

NEW TRENDS IN THE CREATION AND MANAGEMENT OF SOCIAL ENTERPRISES: STUDY CASES (II)

Coordinator: Teresa M^a Monllau

IAIOS, an example of circular design applied to the Textile Industry

Authors

Patrícia Crespo Sogas

Professor. Tecnocampus. Pompeu Fabra University of Barcelona (UPF)

Teresa M^a Monllau Jaques

Associate Professor. Pompeu Fabra University of Barcelona (UPF)



THE AIM OF THIS CASE

Analyze the impact and viability of a production model based on the concept of The circular economy in the textile sector.

IAIOS is a Catalan family business in the textile sector that makes sweaters like the ones before: 100% made from recycled raw materials and designed to last for many years. Its production model is based on the use of recycled yarn, local manufacturing and circular design.

Through this case, the student will be able to analyze how, by implementing a circular economy model in textile production, it is possible to promote a successful business model. The keys have been the experience of their owners in the world of the textile industry as well as the production model. Now their big challenge will be to increase their turnover through international expansion.

The purpose of this case is for the student to analyze the evolution of the company's market and how, through its action, the company contributes to the achievement of the Sustainable Development Goals (SDGs) that refer decent work and economic growth (SDG 8), responsible production and consumption (SDG12) and climate action (SDG13).

The case can be proposed to students in the area of business management and marketing.

2. LIGHTS AND SHADOWS OF THE TEXTILE AND FASHION SECTOR

The textile sector is one of the most important globally. According to *the Elle Mac Arthur Foundation*, it has doubled its production volume in the last 15 years. It accounts for \$ 1.3 trillion in global industry and employs more than 300 million people (*Elle Mac Arthur Foundation, 2017*).

It is also one of the most cross-examined sectors in recent years due to the effect that its excessive growth has on the environment, on working conditions and the defense of worker's human rights and on the people's health. According to the UN, the fashion industry is the second most polluting in the world; it produces more carbon emissions than all flights and shipping and every year throws into the sea 3 tons of microfiber which is equivalent to 3 million barrels of oil¹. Global production of clothing and footwear generates 8% of global greenhouse gas emissions. The *Pulse Score*, an index that measures the evolution of the environmental and social behavior of the fashion industry indicates that the progress between 2017 and 2018 is only 6 points and that much remains to be done².

If we continue to work with the current model, the emissions of air pollutants from this industry will increase by almost 50% in 2030³. Olga Algayerova, executive secretary of the United Nations Economic Commission for Europe (UNECE), says that “the fashion industry must change its gears and be responsible with the environment.”⁴

2.1. WATER CONSUMPTION AND THE TEXTILE INDUSTRY

The textile industry is the second largest consumer of water in the world behind the energy industry. In addition, it produces 20% of the wastewater generated on a global scale (UNECE, 2018). According to the *Textile Research Institute* (AITEX), high water consumption basically takes place in two stages: the dyeing of the fibers and the finishing process of the fabrics. Another of the steps that consumes a lot of water is to obtain raw materials such as cotton, linen ... etc⁵.

1. UN, 2019 a <https://news.un.org/es/story/2019/04/1454161>

2 <https://www.commonobjective.co/article/what-you-can-do-to-improve-fashion-s-pulse-score>

3 PNUMA a <https://news.un.org/es/story/2019/04/1454161>

4 <https://www.modaes.es/back-stage/la-onu-califica-la-industria-del-fast-fashion-como-emergencia-medioambiental.html>

5 <https://www.iagua.es/noticias/aguada-garcia-durango/15/04/23/agua-e-industria-textil-grandes-companias-examen>

AITEX, after conducting a study comparing eco processes with traditional processes, concludes that the eco alternatives analyzed represent a lower carbon footprint with impact reductions compared to the conventional alternative of between 30% and 90%. The reduction table obtained is as shown in Figure 1.

ALTERNATIVE	REDUCTION
Pretreatment	99,34%
Finish-Smoothed	81,95%
Customization	56,64%
Dyeing reactive dyes	29,58%
Dyeing natural dyes	50,13%
Lamination	39,18%
Bleached	94,56%

Table 1: Reductions in environmental impact as a result of the use of “Eco” production systems.

Source: AIETEX (<https://www.aitex.es/?s=consumo+agua>)

On the other hand, AIETEX makes some recommendations to follow with the aim of reducing the carbon footprint that can be seen in Table 2.

