Company Level Product Chemicals Management Systems	Brief description
Apple	Has eliminated asbestos, cadmium, hexavalent chromium, lead (above and beyond RoHS requirements), organictin, polybrominated biphenyls, polybrominated diphenyl ethers, polychlorinated biphenyls, polychlorinated dibenzodioxins,polychlorinated naphthalene, polychlorinated terphenyls, red phosphorus and short-chain chlorinated paraffins from its products. Some of Apple's more recent product level substance restrictions include arsenic in display glass, all brominated compounds (including tetrabromobiphenyl-A (TBBP-A)), all chlorinated compounds (including polyvinyl chloride (PVC)), phthalates (including Bis(2-ethylhexyl)phthalate (DEHP), Dibutyl phthalate (DBP), Benzyl butyl phthalate (BBP), and Di-isononyl phthalate (DINP)), and mercury. All its products Energy Star compliant; Gold level with the Electronic Product Environmental Assessment Tool (EPEAT),[48] (an EPAendorsed environmental performance standard, covering energyefficiency, recyclability and toxic-free design) across all its computer products.[49] http://www.greenchemistryandcommerce.org/downloads/uml-rptbestprac1209.pdf
Boots	Product chemicals management strategy commits to taking a precautionary approach to the use of chemicals, by considering the inherent hazards of the chemical rather than risk based on potential exposure, to ensure that the only chemicals used in Boots brand products have a history of safe use. Boots Chemicals Working group commits to a systematic review of all products carrying the Boots label (55-60% of its annual revenue). The working group maintains a database of chemicals and provides Boots with expert, impartial advice on the use of chemicals.[62] As part of this strategy, Boots created a Priority Substances List (PSL), updated and published annually, which outlines chemical ingredients of concern (and their uses), as well as any regulatory actions that have been taken to restrict their use. http://www.greenchemistryandcommerce.org/downloads/uml-rptbestprac1209.pdf
Green Depot	Green Depot Green Filter identifies five environmental categories, the critical end points for each category, and a means of communicating the system to consumers. The environmental categories are summed up by the acronym "CLEAR": • Conservation: A product is awarded a Conservation icon if it: contains a high percentage of rapidly renewable materials or post-consumer or post-industrial recycled content; is designed to last longer than mainstream alternatives; or carries a third-party certification that verifies responsible sourcing, such as the Forest Stewardship Council. • Local: A product is awarded a Local icon if it was manufactured or assembled within 500 miles of Green Depot's Brooklyn headquarters. A half-tone local icon is awarded if the product was manufactured within 1,000 miles of the Brooklyn headquarters—this is a move to encourage American manufacturing. • Energy Efficiency: A product is awarded an Energy Efficiency icon if it helps save energy. This includes items such as insulation, energy-saving doors and windows, passive solar devices, daylighting systems, and attic fans in homes. Energy icons are also awarded for products with an Energy Star label, and for those using less energy than conventional products. • Air Quality (which includes toxics): A product is awarded an Air Quality icon if it: contains low or no VOCs; is formulated for highly allergic or other sensitive populations; helps customers identify toxic pollutants, mold or other allergens in homes; or efficiently filters pollutants from indoor air. • Responsibility: A product is awarded a Responsibility icon if credible documentation regarding the manufacturer's corporate responsibility efforts is available. The Green Filter review process begins with requiring product manufacturers to fill out an in-depth vendor questionnaire and to

