

# Let's go round again

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## **Office strip-outs can be a notoriously wasteful process ? so researchers in Sydney are investigating recycling rates and exploring how the principles of the circular economy can be applied**

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The circular economy, based on a cycle similar to those identified in nature, is defined by the [Ellen MacArthur Foundation](#) as "an industrial economy that is restorative or regenerative by intention and design". It follows these 3 key principles:

- designing out waste and pollution;
- keeping products and materials in use; and
- regenerating natural systems.

However, in the words of the [UN Environment Programme](#) , society's current economic paradigm is a linear one of "take, make, dispose", a pattern that becomes increasingly unsustainable. How can the principles of the circular economy be applied? In commercial property, it can seem easier to generate waste than not.

As a case study, the city of Sydney has more than 5,000,000m<sup>2</sup> of office space and this is typically refurbished every 7 years, the average lease duration for premium offices. Traditionally, such leased space includes air conditioning, suspended ceilings, light fittings, carpeting and painted walls. Meeting rooms, partitions, furniture, fixtures, fittings and finishes are then added, and this often requires supplementary packaged cooling units.

Tenant additions remain until the lease expires or the space is refurbished. At termination, tenants remove all the changes they have made in an office strip-out. However, packaged units have an effective lifespan of 15-25 years, meaning that ductwork is usually scrapped long before it is worn out, while furniture can last at least twice the length of an average lease. This poses a problem for the circular economy.

Each year, 400,000m<sup>2</sup> of commercial space in Sydney's central business district is typically refurbished, with 25,000 tonnes of materials stripped out. Of this, 79% ends up in landfill, meaning the Australian construction industry recycling rate of 64% is missed by some margin. In a commercial market characterised by low vacancy and high rental values, the relative frequency of strip-outs creates substantial unnecessary waste. Compounding this is the limited opportunity for recycling during strip-outs and their tight time frames, resulting in poor separation of waste and recycling streams.

The [Circular Economy Model Office Guide](#) outlines 5 steps for minimising strip-out waste:

- cataloguing and analysing the existing materials;
- designing for re-use and recycling;
- building for re-use and recycling;
- soft fit-outs and furniture optimised for re-use and recycling; and

- review and evaluation.

However, the guide's focus is on how furniture, walls and ceiling materials can be re-used, and how coordination between incoming and outgoing tenants is key to achieving this. It does not cover any remaining waste such as window blinds, or equipment in staff kitchens.

[Sydney's Better Buildings Partnership](#) (BBP) has therefore prepared a [10-step best practice guide](#) for dealing with strip-out waste and is aiming to divert 80% of waste from landfill in Sydney office strip-outs (see Table 1).

## **Making good**

'Make good' is the term used in Australia to describe 'the process where the tenant is required to hand back the premises in a particular condition established by the lease' ([RICS Make Good Guide](#), 2nd edition), and is similar to the procedure for dilapidations in the UK. Typically, it involves the tenant demolishing partitions, removing furniture and services, and reinstating all original fittings, fixtures and finishes.

Landlords are in a better position, environmentally and strategically speaking, to take ownership of the make-good process as they tend to have large property portfolios and experience in strip-outs. Therefore, they often agree financial settlements with tenants: effectively paying the landlord to make good in this way enables tenants to use the building until the final day of the lease, leaving all furniture and services when they go.

Tenants can then focus on their new office, and not have to risk the make-good not being completed on time or to correct standards. Owners meanwhile appreciate settlement because it gives them the option to upgrade fixtures and fittings.

In 2011, the Sydney BBP was established by building owners, managers and influencers including Lendlease, Investa, the Property Council of Australia, CBRE, the University of Technology Sydney (UTS) and JLL to improve performance and sustainability. In 2016, a green leasing standard was introduced, and to date 50% of offices in the city's central business district have integrated this into leases. Given the length of leases and the recent introduction of this clause, the impact is not yet evident. In 2017, however, BBP strip-out projects were recovering 50-60% of resources.

The RICS guide [Greening Make Good Australia](#) attempts to reduce make-good waste, covering the triple waste stream where:

- outgoing tenants adhere to lease obligations, removing all furniture and additional services;
- owners upgrade space to improve appeal for future tenants, resulting in more waste; and
- incoming tenants change space, disposing of owner upgrades.

Step	Comment
Set a corporate recycling target for refurbishment	All Sydney BBP members are committed to pursuing 60% recycling rates in refurbishment projects, and aspire to achieve 80%
Agree on responsibility for make-good and handover date	Confirming the handover date well in advance allows the clear allocation of responsibility, which greatly increases the potential to re-use and recycle
Document furniture in the tenancy using BBP's <a href="#">inventory template</a>	Furniture inventories should be made available to the market as early as possible; generally, the longer the lead time, the more furniture can be recovered
Evaluate tender for strip-out contractors, with consideration given to proposed resource recovery plan and achievable recycling rate	Contractors presenting more extensive resource recovery plans or better recycling proposals should be preferred for the project
Tender refurbishment should work according to Sydney BBP's model clauses	Tender documents should include corporate targets for recycling from refurbishment as per Sydney BBP guidelines, including the weighting given to the resource recovery plan and the expected recycling rate in the tender response assessment
Divert unwanted furniture using Sydney BBP's re-use and recycling directory	BBP maintains a list of businesses, charities and education facilities in Sydney that could potentially receive unwanted furniture
Work should be contracted according to the resource recovery plan, and the contractor supported to plan material separation	Contractors should be held to fulfilling their resource recovery plan and present evidence of having done so
Validate the resource recovery report from the contractor and confirm the recycling rate	Contractors should report waste according to Sydney BBP guidelines, and, where demolition work is involved, include in this report any furniture rehomed by the outgoing tenant or building owner
Develop project case studies to highlight good practice and any other lessons	Case studies are essential in recording and sharing lessons from projects, and are also encouraged to recognise best practice
Specify which furniture and recyclable materials have been used in the new fit-out	Sydney BBP encourages its members to consider the end-of-life cost and impact of fit-outs

The guide's Make Good Deed addresses this problem, helping tenants and owners reach a financial settlement that gives the latter control of the fit-out process. This approach potentially reduces costs for both parties as well as material wastage and conflict, and saves time.

In 2015, the [Green Building Council of Australia](#) also issued [Green Star ? Interiors](#) , a rating tool for office fit-out. This encourages tenants to design sustainable fit-outs, awarding them up to 19 points for material selection. If they achieve this, they have 25% of the points for a 6-star fit-out, ranking as world leaders, or up to 32% of points for a 5-star fit-out, demonstrating Australian excellence. Points are awarded according to how much re-used or recycled material is in a product, or for selection of products with stewardship programmes. Only 19 Green Star ratings were awarded in Sydney during 2017.

Given the ways in which the principles of the circular economy can improve the sustainability of office strip-outs, researchers at UTS wanted to learn:

- what changes can be made so strip-outs become more sustainable;
- which stakeholders are best placed to make the changes; and
- how stakeholders can collaborate to make strip-outs more sustainable.

Major stakeholders, tenants, owners, contractors, sustainability consultants and leasing agents were interviewed, and the findings will be explored in the next article.

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## Further information

- Related competencies include: [Sustainability](#) , [Workplace strategy](#)
- This feature is taken from the RICS [Property Journal](#) (Jan/Feb 2020)
- Related categories include: [The circular economy](#) , [Offices](#) , [Sustainability](#)