12ème COLLOQUE

Jeudi 30 novembre 2017
LE HAVRE

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Nouvel essor pour l'énergie !

Avec le soutien de :

En partenariat avec :

This project has received funding from the European Union's H2020 research and innovation programme under grant agreement no 727958.

Developments in UK Wood Recycling

Andy Hill – Chair

Agenda

- Who is the WRA?
- Overview of the European & UK waste wood market
- Focus on UK Waste Wood Biomass
- Key Issues for the UK Industry
- Regulatory Developments
  - Fire Prevention Plans
  - Waste Wood Classification
- Questions

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Our Association

- Established in 2001
- The ‘go-to’ organisation for wood recycling/recovery
- 100+ companies representing over 80% of the recycled wood industry
    - Wood re-processors
    - PanelBoard mills
    - Renewable energy suppliers
    - Technology manufacturers
    - Consultancies and specialist insurance and health & safety companies
- Links with European organisations
    - BAV (Germany)
    - FEDEREC (France)
- Instrumental in producing standards (PAS 104 and PAS111), protocols and a code of practice

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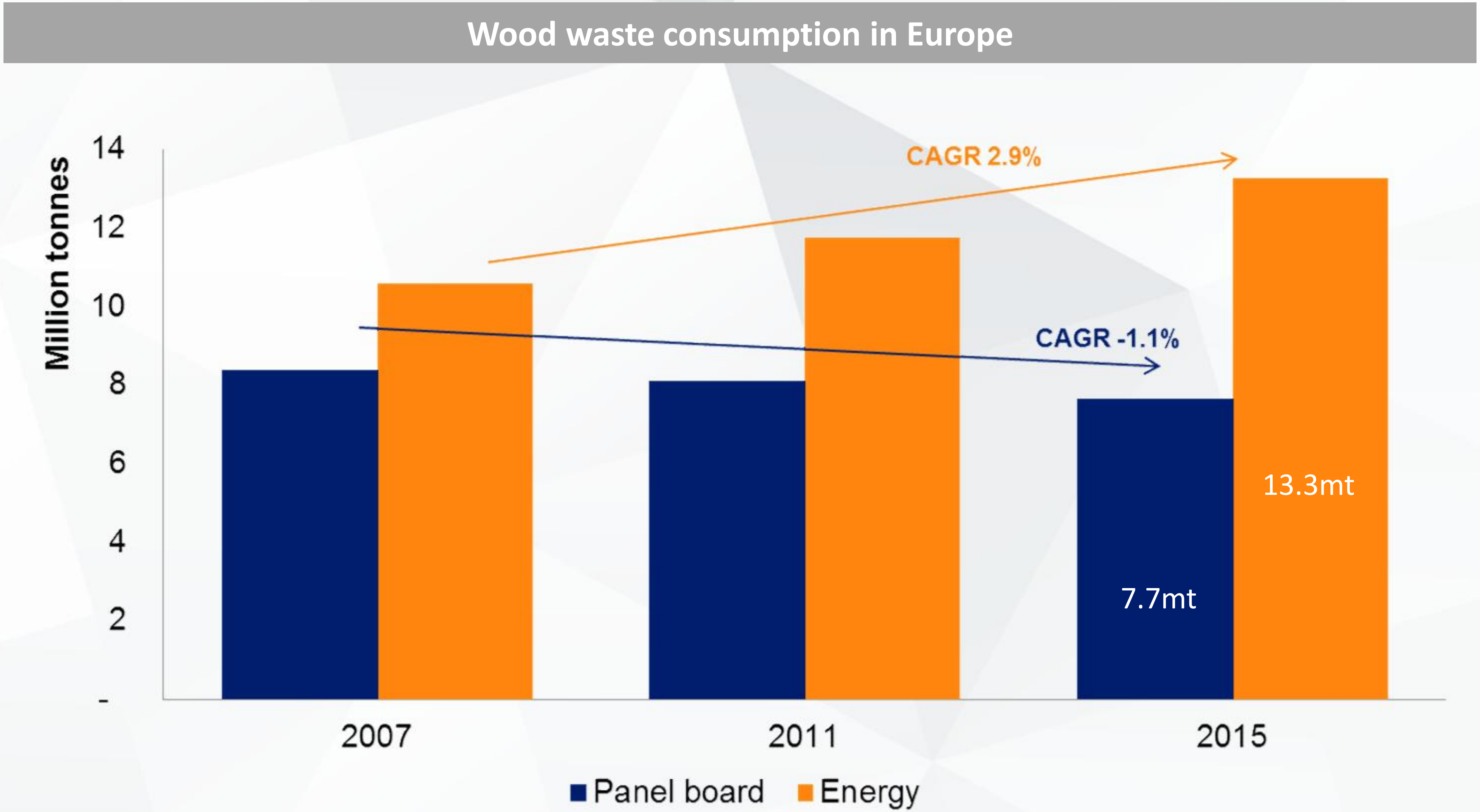
EUROPEAN Wood – Grades Definitions & Markets

Definitions - Grades	End Markets	Export Permit (TFS) Required	Typical Specifications
Grade 1: "Clean" recycled wood – material produced from pallets and secondary manufacture etc. and suitable for producing animal bedding and mulches.	PanelBoard, Clean Energy (*Non WiD*) Animal Bedding	**Green Listed**	Crushed, Shredded to 10-80mm By-Product 0-10mm (Fines)
Grade 2: Industrial feedstock grade – including grade A material plus construction and demolition waste, this is suitable for making PanelBoard.	PanelBoard & Energy (*Waste Incineration Directive WiD*))	**Amber Listed**	
Grade 3: Fuel grade – this is made from all of the above material plus that from municipal collections and civic amenity sites and can be used for biomass fuel.	Energy (Biomass, Combined Heat & Power, Cement, Lime)	**Amber Listed**	
Grade 4: Hazardous waste – This includes all grades of wood including treated material such as fencing and trackwork and requires disposal at special facilities.	Hazardous Waste Incineration	**Red Listed**	
***Fines - 0-10mm** material - Typically high in Heavy Metals when produced from Grades 2 -3*	Grade 1 - Animal Bed'	**Green Listed**	
	Grade 2-3 - Cement/Lime	**Amber Listed**	

European Standards Excluding Forestry Products

European Overview

TOTAL EUROPEAN WOOD MARKET: 57.2MT(1)

