

Being Smart when Going **Green**

Good Practices in Global Compliance

Dr. Ruud A. Overbeek
Global Director
Health & Environmental Services
Intertek
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Ruud.Overbeek@intertek.com

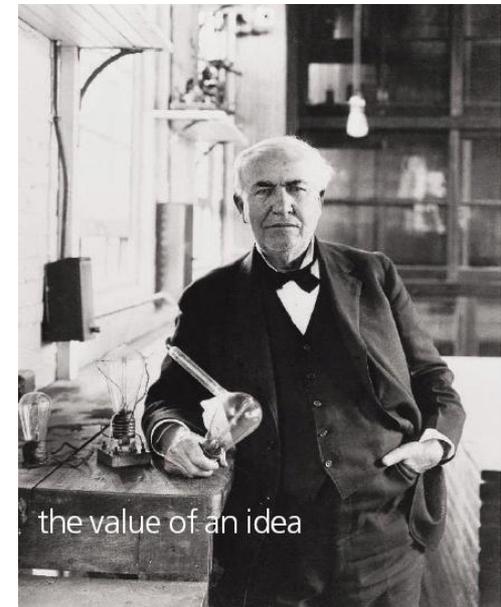
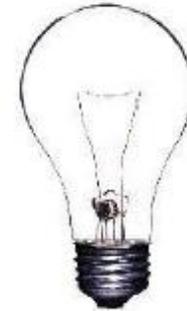
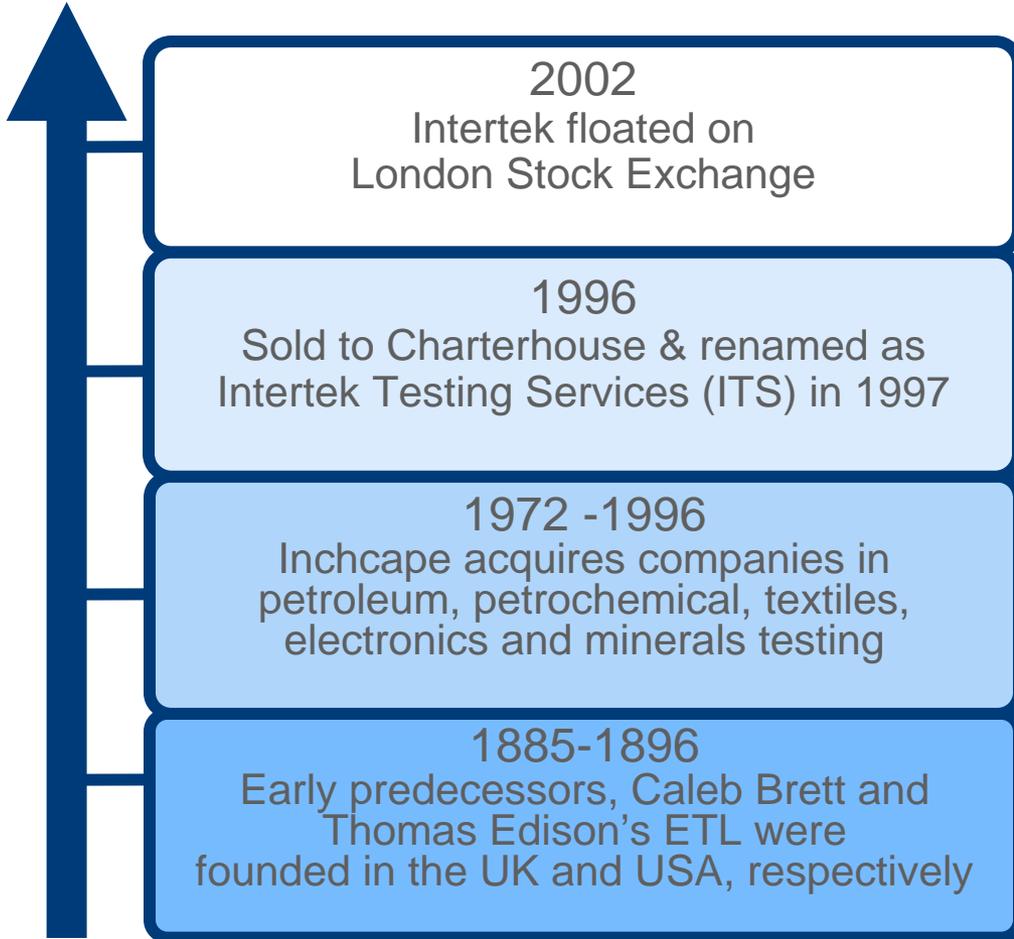


