

kimikogreen™ playbook



volume 1.0
a practical guide to
sustainable furniture
decommissioning

a sustainable initiative by

 **kimikodesigns**



Click above to learn more and join the **kimiko green** community.

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"In these pages, you will find valuable information, tools, resources and most of all, a sense that **together, we can and will change the industry...one chair at a time.**"

dianne murata
kimiko designs

let's talk trash

dear furniture friends,

If you've ever asked yourself, "What am I going to do with all this excess furniture?", you're not alone. This is a question we're hearing often—from clients, colleagues and nearly everyone we talk to in commercial real estate, interior design and facilities management.

In fact, did you know that 17-billion-pounds of furniture waste are sent to US landfills every year? This number is both a challenge and an opportunity to think big, get creative and work together. We started meeting with a group of facilities and real estate leaders in late 2022 to gather feedback and insights to tackle these questions. As a result, kimiko green was born to collectively solve problems and drive industry change.

This playbook is the culmination of 20 years of conversations, gallons of coffee and learning (sometimes the hard way) to simplify the process of sustainable furniture decommissioning. It wasn't always easy, so a big thank you to the many supporters and contributors who have joined us in the commitment to a greener earth.

This community effort is just the beginning. We invite the entire furniture industry to join us in the discussion and build a greener future. To get started, **let's connect.**

Sincerely,



contributors

roundtable and playbook

Amegy Bank

Ameriprise Financial

American Society of
Interior Designers

Austin Community College

C.H. Robinson

Conoco Phillips

Hewlett Packard

Hilcorp

Indeed

Kinder Morgan

Los Alamos

National Laboratory

Marathon Oil

Miro

Oxy USA

Shell

Sobeys

Sony Pictures Entertainment

Stephens

TDECU

Technip Industries

The Houston Zoo

Toyota Motor of North
America

University of Pennsylvania

University of Texas

Health - San Antonio

VMware

Worley

creative team

all things kimiko green

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environment

the problem...it's big

no natural decomposition

Landfills lack access to light, moisture and microorganisms that help break down trash, therefore mummifying it.

landfill capacity

As of 2022, it's estimated that we have between 10 - 27 years of landfill capacity left, depending on the region.

greenhouse gasses

Methane is a potent greenhouse gas emitted 24/7 as waste decomposes.

toxic leakage

Called leachate contains hazardous, toxic, carcinogenic chemicals.

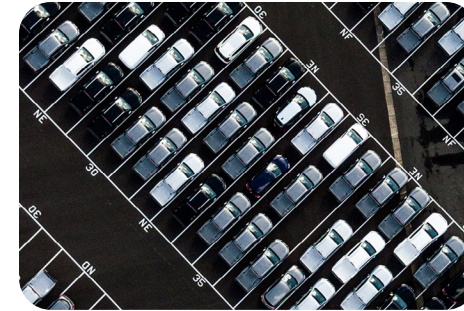
health issues

Adverse health issues from coughing to cancer.

Source: CleanTechnica

industry

the problem...it's sad



wasted resources

US EPA estimates 17 billion pounds of office assets are dumped in US landfills annually. = 5.7 million cars, or 1/3 of all cars sold in the US annually.



reality of our industry

The Built environment currently accounts for 40% of carbon emissions.
Source: World Green Building Council.



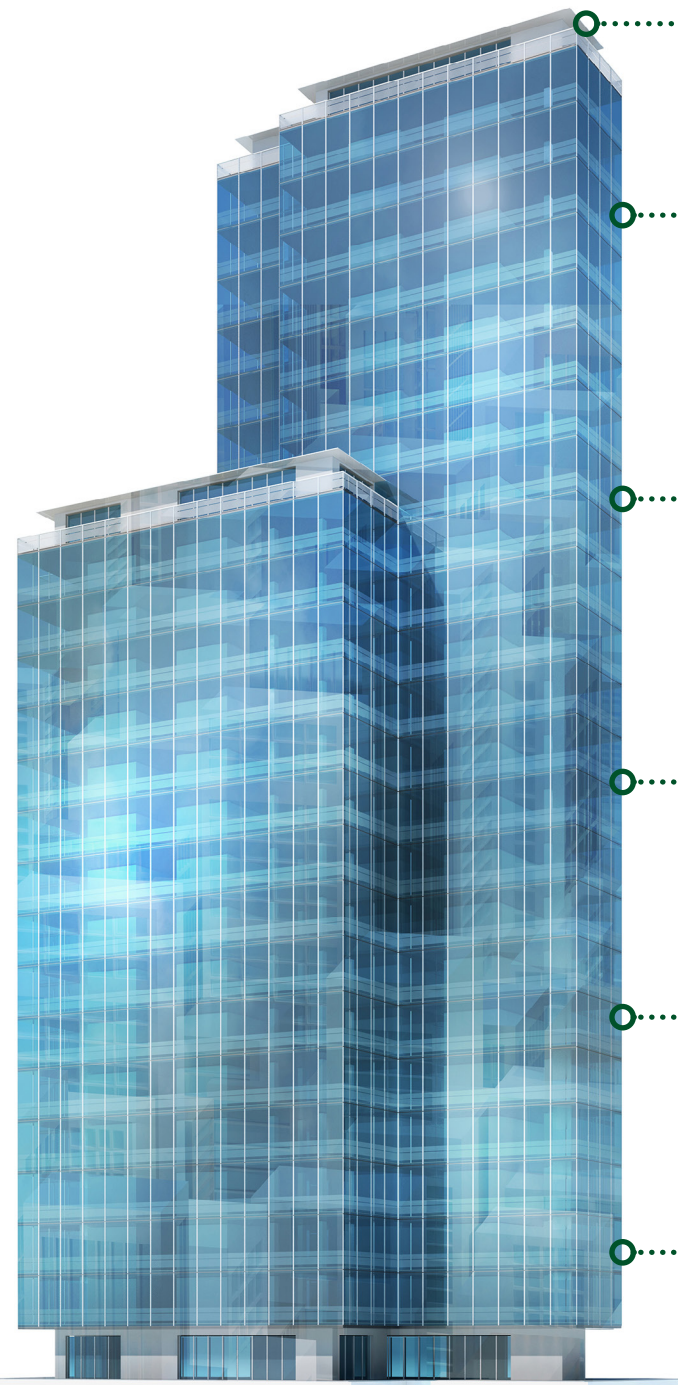
consumer culture

Each year, the US and Canada combined sell \$20 billion of new furniture, which will likely end up in the landfill.
Source: BIFMA 2022



facility

the problem...it's ours



perception

Because furniture is a depreciable asset, it is viewed as "disposable."

corporate governance

Companies' attempts to comply with ESG goals have mainly been focused on core operations and not on their facilities.

expertise

Due to lack of knowledge and industry transparency, sustainable solutions are seen as overly risky, complex and expensive.

cost

Historically, sending products to the landfill without regard to environmental impact has been the cheapest option.

complexity

Many companies do not have established processes, expertise or resources when it comes to furniture.

surplus furniture

Many facilities determine that their furniture is no longer needed but don't know what to do with it.

now what?

as facility owners, managers and decisions makers, we can:

environment

- lower carbon emissions to slow global warming
- reduce the amount of furniture sent to the landfill

trash talk

Currently, 75% of furniture goes to the landfill, even with support of green organizations.

