
**Third meeting of the intersessional process considering the Strategic Approach
and sound management of chemicals and waste beyond 2020**

Bangkok, Thailand, 1-4 October 2019

Item 4 of the provisional agenda*

**Development of recommendations for consideration by the fifth session of the Conference regarding
the Strategic Approach and the sound management of chemicals and waste beyond 2020**

**The role of private standards, labels and certification mechanisms
in the Post 2020 Chemicals and Waste Framework- Submission by
the Government of Switzerland**

Note by the secretariat

The secretariat has the honour to circulate, in the annex to the present note, the role of private standards, labels and certification mechanisms in the Post 2020 Chemicals and Waste Framework. The document presented in the annex has been developed and submitted by the Government of Switzerland and has not been formally edited.

ANNEX

Input paper on Private Standards, Labels and Certification mechanisms in the
post-2020 Chemicals and Waste Framework
for the third meeting of the SAICM Intersessional Process
to be held in Bangkok from 30 September to 4 October 2019

BY

Go4more.global
Erlangen/Germany | Manila/Philippines
Dr. Reiner Hengstmann | Charmaine Nuguid

FOR



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FOEN commissioned this paper to explore how private standards, labels and certification mechanism can play a positive role for the sound management of chemicals and waste in the post 2020 chemicals and waste framework. This is an unofficial paper and does not necessarily represent the views of FOEN.

1. INTRODUCTION

Between 2000 and 2017 the global chemical industry's production increased from 1.2 to 2.3 billion tons and almost doubled, (Programme, 2019) making it the second largest manufacturing industry globally. By 2025 the world's cities will produce 2.3 billion tons of waste every year more than three times the amount produced in 2009. Countries continue to address challenges linked to air, soil and water pollution and exposure to toxic chemicals under the auspices of multilateral environmental agreements. But there is still much work to be done: From 2010 to 2014, only 57 per cent of the parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal had provided the requested data and information. (UNEP, 2019).

In paragraph 23 of the Johannesburg Plan of Implementation, adopted at the World Summit on Sustainable Development in 2002, Governments identified the goal of "by 2020, that chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment". That goal was further adopted as part of the Strategic Approach to International Chemicals Management (SAICM) by the International Conference on Chemicals Management at its first session in 2006 (SAICM, 2015). The current mandate of the SAICM will expire in 2020 and the International Convention on Chemicals Management, ICCM5, will decide on the global strategic approach to managing chemicals and waste beyond 2020 – the so-called post 2020 chemicals and waste framework.

The textiles industry is one of the downstream industry users of chemicals with a significant impact on the environment and a very visible social footprint readily seen by individual consumers. In the past decades the textiles industries have developed several voluntary initiatives to manage its social and environmental risks, starting with codes of conduct. These have evolved into a multitude of individual and collaboration-based responses that have come to encompass sustainable chemistry as well. Many different responses to the challenge of product- and production-related chemical management within the global textile industry exist and they have led to a plethora of private standards, certification systems and labels (SCLs) covering different parts of the global value chain.

This paper, which is based on own research and various interviews with private standard, certification labeling (SCL) organizations, will focus on concrete options on how SCLs can play a positive role in the post 2020 chemicals and waste framework, the global strategic approach to managing chemicals and waste beyond 2020, and what concrete targets could be set as part of the post 2020 goals, targets and indicator framework with a special focus on the textile industry.

1.1. INTRODUCTION TO THE TEXTILE SECTOR

From the processing of fibers and raw materials to the final product, a huge volume of chemicals is used in the production of textiles. Chemicals are added intentionally to textiles in various stages of the production process in order to provide special functions/properties such as water repellency, color, easy care, etc. Chemicals used in the production of textile articles can remain on the final product as minor

contaminants while others may be released from the articles and expose the environment and humans. According to a study by KEMI (Agency, 2014), out of 2400 textile-related chemical substances approximately 10% of the identified chemicals used are considered to pose a potential risk to human health. All these substances are so called functional chemicals which are expected to be found in the final article, sometimes at relatively high concentrations.

The textile supply chain utilizes these chemicals that can be categorized into three major groups.

- Basic chemicals such as salts, acids, bases etc.
- Colorants such as dyestuff and pigments
- Auxiliaries such as surfactants, levelling agents, softening agents, non-creasing agents etc.

Chemicals used in the production of textiles can be categorized into two classes. (systems, 2014)

- Effect chemicals designed to remain on the finished product. Only very small amounts might migrate into the wastewater or gas-off depending on chemical nature of the substances used to achieve the effects and the respective textile substrate. Based on a study from the BfR, (Risikobewertung, 2012) the migration rate after 28 hours simulated wash/wear cycles is less than 10 % of the value measure for the first migration.
- Process chemicals used to support the textile finishing process. These process chemicals may be completely discharged into the wastewater but depending on the nature of the process chemicals amounting to 0.02 % might remain on the finished product (private source). This is meant to be strictly regulated by the restricted substances lists (RSLs). The limits used for RSLs have been mostly mandatory and established through a variety of product safety regulations and quality technical regulations as part of strict market access requirements. It is acknowledged that a number of countries do not have the same textile technical requirements for their domestic market hence the strictest country market access regulations are often used as the benchmark.

The chemical substances from both mentioned groups impact human health and the environment through different exposure pathways. All chemical substances have an inherent hazard. Approximately 5 % of the 2400 identified chemicals bear serious potential risks to the environment. Only in the EU 2 – 22 tons each of hazardous substances related to direct and acid dyes could be released to the water ways on an annual basis (Agency, 2014). Based on a research study from Grand View Research from May 2019, (Research, 2019), the global textile chemical market size was estimated at USD 23.62 billion in 2018 with a projection to reach USD 32.23 billion in 2025.

The global textile industry is considered as one of the biggest polluters to the environment next to the production of fossil fuels. According to a study from the Ellen Mc Arthur Foundation, (Foundation E. M., 2017) global textile production contributes 1.2 billion tons of greenhouse gases every year and the United Nations estimates that 10 percent of the total global greenhouse gas emissions come from the textile industry. However, the impact of the textile and fashion industry on the environment goes beyond the gaseous emissions. Driven by the fast fashion movement, the consumption of textile articles globally has increased rapidly during the last decades. The average consumer bought 60% more clothes in 2014

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than 2000 but kept each item only for half as long. The global increase of production and consumption of textile articles also means an increase in the use of chemicals and other raw materials.

The World Bank estimates that 20% of industrial wastewater pollution originates from the textile industry (Global Chemical Outlook II, 2019). A number of initiatives have come up to understand and address the full impact of chemicals emissions at the end of life of textile products, where the greatest environmental impacts, namely water and solid waste, were found in traditional LCA studies.

