



Welcome

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EUROPE & SCOTLAND
European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future



Circular North-east?

- Set up and funded by ZWS
- Based at Aberdeen & Grampian Chamber of Commerce
- Works to inform and inspire businesses to adopt circular strategies
- Helps individual businesses deliver change through funding support and partnerships

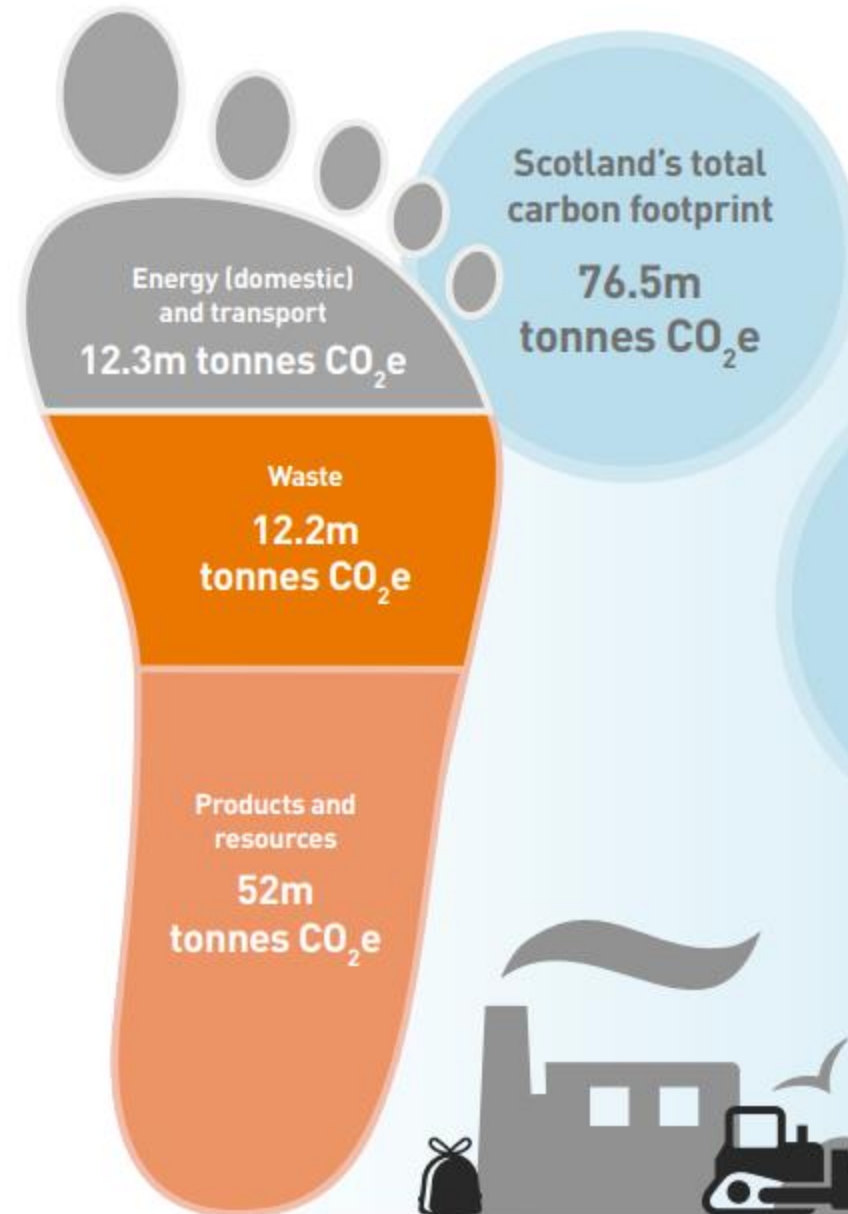


What is the circular economy?



Four-fifths of Scotland's carbon footprint comes from products and materials

Zero Waste Scotland Corporate Plan 2019-2023



Opportunities

Predicted economic benefits in Aberdeen and Aberdeenshire from adopting a circular economy are approximately **£625 million**.



Benefits to the city region

- Optimising value from future decommissioning
- Future proofing infrastructure and the built environment
- Supporting local supply chains
- Diversification
- Meeting consumer/visitor expectation
- Growing the bioeconomy

What could the future look like?



We sell experience – not stuff

The Forum, Groningen

The Forum complex in the Dutch city Groningen is trying to show an alternative model for town centres.



Second Hand is Cool



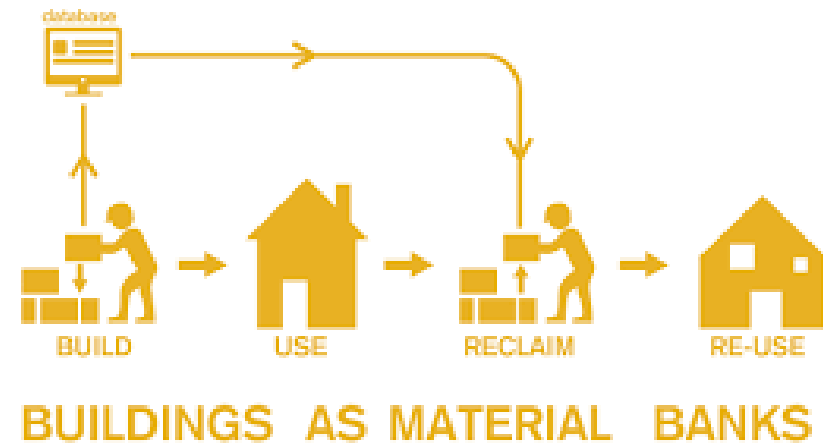
IKEA's first second hand store. The goods sold come from recycling centres, where furniture is donated and then repaired or repurposed.



ReTuna, a 3,000m² shopping mall in Sweden where pretty much everything sold in every single shop is recycled, reused, repurposed or just plain second-hand.



Buildings are Material Banks



Brummen Town Hall Netherlands

- Approximately 90 % of the materials in the newly added space can be dismantled and reused at the end of its service life.
- A materials passport details every part of the structure.
- The design is modular so it can be easily disassembled, which also resulted in a significant reduction in construction time.



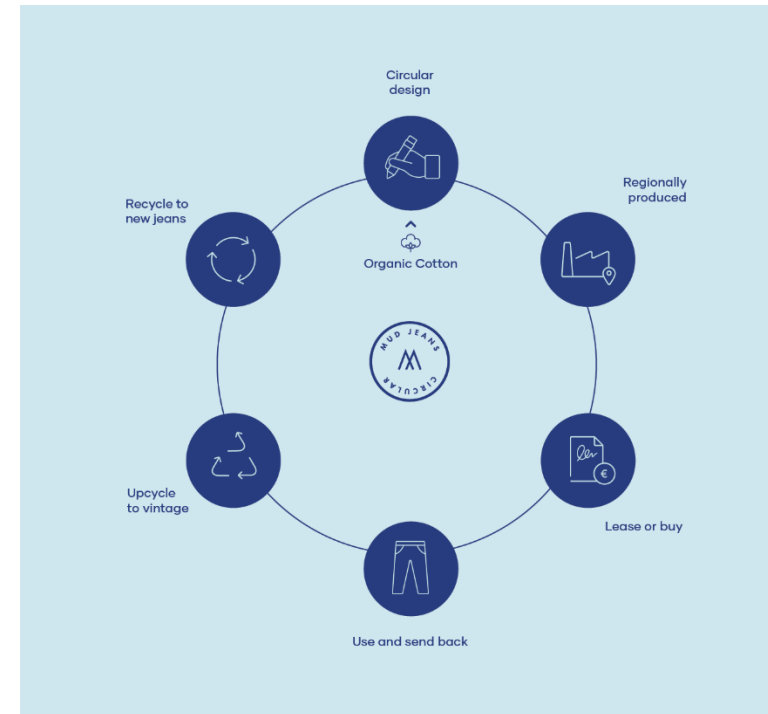
We find ways to reuse waste



O&G pipes for piling



We did not always have to own things



At Mud Jeans, users can choose to lease a pair of jeans. After one year, the user can either swap their jeans for a new pair, continue leasing for another year, or purchase the jeans to keep. Mud Jeans are made with around 40% recycled content, with free repairs included in the service



You could easily repair and upgrade things



Fairphone is the world's first modular smartphone available for purchase, with over 100,000 users. The modular design, and readily available spare parts allow users to repair their own phone or replace the parts that most frequently break.