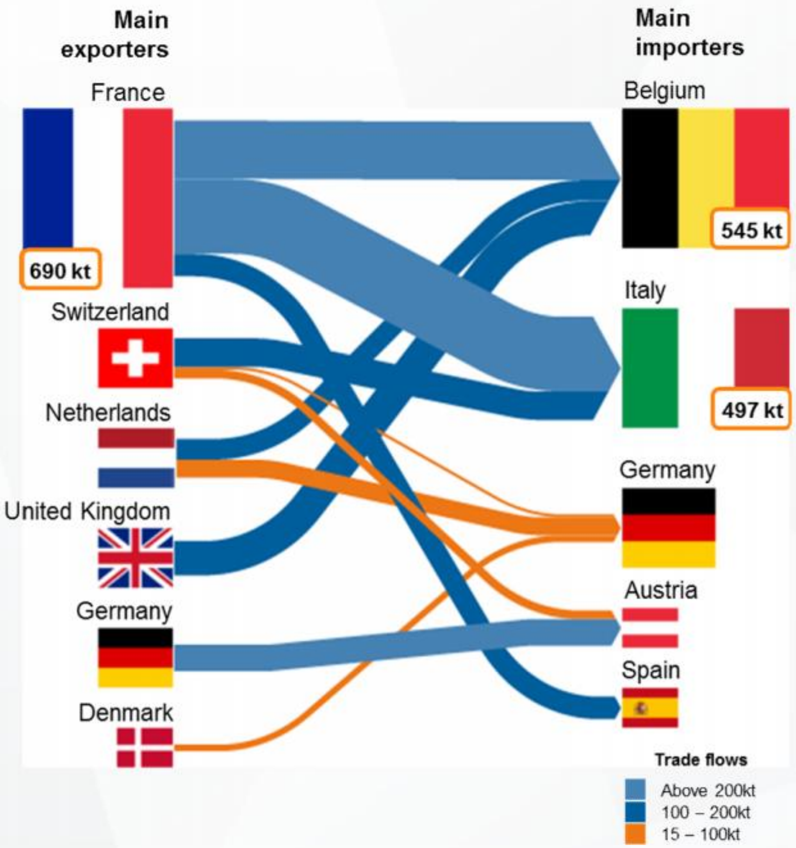


(1) Waste+Virgin wood

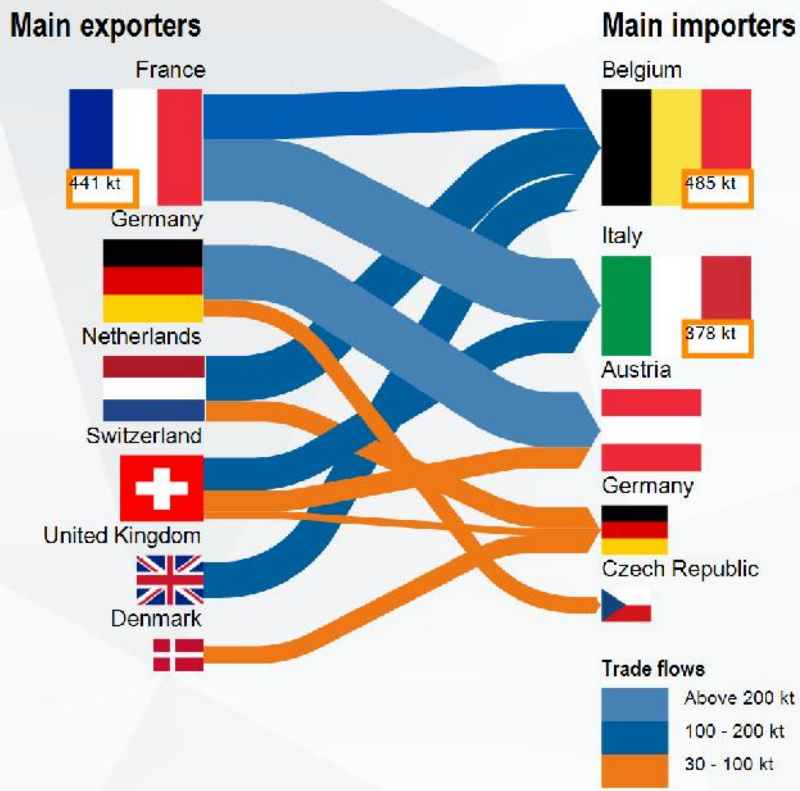
WOOD WASTE TRADE – PANEL PRODUCTION

The demand for wood waste in panel production is increasing across Europe, despite some decline in traditional strongholds in Italy and Belgium

Wood waste for panels, 2013



Wood waste for panels, 2015



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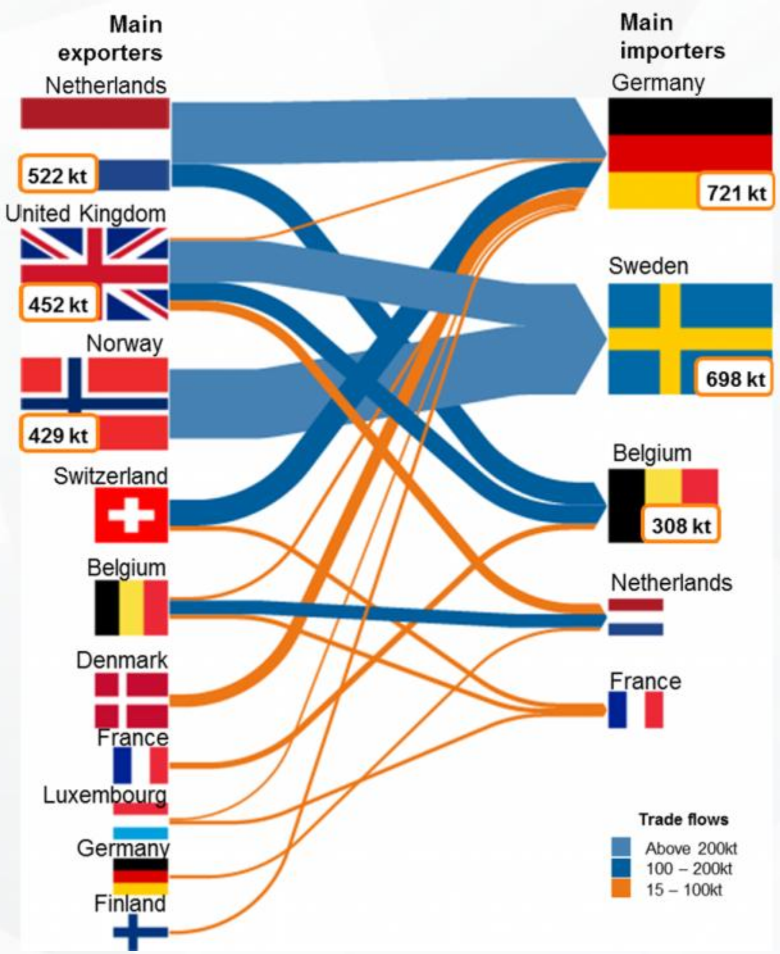
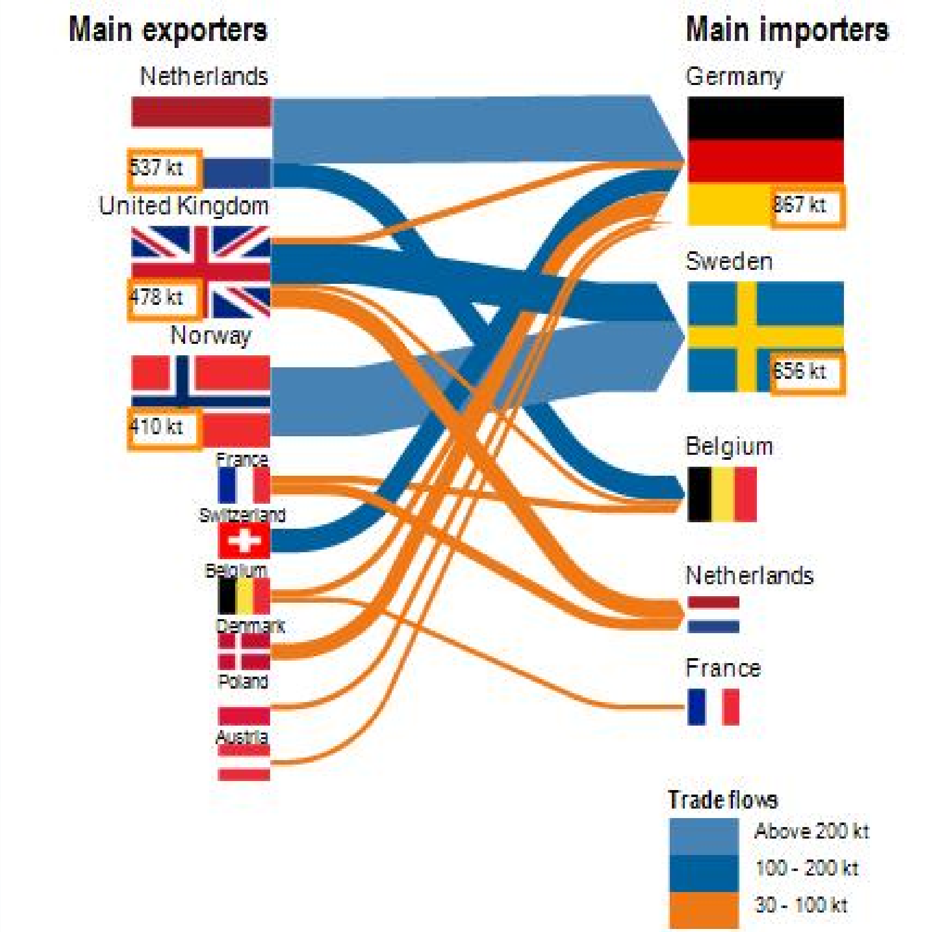
WOOD WASTE TRADE – ENERGY MARKETS