About Intertek

- We support our customers in their global and local trade
- We provide quality, environmental and safety services for a wide range of products, commodities and industries
- Outsourcing these services to Intertek brings increased value to customers' products and processes
- Allows our customers to focus on their core business and processes

Laboratories/Offices >1,030
People >24,000
Countries 110

Intertek History and Background



We Support our Customers in Their Global Trade.....

Our organisation

CONSUMER GOODS

**COMMERCIAL &
ELECTRICAL**

INDUSTRIAL

OIL, CHEMICAL, AGRI

ANALYTICAL SERVICES

MINERALS

GOVERNMENT

The industries we operate in

- Agriculture
- Automotive
- Chemical
- Consumer Products
- Electrical & Electronic
- Energy & Fuels
- Food
- Government
- Industrial
- IT & Telecom
- Minerals
- Pharmaceutical
- Retailers

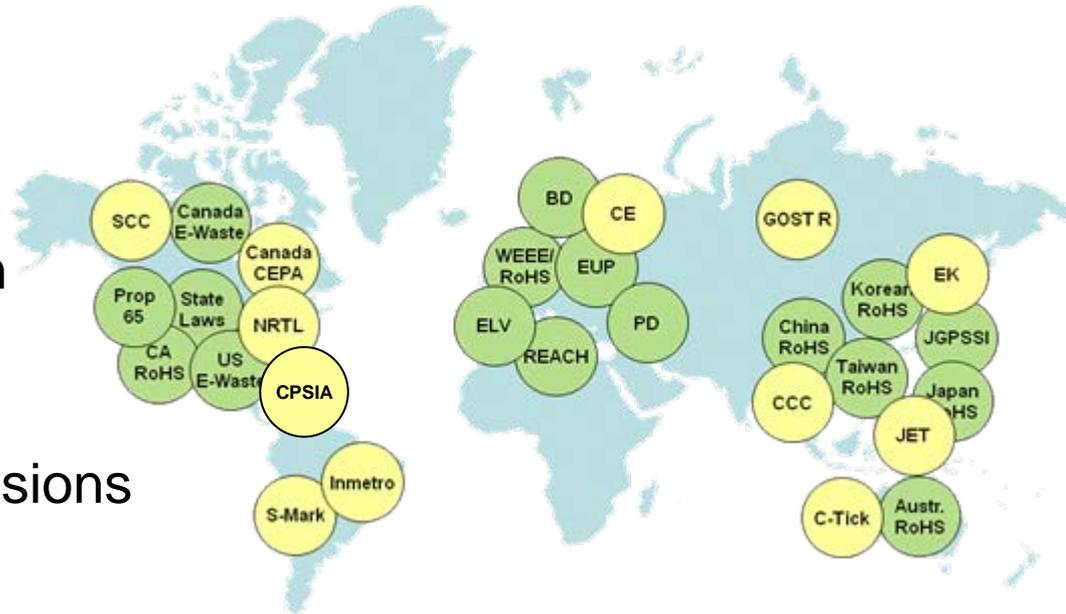
What we do

- Testing**
- Inspection**
- Certification**
- Auditing**
- Quality Assurance**
- Advisory**

- Intertek Health & Environmental Services Unit created with, amongst others, a focus on REACH, Restricted Substances, Greenhouse gases, and many other fast emerging H&E regulations and issues
- Detailed knowledge of local legislation, culture and market conditions
- Legacy of innovation - creative thinking to bring optimised solutions to clients
- Focusing on industries
- Our people offer a depth and breadth of experience, working close to industry and understanding the needs of our customers

Health and the Environment: A Global Business Challenge

- Restricted substances
- Substances of concern
- Business/Association defined limits
- Green house gas emissions
- Energy Use Reduction
- Design for the Environment
- End of life
- Waste



Substantial Media, NGO, AND Consumer Attention



DANGER PLASTIC BOTTLE SCARE

Retailers phase out containers made with the chemical BPA. Cause for concern?

