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**PERSONAL PROPERTY LAW FOR A ZERO-WASTE CIRCULAR ECONOMY:  
USING RETENTION OF TITLE CLAUSES TO REDUCE PLASTICS WASTE**

Sean Thomas

**ARTICLE - SPECIAL ISSUE ON DESIGNING LAW AND POLICY  
TOWARDS MANAGING PLASTICS IN A CIRCULAR ECONOMY**



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TOWARDS MANAGING PLASTICS IN A CIRCULAR ECONOMY**

**PERSONAL PROPERTY LAW FOR A ZERO-WASTE  
CIRCULAR ECONOMY: USING RETENTION OF TITLE  
CLAUSES TO REDUCE PLASTICS WASTE**

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# 1

## INTRODUCTION

The enormous volumes of waste plastics are well known,<sup>1</sup> and the environmental costs are clear.<sup>2</sup> The term ‘single-use’ is fixed in public knowledge.<sup>3</sup> The resultant ‘backlash’ against plastics,<sup>4</sup> renders favourable plastics waste reduction strategies.<sup>5</sup> There have been international and domestic government waste

limitation strategies alongside commercial responses.<sup>6</sup> Such strategies have added impetus following decisions in other countries to stop importing of waste plastics.<sup>7</sup> On 18 December 2018 the UK Government published its waste strategy for England,<sup>8</sup> which notably included specific reference to plastics waste as well as explicit engagement with circular economics, with global and domestic action continuing since.<sup>9</sup> March 2019 saw the European Commission publish *A Circular*

1 For the volumes of plastics waste see Department of Environment, Food and Rural Affairs, *Our Waste, Our Resources: A Strategy for England: Evidence Annex* (18 December 2018) <[www.gov.uk/government/publications/resources-and-waste-strategy-for-england](http://www.gov.uk/government/publications/resources-and-waste-strategy-for-england)>, 106-108; see also Edward Humes, *Garbology: Our Dirty Love Affair with Trash* (Penguin 2012) 65, referring to the ‘plasticization of America’, and chs 5 and 6 generally on the extent and (environmental) costs of plastic use.

2 Less well known is that plastics waste is not necessarily the most significant source of waste: Her Majesty’s Revenue and Customs, *Tackling the Hidden Economy: Public Sector Licensing* (8 December 2017) <[www.gov.uk/government/consultations/tackling-the-hidden-economy-public-sector-licensing](http://www.gov.uk/government/consultations/tackling-the-hidden-economy-public-sector-licensing)> 12; see also BBC News, ‘Anti-Plastic Focus “Dangerous Distraction” from Climate Change’ *BBC News* (22 October 2018) <[www.bbc.co.uk/news/uk-45942814](http://www.bbc.co.uk/news/uk-45942814)>.

3 ‘Single-use’ has been declared word of the year by Collins Dictionary: BBC News, ‘What is 2018’s Word of the Year?’ *BBC News* (7 November 2018) <[www.bbc.co.uk/news/uk-46121787](http://www.bbc.co.uk/news/uk-46121787)>.

4 Stephen Buranyi, ‘The Plastic Backlash: What’s Behind our Sudden Rage – And Will it Make a Difference’ *The Guardian* (13 November 2018) <[www.theguardian.com/environment/2018/nov/13/the-plastic-backlash-whats-behind-our-sudden-rage-and-will-it-make-a-difference](http://www.theguardian.com/environment/2018/nov/13/the-plastic-backlash-whats-behind-our-sudden-rage-and-will-it-make-a-difference)>.

5 See Jessica Elgot, ‘UK Public Backs Tough Action on Plastic Waste in Record Numbers’ *The Guardian* (18 August 2018) <[www.theguardian.com/environment/2018/aug/18/uk-public-backs-tough-action-on-plastic-waste-record-numbers-consultation-latte-levy-tax](http://www.theguardian.com/environment/2018/aug/18/uk-public-backs-tough-action-on-plastic-waste-record-numbers-consultation-latte-levy-tax)>; Sandra Laville, ‘Plastic Waste Set to Beat Price as UK Shoppers’ Top Concern – Study’ *The Guardian* (10 September 2018) <[www.theguardian.com/environment/2018/sep/10/plastic-waste-set-to-beat-price-as-uk-shoppers-top-concern-study](http://www.theguardian.com/environment/2018/sep/10/plastic-waste-set-to-beat-price-as-uk-shoppers-top-concern-study)>.

6 See BBC News, ‘Iceland Supermarket Chain Aims to be Plastic Free by 2023’ *BBC News* (16 January 2018) <[www.bbc.co.uk/news/business-42692642](http://www.bbc.co.uk/news/business-42692642)>; BBC News, ‘McDonald’s Aims for Fully Recycled Packaging by 2025’ *BBC News* (16 January 2018) <[www.bbc.co.uk/news/business-42704291](http://www.bbc.co.uk/news/business-42704291)>; BBC News, ‘What are Supermarkets Doing to Fight Plastic?’ *BBC News* (14 January 2018) <[www.bbc.co.uk/news/science-environment-42652937](http://www.bbc.co.uk/news/science-environment-42652937)>.

7 Roger Harrabin, ‘UK Faces Build-up of Plastic Waste’ *BBC News* (01 January 2018) <[www.bbc.co.uk/news/business-42455378](http://www.bbc.co.uk/news/business-42455378)>; Karen McVeigh, ‘Huge Rise in US Plastic Waste Shipments to Poor Countries Following China Ban’ *The Guardian* (5 October 2018) <[www.theguardian.com/global-development/2018/oct/05/huge-rise-us-plastic-waste-shipments-to-poor-countries-china-ban-thailand-malaysia-vietnam](http://www.theguardian.com/global-development/2018/oct/05/huge-rise-us-plastic-waste-shipments-to-poor-countries-china-ban-thailand-malaysia-vietnam)>. China’s prohibition on waste imports was pursuant to WTO Notification G/TBT/N/CHN/1211 of 18 July 2017 and G/TBT/N/CHN/1233 of 15 November 2017; most recently: Hannah Ellis-Petersen, ‘Treated like Trash: South-East Asia Vows to Return Mountains of Rubbish from West’ *The Guardian* (28 May 2019) <[www.theguardian.com/environment/2019/may/28/treated-like-trash-south-east-asia-vows-to-return-mountains-of-rubbish-from-west](http://www.theguardian.com/environment/2019/may/28/treated-like-trash-south-east-asia-vows-to-return-mountains-of-rubbish-from-west)>; BBC News, ‘Why Some Countries are Shipping Back Plastic Waste’ *BBC News* (2 June 2019) <[www.bbc.co.uk/news/world-48444874](http://www.bbc.co.uk/news/world-48444874)>.

8 Department of Environment, Food and Rural Affairs, *Our Waste, Our Resources: A Strategy for England* (18 December 2018) <[www.gov.uk/government/publications/resources-and-waste-strategy-for-england](http://www.gov.uk/government/publications/resources-and-waste-strategy-for-england)>.