Although little change at the top, the marginal volumes are sourced up to 1,000km away

Wood waste for energy, 2013	Wood waste for energy, 2015





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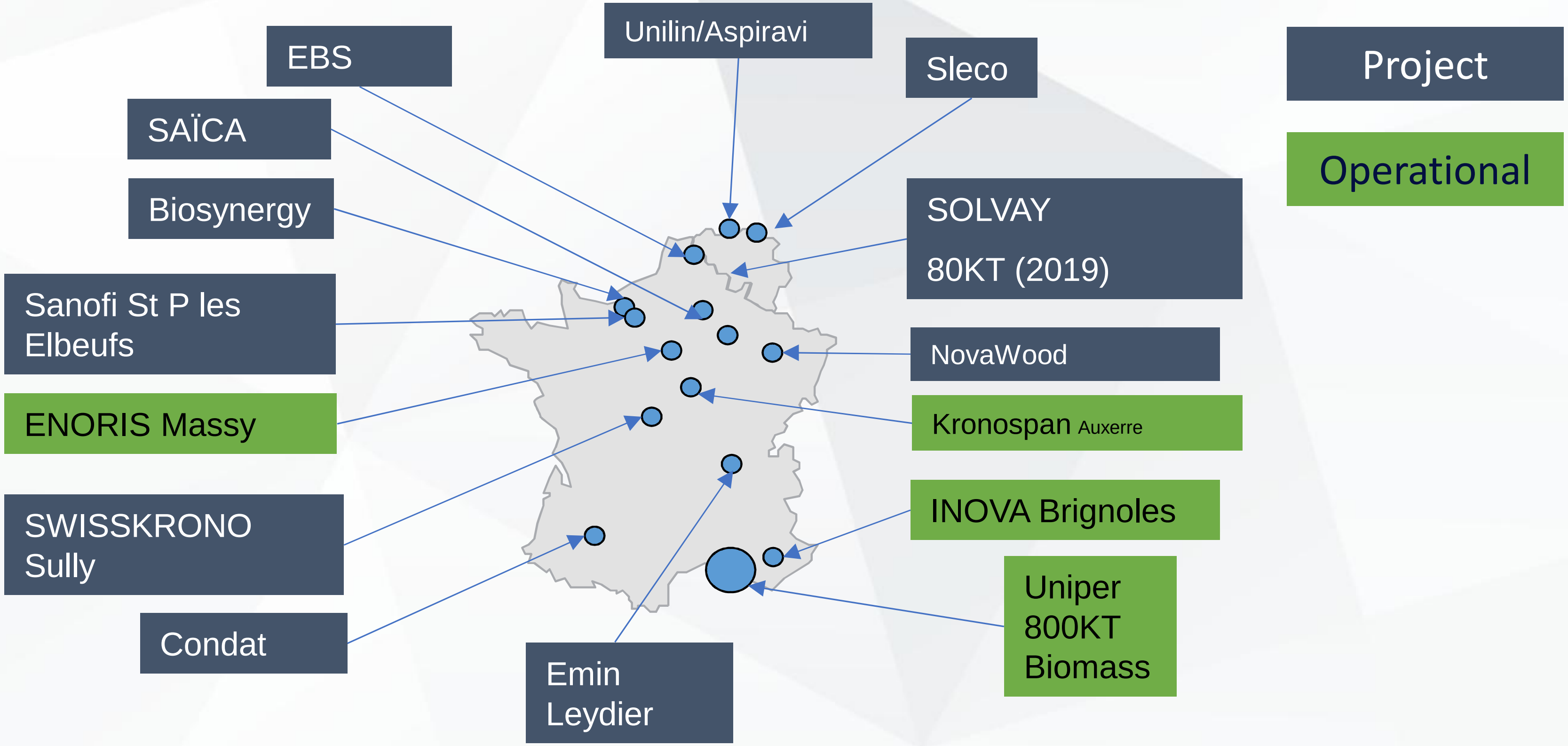
BIOMASS PROJECTS AND CONSTRUCTION
FRANCE / BELGIUM / NL