Are plastic baby bottles a danger to the infants who drink from them? A preliminary report from the National Institutes of Health suggests that hard plastic made with an ingredient named bisphenol A (BPA), found in baby and reusable water bottles, may pose serious health risks. Retailers like Wal-mart and Toys-R-Us announced plans to pull the products from shelves. Here's what else you need to know:

WHAT IS BISPHENOL A?

Bisphenol A is a chemical used in a wide range of products like bicycle helmets, CDs and cell phones, as well as containers designed to hold baby formula and water. Many are marked on the bottom with the following recycling codes: the number 7 inside a triangle, or the letters PC. An epoxy containing BPA is also used in the lining of food cans.

IS BPA A HEALTH RISK?

A 2004 Centers for Disease Control study found traces of BPA—which can leach from containers into food and beverages—in the urine of 93 percent of 2,500 people tested. Whether it is harmful to humans has not been proven. But studies in animals suggest that BPA mimics the female hormone estrogen and can cause breast and prostate cancer, thyroid disease, early puberty

in females and decreased sperm counts in males. "There is enough there that we can't dismiss the possibility there might be similar effects in humans," says Dr. Michael D. Shelby of the NIH's National Toxicology Program. The plastics industry, however, maintains the products are safe.

WHO IS AT RISK?

Because of their developing organs, fetuses, infants and children could be most affected by low-level exposure to BPA.

The recent NIH

study reports "negligible concern" for adults.

HOW CAN I AVOID EXPOSURE?

Use products stamped with recycling codes 1, 2 or 5, which denote BPA-free hard plastics. Glass bottles are safe, as are stainless steel or aluminum water bottles. Also, avoid heating BPA products in the microwave, says Michael Schade of the Center for Health, Environment and Justice: "BPA tends to leach faster with higher temperatures."

By Champ Clark



WHAT TO LOOK FOR

Check the bottom of a bottle. Many BPA products are stamped with a recycling code 7 inside a triangle, or the letters PC. Bottles with codes 1, 2 or 5 are considered nontoxic.

Bottle makers like Nalgene (right) plan to stop using BPA—but others, including Avent, insist the chemical is safe.

For more info on BPA, go to www.niech.nih.gov or www.fda.gov



How Safe Plastic Bottles Are For Drinking Today Show – April 9, 2008



Consumer concerns, Media attention leading to:

- NGO pressures
- Political responses
- Chemical Regulations, e.g.:
 - RoHS and other Restricted Substances Regulations
 - Packaging regulations
 - CPSIA
 - REACH
- Retail responses
- Concerns with global warming: Kyoto Protocol, UN Climate Change Panel, and its successors
- Green Taxes
-AND SUBSTANTIAL CONFUSION!

Chemicals of Concern

Just a Sample List

- Lead and lead compounds
- Hexavalent chromium
- Cadmium
- Mercury
- Flame Retardants, PBBs, PBDEs, TBPA, etc.
- Arsenic compounds
- Phthalates
- Bisphenol-A
- Crystalline silica
- PVC
- Nickel and nickel compounds
- Formaldehyde
- Polychloro phenols
- Insecticide and pesticide residues
- Certain Extractable Heavy Metals



Customer Expectations

"The battle to win customers in the 21st century will be increasingly fought not just on value, choice and convenience but on being good neighbours, being active in communities, seizing the environmental challenges, and on behaving responsibly, fairly and honestly in all our actions."

Sir T. Leahy, CEO Tesco,

Financial Times Report, June 12th, 2006

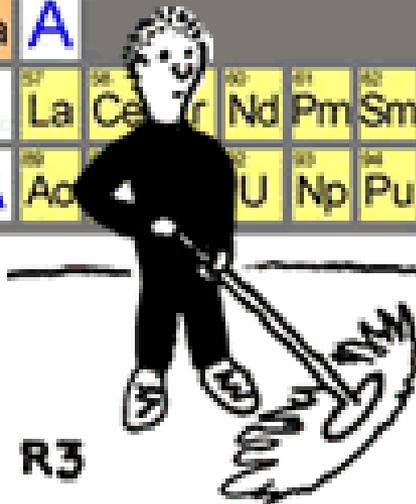
- The world is changing and we all have to live in/with it
- Chemicals of Concern are included in many products
- Regulations require that Risk Assessments are performed
- Balancing Performance, Environment, Consumer Health, Exposure and Stakeholder Concerns will be complex
- What do we need to do to manage Business Risk versus Business Opportunity?