9 Emily Holden and Agencies, ‘Nearly All Countries Agree to Stem Flow of Plastic Waste into Poor Nations’ *The Guardian* (11 May 2019) <[www.theguardian.com/environment/2019/may/10/nearly-all-the-worlds-countries-sign-plastic-waste-deal-except-us](http://www.theguardian.com/environment/2019/may/10/nearly-all-the-worlds-countries-sign-plastic-waste-deal-except-us)> reporting on the Meetings of the conferences of the parties to the Basel, Rotterdam and Stockholm Conventions, April-May 2019, Geneva <[www.brsmeas.org/2019COPs/Overview/tabid/7523/language/en-US/Default.aspx](http://www.brsmeas.org/2019COPs/Overview/tabid/7523/language/en-US/Default.aspx)>, requiring government consent for importation of plastics, notably the US has not agreed to this.

*Economy for Plastics*,<sup>10</sup> which is discussed further below.<sup>11</sup>

In general, these responses to plastics waste have varied.<sup>12</sup> At a technical level, there are responses such as reducing the diversity of polymers (and thus making it easier to recycle).<sup>13</sup> There are also planned prohibitions on the use of certain single-use plastics.<sup>14</sup> This would be a laudable move, but it will not be a panacea,<sup>15</sup> especially as the ubiquity of plastics makes

widespread elimination arguably impossible.<sup>16</sup> A more subtle approach, which acknowledges the continuing necessity of plastic to the economy, might be that of pricing plastics so they ‘reflect life-cycle costs’.<sup>17</sup> The rationale for this simple suggestion, that plastics (whether as individual goods or as ingredient material for complex artefacts) are currently priced so low as to justify their abandonment after limited use, is justifiable to an extent. However, such price increases will invariably fall on end-users, which may not be the fairest approach. More directly in the context of this article, pricing goods to reflect their life-cycle costs will not of itself aid moves towards circular economics.<sup>18</sup>

A circular economic approach would thus be to look to supply-side mechanisms, such as altering the design, production and use of goods to reduce the incidence of waste, rather than merely taxing waste away at the

10 European Commission (Michiel de Smet and Mats Linder eds), *A Circular Economy for Plastics: Insights from research and innovation to inform policy and funding decisions* (2019) <<https://publications.europa.eu/s/mTES>>.

11 Text following n 85.

12 See Resource Futures and Nextek, *Eliminating Avoidable Plastic Waste by 2042: A Use-Based Approach to Decision and Policy Making* (June 2018) <[ciwm-journal.co.uk/wordpress/wp-content/uploads/2018/06/Eliminating-avoidable-plastic-waste-by-2042-a-use-based-approach-to-decision-and-policy-making.pdf](http://ciwm-journal.co.uk/wordpress/wp-content/uploads/2018/06/Eliminating-avoidable-plastic-waste-by-2042-a-use-based-approach-to-decision-and-policy-making.pdf)>, 91 (a long-list of 57 potential interventions to improve plastics use efficiency).

13 DEFRA, *Our waste, Our Resources: Evidence Annex* (n 1) 108.

14 DEFRA, *Our waste, Our Resources* (n 8) 54; DEFRA, *Our waste, Our Resources: Evidence Annex* (n 1) 113; Bernie Thomas, George Cole and Howard Walker, *A Preliminary Assessment of the Economic, Environmental and Social Impacts of a Potential Ban on Plastic Straws, Plastic Stem Cotton Buds and Plastics Drinks Stirrers* (May 2018) <[http://randd.defra.gov.uk/Document.aspx?Document=14326\\_Plasticstrawstemcottonbudsa ndstirrers.pdf](http://randd.defra.gov.uk/Document.aspx?Document=14326_Plasticstrawstemcottonbudsa ndstirrers.pdf)>; European Commission, ‘Proposal for a Directive of the European Parliament and of the Council on the Reduction of the Impact of Certain Plastic Products on the Environment’, (Communication) COM 340 Final (2018) <[http://ec.europa.eu/environment/circular-economy/pdf/single-use\\_plastics\\_proposal.pdf](http://ec.europa.eu/environment/circular-economy/pdf/single-use_plastics_proposal.pdf)>; David Shukman, ‘Straws: UK Government to Bring in New Controls on Plastics’ *BBC News* (London, 22 May 2019) <[www.bbc.co.uk/news/science-environment-48358002](http://www.bbc.co.uk/news/science-environment-48358002)> (controls on certain single use plastics from April 2020).

15 Peter Maddox, ‘The Unintended Consequences of a War on Plastic’ (*Wrap*, 19 April 2018) <[www.wrap.org.uk/blog/2018/04/unintended-consequences-war-plastic](http://www.wrap.org.uk/blog/2018/04/unintended-consequences-war-plastic)>. It is also worth noting that prohibitions on such goods may have substantial negative consequences for people with disabilities: Penny Pepper, ‘I Rely on Plastic Straws and Baby Wipes, I’m Disabled – I have No Choice’ *The Guardian* (9 July 2018) <[www.theguardian.com/commentisfree/2018/jul/09/disabled-person-plastic-straws-baby-wipes](http://www.theguardian.com/commentisfree/2018/jul/09/disabled-person-plastic-straws-baby-wipes)>; Vivian Ho, ‘“People Need Them”: The Trouble with the Movement to Ban Plastic Straws’ *The Guardian* (25 August 2018) <[www.theguardian.com/us-news/2018/aug/25/plastic-straw-ban-california-people-with-disabilities](http://www.theguardian.com/us-news/2018/aug/25/plastic-straw-ban-california-people-with-disabilities)>.

16 Anthony L. Andradhy and Mike A. Neal, ‘Applications and Societal Benefits of Plastics’ (2009) 364/1526 *Philosophical Transactions of the Royal Society B: Biological Sciences* 1977. For illustration of the volumes of plastic use, see Ellen MacArthur Foundation, ‘New Plastics Economy’ (13 March 2019) <<https://newplasticseconomy.org/assets/doc/GC-Spring-Report.pdf>>. See also Tony Naylor, ‘Waitrose’s Package-free Shopping is a PR Move that Will Change Little’ *The Guardian* (5 June 2019) <[www.theguardian.com/commentisfree/2019/jun/05/waitrose-packing-free-shopping-pr-move-change-little](http://www.theguardian.com/commentisfree/2019/jun/05/waitrose-packing-free-shopping-pr-move-change-little)>.

17 Sharon George, ‘Are the Days of Recycling with a Clear Conscience over?’ *The Guardian* (22 October 2018) <[www.theguardian.com/commentisfree/2018/oct/22/recycling-fuels-consumption-plastic](http://www.theguardian.com/commentisfree/2018/oct/22/recycling-fuels-consumption-plastic)>.

18 cf Matthew Taylor, ‘Tax “Virgin Packaging” to Tackle Plastics Crisis, says Report’ *The Guardian* (20 November 2018) <[www.theguardian.com/environment/2018/nov/20/tax-virgin-packaging-tackle-plastics-crisis-report](http://www.theguardian.com/environment/2018/nov/20/tax-virgin-packaging-tackle-plastics-crisis-report)>. The report commissioned by the WWF and the Resource Association, suggests a fee on virgin packaging and a rebate system for recycling. The article concludes: ‘Campaigners say the recommendations of the new report would be a step towards a so-called circular economy – where fewer raw materials are used – creating less environmental damage’.

final consumption stage.<sup>19</sup> The reduction of plastics waste in circular economic context would thus occur through, inter alia, increasing the incidence of plastics recycling. Whilst it must be acknowledged that plastics recycling has many technological hurdles,<sup>20</sup> and has seen increasing criminal activity,<sup>21</sup> generally encouraging such recycling would help reduce the environmental impact of waste or surplus plastics in the first place. In addition, circular economics would also require the development of mechanisms to prevent the generation of waste or surplus plastics; indeed this may be the better option. In either case (increasing recycling or preventing waste), it is necessary to consider how to deal with plastics waste at early stages in production processes, rather than at the end-use point. The focus of this article is thus on commercial transactions, with the aim of analysing how English personal property law can help address the problem of plastics waste, other than by means of simple

prohibitions, price manipulation, taxation,<sup>22</sup> criminal regulation,<sup>23</sup> or other end-use-point mechanisms.