Urban Mining becomes a reality

- A survey in the UK by the Royal Society of Chemistry revealed that more than half had at least one unused electronic device languishing in their home.
- 45% had up to five.
- If extrapolated, it suggests there could be as many as 40 million unused gadgets in people's houses.
- The WEEE Forum estimates that the average European has 248kg of electronics (both waste and in-use) at home, including 17kg of batteries.



ELVIS & KRESSE



ELVIS & KRESSE



ELVIS & KRESSE

engaging

Designed for
Deconstruction
= Circular

Life of its Own

Component
Based – Like
Lego

DIY

Swappable

Shareable

ELVIS & KRESSE



ELVIS & KRESSE



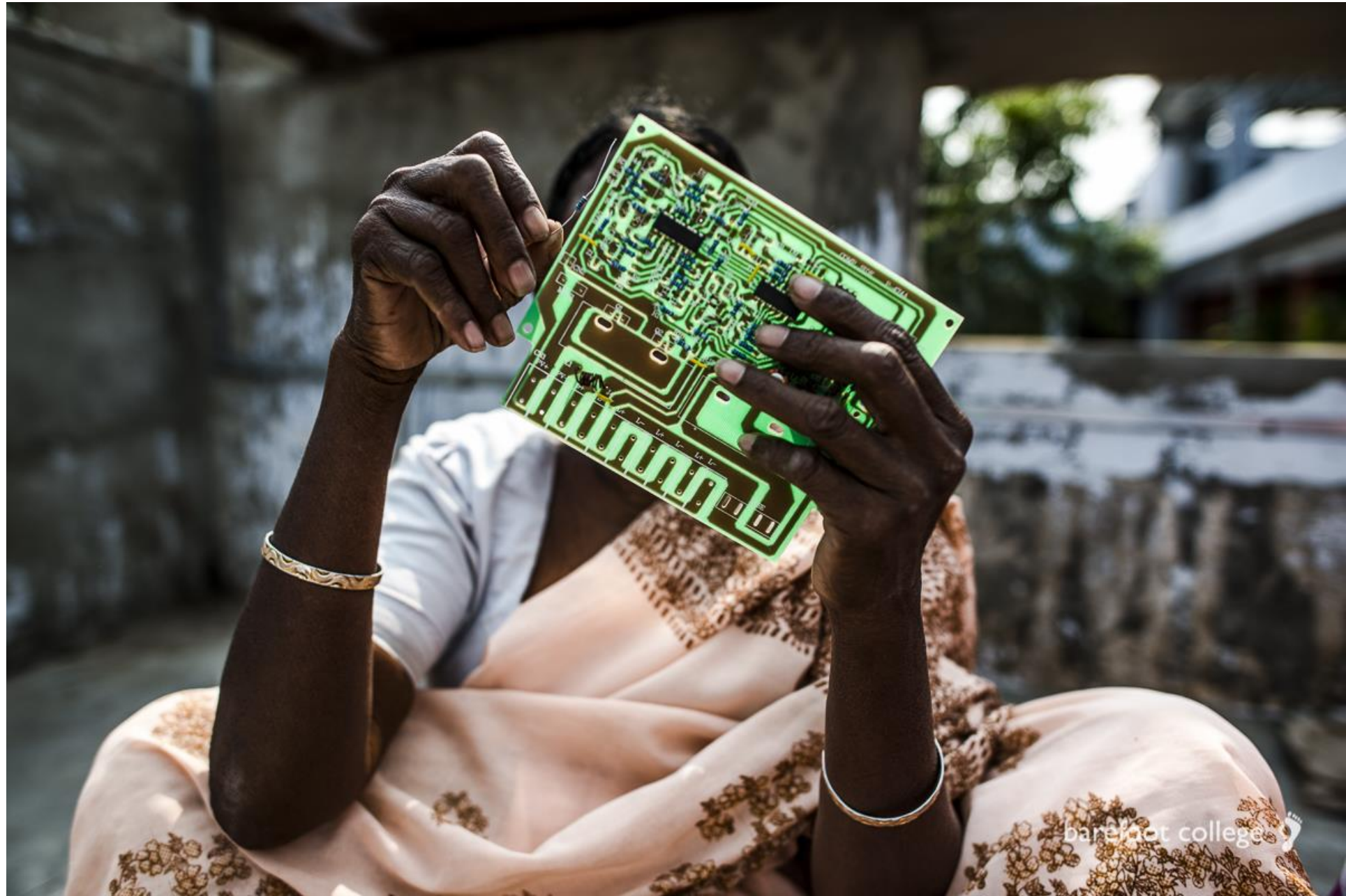
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Longevity = Loyalty

Other Peoples Grandchildren

Multiple,
Positive
Objectives

Transparency

**Do More,
Be Better**

£410 or
£100,000

#ThisIsLuxury



ELVIS & KRESSE





LEGASEA

Recover Refurbish Recertify Reuse

About Legasea



Legasea is an environmental oil and gas service company, founded in 2018, with a focus on the Circular Economy for subsea production systems and controls.

We carry out a range of Electrical, Hydraulic and Mechanical Engineering services, and work to combat obsolescence management issues for subsea equipment.

Accreditations:



Awards:



Did You Know?

**Oil and Gas
Christmas Trees
got their name
due to their
shape, but most
modern Subsea
Trees are large
cubes...**



Did You Know?

The current
market value for a
New Subsea
Christmas Tree is
£2,500,000



Did You Know?



Once used, a Subsea Christmas Tree has a scrap value of £5,000



Did You Know?

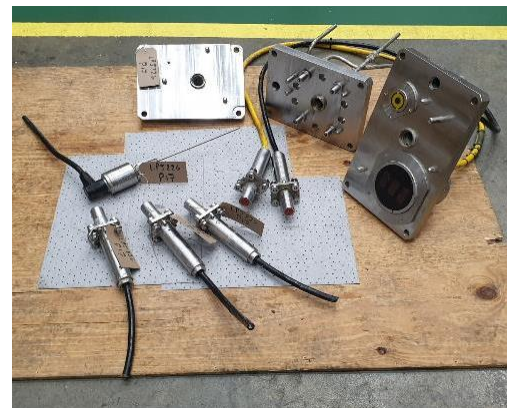
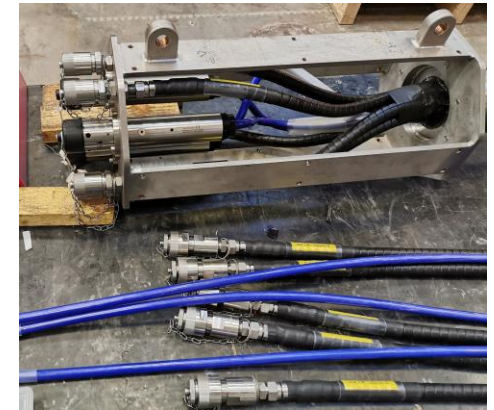


Subsea Trees are cut into sections, prior to the materials being sent for smelting by recyclers.



Did You Know?

Many of the components within the recovered Trees are now obsolete, and sourcing replacement parts is a major challenge facing the industry.