Which countries import/export the most used clothes in 2016

Trade value - US\$

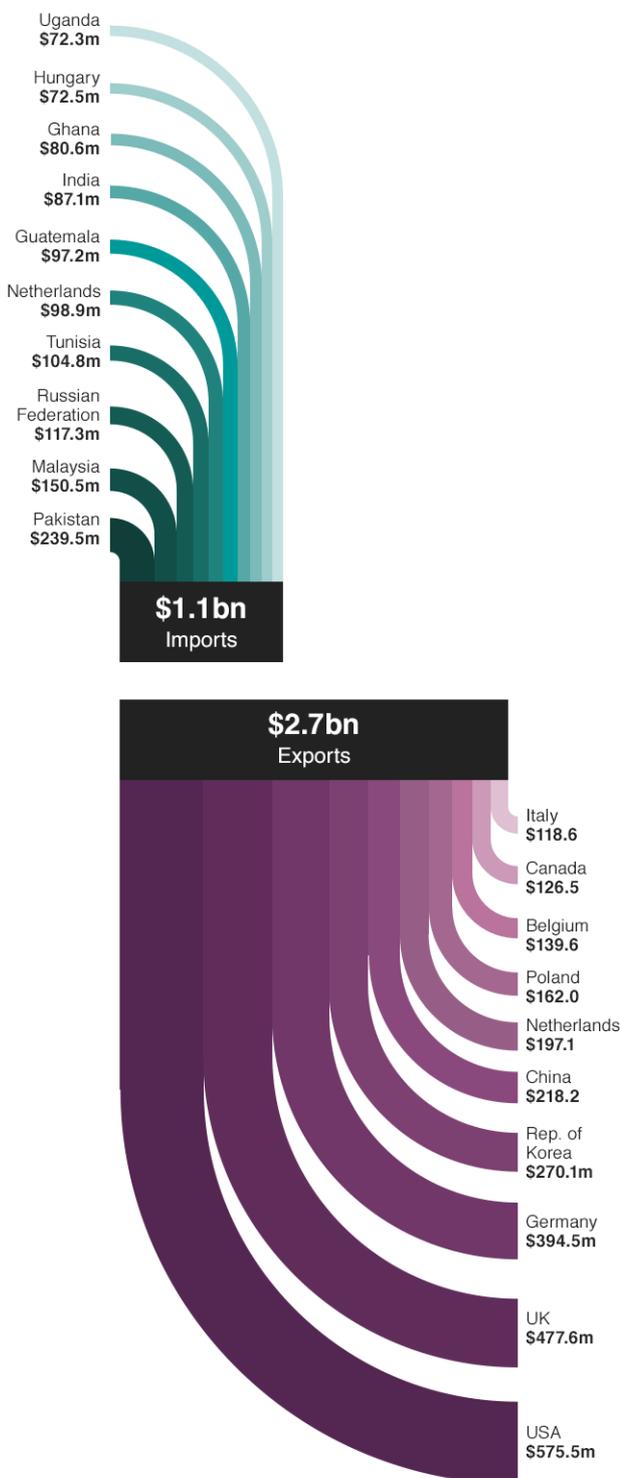


Figure 1: Countries which import/export the most used clothes in 2016, Source: UN, BBC

The global textiles industry uses a vast array of chemicals, including some that are restricted or prohibited in some countries (see in later section). (Roberts, 2009) Due to the high usage of water and the high levels of water pollution it causes, the textile industry contributes to the growing scarcity of clean drinking water. Chemicals used in different production steps within the textile value chain, such as wet finishing processes, can have a particularly detrimental effect on water quality and ecosystems. When contaminated wastewater enters local water bodies, it harms humans and the environment. Some chemicals used in the production process can have a considerably harmful impact on workers' health and toxic residues in the textiles pose a risk to consumer health. These are all good reasons for implementing a responsible chemical and environmental management process. (Textiles, 2018).

Used textiles and garments have become a globally traded commodity. Focusing on the second-hand clothing economy in particular, this doubled from 1.26 billion USD in 2001 to 2.5 billion USD in 2009. Textile recyclers sort clothing into reusable garments or recycling grades, the latter including industrial cleaning cloths and reclaimed fibers. The sector has globalized as a result of the growth of supply from the global North, the relocation of sorting operations to Eastern Europe and the global South, and the development of differentiated markets for reuse.

As of 2016, the USA, UK and Germany account for more than half of all exports of second-hand clothing, most of it originating as donations to charity when it reaches the end of its perceived useful first life (BBC, 2018). Many of the higher quality garments are sold on in Eastern Europe. Lower quality wearable items from Europe and North America tend to go to Africa, while those from Asian countries tend to go to Asian markets (matching the clothing to the users' body shape). (Global Waste Management Outlook, 2015) (Wilson, 2015) In recent news, even these traditional secondhand clothing markets have started to shun imports as the local textile

solid waste management mechanisms have not kept pace with the volumes, to the point that the USA has stated that import bans put into effect in 2019 would seriously hurt the secondhand recycling business (Representative, 2017).

On an annual basis approximately up to 50 Mio tons of textile waste are generated globally whereof less than 1 % is recycled into new clothing (Foundation E. M., 2017) and the remaining textile waste ends up on landfills or is incinerated. In developing countries in particular, textile waste is not separately accounted and falls within the category of “residuals” because there is no viable domestic recycling industry for textile waste. Pre-consumer textile waste management is a concern particularly in the top garments producing countries which rely on textile importation, as local laws (particularly in export processing zones) often restrict the waste processing for duty free imports of inputs to incineration.

Private innovation initiatives, such as brand take back programs, new technology investments (e.g. recovertex, WornAgain, etc.) and new business models (e.g. Rent the Runway, etc.) have sprung up to address these concerns within the context of supporting circularity and the use of waste as a raw material. Because these are not yet proven to be commercially viable at industry-scale, there is no single technology or method that have been specifically endorsed by stakeholders as standard-setting. Based on a waste hierarchy, further processing of textile waste closer to an ideal (virgin fiber, “as new” quality) requires further chemicals processing of waste fiber or other waste material (e.g. PET bottles).

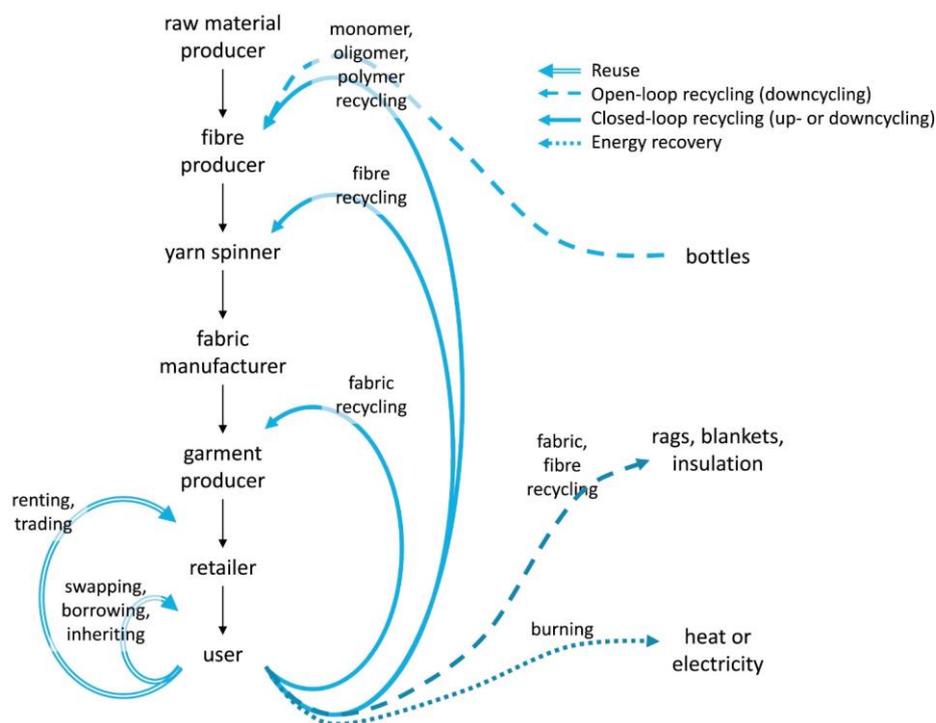


Figure 2: A classification of textile reuse and recycling routes (Sandin, Peters, & Peters, 2018)

The chemicals footprint of various methods currently available to manage textile waste has not yet been fully examined in terms of possible migration of chemicals and microplastics from the textile waste through leaching processes and will require further research. A study by the Mistra Future Fashion

Institute (Sandin et al 2019) indicate that the data gaps of the impacts of fibers itself across its life cycle into various textile products is substantial and will require a diversity of methods to properly identify and to address. Because of the different sources of fibers, the chemicals and waste management footprint of each kind of fiber varies. Cotton cultivation contributes to toxicity and water stress due to its pesticide use and irrigation, and synthetic fibers are questionable due to their (mostly) fossil resource origin and the release of microplastics. Majority of the environmental and health impact studies on textile recycling (covering both pre-consumer and post-consumer practices) focused on climate change impacts, yet the specific impacts due to chemicals emissions have not been as well explored (Sandin, Peters, & Peters, 2018).

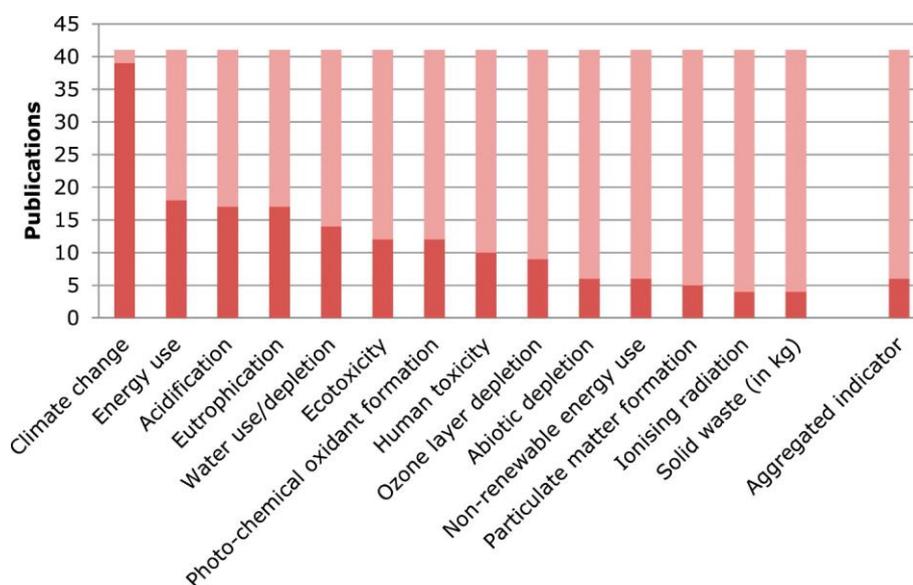


Figure 3: Number of publications covering certain impact categories and inventory indicators. In addition to these, 13 impact categories and inventory indicators are covered in three or less publications. (Sandin, Peters, & Peters, 2018)

Recent estimations have shown that synthetic clothes contribute (Francesca De Falco, 2019) 35 % to the global release of primary microplastics to the world oceans, becoming the main source of microplastics. The release of microplastics is surmised to mainly come from the mechanical and chemical stresses related to the washing process of consumer washing machines.

