

# SUSTAINABLE MASS CUSTOMISATION IN THE NEW NORMAL

Yasuyuki Cho

Freelance Customer Experience Consultant, Kyoto, Japan

**Abstract:** *Even mass customization has to consider the different mindset needed to respond to the social and business changes determined by COVID-19. The present work investigates this issue focusing on mass customization in apparel industry taking into consideration the risk dimension strengthened by COVID-19 and the environmental dimension that is continuously gaining momentum.*

**Key Words:** *Mass Customization, Scope Shift, Circular Textiles*

until this Pandemic to Europe as a liaison between EURATEX, our counter part organisation located in Brussels and Responsible Business Conduct Unit, OECD, located in Paris which edited the Due Diligence guidance of our industry [5]. I should note that EURATEX already defined Mass Customisation as the next needed practice for textile industry in 2004 [6] preparing massive goods import from China, the newly joined member of WTO.

## 1. INTRODUCTION

Sustainable business and Mass Customisation have been the buzzwords for years, well before COVID-19 Pandemic. In this post COVID-19 era, the shift of mindset and the next model for the New Normal should be sought. They must be different from the previous ones to reflect dramatic change of social and business environment. In particular, in Mass Customization more attention should be paid to risk management (see Fig. 1 for a reference scheme based on [1]).

In the present work, in addition to the literature, I will use the knowledge I gained with my experience on risk management and Mass Customisation applied in apparel industry. I will also take advantage from the insights I gained through my work in a domestic development committee for international consumer goods safety standard [2] and national standards [3].

In risk management there are two simple steps called risk assessment before actual practices [1]. First one should be searching all the foreseeable risks and then followed by identification of these risks dividing into two categories, tolerable and acceptable or intolerable nor unacceptable. We should focus on the latter unacceptable risks to mitigate or eliminate hazard and damages. The scope of foreseeable risk should be discussed again later.

This paper is focused on my recent insights on the next phase of consumer business, as one of few practitioners from apparel industry and an alumni of MCPC, co-chaired by Prof. Frank Piller and late Prof. Mitchel Tseng, 2005 to 2011. The insights has been developed from my experience as an independent lecturer, consumer customer experience consultant and working for our domestic umbrella textile industry organization [4] as contract base. I also traveled often

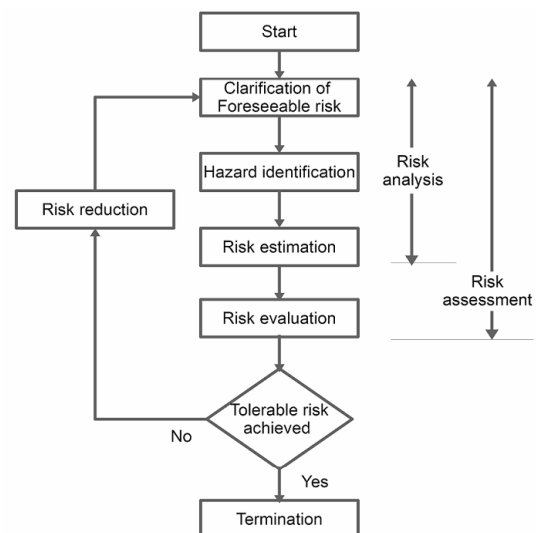


Fig. 1. Risk Management Scheme[1]

I could see various signs toward sustainability transformation although sometimes they are vague and superficial. There are some arguments that this shift might not happen since we could not afford to propel the program desired under harsh global economic recession.

The most famous fashion industry event related to Sustainability except trade shows might be the one named Copenhagen Fashion Summit since 2009. The event has been sponsored by HRH The Crown Prince of Denmark and she made an opening remarks as a patron in May 2019 at the previous event. “Profit cannot continue to be the primary measure of success. Sustainable transformation must be a business imperative and a core priority” [7]. Unfortunately her speech had been regarded in most cases as the next practice or just providing the long direction.

This paper related to the new phase of Mass Customisation from an apparel industry veteran and

focused on most part on the new way of thinking in consumer goods industry as well as textile and garment. The essence and their parts might be already introduced, cited, quoted in some part or whole though not had been regarded seriously until this pandemic. For example five years ago, Bill Gates already warned that the biggest potential killer the world faced wasn't war, but a pandemic [8]. We could and should learn a lot from these existing insights and warnings seriously this time.