Source: CleanTechnica

industry

- increase the demand for responsible manufacturing
- eliminate up to 1.8 million metric tons of CO₂ (= 300 million trees) per year by diverting 50% of furniture waste from the landfill

Source: CleanTechnica

facility

- lower project costs through furniture reuse
- save money on storage by following proven processes
- redeploy furniture internally or externally, keeping it out of the landfill

"Organizations are trying to do the right thing by storing surplus furniture. However, **warehouses often become above-ground landfills**. Taking a proactive and data-driven approach to storage can reduce operating costs and benefit local communities."

Dianne Murata
kimiko designs

sustainable decommissioning

what it is and why it's the answer

Sustainable decommissioning of furniture embodies solutions that minimize or avoid furniture being sent to a landfill.

These five sustainable decommissioning tactics are listed in order of value to the organization, the highest value being attained through reuse and reconfiguration.

- 1 reuse
- 2 reconfiguration
- 3 resale
- 4 donation
- 5 recycling

This playbook will help you quickly understand options at your disposal (haha get it?). A multifaceted approach often yields significant impact in reducing the amount of furniture your organization sends to the landfill.

The strategies presented within this playbook are organized as follows:

- 1 overview
- 2 roadmap
- 3 roadblocks
- 4 tools
- 5 dollars and sense

With the right leadership and communication about your efforts and strategies, sustainable decommissioning can become an integral (and impactful!) part of your facility operations.

SDGs are a really big deal

Engage your sustainability leaders in the discussion. Sustainable furniture practices support the United Nations 17 Sustainable Development Goals, including:

12 Responsible consumption and production



15 Life on Land

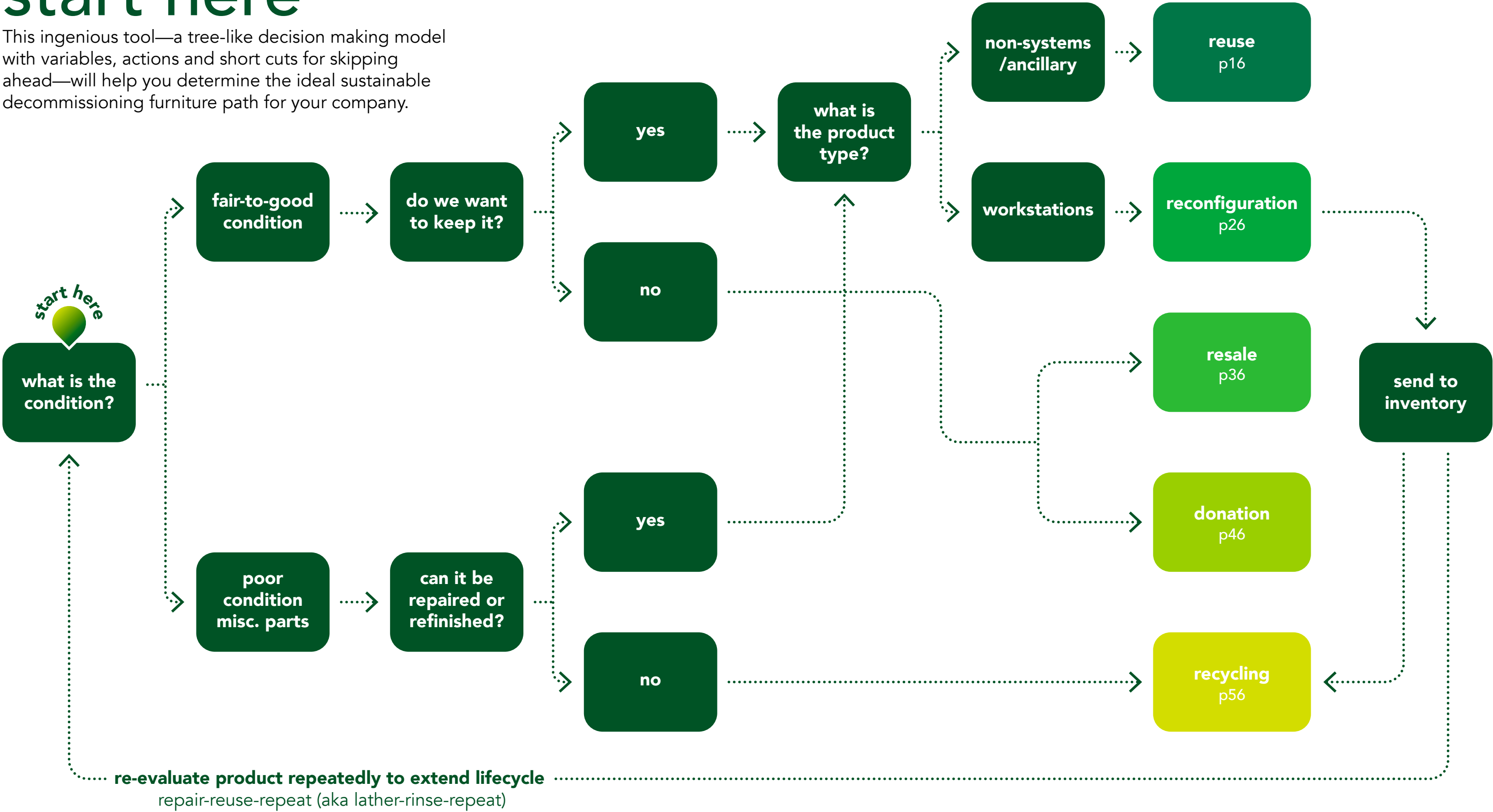


“Sometimes, you just have to be the one to ask hard questions, **own the issue and take steps forward** to drive real change.”

Joanna Friesen Toler PMP
Amegy Bank

start here

This ingenious tool—a tree-like decision making model with variables, actions and short cuts for skipping ahead—will help you determine the ideal sustainable decommissioning furniture path for your company.



1

sustainable decommissioning

reuse

save your planet and your wallet

definition

[ri:'ju:z] verb

Using existing non-systems product (e.g., ancillary) in new areas or new ways.

This is the decommissioning strategy that can result in the greatest impact and cost-savings. Right from the get-go, let all stakeholders know that the goal is to do the right thing for our planet. It's a surefire way to get buy-in from all corners of the organization and even get people pumped up to lend a hand. It also sets the stage for the idea that **the best time to reuse furniture is always.**

50-75%

Furniture budgets can be cut by half (or more) by creatively reusing assets.

Source: kimiko case study

the five w's of reuse

who benefits the most?

- owner and occupants
 - » improves overall project schedule
 - » shortens procurement process
 - » minimizes cost
- environment
 - » and the turtles

what should I reuse?

- ancillary soft seating
- task seating
- conference tables
- occasional seating & tables
- filing & storage

where can furniture be reused?

- the obvious
 - » current or new space
 - » any area you're wanting to refresh
- the less obvious
 - » short-term leases or temporary spaces where it doesn't make sense to purchase new

when is reuse the best option?

when furniture is:

- in good working condition
- only requires cleaning
- can be reupholstered, repainted or repaired

why is reuse sustainable?

- lowers effort and costs to reuse
- results in fewer purchases/reduced carbon footprint
- continues usefulness and keeps product out of the landfill
- extends the furniture life cycle...of course!

how do I reuse furniture?