Linear Lifecycle

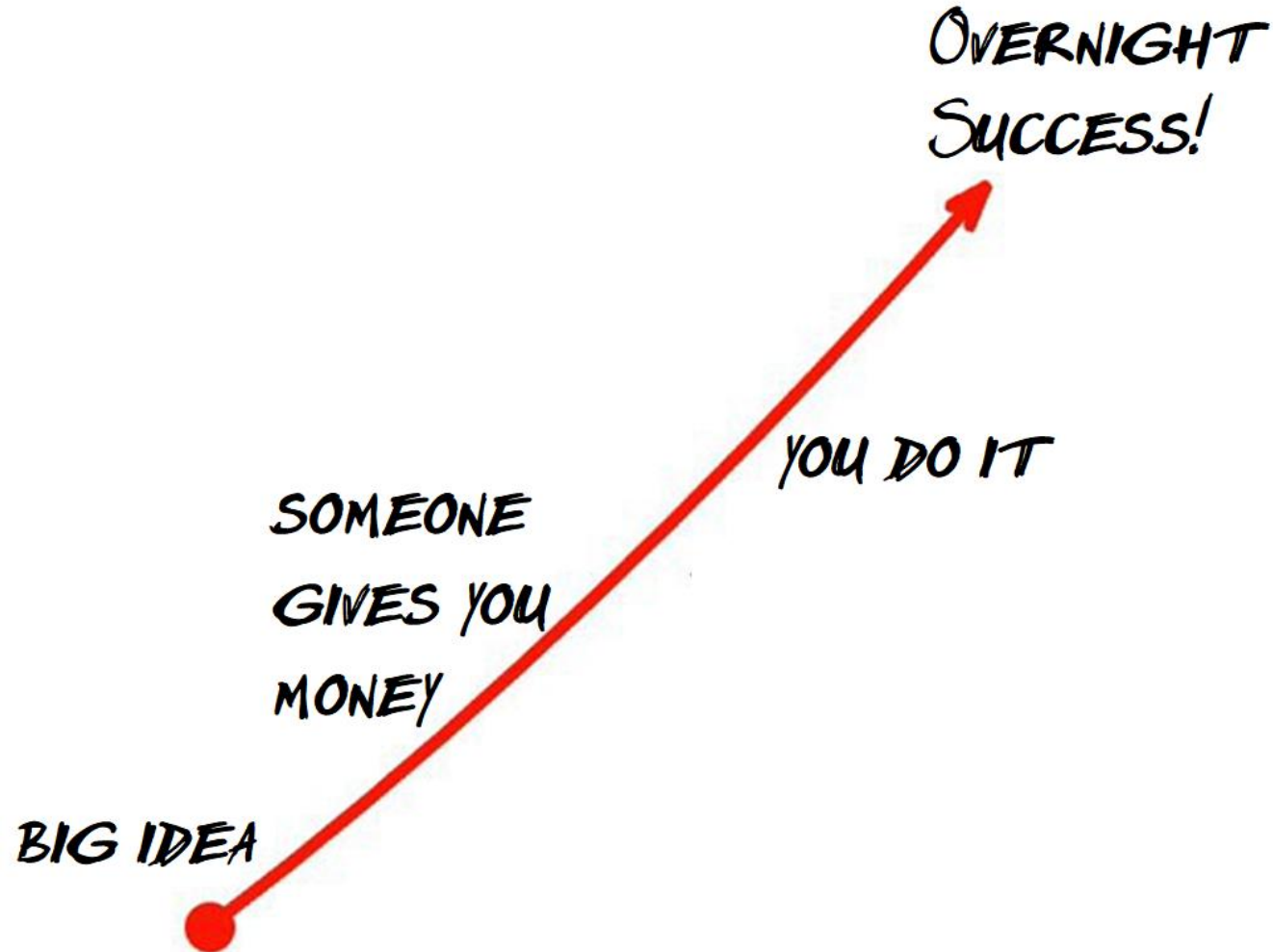


Circular Lifecycle



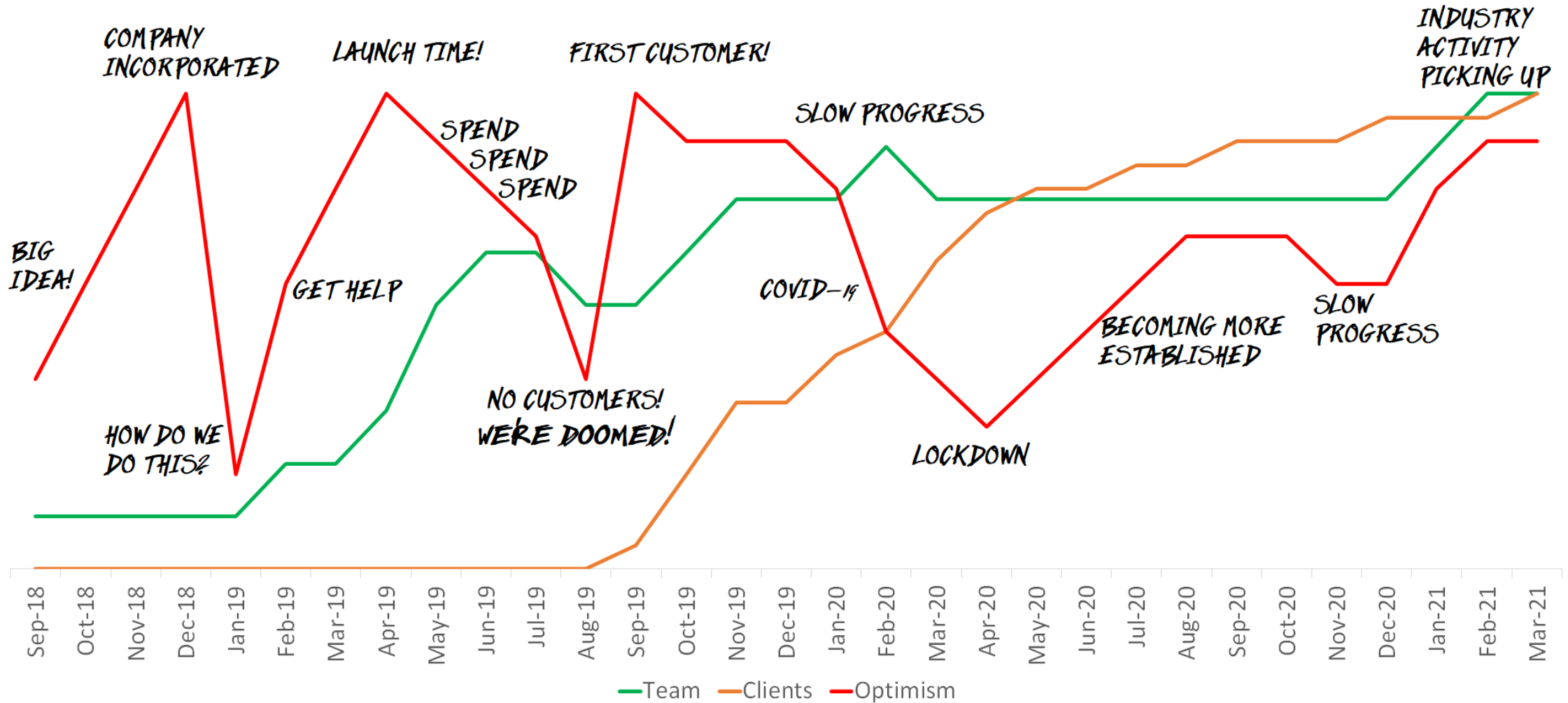
Highs & Lows

WHAT PEOPLE THINK IT LOOKS LIKE



Highs & Lows

WHAT IT HAS LOOKED LIKE FOR LEGASEA



Advice on Setting Up a Circular Business

- **Expect “That’ll never work”.**

- **Get help!**    

- **However long you think it’ll take... double it.**

- **Accept that there are never going to be enough hours in the day to do it all.**