The approach suggested here is that current English personal property law, specifically that concerning retention of title clauses (ROTC), could provide a suitable mechanism to achieve the necessary levels of control to generate circular economic relationships with the effect of reducing the generation of plastics waste. The focus is on English law, because English commercial law remains one of the primary systems of commercial law in the world.<sup>24</sup> English law is thus likely to be of particular relevance to the clearly global nature of the plastics and recycling trades. Economy unfortunately prevents any comparative analysis here, though it should be noted that English doctrine differs considerably from that found around the common law world, where the progeny of the United States' Uniform Commercial Code Article 9 on Security Interests can be found in various different forms of personal property security Acts.<sup>25</sup> In particular the doctrinal lodestar of this article, the ROTC, is treated

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19 DEFRA, *Our Waste, Our Resources* (n 8) 26: 'The 'lifecycle' approach complements the circular economy model. It requires us to focus not just on managing waste responsibly, but on preventing its creation in the first place. It means taking into account how decisions taken during the design stage – at the start of the lifecycle – affect how a product is used and then disposed of by the consumer. At every stage of a product's lifecycle there is scope for people to do all they can to maximise resource value and minimise waste'.

20 Roger Harrabin, 'Recycled Packaging "May End up in Landfill", Warns Watchdog' *BBC News* (23 July 2018) <[www.bbc.co.uk/news/business-44905576](http://www.bbc.co.uk/news/business-44905576)>; Matt McGrath, 'Plastic Food Pots and Trays are Often Unrecyclable, say Councils' *BBC News* (4 August 2018) <[www.bbc.co.uk/news/science-environment-45058971](http://www.bbc.co.uk/news/science-environment-45058971)>; Wesley Stephenson, 'All the Plastic You Can and Cannot Recycle' *BBC News* (21 September 2018) <[www.bbc.co.uk/news/science-environment-45496884](http://www.bbc.co.uk/news/science-environment-45496884)>; Oliver Franklin-Wallis, "'Plastic Recycling is a Myth': What Really Happens to Your Rubbish?' *The Guardian* (17 August 2019) <[www.theguardian.com/environment/2019/aug/17/plastic-recycling-myth-what-really-happens-your-rubbish?](http://www.theguardian.com/environment/2019/aug/17/plastic-recycling-myth-what-really-happens-your-rubbish?)>.

21 See eg Sandra Laville, 'UK Plastics Recycling Industry under Investigation for Fraud and Corruption' *The Guardian* (19 October 2018) <[www.theguardian.com/environment/2018/oct/18/uk-recycling-industry-under-investigation-for-and-corruption](http://www.theguardian.com/environment/2018/oct/18/uk-recycling-industry-under-investigation-for-and-corruption)>.

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22 cf DEFRA, *Our Waste, Our Resources* (n 8) 41 (noting how the 2018 budget introduced a tax from April 2022 on plastics with less than 30 per cent recycled content).

23 Department of Environment, Food and Rural Affairs, *A Consultation on Proposals to Tackle Crime and Poor Performance in the Waste Sector & Introduce a New Fixed Penalty for the Waste Duty of Care* (January 2018) <<https://consult.defra.gov.uk/waste/crime-and-poor-performance-in-the-waste-sector/>>.

24 See eg Gilles Cuniberti, 'The International Market for Contracts: The Most Attractive Contract Laws' (2014) 34 *Northwestern Journal of International Law and Business* 455: English law is chosen most often by non-English parties in arbitration disputes at the International Chamber of Commerce, though there is no clear reason why. Furthermore, the commercial importance of London, and the number of trade organisations based there, means that often standard form contracts issued under the aegis of such trade organisations or other commercial entities, will (for good or for bad) reflect the English doctrinal position: Michael Joachim Bonell, 'The Law Governing International Commercial Contracts and the Actual Role of the Unidroit Principles' (2018) 23 *Uniform Law Review* 15, 19.

25 See eg Gerard McCormack, *Secured Credit under English and American Law* (CUP 2004); John de Lacy (ed), *The Reform of UK Personal Property Security Law: Comparative Perspectives* (Routledge 2010). It is acknowledged that later in this article (text following n 128) there is some focus on New Zealand doctrine. The cases analysed concerned the New Zealand law, which was essentially the same as English law, prior to the scheme adopted in the Personal Property Securities Act 1999.

considerably differently under such schemes.<sup>26</sup> This difference along with the generally important role of English law in commercial transactions provides a strong justification for this article's focus on English law.

It should of course be obvious that the proposals here are complementary to the variety of policy measures that could be implemented to reduce plastics waste; what is suggested herein is merely one of a number of possible mechanisms that could be utilised to deal with plastics waste in a circular economic context. Furthermore, these are tentative proposals; the specific content of the agreed conditions under an ROTC that could avoid the particular pitfalls that the current doctrine presents are not easy to determine, and remain to be substantively developed by both practitioners, commercial actors, and academics. Nevertheless, it is suggested that the proposals here would fit well within the conceptual basis presented in the Evidence Annex to the Waste Strategy, specifically in that it would be a market-based instrument which would be flexible and administratively feasible.<sup>27</sup> Furthermore, the ROTC approach may be useful in that the prevalence of such terms in commercial contracts suggests a level of commercial familiarity with the idea of retaining title, and it is worth noting that there is a strong tendency towards describing circular economic situations in terms that very much resemble ROTC.<sup>28</sup>

The next section outlines the concept of waste, as well as indicating how the control of goods is central to the meaning of waste in law, and to circular economics in general. The formulation of control in terms of

ownership in circular economic literature will also be noted. Because the assessment of something as waste turns on the extent of control, it is thus necessary, to meet the circular economic ideal of eliminating waste, to provide mechanisms for the exercise of sufficient control so as to prevent waste or surplus plastics from falling into the legal definition of waste. This leads to the third section, which considers how English personal property law could provide a doctrinal regime for the long-term control of goods, using the possibilities offered by ROTC. This will show the possibility of constructing transactional frameworks that reduce the possibility of waste and allow for the recapture of surplus, in order to enhance the take-up of circular economic practices.

## 2

### WASTE IN LAW AND IN CIRCULAR ECONOMY

Waste is a cyclical concept, involving multiple stages;<sup>29</sup> thus, regulation of waste can (and arguably must) be directed to the various stages of that cycle and not just at the end-point of disposal. This, along with the complicated relationship of domestic, European and international legal regimes on waste, makes the meaning of waste very difficult to understand.<sup>30</sup> This

26 D E Murray, 'The Unpaid Seller's Reservation of Title under the *Romalpa* Clause is Not Effective in America' [1981] LMCLQ 278.