	provide all relevant product specifications and material safety data sheets (MSDS's). Where applicable, Green Depot also considers third party certifications and test results from independent laboratories to verify manufacturer claims such as lead levels in children's furniture, formaldehyde levels in flooring, or organic status for cotton textiles. These data are then compared to internal standards and thresholds Green Depot has established. The Green Filter applies a restricted substances list of about 2,000 chemicals, the Red Flag Chemical List, to restrict certain chemicals outright. http://www.greenchemistryandcommerce.org/downloads/uml-rptbestprac1209.pdf
HP's General Specification for the Environment (GSE)	HP's global product content specification for restricting or prohibiting certain chemical compounds or materials in HP products or manufacturing processes. » General specification for the environment (GSE) Specifications referenced in the GSE: »Lithium specification »Plastic marking specification »RoHS 2 Compliance Specification Addendum to the GSE The GSE contains general product content restrictions such as Restriction of Hazardous Substances (RoHS), Prop 65, battery material content, packaging materials, product labeling and marking requirements, chemical registration requirements, ozone depleting substance restrictions, and others. In addition to the GSE, individual product specification control drawings may be created and adopted (as applicable) to cover environmental specifications for products or parts that are affected by country or region specific regulations not covered in the GSE. The HP Design for Recyclability Standard is available on the password-protected Supplier Portal at https://h20168.www2.hp.com/supplierextranet/index.do. Log in and access the "HP Standard Documents" listing.
Kaiser Permanente	Sustainability Scorecard for medical suppliers. The scorecard evaluates the environmental and health impacts of products. It will allow Kaiser Permanente to evaluate the sustainability of each medical item it purchases while also encouraging suppliers across the industry to provide greener products for the health care sector.
Nike (online)	Today, the goals of Considered Design are to reduce waste throughout the design and development process, use environmentally preferred materials, and eliminate toxics. Nike's long-term vision for their Considered Program is to

	create products that use the least possible material, are designed to be easily disassembled for recycling or safely returned to nature at the end of life. Two major elements of Nike's Considered Design Program. • The Considered Index—a sustainable product design tool used to evaluate the expected environmental footprint of a product prior to commercialization. • Considered Chemistry—a set of activities designed to achieve Nike's long-term corporate environmental goals to eliminate substances known or suspected to be harmful to human health or the environment. In 2004, Nike developed several programs to help realize this goal: a. A Restricted Substances List Program (RSL Program); b. An initiative to reduce the use of toxic chemicals in manufacturing operations; c. An on-going initiative to evaluate material platforms to develop environmentally preferred materials; and d. A chemical review process to evaluate individual chemicals.
Staples	The Sustainable Product Design Standard[87] (SPDS) provides specifications for the design of environmentally preferable and sustainable institutional and industrial cleaning products. It provides a definition for these products, establishes requirements for human and environmental health and safety attributes and encourages social equity throughout the cleaning product cradle-to-cradle supply chain. SPDS is voluntary, based on life cycle assessment principles, and establishes benchmarks for continuous innovation and improvement. It also provides a method for evaluating any cleaning product through a three part framework. Part One establishes nine mandatory human health screening endpoints of a Sustainable Environmentally Preferable Green Cleaning Products Scoring System, such as carcinogens, mutagens and reproductive toxins, endocrine disruptors, and volatile organic compounds. Part Two establishes 22 environmental, health and safety attributes which are desirable but not mandatory for compliance under this standard. Part Three encourages innovation and continuous improvement through a numerical assessment of the cleaning product chemical mixture. http://www.greenchemistryandcommerce.org/downloads/uml-rptbestprac1209.pdf

Suggested additional retailers:

Large retail:

- Sears
- JC Penny
- Target?
- Marks & Spencer

Building products:

- Kingfisher
- Home Depot

Personal care:

- Wholefoods
- Body Shop
- Aveda?

Electronics:

- Dell
- Best Buy

Cleaning:

- Method (do they sell own products?)
- 7th Generation (do they sell own products)?

Apparel / footwear:

- Timberland
- LL Bean
- H&M
- Nau

Internet:

- Evo (do they still exist?)

Furnishings:

- Ikea

Drug Stores:

- CVS

3rd Party Product Chemicals Management Systems	Brief description
Actio Material Disclosure	Companies are increasingly required to publish more information about raw materials and ingredients in finished goods. For manufacturers who buy from many suppliers, managing disclosure becomes onerous, risky, and costly to maintain. Global companies need a robust, structured database platform to track, analyze and compare finished-good and supplier product data against regional and local regulatory content: • newly updated, automated, easy-to-use supplier communication tools • a safe, real-world trusted, centralized, collaborative platform for secure, permissioned product ingredient data and up-to-date regulatory compliance information • real-time supervision of supplier data collection • automation and tracking of component, parts, chemical, and substance inventory • maintained, updated regulation lists for current compliance • macro-to-micro supply chain product ingredient visibility • regulatory red-fl ags: view the BOM top-level, and drill down to see where and from what supplier the concerning substance is • advanced supplier alerts signal when a supplier adds, changes, or updates data • enhanced downstream user outreach for collecting product uses • multi-tiered data management and roll-up through a supply chain network • simulations of bill-of-materials for evaluating component replacement scenarios  Material_Disclosure fact sheet Final.pdf
bluesign	Bluesign is an independent environmental standard for the textile industry that provides certification to suppliers. The bluesign standard for environmental health and safety was developed by bluesign Technologies AG based in Switzerland. The declared objective of the standard is that benefits are seen along the entire textile supply chain. Raw material and component suppliers who manufacture yarns, dyes and additives, and textile manufacturers, maximize resource productivity. Retailers and brand-name companies enhance safety and profitability, and consumers are protected against substances which are potentially hazardous. The bluesign certification starts with a supplier signing an agreement with bluesign Technologies which includes a secrecy clause. A short on-site audit of the supplier's operation is then conducted verifying that chemical and environmental health and safety (EHS) practices meet the guidelines set by bluesign. A software tool, "the bluetool", is provided containing the information needed to assess chemical components and processes. The objective is to classify each chemical component based on its ecological and toxicological impact. The bluesign standard includes Restricted Substance Lists (RSLs) of leading textile companies, as well as relevant REACH requirements.

	In principle, the bluesign standard divides raw materials, chemical components and production processes into two categories, grey and blue, based on five assessment levels: resource productivity; consumer safety and protection; air emission; water emissions; and occupational health and safety. Raw materials or chemical components that contain substances that are banned are prohibited from the production process. Raw materials or chemicals components that lead to a textile product that meets the bluesign standard in all aspects, are classified as blue. All other raw materials are labeled grey. The "grey" classification means that there are restrictions on how a substance can be used in processing and a precise evaluation of the impacts is required. Subject to certain safety conditions, the grey chemical component is allowed if a substitute can't be found that will provide comparable functionality, quality or design. Once chemical components are certified, they receive the bluesign approved label. Bluesign® Standard
Global Data Synchronization Network (GDSN)	The GDSN facilitates the synchronization of item (product and service) information between GDSN trading partners: suppliers/manufacturers and retailers. If a product changes or a new product is introduced, that new information needs to be communicated across the supply chain to all affected parties to ensure that all partners are trading with the same information. Communicating changes of this information to all affected parties can be a daunting task in complex supply chains with hundreds of partners. The GDSN responds to these information needs by ensuring consistent, quality information among trading partners.[99] The GDSN system would allow for tracking of information that may be relevant for future regulations, sustainability and/ or purchasing initiatives. As new chemical concerns or restrictions arise, retailers can add them to their specifications. Advantages include safer shipping, handling, storage, and disposal; accurate data in a consistent format; improved regulatory compliance; and cost reductions and efficiency improvements. http://www.greenchemistryandcommerce.org/downloads/uml-rptbestprac1209.pdf

IHS	Green Product Selector (GPS) is a Dolphin-developed software platform that analyzes maintenance, repair and operations (MRO) of chemical products by indexing their ingredients. This tool provides insight into product spend, hazards and proliferation, giving companies a comprehensive overview for greatly increased procurement performance. Once a company's chemical inventory information has been entered into the Green Product Selector, products are categorized by general and specific use. Product and ingredient information are used to rank items by price-per-unit, human hazard and environmental hazard points. Points are assigned based on the ingredients on federal and international hazardous chemical lists. The Green Product Selector:
	• Presents chemical inventory by use category (utilizing more than 700 different categories)
	• Sorts and presents inventory data by cost and hazard ranking (human and environmental) using complex algorithms (patent pending)
	• Illustrates product details in easy-to-read graphs
	• Allows evaluation of new products versus current products in use
	• Helps track hazard-reduction progress through generating reports by
	  o Product use category, to analyze human and environmental hazards
	  o Approval category, such as approved, pending and banned
	• Provides relative ranking for simplified decision making