No, still the same, with additional responsibilities

- Maintain or Extend **Competitive Advantage**
 - Do you want your product to have a “green and safe” appeal to the consumer?
- **Minimize business impact** due to any non-compliance
 - Reduce risk of lost sales
 - Reduce costs associated with product recall
 - Reduce costs associated with obsolete inventory
- **Protect the Brand**
 - Brand erosion due to negative publicity
- **Be Compliant:**
 - Meeting legal requirements
 - Safety (Physical and **Chemical**)
 - **Environmental**



1																	2	
H																	He	
3	4											5	6	7	8	9	10	
Li	Be											B	C	N	O	F	Ne	
11	12											13	14	15	16	17	18	
Na	Mg											Al	Si	P	S	Cl	Ar	
19	20	21	22	23		24	25	26	27	28	29	30	31	32	33	34	35	36
K	Ca	Sc	Ti	V		Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	
37	38	39	40	41	42	43	44	45	46	47		48	49	50	51	52	53	54
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag		In	Sn	Sb	Te	I	Xe	
55	56	72	73	74	75	76	77	78	79		80		81	82	83	84	85	86
Cs	Ba	L	Hf	Ta	W	Re	Os	Ir	Pt	Au		Tl		Bi	Po	At	Rn	
87	88	A																
Fr	Ra	A																
	L	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71		
	L	La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu		
	A	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103		
	A	Ac	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr				



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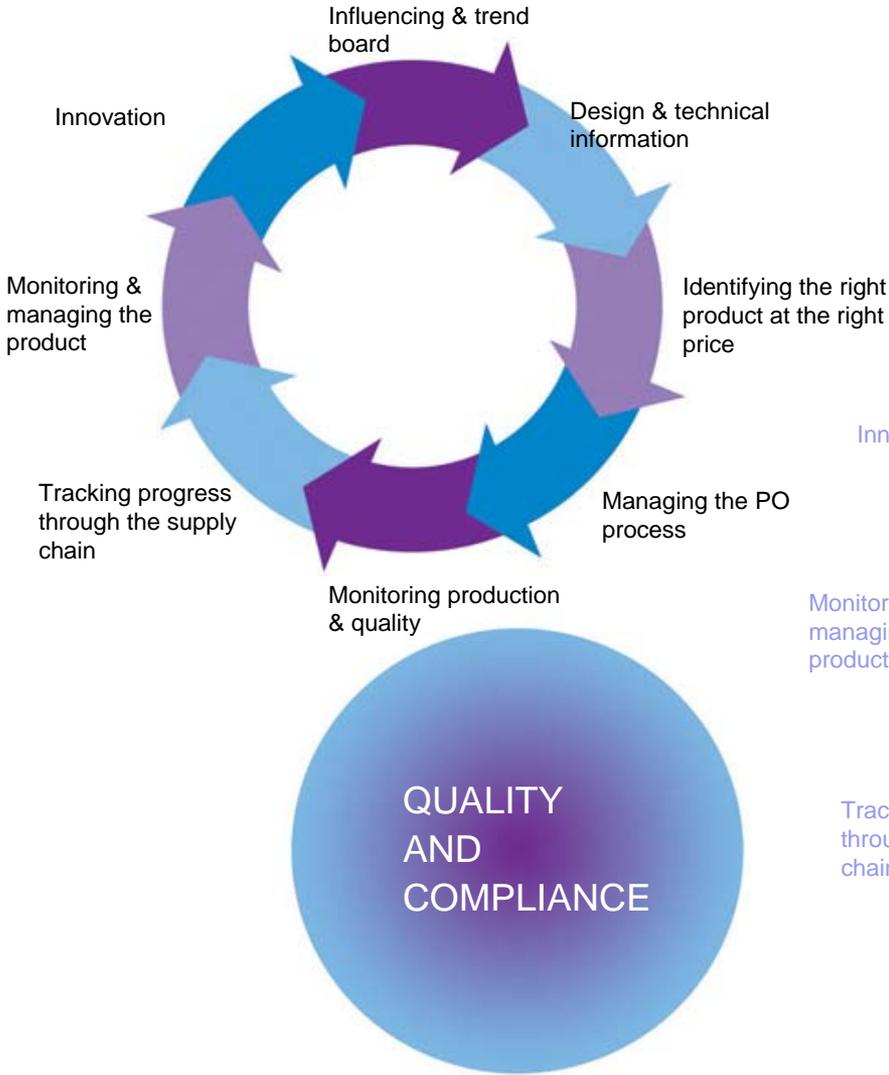
- Non-compliant parts or materials in design
- Procured Parts and Materials contain restricted substances
- Poor Inventory Management
- Problems during Manufacturing and Assembly
 - Non-compliant material introduction
 - Non-compliant general hardware: Screws, nuts, bolts, washers, grommets, etc.
 - Inadvertent Contamination
 - Contract manufacturing must be aligned with your compliance assurance standards
- Finished product inventory management and shipping
- Sales order of non-compliant product for shipment to region requiring compliance

