

There is no such thing as 'away'.
When we throw anything away
it must go somewhere.

Annie Leonard



paragon **mat.works**
CARPET TILES Entrance Solutions

The Environmental culture at Paragon is '**reduce, recycle, reuse**', using raw materials from sustainable sources/with recycled content wherever possible. Employees are actively involved in setting and monitoring the achievement of environmental objectives and targets.





Independent Monitoring

Air emissions to atmosphere from the production process are independently monitored for impacts on the environment, recent analysis confirming that the actual emissions were less than 1% of government targets.

Factory activities & production processes, and their impacts on the Environment, are regularly audited by Environmental Health Officers, and have been confirmed as a 'low risk category', most recent score rating of 5 out of 175

British Standards regularly audit the Environmental and Quality Management Systems to ensure continued compliance to accredited standards and to demonstrate continuous improvement

BreGlobal regularly audit the Environmental Profile of certified products (BREEAM) confirming continued certification





ISO 14001
Environmental
Management System



breglobal
Environmentally
Profiled products



ISO 9001
Quality Management
System



Manufacturing

Raw materials are used wherever possible from sustainable sources and with recycled / reclaimed content. Currently, standard manufacture includes:

Bitumen backing contains at least 75% of recycled product

Latex pre-coat backing contains at least 75% of recycled product

Up to 80% of the total product is made using recycled materials

Pile yarns contain up to 100% recycled content

Pallets obtained from sustainable sources

Tile boxes are 100% recycled cardboard

Production processes are not water dependent – 95% of water consumption is for recreational facilities





Up to 80%
of our total product
is made using
recycled materials



Paragon
operate a zero
landfill policy



Waste

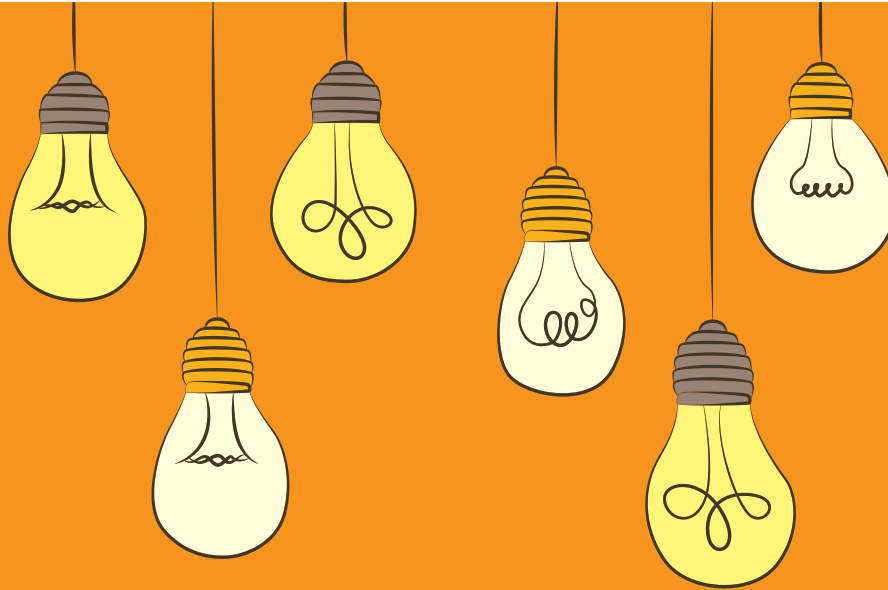
Waste streams are segregated and recycled (wherever possible) or reused, resulting in a 'zero landfill' policy

All yarn waste, cardboard, plastics & timber are recycled

Waste pallets are shredded into biomass for energy production

General waste (which is not considered recyclable) is used as a fossil fuel replacement in a 'SRF – Solid Recoverable Fuel' program, the residual ash used in cement manufacture





CO² Emissions

A new warehouse lighting system saving over 80,000kWh of electricity each year, equating to

Enough energy to fuel 26 family size homes for one year

Co2 reduction of 41.7 Tonnes (20 return trips to Australia)

In 2014
60,000m² of
material was handled,
72% of which was
given a second-life

STEP 1

Tiles are uplifted from site



STEP 2

Carpet tiles palletised



STEP 3

Recovered
Carpet tiles collected



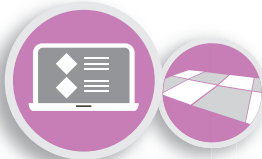
paragon 3R

RECOVER • RECYCLE • REUSE

CIRCULAR ECONOMY

STEP 6

Reused tiles sold online
or used to support community schemes



STEP 4

Tiles are transported to the
nearest 3R recycling depot



STEP 5

Recycling begins by sorting into
style/colour and condition
Second life tiles are thoroughly
checked before re-sale.