I would like to add one more important thing to share that the business scope change, to reconfigure our mindset and business scheme by selecting our basic elements and notions regarding business itself from scratch.

Hoping my insight could provide some light to open up the new stage of Mass Customisation for those already involved in and also future practitioners.

## 2. NEW AGENDA SHOULD BE BUILT ON SHIFTED BUSINESS SCOPE

There are some arguments on the stage of Mass Customisation, its bright and shadow.

From consumer side we could get not so much value from MC and also Personalisation in general. No accurate data on the real number of consumers engaged at least once or more but we see quite a few enthusiasm among consumer market. We see some reasons, the optimisation of consumer experience might not be sufficient, too dull to configure every needed parameters, or select from available prepared choices, defined the products one by one and it sure takes some time.

From industry side we could see the burden of fragmented process of configuration needed to each product one by one and hard to maintain its initial cost and get profit except prestigious product such as custom build cruisers with expensive price tags. Most of consumer goods have certain margins, it's a open secret within textile industry that marked up at least three times with actual production cost, sometimes much much more. Numbers might sound huge but that should cover all the administrative expenses and unsold risk hedge, sometimes the number exceeds more than half of total production.

One third would be soled with the initial tagged price, one third with marked down price and the rest incinerated or discarded[9]. We had been doing our business in economy of scale and that system had been regarded as the most rational practice on the planet.

Table 1. *Evaluation of MCP*

Consumer insights	Business insights
A few value added	Low return on investment and high operating cost
Lack of fascinating cases	Hard to find prospect customers
Overall not so good experience	Personalisation preferable to Customisation
Few incentives for repeat order	Hard to provide full satisfaction from the first order

The Pandemic showed the modern technology and science have its certain limits and we rediscovered that human being belongs to nature system of earth. Humans

could influence or made huge impact on nature but we are not the masters as we learned it would take time for human being to get medicine and vaccine to cope with tiny unseen viruses we encountered. The most important fact should be we are forced to change our mindset to do business after this Pandemic.

Table 2. *ESG factors*

Environmental	factors include the contribution a company or government makes to climate change through greenhouse gas emissions, along with waste management and energy efficiency
Social	include human rights, labor standards in the supply chain, any exposure to illegal child labor, and more routine issues such as adherence to workplace health and safety
Governance	refers to a set of rules or principles defining rights, responsibilities and expectations between different stakeholders

Source: ROBECO [10]

The basic business requirements would shift to the nature, and ESG, Environment, Social and Governance, focused thinking and these transformation should be the base for the next business practice. In this transition phase we should build our business with new scope including business field, system, process, skills and mindset. The word and notion of scope might be less familiar in business field since we had been doing business on the same field, the same business scope. They are common in standards, both international and national as the global standard system has been harmonized already. Every standard has its scope, selected range the standard refereed. It's too obvious so reary to be mentioned that every standard does not deal its outside of scope. Very similar situation I could see close relations between standard and business.

In this globalized world though not completely the same but almost the similar measures we employ to evaluate business activities and outcomes, such as accounting practices on business efficiency and outputs. In this globalized world it's critical for investors to get the result by the unified accounting practices and we had already common guidelines with the time frame. After the Pandemic we need the scope shift in this transformation period since we should deal more aspects between human and nature than pre Pandemic era where we could pay no attention or could not see the existence of economic externalities, such as the treatment cost of waste and garbage, the final stage of products marketed by consumer business.

Municipal garbage treatment has been done by local authorities and its cost paid by local taxes from citizens and business fundamentally. Taxation system has its problems and in some countries the collected sum might not afford collection system locally. Once the duty to pay local taxes had been fulfilled, business don't have to think about their products lifecycle or who, where how long used nor other parameters of their products and post consumer usage. They don't have responsibilities once the product ownership handed to others unless focused on quality improvement utilizing customers' feedback.

"In engineering, our discussion and design could not be done without setting the scope, the targeted area.

Therefore, there remains the outside areas which originally regarded the unnecessary topics to discuss, but they tend to turn to be untouchable and forbidden. That leads us to face significant amount of unexpected events [11]”

Existing economic externalities should be defined by us under typical circumstance so once the setting condition has changed we should review them from scratch. The common argument might be focused mainly on ESG, especially Social factors in 2020.

