege diversity and integration of people for the manufacture of packaging (Ex: ATS Atelier Luxe: reintegration of young delinquents)

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