From 2009-2014
2249 tonnes of carpet
tiles have been diverted
from landfill and given
a second life.



ECONYL®

ECONYL®

The ECONYL® Regeneration The 4-Step Regeneration Cycle System is based not only on the development of a new technology but also the creation of a new supply chain specialized in the recovery of waste worldwide.

The **ECONYL® Regeneration System** is: Infinite, as the Polyamide 6 waste can be regenerated an infinite number of times to produce new polymers with technical characteristics and quality equivalent to products obtained from fossil materials. Innovative, as it is the only system of its kind anywhere in the world in terms of efficiency and productivity. Sustainable, as it recovers waste which would otherwise end up in landfills or oceans (fishing nets), causing serious damage to the entire ecosystem. It also enables real savings in terms of CO2 emissions. Compared to common Nylon 6, **ECONYL®** fiber has a reduction of approx. 50% of CO2 equivalent emissions/kg yarn.





Paragon's
commitment
to recycling



Cardboard Recycling

Cardboard from tile boxes / packaging / sample boxes etc is collected and sorted into different types of card . It is then shredded by type and made into tiny pieces for the next stage of the process. These tiny pieces are mixed with water to make a pulp similar to paper mache. The inks are taken out of the pulp to cleanse the cardboard. The pulp is then dried and made into rolls again and refinished and reused in new boxes / printing papers and packaging .





Plastic Recycling

A very similar process to our card recycling the finished product however will return into food packaging, fenestration (window & door industry) to make coloured windows with the remainder ending up in automotive for new dashboards.





General Waste

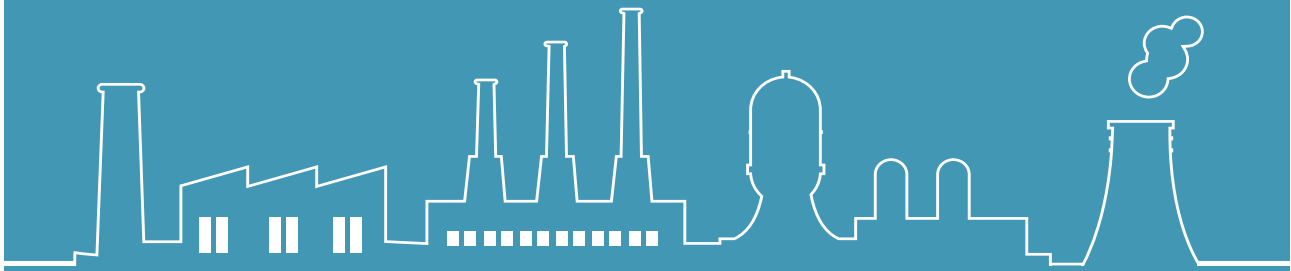
The waste from our internal black bins and commercial waste bins which could include food waste, tins and papers are collected and funneled through various screening channels to extract waste products for different energy uses.

