RESPONSIBLE RECYCLING (R2) MARKET DRIVERS AND THE BENEFITS OF CERTIFICATION

Presented By:

- Jason Teliszczak, CEO/Founder of JT Environmental Consulting
- Karen Bakker, Product Manager of SGS R2:2013 and RIOS







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Jason E. Teliszczak – CEO / Founder

CPP® | LEED Green Associate | CSDS | ZWBA | STP | CES | CSMP | ASHM | CFDC I & II | CGPM | Safefood 360Partner | HACCP Manager | eGCC | QPSWPPP | QCIS | CET | CESCO | GPCP | levelTM Faculty Member | Green-Star Auditor | CHSO | GCP | FCRA - Advanced

Mr. Teliszczak founded JT Environmental Consulting, Inc. over 15 years ago which now assists fortune 500 clients and has certified and qualified consultants located throughout the USA, South America, Asia, Australia, as well as within the UK.



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- Manufacturing
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- Watercraft

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- Brief overview of the standard.
- Current market drivers who's requesting companies to become R2 certified.
- Economic conditions why more and more equipment is being recycled.
- Other factors customer / client pressure on downstream recycling chains, traceability issues, etc.
- Why certification?
- What it takes to become certified steps to certification.



- Originally created with guidance by the EPA.
- Second version was released in 2013.
- Certification is per facility.
- Very broad for many different types of organizations.
- Can utilize any appropriate downstream vendor.
- Must be RIOS certified or ISO 14001 & OHSAS 18001 in addition to R2:2013.

- Main Concepts Standard can be broken down into 4 separate categories. These categories touch on important aspects that can be found in ISO 9001, ISO 14001, OHSAS 18001, RIOS, ADISA, and NAID AAA certifications:
 - Quality
 - **Environmental**
 - Safety
 - Security / Data Destruction & Sanitization



R2:2013 – OVERVIEW – CONT.

- 13 Sections for the standard:
 - Environmental and Health & Safety Management System
 - Reuse, Recover, ... Hierarchy of Responsible Management Strategies
 - Legal Requirements
 - On-Site Environment, and Health & Safety
 - Focus Materials
 - Reusable Equipment and Components
 - Tracking Throughput
 - Data Destruction
 - Storage
 - Security
 - Insurance, Closure Plan, and Financial Responsibility
 - Transport
 - Documentation and Recordkeeping



R2:2013 – OVERVIEW – CONT.

- Specific Concepts ALREADY in place with 9001 & 14001, and RIOS:
 - Environmental and Health & Safety Management System
 - Reuse, Recover, ... Hierarchy of Responsible Management Strategies
 - Legal Requirements
 - On-Site Environment, and Health & Safety
 - R2 Focus Materials
 - Reusable Equipment and Components
 - Tracking Throughput
 - Data Destruction
 - Storage
 - Facility Security
 - Insurance, Closure Plan, and Financial Responsibility
 - Transport
 - Recordkeeping



R2:2013 - OVERVIEW - CONT.

- Specific Concepts ALREADY in place with ADISA & NAID:
 - Environmental and Health & Safety Management System
 - Reuse, Recover, ... Hierarchy of Responsible Management Strategies
 - Legal Requirements
 - On-Site Environment, and Health & Safety
 - R2 Focus Materials
 - Reusable Equipment and Components
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 - Transport
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R2:2013 – OVERVIEW – CONT.

- Specific Concepts ALREADY in place with 18001 & RIOS:
 - Environmental and Health & Safety Management System
 - Reuse, Recover, ... Hierarchy of Responsible Management Strategies
 - Legal Requirements
 - On-Site Environment, and Health & Safety
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CURRENT MARKET DRIVERS - WHO'S REQUESTING COMPANIES TO BECOME R2 CERTIFIED.

- Government bodies (for data security)
 - Schools
 - Military
 - Etc.



- Hospitals
- Medical centers
- Doctor offices
- Labs
- Environmental conscious organizations
- OEMs (Original Equipment Manufacturer)
- Good marketing from SERI (https://sustainableelectronics.org)







ECONOMIC CONDITIONS - WHY MORE AND MORE EQUIPMENT IS BEING RECYCLED.

- Two main types of e-Waste clients in the 90s and early 2000s:
 - De-manufacturing / scrapper
 - Re-use
- As businesses and the industry grew so exponentially, as well as better technologies to sanitize data, organizations diversified.
 - Store front sales
 - eBay sales
 - Commodities in bulk
 - Better de-manufacturing techniques to salvage more raw materials
- Fast forward to the past few years, where commodity prices are down, so re-use is a very good advantage.



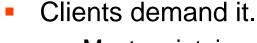
Other factors - customer / client pressure on downstream recycling chains, traceability issues, etc.

- Downstream vendors must provide exact names and locations of facilities that will be handling FMs until final disposition.
 - This is written into the standard specifically, as there was in the first R2 standard and continues to be many issues with this.
 - The material must be tracked even after your immediate downstream. So if the material goes to 20 different entities until recycled, documentation will be required.
- Materials sent to OECD must also have supportive documentation.
- BOLs for materials should be on-file.
- Seals should be utilized whenever possible.
- Transportation resources must be vetted and acceptable.





