



CHAMPIONS OF ELECTRONICS SUSTAINABILITY

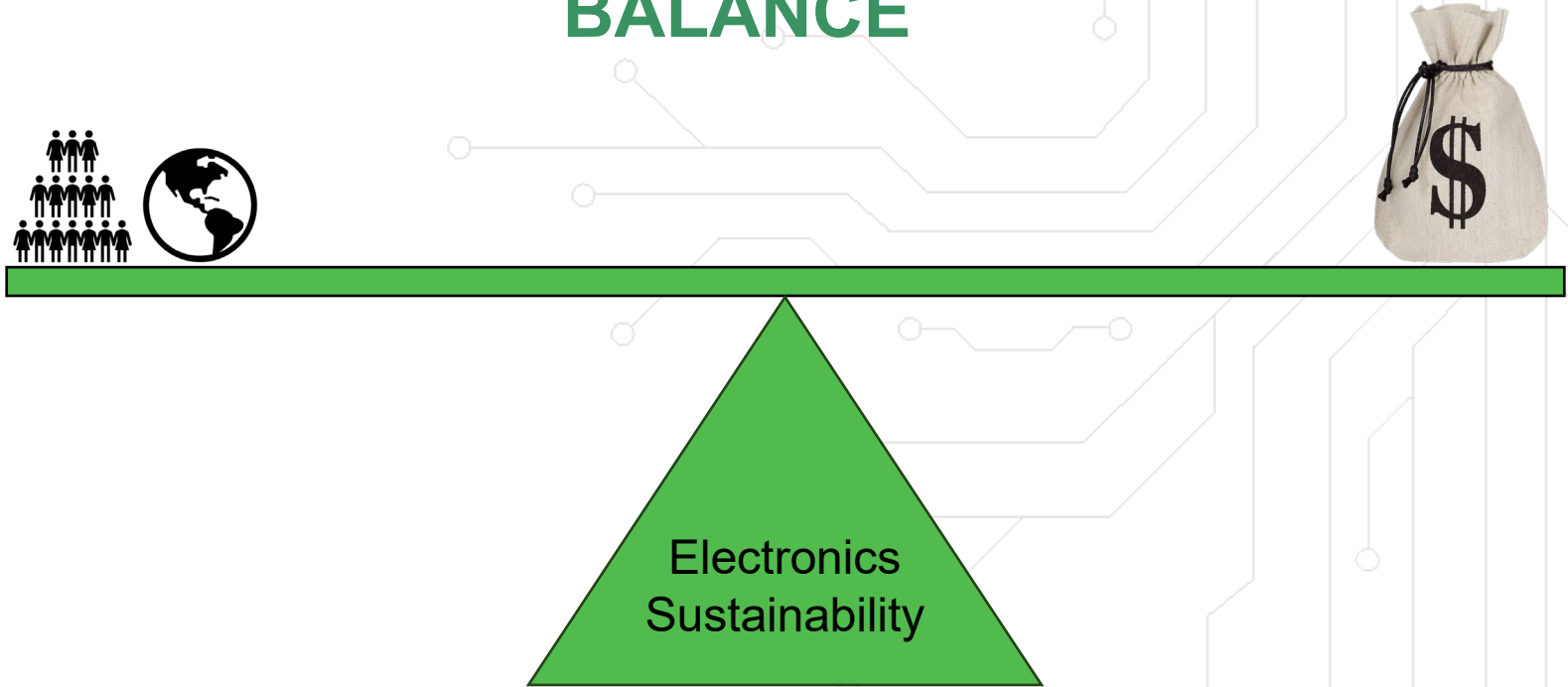
SustainableElectronics.org



BUSINESS + ELECTRONICS SUSTAINABILITY

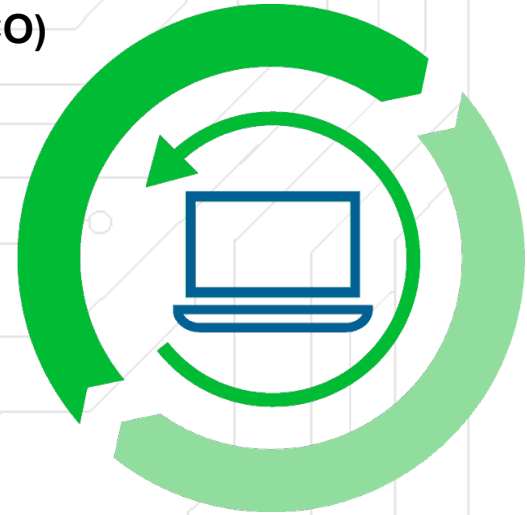


ELECTRONICS SUSTAINABILITY IS ABOUT BALANCE



WHAT TO PURCHASE?