- for an easy to follow process, refer to the roadmap on the next page

sustainable shout-out

Cornell University achieved a 60% furniture reuse goal and uncovered historically significant pieces during a major renovation.

[read their story here](#)



Source: Cornell University



reuse roadmap

Who doesn't love a roadtrip? Try to think of decommissioning as an adventure. Whether your project is big or small, use this roadmap as a self-guided tour towards conserving both time and money. Buckle up and prepare to save.



Including furniture reuse in your Facility Maintenance and Renovation Policy contributes to v4.1 LEED O+M: Existing Building requirements.



start here

- commit to making a sustainable decision
- identify opportunity for reuse

evaluate assets

- examine condition of items in consideration
- take note of finish, size and quantities

confirm requirements

- verify alignment with workplace goals and standards
- confirm furniture will fit new space
- determine project schedule

refresh & restore

- if possible, repair to maximize furniture lifespan
- refinish or reupholster to coordinate with new space
- clean items to revive appearance

coordinate logistics

- confirm resources and vendors required for scope
- verify building requirements
- protect and store items until reused
OR
- deliver & install

celebrate success

- share your success story, so that others know reuse is not only a viable and cost saving option, but one that is easy and green.

reuse

typical roadblocks

proof of concept



If this is a new initiative, there may not be internal data to evaluate feasibility. Track your project's metrics to establish a benchmark for future efforts.

authorization



Identify the costs and resources required upfront as well as the necessary approvals.

budget



Model different scenarios to prepare a range of magnitude. If needed, trim small amounts from other line items to create a budget for sustainability.

time and talent



Augment your team's capacity. It's ok to start with an outside furniture consultant; learn all you can from them, and follow through on their process. Document all in an organized manner for future use.

employee buy-in



Focus on benefits of new improved layout to overlook temporary inconvenience.

change management tip

Communicate early and often with employees about an office move, explaining the "why" and addressing concerns along the way. Clear communication can minimize resistance and reduce headaches for everyone.

"Reuse and circular practices are the best way to be more sustainable.

Repairs and upgrades need to be an easy and accessible option to landfill."

Helene J. Lauvland
author, *The Carbon Footprint of Furniture*

reuse

finding a second life for your furniture



refurbish items

- clean to remove dust and dirt
- repair any broken or damaged components
- repaint to match new environment
- reupholster for a fresh look
- refinish for a revived appearance



repurpose components

- add height-adjustable legs to make an ergonomic workspace
- turn systems worksurfaces into freestanding tables
- relocate systems storage to other spaces [#thinkoutsidethecube](#)
- create collaborative meeting spaces with lounge seating
- build meeting tables or media consoles from storage pieces



reimagine purpose

- turn uniquely shaped or colored components into wall art or sculptures
- cut down conference table tops and worksurfaces for shelving & transaction counters
- utilize systems panel tiles for wall-mounted tackboards/whiteboards

pro tips

Turn the creative process into a fun design contest with your team and keep in mind that altering product can negate your warranty.

moving towards net-zero

Reducing consumption (e.g., buying stuff) helps reduce emissions from manufacturing.

how to start a reuse program and save money every day

Start by gathering **data and financials** necessary to implement a program.

Identify a **point person** or department for all communications, including simple directions for the process.

Obtain **storage space** to temporarily store items until they are relocated.

Setup **clear guidelines** for what will be accepted and items that no longer align with corporate standards.

Maintain a **visual inventory** of available furniture items.

Make it easy for employees to shop. Setup a **database** or company file for employees to access photos and details.

Setup processes or systems for minor **repairs and cleaning**.

Identify regularly scheduled **pickup and delivery** times to optimize use of labor.

Ensure you capture **data and metrics** to evaluate your program's performance.

reuse

dollars & sense

Whether it's inventory you already own, or an asset purchased on the secondary market, reusing furniture provides the greatest ROI (return on investment). Even if repairs are needed to restore furniture to like-new condition, reusing items is still the more cost-effective option. The financial incentive for furniture reuse is cost avoidance—you are eliminating the cost associated with purchasing new items.

here is a simple calculation:

- identify the current cost(s) of the item(s) you would buy new
- determine the quantity of the item(s) you plan to reuse
- capture any costs for repairs, refurbishment, re-upholstery, etc. including labor and transportation

want to get fancier with your calculation? factor in the following if applicable:

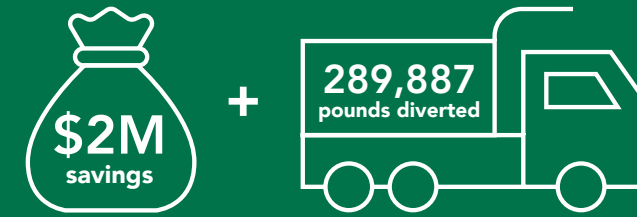
- internal and external costs for design, procurement and installation of new items
- sending product to the landfill (labor, transportation and disposal fees)

formula & example

cost of new	x	quantity reused	-	repairs	=	cost avoided
\$750 task chair	x	50	-	\$3,500	=	\$34,000

case study

Over 3 months, a large tech firm diverted almost 300,000 pounds (the equivalent of 80 full-grown elephants) of waste from the landfill by sustainably decommissioning their furniture.



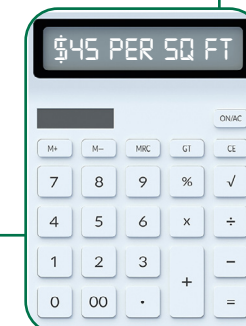
Here are the strategies they used:

- reuse: ~108,000 lbs
- resale: ~142,000 lbs
- recycling: ~44,700 lbs

The project achieved a **95% landfill diversion rate** and saved the tech firm \$2M compared to the cost of new furniture.

did you know?

A typical budget for new furniture can be upwards of \$45 per sq ft in major metropolitan areas. By creatively reusing assets, that budget can often be cut in half or more.



"Sustainability isn't a maybe, it's a must.

Sharing stories about this have proven to drive up company morale and younger people entering the workforce want to know that the company they're interviewing with cares about the environment."

Jennifer Merritt
large tech firm

reconfiguration

lego for furniture nerds

definition

[ree-kuhn-fig-yer-ay-shun] verb

Breaking down systems furniture (e.g., workstations and casegoods) into all the parts and pieces and rebuilding in a new and different way.

The only constant is change, right? Well, systems furniture by its very nature constantly changes too, and extending the life cycle of products increases ROI. Many facility managers often compare reconfiguration to working with lego bricks. There are endless possibilities, you only need imagination (and probably a furniture planner).

the 5 w's of reconfiguration

who benefits the most?

- owner
 - » avoids lead time and reduces cost associated with purchasing new items
 - » minimizes the amount of furniture purchased
 - » requires less time to complete
- environment
 - » and future generations
 - » less product sent to the landfill

what is reconfigurable?

- systems furniture (e.g., workstations)
- casegoods (e.g., private office desks, credenzas and storage)

where would I do this?

- consider spaces that require growth, change or reduction in footprint
- make a simple change such as adding a hoteling station, or create full sets of workstations
- reconfigure in place or share assets across an entire enterprise

when is reconfiguration the best option?