TREATMENT	ALTERNATIVE ECO	RECOMMENDATION
Pretreatment	Crown Plasma	Reduce the energy consumption of the crown equipment.
Finish-Softener	Micronized	Reduce the energy consumption of the micronization equipment and the air compressor.

Customization	Laser	Reduce the power consumption of laser equipment.
Dyeing natural dyes	Micronized	Reduce energy consumption due to water heating, such as due to the operation of the washing machine.
Lamination	Calendaring	Reduce the energy consumption of the equipment.
Bleaching	Ozone	Reduce the energy consumption of the equipment and the air compressor.

Table 2: Recommendations to follow in order to reduce the carbon footprint. AIETEX source
(Source: <https://www.aitex.es/?s=consumo+agua>)

1.2. WORKING CONDITIONS IN THE TEXTILE INDUSTRY AND THE WORLD OF FASHION

Working conditions in the textile and fashion industry begin with the cultivation and harvesting of raw materials such as cotton and linen, as there are many countries such as Uzbekistan and India where children are allowed to participate in this process. All of this means that boys and girls do not have access to education and are exploited and exposed to pesticides and environmental conditions. Once again, it is the girls who suffer the worst conditions. Girls are more obedient and are subjected to physical and even sexual abuse⁶.

The idea of leather industry in countries like India and Pakistan is related to the use of child labor⁷.

A large number of brands have moved their production or part of it to countries with low economies and low wages. In these markets

⁶ Alterwoman consultant: <https://www.alterwomanmodaetica.es/que-sabemos-del-trabajo-infantil-en-el-mundo-de-la-moda/>

⁷ <https://pe.fashionnetwork.com/news/Trabajo-infantil-el-textil-y-la-ropa-siguen-involucrados,361795.html>

they dictate the prices, volume and quality of production without worrying about the impact this can have on the people who work there. According to a report by *La Campaña Ropa Limpia: Salarios dignos 2019*, the business model of brands is the reason why working people are still living in poverty. According to the same report, improved working conditions can have a domino effect on other work vulnerabilities such as overtime, precarious housing, poor nutrition, health problems and the risk of child labor⁸.

Uzbekistan is a clear example of child labor and exploitation. In this country the cultivation of cotton represents 20% of GDP. Uzbekistan is the world's third largest exporter. Child labor is consented to by the government. The great international pressure from the United Nations to the European Union, often through the pressure of large multinationals in the textile sector, has yielded small results and has allowed the inspection of international observers. They have agreed to work on a program of the International Labor Organization to eradicate child and forced labor practices⁹.

Burma is a popular destination for the fashion industry as it offers low wages and favorable import and export rates. The legislation of this country allows to work up to 60 hours a week, it is legal for 14-year-olds to work a maximum of 4 hours daily. Most of the workers in these factories are women. It is the cheapest production center for countries like Thailand or Cambodia¹⁰.

About 11% of the world's child population is forced to work in conditions that are an attack on human rights. However, the World Labour Organization states that since 2000, there have been nearly 78 million fewer children working. In the period 2000/2012 the reduction of working girls was 40% while that of boys was 25%¹¹.

8 https://ropalimpia.org/wp-content/uploads/2017/08/TailoredWages-FP_ES_Baixa.pdf

9 Alterwoman consultant: <https://www.alterwomanmodaetica.es/que-sabemos-del-trabajo-infantil-en-el-mundo-de-la-moda/>

10 <https://fashionunited.es/noticias/empresas/trabajo-infantil-y-salarios-bajos-el-coste-real-de-producir-moda-en-myanmar/2017021323594>

11 <https://pe.fashionnetwork.com/news/Trabajo-infantil-el-textil-y-la-ropa-siguen-involucrados,361795.html>

2. REACTIONS

The situations we have described in the previous sections have provoked reactions among both producers and consumers, which have had as their main consequence, although in a discreet way, changes in the forms of production and consumption.

Lucia Musau, *influencer* and model, states that “fast fashion is a major obstacle to sustainability. There is a strong pressure to consume more. Clothing labels should be more specific, so that people know what they are buying. We need a change of mentality about excessive production and consumption”¹².