EU already declared to shift to Circular Economy well before this Pandemic in 2015 [12] and disclosed its action plan [13]. EU also proposed its ambitious package including recovery plan with significant budget in May 2020 [14]. The different material utilization cycle among three types of economy is characterized in Fig. 2.

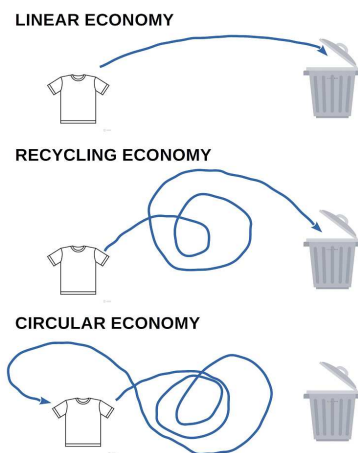


Fig. 2. Three Economy types

Unfortunately material utilization from postconsumer textiles have some limitation in fiber quality, recycling a couple of times at most especially for natural fibers, by one of wool reclaimed yarn spinner [15]. Both mechanical and chemical methods employed should reduce quality in every recycling. It's impossible to stop landfill and incineration but eliminating the portion toward zero could be available by taking note on recyclability of material used, such as avoiding unnecessary mixed spinning yarn and textiles, throughout the process.

Mixed spinning yarn, multi contents fabric and multiple structured garment should be the obstacle for sorting and recycling to reuse, recycle and circular textiles. The reason comes from its process costs environmentally and economically but not from technical hurdles. There are arguments that we should face the unsortable portion since not all of the collected postconsumer textiles carry the contents information on them nor their original vendors contact information to confirm. The labeling requirements might not be sufficient due to multi parts and simplification allowed, not originally intended for recycling as they are called care labels.

Also collecting sheme should matter for transforming textile busines into circular. Municipal or private run colleting system including boxed on the shop floor and roadside mean mixed items of various contents collected together that should need to be sorted afterwards. One

example, yellow colour box made with firm steel, in Brussels, February 2020 is shown as Fig. 3. below.



Fig. 3. Roadside Collection Box in Brussels photo: YC

All item collected within one box means system needs another process selecting valuable items for reuse or recycling, both have resale value, since the value for collectors might be slightly different from that of consumers' [16].

The northern Europe and certain area of Canada had the higher collecting rate but it's hard to get the precise data, including Japan.

The zero waste will remain our common goal.

Developing the next scope reflecting social change would be essential as the first step to rebuild every industry. We have to take care about our broader responsibilities as our given condition, even though it might take some time to be mandated.

Extended Producer Responsibilities (EPR) discussed and recommended to global policy makers by OECD in these three decades. But the actual adoption and utilisation remains limited proportion until now [18]. The discussion had been focused on the developing its guiding principle toward the emergent issues and EPR had been concluded as the most rational.

In 1990s urban garbage treatment became hot issues. Municipal waste has increased 22% per capita from 1980 to 1997 [17]. In some surrounding areas the bad odor and water pollution cased by so called the garbage mountain became the common topics. Because local authorities in developing countries didn't have enough capabilities to collect local taxes to maintain garbage treatment and no one could solve the problems of these abandoned garbage. Globally urbanisation accompanys by increasing consumption of goods and their packages and that followed by increasing the volume of garbage. It's the typical imbalance between the growing speed of population and social system development. In developed countries we faced thesame imbalance but had enough capabilities and budget to deal the problem by introducing the rule for separate garbage collection or setting up facilities for noncombustible waste by incineration to reduce volume as ash. Under EPR scheme some recycling policy implemented with certain responsibilities by industry to tackle the problem.

Modern business has regarded EPR mostly beyond their duties and been responsible for onlly regulated. That outside area existed as economic externalities and it's quite natural that business entities have tendency to minimize them for their bottom line. In some countries

the policy advice of OECD had been adopted to promote EPR in some categories. France has been the front runner of mandate textile collection utilising EPR since 2007 [18]. All the vendors marketed textile merchandise have the obligation but they can either set up an individual recycling and treatment system for this waste, or contribute financially to a special purpose company created for this scheme [19]. Sweden implemented the deposit for textile products for separate collection [20].

From risk management perspective the next practice should be as Fig. 4. below.