- when a large quantity of product is available
- when there is a need to increase or decrease headcount within existing footprint
- when the existing product meets current design and brand standards
- when time and schedule are limited

why is reconfiguration sustainable?

- leverages existing inventory to meet changing needs
- requires fewer new purchases = reduced carbon footprint
- extends the furniture life cycle...does this sound familiar?

how do I reconfigure furniture?

- for an easy to follow process, refer to the roadmap on the next page

fun fact

By reconfiguring 40 workstations, you could divert up to 11,040 lbs from the landfill.



Source: Davies Office

reconfiguration roadmap



The process of reconfiguration follows the typical phases of design. Because of its technical nature, reconfiguration is most successful when integrated from the earliest stage of a project.

Before starting, map out a clear process with your team to clarify requirements and accountabilities.



1



2



3



4



5



6



think ahead

(pre-planning)

- define priorities for efficient decision making
- build alignment with leadership, especially on larger projects
- establish messaging to use in change management

assemble resources

(programming)

- assess inventory against project furniture goals and workplace standards
- engage all of your project team members
- identify schedule and staging zones

establish design

(schematic design)

- run scenarios to evaluate product reuse potential and optimize reuse of components
- prepare test-fit space plan
- ensure reconfiguration plan aligns with design intent of the space

finalize design

(design development)

- produce technical specifications
- create a phasing plan to maximize reuse components
- engage move coordinator to strategize the movement of people and product

complete documentation

(construction documents)

- complete technical drawings and purchase orders
- procure new components and job stoppers (see reconfiguration tool)
- provide contingency budget for any missing pieces identified during installation

finish strong

(contract administration)

- verify electrical & IT disconnects and reconnects
- oversee tear down, move and rebuild of workstations
- sustainably decommission remaining components (store, donate or recycle)

reconfiguration

typical roadblocks

cost



When considering the costs of reconfiguration, factor in the intangible costs and benefits:

- differentiator for employee recruitment and retainment
- demonstrates a commitment to sustainability

inventory



Even though a high-level inventory will get you started, accurate drawings and inventory lists during the technical analysis will enable you to optimize the reuse of parts and pieces.

expertise



Reconfiguration requires as much effort and coordination as the initial order and installation. Engage designer and consultant expertise to navigate the details.

timing



Develop a detailed schedule to maintain business continuity. Include all of the other construction activities that may be part of your reconfiguration project (e.g., carpet, paint, lighting, walls).

don't sweat the small stuff

Maximize your time and your ROI. Conduct a high-level study of your inventory to quickly generate options that maximize the use of your existing product. Capture the main components (e.g., worksurfaces, panels, storage) to develop new typical layouts.

“Reuse and reconfiguration have really helped us save time and budget. It also helps us allocate our resources where they’re needed most, as many departments have different budgets and needs.”

Jenny McMath
Los Alamos National Laboratory

reconfiguration

tool: bring in the experts

Building a high-performing team is the key to executing an efficient and successful reconfiguration project. While this all may be handled by a project manager on a smaller effort, team members typically include:



ownership = success

Accountability is key to smooth sailing in reconfiguration projects. Identify a point person to lead the process and communications.



reconfiguration

cost (& headache) avoidance checklist



project planning

- minimize missing and damaged parts and reduce offsite trips with onsite storage
- provide a swing space to maintain operations
- consolidate phases to minimize ordering of new parts
- field verify tight dimensions
- prepare core drill plans, if necessary

order extra job stoppers

- include power infeeds, harnesses, panel connectors and power strips
- consider sourcing product from a pre-owned vendor to increase circularity

electrical

- consult with electrician and IT resources early and often
- deliver infeeds to jobsite ahead of installation and require signature

install

- coordinate and double check for conflicts: hvac, thermostat, data drop, wall outlet and light switch locations
- adjust modesty panel locations and order new panels, if needed
- update/publish seating plans and floor plans

change management

- prepare new nameplates in advance
- order change key to switch out locks and master key for facilities
- communicate any new or changed policies to employees for a smoother transition
- clean furniture and empty drawers to create a great first impression for a new user
- schedule and provide product training, especially ergonomic task seating and height adjustable tables

reconfiguration

dollars & sense

It seems obvious to say, but for the sake of the planet, we will say it again. By reconfiguring systems furniture, a company can achieve a new look and feel without incurring the expense of purchasing all new. Reconfiguration also provides an opportunity to reduce footprint.

here is an example of how to calculate this:

- identify the current cost(s) of the item(s) you would buy new
- determine the quantity of the item(s) you plan to reuse
- capture project expenses:
 - » project team consultants
 - » cleaning/repairs
 - » labor for disassembly and install
 - » extra parts/pieces
- identify disposal costs
 - » labor
 - » transportation
 - » tipping fees

here are the bonus (non-financial) benefits:

- demonstrates commitment to sustainability to employees
- supports ESG (environmental, social and governance) goals
- extends life of product and keeps it out of the landfill

pro tip
 Labor for delivery and installation may be a negotiation point.

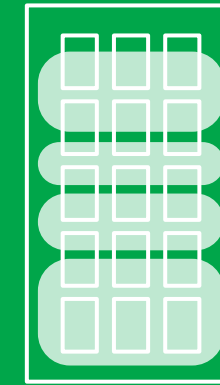
formula & example

cost of new	x	quantity reused	-	project expenses	-	disposal costs	=	cost avoided
\$5,000 workstation	x	80	-	\$75,000	-	\$25,000	=	\$300,000



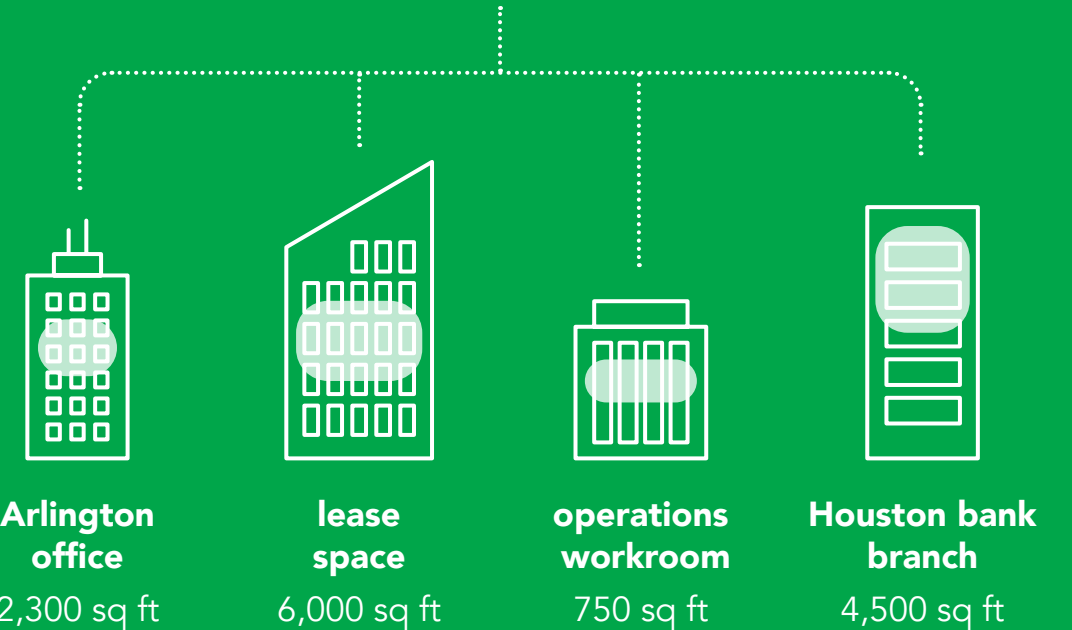
case study

Amegy/Zions Bank repurposed almost 24,000 sq ft of furniture by redistributing workstations, private offices and ancillary furniture across different locations. Remaining ancillary pieces were relocated to upgrade and refresh various locations to avoid storage fees.



