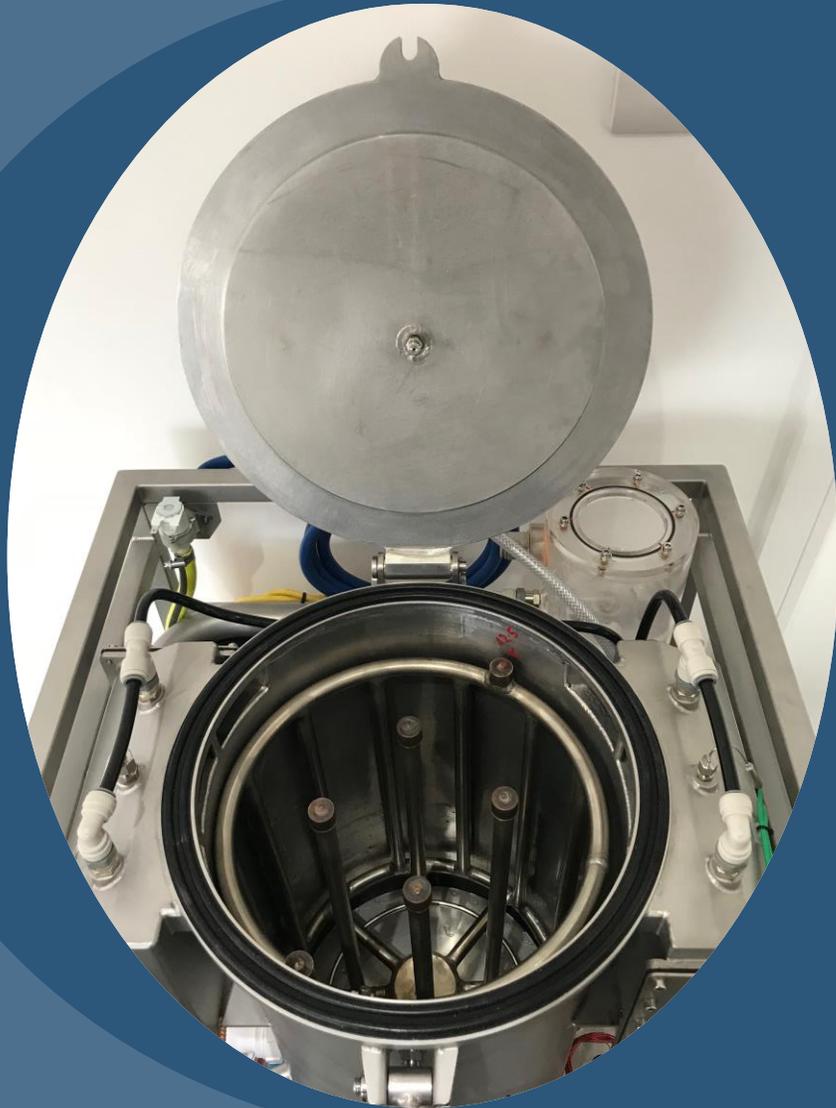


HERU



SHIFTING THE RESOURCE PARADIGM

18TH SEPTEMBER 2021

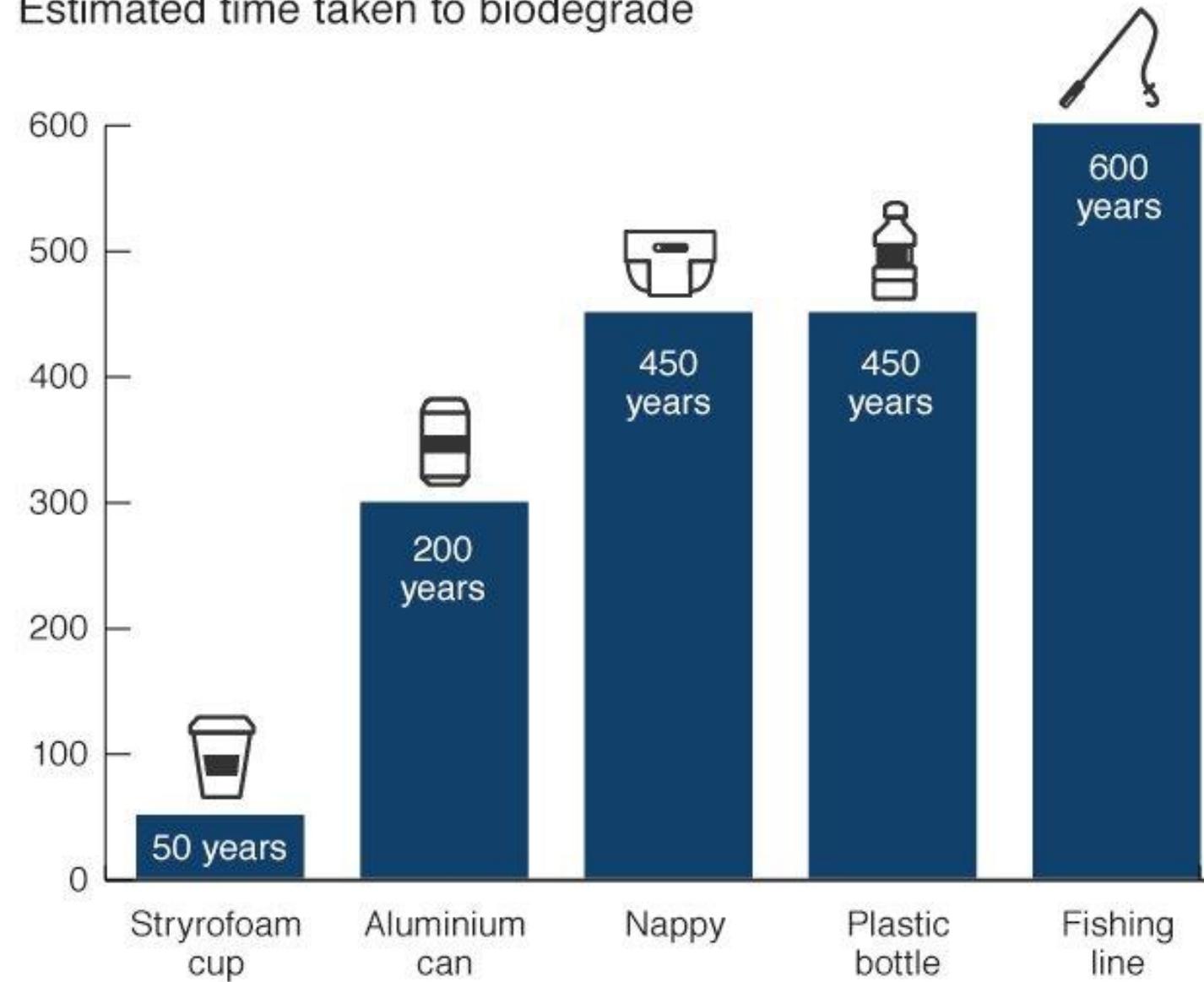
First steps...