- Purchase Refurbished
- Spec Sustainability Criteria for Products (EPEAT, TCO)



Results of the Global Warming Impact of the Galaxy S6



52.6%

Pre-manufacturing



7.0%

Manufacturing



23.9%

Distribution



15.7%

Use



0.8%

Disposal

WHAT TO PURCHASE?

- Purchase Refurbished
- Spec Sustainability Criteria for Products (EPEAT, TCO)
- Choose Products with Longer Useful Lives for Your Organization



WHEN TO UPGRADE?

- Shift From Financial to Utility Criteria
- Purchase Extended Warranties
- Repair vs replace – Purchase Extended Service Contracts
- Cascading Within the Organization



SHIFTING TO SUSTAINABLE ITAD

- Beyond Remarketing \$:
 - Protect Data
 - Protect the Environment
 - Protect Your Brand



SHIFTING TO SUSTAINABLE ITAD

- Beyond Remarketing \$:
 - Protect Data
 - Protect the Environment
 - Protect Your Brand
- Don't forget the "S"...



SHIFTING TO SUSTAINABLE ITAD

- Beyond Remarketing \$:
 - Protect Data
 - Protect the Environment
 - Protect Your Brand
- Don't forget the "S"...
- ...or the "G"



SHIFTING TO SUSTAINABLE ITAD



IN THE END, IT'S ABOUT CREATING DIFFERENT OUTCOMES





DAVIES
OFFICE

FURNISH A SMARTER WORKSPACE



The Challenge

The US Office Furniture Industry 2020 annual net sales was be over \$16+ Billion

The Business and Institutional Furniture Manufacturers Association (BIFMA) estimates that, as indicated in the adjacent chart, there were \$124,960,000,000 worth of office furniture sold between 2010 and 2019. That is almost \$125 billion worth of furniture that will eventually become obsolete in meeting new furniture standards.

Systems furniture (panels, work surfaces, shelves) and storage furniture (bookcases, filing cabinets, etc.) made up approximately 35% (\$ 43,736,000,000) of the total.