- Ensure your design and specifications are right
- Communicate your requirements with your Supply Chain
- Implement a proper Systematic Process and Quality Management System ensuring ongoing compliance
- Make sure information is collected to proof compliance
- Verify and Validate collected information and fill in compliance gaps by testing and monitoring
- Store information and frequently audit and update the information

- Execute risk-based assessments
 - Chemical risk, Exposure risk, Supplier risk, Business risk, etc



“Once the design is right, we need to make sure we build to the design”.



COMBINED QUALITY, COMPLIANCE, SOURCING AND SUPPLIER MANAGEMENT





Intertek Supply Chain Challenges...



- Lack of understanding by all involved
- Supplier parts and materials are not compliant or unknown
- Issues with contamination with parallel compliant and non-compliant products for different markets
- Obtaining accurate information about the presence and absence of substances in certain parts
- Difficult (impossible) to obtain 100% compliance assurance of complex products
- Incomplete Declarations
- Level of “duty of care” varies with products, supply chain, business circumstances, risk tolerance
- Where to draw the line?
 - Assess and mitigate key risks
 - Involve all functional areas of product realization

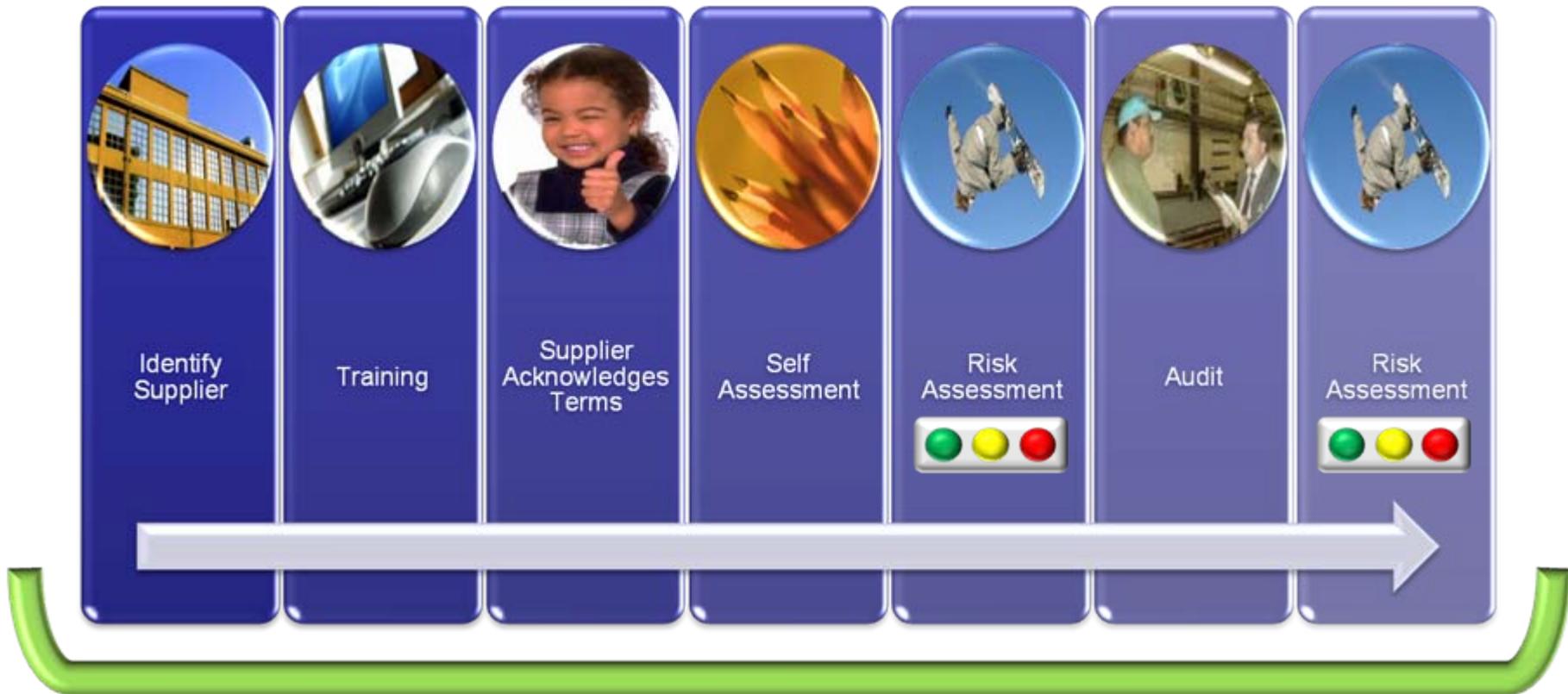
1. Set your goals and requirements
2. Make sure that ALL Suppliers **understand** the regulatory framework and that they **share** your concern
3. Ensure that they know that information will be needed
4. Ensure that suppliers know what they are selling
 - Your suppliers must communicate with their suppliers
 - Work with them to ensure readiness
5. Establish systems to ensure that:
 - You sufficiently know the formulation of your products from ALL suppliers
 - That unauthorized changes can not occur
 - Check and demonstrate compliance
6. Take responsibility
7. **Check that what you are told is true!**

