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ILTAM
Sustainable Design and Green
Regulations Workgroup
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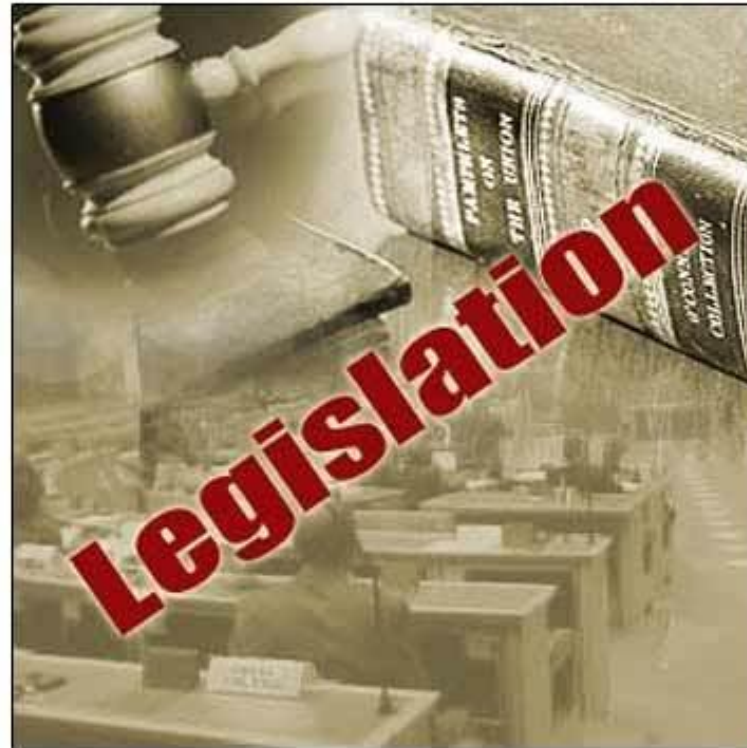
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GENERAL

Regulatory Explosion

The number of product compliance regulations keeps growing!



Existing Regulatory Requirements Are Evolving And Expanding



World-Wide Legislation Activity

- ❑ In March - April 2014, **90** EHS (Environment, health and safety) policy and regulatory developments impacting operations and products were monitored and reported.
 - Amongst others, there are 4 high-risk EHS issues including Korean REACH implementing regulations, EU RoHS substances, EU RoHS exemptions, EU SVHC issue, series of Chinese health and safety standards, etc.
- ❑ In May 2014, **58** EHS (Environment, health and safety) policy and regulatory developments impacting operations and products were monitored and reported.
 - Amongst others, there are 3 high-risk EHS issues including Singapore Workplace Safety and Health (Asbestos) Regulation, Ukraine Regulation on Protection of Workers from Electromagnetic Radiation, Austria Act on the Limitation of Air Pollution from Steam Boilers.



IEC 62474 Update

- ❑ April 9, 2014: IEC 62474 declarable substances list (DSL) database update released.
 - Additions to the Declarable Substance List (DSL)
 - Modifications
 - Deletions
 - Changes to the XML Schema
 - Changes to the Developer's Table
- ❑ The declarable substance list (DSL) is available for free download at <http://std.iec.ch/iec62474>.



IEC 62474 - Material Declaration for Products of and for the Electrotechnical Industry

ChemSec Sin List

- ❑ The NGO ChemSec is launching an updated version of its Substitute it Now (Sin) list on 8 October 2014.
- ❑ The list is a database of **626** substances the organization believes should be substituted, based on the official REACH criteria for substances of very high concern (SVHC).
- ❑ The update will include a number of new substances that are not yet classified as meeting the SVHC criteria, but that ChemSec has identified to be emerging as such.



REACH

SVHCs Roadmap 2020

- ❑ Roadmap 2020 is the EU's strategy to identify and regulate the use of all “relevant” SVHCs
 - ❑ Have all currently known, relevant SVHCs included on the list by 2020.
 - ❑ No set number of substances to be included (but estimated to be about 440).



