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Waste as a resource

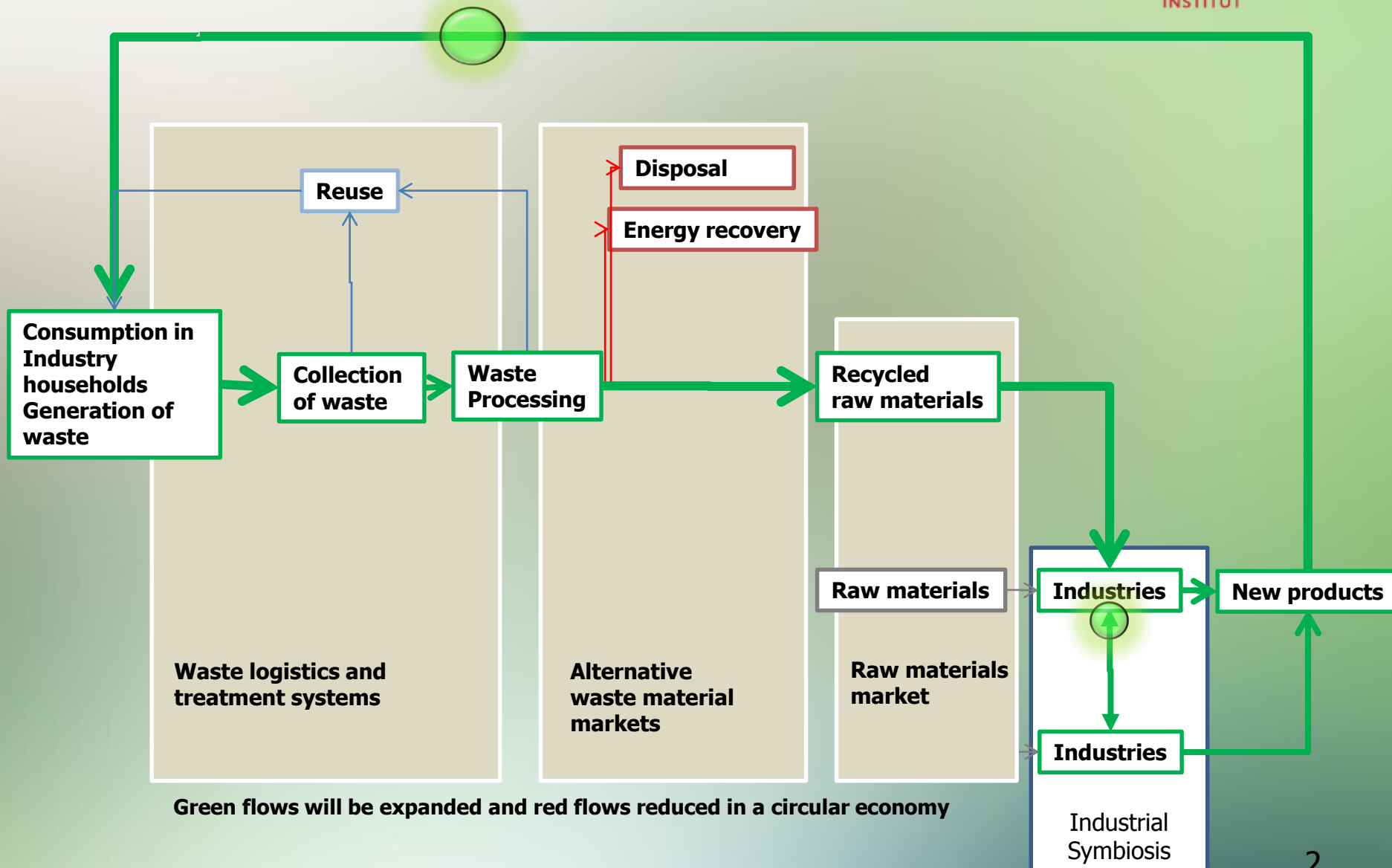
SYMBIOSIS 2014, Athens

Stig Yding Sørensen
Danish Technological Institute

The circular economy



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Waste as resource



2012-2013 we conducted the study "**Waste as resource**" for the European Commission. To main objectives

- How can the progress be measured and followed over time?
- How can the waste markets be improved to further the circular economy?