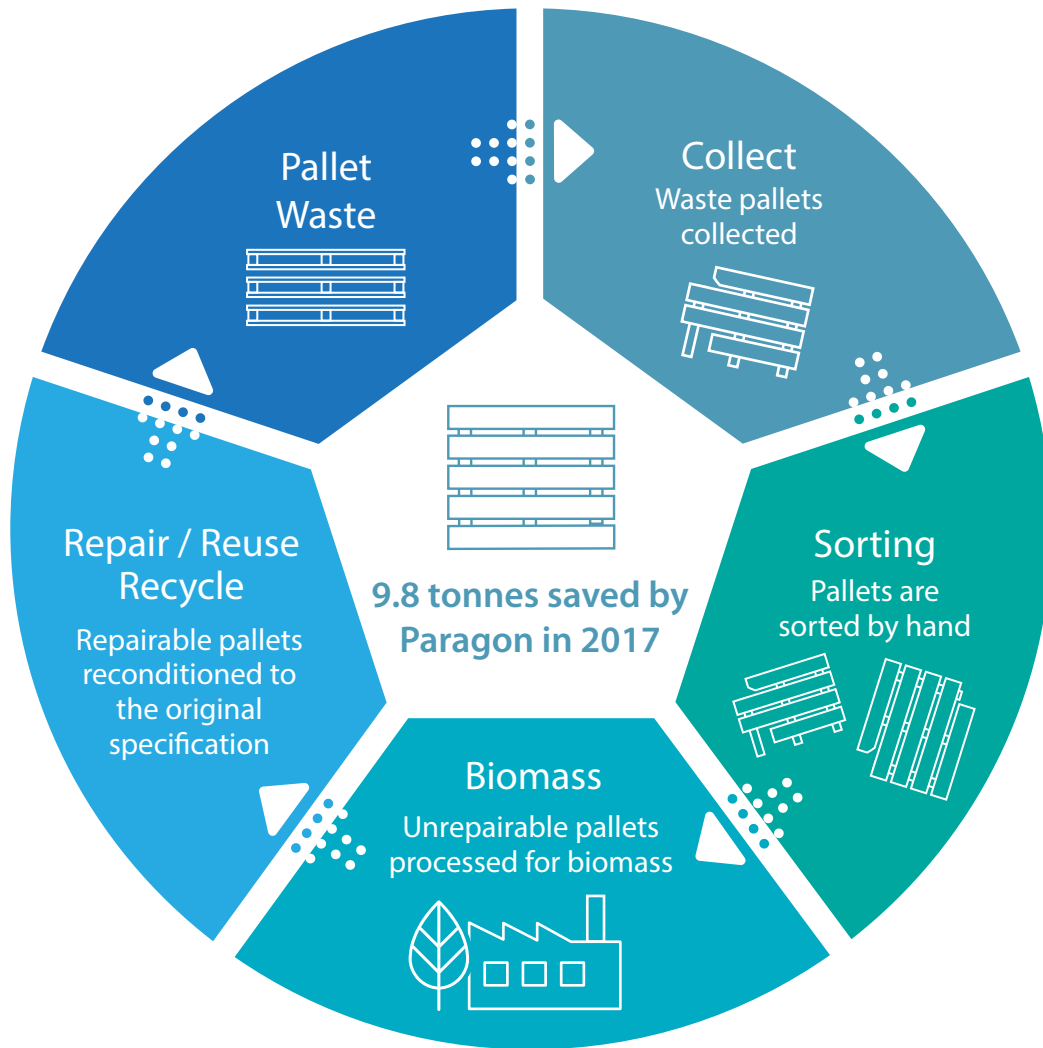


Metals will be removed from the process and recycled whereas as card and food stuffs will be screened, shredded, fine shredded and ultimately baled ready for use in high calorific fossil fuel replacement systems. General waste is all pre shredded down to coarse strips and dried. From here there is a divergence or funneling of materials. A commercial magnet is passed over the products and any metals are dragged out and recycled into base metals for melting and reuse. Anything else returns to the line for screening. There is even manual screening where items that can be immediately recycled such as plastics are removed and go back into a plastics style recycle funnel. What's left is secondary shredded and baled ready for sending to areas requiring sources of fuel. An interesting fact relating to this process is the use of the pre baled pellets in cement manufacture.

First the pellets are burnt in huge clave ovens baking the cement and secondly the waste from the burning ie. ash is then recovered and this residual ash is placed back into the concrete mixture as part of the product providing a double environmental saving.

In 2017 we saved 317.3 tonnes of waste by doing this.