Why certification?



- Must maintain relations.
- Must gain a new contract/client.
- Customer re-assurance.
 - For data security.
 - For environmental responsibility for re-use or recycling.
 - For employee and overall safety.
 - Quality systems in place.
- Marketing.
- Industry is moving towards overall certification.
- Gain an edge on local competition.
- Etc.



R2:2013 CERTIFICATION PROCESS

Presented By:

Karen Bakker, Product Manager – R2:2013 and RIOS









Nº1 WORLD LEADER 80,000 EMPLOYEES

1,650
OFFICES AND LABORATORIES





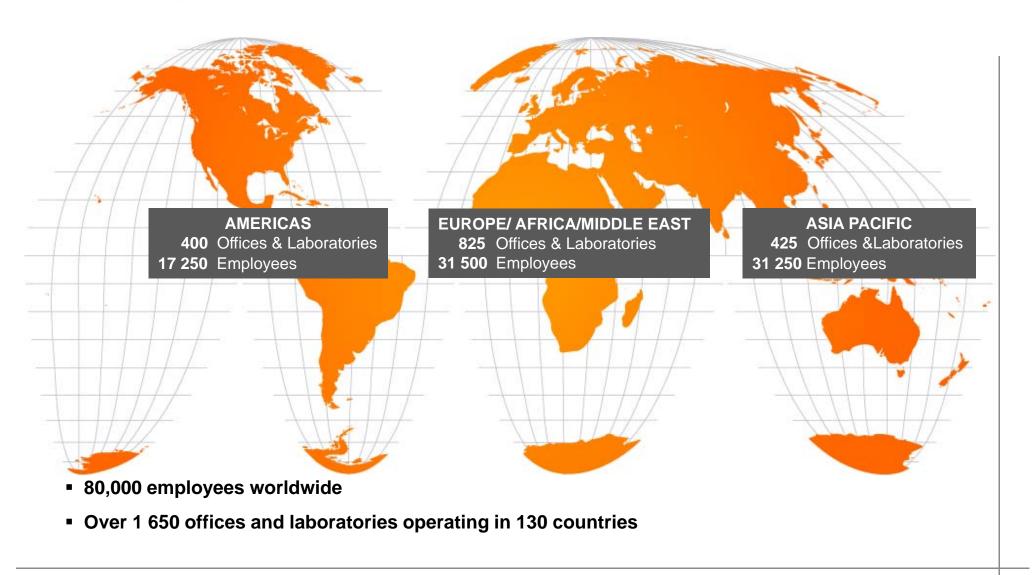


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CERTIFICATION AND BUSINESS ENHANCEMENT (CBE)

CERTIFICATIONS



GENERIC STANDARDS

- ISO 9001 (Quality Management Systems)
- ISO 14001 (Environmental Management Systems)
- OHSAS 18001 (Occupational Health & Safety)
- ISO 50001 (Energy Management Systems)
- ISO 14064 (Green House Gas Verification)
- ISO 27001 (Information Security Management Systems)
- ISO 22301 (Business Continuity Management)
- ISO 20000 (Information Technology Management)
- SA 8000 (Social Accountability)
- PAS 2050 (Carbon Footprint)
- ISO 10002 (Complaint Management)
- Integrated Management Systems (IMS)