Total project capacity >2.5mT
BUT some will never come out

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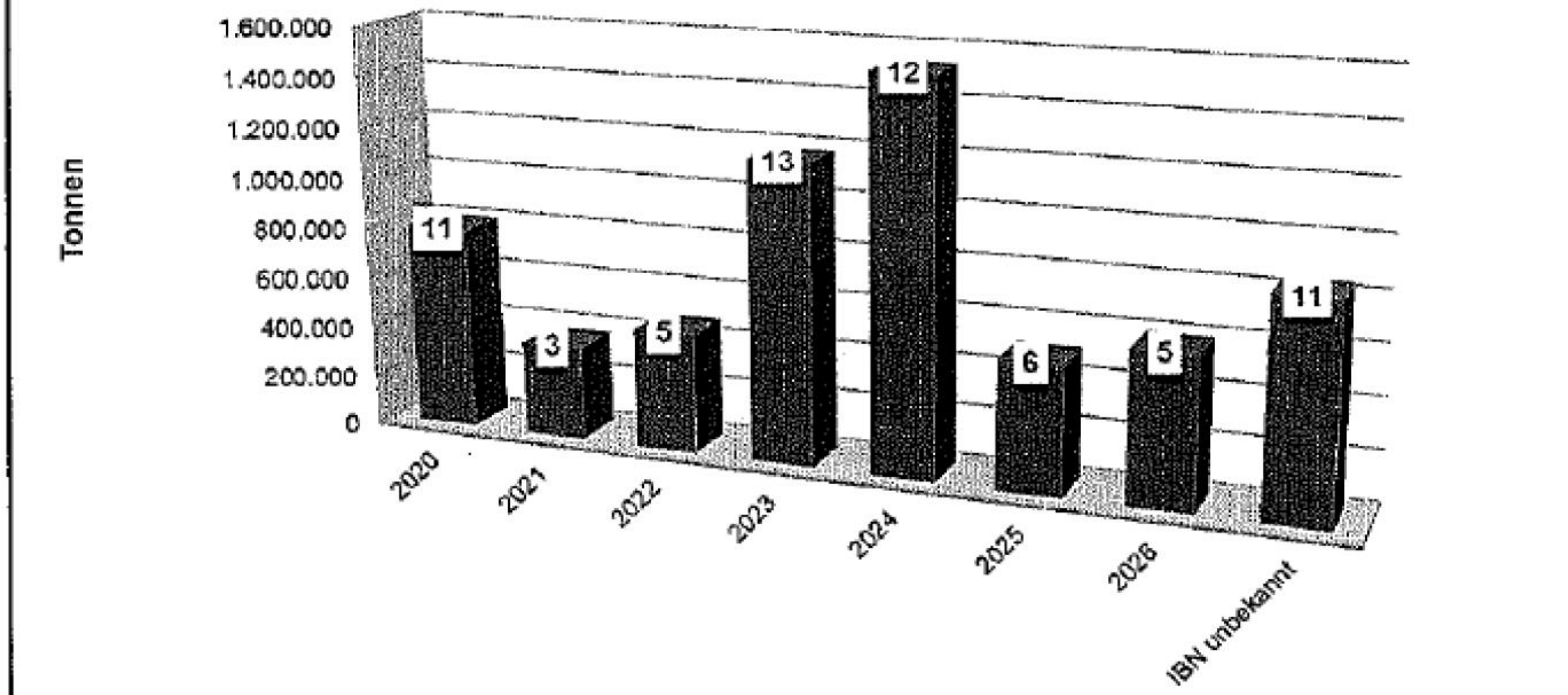
Potential Subsidy Removal German Biomass plants

Abbildung 1 Wegfallszenario der Verbrennungskapazität bei zu 100 % altholzgeführten Anlagen



	2020	2021	2022	2023	2024	2025	2026	IBN unbekannt
Anzahl der Anlagen	11	3	5	13	12	6	5	11
∑ Brennstoff	799.000 t	370.000 t	472.000 t	1.173.000 t	1.531.000 t	503.600 t	590.000 t	840.000 t

German Market Developments

Trend research says:

- Market is insecure because of the price and volume development in combination of the EEG law
- Only a few plants may close by ending the EEG law as still some uncertainty
- Waste wood volumes increase till 2030 because of a good economy and a better sorting e.g. Gewerbeabfallverordnung (new commercial-waste-law starts 01.01.2019)

At this moment no lack of wood but Q1 of 2018 will be difficult

Import of waste wood from UK will decrease because of new own capacities in the UK market

Large danger for a stable market: increasing wood export without notification or export in low standard plants (e.g. east of Europe)

In 2018 the “Altholzverordnung“ will updated and define:

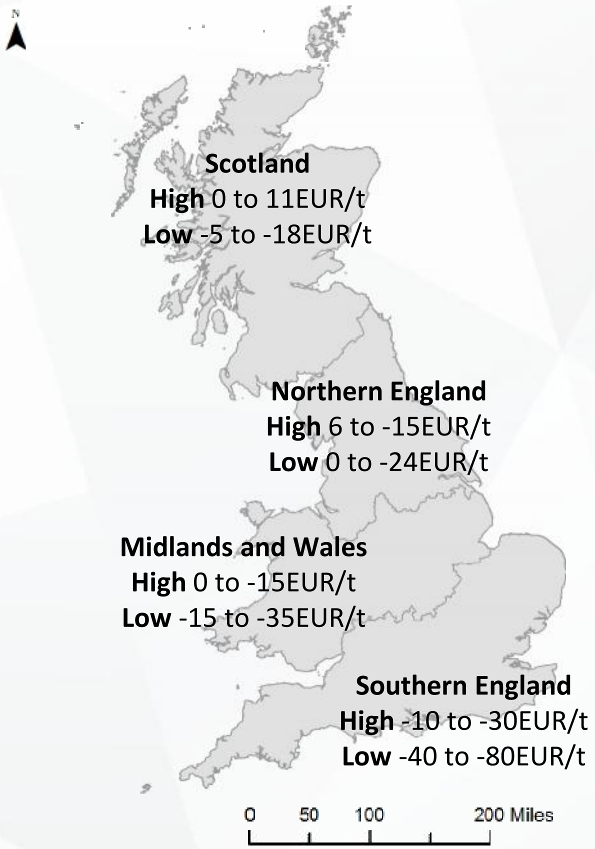
- limits
- sorting criteria
- sample collecting etc.

SOURCE: BAV meeting report EUWID 40.2017

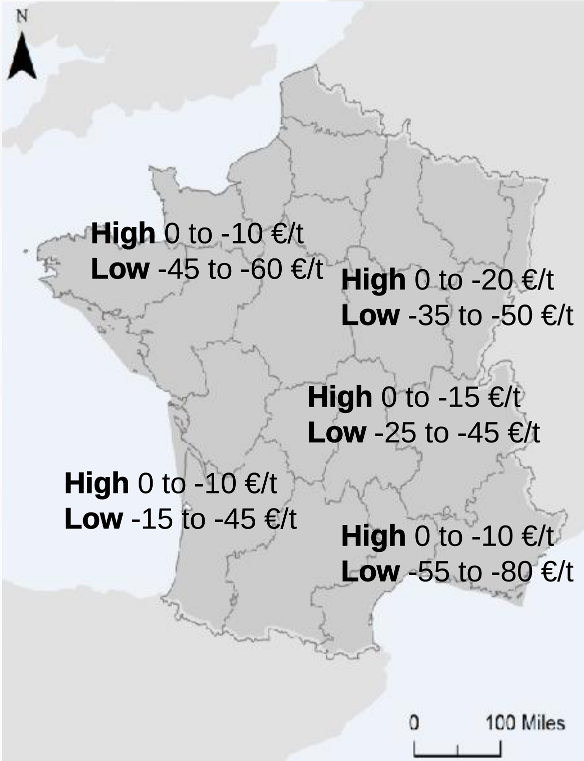
Gate Fees into Wood Processing sites

Supply and demand imbalance is reflected in regional gate fees across Europe

UK

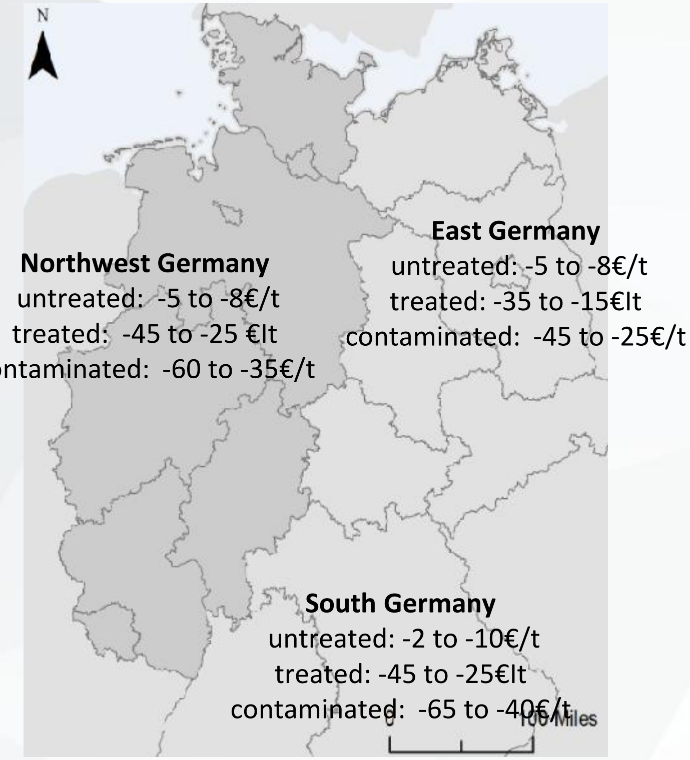


France



High *quality wood waste e.g. from packaging*
Low *quality wood waste e.g. from municipal, C&D sources*