How long til they're gone?

Estimated time taken to biodegrade



Exact time will vary by product type and environmental conditions

Source: NOAA / Woods Hole Sea Grant

BBC

Diverting from landfill

50% by 2020 1999 Directive

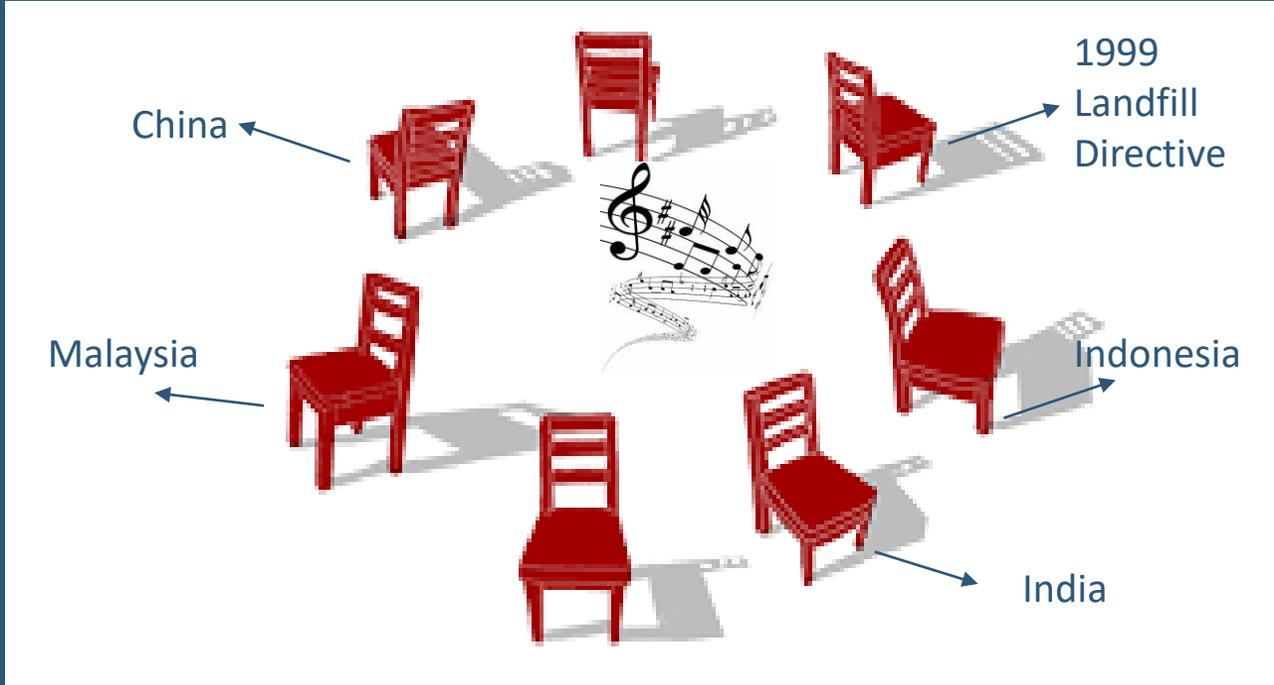


All other plastics



Waste Industry Musical Chairs

HERU



OCEAN SPACE?

