

From Cradle to Cradle: Realizing a Circular Economy in Data Storage

CDI Staff, April 2024

Who we are



Making the storage market more sustainable by developing and promoting standards, reporting, and best practices around circularity.

STEWARD MEMBERS



REGULAR MEMBERS



The current state of storage security...

“We shred everything”



Data leak



Encryption



Trust



Policies & Risk



Privacy



Legal
Agreements



Security

The future state of storage security...

“We lead in circularity”



Robotics for
Recovery



Encryption &
Sanitization



Trust
Assurance



Policies for
Risk Mgmt

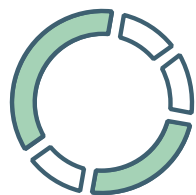


Value
Resale



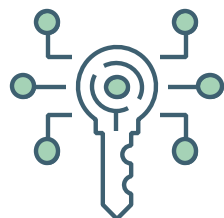
Update Legal
Agreements

Our Path: Retain, Reuse, and Recover



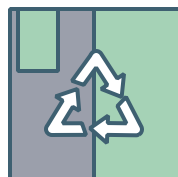
Retain

Regen to keep drives in service



Reuse

Secure data erasure and sanitization



Recover

Disassembly, recovery of rare earth materials, and then recycling

Mobilizing the Industry

Cooperate - Innovate - Educate - Mobilize



Partnerships

Hyperscalers
Computer Brands
OEMs
ITADs
Recovery Partners

Best Practices

Sanitization
GHG Reduction
Circulatory Processes

Alliances

IEEE SISWG
OCP Security, Storage, and
Sustainability
SNIA
SERI
International Data Sanitization
Consortium

Standards

Data Security
Cryptography
Sanitization
Data Privacy & Protection

Reporting

GHG Reduction
Landfill Diversion
Value Recovery
Resource Efficiency

Verification

Security
Erasure
Companies
Grading

Security, Cryptography, Sanitization, Verification



IEEE 2883 Purge
Media Sanitization



IEEE 2883 Verification



ISO/IEC 27040
Certificate of
Sanitization



Hardware roots of trust
Firmware audits
Forensic Analysis

Realizing the Impact

GHG Reduction - Landfill Diversion - Value Recovery



Environmental

Up to **40%** ^[1] reduction in embodied carbon

Reuse **275x** ^[2] more carbon impact vs recycling

Economic

Up to **90%** of drives are shredded at the end of first use

Circular Drive Initiative. Better Together.

Join Us.



Resource Efficiency



Target Net Zero through
Embodied Carbon
Reduction



Move with Trust in
Data Sanitization



Value Recovery

Steward Member, Regular Member, Associate Member.
CircularDrives.org