Germany



Pre-crushed wood 0-300 mm

UK Overview

UK Wood Recycling

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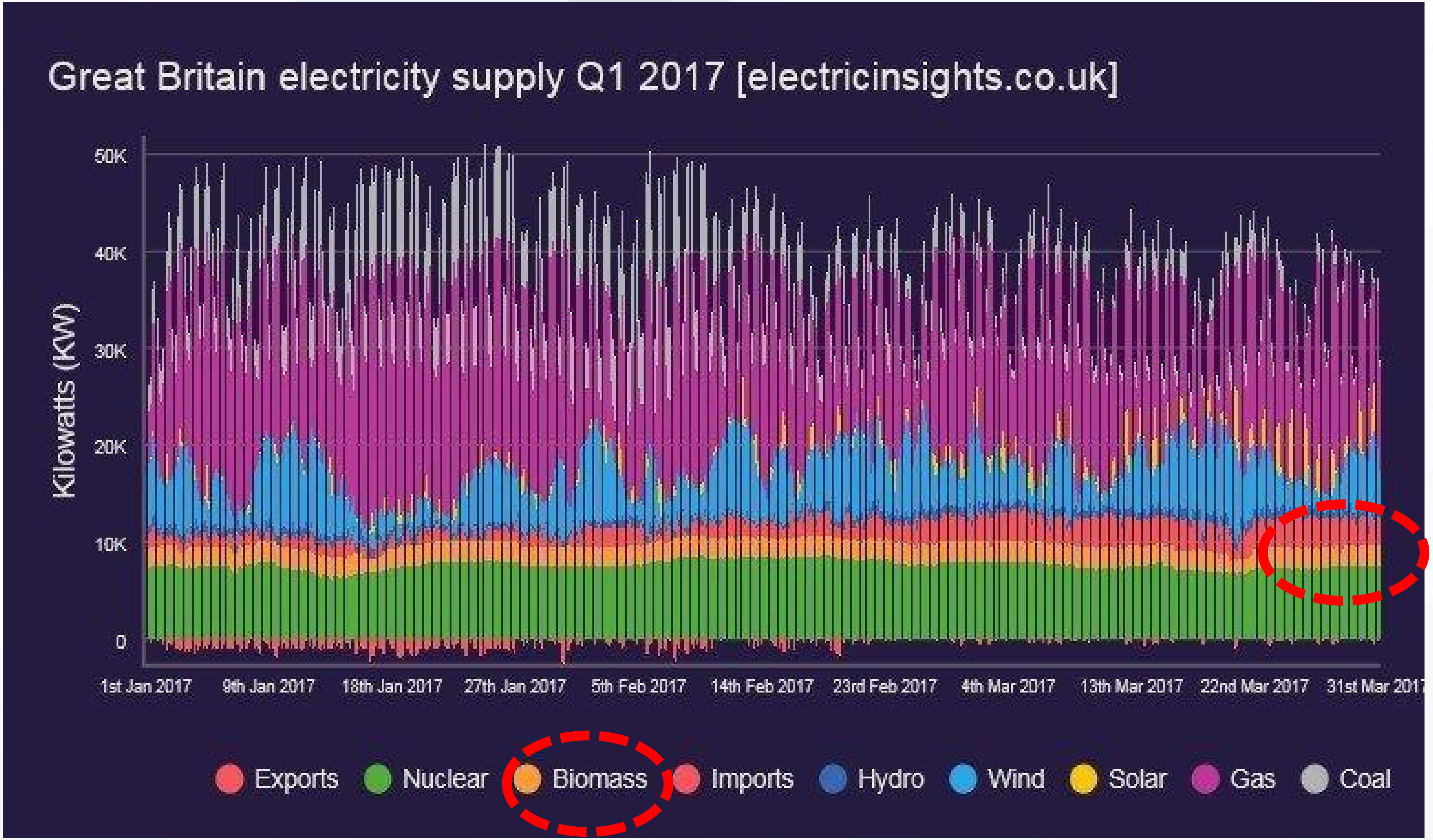
UK Power Mix Q1 2017



Biomass 4.4TWh - Biomass produced 5.5% total supply.

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UK Wood Recycling

Our Sector makes a significant contribution to UK energy security 2.9 TW of annual power production - enough to supply 700,000 homes

Equivalent to 1% of total UK power consumption

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Gate Fees into UK Wood Processing Sites