27 DEFRA, *Our Waste, Our Resources: Evidence Annex* (n 1), Appendix 3: Policy Instrument Choice, 128-130.

28 See eg G Hieminga, *Rethinking Finance in a Circular Economy: Financial Implications of Circular Business Models* (May 2015) <<http://www.ing.com/About-us/Ourstories/Features/Circular-economy-challenges-financial-business-models.htm>>; explored further in S Thomas, 'Circular Economy, Title, and Harmonisation of Commercial Law' in O Akseli and J Lineralli (eds), *The Future of Commercial Law: Ways Forward for Harmonisation* (Hart Publishing (forthcoming)).

29 Iona Cheyne and Michael Purdue, 'Fitting Definition to Purpose: The Search for a Satisfactory Definition of Waste' (1995) 7 *Journal of Environmental Law* 149, 151: 'Waste management is therefore concerned not only with the final disposal or dumping of waste but with the whole cycle of waste creation, transport, storage, treatment and recovery in order to prevent polluting harm from coming about'.

30 David Wilkinson, 'Time to Discard the Concept of Waste?' (1999) 1 *Environmental Law Review* 172, 173-177; Stephan Tromans, 'EC Waste Law—A Complete Mess?' (2001) 13 *Journal of Environmental Law* 133, 155; Julie Adshead, 'The Waste Strategy for England 2007: Is It Deliverable?' (2008) 10 *Environmental Law Review* 46.

article will not provide a waste taxonomy,<sup>31</sup> or an exhaustive examination of the definition of waste.<sup>32</sup> Instead, a brief outline of some key elements of that concept within the broad context of UK and EU law is provided.<sup>33</sup> It is acknowledged that there are two factors that render this area highly fluid. First, there are continuing developments at the EU level concerning the implementation of circular economics, both generally and in the specific context of plastics.<sup>34</sup>

Second, there is the obvious issue of Brexit: the immense complexity and current and continuing (September 2019) uncertainty means that it will not be addressed directly. It is worth briefly noting that circular economy, and plastics, are entirely absent from the current draft UK-EU Withdrawal agreement.<sup>35</sup> Within that draft agreement there is simply reference to non-retrogression in relation to inter alia waste management.<sup>36</sup> However, the December 2018 Waste Strategy suggests possible commonality between UK and EU strategy, with the UK Government aiming to match and where possible exceed relevant EU law on plastics waste (as well as circular economy matters).<sup>37</sup> As to the general EU movements on circular economy, these will not be addressed either. This is because to do so would be to go outside the specific direction of this article. Moreover, a reading of the relevant documentation produced by the EU clearly indicates that the specific aspect considered in this article – the potential to use ROTC in English personal property law (or indeed, any specific doctrine of English personal property law) as means to deal with waste – is not addressed at any point. However, as will be seen soon,<sup>38</sup> in the context of a general understanding of the regulatory framework on waste the approach suggested by this article is valid notwithstanding its absence from the EU documentation.

The basic regulatory framework is provided by the 2008 Waste Directive,<sup>39</sup> which ‘clarifies but [also] resets the waste hierarchy’.<sup>40</sup> The waste hierarchy is a simple concept: goods should be prevented from being

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31 cf Eva Pongrácz and Veikko J Pohjola, ‘De-defining Waste, the Concept of Ownership and the Role of Waste Management’ (2004) 40 *Resources, Conservation and Recycling* 141.

32 See eg Jurgen Fluck, ‘The Term “Waste” in EU Law’ [1994] *European Environmental Law Review* 79; Ilona Cheyne, ‘The Definition of Waste in EC Law’ (2002) 14 *Journal of Environmental Law* 61; David Pocklington, ‘Opening Pandora’s Box - the EU Review of the Definition of “Waste”’ [2003] *European Environmental Law Review* 205; Eloise Scotford, ‘Trash or Treasure: Policy Tensions in EC Waste Regulation’ (2007) 19 *Journal of Environmental Law* 367; Robert Lee and Ellen Stokes, ‘Rehabilitating the Definition of Waste: Is It Fully Recovered?’ (2008) 8 *Year Book of European Environmental Law* 162; Richard Burnett-Hall and Brian Jones (gen eds), *Burnett-Hall on Environmental Law* (3rd edn, Sweet & Maxwell 2012) ch 14. See also Science and Technology Committee, *Waste Reduction* (HL 2007-08, 163-I), <[www.gov.uk/government/publications/legal-definition-of-waste-guidance/decide-if-a-material-is-waste-or-not](http://www.gov.uk/government/publications/legal-definition-of-waste-guidance/decide-if-a-material-is-waste-or-not)>.

33 See also Eloise AK Scotford and Jonathan Robinson, ‘UK Environmental Legislation and Its Administration in 2013 – Achievements, Challenges and Prospects’ (2013) 25 *Journal of Environmental Law* 383.

34 See eg European Commission, ‘Review of Waste Policy and Legislation’ (7 August 2019) <[http://ec.europa.eu/environment/waste/target\\_review.htm](http://ec.europa.eu/environment/waste/target_review.htm)> (noting the ‘revised legislative proposals on waste to stimulate Europe’s transition towards a circular economy’); European Commission, ‘Implementation of the Circular Economy Action Plan’ (7 August 2019) <<http://ec.europa.eu/environment/circular-economy/>> (noting the EU’s Circular Economy Action Plan); European Commission, *A European Strategy for Plastics in a Circular Economy*, COM (2018) 28 final <[eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN](http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1516265440535&uri=COM:2018:28:FIN)>; European Commission, *Proposal for a Directive of the European Parliament and of the Council on the reduction of the impact of certain plastic products on the environment*, (Communication) COM 340 Final (2018) <[ec.europa.eu/environment/circular-economy/pdf/single-use\\_plastics\\_proposal.pdf](http://ec.europa.eu/environment/circular-economy/pdf/single-use_plastics_proposal.pdf)>.

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35 Draft Agreement on the Withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community (14 November 2018).

36 *ibid* Annex 4, Part Two, Article 2(1). This Annex exists with ‘a view to ensuring the maintenance of the level playing field conditions required for the proper functioning of [Article 6(1), setting out the single customs territory of the UK]’.

37 DEFRA, *Our Waste, Our Resources* (n 8) 18, 22.

38 See text following n 48.

39 Directive 2008/98/EC of the European Parliament and of the Council on Waste and Repealing Certain Directives (OJ L312/3 2008) (Waste Directive).

