



# ECO FAIR

West & North Yorkshire Chamber

## A new vision for old TVs

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# GREEN GAIN

Green Gain's mission is to:

*“Accelerate the transition to a Circular Economy through supporting private and public sector organisations to adopt new business models involving the development and procurement of more sustainable products and services...evoking disruptive innovation that will challenge traditional methods of production and consumption.”*



# RESTRUCTA

- Formed in 2005
- Specifically to recycle Televisions
- Recycle up to 1,500 TV's every day (~500T/month)
- Now a combination of CRT's and Flat Screen TVs (~50/50 split)
- Based on West Coast of Scotland
- Over 40 full-time employees

# PRODUCT DEVELOPMENT

- Restructa developed a decorative aggregate produced from panel glass from CRT TV screens
- Summer 2014 - Trial - material was graded into 3 sizes (S - 10-20mm / M – 20-30mm / L - >30mm) and sold in nearby garden centre
- Material was sold in 20kg bags from last week in July
- 9 tonnes of material was sold in 6 weeks
- Key selling point - environmental credentials presented on POS storyboard
- Autumn 2014 - discussions opened with SEPA re: End of Waste
- Dec 2015 - confirmation of 'End of Waste' criteria
- Dec 2015 - landscape architect bought 5 tonnes of the material
- Currently material is manually processed - very labour intensive

# Zero Waste Scotland SUPPORT

- Green Gain employed by ZWS to support Restructa
- Primary focus has been on development of markets for the product, marketing and access to finance
- Working in partnership with marketing consultant
- Primary markets: garden centres, landscape architects, aggregate suppliers
- Support to finance grading equipment and bagging plant

# ZWS SUPPORT

- Contacted over 50 landscape architects in Scotland (March 2016)
- Received 10 very positive responses
- SWECO is keen to use the material of part of the i3 Enterprise Active Travel project, in Irvine
- Aggregate Suppliers have shown significant interest
- Enthusiasm for the smaller fraction to be purchased as 'pot toppers' has been identified
- Samples have been requested by suppliers - follow up enquiries have been made for delivery and costs

# THE PROBLEM

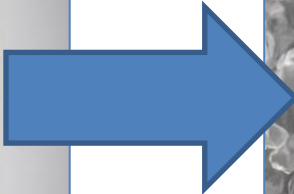
- CRT glass is heavy and is also classed as hazardous
- 10 years ago it was a tradeable commodity
- There was still CRT manufacturing in existence in the Far East – Malaysia, Korea and India
- Those markets no longer exist
- Disposal of CRT glass is a World-Wide problem
- Without a solution, it is likely that recycling of CRT TVs would cease completely
- Potentially ending up in landfill, large scale dumping or being exported illegally

# THE SOLUTION

- Restructa developed a process to separate the 'panel' glass (non-hazardous) from the 'funnel' glass (hazardous) in a CRT
- This represents about 70% of the total glass in a TV
- 'Panel' glass then goes through treatment process where it is tumbled and polished in 15 tonne batches
- Final stage grading process (currently manual) is carried out to provide various sizes of glass for different applications



# THE PRODUCT



# THE PRODUCT

- Great 'sustainability' credentials
- Decorative glass aggregate is extremely versatile - can be used for a number of landscaping applications
- Appearance adapts to the weather, changing its colour in the sun and rain
- Its transparency also allows illumination

# THE PRODUCT



# THE BRAND

- We are now at the critical point of determining the brand
- We know it's a super product but we need to find a super name

**Glasglo**  
**Tevaglass**  
**New Vision**

- **Help!**

# MARKET DEVELOPMENT

- Green Gain have done some great work helping us identify and explore potential markets
- There is real potential for many applications from pot toppers and aquariums to illuminated pathways and driveways
- Again we have reached that critical point where we need to make decisions
- Any other ideas are greatly appreciated

# LESSONS LEARNT

1. If you are starting off with material that is classed as a waste then it is vital to engage with the Environment Agency at the earliest possible stage
2. Make as much use as possible of 'experts' who are experienced in marketing and branding
3. Explore as many avenues of financial support as you can - for as many aspects of your product and processes as possible
4. Don't forget to enjoy yourself!



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## Thank You

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