Candidate List updated with four new SVHCs



June 16, 2014: ECHA announced of adding 4 new SVHCs to the candidate list (total of 155):

#	Substance name	EC number	CAS number	SVHC property
1	Cadmium chloride	233-296-7	10108-64-2	Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
2	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	Toxic for reproduction (Article 57 c)
3	Sodium peroxometaborate	231-556-4	7632-04-4	Toxic for reproduction (Article 57 c)
4	Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-	Toxic for reproduction (Article 57 c)

K-REACH



- ❑ 15 May 2014: South Korea's Ministry of Environment (MoE) is due to **publish guidance this October** which will provide a more detailed explanation, including the process flow, of company obligations under the Act on the Registration and Evaluation of Chemical Substances (K-REACH) and the Chemicals Control Act (CCA).
- ❑ Both K-REACH and the CCA take effect on **1 January 2015**.
- ❑ The Presidential and Ministerial Decrees for both Acts are expected to be adopted in **September**.
- ❑ K-REACH guidance is expected to release in **October**.

RoHS

Eight RoHS Exemptions

- ❑ On 20 May 2014, the EU's Official Journal published eight Delegated Directives adding new exemptions to the lists of specified applications of lead and mercury in Annex III (list of exemptions) and Annex IV (list of exempted medical applications).
- ❑ Member States must adopt national measures implementing these Delegated Directives by the end of 2014.

Reminder: On Jan. 9th 2014, a series of 16 Commission Delegated Directives were published.



Exemptions Status – Are You Getting Ready?

Exemption #	Description	Expire
6c	Copper alloy containing up to 4 % Lead by weight (1)	21-07-16
7a	Lead in high melting temperature type solders (lead-based alloys containing 85 % by weight or more lead)	21-07-16
7b	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signaling, transmission, and network management for telecommunications	21-07-16
7c-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors (piezoelectronic devices) or in a glass or ceramic matrix compound	21-07-16
7c-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	21-07-16
7c-IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	21-07-16
8b	Cadmium and its compounds in electrical contacts	21-07-16
24	Lead in solders for the soldering to machined through hole discoidal or planar array ceramic multilayer capacitors	21-07-16
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	21-07-16
39	Cadmium in color converting II-VI LEDs (< 10 µg Cd per mm ² of light-emitting area) for use in solid state illumination or display systems	01.07.14

21 Substances for RoHS-2 Prioritization



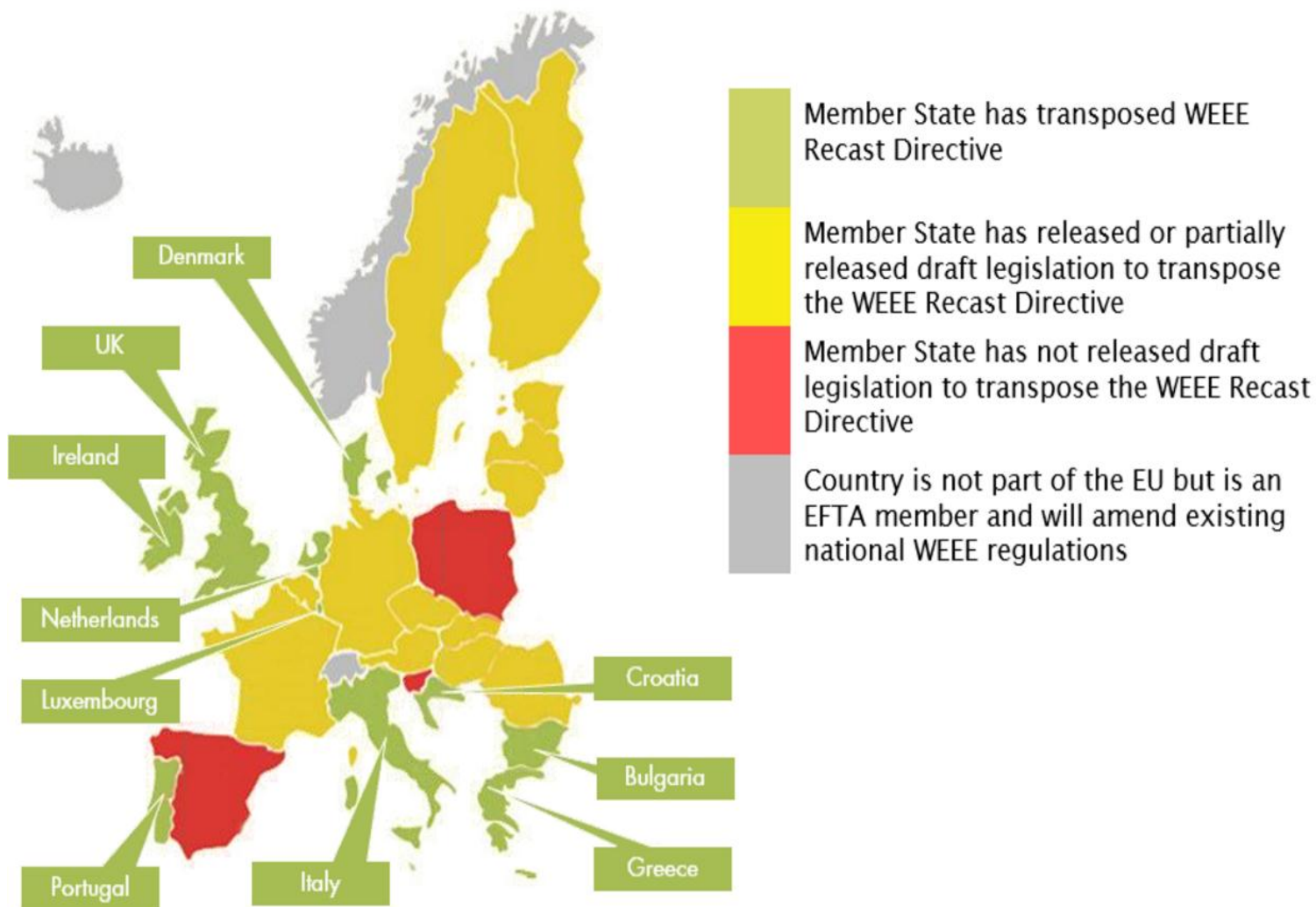
11 June 2014:

- ❑ A report by consultant Öko Institute has reviewed **21 substances** that could be prioritized for **addition to the RoHS Directive**.
- ❑ Substances are prioritized based on their quantities in both EEE production and end products, and on the possible differences in use by EU and non-EU manufacturers, in light of the REACH authorization process.
 - Polyvinyl chloride (PVC), which is considered to be highly used in EEE tops the refined prioritization list.
 - Medium-chained chlorinated paraffins (MCCPs), antimony trioxide and tetrabromo-bisphenol A (TBBPA) come second in the consultant's priority list.
 - Indium phosphide, beryllium metal and alloys and beryllium oxide are ranked third.
- ❑ The legal proposal for the first round of restrictions, which targets **five substances**, is expected to be published in the autumn. It still needs to go through the internal consultation of the European Commission and be notified to the World Trade Organization (WTO).

WEEE



WEEE-2 National Regulations – Implementation Progress



General

- ❑ The EU WEEE Recast Directive 2012/19/EU published 24 July 2012 required EU Member States to implement the new requirements in national WEEE Recast Regulations by 14 February 2014.
- ❑ The new requirements include:
 - Changes to WEEE product scope
 - New definition of ‘producer’
 - New requirements to appoint Authorized Representatives
 - New WEEE collection targets
 - Clearer definitions of application exemptions (e.g. large scale fixed installations)
- ❑ Each of the 28 EU Member States had already adopted their own interpretations of the original WEEE Directive 2002/96/EC, creating 28 different national WEEE Regulations with differing requirements in each country.
- ❑ The new WEEE Recast Directive requirements are also being implemented differently in each Member States. This is creating an even more complicated and changing regulatory landscape across Europe.
- ❑ Examples in the next slide...