Prestigious people in the fashion world such as the designer Armani question the model of “design, manufacture and delivery” based on mass consumption and overproduction, regardless of the environment. For the designer, the health emergency situation we are experiencing in 2020 may be a good time for change and may be an opportunity to re-value authenticity. Armani has declared: “The moment we are going through is turbulent; but it offers us the unique opportunity to fix what is wrong, to eliminate what is superfluous, to find a more human dimension. This is perhaps the most important lesson of this crisis. I have always believed in the concept of timeless elegance. It’s not just an aesthetic code, it’s also a way of making clothes that suggests a precise way to buy it. In other words, that it lasts”¹³.

In May 2017 *The Make Fashion Circular* was promoted as the *Circular Fibers Initiative at the Copenhagen Fashion Summit*. This initiative brings together several subsectors of the fashion industry, various brands, cities, NGOs ... The aim of this initiative is to stimulate the level of collaboration and innovation needed to create a new textile economy that is in line with the principles of the circular economy.

12 <https://news.un.org/es/story/2019/04/1454161>

13 La Vanguardia, 29/4/2020 <https://www.lavanguardia.com/gente/20200418/48594980944/armani-moda-criticas-coronavirus.html>

If the industry rescues materials that are in use, it can develop new economic opportunities that will reduce environmental costs. This initiative was joined by different well-known brands in the world of fashion such as Burberry, Inditex and H&M group¹⁴.

H&M, a fashion firm that has been in the spotlight for the working conditions in which its garments are made, issued a statement on the group's website stating that "We are committed to respect of Human Rights in our operations, in our production chain and in the communities in which we are present. In addition, we try to avoid any negative impact on human rights and use our influence to promote respect for these human rights."¹⁵ On the other hand, for many years they have been launching collections in which the claim to the consumer is that they are respectful with the environment¹⁶.

Ecoalf, a brand created in 2009 by Javier Goyeneche, aims to manufacture the first generation of fashion products made from recycled materials of the same quality, design and technical properties as the best non-recycled products. In this way, it shows that it is not necessary to continue abusing the natural resources of the planet in an indiscriminately way.

The so-called "ecological fashion" is becoming more and more important and is positioned as a viable alternative to unbridled consumption. All of this has resulted in the proliferation of brands that pamper nature and its workers without sacrificing design under the umbrella of *Slow Fashion*. Barcelona has been one of the pioneering cities and is home to one of the most important sustainable fashion festivals in the Mediterranean: the BCN *Ethical Fashion Fest* (BEFF).

14 <https://www.ellenmacarthurfoundation.org/our-work/activities/make-fashion-circular>

15 https://about.hm.com/content/dam/hmgroup/groupsite/documents/es/hm-way/HMWay_es.pdf

16 <https://ecoalf.com/es/p/historia-9>

3. CIRCULAR ECONOMY

We are in a world where resources are increasingly scarce and where we do not know what to do with waste. According to the *Ellen Mac Arthur Foundation*, more than \$500 billions is lost as a result of the lack of recycling. A lot of times the products are used for a period of less than a year. After being used, 87% of the fiber used in making clothes is thrown in landfills or incinerated. This system generates pressure on resources, pollutes and degrades the systems in which it operates¹⁷.

The circular economy is a new economic model that seeks to transform the patterns of production and consumption of society to achieve a sustainable production system. The circular economy distinguish between technical cycles and biological cycles. The technical cycles seek that the design of the products allows them to be reusable. The biological cycle tries to regenerate the waste so that it is reinstated into nature¹⁸.

It is becoming increasingly clear that we need to move from linear matter and energy flows to circular matter and energy flows. In the case of the European Union, the so-called “closed-loop economy” has become a priority. In this environment, in Spain there has been an increase in actions in the field of circularity. These actions have received the support of the European Union and are focusing on new business models, production system and forms of consumption. According to COTEC (2019) the number of cases of circular economy identified in 2019 was three times those identified in the report made in 2017. At the moment, the Ministry is developing “*A strategy of Circular Economy 2030*”¹⁹.

17 <https://www.esterxicota.com/estadisticas-moda-sostenible/>

18 Cámara Argentina de Comercio y Servicios https://www.cac.com.ar/data/documentos/21_Informe_sobre_Economía_Circular.pdf

19 Informe COTEC: <https://cotec.es/media/informe-cotec-economia-circular-2019.pdf>

In this line, new initiatives are emerging in the world of fashion, which are committed to a circular economy in the textile sector with the aim of achieving the mending and recycling of clothes before throwing it away. We can find an example of this philosophy in different brands such as Patagonia which gives instructions on its website on the mending and recycling of textile products²⁰; Levi Strauss & Co. has become partner with Evrnu group to create the first jeans made with recycled cotton²¹. The IAIOS company was an example of that type of business that in 2016 chose for the circular design.