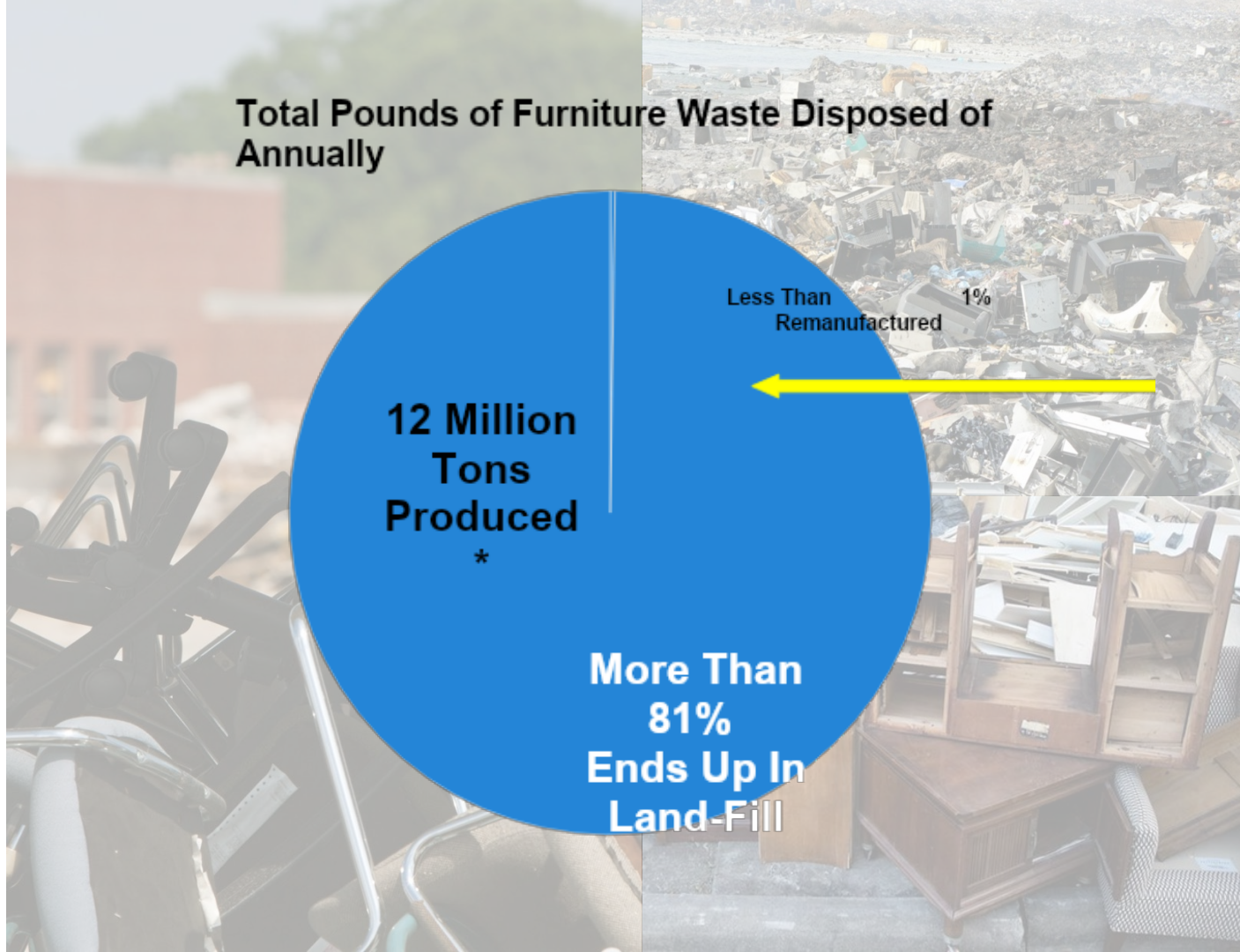
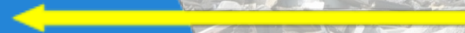
Value of US Office Furniture Market	
Year	US Production (Millions of US Dollars)
2020	16.40
2019	14.57
2018	14.09
2017	13.78
2016	13.56
2015	12.96
2014	12.17
2013	11.54
2012	11.29
2011	11.13
2010	9.87

Total Pounds of Furniture Waste Disposed of Annually

**12 Million
Tons
Produced

**More Than
81%
Ends Up In
Land-Fill**

**Less Than
1%
Remanufactured**



Post Covid

- Work From Home, Hybrid Work and Hoteling
- Employees sharing workstations, coming in 3 days a week.
- Companies decreasing real estate footprint by 30%
- 30 to 40% of Existing Furniture is redundant



Today's Choices

- Landfill
- Down Cycle
- Donate to Charity
- Reuse / Refurbish / Remanufacture

What is Remanufacturing?

**As defined by the
Remanufacturing
Industries Council**

**Remanufacturing is a
comprehensive industrial
process by which a
previously sold, worn, or
non-functional product or
module is returned to a
“like-new” or “better than
new” condition level and
quality.**





Remanufacturing Process

THE DAVIES REMANUFACTURING FACTORY

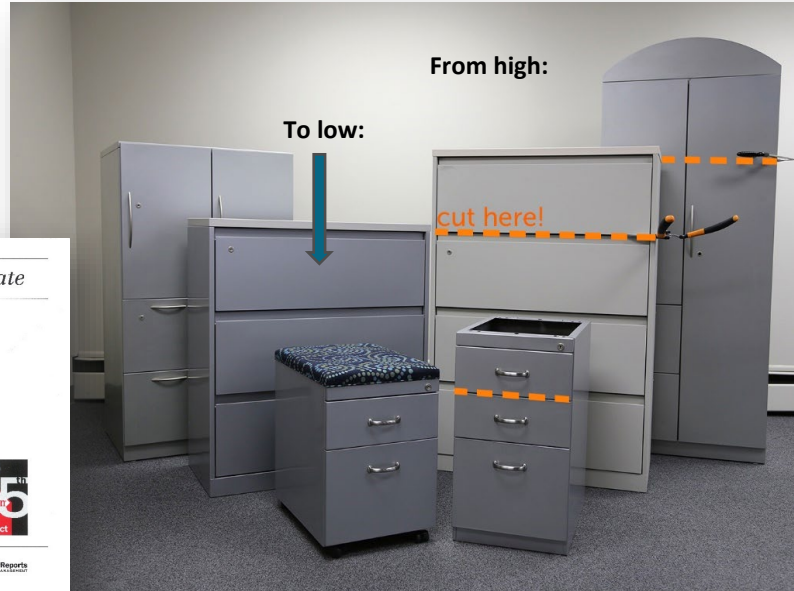


RE-INDEXING..... and Modifications – Davies Metal shop

“High to Low” RE-INDEXING SOLUTIONS



“Everything wants to be lower now”