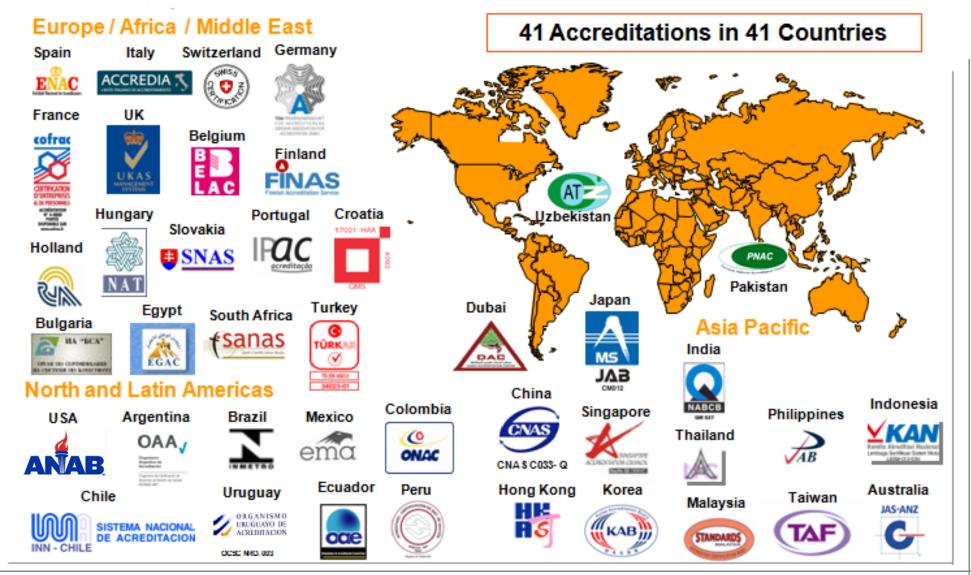


INDUSTRY STANDARDS

- Oil & Gas ISO 29000
- Automotive ISO/TS 16949
- Aerospace AS 9100, EN 9100, AS 9110
- Medical Device ISO 13485, CE Directives, Local Regulatory
- Food Safety ISO 22000, FSSC 22000, HACCP, GMP
- Pharmaceutical GMP Audit Solutions
- **Cosmetics** ISO 22716
- Bio-fuels Bonsucro, ISSC, RSPO, RTS
- Forests & Wood Chain of Custody
- Logistics & Transportation TAPA FSR, TAPA TSR, ISO 28000, C-TPAT
- Electronics IECQ HSPM, ESD, EUP, EICC, RIOS, RS2
- Telecommunications TL 9000
- Railway IRIS
- **Finance** ISO 22222



SGS: THE LARGEST ACCREDITED CERTIFICATION BODY





R2:2013 ---- IMPLEMENTATION & REGISTRATION AT A GLANCE

Implementation

- Gap Analysis
- Implementation
- Internal Audit & Corrective Action
- Management Review

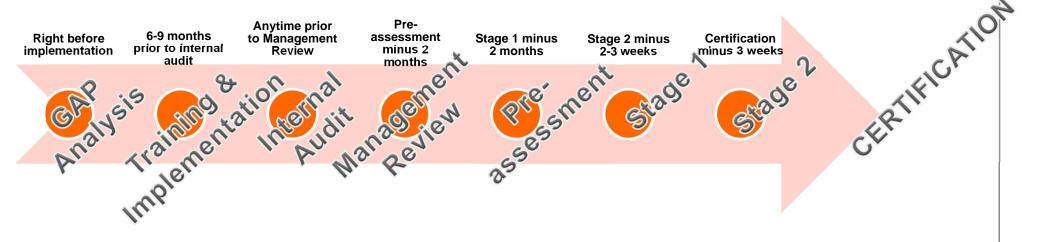


Registration

- Pre-Assessment (Typically 2-3 months prior)
- Stage 1 Audit (Readiness Assessment Typically 3-4 weeks prior to Stage 2 --- Need 6 weeks if significant issues at Stage 1)
- Stage 2 Audit (Certification Audit)
- Surveillance Audits (Annual / Semi-Annual)









Summary of a Pre-Assessment



The objective of the Pre-Assessment audit is to <u>assess</u> the state of your MS: (1) how your organization aligns with the requirements of the Standard; (2) that your MS conforms with the Standard; (3) any areas of your MS that require addressing prior to a Certification Audit.



Elements of a Pre-Assessment are:

- We perform a mock audit of both Stage 1 and Stage 2
- We provide a detailed report outlining findings
- Next step Plan and Review

Types of findings – Critical and Non-Critical Findings and Opportunities for Improvement



Summary of a Stage 1 Audit



The objective of the Stage 1 audit is to review your MS documentation and to confirm: (1) the management system conforms with the applicable elements of the Standard; (2) to assess your readiness for the Stage 2 Certification audit.



- Elements of a Stage 1 Audit are:
 - We review all MS documentation and KPI's
 - We review Scope/Boundary & Regulatory requirements
 - Review availability of Planning and Implementation information
 - Review of Internal Audits and Management Reviews
 - Next step Plan and Review & Stage 2 Readiness
- Types of findings Critical and Non-Critical Findings and Opportunities for Improvement



Summary of a Stage 2 Audit



- The objective of the Stage 2 Audit is to confirm the management system: (1) conforms with the applicable elements of the Standard; (2) the organization conforms with its own policies and procedures; (3) the management system is suitable for the organization; and (4) that the management system is suitable and effective, and enables the client to achieve its own objectives.
- This is a full assessment of the implementation and effectiveness of the MS. There is a wide sample of interviews, records review, facilities tour, observations, etc. to make this determination.
- Types of findings Major or Minor Non-Conformances, Opportunities for Improvement, and Positives



Summary of a Surveillance Audit



The objective of the on-going Surveillance Audits is to confirm the management system continues to conform with the applicable elements of the Standard; to confirm the organization continues to conform with its own policies and procedures; to confirm the management system is suitable for the organization; to confirm that the management system is suitable and effective, and enables the client to achieve its own objectives.



- This is a moderate assessment of the implementation and effectiveness of the MS. Moderate sample of interviews, records review, facilities tour, observations, etc. are conducted.
- Types of findings Major or Minor Non-Conformances, Opportunities for Improvement, and Positives



Thank you!

For more information, please contact:

www.sgs.com

Bruno Samuel, VP, Marketing & Sales

bruno.samuel@sgs.com