- Suppliers should supply all necessary data
 - Confidentiality
 - Do not know
 - Complex supply chain
- Give them Time to get Information
 - They need to know that you need to know
 - And why!
- It will cost them money
 - Can they afford to meet compliance?
 - Will you work with them?
 - Can/should a 2nd or 3rd Party Help?

- Establish management commitment for an effective supply chain strategy
 - Benchmark against good practices
 - Define milestones and measurements for success
- Use Dedicated Qualified Vendors / Reduced Vendor Base
 - Higher quality products at reduced vendor management cost
 - More customer value - cost/quality
 - “Sustainable” supply
- Use Metrics to develop measures of vendors & products
- Apply in-factory process control & risk-based monitoring
 - Improved product quality at lower production cost and improved delivery
- Establish effective partnerships – Customers, Vendors, Intertek

Supplier Qualification Process

Good Practice



Identify Supply Chain Risks Early

Some Key Questions you have to ask:

- Does selected part/material and design meet required Environmental specifications?
 - Catalog Components
 - Special parts, especially mechanical parts or assemblies
- Has the supplier provided a Certificate of Compliance or any legal document stating compliance
 - Does it meet the mandatory criteria?
- What is the risk on non-compliance by a supplier?
 - Has supplier been qualified, certified, monitored?
 - Do they have a process in place securing compliance?

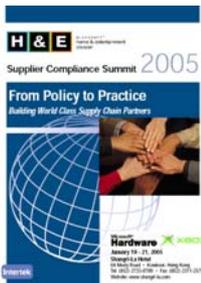
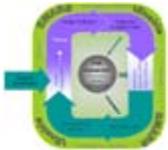
Some Key Compositional and Monitoring Questions:

- Has one of the substances been commonly used in the part or material in the past?
- Is a material declaration available?
 - What is the risk of forgery?
- Has materials analysis been performed?
 - Has analysis been carried out recently?
 - What test methods were used?
- Should periodic spot testing be performed?