Most voluntary SCLs do not include textile materials recovery at the end stage, and there are only a few textile private, voluntary SCLs that focus on solid textile waste (Cradle to Cradle) and none for wastewater which occurs from recycling and recovery processes. So far only the wastewater discharge from textile manufacturing is addressed through the manufacturing restricted substances list (MRSL) wastewater guidelines of ZDHC. In the case of unsafe recycling processes, many of them found are still in place in developing countries, harmful substances which are still to be found in the waste can considerably endanger the health of workers and contaminate the environment. More detailed future research on the lifecycle of textile products should have focus on the migration of chemicals during the use and end-use phases and the release prevention of microfibers (microplastics). As technologies to

properly circulate textiles are all in pilot stages, commercially viable textile recycling relies on mechanical processing resulting in downcycling of the original textile and fibers (e.g. conversion to insulation, rugs and other home goods). Even a number of artisanal “upcycling” initiatives still rely on mechanical processes that do not have an end-of-life disposal/reuse plan and only extends the linear use of the textiles. As such, there is room not just for individual stakeholder (e.g. company, civil society, government, academe) initiatives, but a stronger case for existing private, voluntary SCLs to invest in this area beyond manufacturing wastewater impacts. New voluntary multi-stakeholder initiatives, such as the Global Fashion Agenda and The Fashion Pact, though not a voluntary SCL, could incorporate work into this area in support integration with existing voluntary SCLs with a stronger chemicals expertise.

2. REGULATION OF CHEMICALS, AND STANDARDS, CERTIFICATIONS AND LABELING SCHEMES (SCLs)

As of today, there are a number of regulations in place to help regulate the use of chemicals in general.

- *The **EU’s REACH** (Registration, Evaluation, Authorization and Restriction of Chemicals) applies to all chemical substances used for both industrial and consumer applications in order to improve the protection of human health and the environment from the risks that can be posed by chemicals*
- *The **TSCA**, the Toxic Substances Control Act in the US, which was introduced in 1976 and updated by the Frank R. Lautenberg Chemical Safety for the 21st Century Act in 2016 regulates the use of existing chemicals as well as the introduction of new chemicals.*
- *China has implemented the **MEP Order 7**, which is similar to the EU REACH and is known as China REACH, requiring chemical manufactures and importers to submit notifications and obtain approvals prior to importing or production of chemicals.*

The impact of EU REACH is significant not only because a number of top textile export countries are from the EU, but because the framework itself has become a model for many other countries. EU REACH aims to ensure a high level of safety for human health and the environment. The communication requirements of REACH ensure that not only manufacturers and importers but also their customers, i.e. downstream users and distributors, have the information they need to use products safely. Within this framework, REACH shifts the responsibility of assessing and managing chemical risks from public authorities to the industry itself. The mandatory provision of safety information for their users impacted a wide range of companies across many sectors beyond the chemical industry. REACH requires new forms of cooperation among companies, enhancing the communication along the supply chain and developing tools to guide and to assist various stakeholder in the implementation.

Under EU REACH regulation, substances that are one of the following can be regarded as substance of very high concern (SVHC) and are listed on the candidate list.

- o Carcinogenic, Mutagenic or Toxic to Reproduction (CMRs)*
- o Persistent, Bio-accumulative & Toxic (PBT)*
- o Very Persistent & Bio-accumulative (vPvB)*
- o Seriously and/or Irreversibly Damaging the environment or human health, as substances damaging the hormone system*

The EU Commission published Regulation 1513/2018 which modifies Annex XVII of the REACH Regulation, No. 19078/2006, by including Entry 725. Which affects textiles, clothing, related accessories and footwear by restricting the use of certain CMR substances by their Carcinogenic, Mutagenic or Toxic for Reproduction properties. From November 2020 these new requirements shall be effective.

On 19th June 2019, the European Chemicals Agency (ECHA) launched the 1st public consultation on the proposal to restrict skin sensitizing substances in textiles and leather. This proposed restriction aims to reduce the risk caused by the skin sensitizing substances in the finished textiles, leather, hide and fur articles, e.g. clothing, footwear. The proposal covers the substances which are classified as skin sensitizers in Category 1 or 1A or 1B in Annex VI to Regulation (EC) No 1272/2008, as well as a list of disperse dyes that are indicated to have skin sensitizing property.

If a substance is identified as an SVHC, it will be added to the Candidate List for eventual inclusion in the Authorization List, regulated under article 33 and will be included in Annex XIV or XVII. As of January 2019, 197 substances have been identified and placed on the SVHC candidate list. Typical high risk SVHCs for the textile industry are:

- Phthalates (Softeners)*
- Certain AZO dyes*
- Flame retardants*
- Alkyl Phenols and Alkylphenol Ethoxylates (AP & APEOs) Used as industrial laundry detergents, scouring and dispersing agent for dyeing*
- Intermediates for Dyes and Pigments*
- Solvents*
- Lead Compound (Dyestuff)*
- Chromium Compounds (Dyestuff)*
- Sulphate Compounds, such as lead sulphate*
- Anhydrides*
- -Others*

Within the different steps of the textile manufacturing process more than 2000 different chemicals are being used. In table 1 an overview of the manufacturing processes and possible chemicals used within the processes showing the complexity of possible chemicals including harmful Substances of Very High Concern is given.

Table 1: Textile process from fiber to finished garment and chemical use

Production/Manufacturing step	Processes	Chemicals
<i>Fiber Production</i>	<i>Plant harvesting</i>	<i>Pesticides, Insecticides, Fertilizers</i>
<i>Yarn production</i>	<i>Spinning</i>	<i>Spinning oils</i>
<i>Fabric production</i>	<i>Weaving, Knitting, Non-woven</i>	<i>Sizing chemicals, lubricants, solvents, adhesives, binder</i>
<i>Pre-treatment</i>	<i>Washing, cleaning of the fabric, De-sizing, Scouring, Bleaching, Mercerizing, Carbonizing</i>	<i>Detergents, solvents, enzymes, bases, bleaches, acids</i>
<i>Dyeing and printing</i>	<i>Dyeing, printing, washing</i>	<i>Dyes, pigments, detergents</i>
<i>Finishing treatments</i>	<i>Handle modification, Crease resistance, Antistatic treatment, Anti pilling, Antibacterial/anti-odor treatment, water repellence, oil/soil repellence, Flame retardant, coatings, lamination, garment treatment for fashion purpose</i>	<i>Softeners (Polyethylene, quart. Ammonium compounds, silicones, polyurethanes) Stiffeners (starch, resins, Polyvinyl acetate, Polyvinyl alcohol), cationic softeners, polyglycols, resins, biocides, water repellents, waxes, fluorocarbons, halogenated and phosphor based flame retardants, Acrylates, potassium permanganate, sodium hypochlorite, calcium hypochlorite, sodium hydro sulphite, potassium dichromate, formaldehyde resins, cationic silicones</i>
<i>Manufacturing, transport, sales and retail</i>	<i>Transport preparation, protecting from mold during transport and storage</i>	<i>Biocides, halogenated substances</i>

The Authorization list, Annex XIV, contains currently 43 priority substances recommended from the Candidate list. Those SVHCs will not be allowed to be used, placed on the market or imported into the EU after a date to be set unless the company is granted an authorization.