40 Eloise Scotford, ‘The New Waste Directive - Trying to Do It All ... an Early Assessment’ (2009) 11 *Environmental Law Review* 75, 75-76.

wasted, re-used, recycled, subjected to other forms of recovery (eg energy recovery through incineration) before finally being disposed of as waste. However, Scotford notes that any ‘clarity’ derived from the explicit setting out of priorities of waste is ‘complicated’ by qualifications of that prioritisation,<sup>41</sup> and the delegation of assessment of the waste life-cycle to Member States ‘according to their own methodologies and understandings of this concept’.<sup>42</sup> The overreaching ambition of the Waste Directive could only be met through an overly broad definition of waste: ‘any substance or object which the holder discards or intends or is required to discard’,<sup>43</sup> and waste holders as ‘the waste producer or the natural or legal person who is in possession of the waste’.<sup>44</sup> Broadly put, it ties the meaning of waste to the holder’s monetary valuation.<sup>45</sup> The Directive also attempts to shift behaviour towards waste minimisation, and viewing waste as a resource rather than a burden.<sup>46</sup>

Four broad points can thus be made: (1) a broadly objective approach is taken to assessing whether something is waste;<sup>47</sup> (2) reuse of waste is neither automatically protected nor is it intrinsically necessary;<sup>48</sup>

(3) assessing whether waste ceases to be waste is at least partly focused on a market-exchange assessment;<sup>49</sup> and (4) waste regulation focuses on the control of goods,<sup>50</sup> with the act of discarding remaining key.<sup>51</sup> The centrality of control, and commodification of waste, in this regulatory framework illustrates the commercialised conception of waste policy. As will be seen, circular economics very much rest on the notion of waste as a valuable commodity. In this sense there appears considerable conceptual and policy similarity between the pre-existing waste framework and circular economics, such that circular economic practices should be relatively easily developed within this regulatory framework. To achieve such developments though would require recognition of the importance of Member States’ capacity to meet the Waste Directive obligations through ‘their own methodologies and understandings’ of the concept of the waste life-cycle.<sup>52</sup> This is the jumping-off point for this article.

It is suggested that one way in which we can understand the waste-life cycle is a process by which the diffusion of ownership results in a loss of control of goods such that they become waste.<sup>53</sup> The term ‘diffusion of ownership’ may appear loaded with jurisprudential niceties, but it is simply used to indicate that a loss of control can arise by the processes of sale and purchase: the transference of ownership rights from one party to another down a chain of transactions has the effect of shifting control down that form a chain in roughly the same order. This is a very crude approximation of the reality of commercial consumption of goods. Whilst it is acknowledged that English law does not automatically connect ownership with possession, the practical reality is that the two are intimately connected. Thus, by selling goods, the vendor is giving up control of the goods to the vendee. Thus, the purpose of this article is to argue that there is a potentially valuable

41 *ibid* 80, 85 (discussing Directive 2008/98/EC, art. 4(1), (2)).

42 *ibid* 81. For an earlier critique of the EU’s approaches, see eg Enrique Tueft-Opi, ‘Life After End of Life: The Replacement of End of Life Product Legislation by an European Integrated Product Policy in the EC’ (2002) 14 *Journal of Environmental Law* 33.

43 Waste Directive, art 3(1).

44 *ibid* art 3(2).

45 Thus following the basic principles outlined by Carnwath LJ in *R (OSS Group Ltd) v Environment Agency* [2007] EWCA Civ 611; [2007] Bus LR 1732.

46 Scotford (n 40) 79-80.

47 *The Environment Agency v Short* [1999] JPL 263; [1999] PELB 18.

48 Although reuse is a priority in the waste hierarchy, factors relating to the financial and technical competence of waste disposal actors, the ease of regulatory oversight and the nature of the waste itself may mean landfilling is the preferred regulatory option: Department of Environment, Food and Rural Affairs, *A consultation on proposals to tackle crime and poor performance in the waste sector & introduce a new fixed penalty for the waste duty of care* (January 2018) <<https://consult.defra.gov.uk/waste/crime-and-poor-performance-in-the-waste-sector/>>. See also eg *R v Ezeemo* [2012] EWCA Crim 2064; [2013] 4 All ER 1016 (trade in sending electrical goods dumped in tips in the UK for refurbishment in Nigeria was held to be in breach of EU law concerning waste transfers).

49 Waste Directive, art 6 (1)(b).

50 Tromans (n 30) 136.

51 Scotford (n 40) 82; *Long v Brooke* [1980] Crim L Rev 109, 110.

52 *ibid*.

53 For a theoretical explanation, see Michael Thompson, *Rubbish Theory: The Creation and Destruction of Value* (Pluto Press [1979] 2017).

mechanism within English personal property law that enables parties to maintain control despite plastics being transferred down a transactional chain.

## 2.1 Circular Economics and Plastic Waste

Circular economics is a heterodox ideology, as shown by the multiple potential visions of circular economic practices.<sup>54</sup> It has a wide range of manufacturing and transactional models and forms, aiming at different objectives from environmental sustainability to cost minimisation and product and data ownership and control. This article is not the place to outline what circular economics is or its importance. Nevertheless, the clear growing governmental interest in circular economics,<sup>55</sup> means the impact of specific legal frame works and substantive doctrines on circular economic practices will likely become a key point of tension in

the future development of circular economic thinking.<sup>56</sup>

One common refrain in circular economics concerns the capacity to eliminate waste. How this is phrased varies according to context.<sup>57</sup> The general circular economic ideals concerning waste have been given focus for plastics waste by means of the 2016 New Plastics Economy Initiative,<sup>58</sup> a project led by the Ellen MacArthur Foundation.<sup>59</sup> Two reports underline the

54 See Ellen MacArthur Foundation, 'Circular Economy: Concept' <[www.ellenmacarthurfoundation.org/circular-economy/concept](http://www.ellenmacarthurfoundation.org/circular-economy/concept)>; Walter R Stahel, 'The Circular Economy' (*Nature* 23 March 2016) <[www.nature.com/news/the-circular-economy-1.19594](http://www.nature.com/news/the-circular-economy-1.19594)>; Michael Braungart and William McDonough, *Cradle to Cradle: Remaking the Way We Make Things* (Vintage [2002] 2009). From a business perspective, see Peter Lacy and Jakob Rutqvist, *Waste to Wealth: The Circular Economy Advantage* (Palgrave MacMillan 2015); Julian Kirchherr, Denise Reike and Marko Hekkert, 'Conceptualizing the Circular Economy: An Analysis of 114 Definitions' (2017) 127 *Resources, Conservation & Recycling* 221; Callie Babbitt and others (eds), 'Sustainable Resource Management and the Circular Economy' (2018) 135 *Resources, Conservation and Recycling* 1 et seq.

55 See eg DEFRA, *Our Waste, Our Resources* (n 8); *ibid*, Ellen MacArthur Foundation: The necessarily global nature of waste and circular economy is reflected in eg The Memorandum of Understanding on Circular Economy Between the European Commission and the National Development and Reform Commission of the People's Republic of China (16 July 2018) <[http://ec.europa.eu/environment/circular-economy/pdf/circular\\_economy\\_MoU\\_EN.pdf](http://ec.europa.eu/environment/circular-economy/pdf/circular_economy_MoU_EN.pdf)>. See also Ellen MacArthur Foundation, 'China-EU Agreement Paves Way for Global Adoption of Circular Economy' <[www.ellenmacarthurfoundation.org/news/china-eu-agreement-paves-way-for-global-adoption-of-circular-economy](http://www.ellenmacarthurfoundation.org/news/china-eu-agreement-paves-way-for-global-adoption-of-circular-economy)>.