ECSIP - European Consortium for Sustainable Industrial Policy consortium runs the

Industrial Competitiveness and Market Performance Framework
Contract issued by EC DG Enterprise & Industry (ENTR).



Key-points

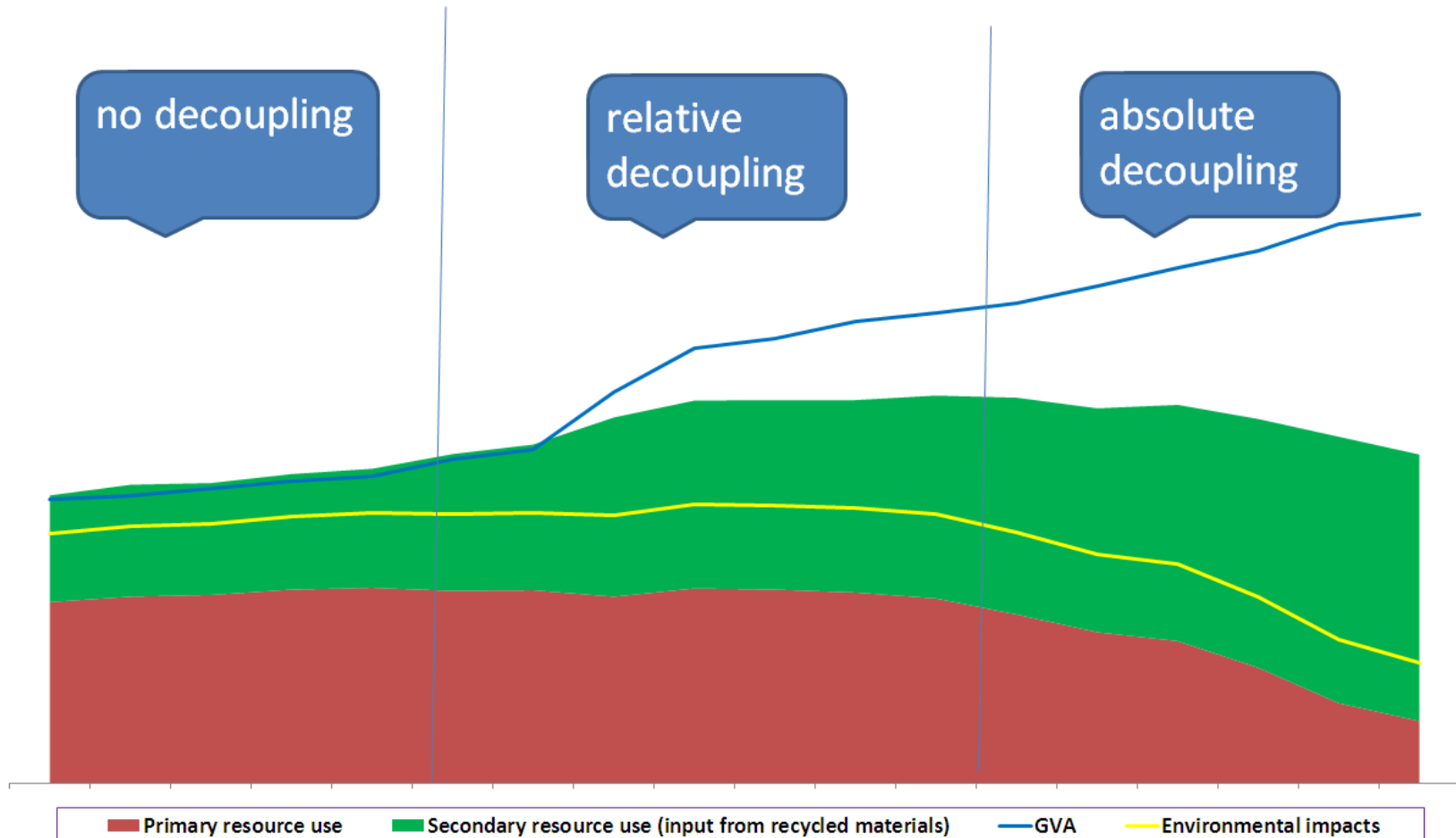
- Circular economy can be **measured** and progress followed with simple and crude measures
 - But the data is flawed – but we are not totally in the dark
- Circular economy can **improve**. There is still a potential to increase the use of waste a ressource
- Circular economy is **big** business



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Can circular economy be
measured?