- *List of restrictions, Annex XVII, contains those substances (on its own, in a mixture or in an article) for which manufacture, placing on the market or use is limited or banned in the European Union.*

The REACH regulation is a market access regulation that applies globally for all manufacturers/producers of chemicals (or using chemical substances within their product) exporting into the European Union. It is worthwhile to mention that REACH and the CLP (Certification and Labeling of Products) do not only impact Europe but also other countries including Asia that are revising their own regulations with REACH as a model:

- *Korea has introduced K-REACH which is similar to the European REACH Act and restricts the use of certain hazardous substances in consumer goods and articles to protect human health and the environment*
- *The Japanese Chemical Regulation is also under review.*
- *India is aiming to publish a new chemical regulation and using REACH as a guidance for this.*
- *China has issued the China REACH regulation in 2010 (MEP Order 7)*
- *Turkey is following REACH and has adapted a similar regulation (KKDIK)*

These regulations, along with others like it, provide the foundation upon which private standards, certification and labels are based on. Although the above-mentioned legislative regulations and initiatives restrict the use of chemicals in general, none of these regulations specifically address the use of chemicals in the textile industry.

In 1985 the ICCA, International Council of Chemical Associations, launched the initiative Responsible Care^R. Responsible Care^R is a voluntary commitment by the global chemical industry empowering chemical manufacturers to strive for innovative ways to pursue safe chemical management and performance excellence worldwide. Practiced in more than 65 countries globally and with 550 chemical companies as members, Responsible Care^R is an essential part of ICCA's contribution to the SAICM as one part of the industry's efforts to achieve the goal set by the World Summit on Sustainable Development, that by 2020...".....Chemicals are used and produced in ways that lead to the minimization of significant adverse effects on human health and the environment". (Associations, 2018)

As a consequence to the REACH regulation, private standards setting organizations such as bluesign^R, ZDHC, Oeko-tex and AFIRM regularly update and adjust their corresponding standards in order to comply to the REACH regulation. In general, private voluntary standards adopt the strictest mandatory requirement effective within its global value chain as a floor, which some parties have alleged could be interpreted as a potential Technical Barrier to Trade (TBT) under WTO rules (Nation, 2018). The UN Forum on Sustainability Standards, which focuses on global policy direction for voluntary sustainability standards (VSS), have mostly focused on private SCLs that could impede the participation of SMEs and developing countries in global value chains by using market forces to essentially make voluntary standards "mandatory" in an unfair way (e.g. high certification fees, no local technical support, etc.). Within the textile global value chain, upstream participants operate at large scale and with significant capital, thus would not be unfairly disadvantaged by the usage of more rigorous requirements as SMEs in the agricultural global value chain. More importantly, countries are allowed to make justifiable restrictions that would protect the environment and human health. This is where a science-based approach to SCL-setting is essential to ensure that requirements are established fairly.

2.1 Standards versus labels versus certifications

As the use of standards, certifications and labeling has grown in a number of areas and especially in the textile industry, it is imperative to understand the definitions and difference between standards, certification and labeling schemes (SCLs) in the context of this paper. Although the three terms are often

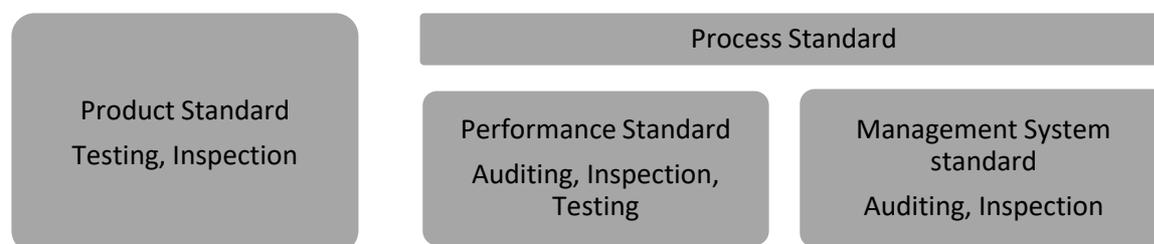
used interchangeably, it is important to understand the meaning of every individual process, as explicitly shown in table 2.

Tab. 2: Standard, Certification and Labeling

Term	Definition
<i>Standard</i>	<i>Specifications and/or criteria for the manufacture, use, and/or attributes of a product, process or service. According to CEN, it is “a technical document designed to be used as a rule, guideline or definition. It is a consensus-built, repeatable way of doing something.” According to ISO, it is “documented agreements containing technical specifications or other precise criteria to be used consistently as rules, guidelines or definitions, to ensure that materials, products, processes and services are fit for their purpose.” As such a standard may not necessarily be used to create a “repeatable way of doing something”, in relation to standards as “guidelines”.</i>
<i>Certification</i>	<i>The process, often performed by a third party, of verifying that a product, process or service adheres to a given set of standards and/or criteria. Certification can be done by a 1st or 2nd party, and the deviation from independence is not necessarily negative depending on the context of the certification structure/framework.</i>
<i>Labeling</i>	<i>The method of providing information on the attributes, often unobservable, for a product, process or service. It is primarily a symbolic communication tool to the end consumer from other actors in the value/supply chain of a product.</i>

It is important to understand, that these three tools as explained in table 2 are interdependent. A certification is always based on a set of criteria – standards – against which a process, service or product is judged against. It is worth noticing, that even within the standardization process differences exist; the so called “de jure” standard being desirable and using a third party to certify and the so called “de facto” standards which are market based self-labeling. Labeling can refer to either direct and/or implied criteria. A more precise definition of these terms could be the basis for defining a minimum acceptance criterion.

There are different classifications of standards, and means for verification of adherence to standards which could be employed for certification, which may include:



Testing and inspection methodologies are also known as technical regulations or industry testing/inspection standards. Within the context of this paper, test methods are excluded from the definition of industry standard except wherein a specific restriction or limit is established. There are

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international and national mandatory standards developed for general application to several products and industries, as well as those that have direct application to the textiles and related industries solely, addressing safety, quality and other performance criteria that in sum dictate market access requirements. These national standards bodies are usually supported by technical local or international industry associations and is housed under a country's sciences or trade ministry.

Private, voluntary SCLs at the minimum align with the strictest market access requirements (usually the EU, USA or China) and at times go beyond what international and national mandatory standards allow based on hazard assessment, and is usually marketed to its supporters as indicative of higher safety, quality and other performance characteristics which oftentimes are not directly manifest in the end consumer product. Several SCLs inherently use a lifecycle perspective which require some form of collaborative approach with actors that are not directly related to the textile industry, and nearly all SCLs are formed to achieve a specific impact target. Some SCLs started as a privately funded venture, while some others are initiated by public entities. Currently there are 77 SCLs related to textiles with only a few that include chemical management within its scope. Some SCLs are not private but are government-supported, and because of its primary sponsor could become a mandatory SCL. These are included in the inventory while it retains its voluntary character but should be removed if it develops into a mandatory standard because a mandatory standard would have a different level of enforceability.

Below is an inventory of relevant SCLs for this paper:

Table 3 lists the existing standards, labels and certifications pertinent to the textile industry from relevant organizations

Organizations	Membership base	Governance – diversity -	Financing	Chemical Management included	Standard	Certification	Label	Activities addressing current SAICM targets
	Membership based industry association for any US based company, affiliate members supplying or service the apparel, footwear or accessory markets and international members.	Elected board of Directors. Members of the American Textile and Footwear brands	Trade association depending on membership fees	No, product related	Developed a Restricted Substances List, serves as industrial standard for many American Footwear and Apparel brands	No	No	Strong institutional frameworks and coordination mechanisms among relevant stakeholders
	Global organization of leading brands in the apparel, footwear and sporting goods sector	Self-governing global organization	Management working group depending on membership fees with transparent structure	No, product related	Providing resources for sustainable, self-governing RSL implementation. Global outreach. The AFIRM RSL has become an industry standard for many global textile brands.	No	No	Strong institutional frameworks and coordination mechanisms among relevant stakeholders;
	Publicly listed company. User of the bluesign system have to become system members	Publicly listed company with Chief Executive	Participation within the bluesign system required membership fee	Chemical management including risk assessment for consumer safety, occupational safety and emissions to air and water. Based on multi-stakeholder approach	The bluesign system partner it has become an industry standard	Bluesign is certifying manufacturer and consequently fabrics through its bluesign system	Science based approach for the evaluation of chemicals used in the textile manuf. and GHG emissions related to production. Textile fabrics manufactured at least up to 90 % in bluesign certified companies will be issued the bluesign label.	Chemicals risk assessment and risk reduction through the use of best practices. Development of environmentally sound and safer alternatives