Best of NeoCon® 2014 Award Certificate

silver award

Furniture Systems: Enhancements

Davies Office: Hi-Lo



In recognition of a product of excellence introduced at NeoCon® 2014

contract
contract network

VORNADO
contract network

J.D.A.
contract network

IFMA
contract network

McMurryReports
contract network

THE DAVIES REMANUFACTURING FACTORY



METAL FINISHING Powder Coating and Wet line operations



Quality is our #1 priority



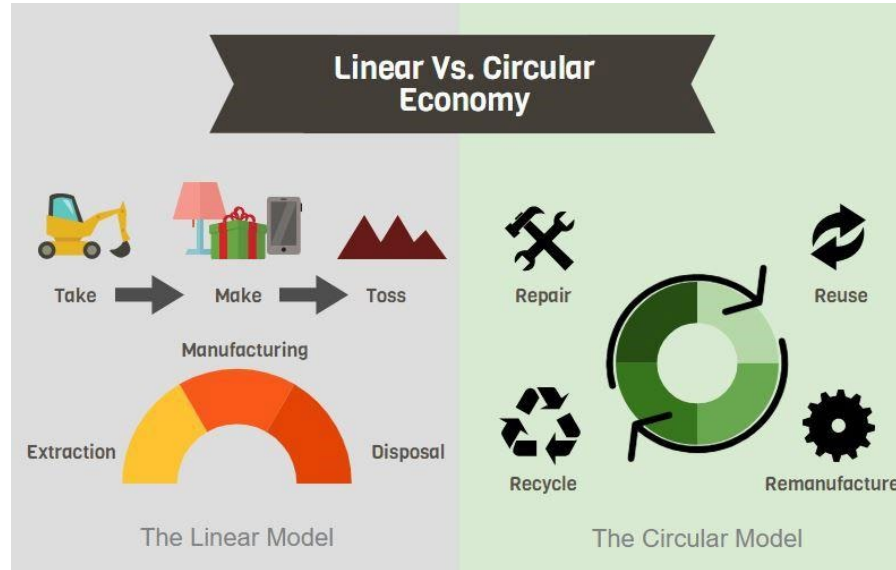
Upholstery Line



THE DAVIES REMANUFACTURING FACTORY



CNC PROCESS, RE-LAMINATION / MILLWORK



Remanufacturing and The Circular Economy



The Sustainable Product Exchange Program

In a sustainable product exchange program, a remanufacturer will use today's list price for valuing this furniture, as opposed to the original price paid by the client. This offers the maximum return on an asset. That value is applied to remanufactured furniture purchased for an immediate project.



The Sustainable Banking Program

The *sustainable banking program* also captures the value of customers' existing assets. This program allows a company to bank the value of furniture and to then apply the value to a future project or projects in lieu of current ones.

This means if a client wants to change their supplier, furniture brand, or have acquired a company that is standardized on a different furniture brand, they can now exchange that furniture for the brand that they are standardized.

This flexibility gives the client choices that “new” manufacturers could never offer their clients.



MillerKnoll



Allsteel

HAWORTH

Flexible Brand Conversion

LCA: Life Cycle Assessment on Davies by R.I.T.

3rd Party Validated Metrics



Life Cycle Assessment Results:

Comparison of a Remanufactured Steelcase Avenir[®] Office System at Davies Office, Inc. to an OEM Office System
FINAL REPORT