LEGASEA

Recover Refurbish Recertify Reuse

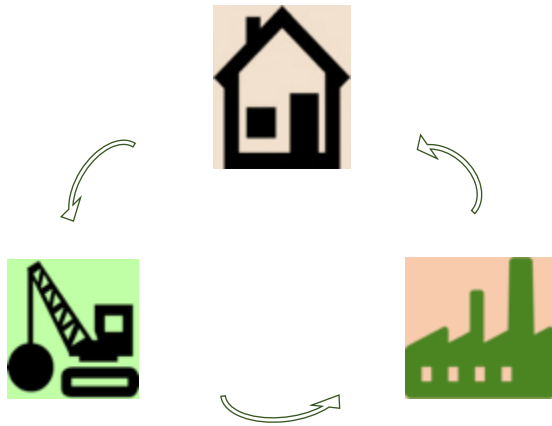
KENOTEQ



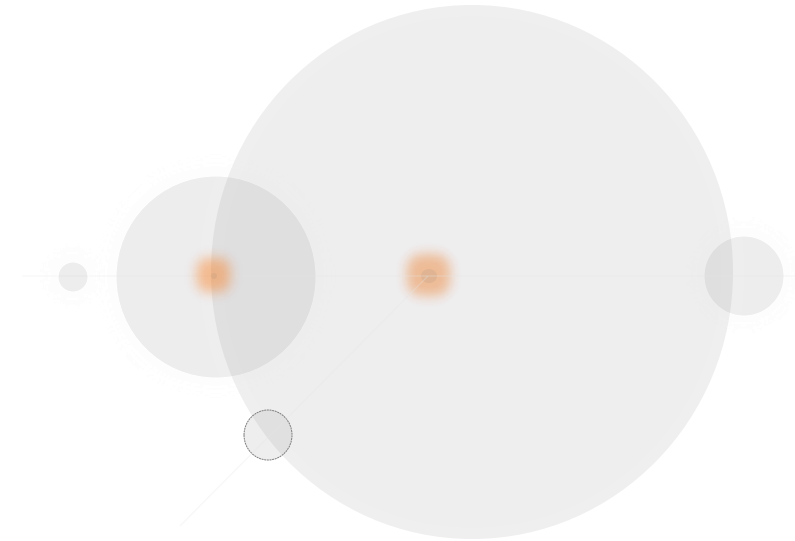
Building a Circular Economy Revolution

kenoteq.com

Dr Sam Chapman - CEO
s.chapman@kenoteq.com



- Closed Loop, Circular Economy Approach
- Low to Zero Carbon Products for Construction
- Reduce, Reuse, Renovate, Recycle
- Scalability through Innovation



PURPOSE

“Supply the most innovative & sustainable construction products the building industry has seen.....using waste materials”

Challenges in Construction



Brick Shortages

UK imported
500M bricks in
2019



Housebuilding Targets

UK – 300,000 new
homes p.a.



New Waste Legislation

70% of all construction
waste to be recycled

0% to go to landfill



Environmental impacts

Largest contributor of
carbon emissions

C&D largest
contributor of waste



Why Now?



500M

Shortfall in UK Supply

Need supply of new facing bricks to support:

New Housing

Commercial Builds

Renovations

16%

Growth in "Green Market"

Regulatory and Social
Push for Sustainable
Practises

1M

New Homes in 3 years

Low Carbon

Sustainable

Next generation Fit homes

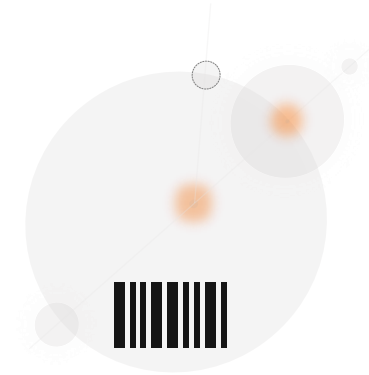


KENOTEQ



Circular Models

Business Models
Waste Utilisation
Resource Efficiency



Products

Recycled Content
Design
Flexibility



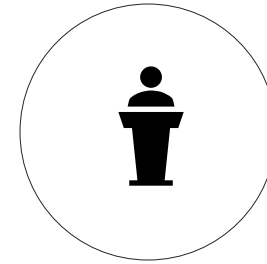
Innovation

Smart Construction
Next Gen
Modular



Sustainable

No Firing
1/10th Carbon



First to Market

Near 100% recycled content
Exterior “eco-brick”
Bespoke Colours
Flexible Production Locations



Tested

Comparable Strength
Double thermal
Insulation
Certification Ongoing



Patent

UK Granted
(Nov 2018)
US Granted
(April 2020)
Canada and Europe
(filed)

K-BRIQ Specification



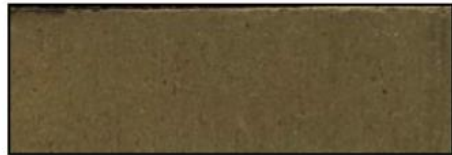
Medero



Chapman



Brown



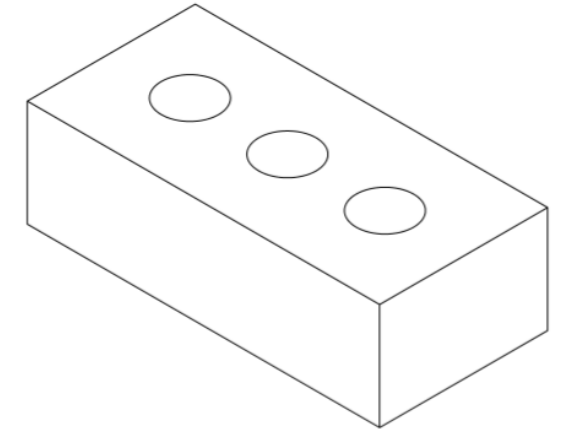
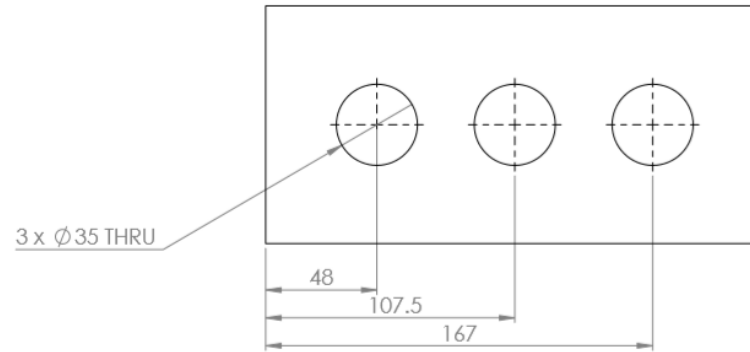
Marr



Gillespie



Hosty



Bespoke colours and sizes are also available on request

Team



Dr Sam Chapman
Co-founder & CEO

Former REAng enterprise fellow
PhD in Carbon Assessment
Award winning entrepreneur



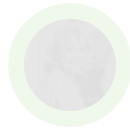
Prof Gabi Medero
Co-founder & CSO

Multi award winning Professor in
Geotechnical & Geoenvironmental
Engineering
15 years' industry and research
experience

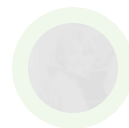


Dr Andrew Hosty
Chairman

Former COO – Morgan advance
Materials plc (FTSE 250)
Former CEO – Sir Henry Royce
Institute



