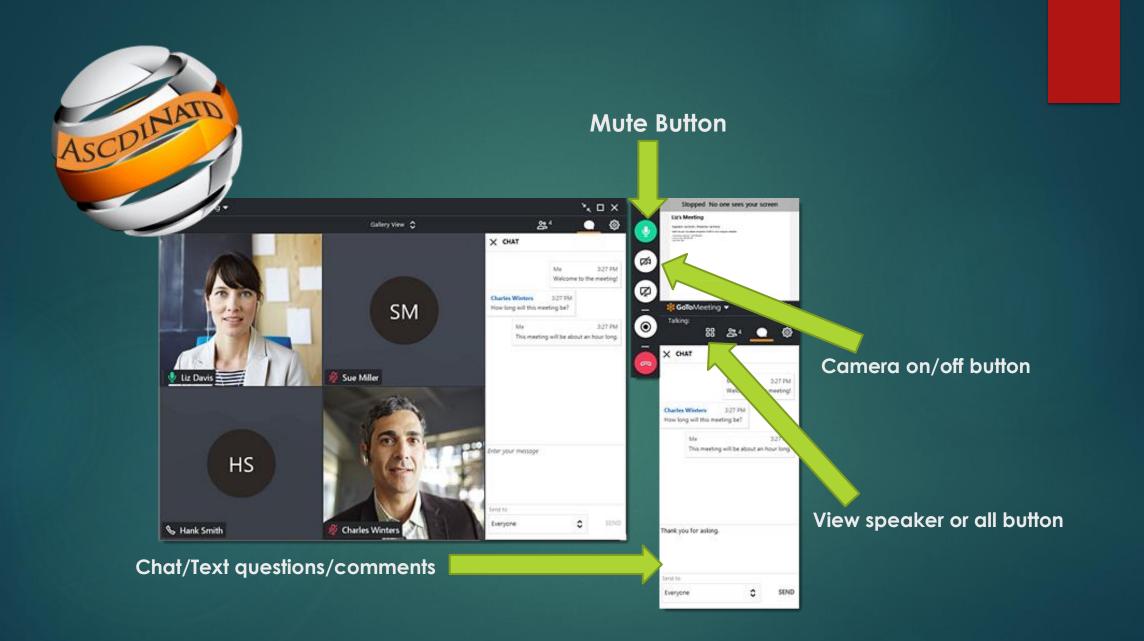
# Why Certify?









## <u>Kelsey Cameron</u> <u>Sales Executive</u>



the vested group



### TEST. REPAIR. REUSE. RECYCLE

## Certification... is it worth the investment?



The who & why behind R2

Trends driving the growth of R2

Overview of R2 requirements

The benefits & costs of certification

R2 was developed in response to growing concern about the unsafe recycling & disposal of used electronics