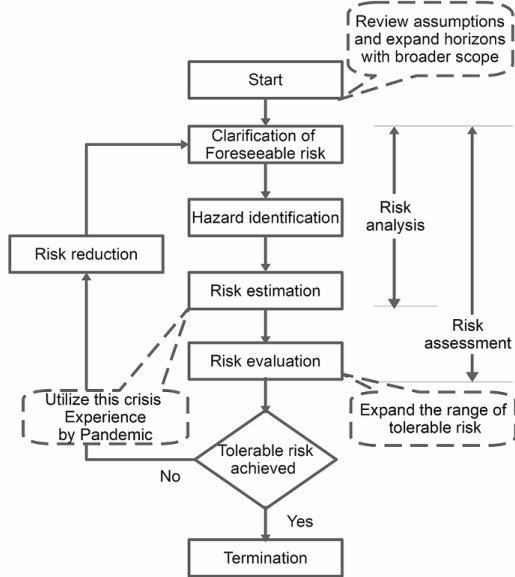


Fig. 4. The next business risk assessment

After Pandemic we have to start utilizing these existing discussion to eliminate economic externalities to prepare the second wave and also the next Pandemic. Every new business should have their scopes to contain broad former economic externalities.

The main shift should be reviewing all the known risk including the topics previously regarded as economic externalities and various warnings by experts such as the one by the Bill & Melinda Gates Foundation on the Pandemic [8]. In the next business risk analysis we could and should utilize our experiences under Pandemic. We also should expand and maximize the range of acceptable situation learned from this Pandemic and Lockdown. We should learn that ourselves have broader capabilities to adapt to inexperienced situations.

### 3. ESSENTIAL COMMON FUNCTIONS FOR THE NEW MODEL

Some points of essential functions needed for the new era would be discussed here, though not full of them. Before that we should check our current practices, pros and cons as Table 3 below.

Especially in the Far East the practices related to MCP still remained few in numbers and as some subset of linear, mass produce system and economy of scale, and mere marketing tactics, in existing business model.

From consumer side the lack of good cases well beyond expectations, and from provider side too small the numbers of customer to maintain the system if installed. Low enthusiasm also could be seen for years.

Table 3. Current situation of MCP

Merit	Constraint
Low risk of return and unsold <ul style="list-style-type: none"> <li>the best matching customers and products</li> <li>fixed order driven production</li> <li>elimination of excess production and consumption</li> </ul>	Difficulty in matching <ul style="list-style-type: none"> <li>available configuration provided and what customer desired</li> <li>prospect customers and service providers</li> </ul>
Customer contact information confirmed <ul style="list-style-type: none"> <li>could hear both pros and cons to improve product and system</li> <li>could hear the next order timing to streamline production forecasting</li> </ul>	Business continuity matters <ul style="list-style-type: none"> <li>low affordability due to higher cost of single batch production</li> <li>small number of customers to maintain the system for expendables</li> </ul>
Availability to provide post production service suitable for circular economy <ul style="list-style-type: none"> <li>mending</li> <li>collection to utilize the material used</li> </ul>	High environment footprint <ul style="list-style-type: none"> <li>single batch process supply chain wide in this existing economy of scale</li> </ul>

What and how Mass Customization could contribute after COVID-19? We have to think about the area beyond company and industry borders as shown in Fig. 5.

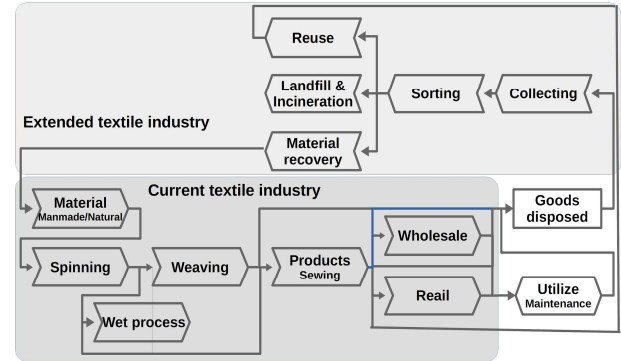


Fig. 5. Current and Extended textile industry

Current industry had been streamlined to the existing supply chain under linear model. In Japan and EU coincidentally, as I heard from my European business friend, textile collection, sorting and material recycling, had not been regarded within textile industry [21]. They are essential part to close the loop and the business scope of textile industry should be extended to collaborate with them.