Douglas Bell
Production Manager



Rebecca Marr
Operations



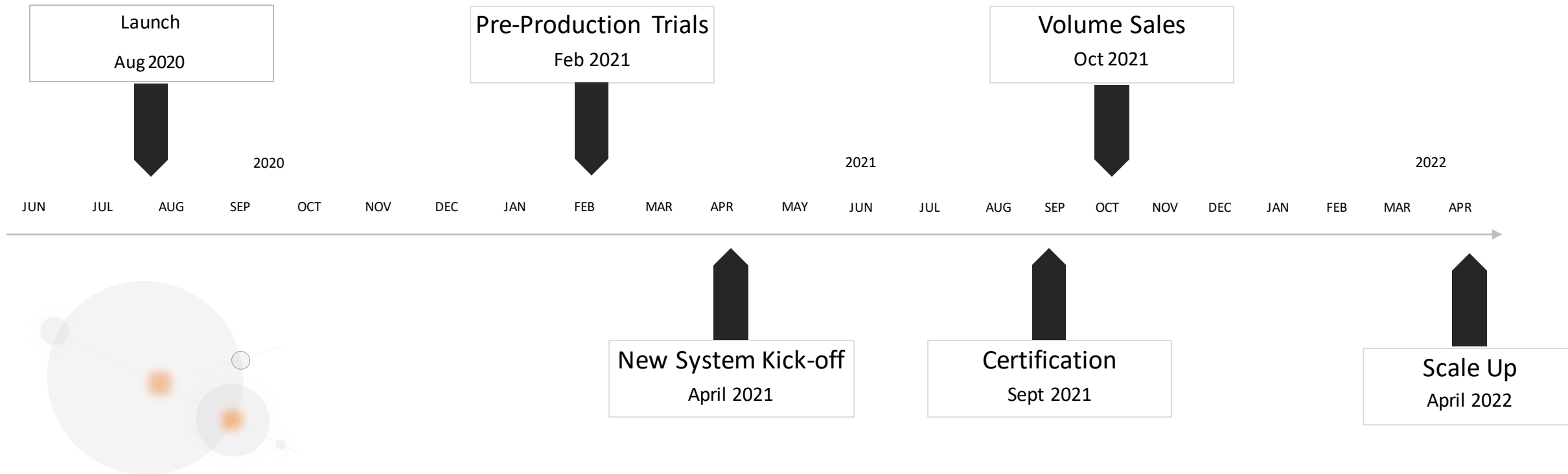
Paul Grant
Plant Operator



Keith Gillespie
Plant Operator

Timeline

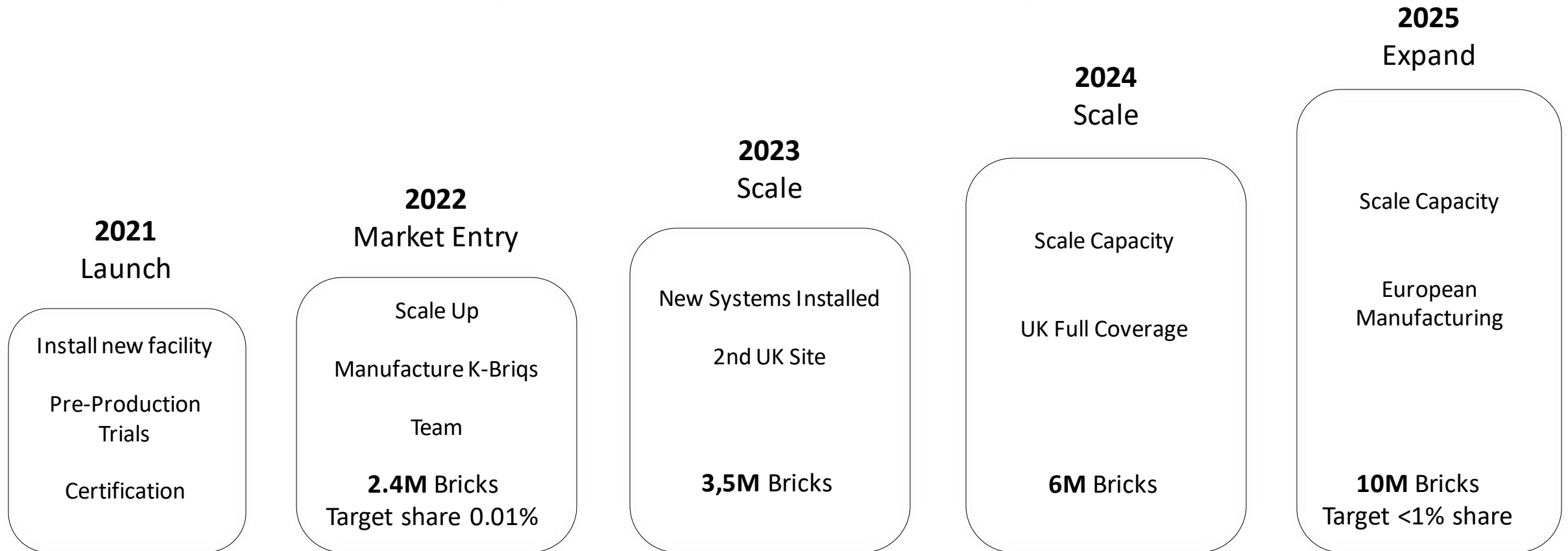
Our two-year action plan



Growth strategy



1. Manufacture K-Briqs at Industrial Scale – Establish Reputation and Production IP
2. Scale Capacity
3. Expand





BBC - The One Show 2020

SEPA Housing Plan 2019

Herald Pioneer Awards: Circular Breakthrough 2019

Scottish Resources Awards: Innovation Award 2019

Beazley Product of the Year Nomination, UK Design Museum 2020

K



THANK YOU

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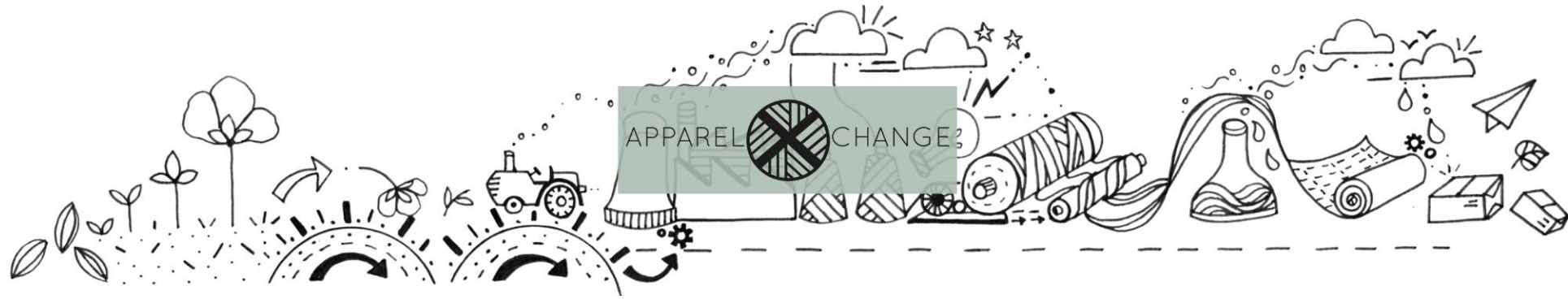


BE INSPIRED

1230 - 1430

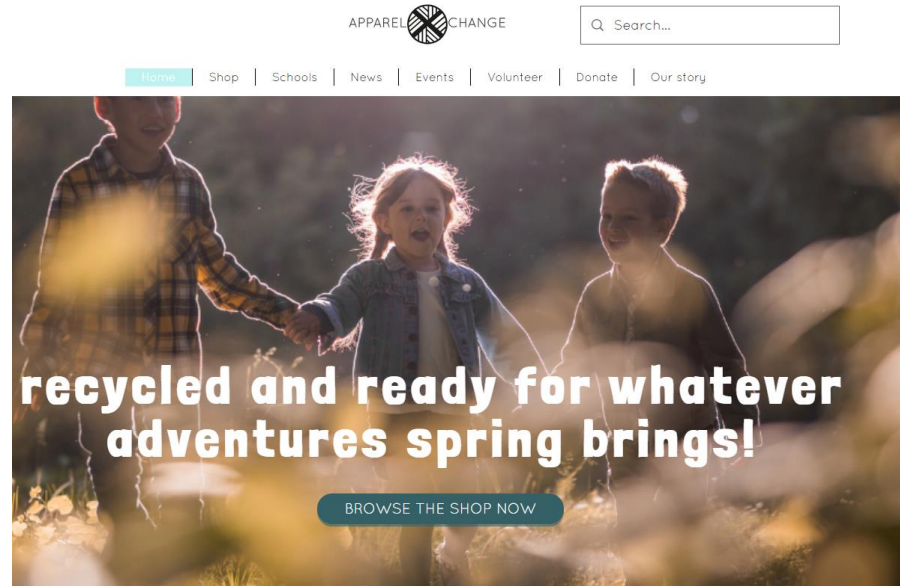
Thursday 4th March 2021
Aberdeen





EMPOWERMENT
through
knowledge

GARMENT LONGEVITY through Reuse, Repair and Retail





HOW IS IT CIRCULAR?

