



Best practices in wood waste management UNITED KINGDOM

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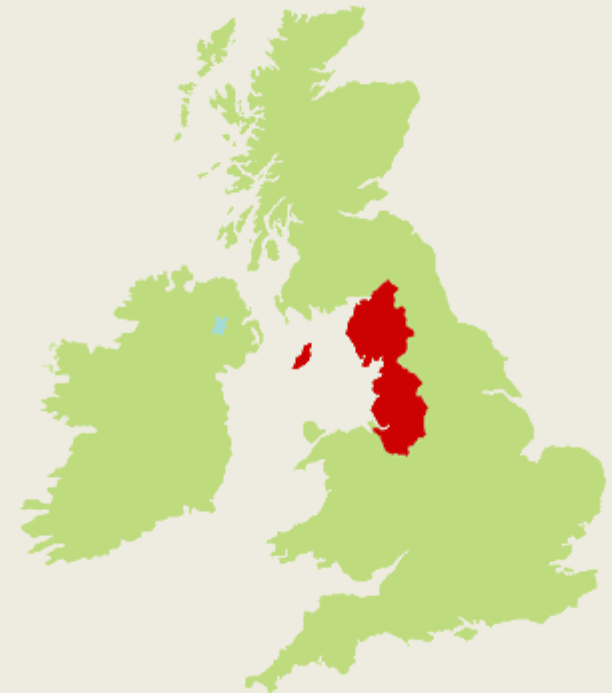
European Biomass
Industry Association



UK figures:

- 4.3 million tones of timber

End use of wood		
Chipboard and MDF	38%	1,1 mt
Energy	19%	0,55 mt
Animal bedding	17%	0,5 mt
Mulches, compost and coverings	5%	0,15 mt
Paths, rides and arenas	3%	0,092 mt
Exports	18%	0,54 mt



Gradings and end uses



- Two types of recycling industry:
 - High volume wood recyclers
 - ✦ 60% was recycled (*Wood Recyclers Association, 2011*)
 - Community – low volume
- Grades (WRA):
 - Grade A – “clean” recycled wood
 - Grade B – Industrial feedstock grade
 - Grade C – Fuel grade
 - Grade D- Hazardous waste



Regulations



- Environment Agency Permit required up to 50,000 tones p/a (Exempt from Waste Management License)
 - Waste Management License will be required for volume
 - The UK environmental legislation 1990 'Duty of Care Regulations'
 - UK Waste Packaging Regulations 1997
 - PPC Regs 2002
 - EWC Jan 2002
 - WID 2004
 - Hazardous Waste Regs July 2004
- **BSI PAS 111: Processing wood waste:**
 - The Publicly Available Specification 111 (BSI PAS 111:2012) for processing wood waste was commissioned by WRAP in collaboration with the British Standards Institution (BSI) and extensive consultation with the wood recycling industry.



Case study 1



• The touch wood by Emerge



Network of Wood recycling social enterprises
Emerge 3r charity
April 2013

Division: stock for sale and stock for the workshop

Types of waste:

- Timber
- Wood composites
- Wooden items
- Nails
- Screws
- Others



Case study 2



Wood being brought back to our yard to be sorted for resale and reuse



Large herb box: High level planters



Scaffold board farm shop display unit



Garden picnic bench



Case study 2



- Hartfield Wood Recyclers
 - 250.000 tones of waste wood a year
 - ✦ 35.000 tones HWRCs
 - Products:
 - ✦ Animal bedding
 - ✦ Arena and play surfaces
 - ✦ Panel board feedstock
 - ✦ Biomass wood chip



Case study 3



• Barton biomass CHP plant



- 20 MW
- c.£70m investment
- Operational life: 25 years
- 37,000 Trafford's homes
- District heating network
- 90% of recycled Wood
- 200,000 tones/year

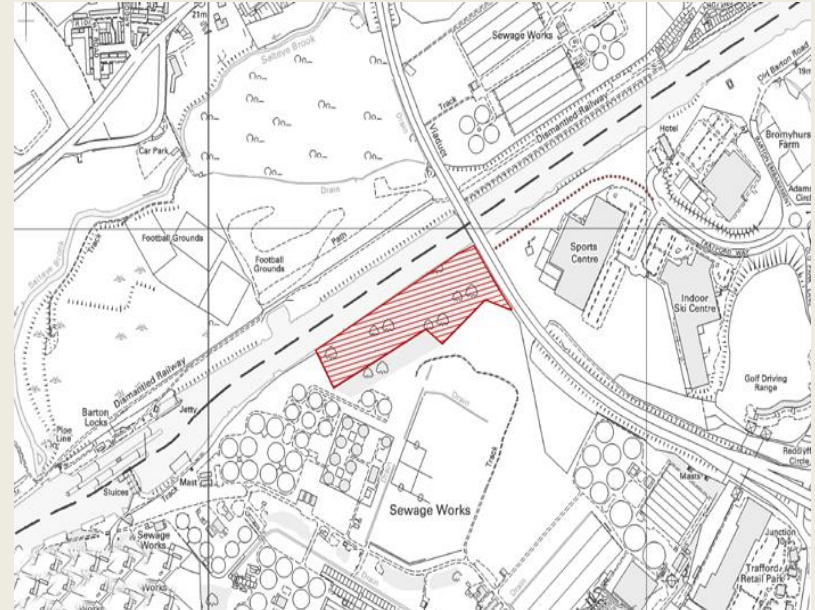
Year	2016				2017				2018				2019			
Quarter	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Design & Procurement			█		█											
Site enabling							█									
Construction									█							
Commissioning													█			



Case study 3



- Barton site plan
- Manchester Ship Canal



Conclusion



- North West England in the UK is a demonstrator region because:
 - Significant volumes of timber and recycled
 - Regulations are in place for the utilization of waste wood based on its grade
 - Regulatory framework still evolving, to fill some of the gaps that are still present
 - North West England has examples and case studies of industrial initiatives for use of waste wood both for biomaterials (small volumes, high value) and energy (large volumes, lower value)



Thank you