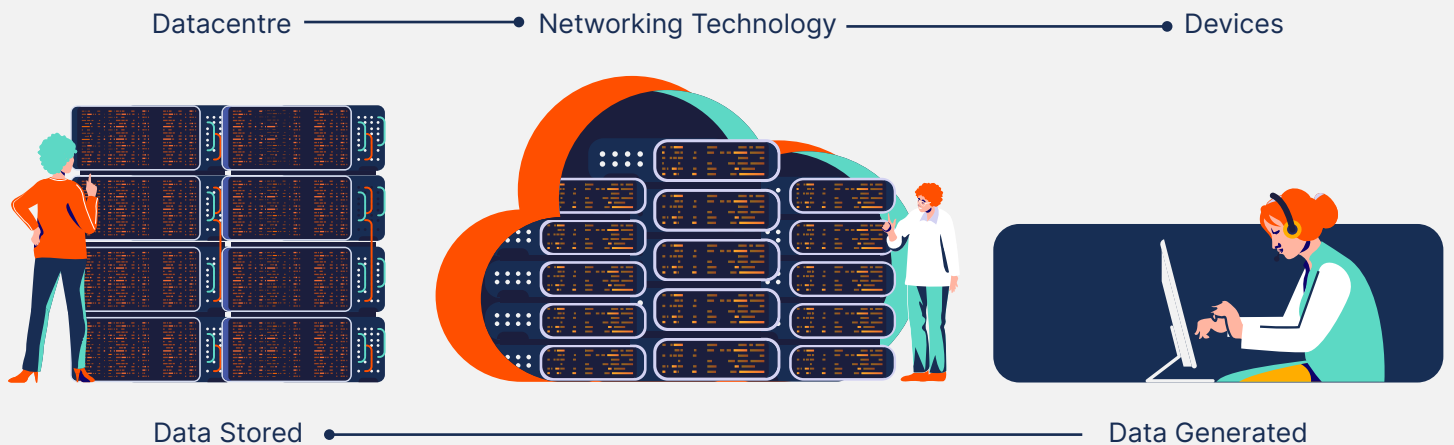


What is Sustainable IT?

Sustainable IT is the umbrella term used to describe the design, manufacture, use and disposal of IT equipment with minimal impact on the environment. It is also known as 'green IT'.

Why it's needed



As the world digitally transforms, we become ever more reliant on technology. It's not just technology software, it's the hardware that we use, the networking infrastructure that connects our devices to the datacentres; the data that flows through billions of miles of cables and the data itself that needs generating, moving and storing. Technology is often heralded as the hero in our climate crisis but it can't be the hero if it leaves chaos in its wake.

The problem with IT

The way we use IT has consequences. Often heralded as the solution to the world's problems, it comes with a cost - ICT is estimated to contribute to 3-6% of global carbon emissions. Needless replacement cycles, constantly defaulting to brand new equipment, not using technology for its maximum life and a failure of the global system to recycle eWaste means IT is a significant contributor to climate change and the degradation of human and planet health through carbon emissions, eWaste and resource use.

How can IT change?

We have to make non -new supply chains more readily available, both for vendors and customers to prevent overconsumption of 'new'. It also makes our supply chains more resilient. The good news is that at Circularity First and across our businesses we have been promoting non new supply chains for the last 12 years. Our IT solutions include authorised remanufactured (Cisco Refresh), authorised equipment through Excess, reused, refurbished, and repair solutions. Becoming Circularity First enables us to share this range of solutions with a wider range of

Global problem

Over consumption of technology damages human health and our planet, contributing to climate change.

CO2

The amount of carbon dioxide (and other greenhouse gases) in the atmosphere is the biggest risk to life on our planet.

As businesses measure their carbon footprint they see that IT is often 5-20% of their organisation's scope 3 emissions (their business activity emissions).

Sustainable approach

Estimates suggest that up to 80% of IT's carbon footprint is in the manufacture and transportation of the products.

This is called embodied carbon. The carbon created to make the product. Keeping the equipment in use for longer is the best thing to do to reduce this carbon impact. Working with customers we often extend the life of platforms by 2-3 years which prevents the need for new products and their associated carbon emissions

We use the 8 x R approach to keep IT in use for longer.

In a word or two....

CO2 is the biggest issue the world has to focus on.

Reusing IT and keeping IT in use for longer reduces global carbon emissions

Our 8 R approach presents a more sustainable approach to IT use.

