

Scoping Review of Recycling & Reprocessing Infrastructure in the South East

The Changing Shape of Our Recycling Infrastructure

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Presentation to SERTAB 12.12.06

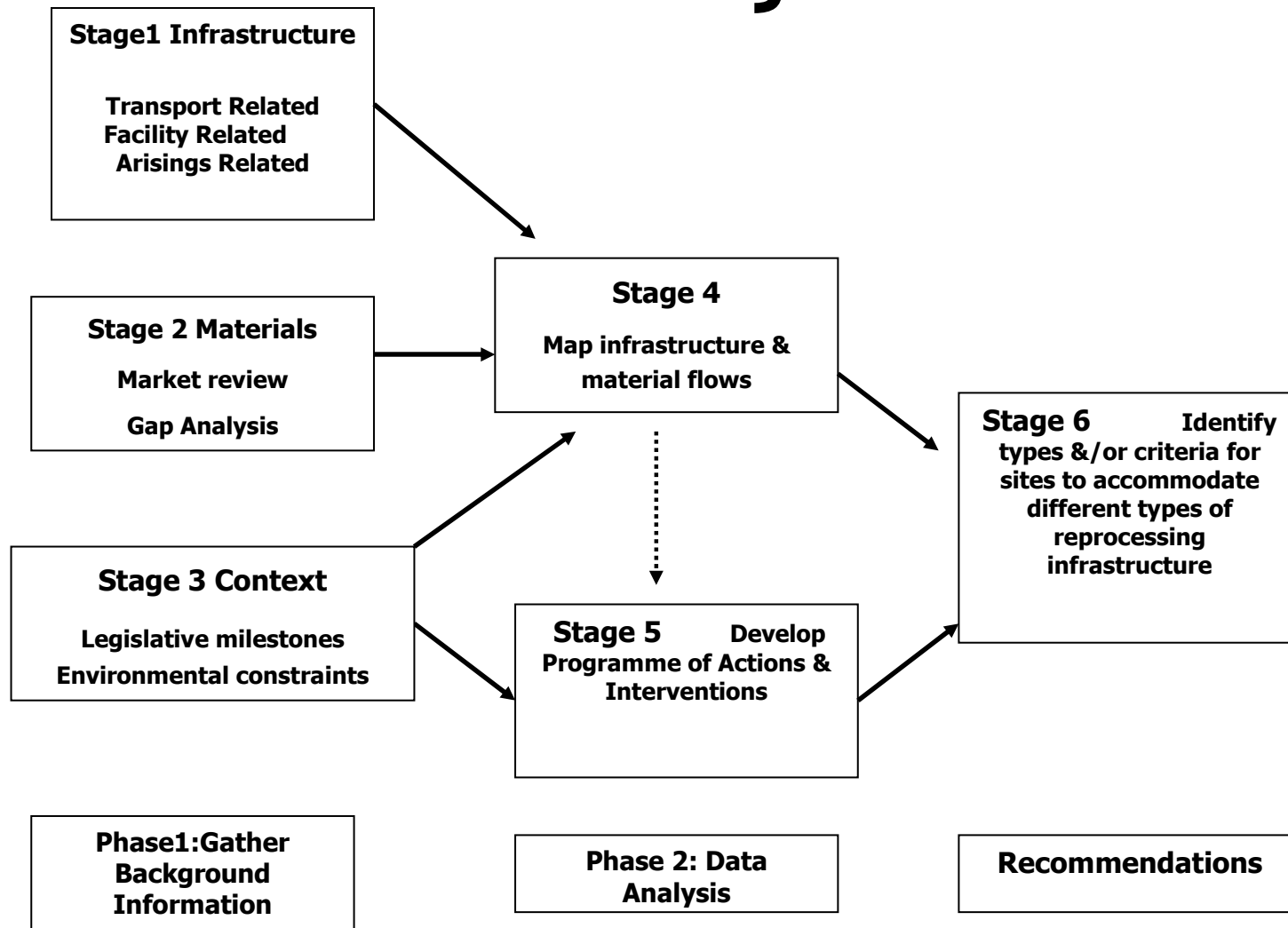
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The Project