4. IAIOS: HISTORY AND PHILOSOPHY OF THE COMPANY

IAIOS was born from a Catalan family business in the Vallès Oriental area that has been producing and selling textiles for 5 generations: the Barbany family. In 1895 the great-grandfather of the current owners, Joan Barbany, opened the first store (1895) (Figure 1). A few years later, in 1935, he opened a knitting factory in Granollers. In the 90s the family created a brand, IAIOS, which disappeared due to lack of awareness about sustainability in textiles and recycled fabrics. That moment coincided with a severe crisis in the textile sector that forced many factories to close.

In 2016, her great-grandchildren Amadeu (shopkeeper) and great-great-grandchildren Bernat (biologist) and Gemma (designer) recovered the brand, framing it in a production and design model of circular economy. The union of these two generations formed a team that combined experience, technical knowledge and business management.

20 <https://cl.patagonia.com/pages/worn-wear - cuida-y-repara>

21 <https://www.esterxicota.com/cambio-climatico-moda-sostenible-algodon/>



Figure 1: the Barbany family store in 1895. Source: laios

The creation of the IAIOS brand led to the manufacture of a different type of sweater. The Barbany family wanted to produce something more than just another product in a saturated and cruel market as the fashion; they wanted to give an extra value, not only social but ecological.

For this reason they decided to use recycled yarn, a technique already used by the family's ancestors. In addition, the designs had to be based on a very simple and timeless pattern to give the garment maximum durability. They would not put zippers or buttons, or other fabrics that would make it difficult to recycle once its useful life is over. In this way, they were putting a product on the market that would not end up being a waste.



Figure 2: Labels "Iaios."
Source: IAIOS.

When the reappearance of the brand was proposed, they wanted to give more strength to the concept of “avis” or “iaios” which means grandparents, as it picked up the philosophy of the collections: sweaters created to last, made as before, using raw materials, hand work and local production processes. In addition, the concept of circular economy summed up the philosophy of life of the grandparents of consumers, to whom the collections were addressed: moderate consumption, savings and quality in clothing. To give more strength to the values of the brand and its protagonists, the IAIOS, the references of the different models are named after a grandmother or grandfather from whom things can be learned from. The label on each sweater is accompanied by a biography of the grandfather; for example, the reference to a thin striped sweater is “Lindgren” in tribute to the Swedish writer who created the character “Pippi Lagstrumpf” (Figure 2). A herringbone pattern is called "Avi Amadeu" in tribute to the great-grandfather of the current owners Amadeu Barbany i Pons, businessman and intellectual who was the source of inspiration for the project. The selection of grandparents is totally random; every time they get proposals from seniors who did interesting things they keep the reference. When they have 14 or 15 grandparents whose lives and values are in line with the values and philosophy that the brand wants to convey, they write the corresponding biographies and assign them a model reference with which this grandfather can identify. A summary of the biography is placed on a small card that is the label of the sweater. One of the last references that have been created is the IAIO Josep Bové i Blanch, a well-known rhapsodist from Vallès which had as reference Catalan poets such as Foix, Maragall, Sagarra, Carner, Espriu or Martí and Pol, among others.

5. THE IAIOS PRODUCTION MODEL

The project has three fundamental elements:

1. Production with recycled yarn,
2. Local manufacturing
3. Circular design.

Once the collection has been designed, yarn is ordered. The yarn is made in Olot, in a family spinning mill, Vila Planella, founded in 1990, dedicated to the textile recycling of materials and textile²² recovery, which manage textile waste of all kinds. IAIOS buys them 100% recycled coloured yarn on cones. The leftover scraps from the different garment factories are collected and taken to the spinning mill.

The process of making the yarn consists of separating the leftovers by colour and crushing them to make the "stuffing wool". Then the colours are tests by mixing different colours of stuffing wool to get the right tone. These bundles are then combined in large quantities and the spread is carried out. This process is used to moisten the stuffing wool before putting them in the spinner and uses a very minimum amount of water.

The wet and rested wools are placed in the spinning machine, where the wool is separated and combed to give it an elongated and continuous shape called the "wick". The twist is then given to the wick to turn it into thread. This recycling process has a very low environmental impact, as they only use 1% of the water used by conventional spinning mills. They also do not use dyes.