DUTY OF CARE – ENVIRONMENTAL PROTECTION ACT 1990



Everyone has a journey.....



Miele First Dishwasher



HERU V5-1 Evaluation Unit

A glimpse to the future



Our Vision

The checklist

- ❖ No collection
- ❖ Transform into fuel
- ❖ Runs using a standard 32amp cooker socket with no additional infrastructure for homes.
- ❖ Less than 300°C
- ❖ Utilises most resources
- ❖ Stand-alone domestic water heating system
- ❖ Scalable

HERU

SHIFTING THE RESOURCE PARADIGM

REVITALISE, REDEFINE, REVALUE

From burden to benefit, the choice on how much you value your resources is in your hands.



From hand to HERU, we are putting the power back in your hands

TODAY

Seen as a burden

What are the unseen costs?

Eight million tonnes of "waste" plastic ends up in the sea each year.



Fish eat it - and then we do.



By 2050 there could be more plastic than fish in our oceans.



7 fatal injuries and 4,000 non-fatal injuries in 2019*.



6,000 work-related ill health*.

62%

of fly tipping cases were household "waste"

1

million fly tipping incidents in 2018/19

8%

increase in fly tipping cases in 2018/19

TOMORROW

Seen as a valuable resource

From hand to HERU

Making the technical choice to energise your property.



Heating buildings

Directly from your hand to your home, the HERU delivers the energy within your resource into your property, reducing your energy bill.



Fighting fatbergs

The only product left over from HERU is ash containing lye suspended in an alkaline water solution, which is safely flushed down the drain and helps reduce fatberg build up.

up to 300%
less global warming
impact than co-mingled
collections.

up to 280%
less global warming
Impact than kerbside
collections

Providing the general public with a better way to use the valuable resources available to them.

BELIEVE IN OUR MISSION · JOIN OUR JOURNEY AT [MYHERU.COM](https://myheru.com)

*Fact sources available upon request to info@missionheru.com



HERU V5



From this.....



HERU Mobile
Technical
Evaluation
Unit
V5 Mk I



To this.....



HERU in Assembly



HERU Software Upload



Handover to Wychavon District Council's Managing Director



Handover to Hiller's Farm Shop & Restaurant



Handover to Rugby Borough Council

HERU



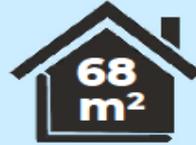
2.4 people
UK homes average
2.4 occupants



1 tonne
Annual home
waste [DEFRA]



27M homes
173,660 completed new
builds in the year to 06/19



Which? report
average UK
home size



1460kWh
Domestic hot water
use averages 4kWh
per day / home [BRE]



6,800kWh
Space heating in
current new builds
uses 100kWh/m²a



New builds 2019
**+1.6 tonnes
CO₂/a per home**
• Gas condensing boiler
• Kerb side sorting



Kerb Side Sorting is to date the least
carbon intensive waste management option,
emitting 50kg less CO₂ per home, per year
than comingled collections [Ricardo]



Decarbonisation of the UK
electricity grid (equivalent to
Norway 2012 'NO12') and rapid
expansion of infrastructure



DEFRA: Packaging recovery note
system to be replaced with packaging
processing levy, to fund low carbon
solutions to waste issues



Carbon reduction &
prevention of microplastic
food chain contamination
with HERU



Gas Safe registered
plumbers and installers
have the skillset needed
to install HERU



- Heat Pump with SCOP 2.8
- Decarbonised grid (NO12)
- Kerb side sorting

-5kg CO₂/a Install cost
£6k



- Retention of natural gas supply
- Decarbonised grid (NO12)
- 'Zero Carbon' building (3128kWh/a)
- HERU resource management

-80kg CO₂/a Install cost
£6k



- Retention of natural gas supply
- Decarbonised grid (NO12)
- Heat Pump with SCOP 2.8
- HERU resource management

-375kg CO₂/a Install cost
£12k



- Switch gas network to Hydrogen
- Decarbonised grid (NO12)
- HERU resource management

-475kg CO₂/a Install cost
£6k

HERU H₂ Hybrid &
NO12 Electricity
would have made
the 2019 UK
environment

**365k
tonnes CO₂/a**
better off

A gas supply is critical for driving carbon reduction innovations like HERU

www.myheru.com

Cost of Current “Waste” System Versus HERU Hybrid Heating System

1100 bin say £15 per empty/per day, assuming 80 kilos = 19p per kilo

Gas per kilo HERU @ 4p per kWh
3.3 kWh per kilo = 13.2p per kilo

72% energy into building therefore process cost = 3.7p per kilo

Resource energy recovery 80% of 2kWh per kilo
Disposal saving @ 19p £4300 per annum
Energy contribution £740 per annum

HERU £25,000 TBC
Annual savings & energy contribution £5,000
ROI 5 years without subsidy, tax allowances, increasing waste & energy costs
Annual service £700 TBC



THANK YOU

Believe in our mission? Join our journey

Please sign up to the HERU newsletter via our website
www.myheru.com



https://twitter.com/HERU_Energy



<https://www.linkedin.com/company/17968178/admin/>