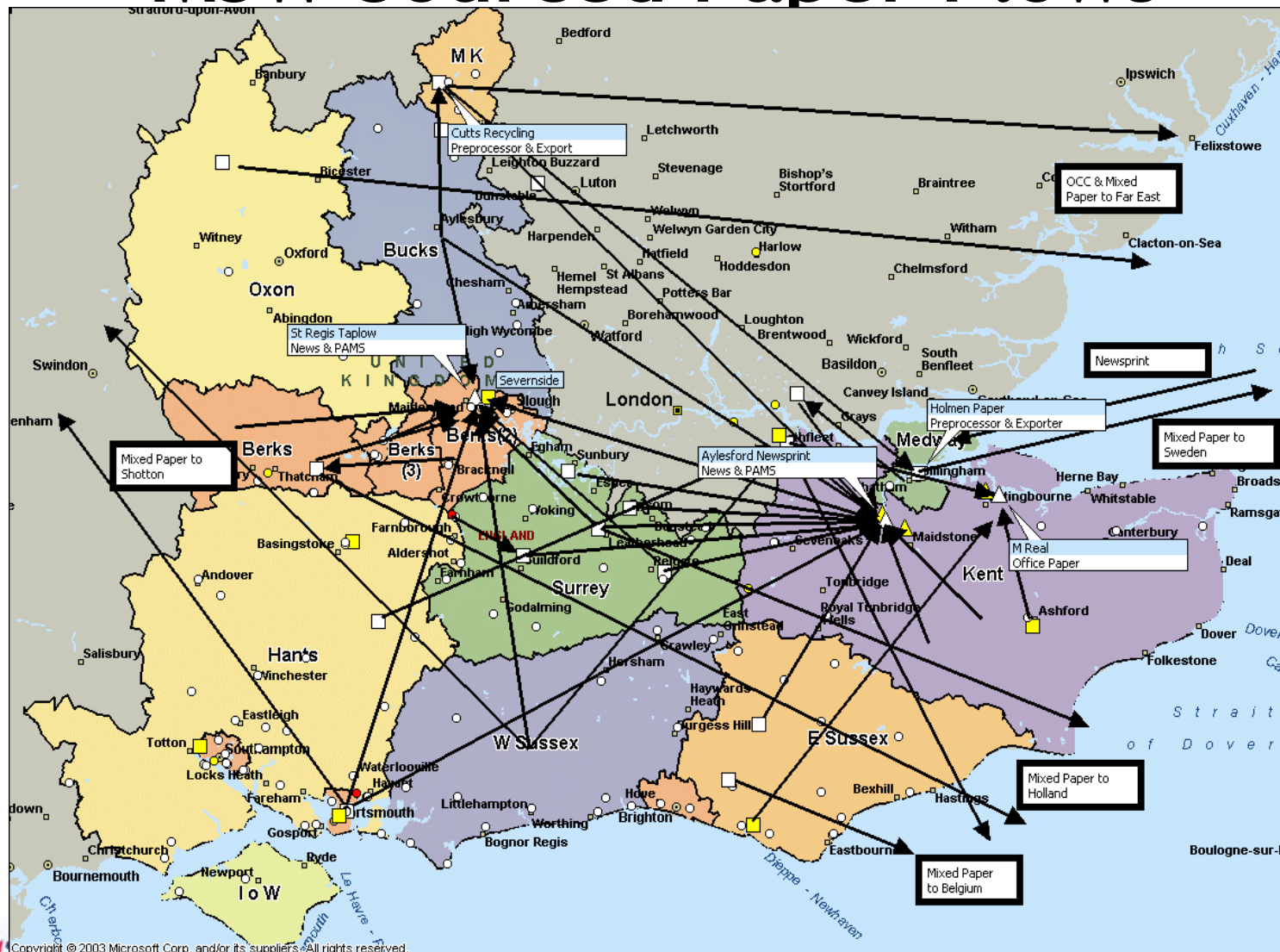


Part I: Market Review

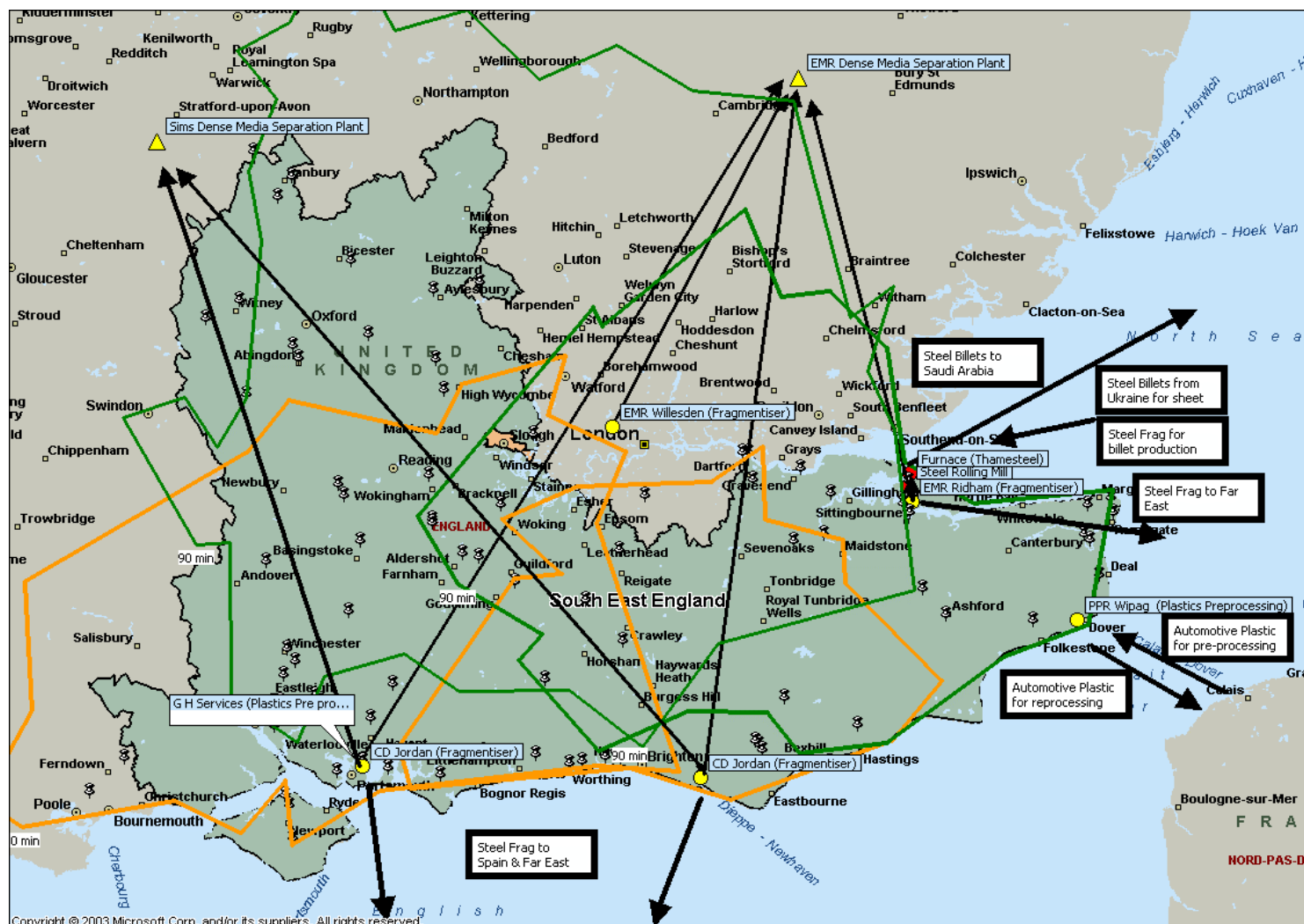
Flows Mapping



MSW Sourced Paper Flows



Flows of Materials Associated with ELV



Regional Position

Regional boundaries are not recognised by markets

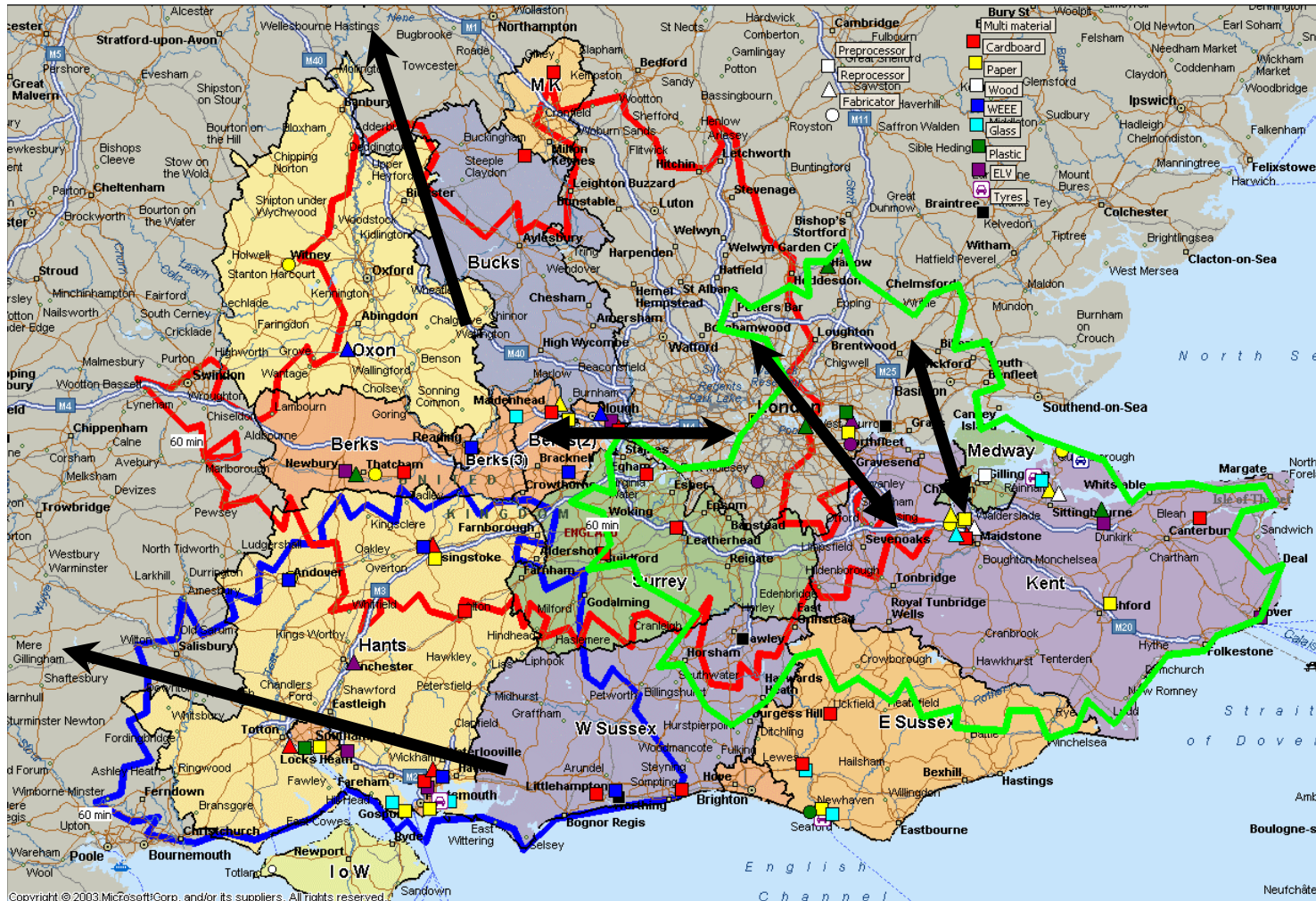
Flows are relatively insensitive to transport distance and cost.

For paper/ card and possibly wood (Slough CHP) the region is a net importer.

For plastics and tyres it is a net exporter having little or no indigenous reprocessing capacity.

For glass, WEEE and ELV capacity exists and potential for developing further outlets.

Inter Regional Flows (England)



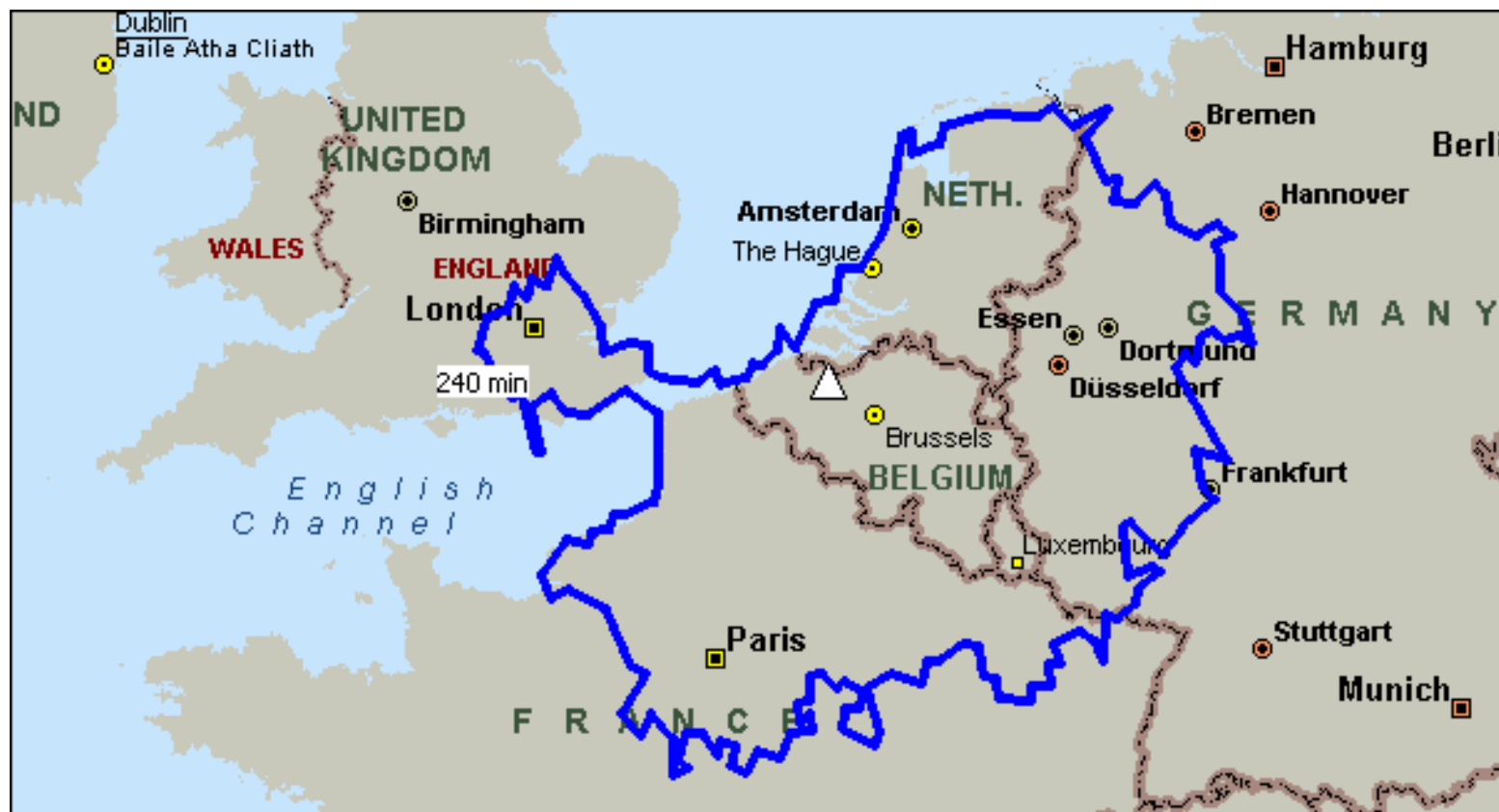
Inter Regional Flows (Europe)



Map 9: Freight Ports in South East & Identified Material Exports

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Inter Regional Flows (Europe)



Catchment of Langerbrugge Paper Plant

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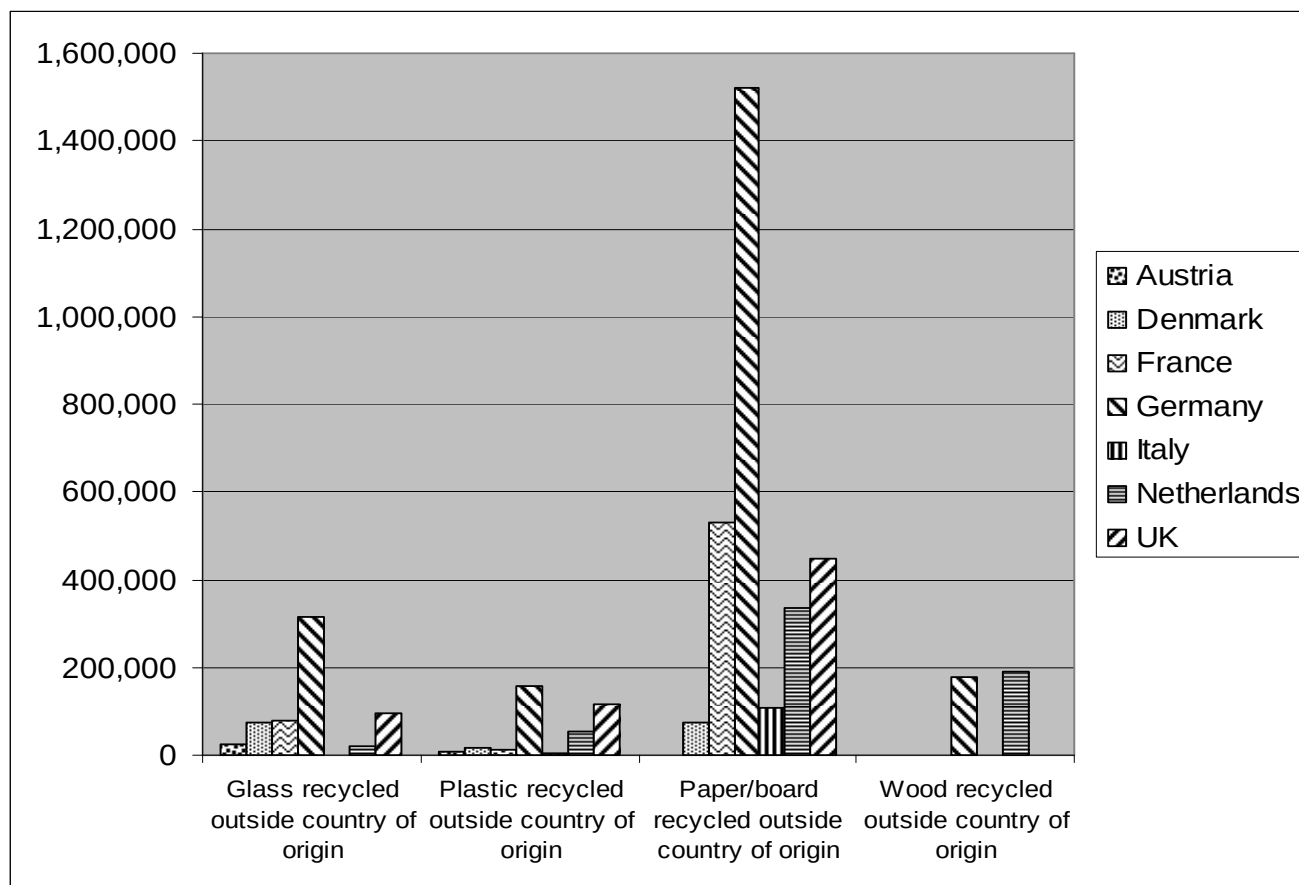


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Inter Regional Flows (Europe)



Export of Packaging Materials for Recycling from Selected EU states

Summary

The South East is not an island

Substantial inter regional flows. To understand how flows are working we need to look at inter relationship with other regions.