Measuring decoupling



Source: Copenhagen Resource Institute in Treating Waste as a Resource for the EU Industry. Analysis of Various Waste Streams and the Competitiveness of their Client Industries, European Commission, 2013

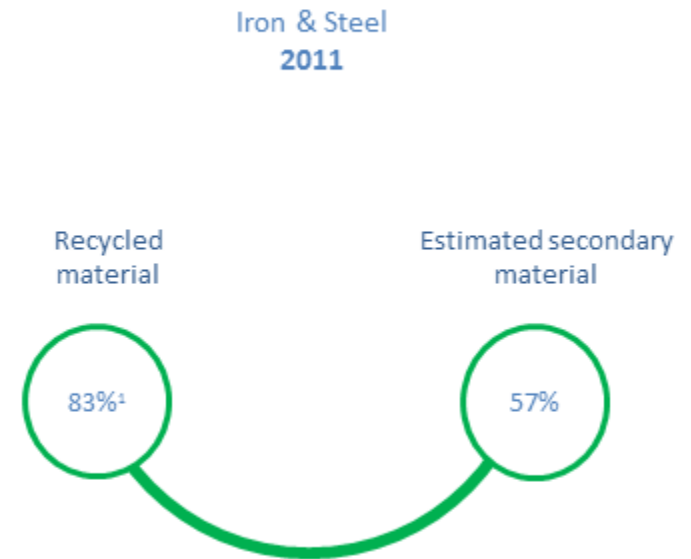
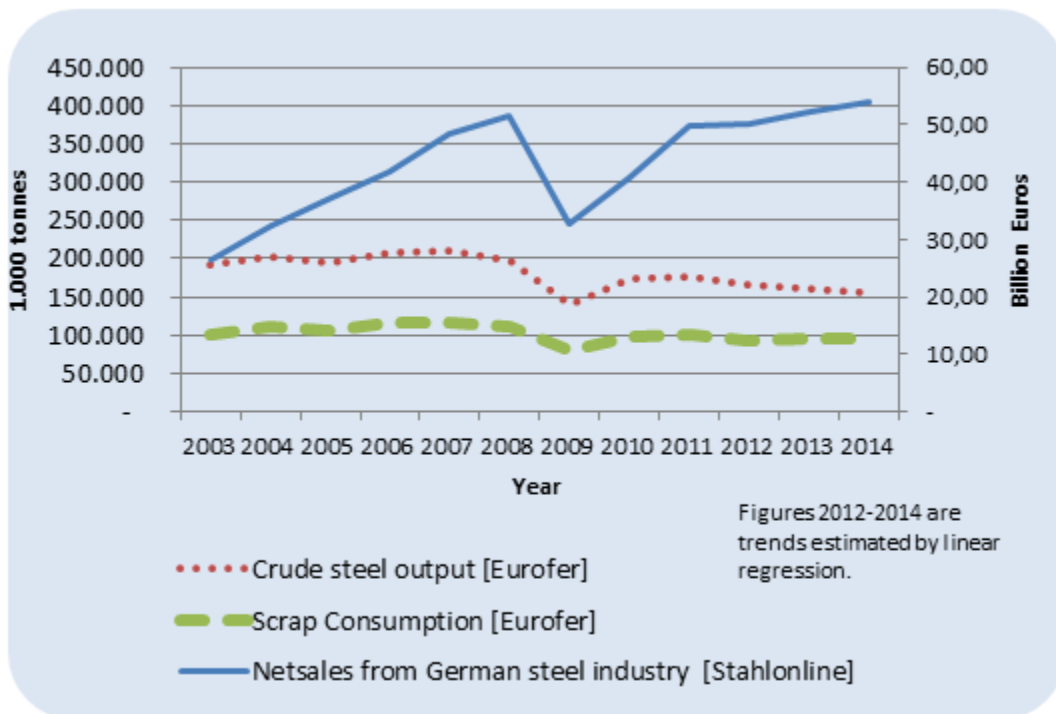
Selected waste streams

- iron & steel,
- paper (excluding packaging paper),
- batteries (excluding automotive batteries),
- end-of-life tyres and
- waste electrical and electronic (WEEE).