The regenerated wool stands out for its durability and strength compared to other materials. The yarn is sent to Igualada where the sweater is woven and made. The different IAIOS models have a simple design that makes the garment a current and timeless sweater. They are designed so that they can be worn for a long period of time.

²² <http://vilaplanella.com/>

The sweater is sent to Granollers, from where it is labelled, distributed, stockpiled and managed. The Granollers store, called DRACS, (Figure 3), sells the IAIOS brand and other local and design products. All the products that can be found there have environmental, social, traditional values ... (Figure 4). In the Granollers store, in addition to selling the sweaters, all the management, design, distribution and storage of the brand is also done.

When the geographical distribution of the products was organized, a process of spinning and knitting was sought out that was as close as possible. The production route is approximately 108 km, which minimizes the ecological footprint of the product.



Figure 3: DRACS store, Granollers. Source: laios



Figure 4: IAIOS 2020 products. Source: laios

Below is a video illustrating the brand and how it works:

<https://www.youtube.com/watch?v=JQgfqQtRuZY&t=4s>

6. IAIOS: IMPACT ON THE ENVIRONMENT. WASTE REDUCTION, WATER CONSUMPTION AND CO2 FOOTPRINT

6.1. WASTE REDUCTION AND WATER CONSUMPTION

Once the sweater has reached the end of its useful life, the customer can send it to their producers for recycling. To begin this process, the customer must go to the company's website and send an email to IAIOS. IAIOS will inform you of the possible ways they have to send / take the piece they want to recycle. IAIOS says that this process is still to be launched as the company is young and the IAIOS garment is very long.

Another recycling route that promotes IAIOS is the surplus of yarn that other fabric manufacturers have. The company claims to have received many calls from these manufacturers. In this case, the company is informed where to send its scraps so that they can be recycled. It basically puts them in contact with spinning. This process is a second way in which IAIOS participates in order to reduce waste. The fact that IAIOS does not apply dyed product to the manufacture of sweaters means a significant reduction in water use.

6.2. CO2 FOOTPRINT

According to the Ellen McArthur Foundation, doubling the number of times a garment is worn reduces greenhouse gas (GHG) emissions by 44%. The manufacture of a 100% acrylic sweater is equivalent to 2.82 kg of CO₂.

IAIOS does not manufacture with virgin fibers but does so with recycled fibers. This means significant CO2 savings.

The distance travelled in the transport of the material in all its manufacturing process is 108 km by van. This equates to 51kg of CO2.

The company offsets its CO2 emissions, with three solar trackers installed in the Navés photovoltaic Park. This photovoltaic park is made up of small shareholders with the aim of contributing to the improvement of the environment. They were pioneers in making clean energy to compensate for what they consumed from the grid. In 2019, they produced 52,000 Kwh.

IAIOS also participated in a project in the Sierra del Segura (Albacete) where it planted 3,000 trees. The project was called "Maderas Nobles de la Sierra". The company has invested 10 years in this project. The aim of participating in this project was to offset the CO2 emissions of the company's travel. The project did not work. There was a suspension of payments. IAIOS lost money and trees. The company recognizes that there are always risks when investing in innovative projects.

7. IAIOS: EVOLUTION OF SALES AND THE MARKET

The main competitors of IAIOS are:

- **Sweater House** makes clothes with recycled wool and cotton. The cotton used is Indian organic cotton (fabrics dyed with index). They recycle the excess cotton from the production made. The organic cotton they use is grown on certified land free of toxic substances and all kinds of pesticides and insecticides. They only make men's clothes and bet for a timeless collection.
- **Two shirts** is a sustainable brand in Barcelona from Portugal. Not only do they make sweaters but they also make other types of garments such as t-shirts, pants or jackets and

swimwear which is made from recycled plastic. The company has an international vision as has a presence in Spain, Germany, Argentina, Canada, Italy, South Korea ... Prices are a little higher.

- **Xisqueta** is a project that recovers the Xisqueta sheep from the Catalan Pyrenees. They work for the recovery of the craft and the value of the Xisqueta and Merino sheep of the peninsula. They have protected shepherds and created a collective of artisans who transform wool. The figure of the shepherd and the craftsman stands out in his marketing process. Higher prices and very difficult wool to make sweaters with.
- **Marcelinus i Integra**, which are defined as a private non-profit entity, declared a public entity, at the county (La Garrotxa) which was created in 1968. The purpose is to provide care resources to improve the quality of life of people with intellectual disabilities, mental disorders or development disorders.
- **Babaa Knitwear** brand of sweaters whose main value is sustainability so it uses local and natural materials. It is a brand of "made in Spain" sweaters. They combine artisanal techniques with environmentally friendly procedures.