What capacity is available in other regions?

Where are they focussing their efforts?

Thriving exports in certain materials.

We are not alone

Part I: Market Review

Identifying Possible Needs



Health of Reprocessing Capacity

	Indigenous	Export	Alternatives
Paper	Mature/Potential	Buoyant	Limited
Card	Mature/Declining	Buoyant	Limited
Glass	Mature/Declining	Stable	Emergent
Plastic	Emergent	Buoyant	Emergent
Wood	Emergent	Limited	Emergent
WEEE	Emergent	Limited	Limited
ELV	Mature/Stable	Stable	Limited
Tyres	Emergent	Limited	Emergent

Markets are materialising but are they the 'right' type?



Spatial Characteristics of Material Supply Models

	Site Demands	Source Characteristics
Local	District depots and lots of small fabricators based on industrial estates	Dispersed sources
Regional	A few strategic sites with local depots for collection	Concentrated sources e.g. urban areas
National	Lots of depots with good road, rail or water connection. ¹	Concentrated sources that are well connected.
International	Lots of wharves and ports that are road, rail or water connected.	Concentrated sources that are well connected or in proximity to ports.

Preferred model has profound effect on site needs

Message from the Frontline

The key message from industry is the need for mechanisms to manage the risks of investment.

This might be achieved by the following mechanisms:

1. Securing supply of materials via enhanced collection arrangements
2. Securing sites and reduced capital costs
3. Direct risk sharing through joint ventures
4. Securing outlets for materials via procurement practices. Need to translate NSPTF into action



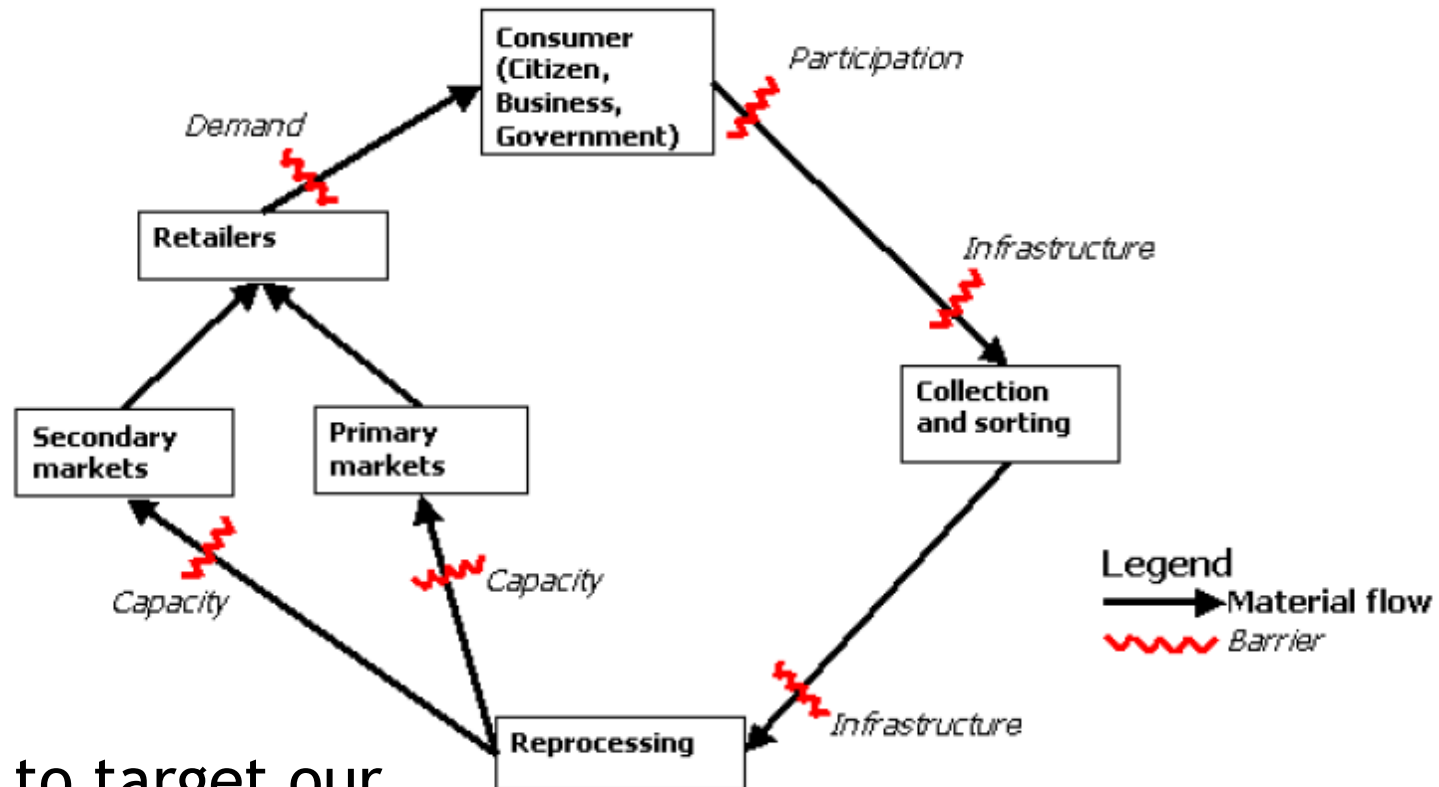
Supply Push

This might lead to funding the expansion of activities that supply existing markets. For example Aylesford Newsprint has indicated its desire to establish a further 100% recycled newsprint production line.

Demand Pull

This may tend to lead to new applications being developed by identifying material substitution opportunities and gaining acceptance of the product. For example Day Aggregates are considering building a circa 40,000tpa foam glass plant in Berkshire.

The Recycling Cycle



Where to target our effort?

Figure 1: The Recycling Cycle.
(After M Barlaz and D Loughlin^[1])

Questions

Q1: Is the concept of net regional self-sufficiency relevant when it comes to dealing with recyclates?

Q2: How can policy be put into practice to promote the use of non road based forms of transport?

Q3: Given the dynamic nature of world markets, what should the balance be between domestic capacity and overseas markets?

Q4: Do we understand the economic, social and environmental implications of export activity for the South East?

Q5: Should the aim be to export high grade material only? If so how might this be promoted?

Questions

Q6: Should we intervene if the market is finding a solution even if it is lower down the hierarchy?

Q7: What is the desirable pattern for each material?
Beware of unintended consequences e.g. Quinn Glass

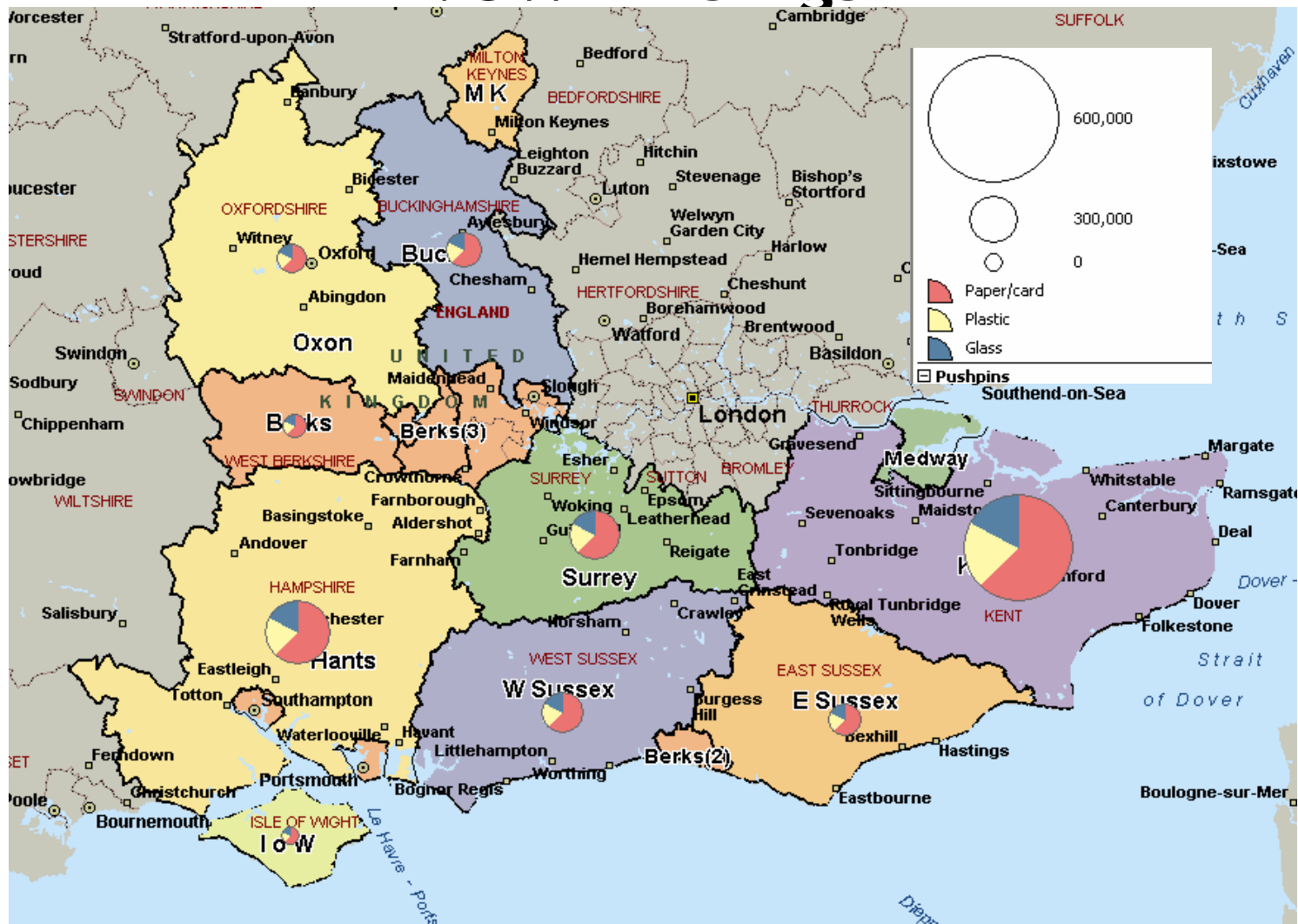
Q8: How might the South East develop capacity that complements capacity available in other regions and vice versa?

What difference do we want to make? And why?