Date Prepared:
November 17, 2016

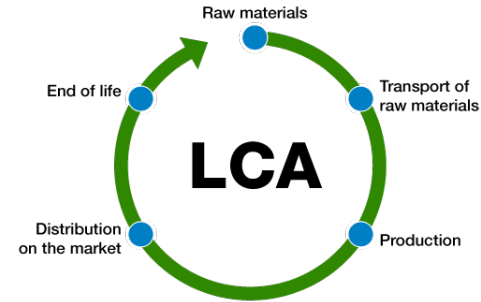
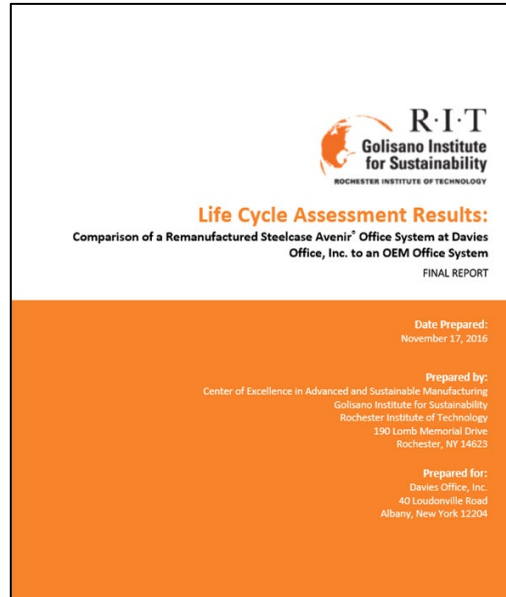
Prepared by:
Center of Excellence in Advanced and Sustainable Manufacturing
Golisano Institute for Sustainability
Rochester Institute of Technology
190 Lomb Memorial Drive
Rochester, NY 14623

Prepared for:
Davies Office, Inc.
40 Loudonville Road
Albany, New York 12204



This project was completed with life cycle analysis from the Golisano Institute for Sustainability (GIS) at the Rochester Institute of Technology (R.I.T.)

LCA: Life Cycle Assessment



A Life-cycle assessment (LCA), was performed on a Office Furniture Remanufacturer (Davies Office)

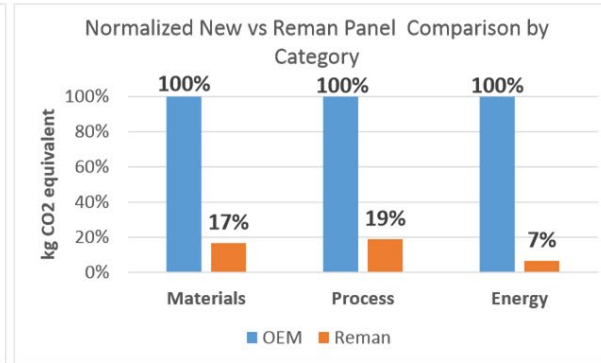
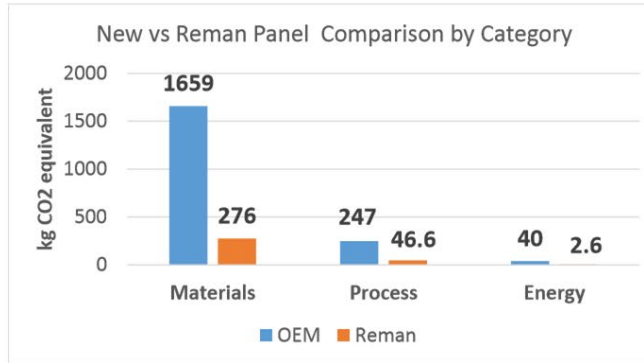
LCA was in accordance with ISO 14000 series standards.

Review was performed by an independent panel of experts

LCA: Life Cycle Assessment

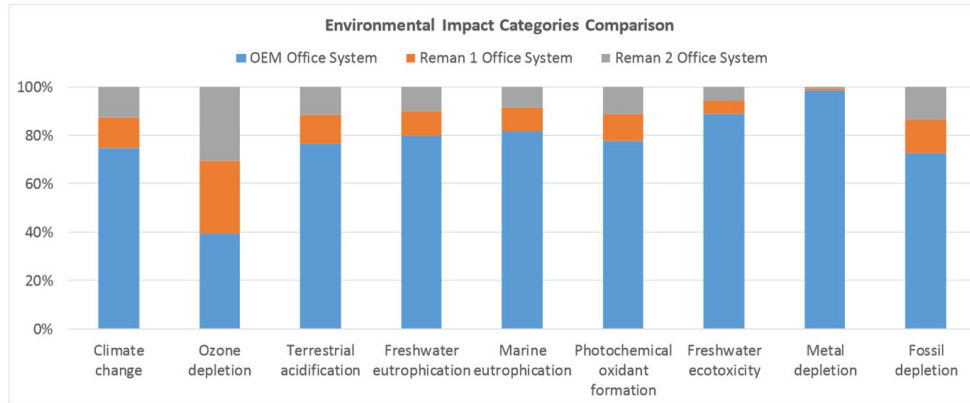
Panel Component Remanufacturing compared to OEM (Combined life cycle method)

The LCA shows the remanufactured panel **Global Warming Impact** for materials, process and energy is **17%, 19% and 7% of the OEM respectively**



LCA: Life Cycle Assessment

LCA shows that in a majority of the categories the environmental footprint is under 20% of the original OEM.



