On the basis of mandatory national and international policies, transparency in the fashion industry is often limited to the 'made in' label. Since this tag usually refers to the last, most significant portion of the production process, it may lose sight of important steps taking place before that point.

While the garment industry as a whole has been under a microscope in recent years, especially when it comes to 'fast fashion', shoppers are becoming increasingly conscious and want to know more about where their products come from. As conscious customers demand sustainability and integrity on large scale, new transparency solutions are gaining traction all along the textile supply chain, ideally from farm to retail.

Transparency-enabling systems – besides promoting a fairer and cleaner fashion industry – represent also a tool that helps brands to combat the proliferation of counterfeit goods, recognized by Business of Fashion as one of the biggest threats to the global fashion industry.

All in all, the transparency issue in the fashion industry is witnessed by some eloquent figures:

- only 42% of the large fashion brands disclose supplier information (McKinsey, 2017)
- tracing raw materials remains a huge challenge, with just 7% of companies knowing where all of their cotton is coming from (Tearfund, 2017)
- only 21% of companies report the application of their Code of Conduct to multiple levels of their supply chain (Tearfund, 2017)
- the European clothing, footwear and accessories industries lost approximately €26.3 billion in annual revenues from counterfeit goods in 2013 (OHIM-EUIPO, 2015)
- European lost sales in the fashion industry due to counterfeiting translates into direct employment losses for approximately 363,000 jobs in 2013 (OHIM-EUIPO, 2015)

Tapping into a new breed of transparency-enabling technologies, the radical transparency paradigm aspires to tackle aforementioned issues while fostering healthy competition among brands, and thus engendering a virtuous cycle of positive externalities for all parties.
Several companies in the fashion industry are shifting towards more ethical business models to meet the conscious customers’ needs. Along these lines, radical transparency becomes the cornerstone of trust: tapping into track and trace technologies, fashion brands can fight counterfeiting and help the customer in shining a light on who cut, sew and assemble garments. This leads to customer engagement in a PROFIT WITH PURPOSE logic.

### Transparency as a Competitive Advantage for Sustainable Fashion

#### Brand

- **How can I prove responsible business practices?**

#### Profits with Purpose

- **Which brand is really sustainable?**

#### Engagement

- **Which customer is really interested?**

#### Customer

- **Customers – particularly Millennials and Gen Z – are increasingly more attuned to sustainability challenges in the fashion market and this is affecting their consumption patterns.**

#### Facts

- **Less than 3% of brands published the list of their raw material suppliers.**
- **Only 60% of brands published the list of their processing suppliers’ facilities.**
- **Only 37% of brands published the list of their manufacturing suppliers.**

#### Supply Chain Steps

**Source: Fashion Revolution, 2018**

- **SUPPLY CHAIN STEPS**
  - Source
  - Raw Materials
  - Processing
  - Manufacturing

#### Best Practices

**Source: BCG, 2017**

- **Some partners:** EILEEN FISHER, PATAGONIA, TARGET, BENETTON, BURBERRY, HUGO BOSS, DYNAFIT, JACK WOLFSKIN, SALEWA.
- **Some partners:** FAIRTRADE, FAIRWEAR FOUNDATION, BCI.

#### Traceability

Uncovering previous Supply Chain steps

#### Tracking

Following product flow along the Supply Chain

<table>
<thead>
<tr>
<th>SUPPLY CHAIN STEPS</th>
<th>RAW MATERIALS</th>
<th>PROCESSING</th>
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<td>FACTS</td>
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<td>Minimum Transparency Requirements</td>
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- **SPECIFIC MEASURES TO IMPROVE HIGH - YET NOT FULL - TRANSPARENCY ON RAW MATERIAL SUPPLIERS (E.G., PERSONAL VISITS, PARTICIPATION IN 3R PARTY VERIFIED COLLABORATION)**

- **FULL TRANSPARENCY ON PROCESSING SUPPLIERS (E.G., NAME, LOCATION, OWNER, CERTIFICATES)**

- **FULL VISIBILITY ON MANUFACTURING SUPPLIERS BY PUBLICATION OF FACILITIES AND SYSTEM IN PLACE TO MONITOR SUB-CONTRACTING**

#### Enabling Technologies

- **Quick Response Codes (QR Code) consist in a combination of black squares on a white background, which can be scanned by consumers’ smartphones to obtain information about the product.**
- **Near-Field Communication (NFC) allows users to scan items on a proximity basis without using their camera thanks to small tags that can be embedded into products of any shape and size.**
- **Blockchain provides a distributed ledger to record a digital ID for each product, along with key provenance information that cannot be altered.**
- **Open Data**
  - Through open data platforms, companies are able to disclose information about internal processes, thus enabling customers to better understand how the organization works.
- **IoT**
  - Internet of Things: IoT networks enable communication among all objects by collecting and analyzing data coming from sensors and devices, all this without human interaction.