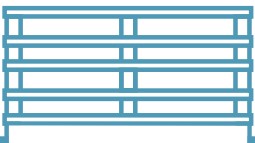


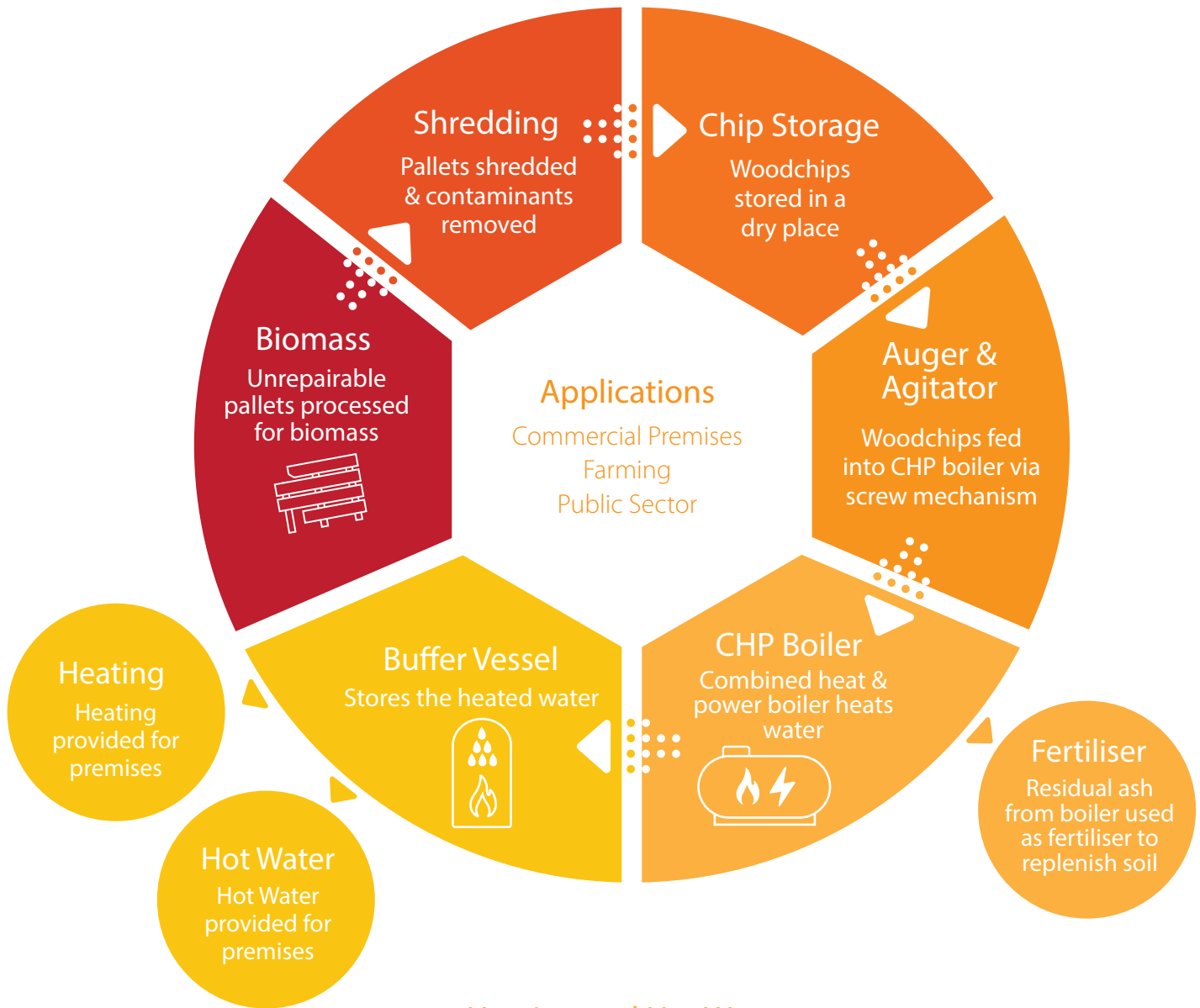


Pallet Waste

Paragon Carpets pallet waste has two environmental uses. Pallets are firstly sorted by hand and pallets identified as repairable are reconditioned and put back into mainstream use for a second life.

Pallets graded as unrepairable are chipped, baled and processed for Biomass energy sources rather than being sent to landfill.