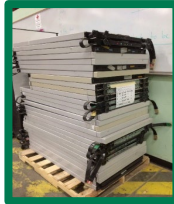
Such measured data gives remanufacturers the ability to supply third-party verified numbers on the energy savings, CO₂ savings, landfill avoidance, and raw material savings that can then be applied to their clients CSRs.

SAMPLE: SUSTAINABILITY REPORT

REMANUFACTURING: 1 Client, 1

year

15,593 PANELS



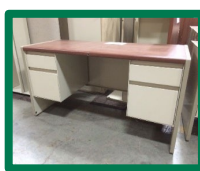
1,850 FILES



8,212
WORKSURFACES



2,702 UA DESKS



=



ENERGY SAVINGS:

Could power

31,186

American houses for one day



LANDFILL AVOIDANCE:

Prevents

860,734

pounds of landfill waste



CO₂ REDUCTION:

Avoids the release of

2,198,613

pounds of CO₂ into the environment



NATURAL RESOURCE SAVINGS:

Conserves

2,494,880

pounds of raw materials

Information prepared by: National Center for
Remanufacturing and Resource Recovery (NC3R)
Rochester Institute of Technology

Value-Added Services

Design

- **AutoCAD**
- **3-D and Renderings**
- **Inventory Analysis**
- **Color-coded installation drawings**
- **Finish selection**
- **Workstation layouts and custom componentry.**



Project Management

Decommissioning, Shipping, Delivery And Installation

Nationwide Service Network





Remanufacturers can be third-party verified for energy savings, CO₂ savings, landfill avoidance, and raw material savings, which can then be supplied to their clients' sustainability statements.

Remanufactured Furniture and Verification

BIFMA* LEVEL® Sustainability Standards

Remanufactured office furniture can meet the ****ANSI-BIFMA level®** furniture sustainability standard, the new manufacturer's standard for sustainable furniture.

Daviesd Remanufactured furniture that meets BIFMA level® standards:

- **Steelcase: 9000, Avenir, Answer**
- **Herman Miller: Ethospace, AO2**
- **Knoll: Morrison**
- **Haworth: PLACES, PREMISE, UniGroup**

BIFMA level® 2 certified furniture is also eligible for the USGBC LEED Pilot-Credits PC 122: Environmentally preferable interior finishes and furnishings.



* Business and Institutional Furniture Manufacturers (not-for-profit trade) Association
** American National Standards Institute

The BIFMA level® certification program is included on the EPA's recommended specifications, standards, and ecolabels for federal furniture purchasing. This level® is now approved for use by federal purchasers meeting the President Obama's executive order 13693, which requires that 95% of all federal purchasing be environmentally preferable products and services.

LEED USGBC Points v4



Prerequisite expanded: Construction and demolition waste management planning
Furniture that is being sent to the remanufacturer can be used in this calculation.



MR Credit: Interiors life cycle impact reduction

This credit focuses on reuse of materials.

Option 2: Furniture reuse: Remanufactured furniture applies directly to this credit.

Option 3: Design for flexibility: The lifetime warranty that remanufacturers offer means that long-term reuse and recycling of the furniture lends itself to this credit.

MR Credit: Building product disclosure and optimization—environmental product declarations

This credit focuses on transparency in environmental life cycle impacts and selecting products with improved life cycles.

Option 1: Remanufacturers can help with this credit when they have EPDs that meet one of several criteria, such as LCA, (Life Cycle Assessment) cradle to cradle.

Option 2: Remanufacturers can help with this credit when they have been third-party certified that their product is below the industry standard in three of six categories, such as reduction of greenhouse gases, depletion of stratospheric ozone layer, and acidification of land and water resources.



MR Credit: Building product disclosure and optimization—sourcing of raw materials

This credit focuses on transparency in raw material sourcing and selecting materials that have been appropriately sourced.

Option 2: Remanufacturers can help their clients here because, when they offer extended producer responsibility programs such as a closed-loop program, that puts the product back into the production stream. Remanufactured products also help clients meet the criteria of post-consumer recycled content.