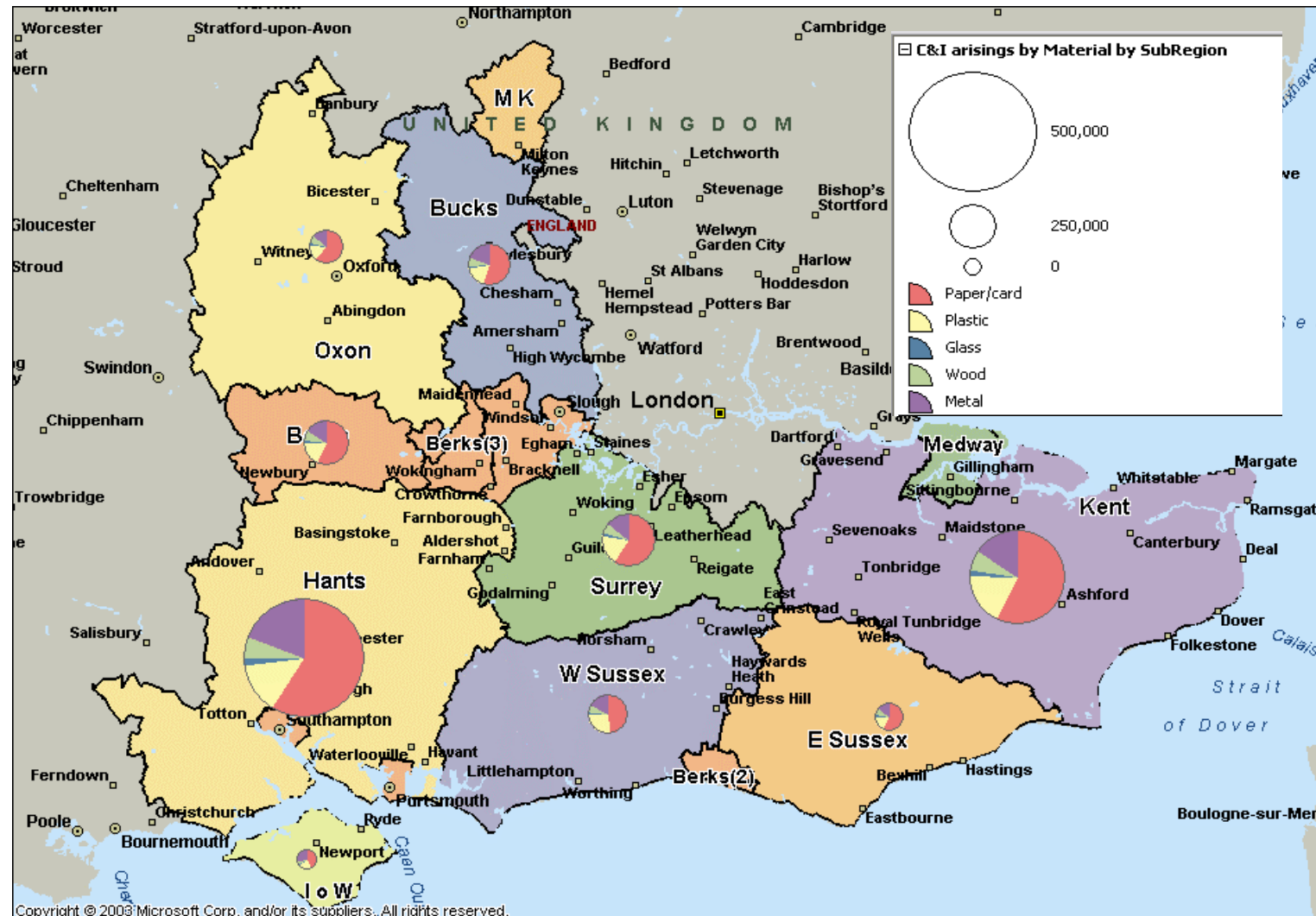
Part II: Planning for New Capacity *Source*



MSW Arisings



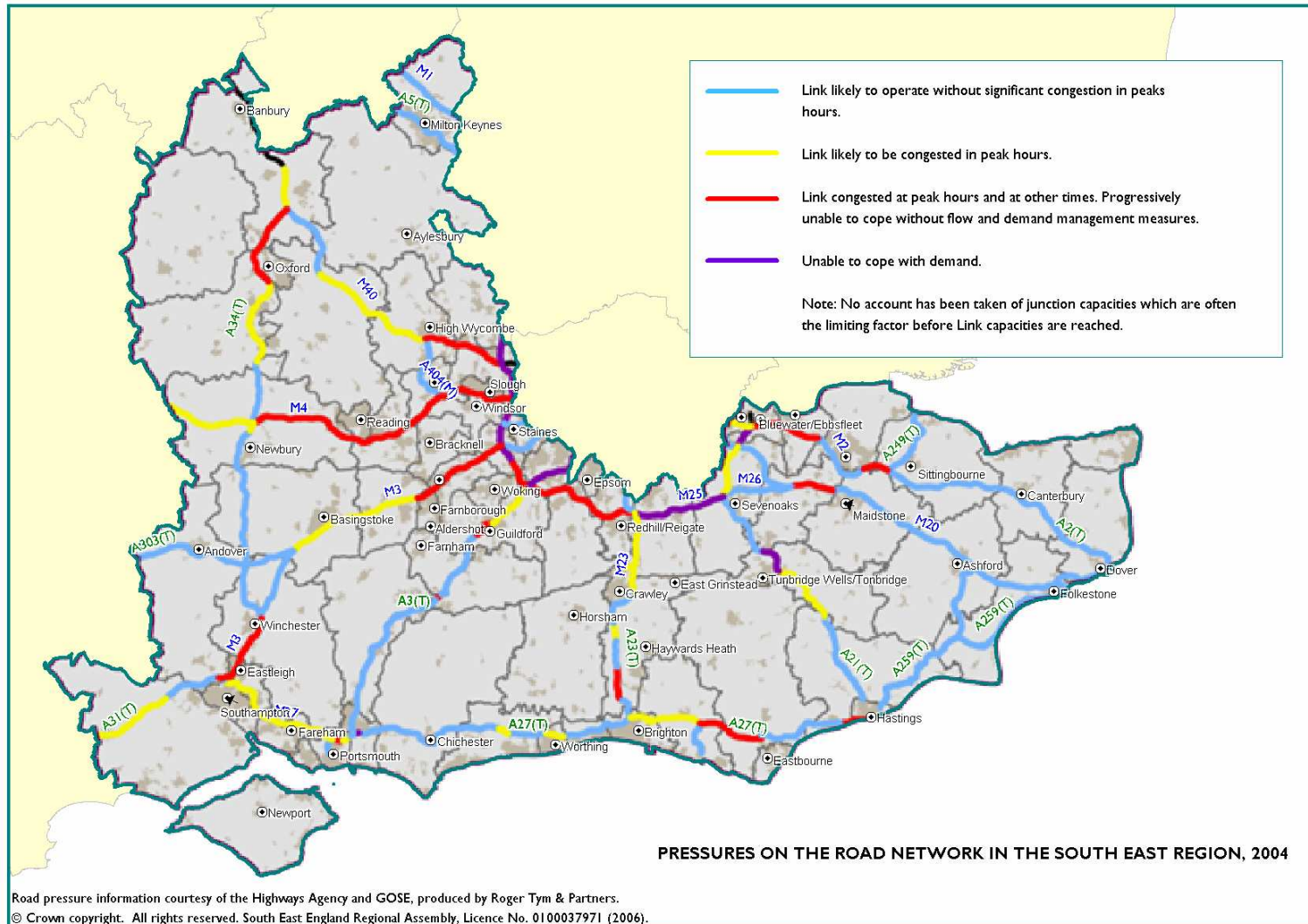
C&I Arisings



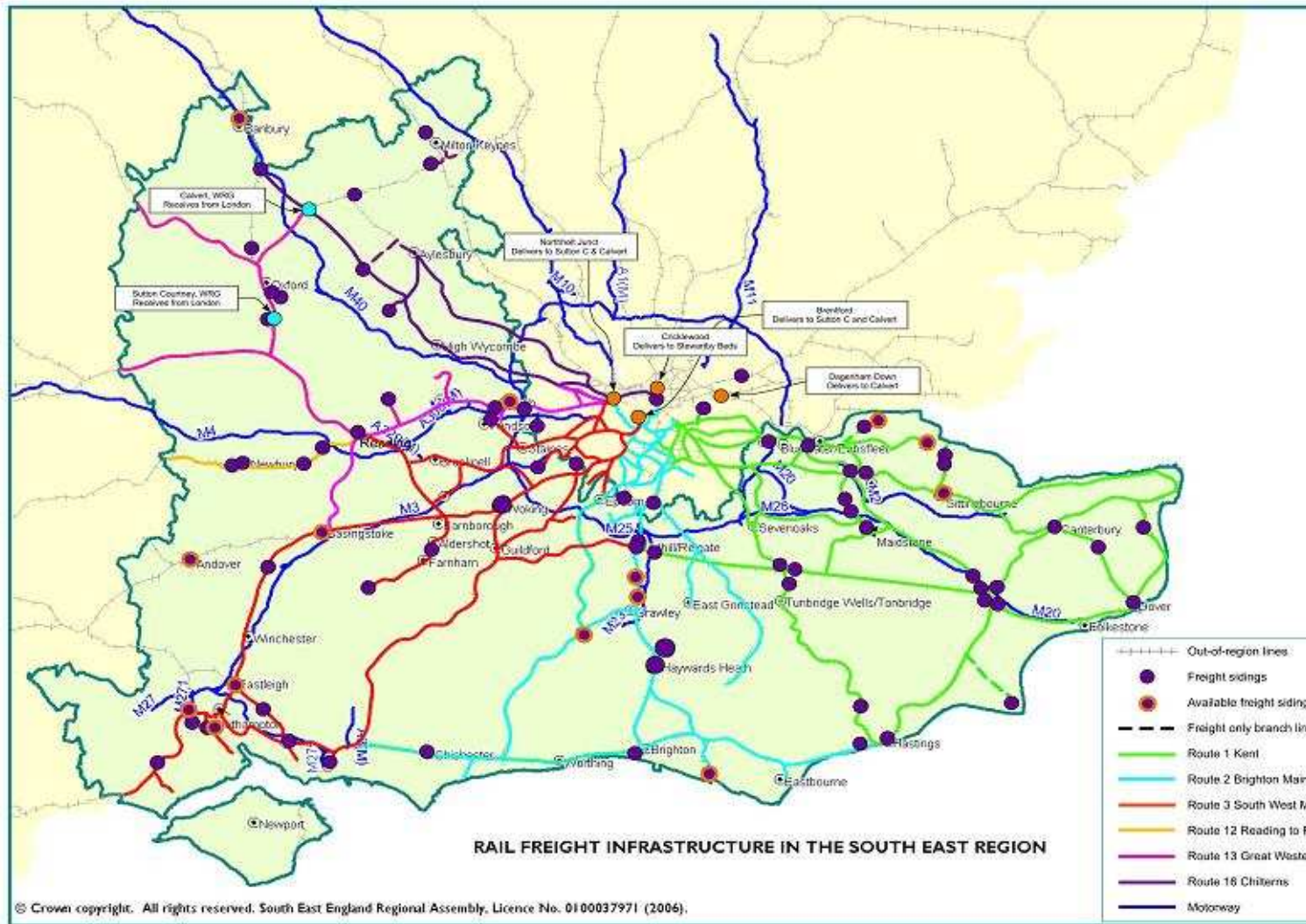
Part II: Planning for New Capacity *Pathway*