56 As implied by the growing legal literature on circular economy: Florin Bonciu, 'The European Economy: From a Linear to a Circular Economy' (2014) 14 *Romanian Journal of European Affairs* 78; Carl Dalhammar, 'The Application of "Life Cycle Thinking" in European Environmental Law: Theory and Practice' (2015) 12 *Journal of European Environmental & Planning Law* 97; Thomas J de Römph, 'Terminological Challenges to the Incorporation of Landfill Mining in EU Waste Law in View of the Circular Economy' (2016) 25 *European Energy and Environmental Law Review* 106; Katrien Steenmans, Jane Marriott and Rosalind Malcolm, 'Commodification of Waste: Legal and Theoretical Approaches to Industrial Symbiosis as part of a Circular Economy' (University of Oslo Faculty of Law Research Paper No. 2017-26, 2017) <[ssrn.com/abstract=2983631](http://ssrn.com/abstract=2983631)>; Chris Backes, *Law for a Circular Economy* (Eleven International Publishing 2017) <[www.uu.nl/sites/default/files/rgl-u-cow-sl-backes-law\\_for\\_a\\_circular\\_economy.pdf](http://www.uu.nl/sites/default/files/rgl-u-cow-sl-backes-law_for_a_circular_economy.pdf)>; Sean Thomas, 'Law, Smart Technology, and Circular Economy: All Watched Over by Machines of Loving Grace?' (2018) 10 *Law, Innovation & Technology* 230; Jukka T Mähönen, 'Financing Sustainable Market Actors in Circular Economy' (26 October 2018) University of Oslo Faculty of Law Research Paper No 2018-28 <[ssrn.com/abstract=3273263](http://ssrn.com/abstract=3273263)>; Sean Thomas, 'Law and the Circular Economy' [2019] *JBL* 62; Michael Burger, 'Materials Consumption and Solid Waste' in Michael B Gerrard and John Dernbach (eds), *Legal Pathways to Deep Decarbonization in the United States* (ELI Books 2018) <[ssrn.com/abstract=3276245](http://ssrn.com/abstract=3276245)>; Thomas, 'Circular Economy, Title, and Harmonisation of Commercial Law' (n 28); Éléonore Maitre-Ekern and Carl Dalhammar, 'Towards a Hierarchy of Consumption Behaviour in the Circular Economy' (2019) 26 *Maastricht Journal of European and Comparative Law* 394.

57 See eg Ellen MacArthur Foundation, 'Circular Economy: Concept' <[www.ellenmacarthurfoundation.org/circular-economy/concept](http://www.ellenmacarthurfoundation.org/circular-economy/concept)>: 'design waste out of the system'.

58 Ellen MacArthur Foundation, 'The Initiative' <[newplasticseconomy.org/about/the-initiative](http://newplasticseconomy.org/about/the-initiative)>.

59 Ellen MacArthur Foundation, 'Our Mission is to Accelerate the Transition to a Circular Economy' <[www.ellenmacarthurfoundation.org/](http://www.ellenmacarthurfoundation.org/)>.

New Plastics Economy Initiative: *Rethinking the Future of Plastics*,<sup>60</sup> and *Catalysing Action*.<sup>61</sup> Building on the evidence base provided by these reports as to the impact of plastics waste, and the potential for circular economic practices to help reduce and eliminate the problematic aspects of plastics, the Ellen MacArthur Foundation launched a Plastics Pact, whereby local organisations would help reduce and eliminate plastics waste alongside increasing the recycling and reuse of plastics.<sup>62</sup> Further developments in this area resulted in the October 2018 launch for the New Plastics Economy Global Commitment.<sup>63</sup> That document set out that ‘A systemic shift tackling the root causes is required: a transition towards a circular economy for plastic, in which plastic never becomes waste’.<sup>64</sup> This in turn reflects the *Rethinking the Future of plastics* report, which states ‘[t]he overarching vision of the New Plastics Economy is that plastics never become waste; rather, they re-enter the economy as valuable technical or biological nutrients’.<sup>65</sup> The Commitment reflects and refines the targets set out in Plastics Pact to three main objectives:<sup>66</sup> elimination of unnecessary plastics; innovative designs for safe reuse, recycling, or composting plastics; and circulation of plastics ‘in the economy and out of the environment’.<sup>67</sup>

This article focuses on the third objective – the circularity aspect. This is because it must be acknowledged, as it is within the literature just mentioned, that elimination of plastics is unlikely. Thus, developing mechanisms to embed circular economic practices in the manufacture and use of plastics is essential, not just for dealing with plastics but for dealing with plastics wastes as well. This is where legal responses, including those concerning ownership, become essential to the success of circular economy. However, in common with circular economic literature in general,<sup>68</sup> the legal aspects of developing and implementing circular economic practices regarding plastics waste are not expressed with clarity or certainty.<sup>69</sup> The Global Commitment makes no mention of ownership, or of law or legal aspects directly.<sup>70</sup> The *Catalysing Action* report fails to mention legal issues concerning ownership; the references to legal aspects in general are noticeable by their absence.<sup>71</sup> The report *Rethinking the Future of Plastics* has a section on legal responses to circular economics,<sup>72</sup> though what is noticeable is how that section merely identifies a variety of regulatory actions, almost entirely in the form of legislative prohibitions on types of (invariably single-use) plastics, such as carrier bags or takeaway food containers. There is a brief reference to the potential benefit from alteration of public procurement rules as a demand-side ‘pull’ towards circular economic plastics usage.<sup>73</sup> However, there is nothing on the substantive doctrine, nor on whether current doctrinal positions could have a viable role in promoting circular economic practices.

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60 World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company, *The New Plastics Economy – Rethinking the Future of Plastics* (2016) <[newplasticseconomy.org/about/publications/report-2016](http://newplasticseconomy.org/about/publications/report-2016)>.

61 World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company, *The New Plastics Economy – Catalysing Action* (2017) <[newplasticseconomy.org/about/publications/report-2017](http://newplasticseconomy.org/about/publications/report-2017)>; most recently, see Ellen MacArthur Foundation, <<https://newplasticseconomy.org/assets/doc/GC-Spring-Report.pdf>> (13 March 2019).

62 <[newplasticseconomy.org/projects/plastics-pact](http://newplasticseconomy.org/projects/plastics-pact)>. The UK charity WRAP delivered the first such implementation of this Pact: <[www.wrap.org.uk/content/the-uk-plastics-pact](http://www.wrap.org.uk/content/the-uk-plastics-pact)>.

63 Ellen MacArthur Foundation, ‘New Plastics Economy Global Commitment’ <[newplasticseconomy.org/assets/doc/global-commitment-download.pdf](http://newplasticseconomy.org/assets/doc/global-commitment-download.pdf)>.

64 *ibid* 1.

65 *Rethinking the Future of Plastics* (n 60) 18.

66 The Commitment also acknowledges that it ‘will build on, and reinforce’ other actions relating to plastics waste, including the EU strategy for plastics in a circular economy.

67 New Plastics Economy Global Commitment (n 63) 1.

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68 See eg Mickey Howard and Ken Webster, ‘Circular Business Advantage: What Organisations Need to Know’ (24 October 2018) <<https://medium.com/circulatenews/circular-business-advantage-what-organisations-need-to-know-c7ae1954cc46>> (noting, *inter alia*, how ‘Product ownership will become a thing of the past’).

69 *Designing Law and Policy Towards Managing Plastics in a Circular Economy* (SOAS Workshop, London, 2 June 2018) <<https://www.soas.ac.uk/ledc/events/plastics-2018/>>.

70 It does mention regulations in the context of food safety, but without any explanation.

71 *Catalysing Action* (n 61) 40 very briefly mentions laws concerning plastic packaging.

72 *Rethinking the Future of Plastics* (n 60) 37.

73 *ibid* 60-61.