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	<p>No membership required</p>	<p>Several C2C certifying bodies as independent companies. Self-governing</p>	<p>Financing through C2C certifications</p>	<p>As a basis for the final certification</p>	<p>The Cradle to Cradle Standard assesses product safety to humans and the environment as well as for product design for material reuse</p>	<p>Product and production process is certified according to the C2C system</p>	<p>Labels will be issued, bronze to platinum, for certified products and production processes</p>	<p>Chemicals risk assessment and risk reduction through the use of best practices. Development of environmentally sound and safer alternatives,</p> <p>Some SCLs have lobbied to make certain chemical standards mandatory</p>
	<p>No membership required</p>	<p>EU government-based initiative</p>	<p>Article 9(4) of Regulation (EC) No 66/2010 of 25 November 2009 on the EU Ecolabel requires the EU Ecolabel Competent Bodies, to which an application is made, to charge fees according to its Annex III, as amended by Commission Regulation (EU) No 782/2013 of 14 August 2013. In the following table the fees currently applied in Member States are reported</p>	<p>Limitation of the use of harmful substances for the environment, in particular aquatic environment and health process</p>	<p>Not a standard</p>	<p>Certification is based on several material criteria, fibers, and restricted substances list.</p>	<p>Voluntary eco-labelling from the European Commission encouraging the use of sustainable practices in textile manufacturing including quantitative restrictions on wastewater emissions and hazardous substance</p>	<p>Some SCLs have lobbied to make certain chemical standards mandatory</p>

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	No membership	Nonprofit limited entity	Based on certification fees	No chemical management system	Voluntary, certified standard that covers all aspects of the production of all-natural fibers of organic status including textile processing, manufacturing, packaging, labeling, exportation, importation and distribution	Products are certified according to the global standards regulation	Once criteria are met labels are issued	Some SCLs have lobbied to make certain chemical standards mandatory
	Membership based organization	Elected board of directors	Based on membership fees depending on annual profits or participating companies	In affiliation with the ZDHC chemical management within the Facility Environment Module (FEM)	Within the textile industry the HIGG index has become an industry standard	No certification	No label	Strong institutional frameworks and coordination mechanisms among relevant stakeholders;
	No membership	Independent certification body. Company registered as a Limited company	Financing through certification process and licensee fees for the labels	No chemical management system. Based on Oeko Tex STeP	Based on the Oeko-Tex Standard 100	Certification according to STeP by Oeko-Tex	Label for textiles tested for harmful substances and manufactured using sustainable production	Some SCLs have lobbied to make certain chemical standards mandatory
	No membership	Independent certification body. Company registered as a Limited company	Financing through certification process and licensee fees for the labels	No chemical management system	Textile standard 100 by Oeko Tex	Uniform testing and certification system for textile raw materials, intermediate products and end products at all stages. Certified only if all components meet the criteria	Oeko Tex 100 globally registered as trademark and label	Some SCLs have lobbied to make certain chemical standards mandatory
	No membership	Independent certification body. Company	Financing through certification process and licensee fees for the labels	Chemical and environmental management	Oeko-Tex STeP standard replaced the Oeko-Tex Standard 1000	Cert. system for production facilities of all processing	No label	Some SCLs have lobbied to make certain chemical standards mandatory

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		<i>registered as LTd.</i>				<i>stages from fiber to ready-made product.</i>		
ZDHC	<i>Membership based organization</i>	<i>Elected board of directors</i>	<i>Financing through membership fees</i>	<i>Chemical management system for input and output chemicals for textile processes. Based on multistakeholder approach</i>	<i>The ZDHC MRSL and wastewater MRSL with its global outreach has become an industry standard</i>	<i>Certification within the MRSL approach, but not by the ZDHC itself but from laboratories conducting the chemical testing</i>	<i>No label</i>	<i>Strong institutional frameworks and coordination mechanisms among relevant stakeholders;</i>
SCIENCE BASED TARGETS	<i>No membership</i>	<i>Framework will be developed through and international and multi-stakeholder process</i>	<i>No</i>	<i>No chemical management. Only for GHG</i>	<i>Set of standard procedures to calculate GHG emissions</i>	<i>No certification</i>	<i>No label</i>	
GRÜNER KNOPF Staatliches Siegel für faire Textilien	<i>First governmental initiative. Membership within the Textil Buendnis appreciated</i>	<i>Self-governing organization under the supervision of the government. On behalf of the Federal Ministry for Economic Cooperation and Development, the secretariat is supported by the German Association for International Cooperation (GIZ) GmbH</i>	<i>Government supported</i>	<i>No direct chemical management approach but relying on external certifications</i>	<i>System relying on external certifications</i>	<i>System relying on external certifications</i>	<i>National governmental label for fair produced textiles</i>	<i>Strong institutional frameworks and coordination mechanisms among relevant stakeholders;</i> <i>Relevant enforcement and compliance mechanisms;</i>

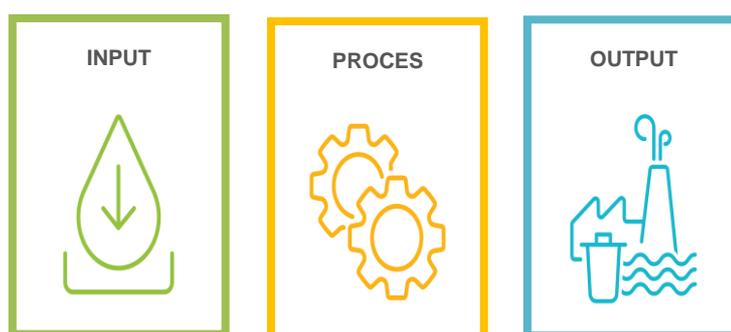
Examples of Multi-stakeholder approaches and its impact as a model to contribute to the beyond 2020 strategy

Examples below do not constitute an endorsement for specific private, voluntary SCLs.

The ZDHC holistic approach to Sustainable Chemistry

The ZDHC, Zero Discharge of Harmful Chemicals, was established as a multi-stakeholder approach to address the use of chemicals in manufacturing textile and leather products through solid chemicals management. Within this multi-stakeholder process the so-called Manufacturing Restricted Substances list (MRSL) was established with an initial focus on the harmful substances pointed out by the Greenpeace DETOX campaign. The Greenpeace DETOX agreement was signed by 80 fashion companies committing to voluntarily eliminate the discharge of 11 groups of harmful substances by 2020. Shortly afterwards the ZDHC foundation published its first Wastewater MRSL regulating the concentration limits of hazardous chemicals in the wastewater direct discharges from the textile industry. The ZDHC Foundation is currently working on the Wastewater MRSL for the leather industry, as well as the standards for emissions to air from textile manufacturing. (ZDHC, 2019) With currently 29 global signatory brands, 91 value chain contributors (such as chemical laboratories, the chemical industry, global textile suppliers and manufacturers) and 18 associations such as the C&A Foundation, amfori, Oeko-Tex, the German Textilbuendnis and the Sustainable Apparel Coalition (SAC), the ZDHC follows a global multi-stakeholder strategy for sustainable chemical management with a focus on chemical inputs, processes and output management. Within its association members, only the SAC represents the apparel, footwear and the textile industries, with a combined annual apparel and footwear revenue exceeding US\$500 billion. As of today, more than 10,000 global customers use the SAC Higg Index. (Coalition, 2019)

Figure 4: Holistic approach to Sustainable Chemical Management, ZDHC (ZDHC, 2019)



- Chemicals Input Management

The ZDHC has established the Manufacturing Restricted Substances List (MRSL) which is based on an international multi-stakeholder experts panel due diligence evaluation to restrict possible hazardous substances in the production of textiles. Input chemicals management requires that substances intended to be used in textile and apparel production are to be tested prior to the application in the process and

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must be certified by a testing body for compliance. The corresponding certificates are filed in a ZDHC Chemical database, the ZDHC gateway, and made accessible to users in the industry. ZDHC also provides tailored information related to hazardous substances used in the textile industry to the supply chain and has been cited by the SAICM Chemicals in Products (CiP) as an example of chemistry communication along the supply chain. ZDHC is currently developing a guideline on regulating the possible emission of harmful substances into the environment of fibers by discharge through wastewater and emissions to air, thus further closing the gaps on impacts to be monitored.

- Process Management

With its Chemical Management System Guidance, ZDHC provides frequent, updated and relevant information on how to implement and maintain a functional chemical management system. Through cooperation with associate members such as the SAC and amfori BEPI, ZDHC harmonizes chemical management assessments and audit schemes across associations.