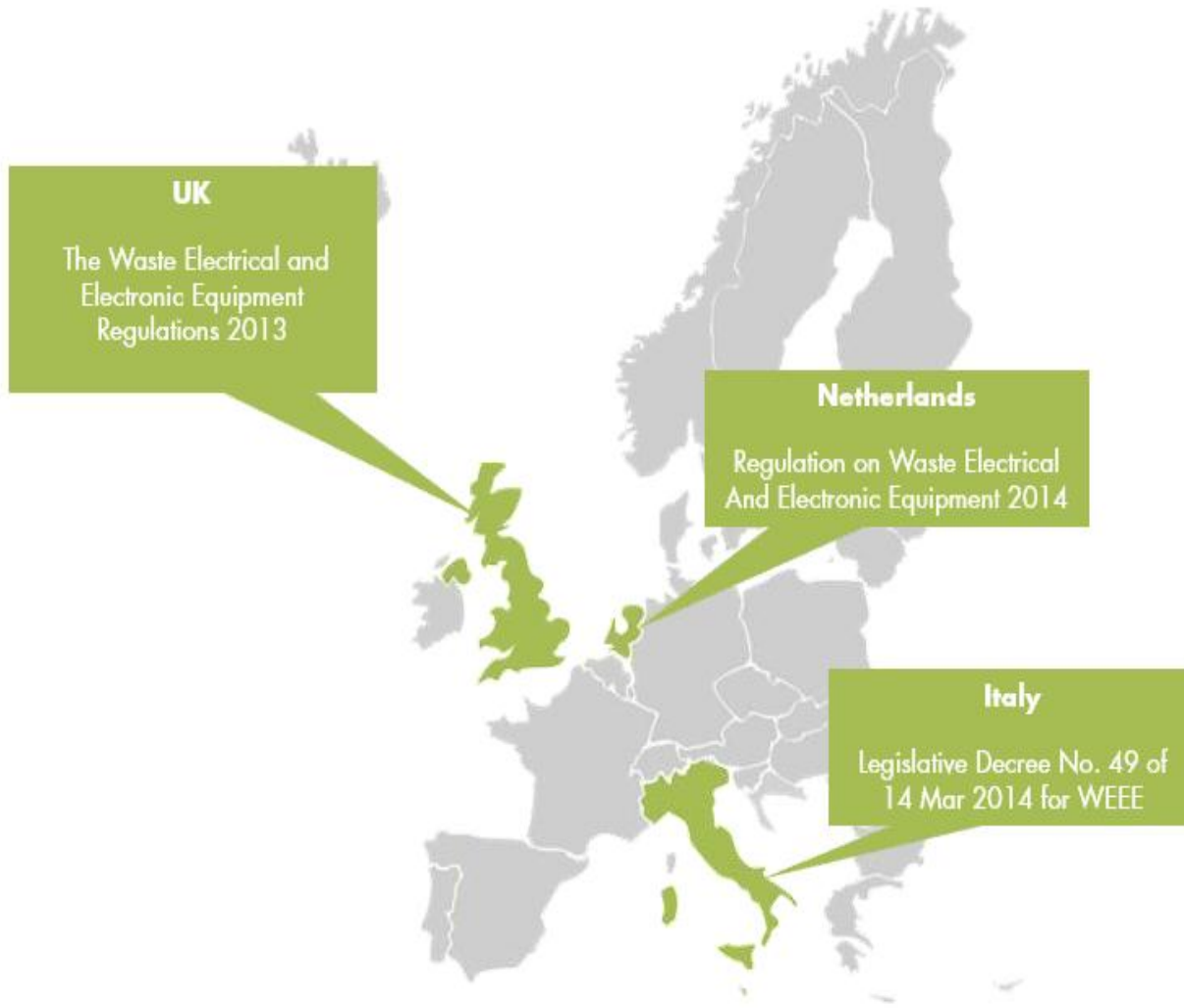


Did You Know?

- ❑ The WEEE Recast Regulations in **Ireland** now require all manufacturers who sell products to end-users via a web-store to display their WEEE producer registration number on their company website.
- ❑ The WEEE Recast Regulations in the **UK** have reduced the compliance obligations for producers placing less than 5 tones of electrical and electronic equipment on the UK market in the previous year (known as ‘small producers’).
- ❑ Under the WEEE Recast Regulations in **Portugal**, companies who use distributors to import and sell their products in Portugal can appoint an authorized representative to release the distributors from their producer obligations. However, the authorized representative must provide the distributors with a certificate confirming the discharge of their legal obligations.
- ❑ Under the WEEE Recast Regulations in **Greece**, all companies who sell products from another country directly to the end-user in Greece must appoint an Authorized Representative to register and fulfill WEEE producer obligations.