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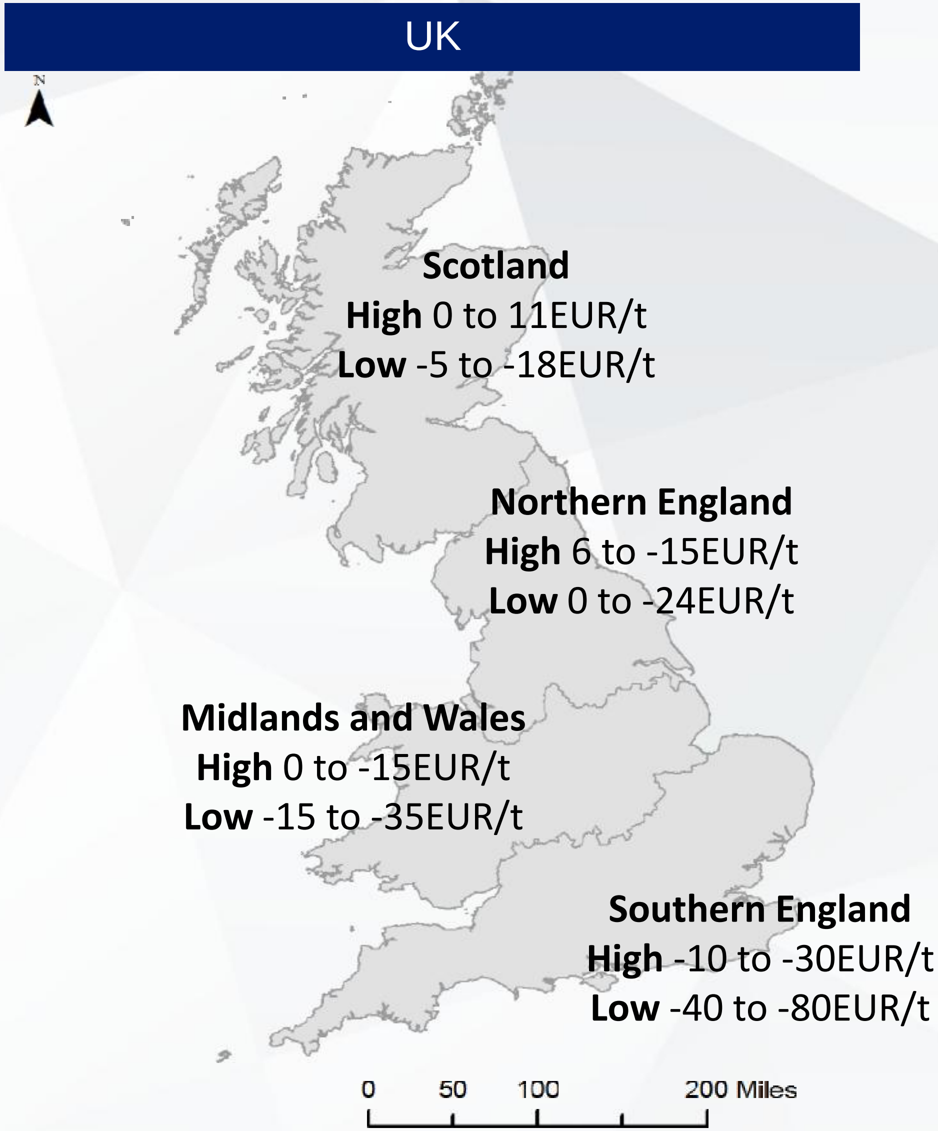
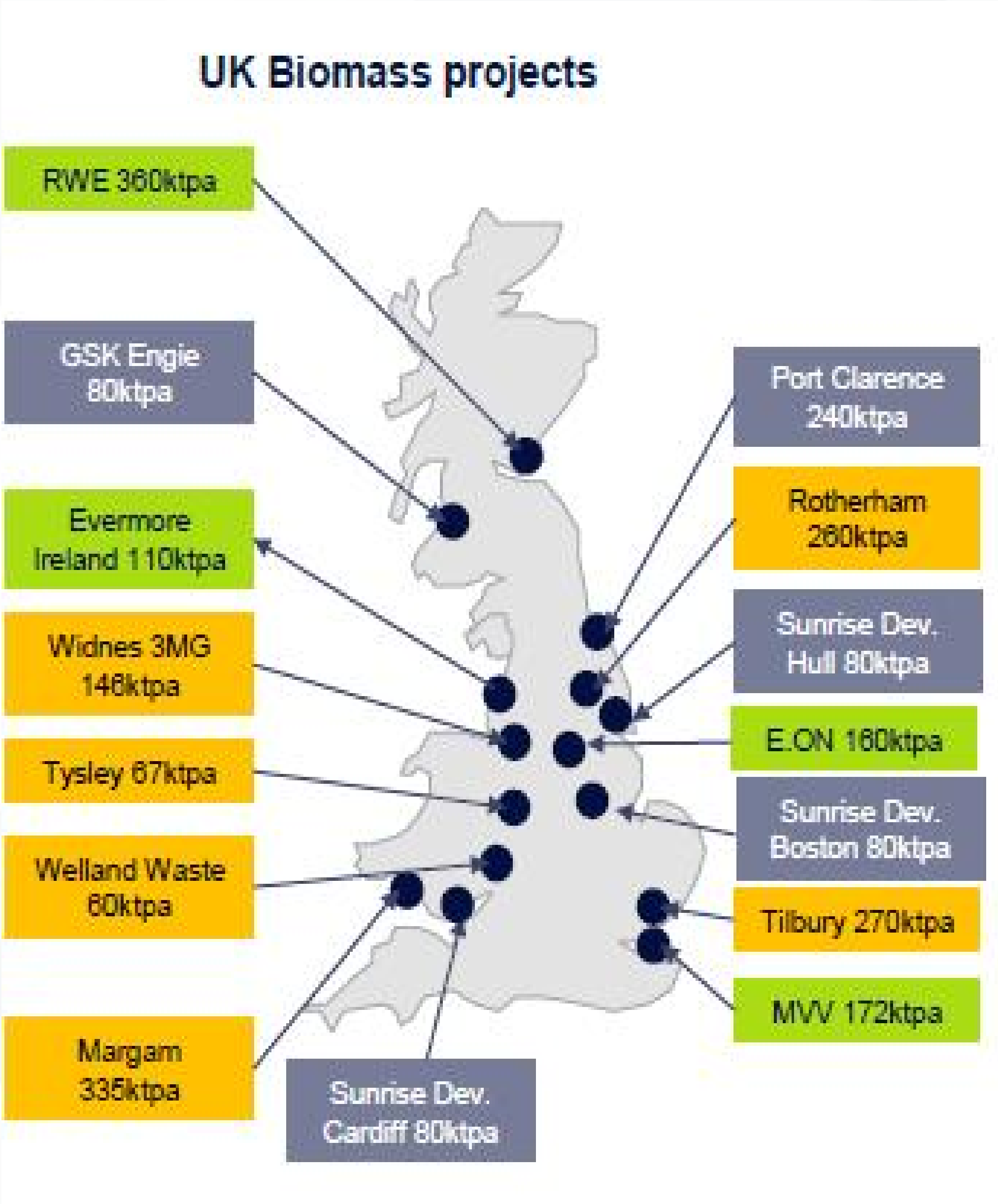


High *quality wood waste e.g. from packaging*
Low *quality wood waste e.g. from municipal, C&D sources*

What does wood recycling contribute?



Operational = 700k tpa

Construction / Project = 1.6 Million tpa

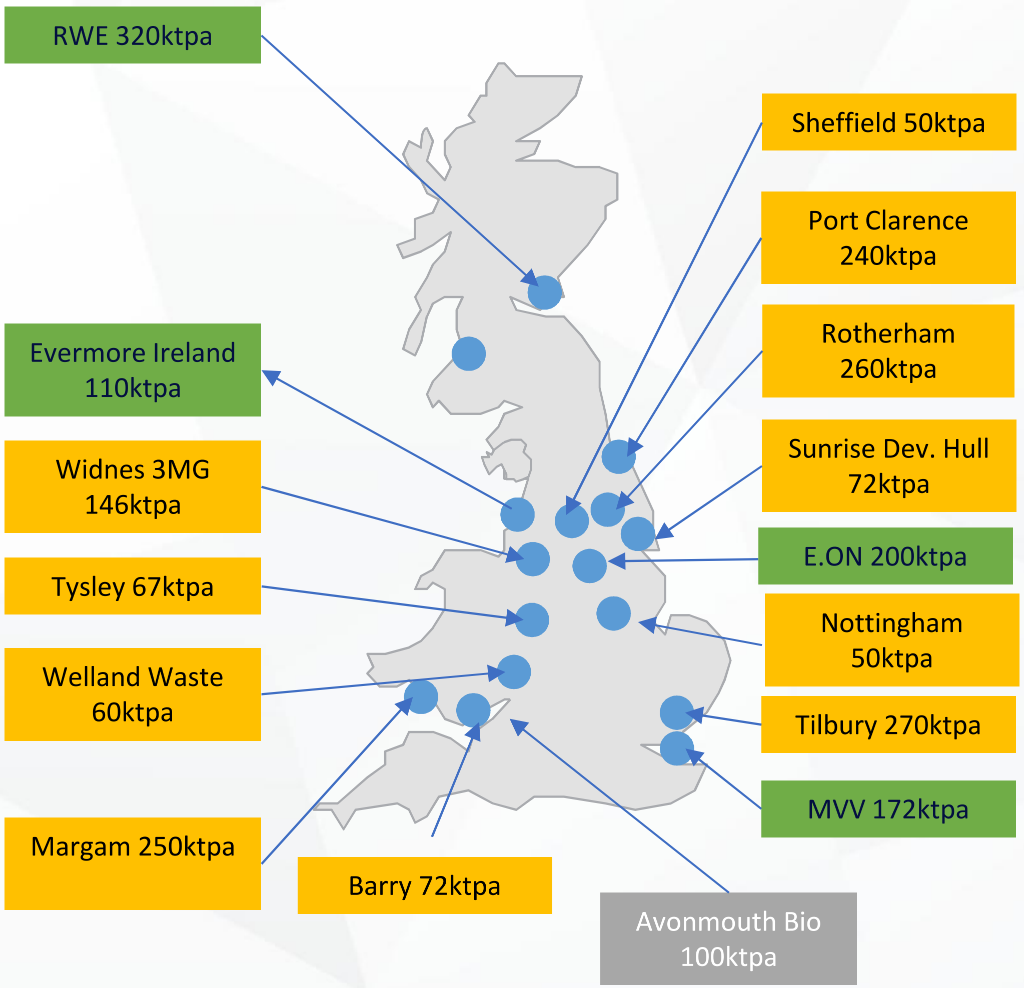
Our sector is making a significant contribution to UK energy security!