Iron & Steel key figures



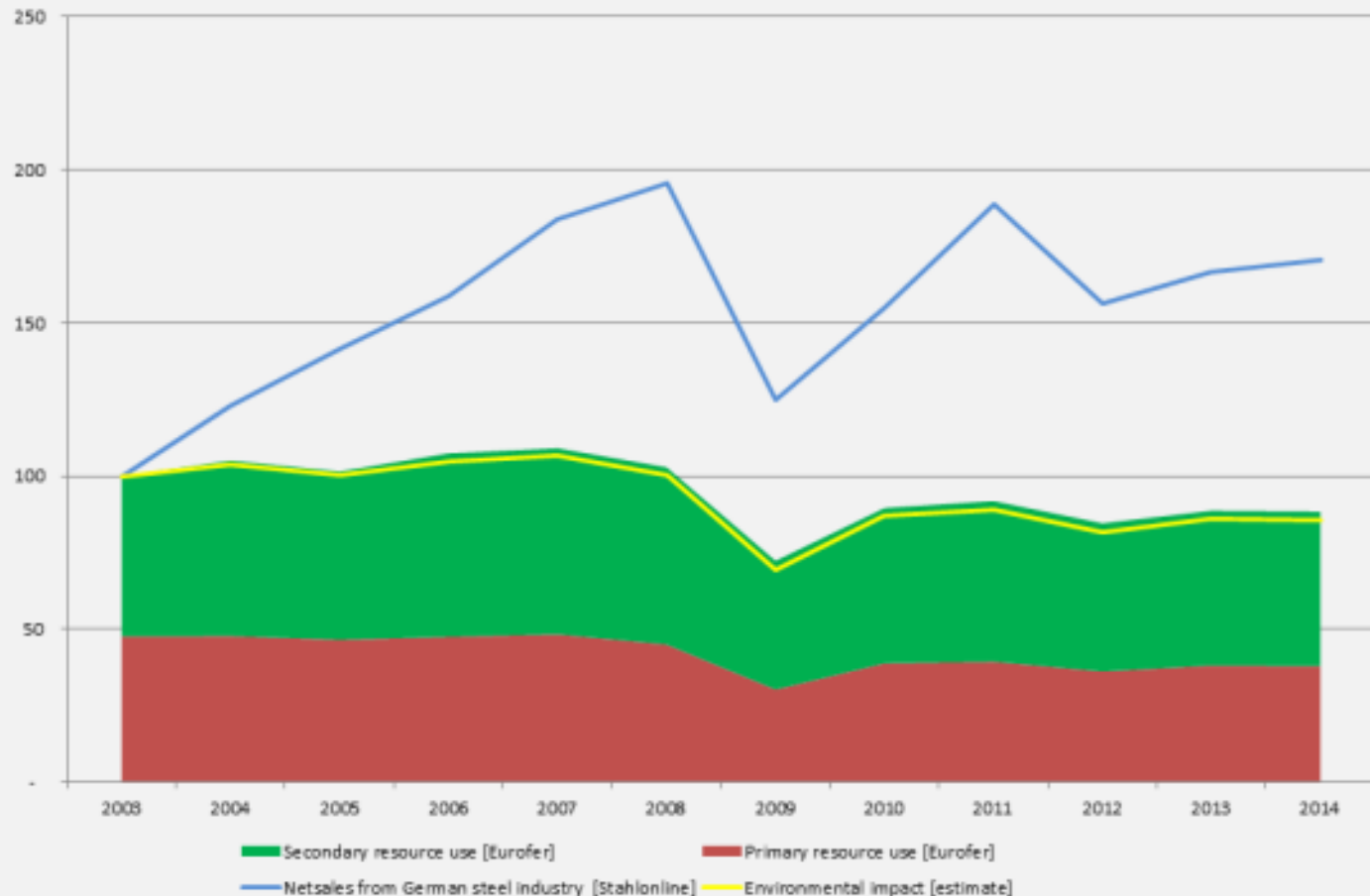
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¹ 83% of waste generated were recycled in 2007—estimated by World Steel Association in 2010 (WSA, 2010)



Iron & Steel



Figures 2012-2014 are trends estimated by linear regression.