We know that EU already assisted funding for the ambitious projects such as Resyntex [22] and Fibersort [23]. The former one was a €11 million research project with the core objective to create a new circular economy concept for the textile and chemical industries through industrial symbiosis. The later one was a technology development project that automatically sorts large volumes of mixed post consumer textiles by fiber type. The project gathered the data of current textile generated and collected from various source in NW Europe with some estimation, which enjoys relatively high utilization [24] than the Far East which lacks the basic data, as Fig. 6. below.





couple of delivery providers operate nationally after harsh competition years. One pioneer home delivery service provider of the last mile to home started the membership system [34] that the registered member could re-negotiate directly with them, not with the vendor they ordered, the delivery time zone, date and place, such as changing from home to office, until one day prior to original delivery contracts with the vendor. The company would send reminder emails to their members when the name and address provided from vendors equal to the searching result of their own database of registered members since the vendor should provide the customers' name and address but email address. The contents include the sender or vendor name, available fastest time and date with the destination address and delivery status. The smart system developed and installed by themselves finally could eliminate the absent rate significantly. Though only the frequent users of e-commerce home delivery already joined as their members and the rest of not so frequent buyers might be out of that smart system.

In voluntary Stay Home period, not Lockdown but mandated ethically in the Far East the drivers spent hard days to deliver huge volume of parcels than the previous period but the absent rate reported remained at significant low numbers [35].

With one step further to collaborate with logistics providers subscription system could be more efficient and sustainable, for example logistic provider could open their sorting function for the collected items which is critical for circular economy but the different and new type of function for retailers. As in normal arterial logistics there are good examples so called the third party logistics to manage value added functions such as warehouse management with delivery services.

As referred previously the program of collecting postconsumer textiles have been remained at the very early stages globally. The first country introduced mandate collection was France but all the French vendors had not set up their own take back program but contribute some amount of money to assist collectors, a sort of new tax for them. In Japan some vendors started to install collection boxes within their retail outlets but collected items had been handed to recyclers free of charge and paid no attention how the collected items handled. Mass Customised subscription model has the capability to take back most efficiently postconsumer textiles. Postconsumer textiles related process, collecting, sorting, resale and material recycling should be handled by themselves or the contracting delivery service provider most smoothly and properly due to the strong point the other could not catch up that they have the all needed information on the product collected. Such information could propel circular system quite smoothly with minimum EF as well as the cost.

The safety issues to maintain information on their customer should be critical under strict requirements of GDPR. The information should be shifted to the core business value from today's mere fuel for marketing engine. Although installing capabilities of safe storage system might be another cost factor but that investment could be welcomed by the dedicated customers as trust building fundamental infrastructure.

The broad accountability on information sharing including background system would be essential for such practice and another factor to be trusted. There has been one implicative case already. In November 2011 Everlane, Inc. started garment retail business in San Francisco and its radical transparency was a big news that they started to disclose all direct cost of materials to manufacturing labor to transportation fee of every kind of product they provide [36]. That boosted Everlane the brand value instantly to one of the trusted sustainability front runner but quite a few followers at this moment.

## 5. CONCLUSION

Is the group of leading companies responsible for the new era still consisted with existing companies transformed or a new entrants?

We all know that these transformation might not be easy. They say that the needed skills might be different and skills could not be developed overnight. There are some narrow minded parents to tell their children not to play with friends whose parents are essential workers whom regarded high risk occupation under voluntary stay home in Japan. It was the sad story but the rest of us could understand deeply in the stay home period that our society has been fully supported by these essential workers, though not fully visible, with sincere gratitude and solidarity. It was a good chance for us to learn the structure of our society and the inter dependability of service provided.

The bright side still exist. The intangible skill holder should also be employees of industry and they were faced to transform themselves to the New Normal. That means not all of them but some would be able to adapt themselves to the new future. If the person could adapt to the different social system she or he would be capable to get the needed skills for the next business practices. The business should have the firm root within the society, another needed aspects of S and G factors.

Until this pandemic the importance of sifting to circular economy has been only the discussion topics among academy and CEOs, not recognized within textile industry. Mass Customisation remained the subset of traditional economy of scale. After this Pandemic it's a good opportunity for business to transform themselves to circular sage with support from the people and society learned. For the true practitioner the choice should be inevitable from merely an option of previous days. Subscription model also could contribute to accelerate to transform circular.