#### Transparency Needs

- **OPEN DATA**
  - Through open data platforms, companies can disclose information about internal processes, thus enabling customers to better understand how the organization works.

#### TRANSPARENCY BENCHMARKS

- **MARTINE JARLGAARD**
  - By attaching a unique digital token on each garment, all parties can track and trace each step of the supply chain via blockchain Provenance platform.

- **LORENA ANTONAZZI**
  - Every production step is traceable by means of QR codes and NFC technology, allowing customers to certify authenticity and discover data about the products.

- **PAPAOTNA**
  - The CSR section of the company’s website contains an interactive map, called ‘The Footprint Chronicles’, which discloses analytical data about suppliers and facilities.

#### Tech Service Companies for Transparency and Anticounterfeiting

- **UCOT**
  - UCOT is a startup that aims at tracking and tracing every step of the supply chain by making the product history timestamped on an unforgable blockchain, which provides transparency and maintains brand value against counterfeit goods.

- **RENO**
  - REMO’s REMOkey is an intelligent technology that verifies items’ identity with the purpose of tracing product history timestamped on an unforgeable blockchain, which provides transparency and maintains brand value against counterfeit goods.

- **TRUILED**
  - TRUILED is a distributed system that creates and verifies items’ identity with the purpose of tracing product origin and enable new connections among consumers, sellers and manufacturers.

#### Transparency Requirements

- **MINIMUM TRANSPARENCY REQUIREMENTS**
  - Source: BCG, 2017

- **SPECIFIC MEASURES TO IMPROVE HIGH - YET NOT FULL - TRANSPARENCY ON RAW MATERIAL SUPPLIERS (E.G., PERSONAL VISITS, PARTICIPATION IN 3R PARTY VERIFIED COLLABORATION)**

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#### Non-Profit Initiatives

- **Advocating Transparency**

- **FAIRTRADE CERTIFIED**
  - Fair Trade Certified promotes responsible sourcing that creates shared value throughout the entire supply chains in a system where everyone can benefit from transparency and ethical decisions.
  - Some partners: EILEEN FISHER, PATAGONIA, TARGET.

- **FAIRWEAR FOUNDATION**
  - FairWear promotes transparency as an important value in the fashion industry. Member companies are supposed to be transparent about their suppliers, sourcing practices and pricing, essential elements for their accountability and credibility.
  - Some partners: DYNAFIT, JACK WOLFSKIN, SALEWA.

- **BCI**
  - Better Cotton Initiative promotes transparency across the cotton supply chain by introducing an online traceability platform that allows BCI retailers and brands to trace their cotton purchases more accurately and transparently.
  - Some partners: BENETTON, RUSBERRY, HUGO BOSS.

- **POVIGY**
  - POVIGY is a platform that verifies manufacturing processes with the intent of helping brands capitalize on sustainable product creation and empowering customers to make responsible purchases.

- **CLEVIRIA**
  - CLEVIRIA’s Thela is a cloud system that helps to manage supply chain auditing by centralizing all the inspection processes and related data in a way that creates shared value among stakeholders.

- **ELEVIRIA**
  - ELEVIRIA’s Theta is a cloud system that helps to manage supply chain auditing by centralizing all the inspection processes and related data in a way that creates shared value among stakeholders.

- **TRUILED**
  - TRUILED is a distributed system that creates and verifies items’ identity with the purpose of tracing product origin and enable new connections among consumers, sellers and manufacturers.

#### Benchmarks

- **TRANSFERENCE:**
  - Source: Fashion Revolution, 2019

- **FACTS**
  - Source: Fashion Revolution, 2019

- **MINIMUM TRANSPARENCY REQUIREMENTS**
  - Source: BCG, 2017

### Reporting

- **OPEN DATA**
  - Through open data platforms, companies are able to disclose information about internal processes, thus enabling customers to better understand how the organization works.