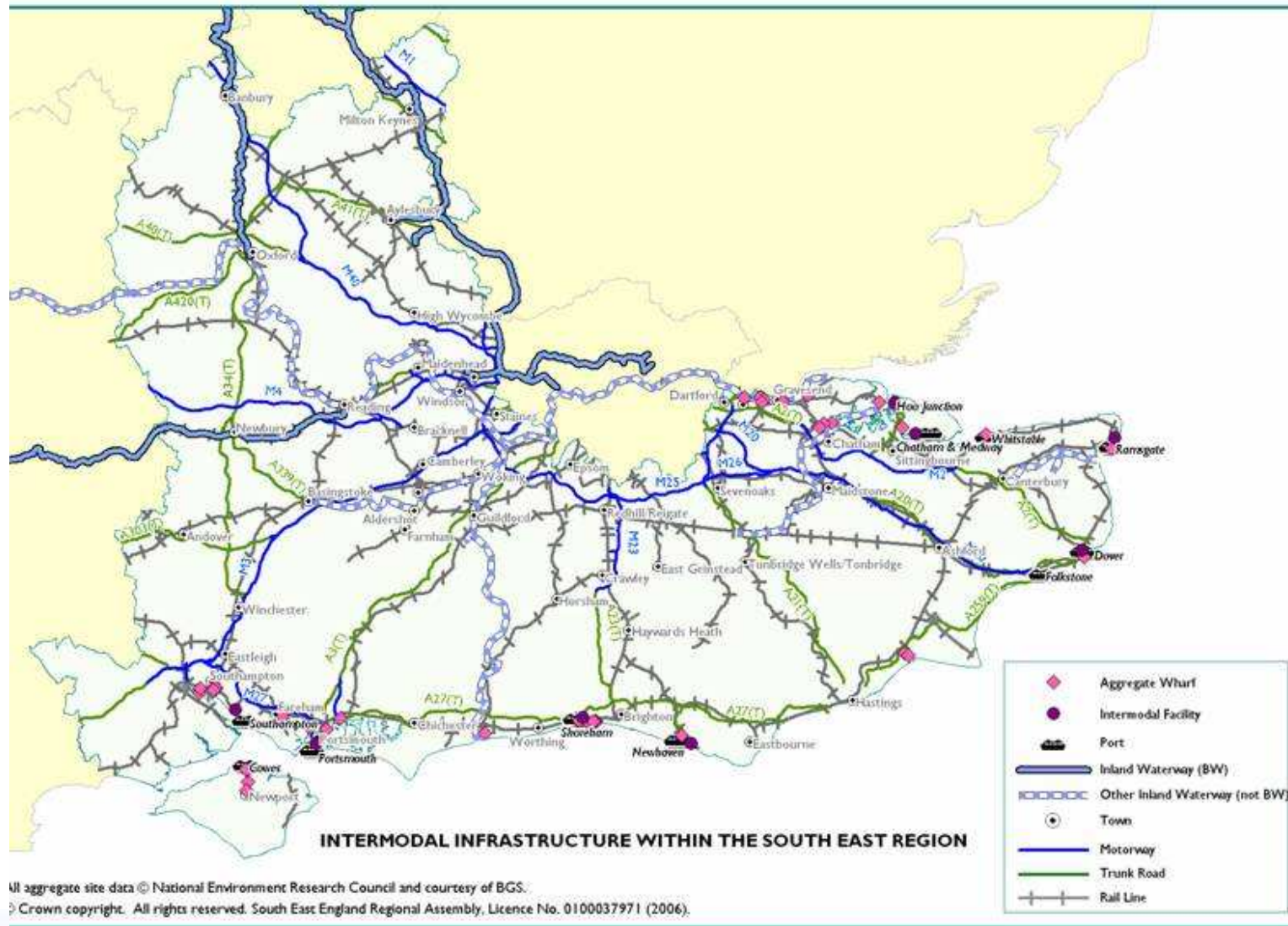
Road Infrastructure



Rail Infrastructure

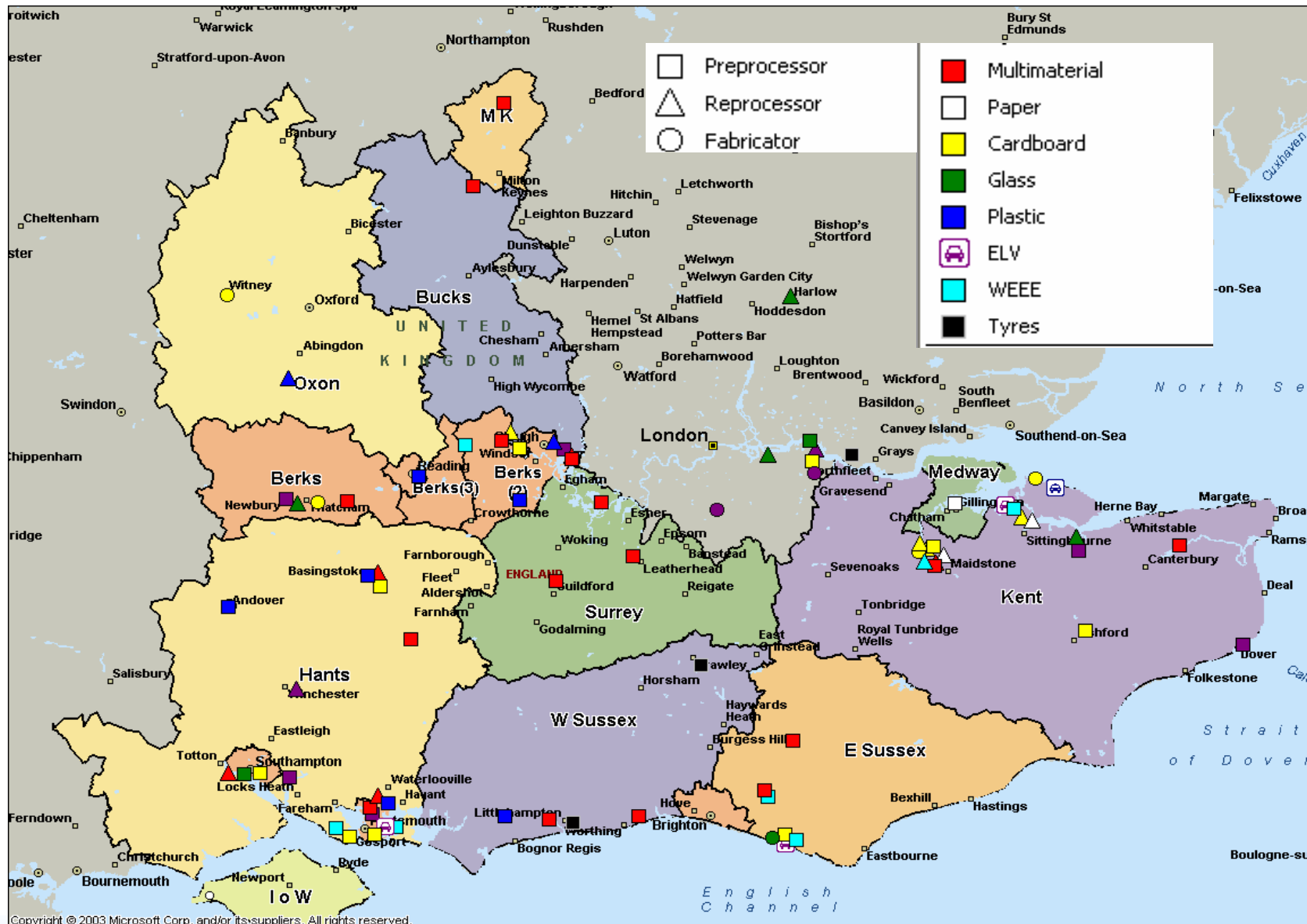


Multi Modal Infrastructure



Part II: Planning for New Capacity *Receptor*





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Part II: Identifying Possible Sites



Site Selection

Four approaches:

1. Identify new brownfield sites (5hectare plus)
2. Identify current sites suited to expansion
3. Select sites already identified through Waste Planning process that fulfil desirable criteria
4. Seek out synergies with wider industrial users