Houston HQ
24,000 sq ft

This effort avoided purchasing an estimated \$500K of new furniture. Here's how 24,000 sq ft of furniture was repurposed:



"As facility owners and managers, it's our responsibility to be good stewards of our real estate and resources. **The planet doesn't need all of us doing everything differently, it needs all of us doing one thing differently.**"

Joanna Friesen Toler PMP Amegy Bank

resale

better than an upscale garage sale

definition

[ri:'seɪ] *verb*

Sale of furniture items to outside individuals or companies.

Buying and selling pre-owned furniture continues the life cycle of existing workspace products and is a triple-win (aka win-3D) scenario. The seller generates income, the purchaser saves money and the environment benefits with less waste in the landfill.

the 5 w's of resale

who benefits most?

- seller may
 - » receive cash for unused items
 - » recapture square footage
 - » reduce storage and real estate costs
- buyer obtains quality, commercial grade furniture at a significantly reduced price

what is fair market value (a good deal)?

- fair market value (FMV) is the price a product would sell for on the open market
- keep in mind that the FMV of pre-owned furniture will typically be significantly less than the purchase price and is subject to market supply and demand

where do I go to buy or sell?

- contact local and national pre-owned furniture vendors (brokers, liquidators)
- search online marketplaces
- if vacating your space, contact landlord and brokers to gauge interest of other building tenants
- reference the [kimiko green resource directory \(coming soon!\)](#)

when is resale the best option?

- when you can no longer reuse or reconfigure an item
- when there's a market for the items you're trying to sell
- when there is a need to reduce inventory or storage costs

why is resale sustainable?

- high quality commercial furniture retains its value longer than your average lease
- extends the furniture life cycle...have you heard this before?

how do I resell furniture?

- for an easy to follow process, refer to the roadmap on the next page

fun fact

The pre-owned office furniture market in the US was valued at \$12B in 2019 and is projected to reach \$27B by 2027.




Source: BIFMA

resale

roadmap

Resale continues the life cycle of existing furniture and benefits both the seller (earns \$) and the buyer (spends fewer \$), as well as the environment (less product in the landfill).

Resellers recommend at least 60 days to find new homes for your furniture. This increases the chance that it won't end up in the landfill.




plan ahead

- obtain necessary internal approvals and identify required documentation
- research and estimate product value
- determine if you will be selling directly to individuals or engaging a broker/ liquidator

get ready

- gather item information: quantities, details and photos (see tips for taking great photos on page 43)
- clean, touch up and repair items as needed

spread the word

- if selling direct, share product information through online marketplace listings (e.g., ebay, facebook marketplace)
- if engaging a 3rd party, contact local or national pre-owned furniture vendors (brokers, liquidators) for quotes

make a deal

- establish criteria for evaluating offers (e.g., best offer, first to respond)
- review and negotiate offers
- finalize sale price and terms

coordinate logistics

- verify building access requirements
- confirm responsible party for disassembly (seller or purchaser)
- schedule furniture pickup with purchaser

document & celebrate

- execute sales agreement and obtain receipt for transfer of ownership
- update facility drawings and inventory records
- toast (with reusable glasses) to your success in contributing to the circular economy!

resale

typical roadblocks



where to start

Contact pre-owned vendors, CRE groups, installer/dealer connections, online marketplaces and even classified listings.



determining value

Pre-owned furniture values vary widely - demand for items is the primary driver of value which fluctuates over time.



timeframe

To maximize your return, give yourself plenty of time to work through the resale process; if vacating a space, allow 4 to 6 months.



expectation

Realistically, unless the furniture is relatively new (2-3 years old), it is very possible that the cost to remove the furniture will exceed its monetary value. Communicate to stakeholders that the benefits of resale are also environmental.



pro tip

Pre-owned furniture resellers look for a volume of workstations in a compact, consistent size.

pre-owned furniture vendor perspectives

We surveyed over 400 pre-owned furniture brokers and liquidators to find out what owners need to know about the resale process. Here are the key takeaways:

- **something to consider**
Just like everyone else, resellers are looking for a good deal, purchasing pre-owned items at a significant discount. Be prepared to negotiate a win-win solution for all parties.
- **pre-owned vs. new**
According to the survey, buyers of pre-owned furniture often save 50-70% versus buying new.
- **products in demand**
According to resellers, these products are most in demand:
 - » task seating
 - » benching and workstations
 - » height-adjustable tables

“We need to think more creatively about resale. Instead of trying to sell large lots of items to a small number of people, maybe there’s an opportunity to be a source of smaller parts and pieces for a larger number of buyers.”

Maggie Bryan RID
project manager/
interior designer,
OXY USA

resale

tool: here's what resellers are saying

what's in?



- classic or statement pieces
- conference and collaboration tables
- height adjustable and benching desks
- training tables
- name brand ergonomic task seating
- integrated power/data
- neutral finishes (grey, white, beige)
- natural wood tones

tips for purchasing pre-owned furniture



- build a relationship with pre-owned vendors—so they can source particular product
- create a floorplan to determine what pieces and sizes will fit in your space
- shop around—prices and options will vary
- view product in person to confirm condition
- review quotes to verify quantities, pricing and installation cost

what's out?



- traditional casegoods
- oversized workstations—greater than 8x8
- storage—lateral files, overheads
- tall panels—over 6 feet
- obsolete technology
- mahogany and cherry finishes

It's possible not everything in your inventory will sell. Be prepared to incorporate multiple decommissioning strategies to reduce your inventory.



resale

tips & tricks to maximize resale price

clean furniture

- wipe down all surfaces and remove residue
- ensure no stains are visible
- touch up where possible

declutter and depersonalize workstations

- remove paper and other clutter from worksurfaces
- conceal branded and confidential items, as well as personal photos
- arrange remaining items (e.g., chairs, lamps, plants) neatly

take a great photo before breaking down

- use natural lighting where possible
- take photos straight-on and not at an angle
- minimize background clutter
- avoid using filters

accessorize

- stage accent and conference tables with decor
- add a pop of color through pillows, artwork and area rugs
- incorporate plants, greenery

emphasize features

- highlight locks, built-in power & data and other included accessories
- illustrate storage capacity of drawers and overheads
- showcase unique finishes and manufacturer brands
- reference original purchase order—it's a great source of information about the product you're trying to sell



pro tip

Bundle items like desks + chairs to increase ROI and appeal to more buyers.



resale

dollars & sense

Commercial office furniture resale can be challenging due to high labor costs, which offsets the limited value of the furniture being sold and is why reuse and reconfiguration can have greater financial impact. While you may only receive pennies on the dollar, eliminating the disposal fees to haul furniture to the landfill is not insignificant.

here is a simple calculation:

- identify disposal costs
 - » labor
 - » transportation
 - » tipping fees
- input proceeds from sale to furniture broker or liquidator

formula & example

While the savings may be small, it's still a more cost effective solution for the owner.

disposal costs	-	income from sale	=	cost savings
\$25,000	-	\$20,000	=	\$5,000

brand-name furniture items most in demand by resellers:

- ergonomic task seating
- workstations
 - » 6x6 footprint
 - » large quantity
 - » simple components
 - » universal finishes
- height adjustable tables

pre-owned = savings

Resellers surveyed said planning in advance is the #1 way to increase an owners' chance of successfully reselling their furniture assets.