The who & why behind R2

## Trends driving the growth of R2

Overview of R2 requirements

The benefits & costs of certification

# 60%

## experienced breaches caused by **3<sup>rd</sup> Party** service providers

**3rd-Party Data Risk Study** by Ponemon Institute

Surveyed **1000+** CIOs & Security Professionals

## Residual data recovered from remarketed devices

48% of hard drives35% of mobile devices



## Ineffective attempts made to remove data

75% of hard drives 57% of mobile



# Self-made claims cannot always be trusted

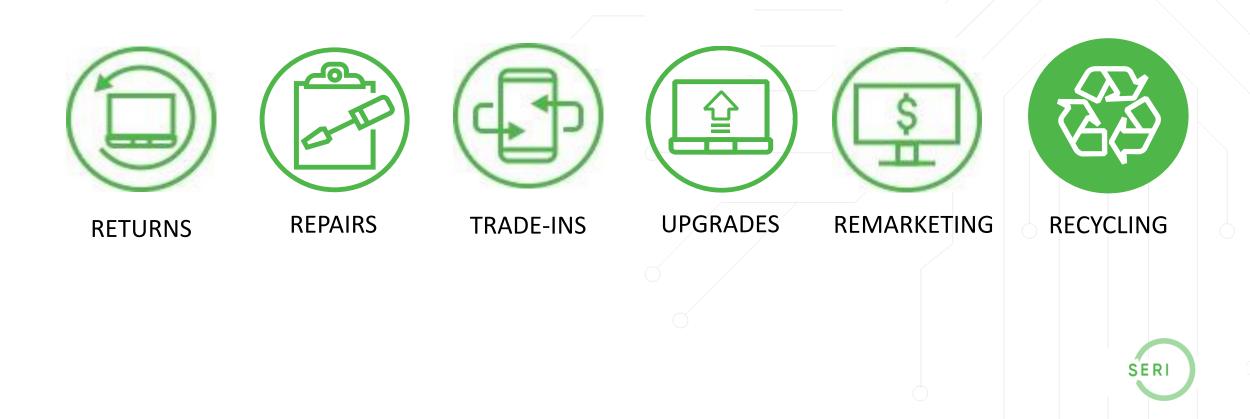


A powerful tool for evaluating 3rd-party service providers

R7



# Growth driven by more reliance on third-party service providers



# Growth driven by customer / supplier need to reduce non-compliance risks



# Growth driven by multi-national corporations wanting to harmonize & simplify



# Growth driven by other R2 facilities choosing to use R2 downstreams

VS



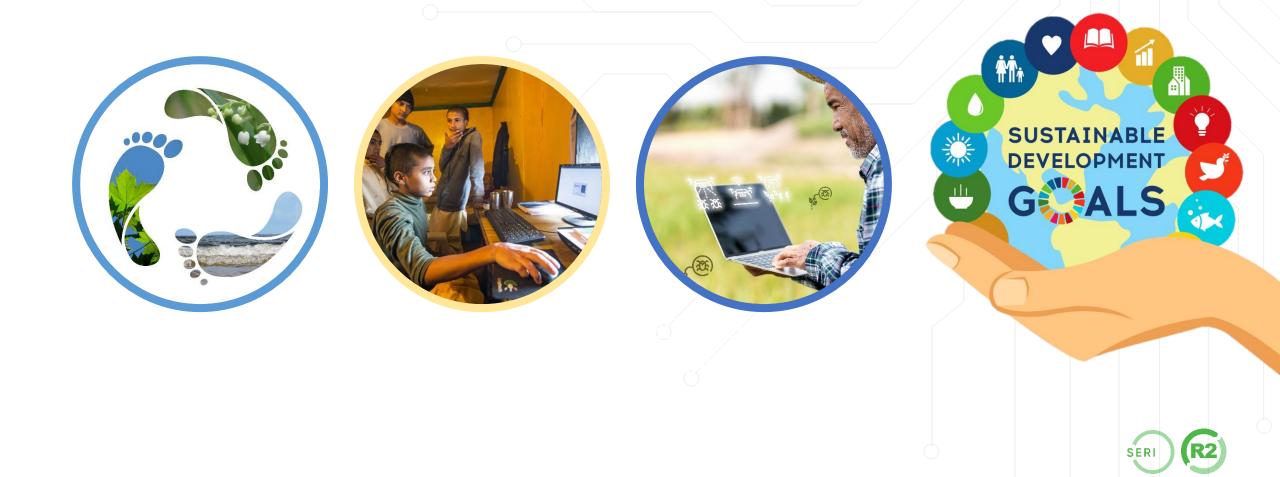
Annual verification U tracking of <u>entire</u> downstream reuserecycling chain

## CERTIFIED

V3

Streamlined verification for R2 vendors that have been verified through certification process

# Growth of R2 driven by heightened awareness of corporate responsibility



## Growth driven by other entities requiring R2 Certification

#### **RECYCLER QUALIFICATION OFFICE (RQO)**

LE BUREAU DE LA QUALIFICATION DES RECYCLEURS (BQR)

ROP 2015 AUDIT PROCESS

RECYCLER AUDIT PROTOCOLS

APPROVED RECYCLERS

FAOS RESOURCES

CONTACT



The Recycler Qualification Office (RQO) administers the following assessment and approval programs:

English	•
---------	---

ANNOUNCEMENTS

#### **Example:**

Canada's Recycler Qualification Office



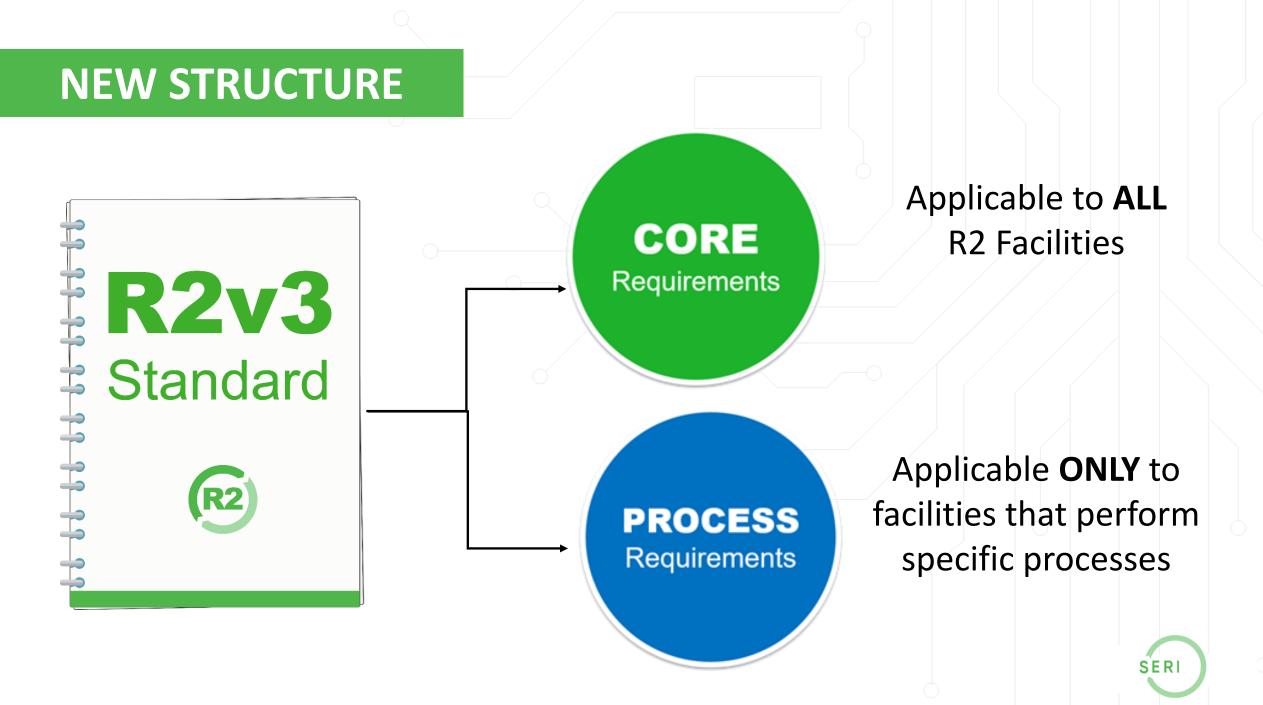
The who & why behind R2

Trends driving the growth of R2

## Overview of R2 requirements

The benefits & costs of certification

SER



### **CORE REQUIREMENTS**

## APPLY TO ALL R2 CERTIFIED FACILITIES

- 1. Scope
- 2. Hierarchy of Responsible Management Strategies

SERI

- 3. EH&S Management System
- 4. Legal and Other Requirements
- 5. Tracking Throughput
- 6. Sorting, Categorization and Processing
- 7. Data Security
- 8. Focus Materials
- 9. Facility Requirements
- **10.** Transport

### **PROCESS REQUIREMENTS**

Appendix A - Downstream Recycling Chain

## APPLY ONLY TO FACILITIES ENGAGED IN THESE SPECIFIC PROCESSES

Appendix B - Data Sanitization

Appendix C - Test & Repair

Appendix D - Specialty Electronics Reuse

Appendix E - Materials Recovery

Appendix F - Brokering\*

\*Core 3 and Core 9 may not apply for brokers who do not physically receive or handle equipment

SER

#### Core 1

## Transparency about Scope of Certification

- Includes all R2 Certifiable operations (collection, processing, resale...)
- At the facility <u>and</u> under its control (collection points, warehouses...)
- Does not include non-certifiable processes (scrap, appliances, new equipment...)