Site Selection

Approach 1 Top level screen

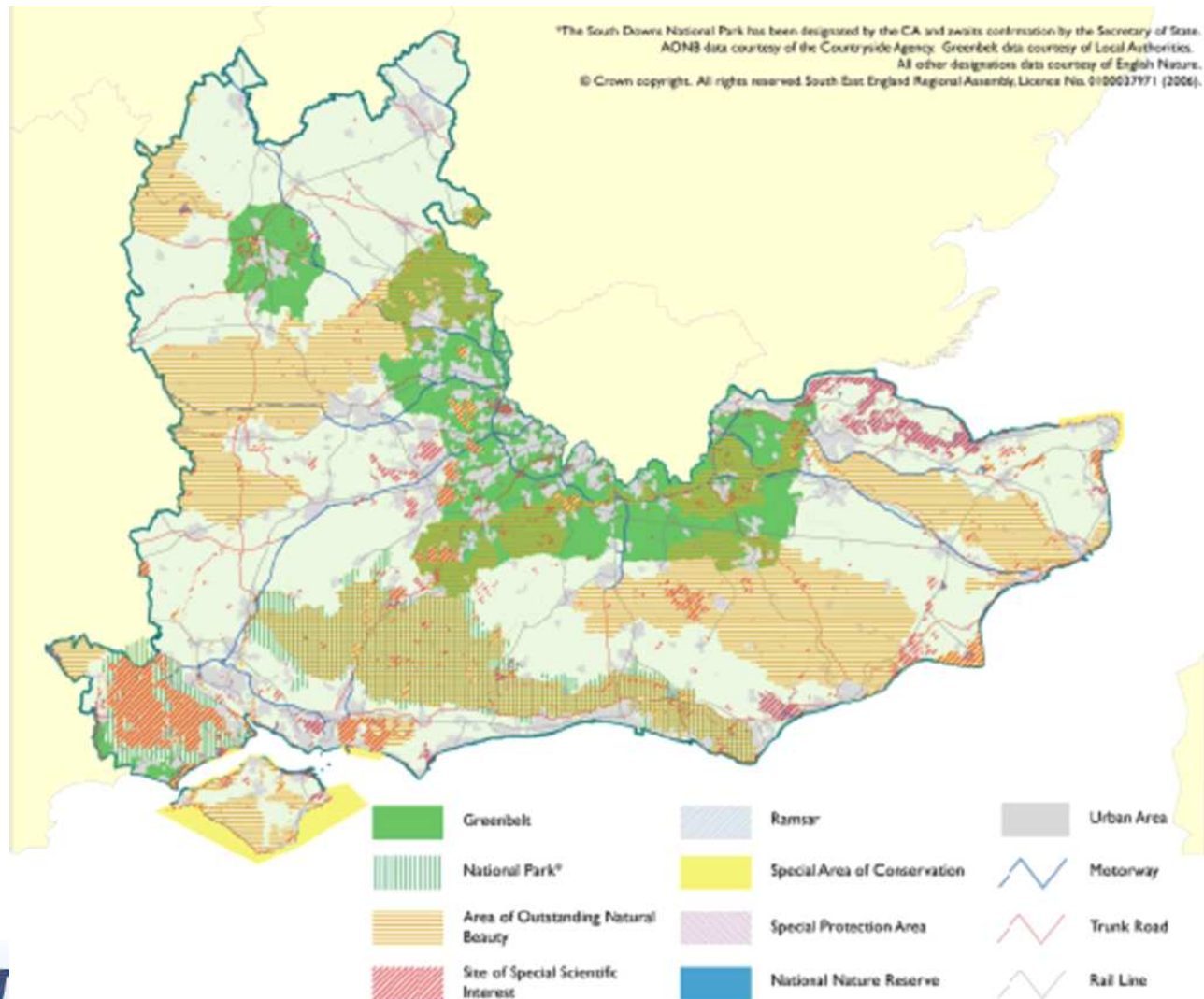


NLUD Sites

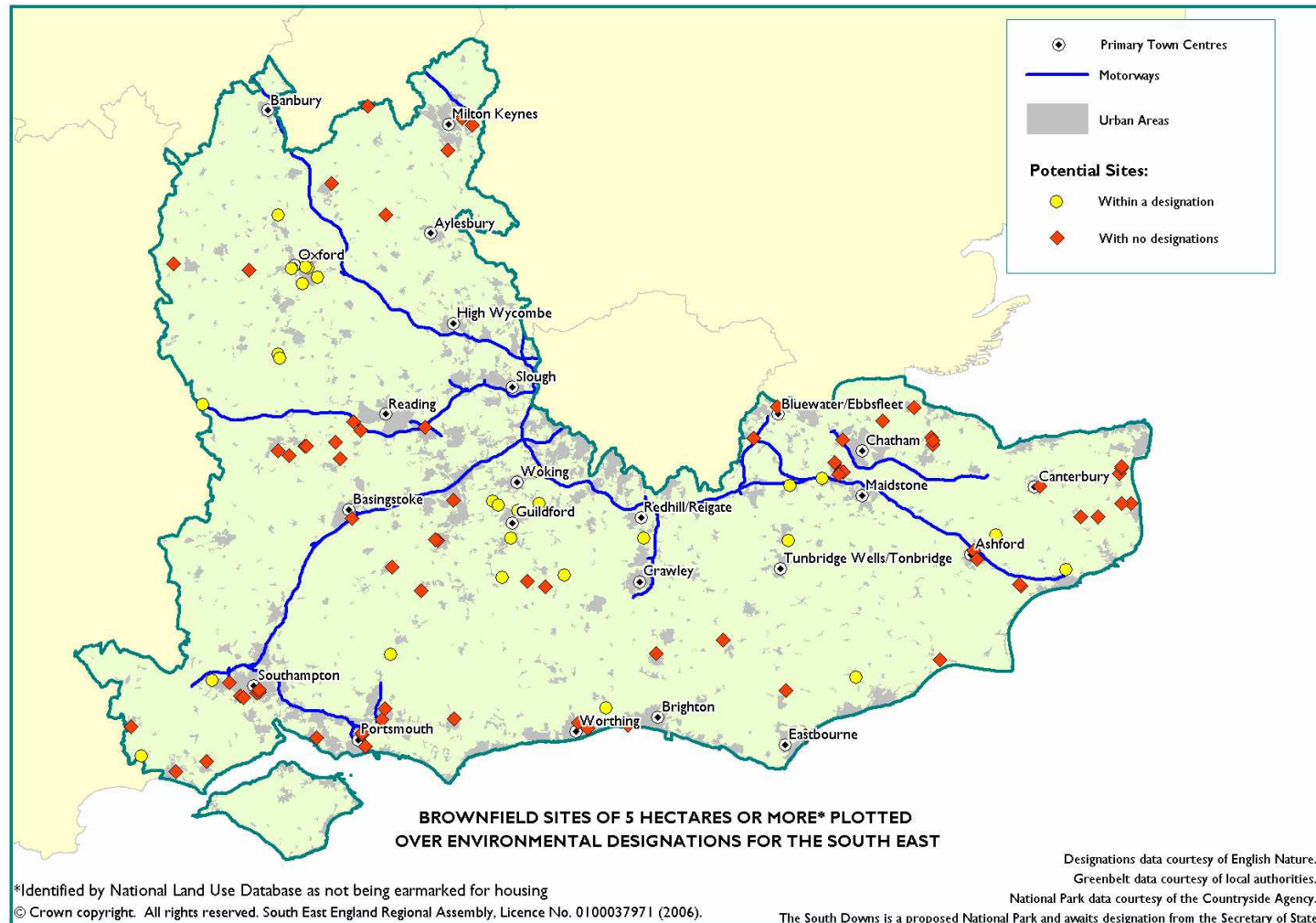
(2ha plus housing screened out)



Environmental Constraints



Brownfield Sites plus constraints



Issues

- Identifying a suitable site is only the first step.
- Cost of sites - land prices are high for new entrant
- Competing for sites with other uses even if not housing and contraction of industrial base
- Perceived as bad neighbour development that may blight the development if no local track record
- Planning consent barrier
- Landlords looking for a complete redevelopment package.
- How to stimulate developer interest? Need for support in the deal-making process.



Site Selection

Approach 2 Organic Growth



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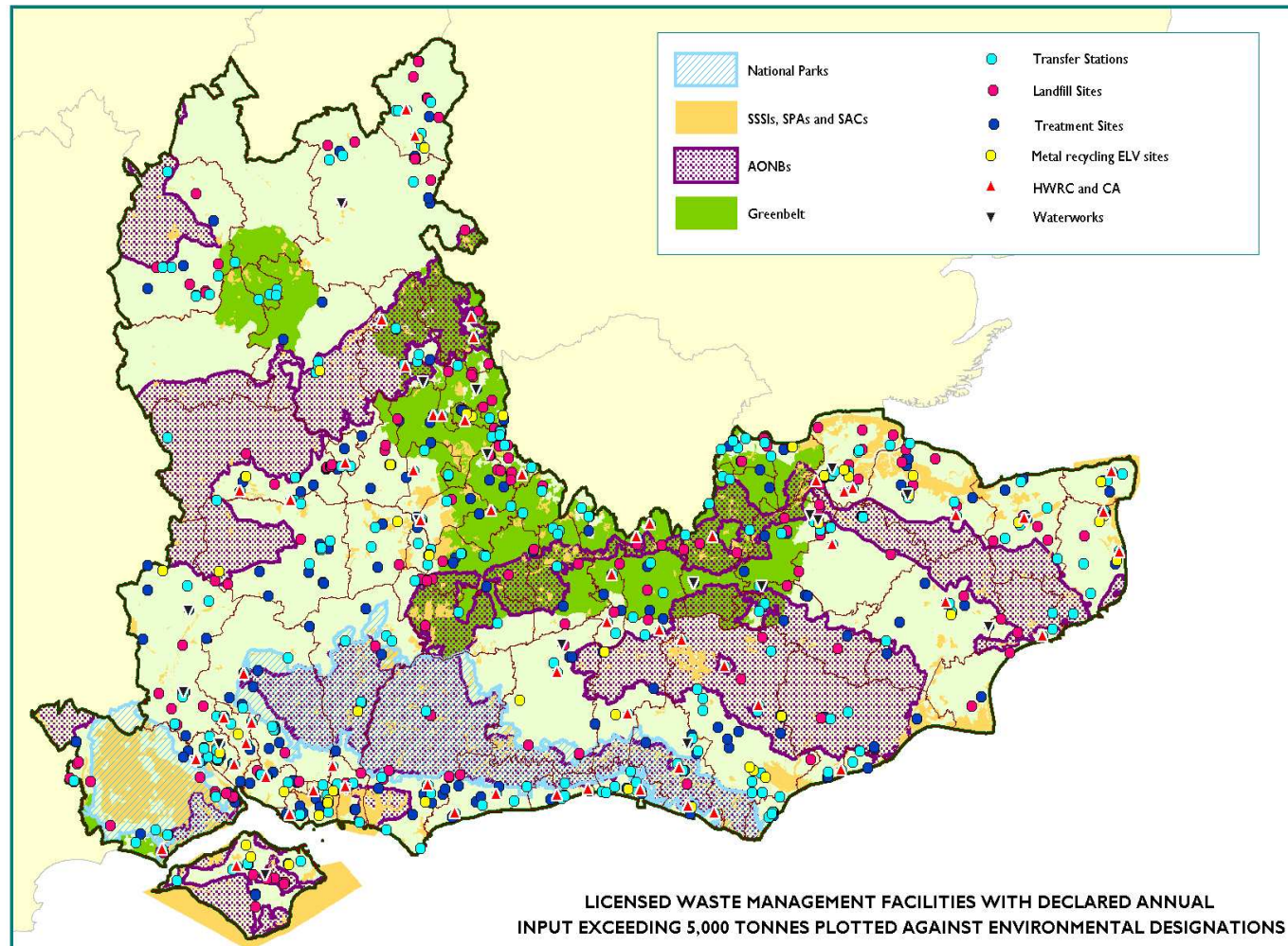
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Impact of Constraints



Source: Environment Agency

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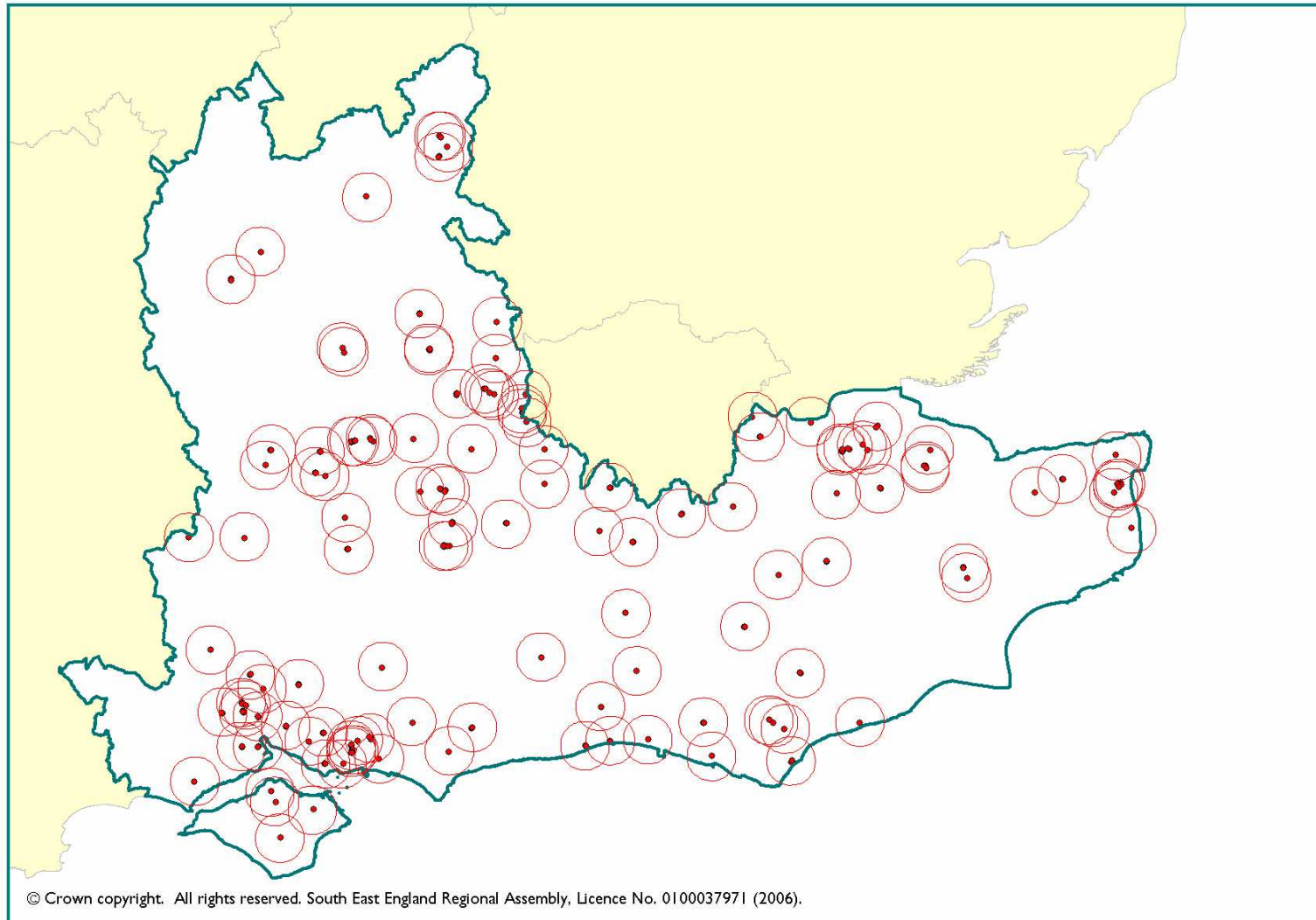
Multiple Activity Sites