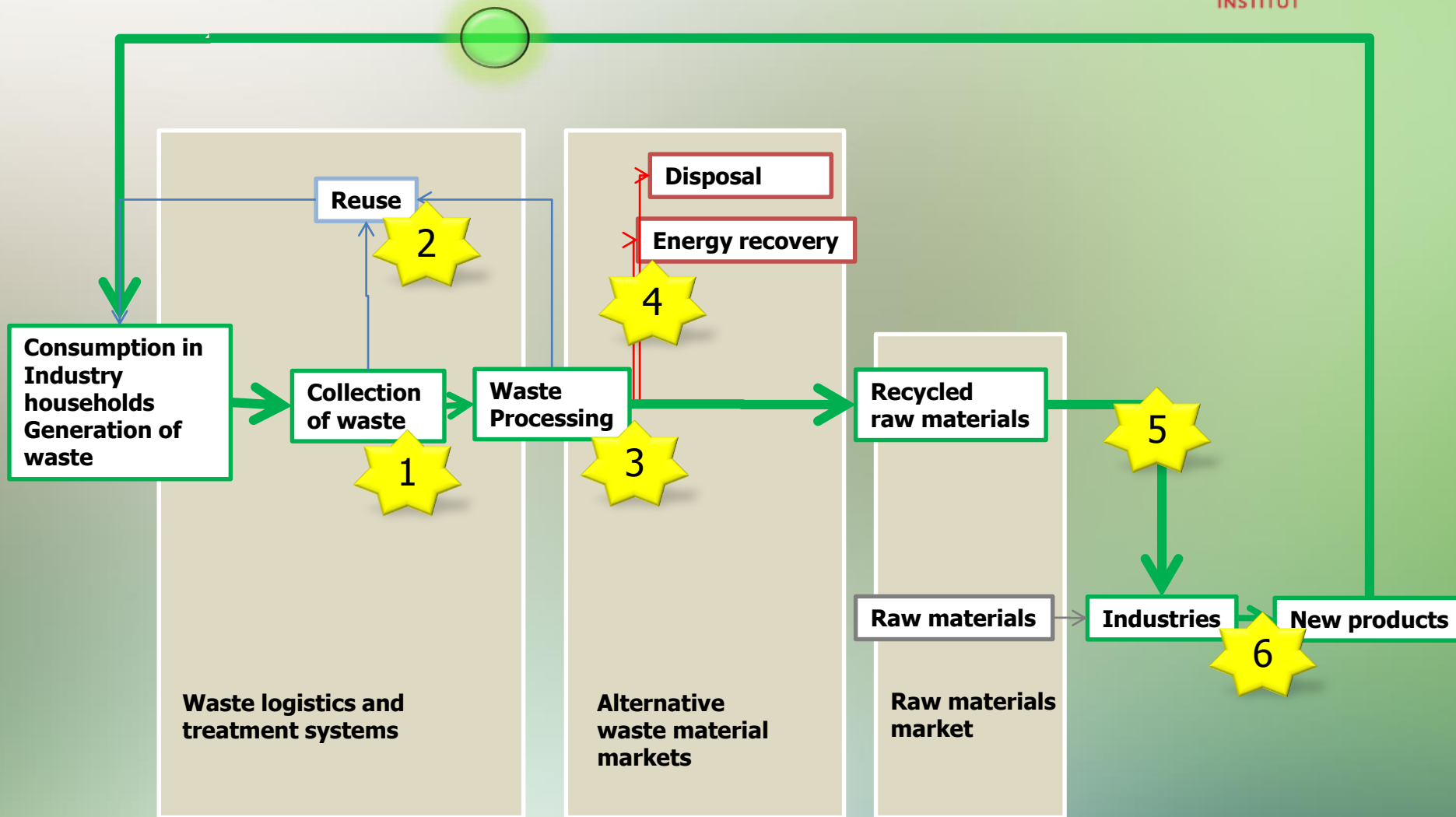
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Can the circular economy
improve?