We should be flexible to open up the new business in the New Normal. The Mass Customisation and its subscription model could contribute well in the coming era. Along with the actual practitioners I would like to go this long way forward as a parallel runner. I remember every time the value of cooperation as I learned the phrase from Italian textile sustainable business group website. "If you want to go fast go alone, if you want to go far go together" [37].

## 6. REFERENCES

- [1] Risk Assessment Handbook for Consumer Products, the first edition, 2010, Ministry of

- Economy, Trade and Industry, Japanese Government  
[https://www.meti.go.jp/product\\_safety/recall/risk\\_assessment.pdf](https://www.meti.go.jp/product_safety/recall/risk_assessment.pdf)
- [2] ISO 10377:2013 Consumer product safety — Guidelines for suppliers  
<https://www.iso.org/standard/45967.html>
  - [3] Japanese Industry Standard S 0104:2008:Items and drafting for recall notification for consumers JIS L 1940-1&3: 2014:Textiles-Methods for determination of certain aromatic amines derived from azo colorants-Part 1: Detection of the use of certain azo colorants accessible with and without extracting the fibres Part 3: Detection of the use of certain azo colorants, which may release 4-aminoazobenzene
  - [4] Japan Textile Federation, homepage <http://www.jtf-net.com/english/>
  - [5] OECD Due Diligence Guidance for Responsible Supply Chains in the Garment & Footwear Sector [http://www.oecd.org/industry/inv/mne/responsible\\_supply-chains-textile-garment-sector.htm](http://www.oecd.org/industry/inv/mne/responsible_supply-chains-textile-garment-sector.htm)
  - [6] European Technology Platform for the future of textiles and clothing, A vision for 2020, EURATEX <https://www.certh.gr/dat/141D2148/file.pdf>
  - [7] Crown Princess Mary Just Wore the Chicest H&M Dress in Existence, WHO WHAT WEAR, May 18, 2019 <https://www.whowhatwear.com/copenhagen-fashion-summit-crown-princess-mary>
  - [8] Bill Gates Has Regrets, 11 May 2020, The Wall Street Journal <https://www.wsj.com/articles/bill-gates-coronavirus-vaccine-covid-19-11589207803?mod=searchresults&page=3&pos=20>
  - [9] One third of all clothing "never sold" , ECOTEXTILES news, 21 April 2016 <https://www.ecotextile.com/2016042122078/fashion-retail-news/one-third-of-all-clothing-never-sold.html>
  - [10] Sustainable Investing Glossary, ROBECO, <https://www.robeco.com/jp/key-strengths/sustainable-investing/glossary/esg-definition.html>
  - [11] Yotaro Hatanaka, Interview, Look straight at the failure, Asahi Shimbun, 18 October, 2019
  - [12] Closing the loop -An EU action plan for the Circular Economy, 2 December 2015 [https://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC\\_1&format=PDF](https://eur-lex.europa.eu/resource.html?uri=cellar:8a8ef5e8-99a0-11e5-b3b7-01aa75ed71a1.0012.02/DOC_1&format=PDF)
  - [13] First Circular Economy Action Plan [https://ec.europa.eu/environment/circular-economy/first\\_circular\\_economy\\_action\\_plan.html](https://ec.europa.eu/environment/circular-economy/first_circular_economy_action_plan.html)
  - [14] Europe's moment: Repair and Prepare for the Next Generation [https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip\\_20\\_940/IP\\_20\\_940\\_EN.pdf](https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_20_940/IP_20_940_EN.pdf)
  - [15] At the discussion meeting in Ichinomiya, one of the remaining wool textile hub in Japan I heard the constraint from one of the president of spinner in 2016 pp 71, TEXTILE COLLECTION GUIDE, Waste & Resources Action Programme, September 2012
  - [16] OECD (2001), Extended Producer Responsibility: A Guidance Manual for Governments, OECD Publishing, <https://doi.org/10.1787/9789264189867-en>
  - [17] Extended Producer Responsibility, OECD library [https://www.oecd-ilibrary.org/environment/extended-producer-responsibility\\_9789264189867-en](https://www.oecd-ilibrary.org/environment/extended-producer-responsibility_9789264189867-en)
  - [18] Textiles usagés, Ministère de la Transition écologique et solidaire, French Government <https://www.ecologique-solidaire.gouv.fr/textilesusages>
  - [19] D. Watson, A.K. Aare, S. Trzepacz, C. Dahl Petersen, ECAP used textile collection in European cities, Denmark : PlanMiljø, Veksø, 01 March 2018 [http://www.ecap.eu.com/wp-content/uploads/2018/07/ECAP-Textile-collection-in-European-cities\\_full-report\\_with-summary.pdf](http://www.ecap.eu.com/wp-content/uploads/2018/07/ECAP-Textile-collection-in-European-cities_full-report_with-summary.pdf)
  - [20] Discussion with author's business friend from one of European Apparel Industry organisation at Annual Textile ETP Conference, 24 April 2019 Brussels
  - [21] Resyntex, homepage <http://www.resyntex.eu/>
  - [22] Fibersort, homepage <https://www.circle-economy.com/programmes/textiles/fibersort>
  - [23] Fibersort Factsheet <https://www.nweurope.eu/media/9160/wp-t1-extra-fibersort-fact-sheet-accuracy-final-copy.pdf>
  - [24] Urban Mine Platform, homepage <http://www.urbanmineplatform.eu/>
  - [25] Strategic Approach to International Chemicals Management, homepage <http://www.saicm.org/About/SAICMOverview/tabid/5522/language/en-US/Default.aspx>
  - [26] The Chemicals in Products Programme, October 2015, United Nations Environment Programme, [http://www.saicm.org/Portals/12/Documents/EPI/CiP%20programme%20October2015\\_Final.pdf](http://www.saicm.org/Portals/12/Documents/EPI/CiP%20programme%20October2015_Final.pdf)
  - [27] Global Fashion Agenda and The Boston Consulting Group, Inc., Pulse Of The Fashion Industry, May 2017, [https://www.globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry\\_2017.pdf](https://www.globalfashionagenda.com/wp-content/uploads/2017/05/Pulse-of-the-Fashion-Industry_2017.pdf)
  - [28] The Ellen MacArthur Foundation and McKinsey & Company, Towards the Circular Economy: Economic and business rationale for an accelerated transition, January 2012 <https://www.ellenmacarthurfoundation.org/publications/towards-a-circular-economy-business-rationale-for-an-accelerated-transition>
  - [29] Ellen MacArthur in Davos promoting sustainable economy, Business section, BBC, 27 January 2012 <https://www.bbc.com/news/av/business-16766003/ellen-macarthur-in-davos-promoting-sustainableeconomy>
  - [30] Closing the loop: Commission adopts ambitious new Circular Economy Package to boost competitiveness, create jobs and generate sustainable growth, Press release, 02 December 2015