“What companies paid initially for their furniture has no determination of its value on the secondary market. **What other companies want now determines its value.**”

Bill Adams
Office Furniture
Recyclers Conference

pro tip

When shopping for furniture, incorporating pre-owned product and parts is not only good for your budget but great for the environment.

donation

creating karma currency

definition

[doh-ney-shuhn] *noun*

Gift of pre-owned furniture to other businesses, employees or individuals, creating goodwill, a tax deduction and saving the planet.

Think of this furniture decommissioning tactic as a gift that keeps on giving. Re-homing the furniture you no longer need diverts waste from the landfill. Plus, it helps schools, nonprofits and cash-strapped organizations save precious funds.

the 5 w's of donation

who can benefit from donations?

- employees
- existing charitable relationships
- non-profits
- local schools
- places of worship
- startup businesses

what can be donated?

- all things furniture, in good condition
- smaller tables and chairs are always in demand, in both residential and commercial applications
- office supply donations are often welcomed by non-profits as well

where do I connect with recipients?

- personal networks
- professional networks
- local environmental groups
- community connections
- social media
- **kimiko green resource directory (coming soon!)**

when is donation the best option?

- when reuse, reconfiguration and resale opportunities are exhausted
- inventory and/or storage costs need to be reduced
- the existing furniture still has functional life and can be of benefit to someone else

why does donation matter?

- donations are tax deductible
- reinforces non-profit partnerships
- furthers ESG (environmental, social and governance) efforts
- provides opportunities for internal and external PR
- extends the furniture life cycle...do you see a theme here?

how do I donate furniture?

- for an easy to follow process, refer to the roadmap on the next page

fun fact

90% of employees who work at businesses with a strong sense of purpose say they're more inspired, loyal and motivated.




Source: Forbes

donation roadmap

Like most things in business and life, starting the process early returns dividends. Donating furniture is no exception. Grab some snacks and fuel up for the journey.

Based on a survey of sustainable decommissioning vendors, the #1 tactic to improve donation efforts is to start early and plan ahead.




plan ahead

- engage HR and community relations to identify charitable partnerships and strategies
- coordinate internal approvals

gather info

- identify potential costs and responsible parties
- gather item quantities and details, including photos
- establish time frame

distribute info

- circulate information about available items
- share, share, share via multiple outlets and relationships
- select and notify recipient(s)

coordinate logistics

- engage FF&E expert to space plan and maximize product reuse
- verify recipient location and schedule delivery
- determine building specific requirements for deliveries

clean & deliver

- perform final cleaning including touch up, steam cleaning, dusting
- coordinate labor and transportation for pickup and delivery

document & celebrate

- calculate fair market value (FMV) for tax purposes
- secure required documentation including liability waivers (recommended)
- high five your team and celebrate

donation

typical roadblocks



approvals

Obtaining leadership approval is the best way to get started. Get your facts together—volume of product and anticipated fair market value (FMV) to start the discussion.



product identification

If you're unsure about what you have, contact a designer, dealer or manufacturer to help define the inventory you're working with.



effort

Yes, coordinating furniture donations takes time and effort—especially when multiple recipients are involved—but being strategic and planning ahead can impact the process and the planet for the better.



associated costs

Identify costs for delivery and installation and determine who will cover these. Even though cleaning and managing inventory comes with a cost, it will improve your chance of finding a recipient.



liability

Coordinate with your internal resources to mitigate any liability and tax concerns. Oftentimes, a waiver and receipt can be drafted as solutions.



Looking for sources of funding? Consider sharing expenses with other departments in your organization to support a sustainability initiative.

“Executive buy-in is one of the most important drivers to sustainable furniture reuse, to mitigate hurdles that senior leadership, via an executive sponsor, can overcome.”

Giancarlo Perossa AIA, RA,
LEED® AP BD+C
senior corporate
real estate leader



pro tip

Manufacturer make and model information is often found hidden on the underside, inside or backside of products.

donation

tool: insider knowledge

best practices

- establish strong partnerships with vendors early on to facilitate logistics
- consider these popular items because of their universal application and portable size
 - » task seating
 - » simple desks
 - » tables
 - » shelving
 - » stackable chairs
- be sure to document your process and collect data along the way to create success stories and impact statements

spread the word

- internal HR and PR departments
- neighboring tenants
- A&D firms that serve the non-profit sector
- project management firms
- personal and professional connections
- online freecycle marketplaces
- social media

potential recipients

 employees	 charitable partners	 non-profits
 local schools	 place of worship	 startup companies

national charities with free furniture pickup



Source: MyMove

donation form

organization _____

address _____

phone _____ email _____

furniture

item(s)	quantity	description (color, size, details)	condition

requirements: cleaning assembly

additional notes _____

pickup

availability: day _____ time _____

labor required? Y N

building access/requirements _____

delivery

availability: day _____ time _____

labor required? Y N

documentation

receipt required? Y N

liability waiver required? Y N

donation preference:

public anonymous

donation

dollars & sense

Overall, donating commercial furniture to a qualified charitable organization is a win-win that benefits both the business and the community. While some costs can be avoided when donating furniture, there are typical expenses that an owner should expect to incur. Even with these expenses, it is usually more advantageous than sending items to the landfill.

here how we calculate the cost savings for donation:

- identify disposal costs
 - » labor
 - » transportation
 - » tipping fees
- determine donation costs, here are some typical ones:
 - » cleaning
 - » furniture PM/consultant
 - » inventory
 - » transportation & labor
 - » storage

formula & example

disposal cost	-	donation cost	=	cost savings
\$15,000	-	\$7,500	=	\$7,500

kimiko case study

As part of a furniture decommissioning project for a municipality, kimiko inventoried 200,000 sq ft of office space and established a process for reuse in other facilities. An estimated 180 tons of furniture was identified for landfill diversion—more than the weight of the largest known blue whale (140 tons). The remaining furniture was donated within the local community.



180 tons



> 1 blue whale

tax deductions:

We're furniture nerds, not accountants, however, we do know tax benefits vary depending on the business's tax situation, structure and the nature of the donation.

some common tax benefits include:

- charitable contribution deduction
- appreciated property deduction
- capital gains tax avoidance

important to note:

- charitable organizations must be recognized by the IRS
- don't forget to include FMV (fair market value) in the documentation

80% of round table survey respondents say their organization has dedicated sustainability roles. Of those, **70% say that their strategies do not currently address furniture decommissioning.**



pro tip

Linked here is a handy tool for calculating FMV (fair market value).



recycling

it's not just for plastic bottles

definition

[rē-sī'klīng] *verb*

The action or process of converting waste into reusable material.