The circular economy



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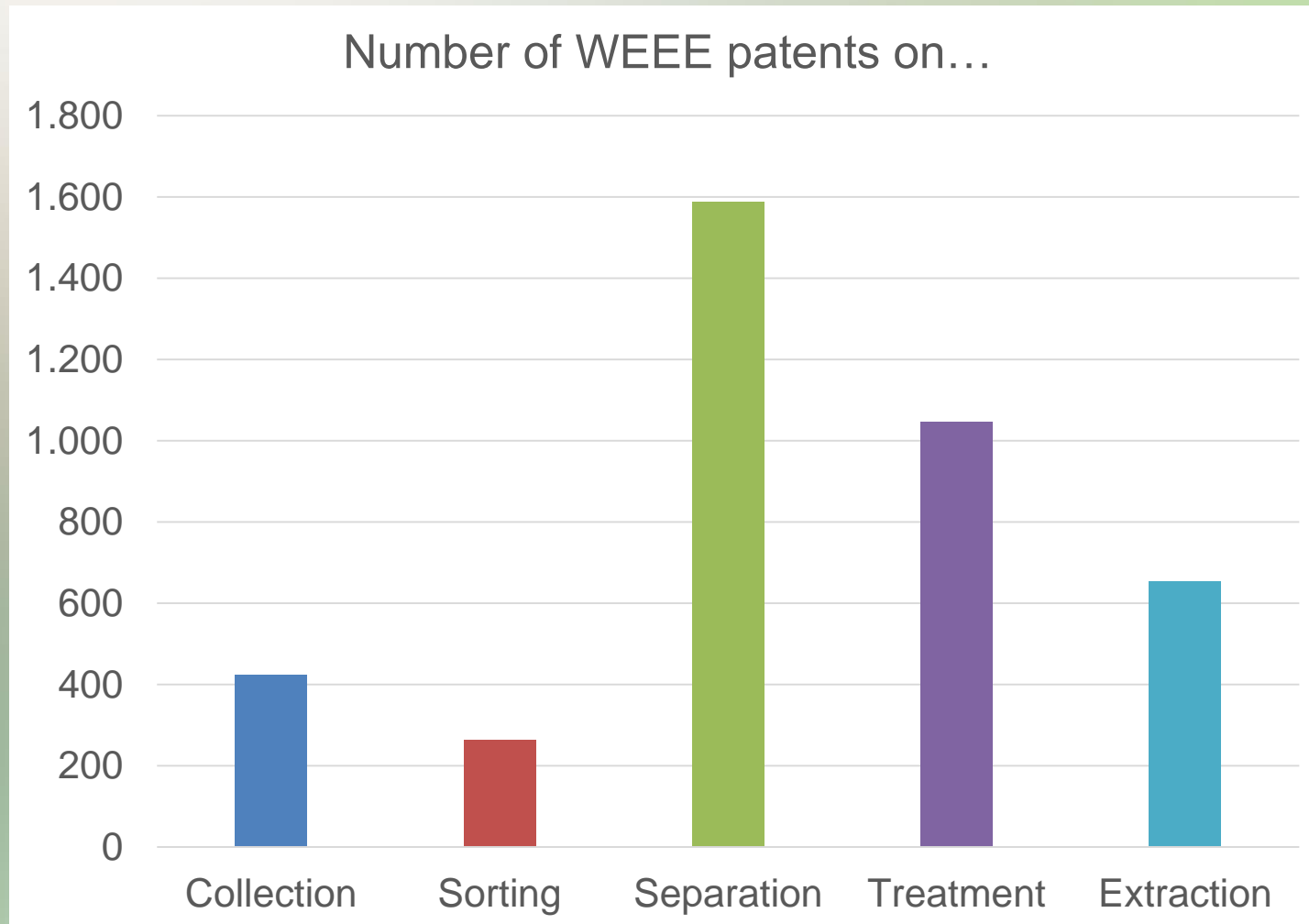