	http://www.dolphinsafesource.com/Products+_+Services.aspx?id=18 Green Chemical Sourcing - Helps implement changes to an organization's buying processes. Requires collaboration among cross-functional team of procurement, operations, and EHS decision makers to: • Reduce product and vendor count and costs • Reduce costs associated with regulatory compliance and the handling of chemicals • Simplify the procurement process • Alleviate administrative burdens • Provide greater safety for workers • Promote sustainability http://www.dolphinsafesource.com/1Test3.aspx?id=1
SciVera Lens Product Chemical Assessment Software	SciVera has developed a Web-based software product named SciVera LensTM which enables automated, scaled, efficient, credible assessment of products and their chemical ingredients for toxicological hazard and risk. The output presents understandable, actionable results to decision makers who possess varied levels of expertise on the issues. The resulting enhanced product information will facilitate review by B2B customers throughout the supply chain as well as enable "what if" scenario iterations for product development teams. In addition to broadly accessible scientific analysis, SciVera LensTM provides efficient, secure collection of product ingredient information throughout the supply chain. This information collection process also provides for protection of a contributor's proprietary product or supplier information, while communicating the results of the assessment downstream to the requesting party. SciVera LensTM is built on a 'software-as-a-service model to facilitate ease of use, public scientific data access, supply chain connectivity and information security features essential to its functionality.  scivera_lensbrief_2010.pdf
WERCSmart (S)upplier (M)erchandiser (A)nd ((R)etailer (T)echnologies	Over 2000 consumer product suppliers in the program, with over 150,000 unique UPC's. Helps retailers in both areas of 1) Compliance and 2) Sustainability. GreenWERCS Chemical Screening Tool (Walmart) conducts chemical assessment on chemical products based on ingredient information provided by suppliers plus MSDS.[97] The product chemicals are screened and classified as PBTs (persistent, bioaccumulative and toxic), CMR's (carcinogens, mutagens and reproductive toxicants) or endocrine disruptors based on published and authoritative lists of chemicals of concern. The tool currently uses 30 separate transparent lists that contain information on about 2,400 chemicals. GreenWERCS generates a score for a finished product based on the properties and the levels of the individual chemicals in the final composition. Every chemical, with the exception of endocrine disruptors, currently has the same weighting in this score. Endocrine disruptors have a lesser score. The supplier sees a score for its product along with

	other products in its category. These ratings are on a scale that is color coded as red/yellow/green. A feature called a "sandbox" allows suppliers to experiment with product ingredients to see what alternative ingredients would reduce their environmental impact. This encourages suppliers to make changes in product formulations so they can gain a better score in the GreenWERCS system. http://www.greenchemistryandcommerce.org/downloads/uml-rptbestprac1209.pdf
3E Green Product Analyzer (GPA).	The 3E GPA supports emerging sustainability and green initiatives by providing access to the critical data and information needed to quickly assess the EH&S sustainability footprint of chemical products and aid in the development and selection of safer and more environmentally friendly products. The 3E GPA generates extremely valuable information that enables companies to quickly assess the sustainability footprint of their raw materials or finished goods, compares products to evaluate more environmentally friendly alternatives for greener purchasing decisions and creates a simple baseline methodology to measure improvement. The system offers users access to 3E Company's chemical profiles and substance data to analyze and compare products by toxicity, environmental impact, use type and cost. The result is a systematic assessment of a product's toxic footprint and tools that facilitate better, more informed purchasing decisions and help communicate impact and progress of sustainability goals to internal or external stakeholders. Users can utilize pre-determined criteria to calculate ratings and group products into categories and even include material costs to create direct and meaningful comparisons. One of the most innovative capabilities of the 3E GPA is its ability to facilitate the customization of the scoring system. While green procurement and product evaluation are important to companies, without a standard it can be difficult to develop and implement a successful green program. The 3E GPA provides a baseline scoring methodology that can be completely customized to suit the needs of a company or industry. The 3E GPA is user-friendly and flexible, and offers the knowledge needed to evolve sustainability programs from a concept to execution. The 3E GPA supports corporate social responsibility (CSR) and sustainability initiatives by allowing users to track and manage their chemical inventories and ensures that the materials being used conform to corporate initiatives related to purchase, storage, transportation, handling, recycling and disposal of safer, greener products. https://s3.amazonaws.com/cdn.3ecompany.com/files/3E_GPA_final.pdf

What other 3rd party systems should be included?