Recycling is an aspirational ideal but is currently a last resort in the sustainable decommissioning process. To support a more viable business case for recycling, further investment in technology and infrastructure is needed. However, when recycling is the only option, research local recycling facilities and guidelines to ensure proper handling and processing of materials.

the 5 w's of recycling

who benefits the most?

- organizations with ESG (environmental, social and governance) targets
- manufacturers who source recycled materials as part of their business model
- environment
 - » and future generations

what items can be recycled?

- commonly accepted materials
 - » metal
 - » glass
 - » natural wood (non-laminate)
 - » cardboard
 - » some plastics

where do I recycle?

- recycling centers vary by location and accepted materials
- www.RecyclingCenters.org is a great online directory for finding recycling centers in your area

when is recycling the best option?

- when options for reuse, reconfiguration, resale and donation have been exhausted
- when the product is at the end of its lifecycle

why is recycling sustainable?

- it creates raw materials for manufacturing, generating a circular economy
- it sends less product to the landfill

how do I recycle?

- for an easy to follow process, refer to the roadmap on the next page

fun fact

Recycling aluminum not only conserves natural resources but also saves energy compared to producing new aluminum from raw materials.



Photo credit: Emeco

recycling roadmap

While hope is not a strategy, we remain optimistic that recycling infrastructure and technology options will improve. In the meantime, every effort matters. We look to furniture manufacturers to expand product offerings that incorporate recycled materials and are easy to recycle.



Earn up to two (2) credits for tracking all renovation debris (including furniture) and diverting, salvaging or recycling 50% or more under LEED v4.1 BD+C: New Construction.



think ahead

- ask: is there a creative way to reuse or repurpose parts/pieces? #thinkoutsidethecube
- determine what documentation is required for sustainability goals or other programs (e.g., LEED)
- obtain any required approvals

research & plan

- identify local recycling facilities, resources and requirements
- engage decommissioning vendors to understand options, scope and pricing
- determine which products and materials can be recycled

coordinate logistics

- confirm disassembly, labor and safety requirements
- deliver material(s) to local recycling center(s)

document & celebrate

- gather receipts, documentation and submit to appropriate entities
- applaud yourself for increasing the circularity of resources

recycling

typical roadblocks



recyclability

Verify what materials the recycling center will take. You may have to contact more than one location.



power struggles

Before sending power items to the recycler, check with pre-owned vendors first. Often times, they will be interested in purchasing discontinued power to supplement their inventory.

Pull all the cable from the raceways and power poles and take to an electronics recycling vendor.



labor costs

Sorting and deconstructing for recycling can be labor intensive, including the cost to remove materials that cannot be recycled, so as not to “contaminate” the good stuff.



non-recyclables

No thank you to laminated wood, foam cushioning, coated textiles and styrofoam packaging. Confirm with your local recycling vendor.



“Many office furniture manufacturers put so much of their time and money into sustainable materials and processes in the manufacturing of new pieces, but **there is a blind spot to the end of life and circularity.**”

Jon Strassner LEED AP®
chief sustainability officer, ASID

recycling

tool: understanding the complexity



Recycling, while commonplace, is not always the most effective option for commercial office furniture. Improvements in recycling technology and infrastructure have the potential to make this a more sustainable option in the future.

pros



- decreases waste sent to landfills
- reduces demand for raw materials
- raises environmental consciousness
- supports corporate ESGs

cons



- technologically complex
- recycling center locations and capabilities vary significantly from region to region
- labor and cost intensive process
- creates emissions through energy-intensive processes
- lacks transparency and standards

the future of recycling



- the US market for exporting recyclables has been reduced
- change will be driven by large organizations in tandem with public policy
- as manufacturers adopt more eco-friendly materials and production methods, furniture will be easier to disassemble and recycle

sustainable decommissioning: 5 recycling

 kimikodesigns

recycling

Here's a list of commonly recyclable items in your typical office environment. Plan ahead for labor costs including disassembly as well as transportation. We love this resource for finding local recycling centers: www.RecyclingCenters.org

steel

- desk frames
- filing & storage
- chair frames & bases
- panel systems (connectors, frames)
- table legs

aluminum

- chair bases
- panel systems (panel tiles, trims)
- table legs
- tackboard/markerboard frames

glass

- panel systems (glass tiles)
- table tops
- markerboards

plastics (PET, HDPE, PVC)

- mesh textiles
- poly chair seats
- chair mats

electronics

- panel systems electrical
- conference tables
- height-adjustable tables

fun fact

Steel is 100% recyclable and can be recycled indefinitely without losing quality, as its properties don't degrade during the process.



Source: American Iron & Steel Institute

think outside the cube 

kimiko green playbook kimikodesigns.com



recycling

dollars & sense

Recycling is another scenario where the financial gain is measured in cost avoidance. There are expenses to plan for, as well as the opportunity to offset these with revenue from the recycled materials. But the more compelling benefit may be the green story associated with supporting a circular economy.

here is a simple calculation:

- identify disposal costs:
 - » labor for disassembly and removal
 - » transportation
 - » landfill dump fees
- calculate recycling expenses:
 - » labor for disassembly and removal
 - » transportation
 - » recycling fees (if required)
- capture recycling income:
 - » metal or glass



pro tip

Short on funds?
Collaborate with other departments to share expenses for a sustainability initiative.

formula & example

disposal costs	-	recycling expenses	+	recycling income	=	cost savings
\$30,000	-	\$25,000	+	\$500	=	\$5,500

kimiko case study



global engineering firm

Leadership looked to kimiko designs to solve 3 problems:

- consolidate real estate
- reduce FF&E budget
- do it in a sustainable way

As a result of the multiple sustainability strategies below, the budget for this commercial office refresh was cut by nearly half from \$30/sq ft to \$18/sq ft.

- reuse
 - » conference tables, table bases, lounge seating
- reconfiguration
 - » 100 workstations and 25 private offices
- donation
 - » filing and storage cabinets to employees
- recycling
 - » 7,992 lbs mixed recycling
 - » 2,293 lbs cardboard

disposal costs \$1300	-	recycling expenses \$500	=	cost savings \$800 or 62%
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“We are working on building a program that will ensure **we only bring in furniture that can be recycled** and is made with sustainable materials.”