The differences of IAIOS in relation to these competitors are the following:

- They only make knitted sweaters.
- The pieces they manufacture are 100% recycled and have a “zero waste”, circular economy.
- They are made entirely in Catalonia.
- The image and design is very colourful.
- They only have one boy and one girl pattern. From these patterns come different models, combinations, sizes...
- Each sweater has a first and last name (+ a biography)

7.1. ONLINE SALE

Online sales began in IAIOS in 2016. Since then, the percentage of sales over total IAIOS sales have continued to grow as shown in Table 3.

YEAR	SALES PERCENTAGE ON-LINE OVER TOTAL SALES
2016	5,88%
2017	20,04%
2018	22,59%
2019	28,47%
2020	30,06%*

Table 3: Evolution of the percentage of online sales on the total sales of the company IAIOS (2016-2020).

Source: own elaboration based on data provided by IAIOS.

(*) Until 28/5/2020.

Not only has increased the impact of online sales but also the followers on social networks. (Figures 5 and 6). The company is considering betting on "online" sales, as having the exclusive right to sell them allows them to transmit the brand's values and reach many more people. For this reason, the company has outsourced online advertising and marketing services to several companies. The first of them (between March and November 2019) did not work so in December 2019 they changed companies. Since then they have grown a lot in sales (Table 4).

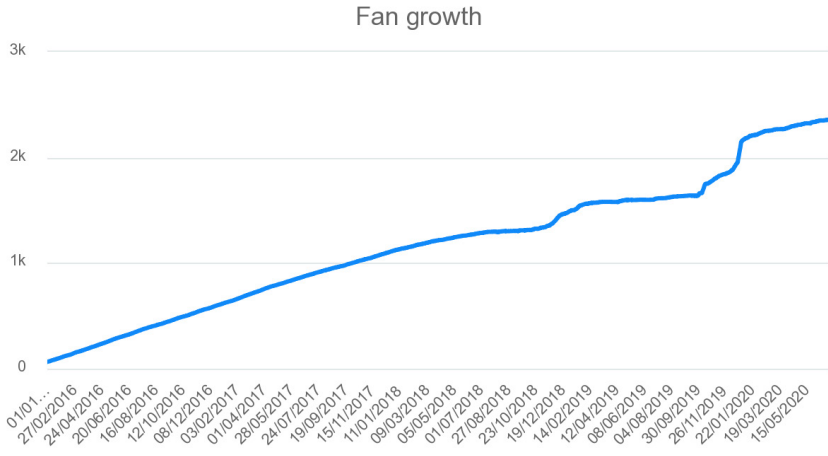


Figure 5: Facebook follower growth, 2016-2020. Source: laios

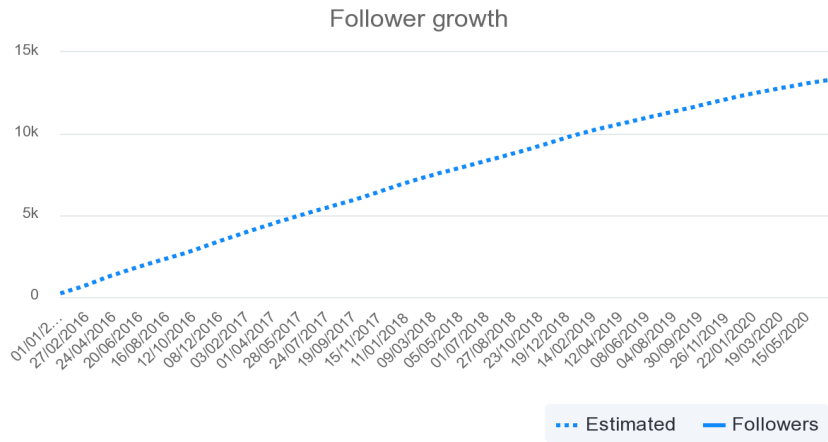


Figure 6: Growth of followers on Instagram, 2016-2020. Source: laios

YEARS	UNITS	VALUE	UNITS DIFFERENCE	%	DIF €
2016	13	717,00 €			
2017	159	8.344,40 €	146	1123,08%	7.627,40 €
2018	284	16.895,00 €	125	78,62%	8.550,60 €
2019	627	37.693,78 €	343	120,77%	20.798,78 €
2020	560	21.603,80 €	-67	-10,69%	- 16.089,98 €
TOTAL	1083	63.650,18 €			

Table 4: Data on the percentage of online sales. * Data 2020 to 30/6/2020

Source: IAIOS company.