UK BIOMASS PROJECTS AND CONSTRUCTION

500k – 1Mt UK shortfall

UK Biomass projects

Operational
Construction
Project



	New Biomass 2017	ktpa	@ 85% Capacity	Commissioning ETA Q3 2017	Q4 2017	Q1 2018
1	Tilbury	270	230	230		
2	Barry	72	61	61		
3	Margham Port Talbot	250	213		213	
4	Welland NH	60	51		51	
5	Tysley (Gasif)	67	57	57		
6	Nottingham	50	43		43	
7	Sheffield	50	43	43		
8	Hull	72	61	61		
9	Cheshire (Gasif)	170	145			145
10	Widnes	140	119	119		
11	Rotherham	260	221		221	
12	Port Clarence	325	276			276
	Total	1,786	1,518	570	527	421
				38%	72%	100%

Assuming....	Ktpa
New UK Biomass	1,500
Reduction of Exports	-700
New Imports from Europe	-200
Fines Reductions	-100
UK short of Wood by....	**500**

Existing Exports	ktpa
Sweden (TFS data)	211
Netherlands (TFS data)	105
Belgium (TFS data)	62
Germany (TFS data)	21
Finland (TFS data)	17
Annex 7 (Estimate)	300
Total	716

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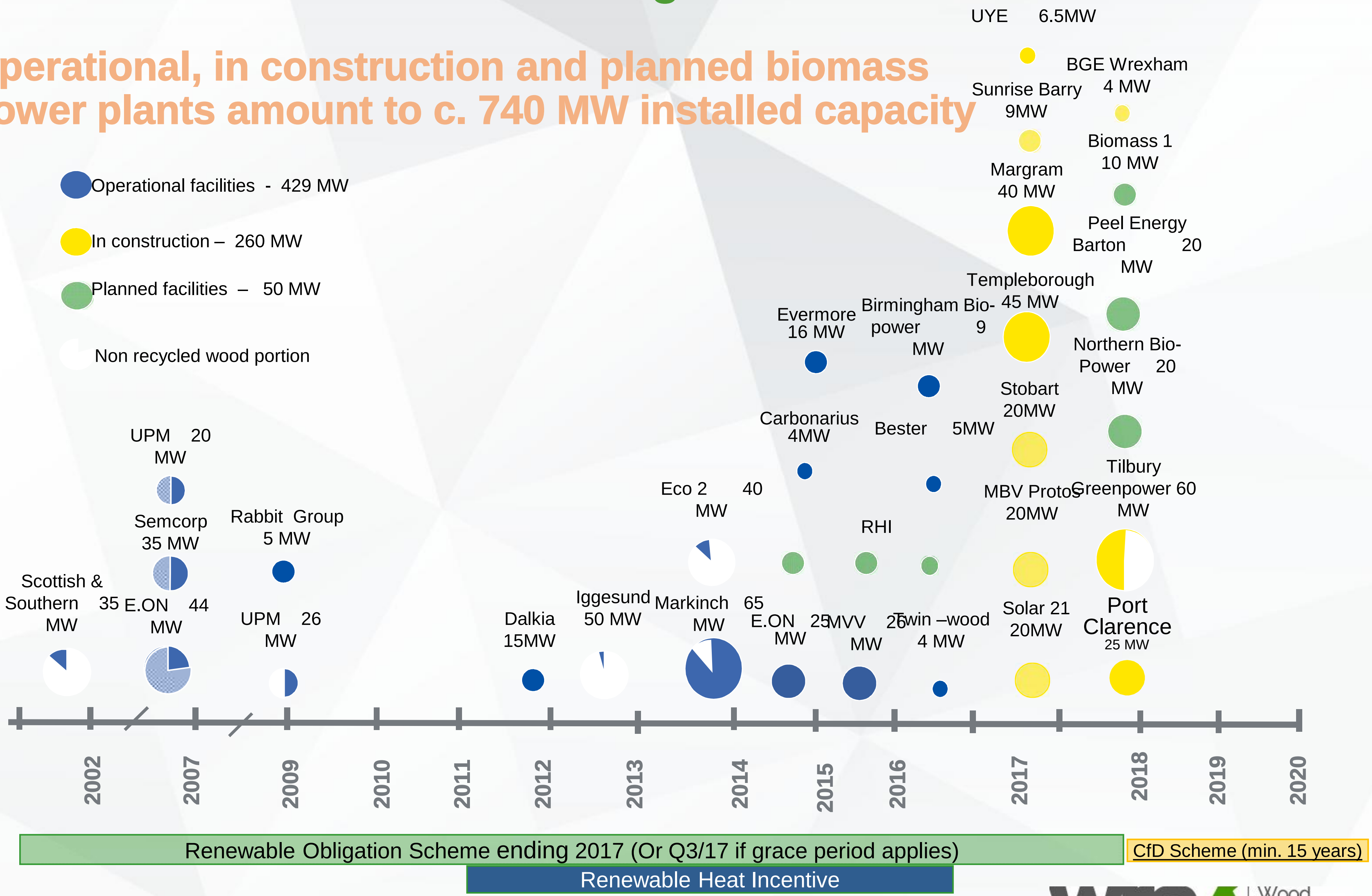
UK Biomass Plant timings

Operational, in construction and planned biomass power plants amount to c. 740 MW installed capacity



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Key issues

- Seasonality & off-take profiles
- Permit changes & FPP
- Inconsistency of policies – RHI vs recycling
- Differing drivers within government
    - Reduce costs
    - Increase recycling
    - Incentives for recovery
- Brexit
- Waste classification debate