Sector Level Product Chemicals Management Tools or Systems	Brief description
AAFA RSL	AAFA produces a "model" Restricted Substances List which is updated every six months. The next iteration of the list will be released in September. AAFA's RSL is freely available for download. It contains only chemicals which are currently regulated by state or national governments. Some people use this RSL as is, while others use it as a base and then add on voluntary chemicals to the list as well. http://www.apparelandfootwear.org/Resources/RestrictedSubstances.asp
AFIRM (Apparel and Footwear International RSL Management Working Group)	The AFIRM working group is interested in advancing global management of restricted substances in apparel and footwear, communicating information about RSL to the supply chain, discussing concerns, and exchanging ideas for improving RSL management. Ultimately the group seeks to elevate consumer and supply chain chemical safety. AFIRM participants agree that chemical product safety can only be achieved through partnerships among retailers, suppliers and manufacturers and they endeavor to develop solutions that continually improve their current practices. AFIRM works to address RSL implementation rather than develop a list. The Supplier toolkit is at: www.afirm-group.com
CleanGredients	CleanGredients is an online database of cleaning ingredients — the online resource for green formulation®. CleanGredients aligns broad environmental and human health goals with the cleaning product industry's business objectives and will support formulation of products with human and environmental health benefits, whether to meet corporate internal objectives, regulations, voluntary product recognition programs, or national and international eco-labels. At present, CleanGredients includes listings for surfactants and solvents. Modules for additional ingredient classes, including fragrances and chelating agents, are in development. Key attribute data and the ingredient formulations are reviewed by an approved third-party, and carried out under confidentiality, providing verification of claims for the key ingredient attributes for ingredients without compromising proprietary formulations. In addition to helping formulators and suppliers, CleanGredients also helps purchasers to identify "green" products. CleanGredients helps purchasers by: 1) increasing the number of products bearing the U.S. EPA DfE logo, and 2) providing valuable information by which to compare competing products. http://www.cleangredients.org/
GOTS - Global Organic Textile Standard	The Global Organic Textile Standard (GOTS) is a worldwide textile processing standard for organic fibres, including ecological and social criteria, backed up by independent certification of the entire textile supply chain. A textile product carrying the GOTS label grade 'organic' must contain a minimum of 95% certified organic fibres whereas a product with the label grade 'made with organic' must contain a minimum of 70% certified organic fibres GOTS focuses on compulsory criteria only. The standard is valid for fibre products, yarns, fabrics and clothes and covers the production, processing, manufacturing, packaging, labelling, exportation, importation and distribution of all natural fibre products. The standard does not set criteria for leather products. Key criteria:

	• At all stages through the processing organic fibre products must be separated from conventional fibre products and must to be clearly identified • All chemical inputs (e.g. dyes, auxiliaries and process chemicals) must be evaluated and meeting basic requirements on toxicity and biodegradability/eliminability • Prohibition of critical inputs such as toxic heavy metals, formaldehyde, aromatic solvents, genetically modified organisms (GMO) and their enzymes • The use of synthetic sizing agents is restricted; knitting and weaving oils must not contain heavy metals • Bleaches must be based on oxygen (no chlorine bleaching) • Azo dyes that release carcinogenic amine compounds are prohibited • Discharge printing methods using aromatic solvents and plastisol printing methods using phthalates and PVC are prohibited • Restrictions for accessories (e.g. no PVC, nickel or chrome permitted, no plastic appliqué or inlays) • All operators must have an environmental policy including procedures to minimise waste and discharges • Wet processing units must keep full records of the use of chemicals, energy, water consumption and waste water treatment, including the disposal of sludge. The waste water from all wet processing units must be treated in a functional waste water treatment plant. • Packaging material must not contain PVC • Technical quality parameters must be met (s.a. rubbing, perspiration, light and washing fastness and shrinkage values) • Raw materials, intermediates, final textile products as well as accessories must meet stringent limits regarding unwanted residues • Minimum social criteria based on the key norms of the International Labour Organisation (ILO) must be met by all processors http://www.global-standard.org/
National Textile Association's "Voluntary Product Environmental Profile (VPEP)"	The National Textile Association (NTA) offers the textile industry and its suppliers a Voluntary Product Environmental Profile (VPEP). VPEP is a common format that textile companies and their suppliers may use to record and share information about chemical products. VPEP provides a common reporting format to facilitate efficient exchange between textile companies and their suppliers of information needed to make informed decisions regarding the environmental impact of textile products and processes. http://www.nationaltextile.org/vpep/
NaTrue	NaTrue is the European Interest Grouping of Natural & Organic Cosmetics manufacturers who aim to safeguard the highest possible standards for natural cosmetics and their ingredients. Its Secretariat is located in Brussels. It was founded by the pioneer companies of natural cosmetics in order to guarantee the protection of the term natural