MR Credit: Construction and demolition waste management

This credit focuses on waste reduction strategy.

Option1: Diversion: Remanufacturers can help their clients meet these credits, since furniture that is on a site that is being renovated can be calculated because it is being sent to the remanufacturer, diverting it from a landfill.

USGBC LEED Pilot-Credits PC80: Environmentally preferable interior finishes and furnishings

This credit focuses on the BIFMA level® Sustainability Standard.

Remanufacturers that have products that are level® certified can help their clients achieve this credit.

Advantages of Remanufacturing

- Verified Sustainability Metrics
(ESG-Corporate Sustainability Reporting)
- Save Money
(30-40% less than “New” but still “New to you”)
- Avoid Supply Chain Issues and Lengthy Lead Times

Davies Awards

- Davies Office was honored to be named as one of BuildingGreen Inc.'s Top 10 products of 2021 for taking steps to reduce the environmental impacts of greenhouse gases, sequestering carbon, conserving energy and resources, and reducing emissions.
- Davies was honored an ACE Awards at the 2019 RIC-RIT World Remanufacturing Conference
- In 2011, we were one of only three companies to receive Greenbuild's prestigious Leadership Award for excellence in sustainability.
- The Business and Institutional Furniture Manufacturer's Association (BIFMA) has given Davies a LEVEL® 2 certification for all of our product lines. These products can help companies earn LEED credits for sustainable building.
- In 2014 Davies was honored in "Best of NeoCon" to have been awarded the Silver Award for our Furniture Systems: Enhancements for our Re-Indexing Solutions
- In 2008 Davies was honored in "Best of NeoCon" to have been awarded the Silver Award for our Furniture Systems: Enhancements for our Up-Mount Glass Solutions



Rheaply

**A world of possibility
with resource exchange**



Sushma Kittali-Weidner
Chief Product Officer



Hi, we're Rheaply

We're on a mission to build a
community where every workplace
resource finds its next use.

Founded in
2016

\$24.1M
in asset value

3,000+
ecosystem partners

\$30M
from top-tier
investors

Trusted by
resourceful
companies



Goldman
Sachs

TARGET

RUSH

SAN FRANCISCO
ENVIRONMENT
DEPARTMENT

Exelon



Use Case

Building materials, furniture,
fixtures and equipment
reuse

Reimagining Procurement

Benefits of reuse in your operations

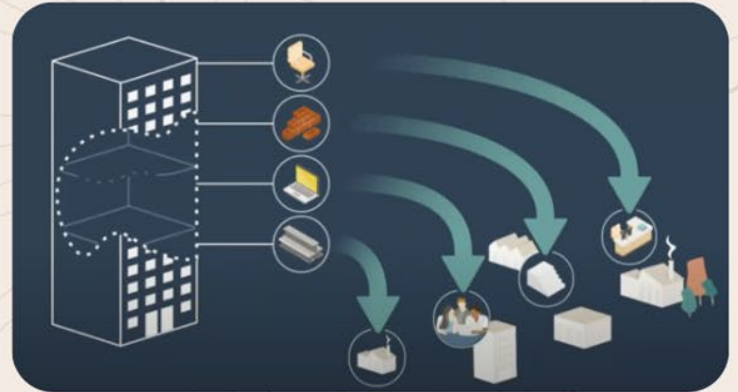
The impact of reuse

The challenge

- Lots of waste and carbon emissions associated with the goods and services corporations purchase for their business
- The built environment contributes to 40% of the carbon emissions
- Demand for zero waste goals and carbon accounting



- "I need to know what resources we have"
- "I need to make better purchasing and cost decisions"
- "Our team needs to get rid of these resources and replace them while on a budget"



Reimagining Procurement

Inventory Optimization

+ Asset Stewardship

Needs identification: *plan for reuse*

Sourcing *from existing inventory before buying new*

Purchasing *from second-life marketplaces or remanufacturers before buying new*

Payment *for Products as a service with take-back programs*

Interconnected procurement

Connect to a second-life marketplace

- ✓ Reach everyone across silos
- ✓ Connect the global value chain
- ✓ Fight climate change



Benefits of reuse in your operations

Supply Chain

- ✓ Spend avoidance
- ✓ Reduced lead time
- ✓ Inventory optimization

Sustainability

- ✓ Waste diversion
- ✓ Carbon avoidance
- ✓ Zero waste goals

The impact of reuse

Impact

- **875K kgs.** of Carbon avoided
- Digitized over **30K product lines/1M items**
- Aspiring for **> 75% of reuse** in select cases
- **Diverted** over **1.3M pounds** from landfill
- Captured **\$4.2M in GMV**
- **Donated** over **\$1.7M** in value