#### Internet of Things:

- **IoT**
  - Internet of Things (IoT) networks enable communication among all objects by collecting and analyzing data coming from sensors and devices, all this without human interaction.

### Enabling Technologies

- **TRACEABILITY**
  - Tracking following product flow along the Supply Chain.
  - Processing and manufacturing transparency.
  - Full transparency on processing suppliers.
  - Minimum 50% transparency on processing suppliers.

###ebb
Transparency in the fashion industry is undoubtedly a hot topic. Since ‘Nike sweatshops’ in the Nineties, several other scandals regarding the supply chain have occurred in the apparel market, spurring public scrutiny and concerted consumer calls for change. Five years after the Rana Plaza tragedy, despite the introduction of Corporate Social Responsibility practices and Ethical Codes, many challenges are still unsolved, mostly because of the extensive recourse to outsourcing to low-wage countries driven by brands’ attempt to retain competitiveness.

In recent years, the vast availability of information on the Internet, coupled with the viral effects of social media, has increased public awareness about sustainability. This is urging companies on embracing the radical transparency paradigm: brands realize that it is no longer sufficient to claim the pursuit of ethical business models, but it becomes crucial to make tangible outcomes visible to the outside world, including workers and their unions, customers, NGOs, governments, and the citizenry at large.

Multiple ways exist to turn this paradigm into reality. A first wave of initiatives focuses on tracking and tracing each step of the supply chain by publicly sharing data and information. More specifically, a growing number of fashion brands disclose supplier lists that cover at least the manufacturing stage (Fashion Revolution, 2018): big enterprises (e.g., Inditex, Levi Strauss & Co, H&M) are leading the way in this evolution while smaller brands often struggle to control their supply chain and its transparency (BCG, 2017). Moving upstream in the supply chain, weaknesses are amplified due to the proliferation of suppliers that are dispersed and distant from brands’ operations. This seems to be more pronounced when it comes to raw material suppliers (BCG, 2017), as testified by the fact that only 1% of companies audit all raw material supplier facilities (Tearfund, 2017).

Transparency in the fashion industry is not limited to the publication of supply chain data. In this regard, a number of non-profit initiatives (e.g., World Fair Trade Organization, Sustainable Apparel Coalition, Global Organic Textile Standard) have been advocating the introduction of standards, process certifications, and transparency scores in order to evaluate apparel brands against the yardstick of externally set and measurable objectives.

Moreover, riding the wave of radical transparency, some trailblazing companies (e.g., Everlane, Vertical Fashion, Honest By) are going even further by disclosing internal information regarding their cost structure and providing full visibility on each stage composing the value chain.

A common thread running through all aforementioned approaches is the enabling role of Information and Communication Technologies, which are the linchpin for promoting openness and accountability throughout the product life cycle. Such technologies, often astoundingly tiny, are also extremely effective in fighting the rampant counterfeiting phenomenon as they can ensure product authenticity from its point of origin to the hands of the customer. QR Code, NFC, IoT, and open data are well-known examples in this vein. Looking at emerging trends, blockchain – hailed as the future of digital transactions – represents an unprecedented opportunity for infusing trust, efficiency and transparency into textile supply chains. By recording on a distributed and immutable ledger digital identities and various data related to the journey of raw material through the supply chain, information on the product history is made available efficiently and in a verifiable and permanent way. As a result, integrating blockchain into textile supply chains can transform traceability and authentication of products and, at the same time, facilitate new forms of collaboration between suppliers and buyers based on a ‘single source of truth’ (EY, 2018).

TCBL – as EU-funded project and global movement with responsible innovation in its DNA – considers radical transparency as key innovation driver for building a fair, sustainable, and competitive Textile and Clothing industry in Europe. All this happens through an experimentation playground established within TCBL ecosystem where a value-based community of innovators is turning the commitment to transparency into action. Main initiatives in place include ‘Multi Brand Radical Transparency’ project resulting from the partnership with business champions like Leroy Merlin and Conforama, two business cases – namely Natural Cotton and Eco-Friendly Production – focused on revitalizing value chain for reducing environmental footprint, and a portfolio of innovative business services related to supply chain management already available to all TCBL Associate Enterprises.

Jointly realized by Innovation Development Area and Front-End, Marketing and Communications Function of Istituto Superiore Mario Boella, an applied research center specialized in high impact innovation based on ICTs.

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