As shown in Table 5, online sales of sweaters and T-shirts have increased significantly in the last year.

01/01 a 30/06 2019		01/01 a 30/06 2020	
UNITS	VALUE	UNITS	VALUE
80	4.320,70 €	560	21.603,80 €
INCREASE		600,00%	400,01%

Table 5: Online sales of sweaters and T-shirts with the percentage increase in sales over the previous year. **Source:** IAIOS company.

On the other hand, the company is considering boosting the sale of T-shirts to break the strong seasonality of the sale of sweaters, as shown in Figure 7.

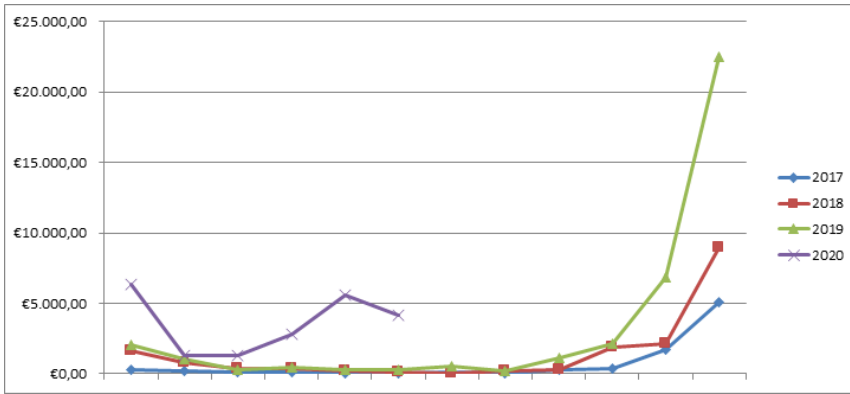


Figure 7: Evolution of sweater sales over the years. **Source:** company IAIOS.

Table 6 provides separate online sales information for sweaters and T-shirts.

YEAR	SWEATERS		SAMARRETES	
	UNITS	IMPORT	UNITS	IMPORT
2016	13	717,00 €	0	0,00 €
2017	156	8.249,50 €	2	58,00 €
2018	259	15.862,10 €	21	706,90 €
2019	545	35.193,58 €	82	2.510,10 €
2020	148	9.264,00 €	406	12.239,70 €
TOTAL	1121	69.286,18 €	511	15.514,70 €

Table 6: "online" sale of sweaters and T-shirts. Data from 2020 to 30/6. **Source:** IAIOS.

The company believes that they are close to full growth. They are known in the Catalan market and a little around Spain and across the world. As a challenge for the future, they plan to open up to international markets.

8. QUESTIONS

- It indicates which SDGs are affected as a result of the production of the textile sector and which can be improved and as a result of the new production trends that are being implemented.
- Factors that the company needs to analyse when considering a possible internationalization of its markets.

9. BIBLIOGRAPHY

9.1 REFERENCES & BIBLIOGRAPHY

- ACCIÓ (2019). Tèxtil i moda a Catalunya. Píndola sectorial https://www.accio.gencat.cat/web/.content/bancconeixement/documents/pindoles/Textil_pindola-sectorial_2019.pdf. (Disponible 28/6/2020).
- AITEX i mesures per fer la indústria més ecològica: <https://www.aitex.es/?s=consumo+agua>. (Disponible 9/6/2020)
- Alterwoman Consultora (2019). El trabajo infantil en el mundo de la moda. Parte I: el cultivo del algodón. <https://www.alterwomanmodaetica.es/que-sabemos-del-trabajo-infantil-en-el-mundo-de-la-moda/> (Disponible 9/6/2020)
- Cámara Argentina de Comercio y Servicios. Informe sobre Economía Circular. https://www.cac.com.ar/data/documentos/21_Informe%20sobre%20Econom%C3%ADa%20Circular.pdf (Disponible 8/6/2020)
- Campaña ropa limpia, Setem, Agència Catalana de Cooperació al Desenvolupament i Isabel Martin Foundation. Salarios dignos 2019. Análisis de los salarios den la industria textil global. <https://ropalimpia.org/noticias/salarios-dignos-2019-analisis-de-los-salarios-pagados-en-las-fabricas-de-la-industria-textil-global/>