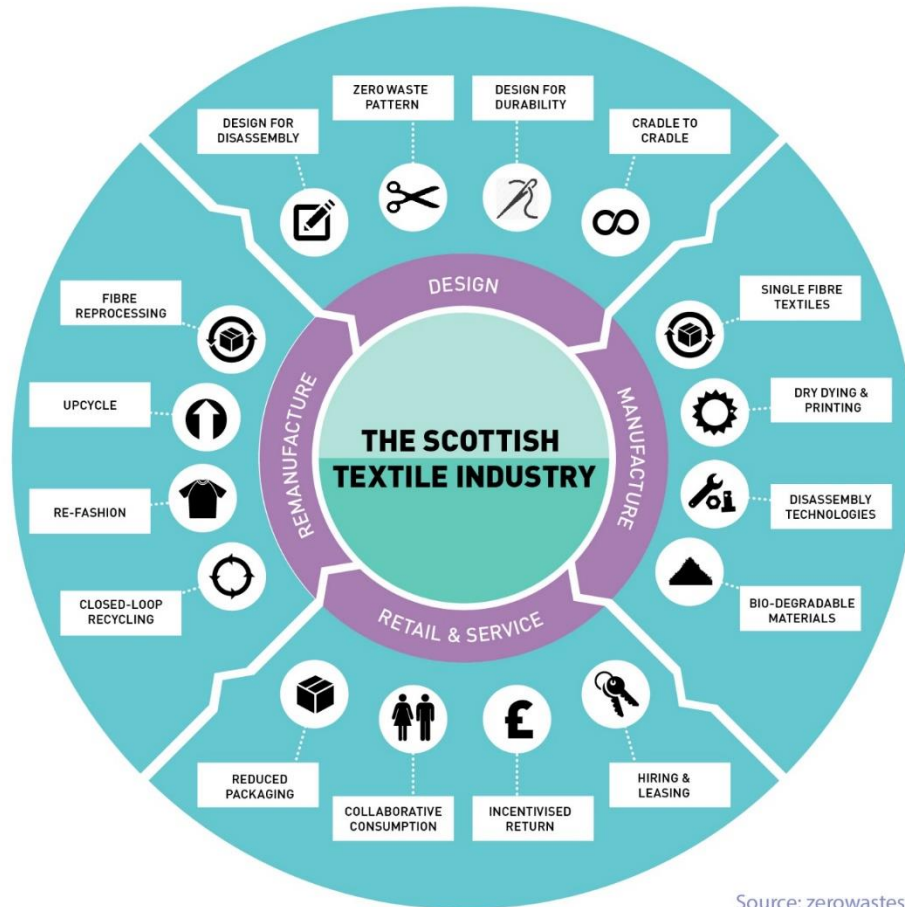
Reuse and repair – core functions

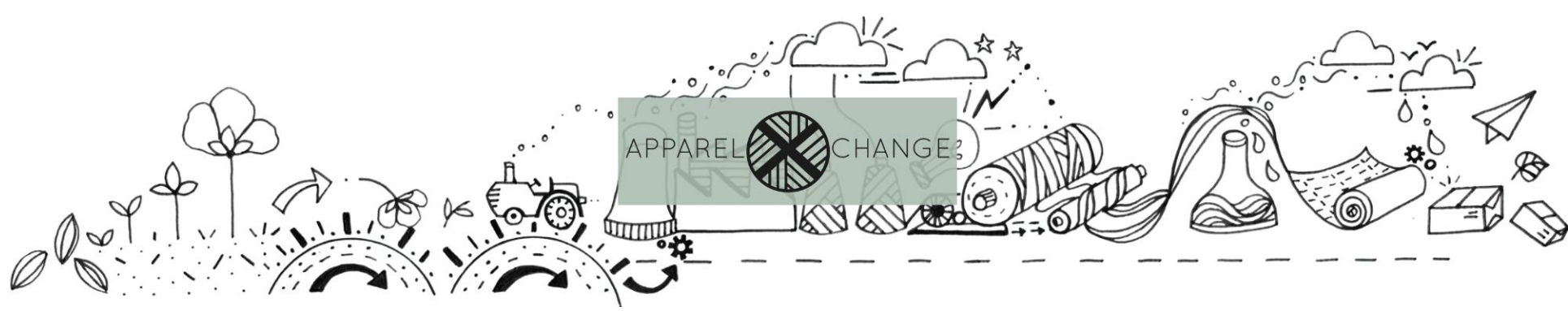
Gathering data on product design, failures, end of life destinations

Influencing sustainable consumer behaviour

Membership model – access

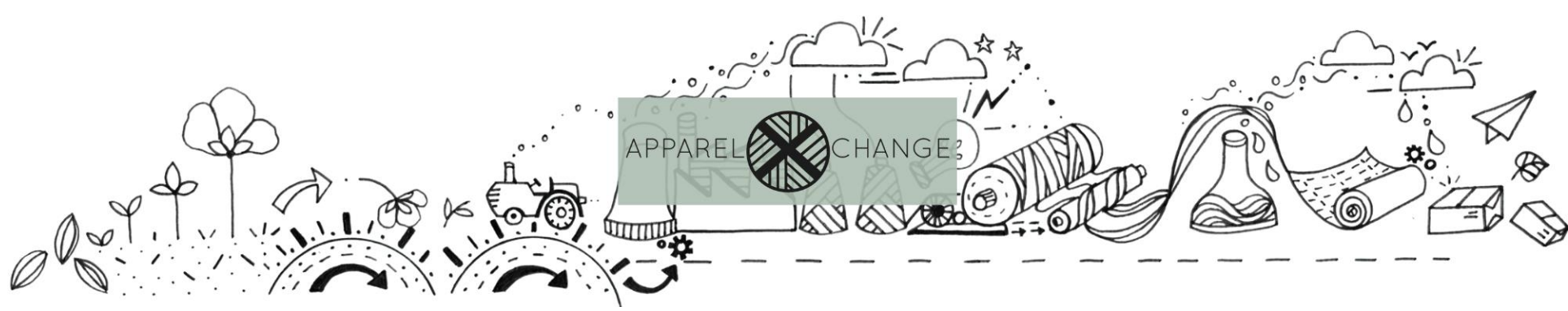
Disrupting the high street





WHAT ARE THE BENEFITS?