#### Mobile Traders Inc. (DBA) Second Life Phones

1234 International Street - Suite 101 Your City, State/Province,

#### SCOPE:

Logical sanitization, testing and repair of mobile phones

Appendix A - Downstream Chain Appendix B - Data Sanitization Appendix C - Test & Repair



Core 2

## R2v3 addresses FULL LIFECYCLE

of electronic products

## **PRIORITIZES REUSE**

to support a circular and sustainable economy



#### Core 4, 5, 8, 9,

## Reduces Risk

of noncompliance and environmental incidents & liability... CertifiedISO 14001Environmental<br/>Management SystemWeither SystemImagement System

Strong EH&S requirements Risk Assessments & Controls

> Downstream tracking & due diligence throughout the downstream chain

> > SERI

#### Core 3, 4

R2 Harmonizes & Simplifies oversight and legal compliance for multi-national corporations





SER

### Core 7, Appendix B

Reduces Risk of data breaches, noncompliance and liability...



- Strong Data Security Controls
- Data sanitization plan
- Effective data sanitization methods & quality controls
- Data Protection Representative

#### **ADDITIONAL Requirements in Appendix B**

- Traceability by device
- Sanitization Software w/electronic records
- Enhanced quality controls & data audits
- Enhanced security controls & video monitoring

#### Appendix C, D

# Strong REUSE requirements to ensure quality TESTING REPORT



#### **Certified Quality Management System**





Environment Health & Safety Quality

SERI

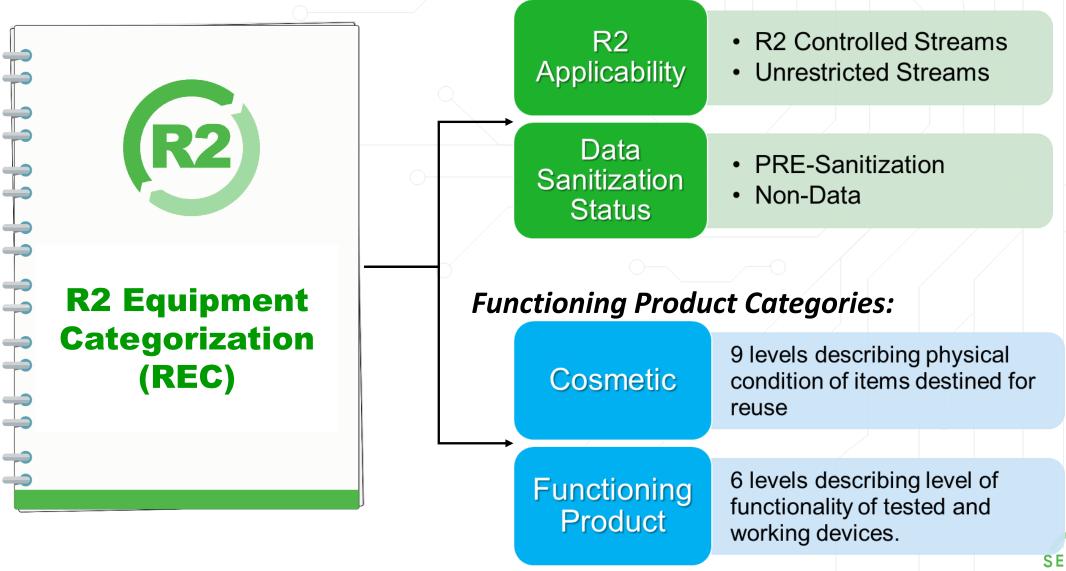
#### **R2** Reuse Plan detailing...