- Output management

In order to manage process chemicals output, the ZDHC wastewater guideline includes standards for the discharge of textile wastewater into water receiving bodies as well as the disposal and treatment of possible hazardous sludge.

AFIRM Product related chemical management by a Restricted Substances List, RSL

Leading US and European clothing brands have also been working together under the auspices of the Apparel and Footwear International RSL Management Working group (AFIRM) to educate their suppliers about RSLs and information about regulatory trends and consumer concerns about chemicals in products. Within a global alliance, 60 international textile and footwear brands are working together to reduce the use and impact of harmful chemicals in the apparel and footwear supply chain.

The bluesign^R system approach

The bluesign system is another multi-stakeholder initiative, with a strategy based on science-based risk assessment to identify and regulate harmful substances within the supply chain of textiles. The bluesign system approach is comparable to the “classical” MRSL strategy and it covers all substance groups known to be relevant for textiles with relevant regulation and voluntary standards such as the REACH candidate list, the Greenpeace chemicals, pigments and colorants and persistent organic pollutants (POPs) like dioxins and furans. The chemicals assessment follows six steps, and chemicals that pass will be labeled blue, chemicals which need special care will be labeled grey and chemicals which fail are labeled black. The chemicals approved to be used in the textile supply chain are available for the system members in the tool **bluefinder**.

Circular Economy, as part of an evolved waste management framework, is an emerging area of scientific innovation and advancement. There is currently no private SCL, even Cradle to Cradle, that can fully assure the broad safety and mitigation of negative impacts of post-consumer textile (fiber) waste and chemicals use at commercial, global scale. Because many of the initiatives in this area are pilots with limited commercial reach (even those supported by EU funding), a potential area of work that SAICM, in cooperation with private SCLs and NGOs can focus more on is the impact monitoring of such initiatives to ensure that the initiatives actively contribute to more sound chemicals and waste management. Many of the specific technical innovations required to implement broader circularity and materials recovery are in early stages and cannot yet be standardized.

3. The key questions – Task 1 –

The task of this paper is to develop an input paper for IP3 which provides concrete options on how private standards, labels and certification schemes can play a positive role in the post 2020 chemicals and waste framework and what concrete targets could be set as part of the post 2020 goals targets and indicator framework. The current paper will address in particular the questions as listed below.

a. How would private standards, labels and certification schemes with a strong chemicals and waste component contribute to the achievement of the objectives of a beyond 2020 framework?

As 2020 draws near, numerous analysis indicates that the 11 SAICM general targets would not be achieved, yet there is a strong agreement among stakeholders that pending targets would have to be continued post 2020 along with the integration of emerging issues. The most relevant among the emerging issues for the textiles industry are:

- 1. Highly hazardous pesticides as an issue of concern*
- 2. Chemicals in Products*
- 3. Endocrine-disrupting chemicals*
- 4. Sound management of chemicals and waste*
- 5. Nanomaterials, in relation to secondary microplastics from textiles*
- 6. PFOS and PFOA*

The issues for which there have been general agreement include: stronger scientific basis for all targets and decision making, greater participation of downstream chemical users, and greater integration of financing across governments and private sector and other stakeholders. Sustainable chemistry is based on the principles of “green chemistry” with an interface to important topics such as resource conservation, waste management, occupational safety, employee and consumer health and nutrition. (Lahl, 2017) There is also a greater push to ensure that final targets will align to the UN SDGs and the 2030 Sustainability Agenda particularly SDGs 3.9, 5, 8.8 and 12.4 which states, “By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their lifecycle, in

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accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.”

Examining implementation gaps of SAICM, stakeholders have noted that focal points, both national and regional, are predominantly from the environmental sector and basic/upstream chemical actors which have resulted in a narrowing of influence and reach. In particular, intensive downstream industrial/sectoral users of chemicals were not brought in on a systematic nor organized manner as most members of the ICCA that are active in SAICM do not engage with all areas of work, e.g. Chemicals in Products (CiP). Though a lifecycle approach has been specifically cited as essential for the proper management of chemicals, this has not translated to a value chain/supply chain industry approach. Although SAICM has acknowledged initiatives such as ZDHC, OEKO-Tex beside others, best practices from downstream industry users, for example those generated by the textile/leather/fashion industries that take into account pesticide use in the cotton raw material, had not been fully taken into account in the overall tally of SAICM achievement. The chemicals industry itself places the apparel & textile sector as the 3rd lowest value end market for chemicals revenue, US\$ 11 billion vs. US\$ 695 billion for construction (Global Chemicals Outlook II, 2019), which is half to 1/3 of the chemicals use estimated by the textiles industry. The low awareness and undervaluation by the active chemicals industry actors in ICCA of the chemicals use in the textiles sector should not be taken against the importance of the global textile industry, which remains responsible for 20% of global industrial wastewater pollution through the use of chemicals, as previously mentioned in this report.

The responsible use of chemical substances in the global textile supply chain through sound chemicals management has mostly been based on voluntary standards, certification and labeling (SCL) systems as the presence and/or enforcement of relevant regulations has been ineffective in a number of territories. There is a need to set and strengthen chemicals regulations and controls in a number of countries and to extend cooperation with a view to building the capacity of developing countries for the sound management of chemicals and hazardous wastes and promoting the adequate transfer of cleaner and safer technology. Private SCLs have been supporting capacity building in this area and would greater acknowledgement and coordination of activities could result in better local compliance and goal achievement. The influence of private SCLs in the textile industry itself can be strengthened by better coordination with the national focal points of textiles exporting countries. The top exporting countries for textiles in 2018 are as follows:

<i>10) Spain</i>	<i>5) India</i>
<i>9) Hongkong/ China</i>	<i>4) Vietnam</i>
<i>8) United States of America</i>	<i>3) Bangladesh</i>
<i>7) Turkey</i>	<i>2) Germany</i>
<i>6) Italy</i>	<i>1) China</i>

Private SCLs could drive tangible change within various industry sectors (not just textiles) since many are already mature or are quickly reaching a state of maturity. Harmonized, publicly available standards/requirements with on-the-ground implementation experience and expertise among key multi-stakeholders are essential for achieving real progress in the global supply chain for consumer products.

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Private SCLs have already contributed to the current 11 targets and can continue to support emerging issues that need to be addressed. The current SAICM framework has identified the following 11 targets that are applied to national and regional territories:

Table 4: Summary of contributions to current (and likely continuing) SAICM targets

Targets	Contribution of private SCLs to the 11 SAICM targets
(a) Legal frameworks that address the lifecycle of chemicals and waste	Some SCLs have lobbied to make certain chemical standards mandatory, particularly for EU REACH markets
(b) Relevant enforcement and compliance mechanisms	SCLs make adherence to their regulations for their members mandatory with limited Corrective Action timelines in cases of non-compliance
(c) Implementation of chemicals and waste-related multilateral environmental agreements, as well as health, labor and other relevant conventions and voluntary mechanisms	Private voluntary SCLs are generally independent from the process of multilateral environmental agreements, however voluntary mechanisms are developed and enforced amongst members
(d) Strong institutional frameworks and coordination mechanisms among relevant stakeholders	The strength of private SCLs is in its breadth and depth of stakeholder engagement, linking the primary SCL mandates with relevant frameworks such as the UN SDGs. Final decisions related to chemical substances and possible regulations are born out of solid stakeholder due diligence practices.
(e) Collection and systems for the transparent sharing of relevant data and information among all relevant stakeholders using a life cycle approach, such as the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals	Data integrity is the foundation of credibility of private SCLs. There are varying levels of transparency for each of the different SCLs, with majority of the private SCLs making available to the public aggregated performance information. GHS as a communications tool for chemicals impact awareness is considered a basic level requirement for chemicals management practices required by almost all the SCLs. There is extensive investment in data monitoring among private SCLs to ensure that adherence to standards and verification prior to certification are met by members and relevant participants.
(f) Industry participation and defined responsibility across the life cycle, including cost recovery policies and systems as well as the incorporation of sound chemicals management into corporate policies and practices	This is a continuing area of work for the sector itself as life cycle responsibility is redefined as extended producer responsibility regulations are elaborated further in each relevant market. Leading companies have pioneered a variety of policies and practices; however, this is not specifically required in the mandates of majority of the private, voluntary SCLs.