- COTEC (2019). Situación y evolución de la Economía Circular en España. Informe 2019. <https://cotec.es/media/informe-cotec-economia-circular-2019.pdf>
- Ellen Macarthur Foundation and Circular Fibres Initiativ. A new textiles economy: redesigning Fashion's future. (2017) https://www.ellenmacarthurfoundation.org/assets/downloads/publications/A-New-Textiles-Economy_Full-Report.pdf
- European Commission (2019). Report from the commission to the european parliament, the council, the european economic and social committee and the committee of the regions. On the implementation of the Circular Economy Action Plan. <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52019DC0190&from=EN>
- H&M. The H&M Way. https://about.hm.com/content/dam/hmgroupp/groupsite/documents/es_ci/hm-way/HM%20Way_es_ci.pdf
- IAIOS. Nota de prensa. https://cdn.shopify.com/s/files/1/0085/9802/8324/files/Presentacio_IAIOS_h19_fulleto.pdf?44151.
- Theuws, M., Overeem P., Centre for Research on Multinational Corporations (SOMO), Action Labor Rights (ALR), Labour Rights Defenders and Promoters (LRDP) (2017). The Myanmar Dilemma. Can the garment industry deliver decent jobs for workers in Myanmar?. <https://www.somo.nl/the-myanmar-dilemma/>
- Oficina Internacional del trabajo (OIT). Resultados y tendencias 2012-2016.
- Resumen ejecutivo. https://www.ilo.org/wcmsp5/groups/public/---ed_norm/---ipec/documents/publication/wcms_596481.pdf
- Organización Internacional del Trabajo. Informe mundial de 2015 sobre el trabajo infantil. Allonar el camino hacia el trabajo decente para los jóvenes. https://www.ilo.org/ipecc/Informationresources/WCMS_372648/lang--es/index.htm

- Ropa Limpia. Informe salarios dignos 2019. Análisis de los salarios pagados en las fábricas de la industria tèxtil global. https://ropalimpia.org/wp-content/uploads/2017/08/TailoredWages-FP_ES_Baixa.pdf
- UNECE. Fashion and the SDGs: What role for the UN?. https://www.unece.org/fileadmin/DAM/RCM_Website/RFS_D_2018_Side_event_sustainable_fashion.pdf

9.2 WEBOGRAPHY

- Armani espera un cambio en la moda <https://www.lavanguardia.com/gente/20200418/48594980944/armani-moda-criticas-coronavirus.html> (Disponible 29/4/2020)
- Ester Xicota <https://www.esterxicota.com/estadisticas-moda-sostenible/> (27/5/2020)
- Fases en una estratègia de internacionalización <https://www.eaprogramas.es/internacionalizacion/fases-en-una-estrategia-de-internacionalizacion> (Disponible 28/6/2020)
- Make Fashion Circular <https://www.ellenmacarthurfoundation.org/our-work/activities/make-fashion-circular>
- 50 Marcas de moda sostenible. <https://elbiensocial.org/tiendas-online-de-moda-sostenible-y-responsable-en-espana/> (Disponible 29/4/2020)
- Make Fashion Circular <https://www.ellenmacarthurfoundation.org/our-work/activities/make-fashion-circular>
- Moda sostenible otra forma de entender el negocio tèxtil. <https://blog.oxfamintermon.org/moda-sostenible-otra-forma-de-entender-el-negocio-textil/> (disponible 29/4/2020)
- La moda ecològica treu pit. https://www.ara.cat/estils/moda-ecologica-treu-pit_0_1475252479.html (disponible 8/6/2020)

- Objetivos de Desarrollo Sostenible (2019): <https://news.un.org/es/story/2019/04/1454161> (Disponible 21/5/2020)
- Proceso de internacionalización de empresas: ¿Cómo internacionalizar tu compañía? <https://www.apd.es/proceso-de-internacionalizacion-empresas/> (Disponible 28/6/2020)
- ¿Cuánta agua llevamos encima? https://www.lavozdegalicia.es/noticia/sociedad/2012/08/26/agua-llevamos-encima/0003_201208G26P32991.htm (Disponible 28/6/2020)

To obtain the Teaching note please contact with:

Patricia Crespo

patricia.crespo@upf.edu

Teresa M^a Monllau

teresa.monllau@upf.edu

Collaborating entities