- Testing procedures
- Qualifications & Training
- Quality assurance plan

Sanitization according to Appendix B

**Detailed testing records** 

#### **Processing Categories:**



SERI

#### Core 5, Appendix A

## Strong Downstream Accountability

**Annual Verification** of each vendor in downstream chain

**Tracking flow** of equipment, components, materials throughout the *entire* downstream until final disposition

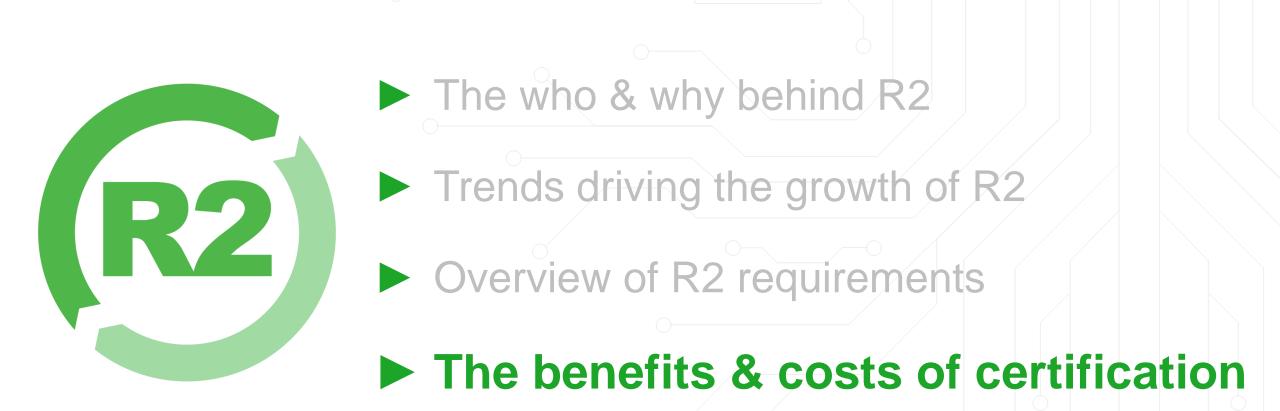
SER

# Auditing R2v3



- R2 is more than a Management System, it's a Stainability Standard
- Focus on *effectiveness* of systems
- Focus on *outcomes* and impacts
- Qualifications & training of facility personnel
- Qualifications & training of Auditors





SER

# R2 is practical and comprehensive

### Independent

R2 is <u>not</u> created or managed by membership organization that pays dues

#### Accredited

Consensus Standard written by an ANSI Accredited Standard Developer

#### Comprehensive

Includes all the necessary elements for responsible reuse & recycling of electronics

#### Universal

Applicable for all points in lifecycle of used electronics. Complements national & local regulations. Fills in gaps where regulation and oversight are lacking



# Benefits of R2v3 for Suppliers/Customers

- Improved quality in certification and credibility of results
- Addresses the needs of many and diverse market sectors.
- Provides transparency into the specific activities and operations audited

## R2 accounts for 78% of Certifications







**USA** and Mexico

90 Facilities

<u>http://e-stewards.org/find-a-</u> recycler/ 16 EU Member States

**192 Certified Operators** 

https://www.weeelabex.org/operato rs-list/ 34 Countries

1000+ Facilities

https://r2directory.org

SERI

# Benefits of R2v3 for Certified Facilities

- Access to auctions and increased supply
- Increased credibility with customers
- Improved quality and consistency in operations
- Safety improvements