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<p>(g) Inclusion of the sound management of chemicals and waste in national health, labor, social, environment and economic budgeting processes and development plans</p>	<p>Private SCLs focus on individual actor application, such as implementation at the factory level or retailer level, and not necessarily at the national level. Some exceptions, for example Bangladesh and China where ZDHC has a dedicated program to support application at the country level to allow for better integration with a country's development plans.</p>
<p>(h) Chemicals risk assessment and risk reduction through the use of best practices</p>	<p>Private SCLs have contributed to risk assessment at varying levels, and it is acknowledged that work can still expand further. For example, the chemicals impact of textile recycling is an emerging area of work within the sector. Currently, chemicals used in the sector have already been identified using the ZDHC MRSL as the main reference (SIN list Textile Guide) with some substitution recommendations based on the known textile production processes. In effect, private SCL work has contributed to the achievement of the Chemicals in Products target with minimal acknowledgement by the chemicals sector itself.</p>
<p>(i) Strengthened capacity to deal with chemicals accidents, including institutional-strengthening for poison centers</p>	<p>OSH requirements are normally within the social compliance private SCL schemes and are referred/referenced as necessary within the more chemicals-oriented SCLs. Multi-stakeholder initiatives such as Better Work address OSH capacity to manage chemicals-related incidents, however these initiatives do not fall within the definition of a voluntary, private SCL.</p>
<p>(j) Monitoring and assessing the impacts of chemicals on health and the environment</p>	<p>Textile and apparel private sector and civil society actors have contributed studies in this area outside the scope of private SCLs (e.g. Mistra Future Fashion, private brand-funded studies, ILO Better Work, etc.). Textile Exchange has contributed several studies through fiber specific LCAs used by the industry which may have some relevance.</p>
<p>(k) Development and promotion of environmentally sound and safer alternatives.</p>	<p>The chemicals manufacturers most associated with the sector have been working on positive lists of input chemicals, most of which are referenced in the ChemSec SIN List Textile Guide done in cooperation with ZDHC. The different SCLs and individual textile actors continue to work on alternative chemicals, materials and process alternatives to fulfill not just safer chemistry but also circularity objectives and support extended producer responsibility efforts.</p>

The ZDHC MRSL, the bluesign risk assessment and the AFIRM product focused approach seem the most relevant private standardization schemes which could serve as a model to contribute to the beyond 2020 strategy as previously explained.

b. How can SAICM assess and ASSURE quality of SCL and mitigate greenwashing?

The current SAICM structure may not be adequate to assure the quality of private/voluntary SCLs due to minimal awareness of the structure of the textiles/apparel/related products industries itself among the current SAICM focal points. Because of its global and highly transitory nature, SAICM as a coordinating body should also reflect the global structure of the sector and not fully rely only on national or regional focal points. That said, national and regional focal points in countries that are identified as top exporters/producers for the global textile/apparel industry should be more involved, specifically involving candidates that are more familiar with the sector such as trade or industry regulators and not only environment regulators as a focal point.

The process of assessing and assuring the quality of SCLs can be achieved through a review process. An appointed committee/peer group of international experts from the industry, academia and other relevant stakeholders could review candidate SCLs providing feedback during their update/maintenance process meetings on an annual basis. This advisory committee/peer group would assess the quality and suitability of the SCLs while also providing constructive input helping to improve the SCLs over time.

The UN Forum on Sustainability Standards, with secretariat sitting in UNCTAD, already observes a similar function (UN Forum on Sustainability Standards Focus, 2019). The UNFSS focuses more on voluntary SCLs that impact agriculture stakeholders, such as Rain Forest Alliance and Fair Trade, however their mandate carries into this area of work as well including the organizing of peer groups that assess voluntary sustainability standards (VSS). Their experience in heavy industry global value chain industries is a disadvantage which the current SAICM and a global advisory/peer group could address.

c. Should SAICM impose minimum requirements for SCL? What should this be?

The quality of voluntary SCLs could be assessed with the ff. minimum requirements:

- *Scope, either centered on a specific product itself or to a specific industry actor which uses a value chain/life cycle approach*
- *Mutual acceptance of the standards amongst each other*
- *Verification and reporting methods used in the specific SCL that assures rigorousness and transparency*
- *Scientific rigorousness of the technical content of the voluntary SCL, particularly where requirements are higher than that of national/international regulations*
- *Coverage of both chemicals and waste on human health and environmental impacts*
- *Assessment of the quality of the governance body of the respective SCL*
- *Independence of governance (and operations?) with financial contributions of SCL membership to avoid conflict of interest and greenwashing concerns*
- *Breadth of membership/stakeholders. In particular, this would address requirements of individual large companies that are treated at times as if they were industry standards.*

Integration with international or national standards setting or treaty bodies would not be included in keeping with the voluntary nature of the SCLs. The minimum requirements are meant to establish a

credibility quality criterion, which would eventually allow for consolidation and integration of a number of voluntary SCLs later on by national focal points. The minimum requirement is not a ceiling of SCL performance, but rather a floor. To avoid unnecessary competition among voluntary SCLs, the minimum requirements could help establish rules where different SCLs can focus on specific areas of expertise/strength more than others, e.g. waste management vs. chemicals exposure by laborers in the textiles workplace. The HIGG Index for example uses multiple levels of potential performance, requiring a minimal level, which is an approach that allows for broader participation while acknowledging those that “do more”.

The concern is where individual companies opt to not to support any of the voluntary SCLs and refuse to accept compliance to these standards as equivalent to their own individual requirement. One reason for this is that some private companies do not wish to financially contribute to any of the current private SCLs. Though some individual companies have “stricter” requirements, a number of these may not be as rigorously science-based, and therefore there is some concern about the justification for such. It could be within SAICM’s role to discourage such practices that are not rigorously science-based, and where such higher requirements do benefit more stakeholders, SAICM could support upscaling these into more broadly accepted industry SCLs in the interest of achieving broader goals.

d. Shall SAICM focus on upscaling?

SAICM could support upscaling of selected voluntary SCLs that meet minimum criteria through supporting expansion into other sectors, or new markets thereby strengthening its reach and adherence. It could also support upscaling through more technical inputs enhancing its pertinence and relevance. For example, SAICM could explore the possible adoption of some of the SCL components or elements, including some product-specific standards themselves, as a national product standard for some key markets such as GB (China), ANSI (United States of America) or IEC/CEN (EU). As many of the main private SCL actors/members are from an ANSI or IEC/CEN market, the possible adoption of a private SCL would allow for a non-treaty method of integration into the national regulatory framework of key markets. Due to the export nature of the global textile/apparel industry, inclusion in the ANSI and IEC could trigger standards harmonization work with the national standards bodies of other key countries (e.g. Vietnam STAMEQ, India BIS, etc.) wherein textiles is a key industry player. These national level standards could eventually become mandatory through citation by specific regulations (e.g. for example, in the case of ANSI it would be citation in the US CFR). This would be one method by which a private SCL could integrate without the need for an extensive global chemicals treaty.

By taking advantage of the strength of voluntary private SCLs to bridge the gaps between national governments, the chemicals producing industry, downstream users & retailers, civil society, academia and consumers, SAICM could expedite the fulfillment of a number of targets through mature private SCLs. SAICM could work in cooperation with UNFSS which includes in its mandate the integration of voluntary sustainability standards with partner national standards bodies. In general, most national standards bodies do work with ISO, ISEAL and private sector standards setters. Generally, quality standards follow this path towards integration, however it was noted that sustainability standards often

do not follow the same path. SAICM could help strengthen adoption by bridging with other UN programs such as UNFSS since UNEP is also part of the UNFSS Steering Committee.

e. What should be the process/milestones for establishing minimum requirements?

The proposal for voluntary, private SCLs to contribute to the post 2020-SAICM framework by establishing a minimum criteria and upscaling its reach could be lodged under “Promote actions on issues of concern, complementing relevant existing initiatives” as stated in the annotated outline prepared by the co-chairs of the intersessional process. The process of integrating voluntary SCLs, particularly in textile/apparel, would have to take into account the highly complex and transitional nature of the sector itself and how countries and stakeholders would have to be involved. As a complex global industry, a global, sector coordinating body/person would have to be in place as reliance only on national and regional focal points could mean that players and practices could get missed. It would be imperative that within this process all relevant stakeholders will be invited to sit at a Round Table or similar body, each stakeholder given the same weight with independent facilitation.

The private, voluntary SCLs that are mature enough and can qualify to participate represent up to a third of the value of global textile/apparel industry, but the industry itself remains highly fragmented with international brands behaving differently from domestic companies. There could therefore be allegations of bias for inclusion of a few private SCLs over others, which could be addressed through the creation of an independent body that would establish and manage the minimum criteria setting process, and the actual engagement process itself. Another way to establish it is to be inclusive and have private SCLs as members themselves in the process along with other stakeholders (a Peer Group set up), to ensure that there is ownership and transparency in the process.