December 2018 saw the publication of a new waste strategy for England, one which importantly, integrates circular economic thinking in dealing with waste.<sup>74</sup> It also specifically reflects on plastics waste, and provides numerous valuable policy suggestions to reduce and eliminate plastics waste.<sup>75</sup> At the heart of the various suggestions is recognition of the importance of preventing waste in the first place,<sup>76</sup> which involves not only improving design to enhance plastic recyclability,<sup>77</sup> but also developing 'regulatory or economic instruments if necessary and appropriate'.<sup>78</sup> One 'radical' aspect of the regulatory response is an enhanced concept of producer responsibility,<sup>79</sup> founded on the 'polluter pays' principle.<sup>80</sup> Where there is an application of this principle through extended producer responsibility, giving commercial parties the capacity though the utilisation of legal frameworks to control their outputs and thus avoid the generation of waste, can be seen as corollary to that principle. The negative incentive on producers to eliminate waste (i.e., if they fail to eliminate waste, then they pay) can be matched with a positive incentive. That is, there arguably need to be incentives for commercial organisations to recapture waste, including plastics, in order to recycle such products and reintegrate them within the (circular) economy and thus gain the benefits

of utilising such resources.<sup>81</sup> Related are the concepts of reverse logistics and back-hauling of packaging: this involves companies reacquiring their products (including packaging) in order to prevent their wastage.<sup>82</sup> Similarly, there is the problematic issue of achieving 'end of waste' status, that is, where something that was waste is transformed so that it is no longer waste.<sup>83</sup>

This is of considerable importance given the current legal obligations to treat waste in particular ways in accordance with the Waste Directive. However, the specific implications for the legal doctrine concerning ownership are as unclear here as in the other reports concerning plastics and circular economics (as noted above). There appears to be a general assumption that shifting from ownership to other forms of transactions which involve retaining ownership is necessarily good.<sup>84</sup> Moreover, there appears to be a failure to recognise that the structure of the English doctrine on retaining ownership is not clear, and that this is particularly the case when it comes to providing circular economic transactional structures for plastics.

Most recently, in March 2019 the EU published a substantial document *A Circular Economy for Plastics*,<sup>85</sup> which begins by noting inter alia '[c]urrent laws and regulations are insufficient to enable cross-value-chain collaboration ... policy innovations are needed to remove regulatory and legal barriers to system-wide collaboration'.<sup>86</sup> Amongst the policy recommendations are to '[d]evelop, harmonise and enforce regulatory and legal frameworks guided by systems thinking to connect the different actors of the plastics value chain(s)'.<sup>87</sup> Notwithstanding the current Brexit position (or lack thereof), the recognition of the importance of developing law, or as this article suggests utilising current doctrine, as one of a number of

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74 September 2019 saw the publication of plans for a Circular Economy Bill before the Scottish Parliament: <https://www.gov.scot/publications/protecting-scotlands-future-governments-programme-scotland-2019-20/pages/4/>. Unfortunately, there is a lack of detail at this stage, though there has already been some criticism for the Bill's focus on waste recovery rather than reducing consumption: Richard Dixon, 'Climate Emergency Programme for Government Fails to Make the Grade' (*Friends of the Earth*, 3 September 2019) <<https://foe.scot/press-release/climate-emergency-programme-for-government-fails-make-grade-scot-pfg/>>.

75 DEFRA, *Our Waste, Our Resources* (n 8). See also DEFRA, *Our Waste, Our Resources: Evidence Annex* (n 1).

76 See George (n17).

77 DEFRA, *Our Waste, Our Resources* (n 8) 26.

78 *ibid* 17.

79 Marcus Gover, 'Resources and Waste Strategy: A Major Step Forward, With Lots to Do' (17 December 2018) <[www.wrap.org.uk/blog/2018/12/resources-and-waste-strategy-major-step-forward-lots-do](http://www.wrap.org.uk/blog/2018/12/resources-and-waste-strategy-major-step-forward-lots-do)>.

80 See e.g. *Burnett-Hall on Environmental Law* (n 32) [2-116]-[2-225].

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81 cf *Burnett-Hall on Environmental Law* (n32):2-118 'The [polluter pays] principle is thus in essence an economic instrument, intended inter alia to promote the rectification at source principle'.

82 DEFRA, *Our Waste, Our Resources* (n 8) 48-49.

83 *ibid* 81.

84 *ibid* 30; 37; 55.

85 EC (n 10).

86 *ibid* 10.

87 *ibid* 11.

possible ways to develop circular economic practices for waste plastics is clear. In particular, and in common with the general tenor of writing about the circular economy,<sup>88</sup> there is the suggestion that ‘the biggest challenge ... lies in ... changing prevailing concepts such as ownership’,<sup>89</sup> but there is a recognised gap in knowledge about how to achieve business practices which incorporate circular economic practices regarding ownership.<sup>90</sup> Indeed, the term ‘ownership’ is barely used in the report.<sup>91</sup>

This article thus examines the extent to which English law can provide circular economic transactional structures for plastics, specifically so that plastics waste is reduced. The English doctrine on ROTC arguably provides an appropriate framework, as it allows for the generation of commercial transactional forms which concentrate ownership in the initiator of a circular economic transaction,<sup>92</sup> rather than allowing for

diffusion of ownership down the chain. This will give the initiator the power to control transactions, as well as the capacity to more effectively direct the use and recapture surplus plastics, thereby avoiding the generation of plastics waste. This is on the basis that the party with the legal title to an asset is the party with the capacity to enforce obligations as against third parties, and not just those with whom they have contracted. For the purposes of clarity, this argument is focused on working out ways by which parties can structure their commercial relationships to allow for voluntary recapture of waste plastics. It is not concerned with providing justifications for the imposition of obligations to recapture waste plastics.

## 3

### CONTROLLING GOODS TO AVOID WASTE

The previous section pointed out the importance of control within the regulation of waste (under the Waste Directive), as well as to circular economics. This is not the place to examine deeply what is meant by control, but ‘control’ in the context of waste law appears to be concerned with alteration of the physical status of goods. This will suffice for these purposes, because this is sufficient to analogise with the level of control that holders of proprietary interests in goods have. Achieving the levels of control necessary to (a) avoid goods being treated as waste and (b) effect circular economic practices will require transactional mechanisms and forms which allow for control of goods down a chain of transactions. Specifically, sellers of goods should be able to control the use of such goods, to the extent that they can recapture the goods from down-chain users if they are being used (or risk being used) in a manner inappropriate to circular economy.

What follows is an examination of the potential of ROTC to operate as a recirculating looping mechanism in the circular economic process; a means by which waste can be recaptured (to avoid it being disposed of as waste, to allow it to be reused as a material input). In particular, the historical basis of ROT illustrates

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88 See eg Technopolis Group, ‘Regulatory Barriers for the Circular Economy: Lessons from Ten Case Studies (30 June 2016) <[www.technopolis-group.com/wp-content/uploads/2017/03/2288-160713-Regulatory-barriers-for-the-circular-economy\\_accepted\\_HIres.pdf](http://www.technopolis-group.com/wp-content/uploads/2017/03/2288-160713-Regulatory-barriers-for-the-circular-economy_accepted_HIres.pdf)> 52: ‘The employment of leasing schemes for various products or servitisation is as another option to increase circularity. When the producer remains the owner and is responsible for maintenance their incentive is to maximise a product’s lifetime and repairability. They are also incentivised to keep track of leased products in order to retrieve them for further treatment which limits illegal exports’

89 *ibid* 89.