Scarcity of Resources

We already have a chip shortage caused by a global pandemic and climate change. This is a preview of what's to come as demand for resources outstrips demand- leading to higher prices and longer lead times. These resources will run out.

Many critical rare earth materials and minerals are crucial for IT products, with demand expected to exceed supply in the next decade. We need to be smarter about when we need new products as every product uses natural resources.

Sustainable approach

The way to ensure these resources remain available is to keep them in use. Recycling is the last resort as getting the rare earth minerals out of IT products is hard.

Our 8 R approach to sustainable IT means we keep what we have in use for longer and we take a Circular Approach to how IT is used

Only 17% of IT is officially recycled so most ends up in toxic eWaste dumps where it's hazardous for people and for our planet.

In a word or two....

Every physical resource on our planet is finite, so we have to reuse it. Everything has to become part of a circular economy where resources are kept in use for longer

IT is now exception so by promoting and enabling a circular approach for IT we prevent overconsumption of new. This will ensure there are natural resources for future generations.

eWaste

The world's fastest growing waste stream is not only toxic to humans, but also contains the very materials that we are running out of. (See above) Materials we need are just sitting in eWaste dumps around the world.

Society throws away >50m tonnes per year (8 pyramids), and this is expected to double by 2050.

Sustainable approach

For most IT equipment there is another customer out there somewhere that can make use of technology an organisation no longer needs.

This ensures that once an organisation no longer needs IT, that another organisation can make use of it, preventing it becoming eWaste.

That's what our 8 R approach to IT is all about.

In a word or two....

IT is not being used to the maximum of its life. 3 to 5 years is the average lifespan of use in an organisation but it's true usable life is 2-3 times that.

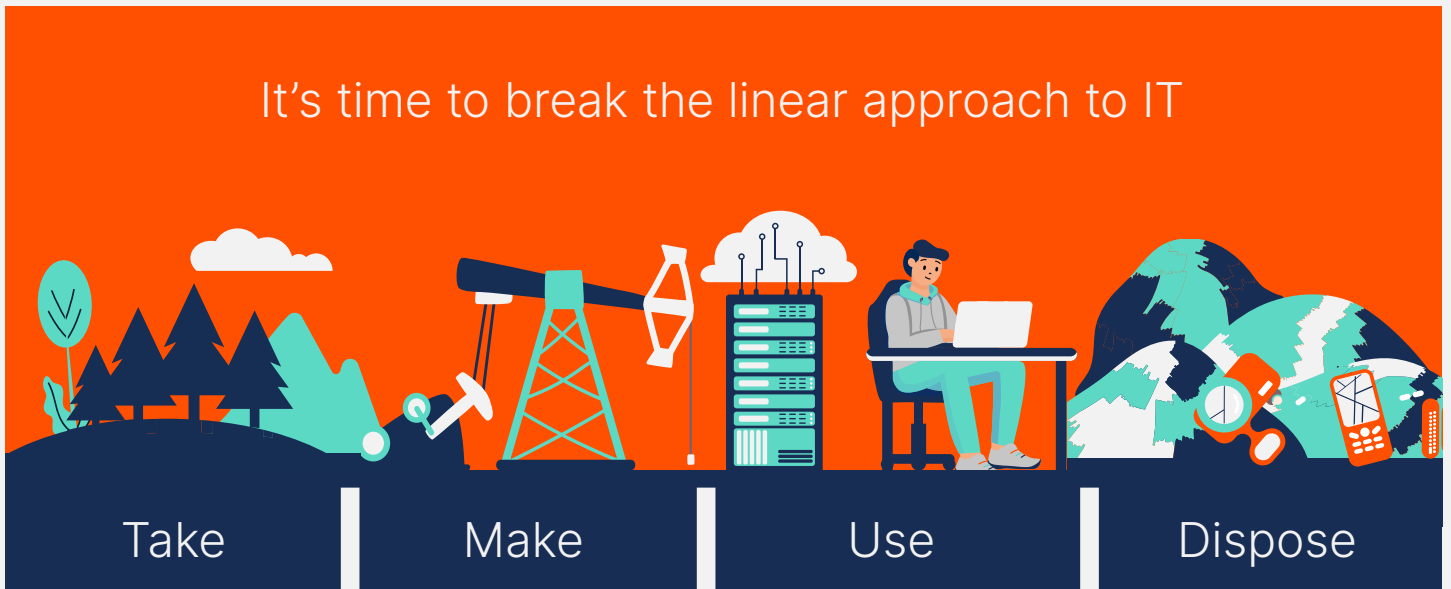
The 8 R approach to IT ensures IT is reused until it reaches the very end of its life. Reusing IT creates economic and social value and it prevents human and environmental damage.

