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## Recycling of post-consumer waste in South Africa: prospects for growth

Presentation to the Green Business Platform on 10 April 2015  
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Competency Area: Solutions for a Green Economy

## Overview of presentation

- Statistics on waste management in SA
- What is recycling?
- Recycling rates in SA
- Value of waste as a resource
- Key international issues to grow recycling
- Potential for growth in SA
- Conclusions

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## Statistics


- 108 million tonnes of waste generated per annum (2011)
- 90% of this waste is disposed to landfill (2011)
- 20 million tonnes/annum is municipal solid waste (2011)
  - High income = 1.29 kg/person/day
  - Middle income = 0.74 kg/person/day
  - Low income = 0.41 kg/person/day
- R339 per tonne cost of disposal (2011)
- 50.5% post-consumer packaging waste recycled in 2012
- 70-90% of packaging waste recycled is sourced from informal collectors (2012)

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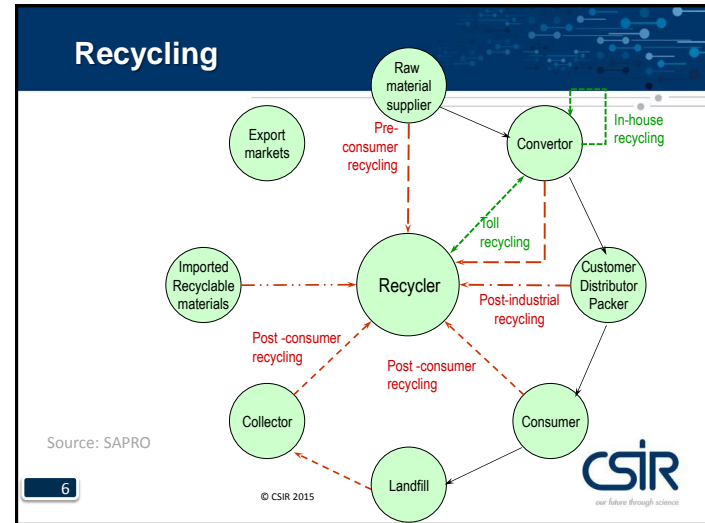
## Pickers at landfill



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- ### Recycling sequence for plastics
1. Collection
  2. Sorting
  3. Compression
  4. Transport
  5. Sorting and size reduction
  6. Washing and drying
  7. Extrusion / Pelletising
  8. Cooling / Drying
  9. Bagging
- Recycling
- 
- Source: SAPRO
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- ### Recycling rates
- Recycling rates are reported as % of **recovered** material
  - Reasons for non-recycling of recovered materials
    - Poor quality
      - Dirty
      - Not properly sorted
      - Not designed for recycling
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### Design for recycling