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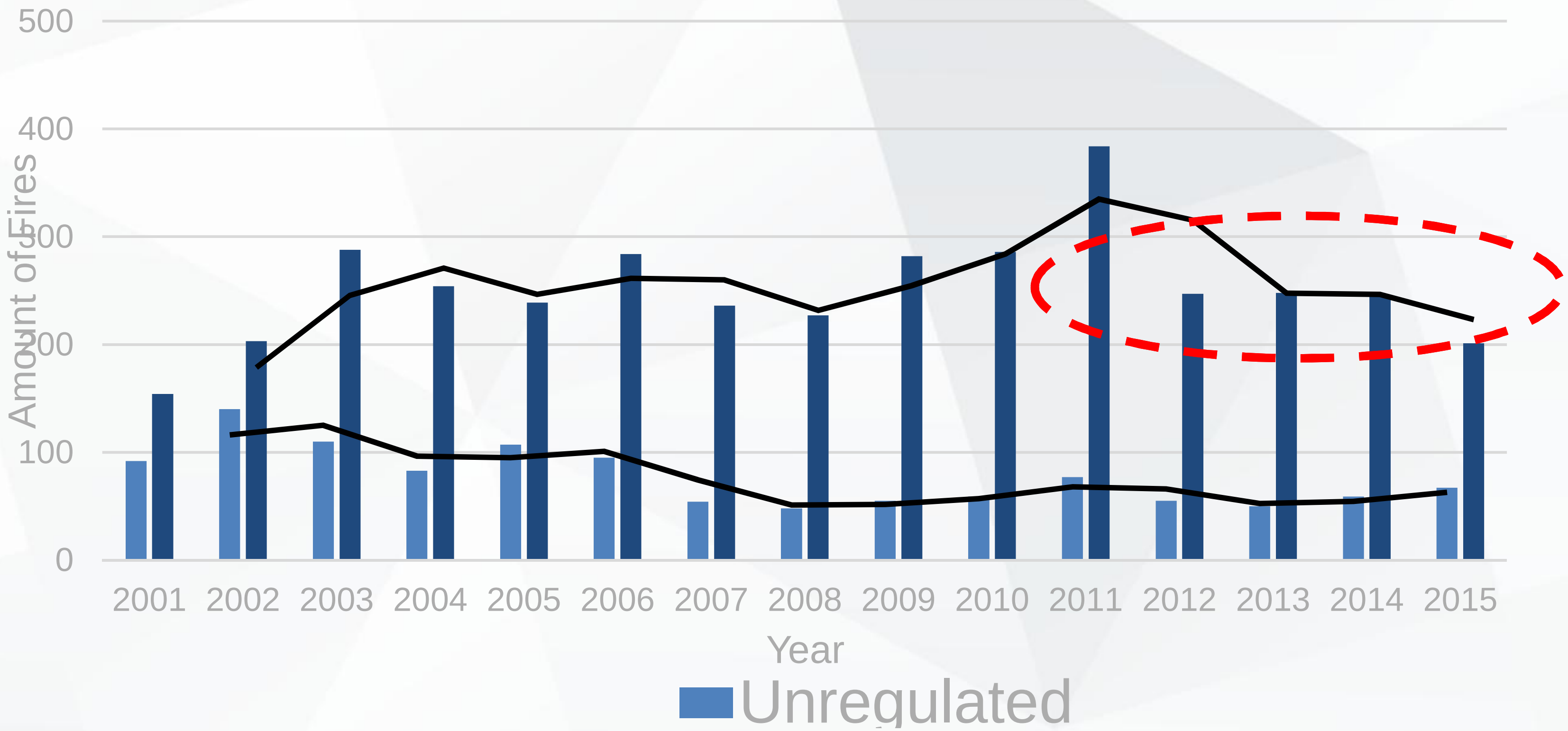
Regulation #1

Fire Prevention Plans (FPP)

Fire Prevention – Fire Trend



Source: Environment Agency

Concerns with FPP

- 'One size' does NOT fit all
- Some elements of FPP are <u>unworkable</u> for the wood sector (and others)
- Will put perfectly good companies out of business
  - *Stack heights*
  - *Separation distances*
  - *Wood storage times*
- The creation of the FPP requirements has been led by the EA and not the Fire Service (i.e. the experts)!

6 year process!!

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The impact of FPP

- Lengthy delays to bespoke permit approvals
- Restriction / stop on business activities
- Reduction in tonnage throughput due to delays
- Projects delayed /put on hold
- Some operators considering giving up altogether due to fear over compliance
- £Hundreds of thousands spent on site improvements and consultants with still no progress made with FPPs or permit approval

Where do we want to get to?

- EA officers working at a local level to approve non-standard FPPs that are:
  - ➢ Practical
  - ➢ Pragmatic
  - ➢ Commercially viable
- Inclusion of the science from fire tests
- Acceleration of issuing approved FPPs
- Agreement to
  - ➢ Share best practice and information
  - ➢ Review inconsistency towards flexibility
  - ➢ Discussions on storage at ports and firewater containment
  - ➢ Produce a waste wood template as guidance

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Lessons Learned & Shared

- Early engagement by the EA is required!
- Earlier co-ordination of the industry response!
- Early understanding of the scale of the problem….

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A co-ordinated industry…..

esa
environmental services association

Organics Recycling Group
Renewable Energy Association
call today on 020 7925 3570

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TYRE RECOVERY ASSOCIATION

UROC
SKIP TO RESOURCES

RESOURCE ASSOCIATION

Regulation #2

Waste Wood Classification

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Why is it on the EA's agenda?

RHI scandal in Northern Ireland, concern about UK uses

- What is 'Hazardous' ?
- Are sufficient checks in place?"
- Is Hazardous wood ending up in the wrong place?

New EU guidance coming will mean more robust application of current waste classification technical guidance – WM3

Has implications for other materials such as:-

- ➢ Green Waste
- ➢ Metals
- ➢ Any skips or bins that contain 'Hazardous' contaminants!

WRA leading joint working party meetings

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A Co-ordinated Industry…..

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Environment Agency

NAWDO
NATIONAL ASSOCIATION OF WASTE DISPOSAL OFFICERS

esa environmental services association

WOOD PANEL INDUSTRIES FEDERATION

RESOURCE ASSOCIATION

LARAC

UROC
SKIP TO RESOURCES

UK - Waste Wood Classification

Initial EA proposal for Interim RPS of 1% of mixed waste wood loads being consigned as ‘potentially hazardous’ not acceptable

The industry association (WRA) on behalf of others flagged up a range of unintended consequences, including:

- 40% of waste wood generated by HWRCs – additional separation will mean significant costs
- National recycling rates could fall by 2-6% per annum
- Local authorities may start to reject mixed waste wood which could encourage disposal via unauthorised routes
- Limited disposal routes for hazardous waste wood in England and none in Wales
- Two major customers saying would no longer be able to accept mixed waste wood (PanelBoard and Energy)
- Undermine investment in Biomass facilities (existing and planned)

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Waste Wood Classification

Following actions agreed with the Regulator:

- Code of practice - next 10-12 months
- Recommendations on wood types for:
  - Clean, untreated
  - treated non-hazardous
  - treated hazardous
- Evidence of treated wood products and wood treatments reviewed
- Agreement on
  - ➢ what the contaminants are
  - ➢ acceptable levels
  - ➢ what new testing needs to be undertaken
- Processors to report hazardous waste wood rejected at site level
- Interim regulatory position from EA
- Potential size of the problem established
- *Current position will continue for 1 more year*

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Regulation #3

What's next?

Next?

Dust!!

- Explosion
- Human health - Respiratory

Brexit!!

Questions

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