	cosmetics. Starting March 2010, raw material suppliers can certify their raw materials under the NaTrue label. All certified raw materials will be listed in our new online database on www.NaTrue-Label.com – to be launched shortly. www.natrue.eu
OIA Eco Working Group	Eco Working Group (OIA EWG), collaborating to develop the industry's first environmental assessment tool or "Eco Index." The index contains: • environmental guidelines—qualitative principles and/or best management practices to be used as an educational tool, promoting continuous improvement for companies and suppliers; • environmental performance metrics—an industry-wide common methodology of calculating the metric to be used to assess environmental impact and measure improvement; and • a comparative scoring system—performance measures that will be used to inform product design so that environmental impacts can be considered in addition to performance, costs, etc. The index is based upon a complete life cycle which includes feedstocks, manufacture and processing; product manufacturing; packaging; transportation; use and service; and end of life. Chemicals (or toxics) are just two of the lenses (human and ecotoxicity) which are being applied within each of these lifecycle stages. Once developed, the Eco Index will be used by companies to incorporate environmental considerations into product design and to manage their supply chain s in a way that supports their environmental goals. It is also intended that the index will enhance transparency within the supply chain and facilitate communication with suppliers. The index guidelines are as flexible and as approachable as possible for as many manufacturers and retailers alike. http://www.outdoorindustry.org/pdf/Framework2.6.pdf
Okeo-tex	The Öko-Tex Standard 1000 is a certification for companies requiring among other things compliance with specified criteria for avoiding or limiting the use of harmful substances in production To implement the objectives of a reliable product label for consumers and a uniform safety standard for the assessment of harmful substances for textile and clothing manufacturers, the Oeko-Tex® system provides the following components: • globally uniform and scientifically-based (textile and human ecologically relevant) test criteria • annual re-evaluation and development of the stipulated limit values and criteria • testing and certification of textile products by independent test institutes with relevant expertise • testing of textile raw materials, intermediate and end products at all stages of processing (modular principle) • use of Oeko-Tex® certified source materials leads to synergetic effects in testing, incl. reduced costs of testing • product conformity thanks to internal quality management within the companies • product monitoring by means of regular control tests on the market and site inspections by independent auditors from the Oeko-Tex® Association

	http://www.oeko-tex.com/oekotex100
RILA (Retail Industry Leaders Association)	In January 2009, RILA and the British Retail Consortium (BRC) formed a partnership to establish a retail-led global product safety standard, known as the Global Standard for Consumer Products (GSCP). The BRC is the leading trade association for UK retailers and is recognized as a worldwide leader in food and product safety. The partnership advances the retail industry's objective of complimenting existing product safety requirements by addressing safety protocols within manufacturer and supplier operations. http://www.rila.org/supply/productsafety/Pages/default.aspx

What other sector level tools or systems should be included?

Other suggestions that have been forwarded include:

Building Green (green building product rating)

Green Format (CSI) (green building product rating)

Pharos (green building product rating)

Good Guide (product rating)

Skin deep (product rating)

http://www.ptc.com/ (REACH compliance)

http://www.bomcheck.net/ (REACH compliance)

http://www.greensofttech.com/ (REACH compliance)

http://www.assentsvhc.com/ (REACH compliance) - An SVHC tool to make REACH compliance seamless. Assent automatically gathers and stores REACH SVHC Declarations from suppliers. The problem for article producers is complying with the SVHC requirements of the REACH regulation. The current Candidate list stands at 30 substances and is predicted to expand twice a year. For most companies, the cost to test all of their products for SVHCs is too high. The only practical answer is to obtain REACH SVHC declarations from suppliers.