Green flows will be expanded and red flows reduced in a circular economy

Improving processing of WEEE



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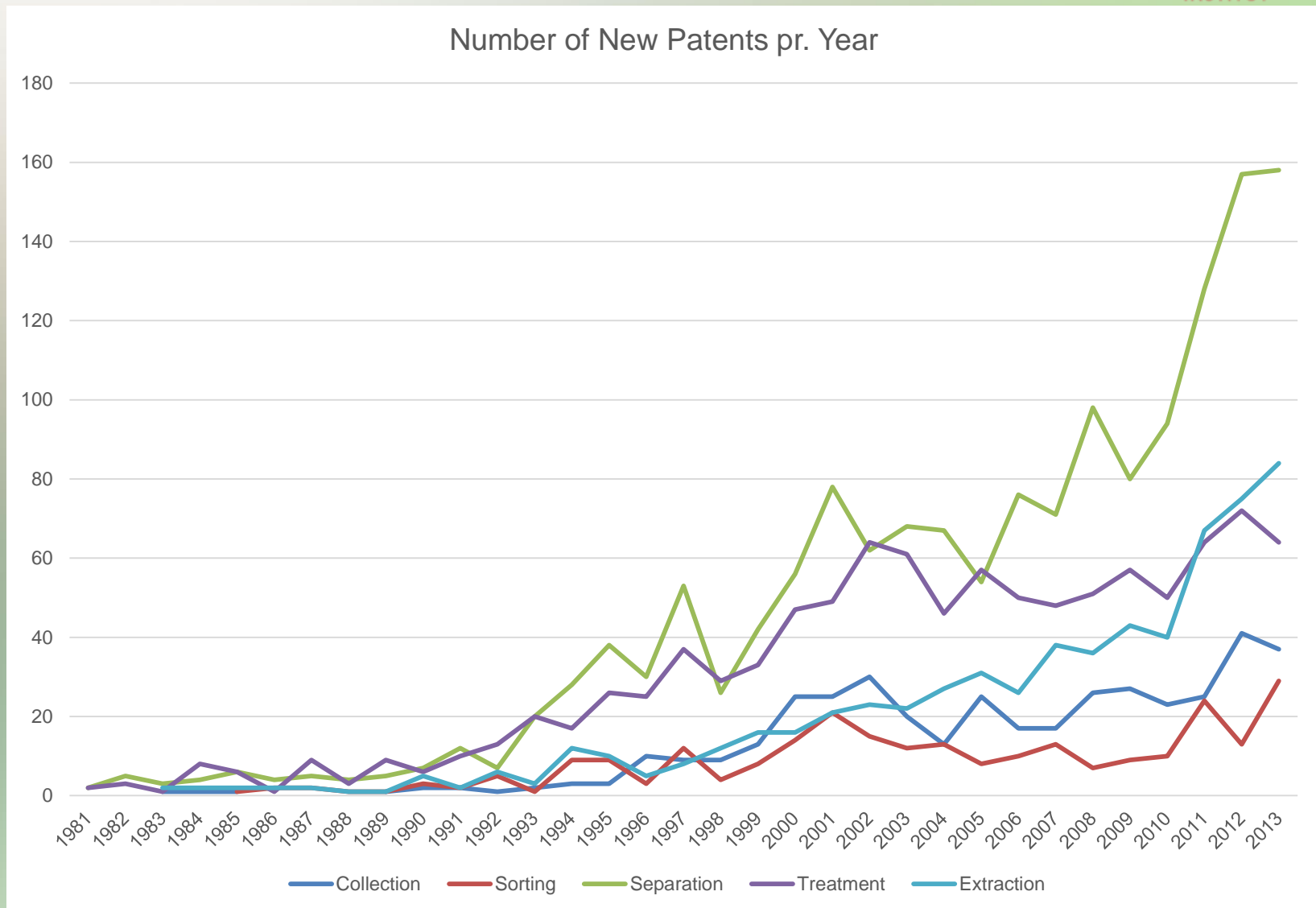