[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_15\\_6203](https://ec.europa.eu/commission/presscorner/detail/en/IP_15_6203)

- [31] The Ellen MacArthur Foundation, A New Textiles Economy: Redesigning fashion's future, 28 November 2017  
<https://www.ellenmacarthurfoundation.org/publications/a-new-textiles-economy-redesigning-fashions-future>
- [32] Lyfe Cycle Assessment Report of Textile Products, Ministry of Economy, Trade and Industry, Japanese Government, February 2004  
<https://warp.da.ndl.go.jp/info:ndljp/pid/285403/www.meti.go.jp/report/data/g40218aj.html>
- [33] [What can be done with Kuroneko Members?  
<http://www.kuronekoyamato.co.jp/yt/en/km/>
- [34] The Online Shopping tips during this stay home period and the current condition of home delivery service providers, Fuji television, 02/05/2020,  
<https://www.fujitv-view.jp/article/post-98574/>
- [35] Radically transparent, EVERLANE homepage  
<https://jp.everlane.com/ja-jp/abb>
- [36] Detox campaign, Confindustria Toscana Nord  
<https://www.confindustriatoscananord.it/sostenibilita/detox/english-version>

## CORRESPONDENCE



Yasuyuki Cho.  
Lecturer and Freelance Consultant,  
and work for Japanese industry  
organizations as contract base  
1-90-301, Takanotamaokacho,  
Sakyo Kyoto, 6068106 Japan  
[y-cho@yckyo.com](mailto:y-cho@yckyo.com)