- Reducing carbon emissions, reducing waste
- Customer loyalty, great service
- Tackling social inequality – skills, local employment, poverty, knowledge
- Engagement with all communities
- Developing skills and knowledge – volunteers and young people



Landfill Ban 2025 (Scottish Landfill Regs)

Clothing waste codes are considered bio-degradable until proven otherwise

Circular Economy Package (2018)

Member states to ensure textiles are collected separately, schemes set up by 2025

Making Things Last (2016)

Commitments to driving the transition towards the circular economy

Climate Emergency -Net Zero by 2045

Our contribution

COP26 Agenda

Opportunity to launch game changing work

Public Procurement

Meeting environmental, social and economic outcomes through services

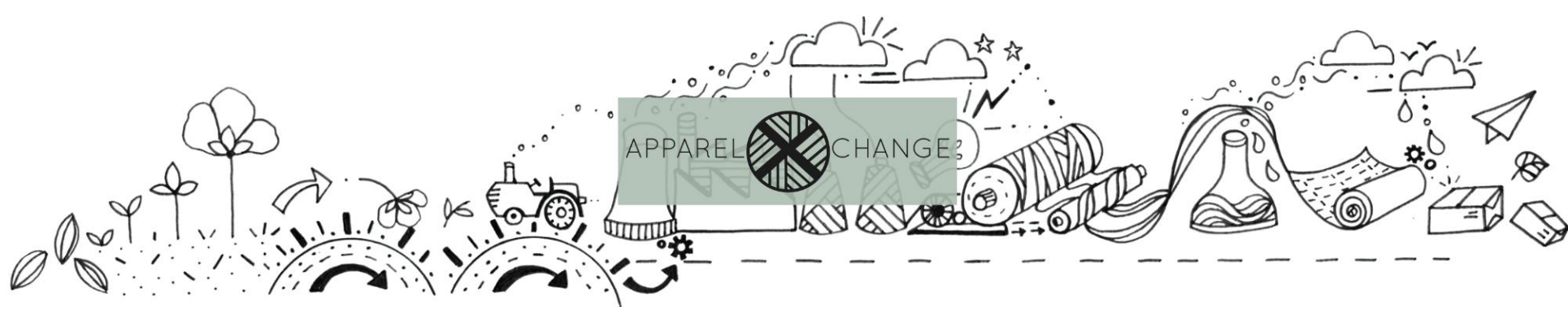
Glasgow City Council

Social economy, Sustainability, Cost of the school day, CE Route Map



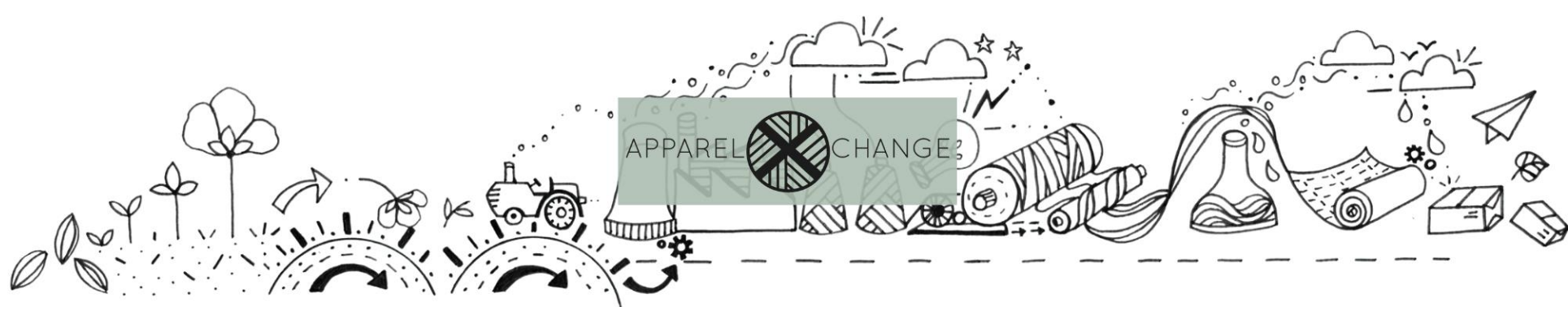
WHY A SOCIAL CIRCULAR BUSINESS?





CHALLENGES BECOME OPPORTUNITIES

- People – skills & values, awareness of issues
- Customer behaviour – stigma towards reuse, trends in reuse, rebound
- Place – small >> bigger >> retail >> warehouse
- COVID –uncertainty, adapt and thrive, digital & virtual shopping
- Networks – Sustainable Fashion Scotland, Fashion Revolution



ANY ADVICE?

- Innovation – takes time, market analysis, market trends, USP
- Test and refine – be ready to adapt
- Collaborate – compliment, distinct, gaining reach effectively
- Think social – tackle inequality through skills and services





STAY IN TOUCH

Instagram [@apparelxchange](https://www.instagram.com/apparelxchange)

Twitter [@apparelxchange_](https://twitter.com/apparelxchange_)

Facebook [facebook.com/apparelxchangeCIC](https://www.facebook.com/apparelxchangeCIC)

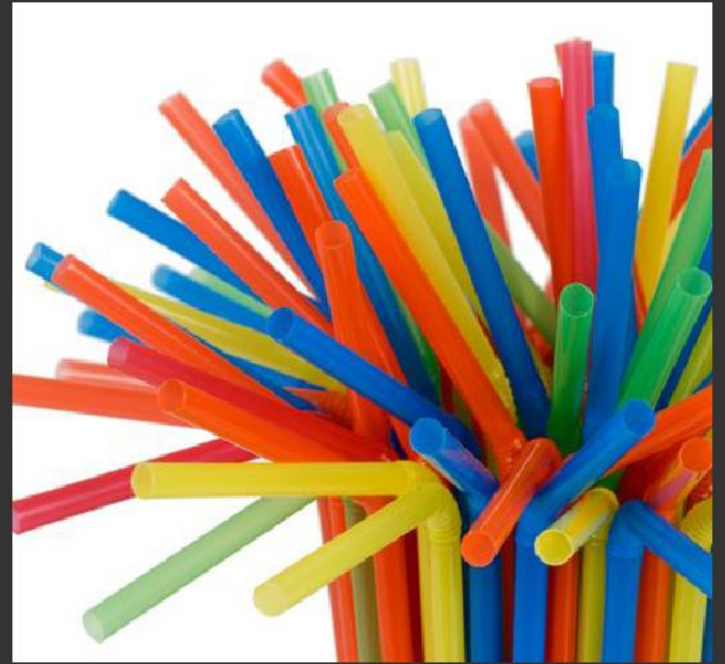
Email – izzie@apparelxchange.co.uk

Phone – [07383 572 327](tel:07383572327)





**IS PLASTIC
BAD?**



CONVENIENCE

SMART TECHNOLOGY



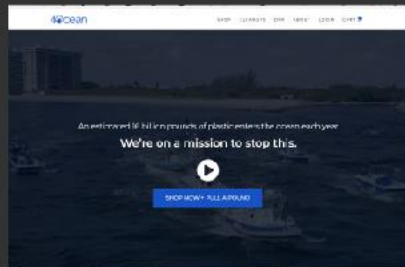


SUP!