# R2v3 Training & Resources



SERI	ABOUT 🗸 JOIN THE MISS	SIGN MAKING A DIFFERENCE $\checkmark$ FOR BUSINESS $\checkmark$ R2 $\lor$	FIND AN R2 CERTIFIED FACILITY
	R2 Guidance &	Knowledge Base	
	Search for guidan	ce by keyword or topic	
	Take A Quick Video Tour of th	e Knowledge Base → Click Here	
R2)			RECENTLY ADDED
Getting Certified	Video Library	Podcast Library	Guidance for developing and R2v3 Reuse Plan October 20, 2021
Download R2 Standard / REC / Code of Practices	Translation instructions for R2 videos	Episode 1 - Using the R2 Appendix Determination Tool	"Verify" versus "Validate" October 15, 2021
🛗 Intro to R2 webinars	▶ Definitions & Overview	Episode 2 - Helpful hints when scheduling your Internal Audit	Difference between "Data Security" v "Data Sanitization" requirements October 15. 2021
<ul> <li>Summary of R2v3</li> <li>Key Steps in the Certification Process</li> </ul>	▶ Code of Practices ▶ Core 1 Scope	Episode 3 - Writing your Data Sanitization Plan	Episode 3 – Writing your Data Sanitization Plan October 15, 2021
✤ Find a Consultant	Core 2 Hierarchy  Core 3 Environmental Health		Episode 2 – Helpful hints when scheduling your Internal Audit October 1, 2021
			October 12-14 (Online Course) October 1, 2021
		8	Episode 1 – Using the R2 Appendix Determination Tool September 23, 2021
R2 Training - CORE Requirements	R2 Training - PROCESS Requirements (Appendices)	Common Questions & Answers about R2v3	Appendix Determination Tool September 21, 2021
Translation instructions for R2 videos	Translation instructions for R2	Click Here to Submit Your	Sample Downstream Flowchart September 21, 2021
▶ Definitions & R2v3 Overview	Applicability & Overview of	Question	New Updates to the R2 Code of Prac

)

SERI

https://sustainableelectronics.org/knowledge-base/ 🕌 Enalish 🛛 🐨 ABOUT  $\checkmark$  JOIN THE MISSION MAKING A DIFFERENCE  $\checkmark$  FOR BUSINESS  $\checkmark$  R2  $\checkmark$  FIND AN R2 CERTIFIED FACILITY (Q) R2 Guidance & Knowledge Base Search for guidance by keyword or topic Take A Quick Video Tour of the Knowledge Base → Click Here RECENTLY ADDED... **R**2 Guidance for developing and R2v3 Reuse Plan Getting Certified Video Library Podcast Library October 20, 2021 "Verify" versus "Validate" Download R2 Standard / REC / Translation instructions for R2 Episode 1 - Using the R2 Appendix October 15, 2021 Code of Practices videos **Determination Tool** Difference between "Data Security" vs. Intro to R2 webinars Definitions & Overview Episode 2 - Helpful hints when "Data Sanitization" requirements scheduling your Internal Audit October 15, 2021 A Summary of R2v3 Code of Practices Episode 3 - Writing your Data Episode 3 – Writing your Data % Key Steps in the Certification ▶ Core 1 -- Scope Sanitization Plan Sanitization Plan Process October 15, 2021 Core 2 -- Hierarchy % Find a Consultant Episode 2 - Helpful hints when Core 3 -- Environmental Health scheduling your Internal Audit October 1, 2021 October 12-14 (Online Course) October 1, 2021 ? Episode 1 – Using the R2 Appendix Determination Tool September 23, 2021 R2 Training - CORE Requirements R2 Training - PROCESS Common Questions & Answers Appendix Determination Tool Requirements (Appendices) about R2v3 September 21, 2021 Translation instructions for R2 Sample Downstream Flowchart

Translation instructions for R2.

Olick Here to Submit Your

R2 Knowledge Base provides free training videos, podcasts, articles, and other resources

videos

#### **SMALL PHONE**

#### REFURBISHER

#### **Mobile Phone Reseller**

- CORE 2 employees (6 by end of year)
- Appendix A-Downstream Recycling Chain .25 (<5 non-R2v3)
- Appendix B-Data Sanitization
- Appendix C-Test and Repair

#### **Audit Time Guidelines**

1

- - .25 (logical only)
  - .5 (w/QMS audit)
  - 2 R2 Audit Days

R2 & RIOS → Approximately 3.5 Audit Days

**MID-SIZE** PHONE REFURBISHER **Mobile Phone Reseller** CORE - 27 employees Appendix A-Downstream Recycling Chain Appendix B-Data Sanitization Appendix C-Test and Repair