Source: DTI Calculations on global patentdata, ongoing research

Improving processing of WEEE



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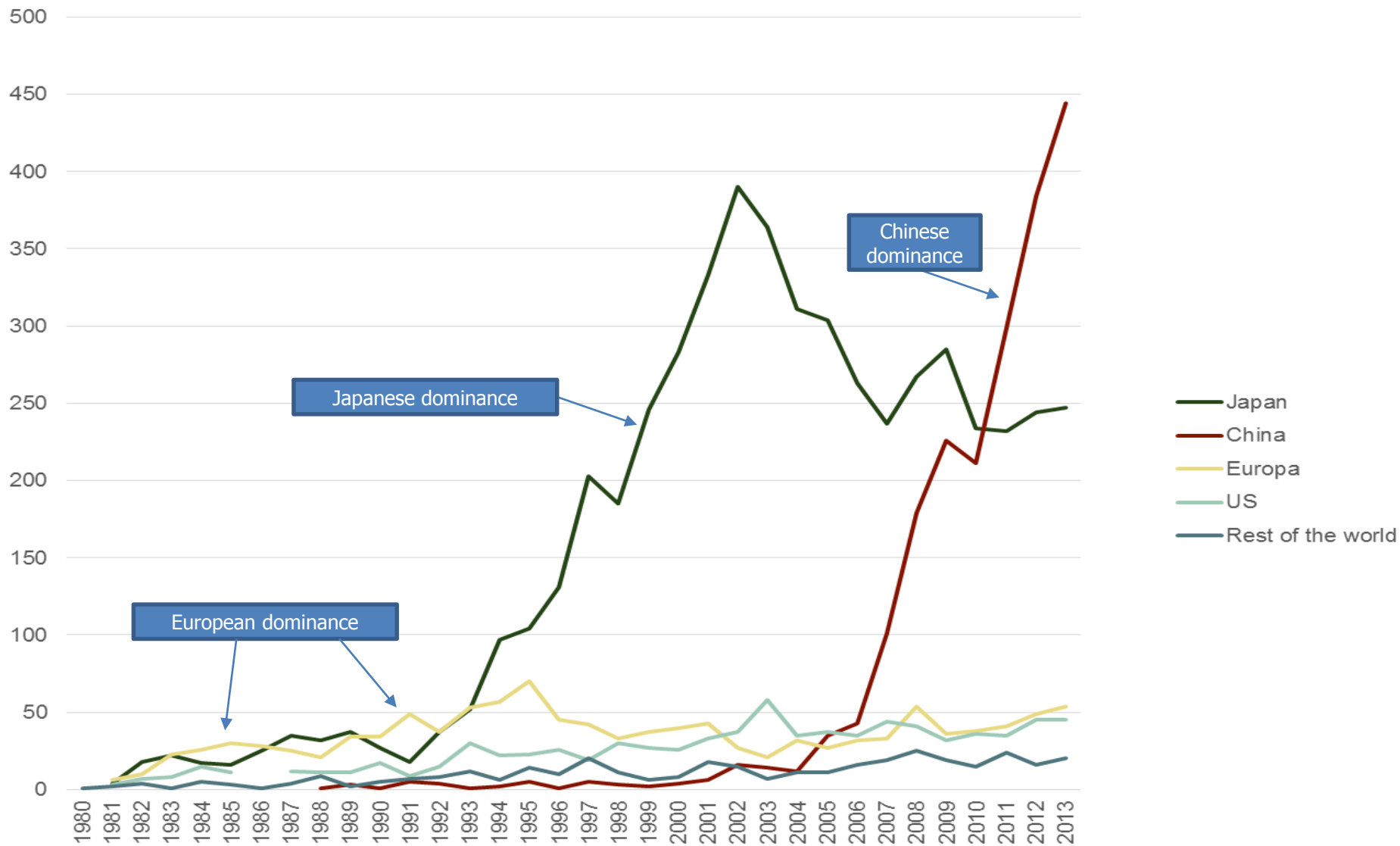


Source: DTI Calculations on global patentdata, ongoing research

Who is leading the technology race for WEEE?



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- Circular economy is clearly on the agenda
 - Industrial Symbiosis is part of that agenda
- Regarding waste as a resource is *big business*.
Taking a business perspective is paramount.
 - Without material circulation in the (very) long run then (probably) no business
 - Without business – no material circulation



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Thank you

Further information

Project leader and main contact point

Stig Yding Sørensen, DTI
+45 72 20 27 04
stys@dti.dk

Find the study at Commission website:

http://ec.europa.eu/enterprise/newsroom/cf/itemdetail.cfm?item_id=7100&tpa=0&tk=&lang=en