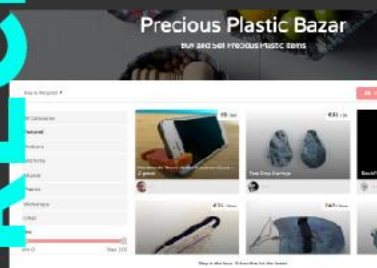
GUMSHOE



4 OCEAN



PRECIOUS PLASTIC



Examples of Change



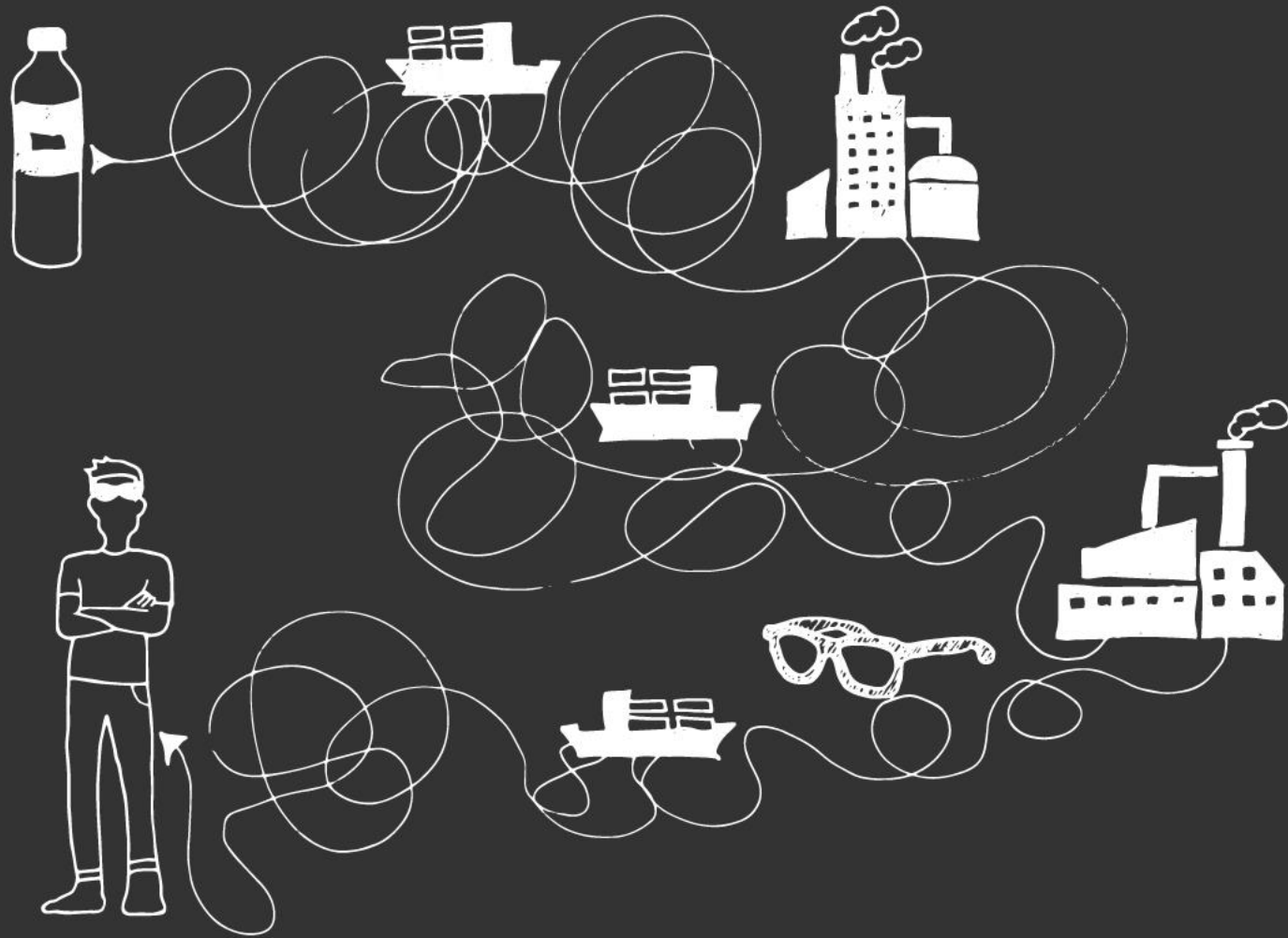
**It is not just about PLASTIC.
It is about VOLUME ...**

6.3bn

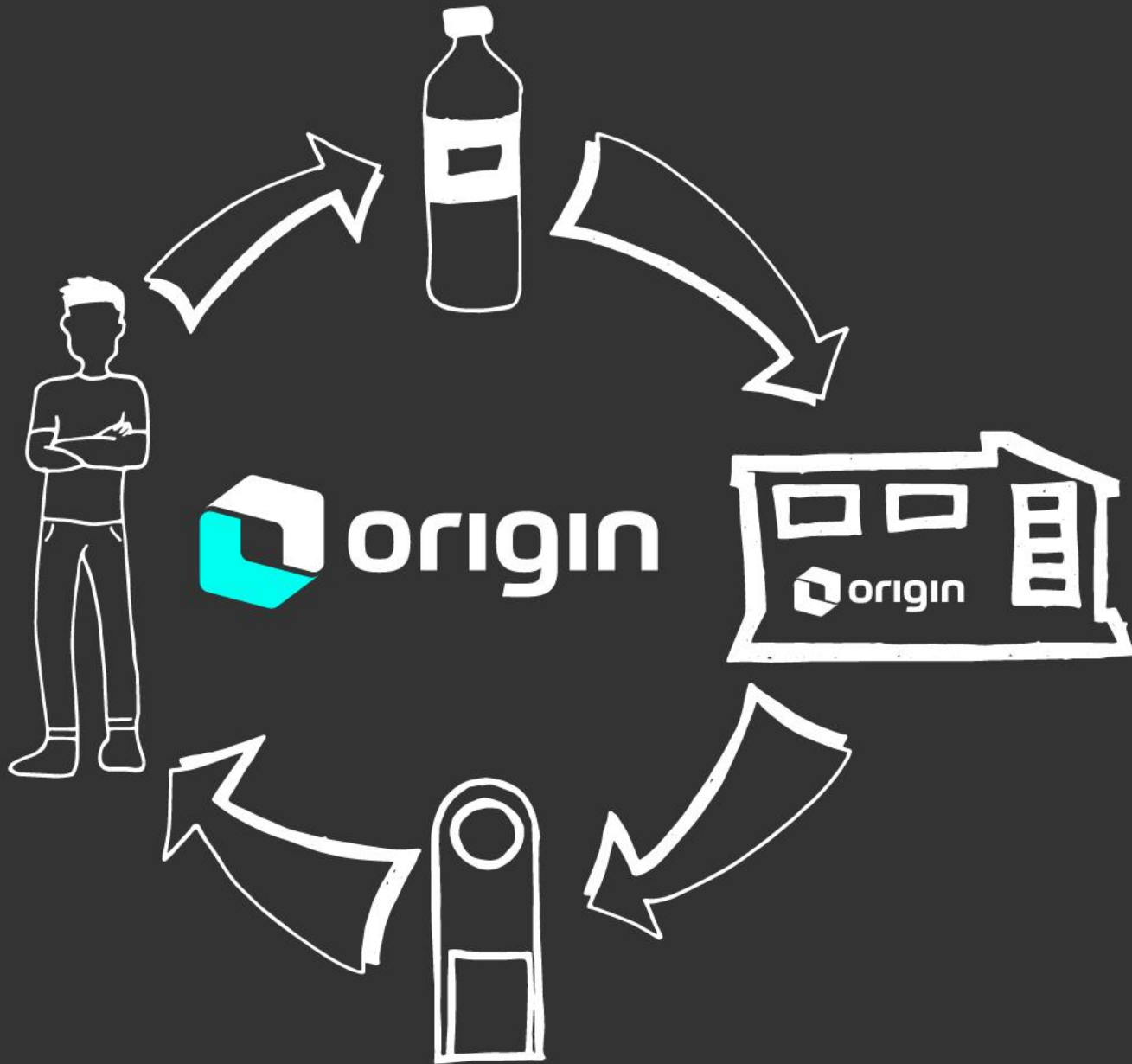
www.nationalgeographic.com



**But what
about the
CARBON . . . ?**



MICRO- CIRCULAR ECONOMY?



Co-Design?
User Centred Design?
Democratic Design?

SHOP
SEE YOUR PLASTIC
TRANSFORMED IN OUR
SHOP



PRODUCTION
SEE YOUR PLASTIC BEING
RECYCLED



**DONATE YOUR
PLASTIC**

#dobetter

What is an origin hub?

A one stop shop for plastic recycling. Our hubs put plastic recycling on show so that anyone can see exactly what goes into making an origin product from start to finish. Donate your waste plastic at one

BUY YOURS NOW

We are excited to launch our first product. We love it and we think you will too. Why not see how it would look in your home by clicking the link below.



Currently only compatible with Apple devices

**REDEFINING
WASTE
PLASTIC**



THANK YOU



Any Questions?



**Aberdeen &
Grampian
Chamber of
Commerce**

Business Support

- **Business Gateway**
 - Support businesses plan, change and adapt
- **Zero Waste Scotland**
 - 121 advice on reducing energy costs and carbon, interest free loan
 - Circular Economy business support and investment fund
- **Interface**
 - Connect business to academic expertise



Energy Efficiency
Business Support





Thank you

terri.vogt@agcc.co.uk



EUROPE & SCOTLAND
European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future



**Aberdeen &
Grampian
Chamber of
Commerce**