Good and Basic Practices *Towards Chemical Product Compliance*



7 Steps to be considered

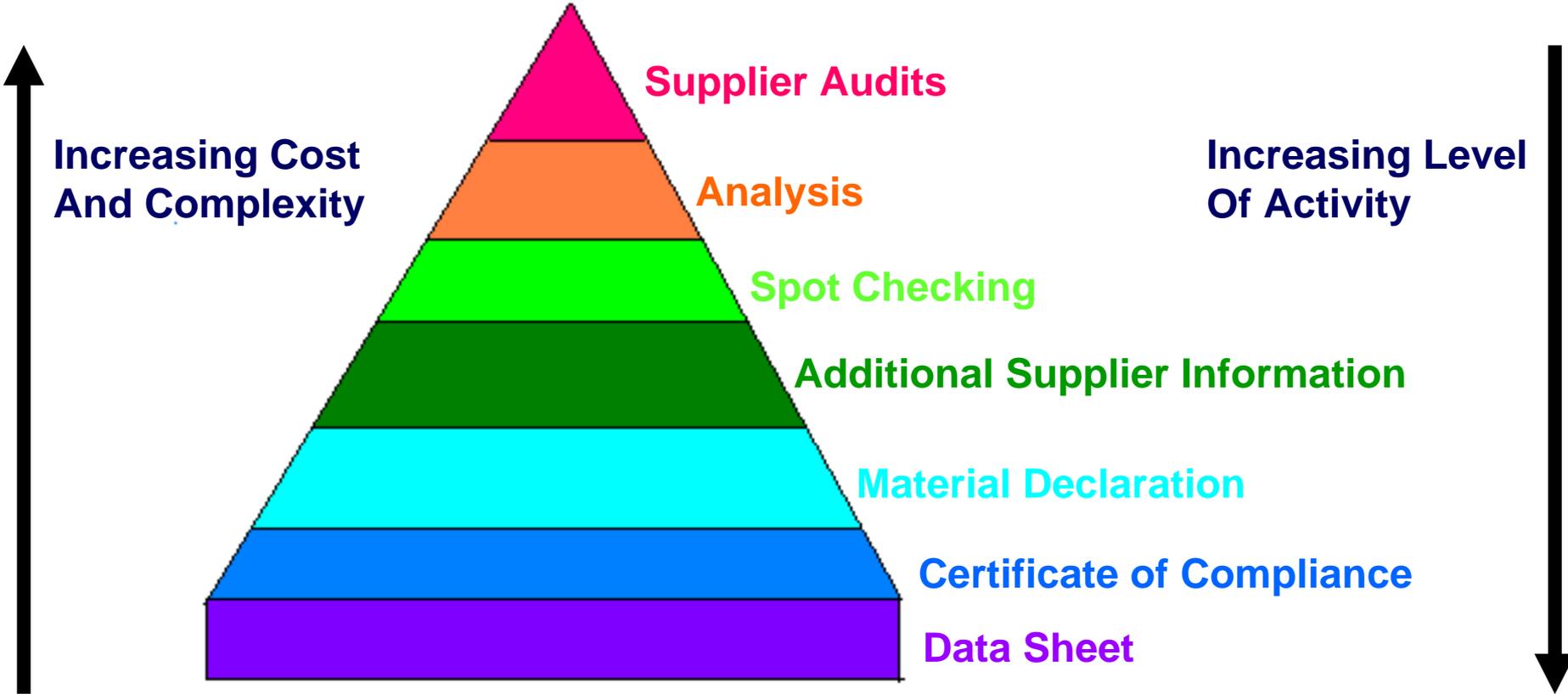


1. Create a compliant design and/or set the right specifications
(once the design is right...)
2. Communicate this to suppliers and vendors
3. Set-up an Auditable Management System incorporating the requirements and controls
4. Build a Technical File with evidence of right-doing
 - Collect Declarations and supporting evidence
 - Perform focused audits, product and production inspections: internally and within supply chain
5. Execute Risk Assessments
 - Risk-based product assessments: E.g., on suspected presence of substances of concern
 - Exposure risk assessments: E.g., intended use or foreseeable worst case scenario, user age group, etc.
 - Draw conclusions
6. Continuously issue status reports (tracking and traceability)
7. Implement continuous education and training (weakest link is largest risk for non-compliance)
 - Internal and Supply chain education
 - AND update to latest standards, regulations, legislation



Be Smart in Going Green

Spent your *money* wisely



Conclusions

- New regulations worldwide are continuously expanding the scope of the Restricted Substances
- Chemicals and exposure concerns will have consumers, NGO's and regulators push for further restrictions
- The current lack of monitoring, control and information flow in the supply chain process will require extended supply chain management and support
- All regulations are in some way interconnected and it is important to get organized in that fashion!

Strong Globally. Strong Locally.



www.intertek.com/green