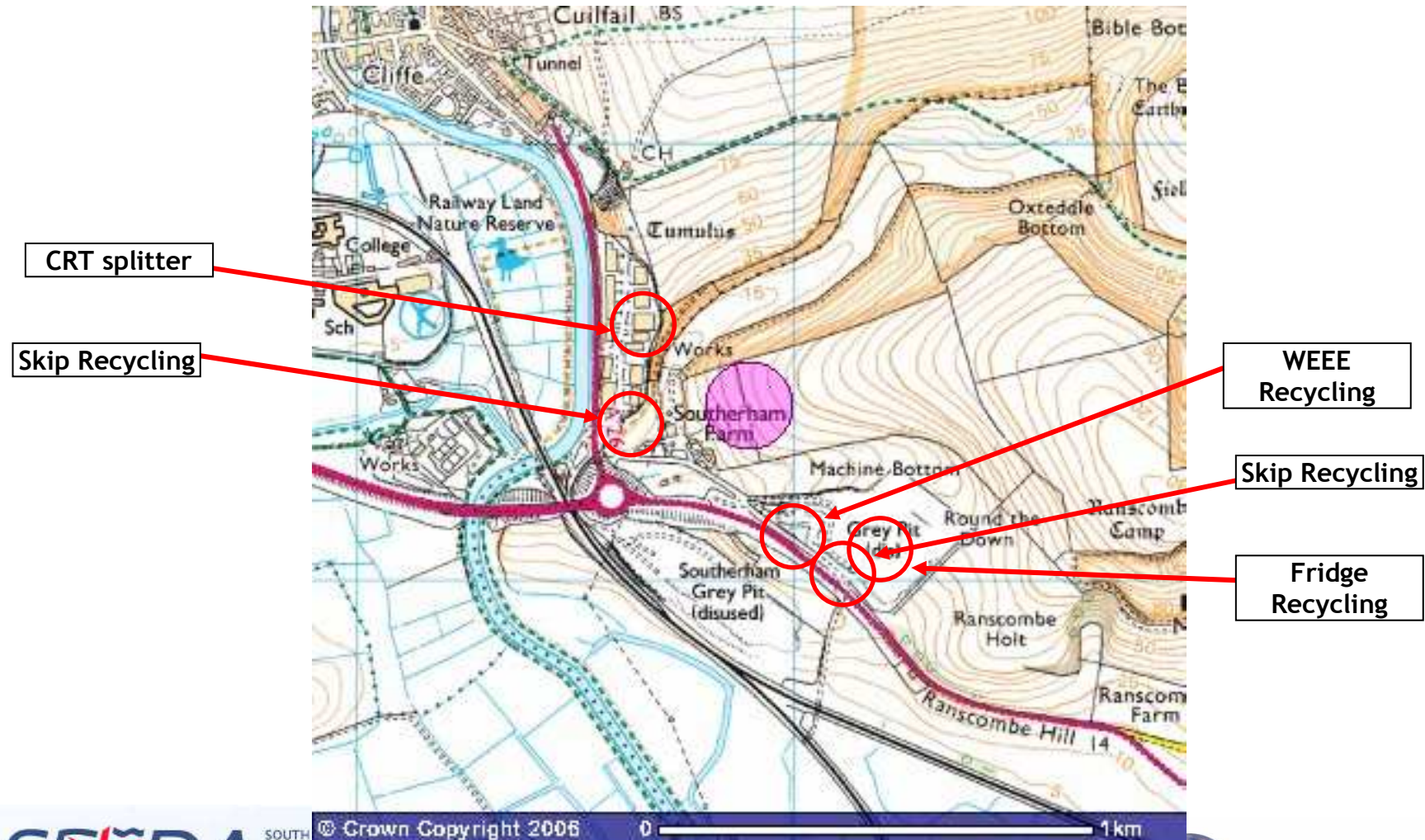
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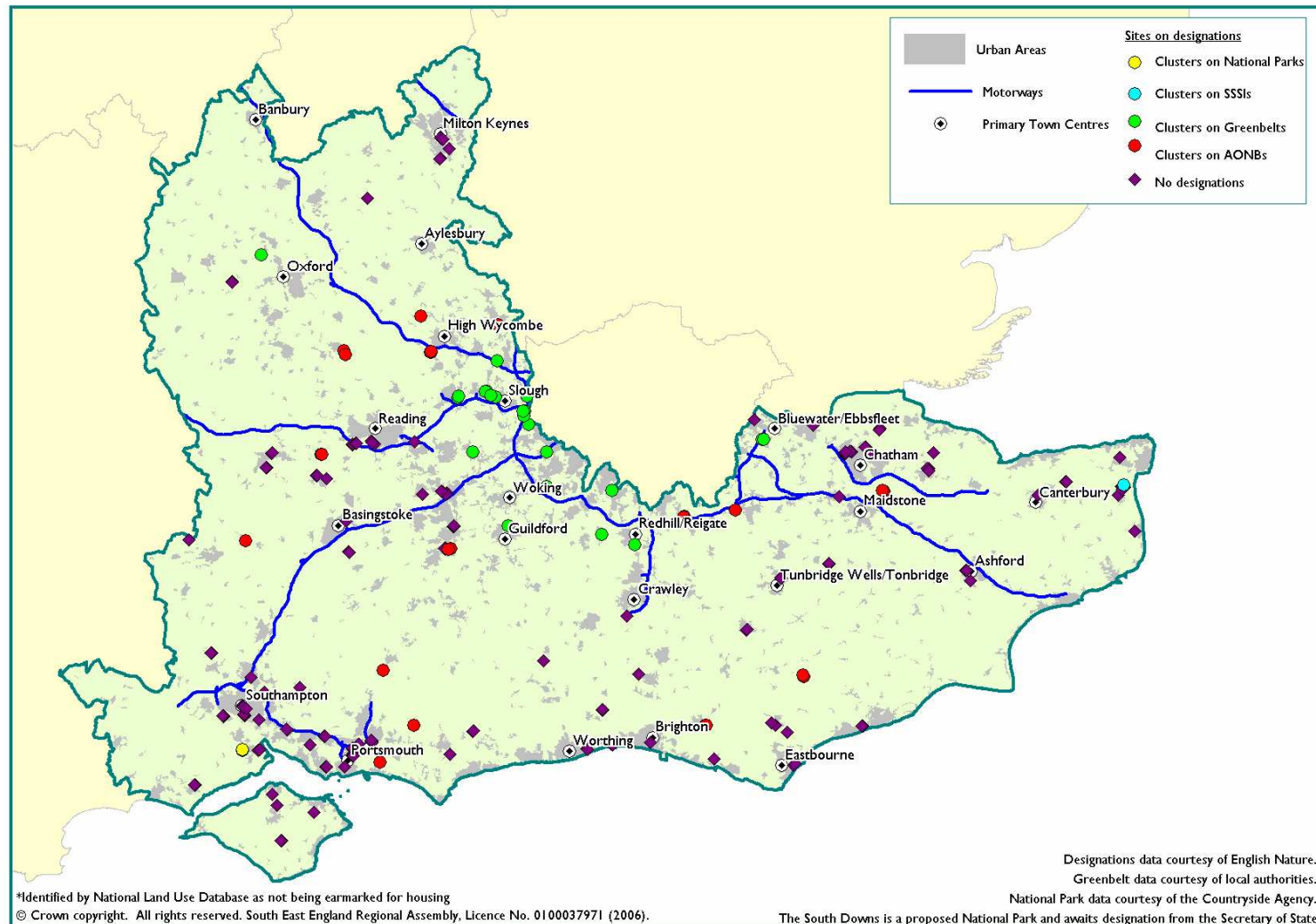
Cluster Sites



Cliffe Complex Example - existing multi site operation with adjacent light industrial estate



Cluster Sites & Constraints



Issues

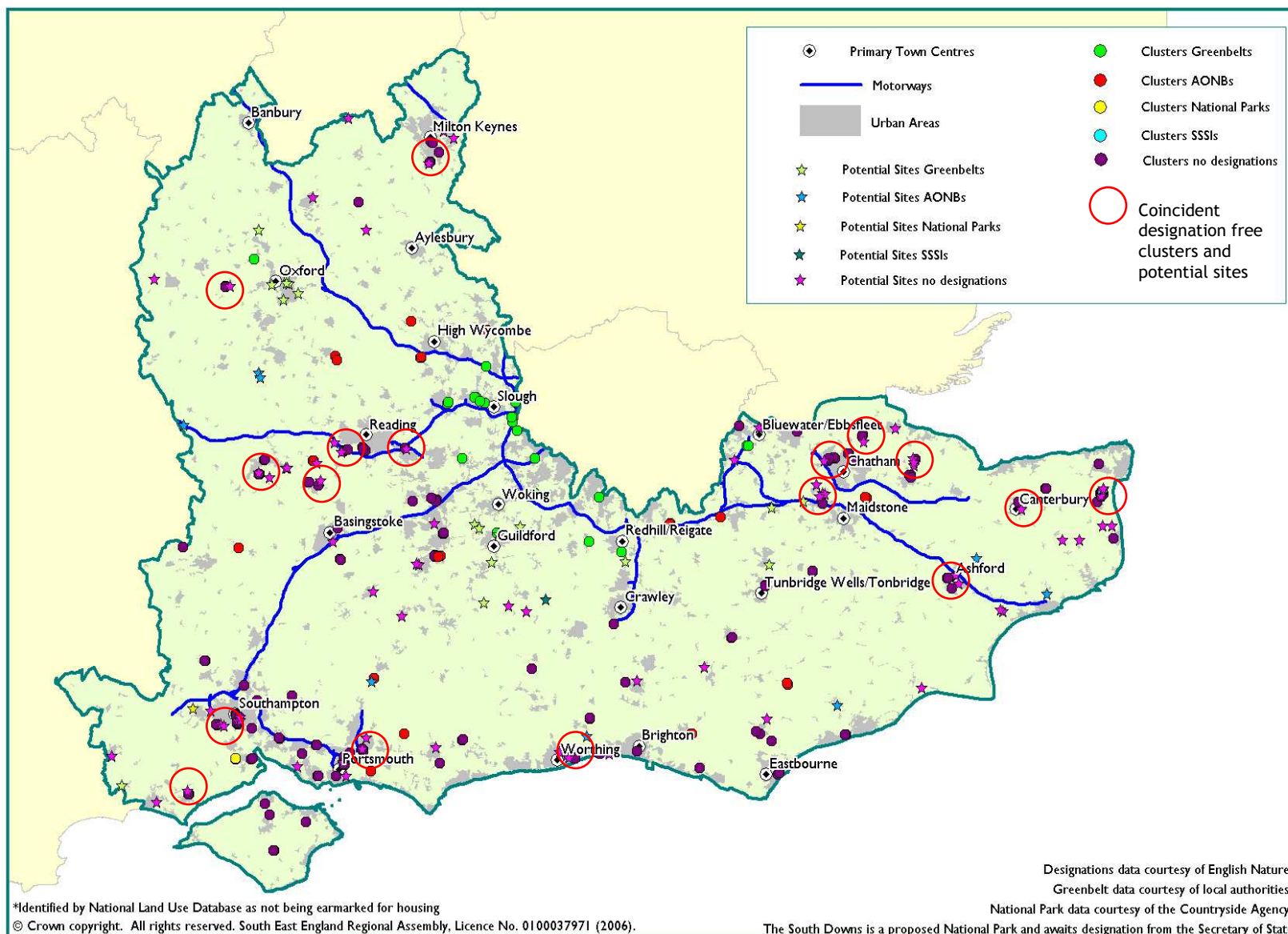
Barriers

- Time limited permissions for some sites e.g. landfills
- Actual capacity for expansion unknown

Positives

- Local track record
- Established logistics

Cluster Sites & Potential Sites & Constraints



Site Selection

Approach 3 Planned Growth



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Criteria for Sites

Existing Activities taking place onsite. Ideally looking for a combination of waste and employment/light industrial uses or sites that are low value and vacant

Proximity/Connectivity to sources and outlets - markets and disposal points for residues. Road dominates

Plan status: what is planned use? Has site been allocated?