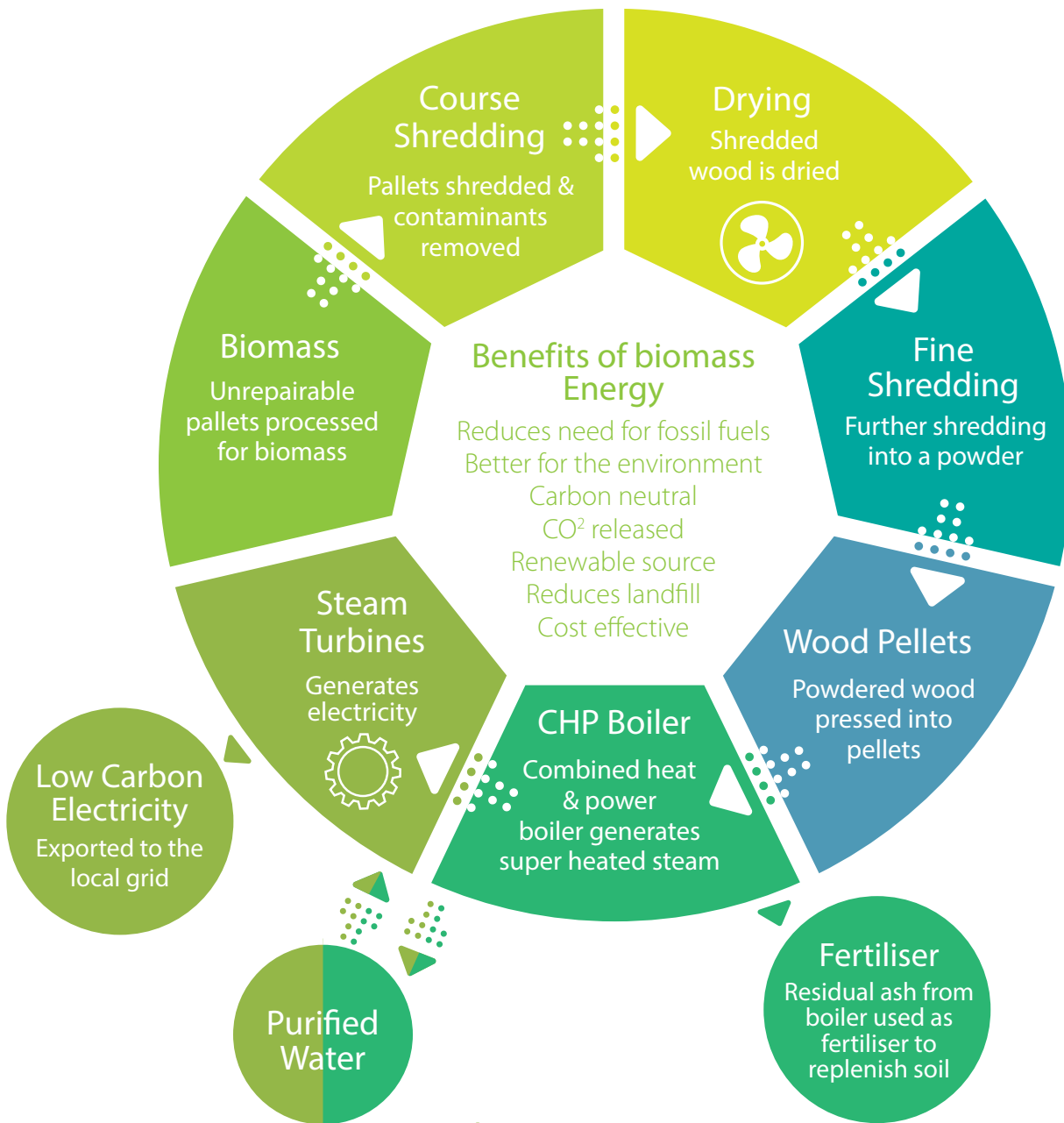


Heating and Hot Water

The secondary phase of unrepairable pallets moves waste pallets into commercial fuel via hot water.

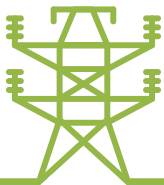
Pallets are chipped, baled and converted to fuel in commercial boilers, this then converts to hot water and is stored in buffer vessels ready for reuse. Any residual ash from the initial boiler conversion is given a second life in the farming process as fertiliser.

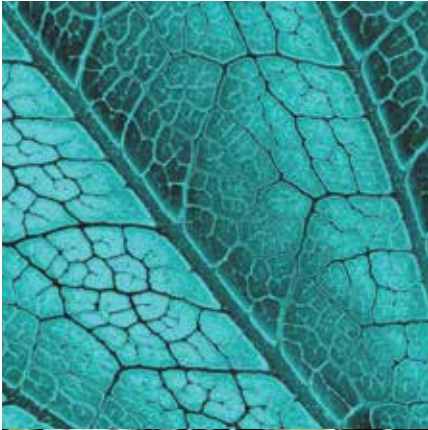




Electricity Generation

By reusing Paragon Carpets waste products feeding it into our electricity generation system, the pressed and filtered waste is used in commercial boiler system to generate steam in turbine engines which can be re-issued to the national grid. Alternatively residual ash is used in farming.





Paragon
lowest emissions
factory in Europe





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