So how do we do it?

Here at Circularity First, our business advises and supports organisations to take a more sustainable approach to IT.

We offer advice on how to make organisations IT departments more sustainable and we help businesses build plans to align IT with business sustainability targets.

Our group businesses supply reused IT, offering fully authorised manufacturer backed IT through to replacement parts for a laptop. Our entire business is focussed on sustainable IT, keeping IT in use for longer. Our approach and solutions cover each element of the 8 R model below.



Sustainable IT. Key terms

Reduced Need

Long term commercial and sustainability gains are made by extending the life of IT and reducing the need for new equipment. Most IT platforms can be safely extended, and capacity increased using trusted technology at a fraction of the replacement cost.

Reduced by Design

An approach to IT infrastructure that designs in circular economy principles and designs out waste, decoupling economic growth from resource use. Taking a sustainable approach means viewing all aspects of the technical solutioning, supply chain and logistics strategy, implementation and migration, in-life usage and maintenance, data use, and consumption models, planning for end of use, asset recovery and next use through the lens of a circular IT mindset.

Authorised (Refurbished or Remanufactured)

Authorised equipment has been refurbished or remanufactured and certified specifically by the original equipment manufacturer (OEM). It has been restored to its highest utility and comes complete with full manufacturer warranties.

If an organisation uses an OEM's support contract, they are already relying on authorised refurbished or remanufactured equipment as the most likely replacement in result of a live failure. These authorised solutions offer the highest resilience and reliability of all sustainable IT product solutions, all backed by the vendors.

Remanufactured

Remanufactured hardware has been fully deconstructed, checked and reconstructed with either re-used or new parts, rebuilt to the specifications of the original manufactured product. Every component is tested, from the battery to the motherboard, and the finished products will all look new and identical.

In 2017, the Remanufacturing Industry Council (RIC) developed an industry standard for the remanufacturing process, defining it as 'a comprehensive and rigorous industrial process by which a previously sold, leased, used, worn or non-functional product or part is returned to a like new or better than new condition from both quality and performance perspective through controlled and reproducible and sustainable process.'

Refurbished

Used hardware which has been tested for defects, worn and damaged components replaced and re-sold. Functionally sound, refurbished hardware is not necessarily returned to an 'as new' aesthetic condition although this can depend on the condition of the original equipment. Refurbishment may or may not be supported by the manufacturer.

Reuse or Redeployed

Often technology has more life remaining than the current user needs. Once a technology is finished with, it can be redeployed to different sectors and reused in different businesses.

Repaired & Upgraded

Maximising the full utility of equipment through repair and/or upgrading technology to extend its useful life. This often works better than current replacement cycles.

Repurposed

There are valuable components in technology. Repurposing means breaking down IT components to sell as spares and parts, as well as fully refurbished items.


Recycling

The least attractive option, recycling involves the repurposing of some materials from used IT equipment but unlike in remanufacturing or refurbishment, materials waste most of the embedded energy and carbon during the recycling process or are downgraded to a lower quality product.

Many products are simply unsuitable for recycling, and only about 20% of eWaste is currently recycled. While it is undoubtedly a more sustainable option than landfill, it does not have the ecological benefit of refurbished or remanufactured technology.

What this means for our customers and us

- Our teams advise customers on how to make their IT procurement, use and disposal more sustainable
- We speak with customers about the 8 R approach and recommend non -new supply chains to source what they need through our portfolio of Circularity First Group businesses.
- We are already hearing from COLT that they are focused on taking a more sustainable approach to their IT- here's what their CEO Keri Gilder had to say when interviewed for our new E-Book;

 We need to grow awareness of how ethically important sustainable IT practices are, of the economic benefits they can bring and the next steps we can take as an industry. Education is key. If technology leaders know more about the circular economy and the solutions available, such as remanufactured IT, they can make more informed, sustainable decisions around supply chains and equipment usage.

Keri Gilder
CEO. Colt Technology Services



We'll do it together, let's

#ActOnIT