**Audit Time Guidelines** 1.25 0 (only R2v3) 1 (logical/physical) 1 (w/QMS audit) 3.25 - R2 Audit Days

R2 & RIOS → Approximately 5.25 Audit Days



SMALL, FULL-SERVICE REPAIR & RECYCLING FACILITY

LARGE, FULL-SERVICE REPAIR & RECYCLING FACILITY

Full-Service Repair &	& Recycling	Audit Time Guidelines
• CORE - 12 employ	/ees	1
• Appendix A-Down	stream Recycling Chain	.25 (<5 non-R2v3)
• Appendix B-Data S	Sanitization	.50 (logical & physical)
• Appendix C-Test a	nd Repair	.50 (w/QMS audit)
• Appendix E- Mater	rials Recovery	.25 (manual)
		.50 (other processing)
		3 - R2 Audit Days
R2 & RI0	OS 🗲 Approximately	5 Audit Days
	,	
Full-Service Repair &	& Recycling	Audit Time Guidelines
<ul> <li>Full-Service Repair &amp;</li> <li>CORE - 150 employ</li> </ul>		Audit Time Guidelines
• CORE - 150 emplo	oyees	1.25
• CORE - 150 emplo	<b>byees</b> stream Recycling Chain	1.25
<ul> <li>CORE - 150 emplo</li> <li>Appendix A-Down</li> </ul>	<b>oyees</b> stream Recycling Chain Sanitization	1.25 .5 (6+ non-R2)
<ul> <li>CORE - 150 employ</li> <li>Appendix A-Down</li> <li>Appendix B-Data S</li> <li>Appendix C-Test and</li> </ul>	<b>oyees</b> stream Recycling Chain Sanitization	1.25 .5 (6+ non-R2) 1 (logical & physical)
<ul> <li>CORE - 150 emplois</li> <li>Appendix A-Down</li> <li>Appendix B-Data S</li> <li>Appendix C-Test and</li> </ul>	byees stream Recycling Chain Sanitization nd Repair alty Electronics Reuse	<ul><li>1.25</li><li>.5 (6+ non-R2)</li><li>1 (logical &amp; physical)</li><li>1 (w/QMS audit)</li></ul>
<ul> <li>CORE - 150 employ</li> <li>Appendix A-Down</li> <li>Appendix B-Data S</li> <li>Appendix C-Test and</li> <li>Appendix D-Special</li> </ul>	byees stream Recycling Chain Sanitization nd Repair alty Electronics Reuse	1.25 .5 (6+ non-R2) 1 (logical & physical) 1 (w/QMS audit) .5
<ul> <li>CORE - 150 employ</li> <li>Appendix A-Down</li> <li>Appendix B-Data S</li> <li>Appendix C-Test and</li> <li>Appendix D-Special</li> </ul>	byees stream Recycling Chain Sanitization nd Repair alty Electronics Reuse	<ul> <li>1.25</li> <li>.5 (6+ non-R2)</li> <li>1 (logical &amp; physical)</li> <li>1 (w/QMS audit)</li> <li>.5</li> <li>.5 (manual disassembly)</li> </ul>
<ul> <li>CORE - 150 emplo</li> <li>Appendix A-Down</li> <li>Appendix B-Data S</li> <li>Appendix C-Test an</li> <li>Appendix D-Specia</li> <li>Appendix E- Mater</li> </ul>	byees stream Recycling Chain Sanitization nd Repair alty Electronics Reuse	<ul> <li>1.25</li> <li>.5 (6+ non-R2)</li> <li>1 (logical &amp; physical)</li> <li>1 (w/QMS audit)</li> <li>.5</li> <li>.5 (manual disassembly)</li> <li>.75 (other processing)</li> <li>5.5 - R2 Audit Days</li> </ul>



#### **BROKER OF SMARTPHONES**

#### **Mobile Phone Broker**

- CORE 4 employees
- Appendix A-Downstream Recycling Chain
- Appendix F-Brokering

**Audit Time Guidelines** .25 (<5 non-R2) .75 (w/QMS audit) 2 - R2 Audit Days R2 & ISO QMS -> Approximately 3.5 Audit Days



# Thank you!



## Patty McKenzie

Director of Education & Outreach

Patty@SustainableElectronics.org (202) 921-2261



## Upcoming

January 20, 2022 – Newport Beach, CA Micro Meeting (Live)

## Why Certify?



### Thank you for joining us today.

## Why Certify?



### Thank you for joining us today.