Case Studies: Practical Implementation in UK, Italy & Netherlands

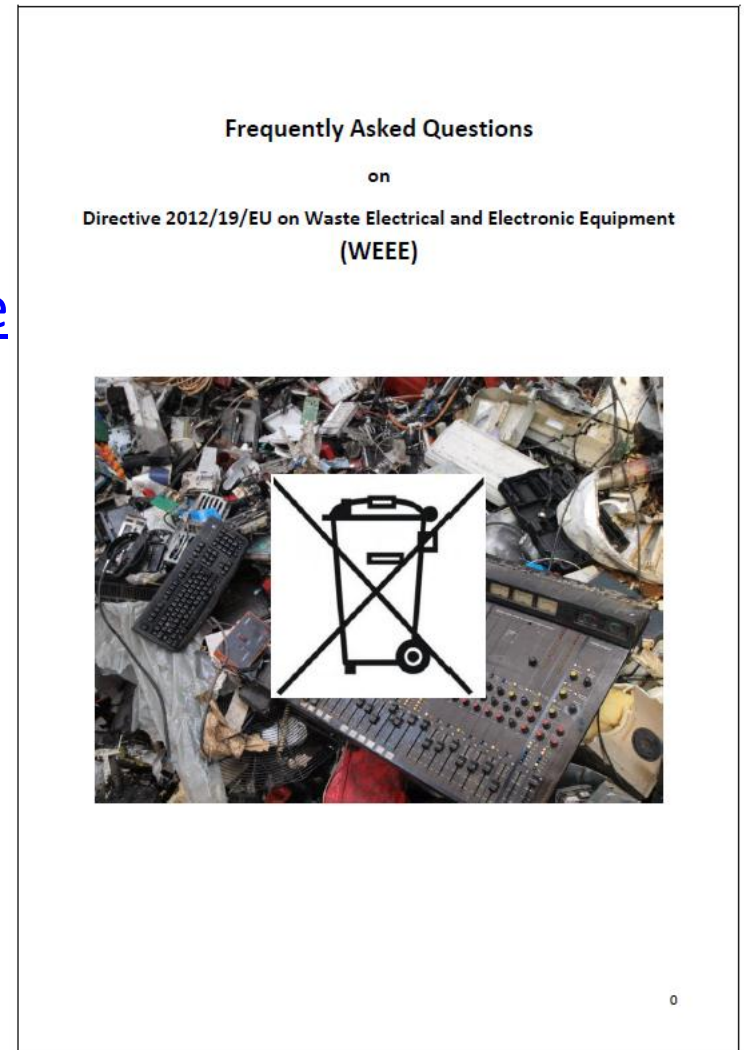


Summary of Comparison

	UK	Italy	Netherlands
Producer definition?	Same as WEEE Recast	Same as WEEE Recast	Same as WEEE Recast
Any producer exemption thresholds?	5 tonnes per year EEE sold in UK	No	No
Options for compliance?	<p><u>> 5 tonnes per year:</u></p> <p>Producers (B2C and B2B) must join Producer Compliance Scheme</p> <p><u>< 5 tonnes per year:</u></p> <p>Can register directly with WEEE Agency (finance WEEE collection and recycling for B2B only)</p>	<p>B2C must finance WEEE collection through agreements with municipalities (by joining compliance schemes)</p> <p>Individual WEEE collection and recycling arrangements (B2C and B2B) must be approved by Ministry for the Environment</p>	All B2C and B2B producers must join a compliance scheme (currently no option for individual WEEE producer collection and recycling arrangements)
Overseas producer can register directly?	Yes	No	No
When must I appoint Authorised Representative (AR)?	<p>Overseas producers <u>can</u> appoint AR if selling to UK distributors</p> <p>Overseas producers who distance sell directly to end-users can appoint AR <u>or</u> join producer compliance scheme</p>	<p>Overseas producers <u>can</u> appoint AR if selling to Italy distributors</p> <p>Overseas manufacturers who distance sell EEE directly to end-users <u>must</u> register with National WEEE Register through AR</p>	Overseas producers who distance sell directly to end-users <u>must</u> appoint AR to register as WEEE producer

F.A.Q.

- ❑ In April 2014 the Commission has published a FAQ document of the Recast WEEE Directive.
- ❑ The FAQ document can be found [here](#)



Conflict Minerals



Reporting “Undeterminable” (slide from 08.04.14 meeting)

- ❑ Most companies will report their CM sourcing as undeterminable.
- ❑ Many companies may not realize that parts and components they are purchasing in 2014 may very well end up being reportable in the May 2016 conflict minerals report, when the Transition Period is no longer in force.
- ❑ This is because companies that buy items/parts/components this year and complete the manufacture of the final product anytime after January 1, 2015 – which is only 9 months away – then those products are reportable for the following period, which is the May 2016 deadline.



Legal Status



- ❑ On April 14, 2014, the D.C. Circuit decided that requiring issuers to describe certain of their products as not DRC conflict free violated the First Amendment
- ❑ On April 29, 2014, U.S. Securities and Exchange Commission (SEC) Chair Mary Jo White told members of the House Financial Services Committee that the agency will continue to implement the conflict minerals rule upheld by the U.S. Court of Appeals.
- ❑ The SEC statement indicates that companies are not required to identify products as “DRC conflict free,” having “not been found to be ‘DRC conflict free’” or “DRC conflict undeterminable.”
- ❑ On April 29, 2014, the petitioners filed emergency motion for a stay of the entire rule with the SEC.
- ❑ On May 14, 2014, Court of Appeal denied the stay.