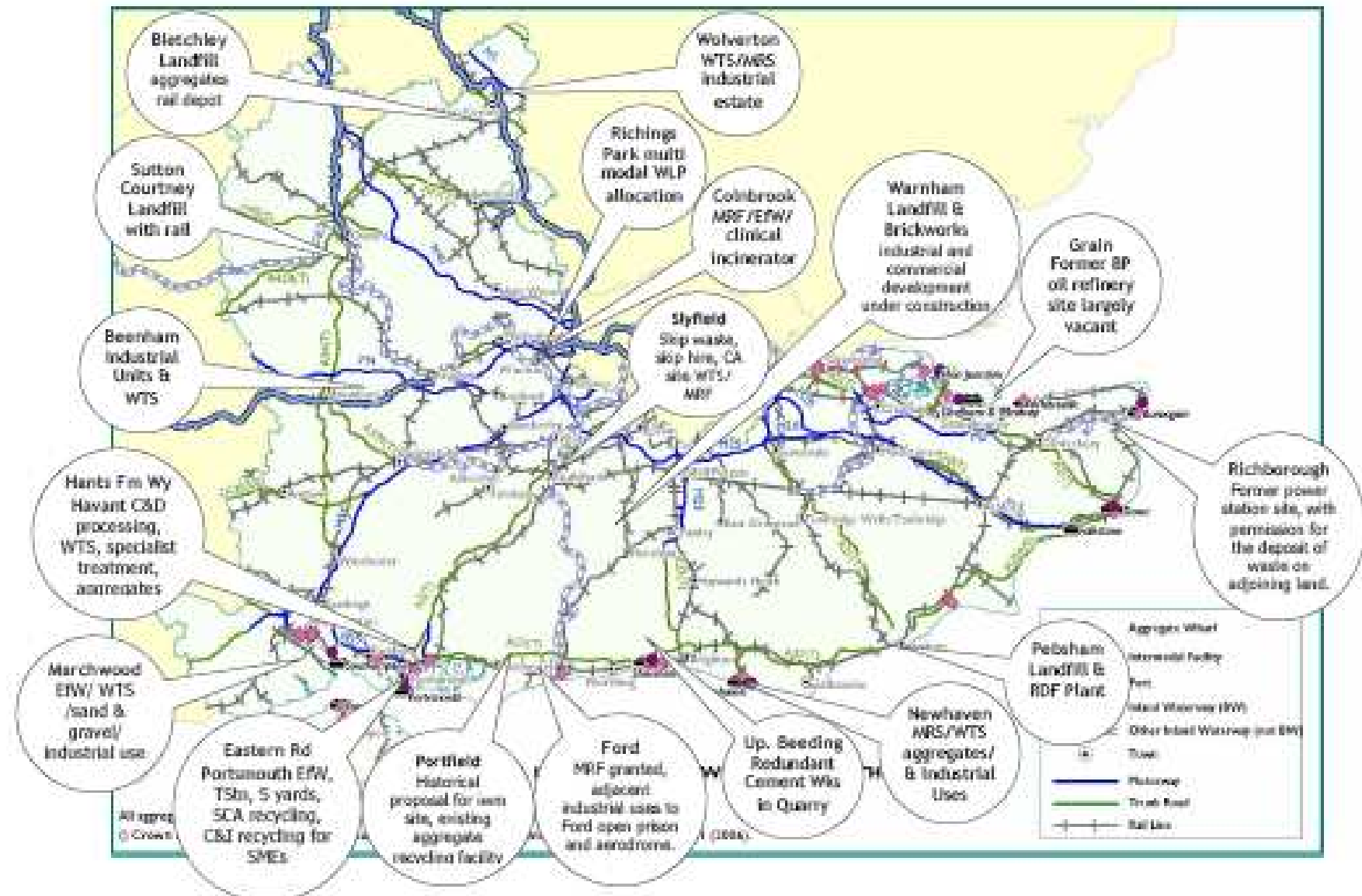
Potential: Site size/configuration and commercial interest.

Landowner interest: Is the site being actively promoted for compatible uses?

District Council Position: Is economic development and waste/resource management agenda aligned?

Statutory designations -pre existing sites may overcome restrictions imposed by designations.

18 Identified Sites



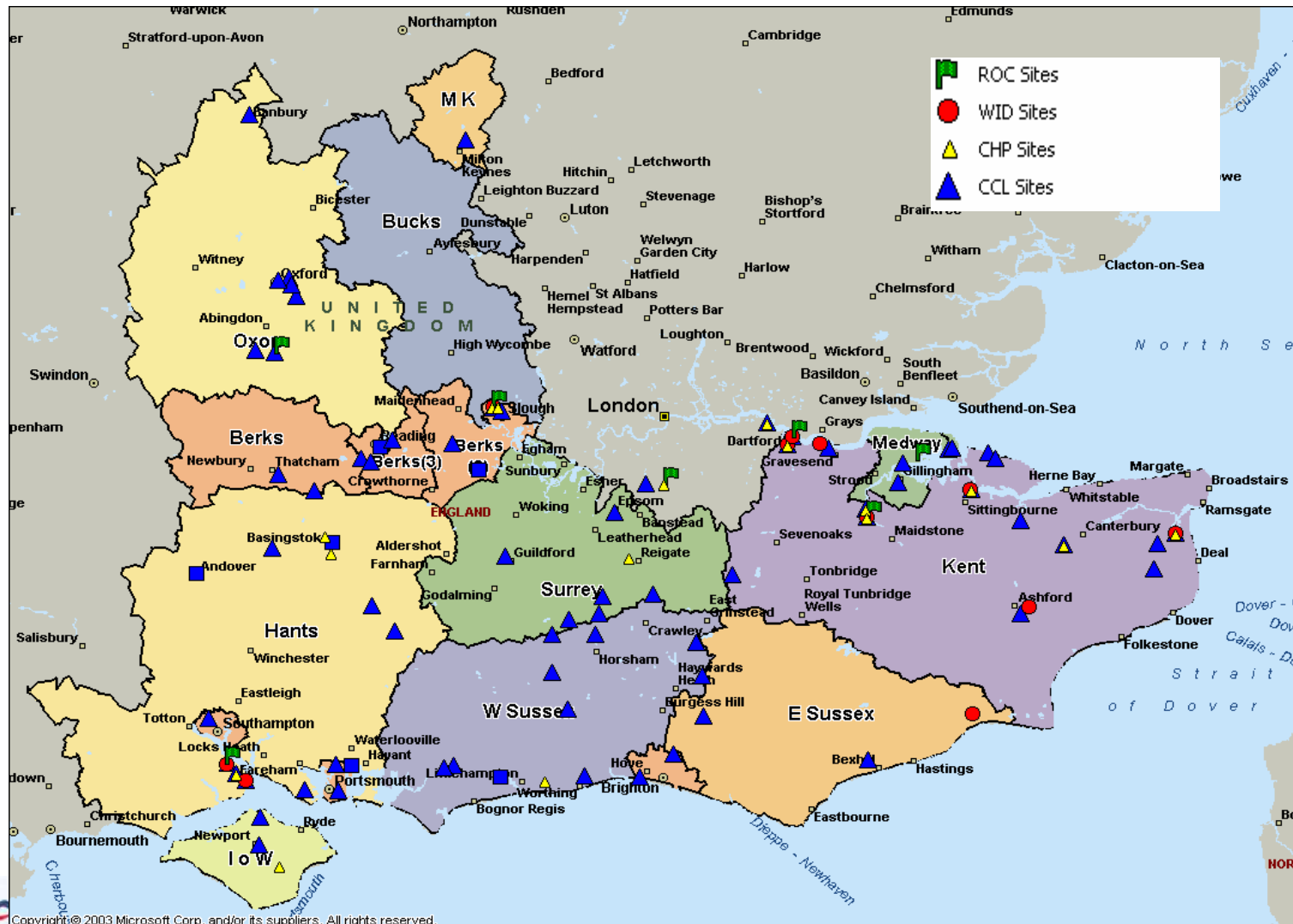
Site Selection Approach 4 Synergies



Use of Wood as Fuel

- CHP plants that qualify as ‘good quality’ for the purposes of the Climate Change Levy
- Sites classed as eligible for Renewable Obligation Certificates (ROCs).
- Sites that have sought modifications to PPC permits to allow the use of waste-derived fuel (following implementation of the Waste Incineration Directive (WID) in December 2005)
- Industrial boilers subject to the Climate Change Levy (CCL)

Energy Synergies

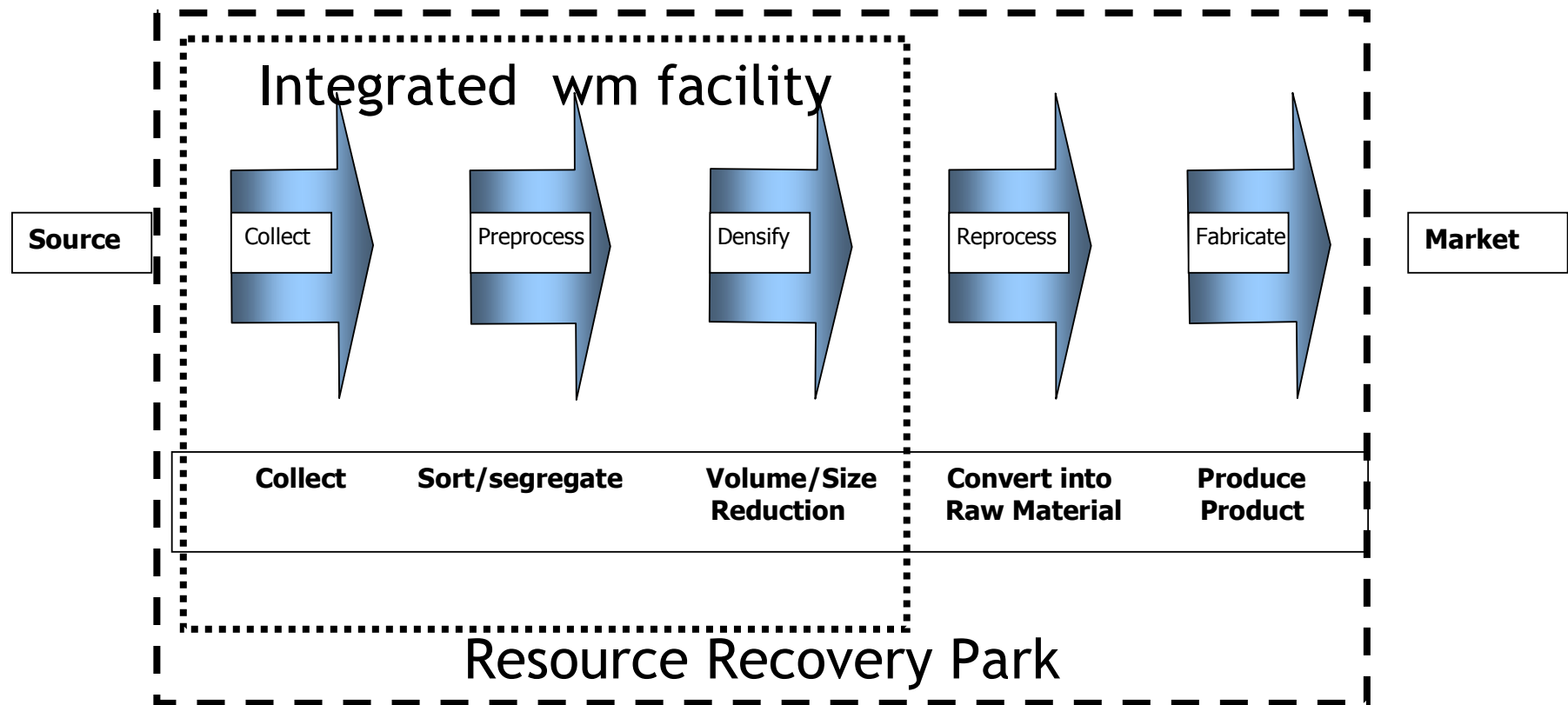


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Resource Recovery Parks

Figure 1: Conceptual Supply Chain



Issues

Barrier

- Contracting industrial base
- Potential material usage base unknown.
- Engaging mainstream industry in material supply chain

Opportunity

- Convergence with energy agenda and spiralling costs
- Stimulating linkages via MAS, Business Link and NISP

To Conclude

There appears to be sufficient sites allocated.

But are they available?

Preferential allocation for MSW needs.

Are they being safeguarded?

Are there other barriers to utilisation not taken into account when they are allocated?

Will allocation guarantee consent? Berks 60% vs 30%

Does provision for reprocessing capacity fall to WPAs?

To Conclude

The Problem: The Hate Parade...

4. 10% public strongly opposed new schools
3. 50% public strongly opposed supermarkets
2. 77% public strongly opposed new power plants
1. 80% strongly opposed a waste development

The Barker Review

Wherein lie recycling ‘factories’?

Scoping Review of Recycling & Reprocessing Infrastructure in the South East

Full set of reports available to view at

http://www.seeda.co.uk/Work_in_the_Region/Sustainable_Developments/Waste/



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