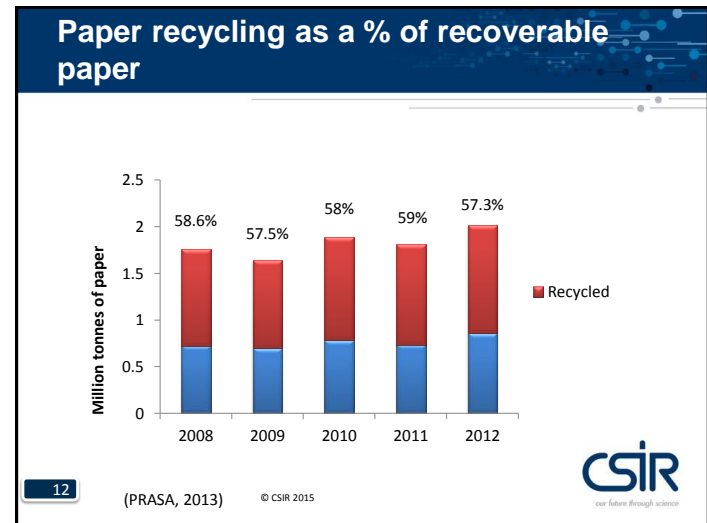
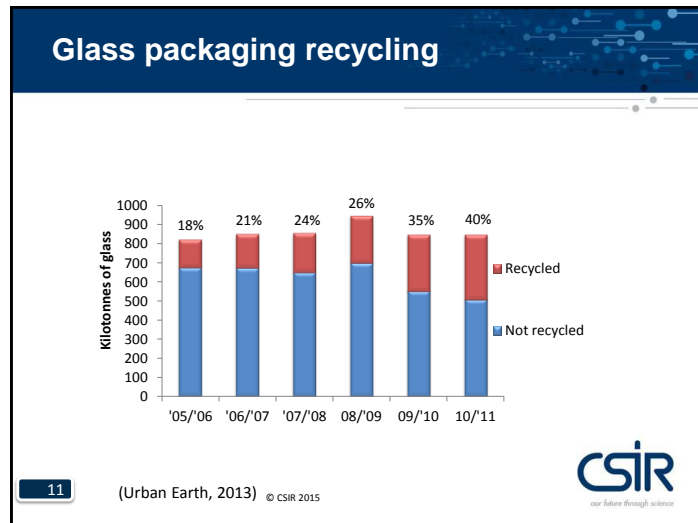
<p>PP container PP in-mould label Black PP product</p>	<p>PS container Screen printed Black PS product</p>	<p>PS container Shrink-sleeve (removed) White PS product</p>
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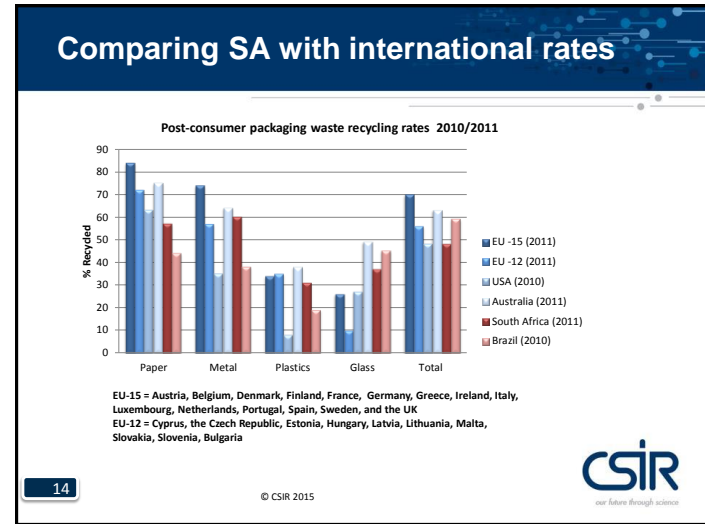
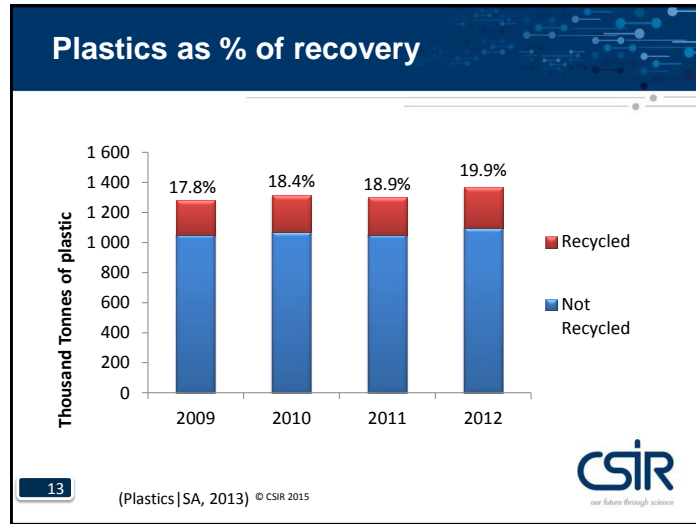
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OOPS!!  
PS container  
&  
PVC sleeve

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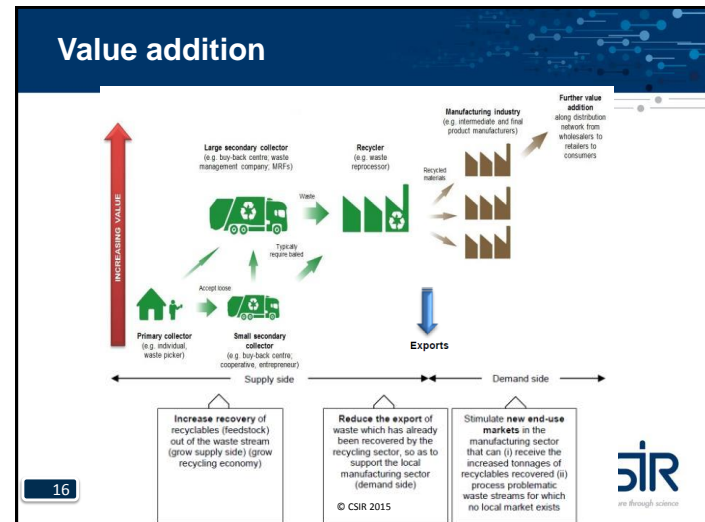




### Value of waste as a resource

- Estimated resource value of the waste is R25.2billion per annum (0.86% of GDP)
  - Recycling at ±10% (as at 2011 baseline) unlocked R8.2 billion/year worth of resources into the South African economy
  - There is potential to recover a further R17 billion per annum worth of resources back into the economy

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## Key international issues

- Increased efficiency in material recovery and recycling
- Improved feedstock management, including increased access to recyclables (quantity) and to clean recyclables (quality)
- Design for dismantling and recycling, in response to the increasing complexity of products and related wastes

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## Potential for growth in SA recycling industry

- Stimulating supply side
  - Increased recovery of recyclables
  - Increased local reprocessing of recyclables
- Stimulating demand side
  - Reduced exports of waste
  - Increased local uptake for recycle

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## How to grow recycling in SA

- Supply side
  - Investment in collection infrastructure
  - Creating entrepreneurial opportunities, for example in collection and sorting of activities
  - Policies and incentives driving separation and collection system at the household and municipal levels
- Demand side
  - Innovative uses of recycled materials in SA
  - Development of innovative new high quality products using recycled content

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## Conclusion

- There is potential to recover a further R17 billion per annum worth of resources back into the economy
- Investment in collection infrastructure is required
- Creation of entrepreneurial opportunities
- Design for recycling
- Creation of markets for recycled materials
  - Replacing virgin materials with recycle
  - Develop new innovative high quality recycled products

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**Thank You**

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