New CM Reporting Template Ver. 3.01



- ❑ A new Conflict Minerals Reporting Template version 3.0 (CMRT 3.0) was published by the Conflict-Free Sourcing Initiative (CFSI) in April 2014, and version 3.01 was published in May 2014.
- ❑ CMRT 3.01 includes a number of updates from the current version EICC-GeSI 2.03a:
 - ❖ Harmonized with new IPC Standard IPC-1755 (CFSI co-developed)
 - 2 additional due diligence questions
 - Several new company information fields
 - Numerous slight modifications to existing (2.03a version) questions
 - ❖ Additions / edits to companies in the “Standard Smelter List”.
 - ❖ Simplification of the assigned CFSI identification numbers.
 - ❖ Enhanced instructions and updated definitions.

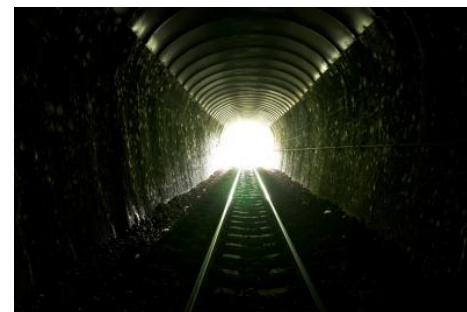
CFSI Guidance regarding CMRT 3.01

- ❑ Highly recommend use of 3.01 for data collection for 2014 calendar year.
- ❑ Historical data can be very useful, but exercise due care in comparing 3.01 to 2.xx data.
 - Version (2.xx) has slightly different question set.
 - CFSI ID numbers have been modified so mapping of historical smelter information from 2.xx to 3.01 will be required.
- ❑ April 10, 2014 published [IPC-1755, Conflict Minerals Data Exchange Standard](#), to help suppliers and their customers effectively facilitate conflict minerals data exchange along the entire global supply chain.
- ❑ CMRT 3.01 will be compatible with the IPC-1755 standard: The Template will be just one tool that will be compatible with the standard.



Market Changes – a Light at the End of the Tunnel?

- ❑ A report issued by the organization [Enough Project](#) on June 2014 indicates market changes spurred by the Dodd-Frank Act's provisions on conflict minerals have helped to **significantly reduce the involvement of armed groups** in eastern Democratic Republic of Congo in the mines of three out of the four conflict minerals.
- ❑ The **Enough Project** conducted five months of field research in eastern Congo, interviewing 220 people in 14 mines and towns, in addition to 32 interviews in the U.S. and Europe. The research revealed the following findings and others:
 - Armed groups and the Congolese army are no longer present at two-thirds (67 percent) of tin, tantalum, and tungsten mines surveyed
 - The Dodd-Frank law and electronics industry audits have created a two-tier market for tin, tantalum, and tungsten (3Ts) from Congo and the region. Minerals that do not go through conflict-free programs now sell for 30 to 60 percent less thus reducing profits for armed groups trying to sell them
 - Bisie, one of the world's largest tin mines which generated hundreds of millions of dollars for a number of armed groups and criminal units of the army, is now largely demilitarized
 - Urgent reforms are needed for conflict gold, as gold continues to finance armed groups and Congolese army commanders
 - Electronics companies are expanding minerals sourcing from Congo, which is improving conditions for miners and communities near the mines. Twenty-one electronics and other companies now source from 16 conflict-free mines in Congo





Thank you



Eight RoHS Exemptions

The exemptions for lead apply when it is used:

1. in [dielectric ceramic](#) in capacitors for industrial monitoring and control instruments
2. in [micro-channel plates](#)
3. in [solder](#) used in large area stacked die elements;
4. in [solders and termination finishes](#) of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems;
5. in [platinised platinum electrodes](#) used for conductivity measurements; and
6. in other than C-press compliant [pin connector systems](#) for industrial monitoring and control instruments;

The two exemptions for mercury apply when it is used:

1. in [hand crafted luminous discharge tubes](#) used for signs, decorative or architectural and specialist lighting and light-artwork; and
2. in [cold cathode fluorescent lamps](#) for backlighting liquid crystal displays.