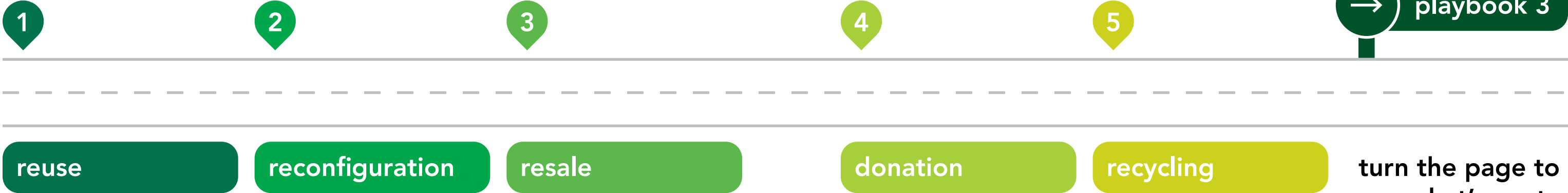
Lauren Ascolese
Indeed

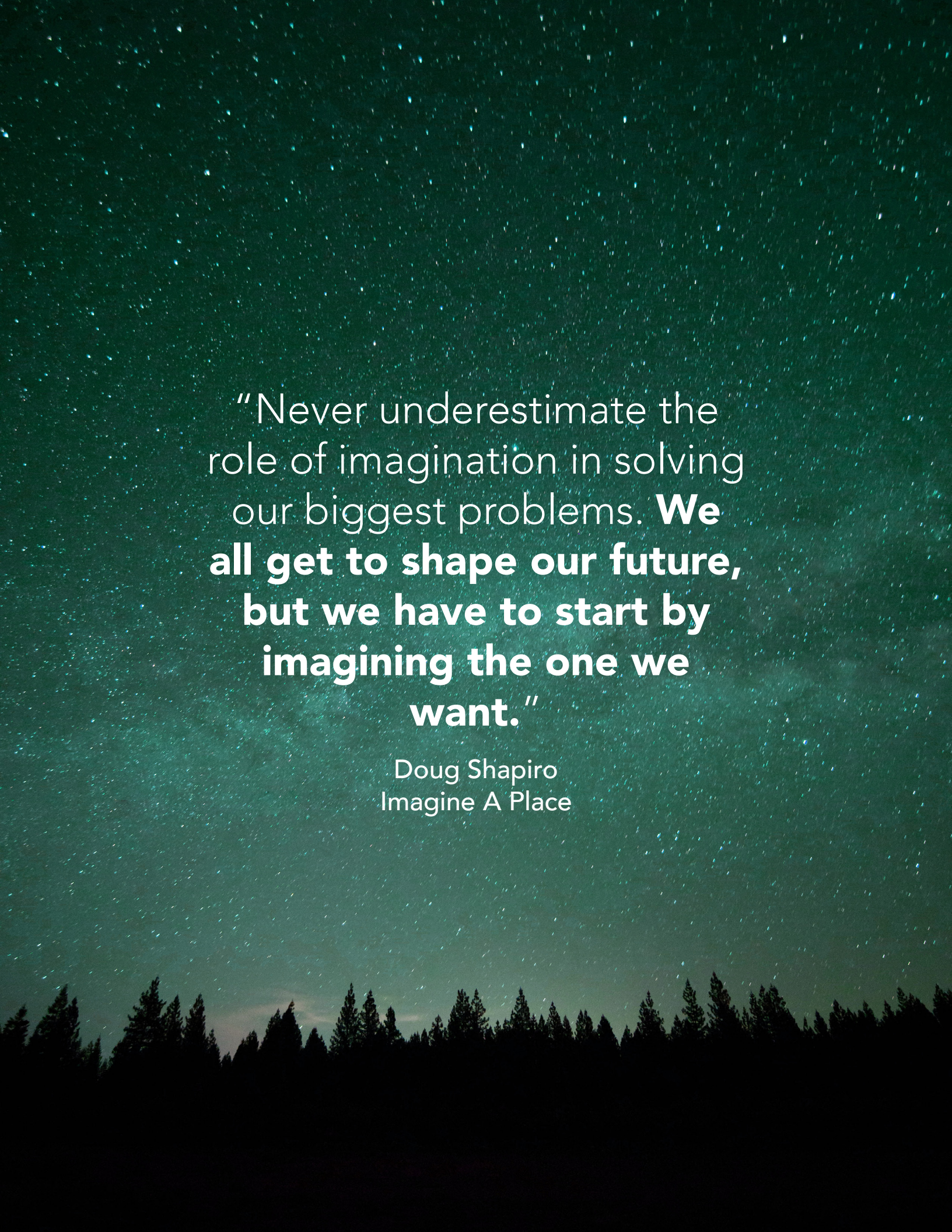
stay tuned

roadmap

Playbook 1 provides end-of-lifecycle alternates to sending commercial furniture to the landfill. We've mapped out options to help your business save costs, promote environmental responsibility, enhance your brand image, foster community engagement and support a circular economy.

We're just getting started...





“Never underestimate the role of imagination in solving our biggest problems. **We all get to shape our future, but we have to start by imagining the one we want.**”

Doug Shapiro
Imagine A Place

this is just the beginning

Sustainable decommissioning is only one of the ways that we can save the planet. Our next series of round tables and accompanying playbooks will focus on reducing the environmental impact of furniture through sustainable design, manufacturing and selection, followed by sustainable furniture operations and maintenance practices.

Facility owners and managers, join the discussion and next round table series. Let's find better solutions for surplus furniture **together**.

definitions

ancillary

freestanding furniture items placed here and there for this and that, including office and workstation seating, files and casegoods

carbon capture

trapping and storing carbon dioxide so that it cannot adversely affect the atmosphere

carbon footprint

quantity of greenhouse gases, specifically CO₂ (carbon dioxide), emitted by a being, object or activity

casegoods

furniture that provides interior storage space

donation

gift of pre-owned furniture to other businesses, employees or individuals, creating goodwill, a tax deduction and saving the planet

FF&E

furniture, fixtures and equipment make up a well-rounded roster for outfitting a facility's interior

furgatory

where furniture details of varying size, price and importance disappear, in spite of good intentions

furniture friends

community of people who design furniture, make furniture, buy and use furniture, install furniture and donate furniture

furniture nerd

a person who loves furniture so you don't have to; e.g., kimiko

HDPE (high-density polyethylene)

a thermoplastic polymer

kimiko

furniture planners and consultants (aka furniture nerds, furniture whisperers or your best furniture friends)

LCA

Life Cycle Assessment

LEED®

Leadership in Energy and Environmental Design; certification can be earned for buildings, architects/designers, contractors and products

LEVEL®

attests that the product, the factory and the corporate entity meet the ANSI/BIFMA e3 Furniture Sustainability Standard

PET (polyethylene Terephthalate)

a synthetic resin widely used to make polyester fibers

PVC (polyvinyl chloride)

a tough chemically resistant synthetic resin used for a wide variety of products including pipes, flooring and sheeting

reconfiguration

breaking down systems furniture (e.g., workstations and casegoods) into all the parts and pieces and rebuilding in a new and different way

recycle

the action or process of converting waste into reusable material

refurbish

same product, coaxed into like-new condition, for reuse

reimagine

like the props on whose line is it anyway, it's fun to think of creative new uses for old things

repurpose

same product, same or different location, different use

resale

sale of furniture items to outside individuals or companies

reuse

using existing NON-SYSTEMS product (e.g., ancillary) in new areas or new ways

SME

subject matter expert; furniture nerd on steroids

sustainable decommissioning

disassemble and remove workstations and other existing furniture with an intentional process to mitigate impact on the environment, aka asset disposition

systems furniture

by any other name: workstations, cubicles, cube farm, pods, clusters, typicals, panel system

task seating

primary employee chair, typically swivels and may be adjustable by the user

VE


value engineer; to consider alternate products or configurations that function well and cost less

WELL™

WELL-certified spaces are designed to improve workplace satisfaction, increase levels of productivity and show gains in health and well-being by meeting specific criteria

workstation

employee workspace: cube, sweet cube



“Never doubt that a small group of committed citizens can change the world; indeed, it is the only thing that ever has.”

Margaret Mead



join us!
changing the world
one chair at a time