There should be general global awareness of minimum requirements that can focus on the consumer end, since use of textiles is ubiquitous, but textile production process and private SCL applicability understanding should focus only on the identified current and forecast textile and garments producing countries. This could be part of the first milestone that should be achieved by 2025.

Milestone I: By 2022, increased awareness of minimum requirements in all current and forecast textile and garments producing countries through the national focal points and global peer group of experts

Other potential targets: Upscaling of private standards

Milestone II: By 2024, countries have analyzed and addressed obstacles to implementing SAICM-relevant elements of selected private standards within their national contexts (e.g. incoherent or contradicting sectoral policies pertaining to the sound management of chemicals and wastes).

Milestone III: *By 2025, private sector associations effectively encourage (and support) their members to adhere to relevant private SCL schemes and abide to regulations pertaining to sound management of chemicals and wastes within that initiative.*

Milestone IV: *By 2025, non-government organizations have included adherence to relevant private standards in their strategic outreach and actively address the issue in their communication with the private sector and governments.*

Private SCLs would also be responsible for reporting on the continuing engagement with SAICM-affiliated actors and would ensure commitment to work in partnership, or arrange joint activities beyond the initial presentation of the specific SCL. A key interest of private SCLs itself is for SAICM to function as a potential platform for harmonization itself among voluntary SCLs to minimize overlaps and redundant work within the space. Targets that address harmonization and streamlining among voluntary SCLs would be more positively received than simply increasing the acceptance of so-and-so standard, which some may conjecture as bias for one standard over another.

Milestone V: *By 2030, there is concrete harmonization of requirements among voluntary SCLs and their implementation/application in the global market*

Without the means to measure the progress of implementation, important signals during this process might be missed. For this purpose, it is imperative to begin at the onset with the desirable goal of concrete harmonization of requirements among voluntary SCLs and their implementation/application in the global market. Therefore, possible measures are:

- Target percentage (or) Target number of Private SCLs have accepted the SAICM framework as part of its mandate, similar to the integration of UN SDGs
- All relevant national focal points (please refer to previous sections “g” and “h”) are aware of private SCLs and have incorporated them into their national framework
- XX companies coming in equal measure from APAC, EMEA and the Americas (members of voluntary, private SCLs) are supporting the SAICM framework, similar to stated support for UN SDGs, as part of their corporate responsibility framework/set of activities

f. Could the United Nations label private standards fulfilling such minimal requirements label those as ‘UN approved’?

To simplify the question, would the UN be able to “approve” a private SCL that meets a minimum set of requirements? Based on the history of the UN’s initiatives with the private sector from the Global Compact onwards, it would be more appropriate that a UN logo is more indicative of a “best practice” as opposed to an approval or validation of the achievement of minimal criteria. At a high level, the UN can function more as an independent gatekeeper that ensures that a minimum criteria/scope of “best practices” among voluntary SCLs are recognized and encouraged.

g. How could the role of private standards, labels and certification schemes provide an incentive for the private sector to engage in the post 2020 framework?

Greater involvement of the downstream private sector would be a natural outcome if the post-2020 framework intends to upscale existing private SCL schemes within the sector. The active private sector membership of these SCLs would have a vested interest in assuring that inclusion in the post-2020 frameworks lead to positive change. However, those from the private sector which are not active members of any of the private, voluntary SCL schemes would likely not engage unless this is encouraged through a separate program under SAICM that is specifically targeted by national focal points (see Milestone III).

Key questions – Task 2 - Private standards, labels and certification schemes in textile sector and the post 2020 Chemicals and Waste Framework

h. What would be an effective and efficient approach of the post 2020 framework to private standards in the textile sector?

Work such as that generated by NGOs, IGOs, AFIRM, ZDHC, Bluesign, if acknowledged by regulators or other standards bodies, are usually coordinated through trade/industry officials and not necessarily with environmental or health regulators which are appointed as national focal points within SAICM. As the national focal points may not be aware of the significance of the textile sector in that country, their awareness of the applicability of voluntary SCLs maybe variable. Majority of private, voluntary SCLs are also export-oriented, focusing mostly on actors in the global textile supply chain as opposed to those that only service domestic markets which sometimes lead to “lower” standards (design, execution, enforcement) for domestic players. The complex global, speedy and transitory nature of the apparel sector, for which much of the private SCL work for textiles originate from, must mean that private, voluntary SCLs must apply regardless of the readiness of the regulatory framework and capability of the territory. Thus, a global framework yet national implementation approach needs to be carefully considered.

There should also be a process for establishing minimum requirements, an advisory board of international experts for ensuring private standards/labels/certification schemes meet those minimum requirements and a process for said experts to provide input into the update/maintenance process of these standards/labels/certification. This would work at the global level, while at the national level support for capacity building and other activities related to execution and enforcement of SCLs would be the main areas of work.

i. For which other sectors could the creation, use or upscaling of standards, labels and certification schemes or respective minimal requirements in the textile sector serve as a model for other sectors?

Aside from the textile industry, the other industries with related concerns and voluntary SCLs that are based on multi-stakeholder engagement that may be reaching similar levels of maturity and reach are (1) toys, (2) consumer electronics, (3) leather and leather-related goods, (4) furniture and home goods and some fast moving consumer goods (FMCG) subsectors such as personal care & beauty. As previously stated, the agriculture/forestry sector is an upstream resource for the textiles industry and in some LCAs the pollution impact of pesticide use has been taken into account, however it is outside the scope of the paper to assess comparability of voluntary SCLs applied to agriculture/natural resources industries in general. The construction industry has also been identified by the chemicals industry as a top user of chemicals, however it is outside the scope of this paper to compare the built-environment voluntary SCLs (e.g. LEED, etc.) with consumer goods industries voluntary SCLs.

Recommendation and Outlook on how the textile industry can contribute to a post-2020 SAICM approach

The textile industry, as one of the most polluting downstream users of the chemicals industry, has a responsibility to support safe chemistry and the UN Sustainability Agenda 2030. Clothing is a basic need founded on the textile industry, and the textile/apparel/footwear sector has acknowledged this responsibility through the proliferation of voluntary initiatives to improve the inputs, processes and outputs for safer and more sustainable textiles. Despite the growth of initiatives, more still needs to be done and voluntary standards, certification and labelling schemes would benefit from greater harmonization, better understanding of its impacts and greater relevance to achieve broader safe chemistry goals.

The work of NGOs as well as IGOs already done in the global textile supply chain and still continuing might influence national standards setting bodies establishing minimum standards as well as acting as an enabler for SME in order to engage with voluntary SCL schemes.

The Strategic Approach to International Chemicals Management (SAICM) 2020 establishes specific goals/targets that apply to the chemicals industry as a whole. The post 2020 SAICM would benefit greatly from a sector-specific approach that integrates upstream and downstream players as well as other stakeholders to achieve greater reach, speed and effectiveness. This sector-based approach learns from, emulates and upscales the successes of effective voluntary, private standards, certifications and labelling (SCL) schemes with a strong science-based, multi-stakeholder execution strategy that is grounded on the lifecycle understanding of the main downstream products for which chemicals are utilized.

SAICM post 2020 would benefit from a smart mix of legislation/regulations-focused targets that support enforcement of safer chemistry with voluntary initiatives from downstream sector players such as the textile industry players ZDHC, bluesign, oekotex, etc. which focus on capacity building and best practices standards setting for supply chain actors within the same space. Through SAICM post-2020, the UN can provide a label of “best practice” in safe chemistry established at the global level to mirror the global nature of the textile (and similar) industries and strengthen national focal points to encourage and

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enforce relevant private SCLs in relevant countries. By supporting upscaling of private, voluntary SCLs that meet a minimum quality criterion, these voluntary SCLs would be more effective in achieving safe chemistry targets that support SAICM post 2020. These minimum criteria can be established through an international, multi-stakeholder advisory board that is not only versed in the sector, but also in emerging issues that impact or are specific to the sector such as circularity, value chain systems mapping. This criteria/scope would take into account that voluntary SCLs have different areas of expertise/target scope, hence upscaling could focus more on ensuring that there voluntary SCLs are assessed more on their quality how they contribute to general SAICM targets/goals.

As a platform, post-2020 SAICM would encourage not only the development of minimum criteria to assess voluntary SCL that have the most impact but also help grow the reach of these private SCL through awareness building and activity execution milestones in year 2025 and 2030 to ensure that upscaling would support the maximize the strengths and private SCLs.

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