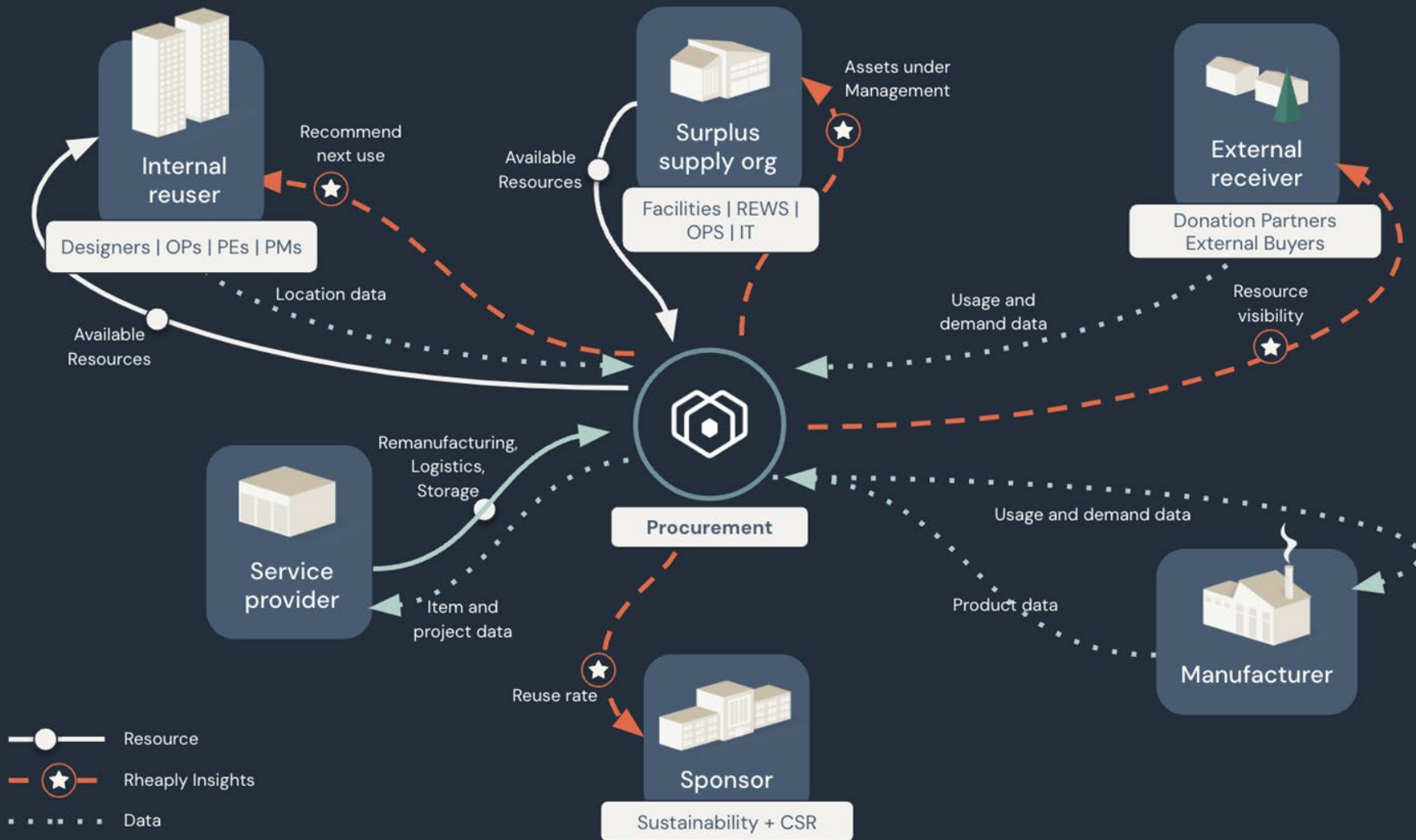
We are just getting started!

Asset Categories

- Furniture, Fixtures & Equipment
- IT Equipment
- Manufacturing and Industrial Equipment
- Building Materials

Industries

- Hightech
- Healthcare (Hospitals, Biopharma)
- Energy and Power
- Financial Institutions
- Higher Education





Thank you!

Questions?



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