90 *ibid* 92-93. Instead there is often rather beguiling statements such as this (at 98): ‘In the product-service system concept, products and materials often remain the property of the companies. This ownership creates an incentive for designing the products so that they can be optimally reused, refurbished or recycled’.

91 Ownership is referred to in the pages cited immediately above. Property, as understood through the lens of ‘personal property’ is not mentioned, though in an amusing instance, the term property is used (at 131), correctly in its context as a scientific concept relating to plastics, and (this author is sure) unintentionally correctly in the context of the English doctrine: ‘if the used resin collected ends up being reprocessed to be recovered in a substantially different type of application, the property requirements may be very different’. For the doctrine, see below at text following (n 128).

92 For a suggested nomenclature of circular economy, see eg Thomas, ‘Law and the Circular Economy’ (n 56) 62, 63 (instead of ‘seller’ and ‘buyer’, a better terminology might be ‘initiator’ and ‘users’ within a circular economic chain of transactions).

that control of the goods is a substantive part of the doctrine. That is, ROT doctrine does not solely focus on providing the ROT seller with a power to protect their economic investment in the goods concerned: there is more to ROT than mere economic protection against the buyer's insolvency. In this sense, a ROTC, much like any other security interest, enables the ROT seller to prevent the asset from being disposed of or treated in a way which would reduce or otherwise negatively impact on the secured party's rights over such asset.

Following this explanation is analysis of the issues concerning the transformation of goods in a manufacturing process; it will be argued that there is a necessary conflict between property rights and contractual agreements, but that the arguments against accounting for a party's intention are insufficient. Instead, it is suggested that there is nothing in principle preventing an ROTC from following through into manufactured goods. Following that, the next subsection will briefly outline the *Bunkers* case, and will suggest that that jurisprudence indicates a way by which party autonomy, in terms of the retention of title and its effects, can be enhanced and effectively applied in the specific context of plastics, so as to provide a mechanism for the avoidance of waste plastics.

### 3.1 Retention of Title

Under English law sellers can 'reserve the right of disposal of the goods until certain conditions are fulfilled'.<sup>93</sup> It needs to be recognised that the meaning of the 'right to disposal' is rather obscure. It could be that draftsman Sir Mackenzie Chalmers' use of 'right of disposal', rather than 'right of property' may indicate an element of breadth to the power provided by section 19 of the Sale of Goods Act 1893. In the first edition of his text, *The Law of Sales* Chalmers said the term 'reserves the right of disposal' comes from *Mirabita v The Imperial Ottoman Bank*, where

Cotton LJ said that the seller 'reserves to himself a power of disposing of the property'.<sup>94</sup> Chalmers noted that in *Mirabita*, Bramwell LJ had talked of the seller having both a property and a *jus disponendi*.<sup>95</sup> Chalmers explained this as dealing with situations where the seller intends to pass the property, the goods are delivered on 'such terms' i.e., with *jus disponendi*, 'as to prolong the right of stoppage *in transitu*, and in that sense a limited right of disposal may be said to be reserved'.<sup>96</sup> This remained the same in the second edition, following the Sale of Goods Act 1893.<sup>97</sup> This suggests that the right of disposal is limited to a right to stoppage in transit. This makes sense in the context of the *Mirabita* case, which involved transfers of commercial paper and documents of title. However, is there a substantive difference between that situation and the sort of situation involving ROTC faced by the courts a century or so later, including the sort of situation this article is specifically concerned with? More precisely, is there reason to think that the right of disposal may have a broader application in the present context?

Going back in time, it is clear from Benjamin that the issue of the *jus disponendi* was 'often a matter of great nicety to determine whether or not the vendor's purpose or intention was really to reserve a *jus disponendi*'.<sup>98</sup> This is worth briefly considering because

93 Sale of Goods Act 1979 s 19 (1). This is distinct from an ordinary contractual provision whereby goods are to be returned to seller upon a designated event, such as failure to export within a period: *DFS Australia Pty Ltd v Comptroller-General of Customs* [2017] FCA 547 [72].

94 (1878) 3 ExD 164 (CA) 172. HHJ Chalmers, *The Sale of Goods including the Factors Act 1889* (London, William Clowes and Sons 1890) 34; see also *The Annie Johnson* [1918] P 154, 163 (Sir Samuel Evans P): 'It is well known that these portions of the Act were founded on the judgment of Cotton LJ'; A P Bell, *Modern Law of Personal Property in England and Ireland* (Butterworths 1989) 252, fn 2: 'this is just another way of saying that property is not to pass'; cf Samuel Williston, *The Law Governing Sale of Goods at Common Law and under the Uniform Sales Act* (2nd edn, Baker, Voorhis & Co, New York 1924) vol 1, 633, fn 4, noting that the American legislation followed the Sale of Goods Act 1893, except for the somewhat loose phrase 'right of disposal' is substituted 'possession or property'. Williston goes on to provide a detailed examination of the flawed nature of *Mirabita*.

95 (1878) 3 ExD 164 (CA) 169-170.

96 Chalmers (n 94) 35.

97 *ibid* 44-45.

98 J P Benjamin, *A Treatise on the Law of Sale of Personal Property; with Reference to the American Decisions and to the French Code and Civil Law* (Henry Sweet, London 1868) 273.

it is clear that the right of disposal, the Sale of Goods Act 1893 s.19 provision which has followed through to the Sale of Goods Act 1979, was very much Chalmers' creation. Benjamin's approach is significant in that it would appear that there was no specific right of disposal of the sort found in s19. Instead, what we can do is look to the way the *jus disponendi* was understood, to perhaps gain a better understanding of how Bramwell LJ was using it.

Within Benjamin's discussion is an intriguing case *Craven v Ryder*.<sup>99</sup> There was an action for trover, for goods sold on credit terms. It was proven that the specific form of receipt had been adopted specifically 'for the express purpose of giving the shipper a command over the goods' until payment.<sup>100</sup> Gibbs CJ said that 'the holder of that receipt retains a control over the goods at least until he has exchanged the receipt for the bill of lading ... the Plaintiffs might refrain from delivering the goods, unless under such circumstances as would enable them to recall the goods if they saw occasion'.<sup>101</sup> Benjamin said that '[t]his seems to be but another mode of describing what, in more recent cases, is termed a reservation of the *jus disponendi*'.<sup>102</sup> It may be suggested though that what this shows is that the term *jus disponendi* was being utilised to cover a range of situations ever so slightly wider than stoppage in transit, to cover those cases where the vendor is attempting to control the goods. Moreover, it is important to cover those cases that are wider than stoppage in transit, by which we are necessarily meaning those cases other than those of buyer insolvency, since stoppage in transit is limited to such cases.<sup>103</sup> The difference is that the right here, *jus disponendi*, is one attendant to the seller's right to retain the property. This is distinct from a right attendant on the capacity to halt delivery up in the event of determining that the price will not be paid up. Put simply, one can control the shipment, or the goods

themselves.<sup>104</sup> The *jus disponendi* was thus about controlling the goods specifically, and was very much relevant where the parties had explicitly introduced elements of control to the contractual agreement.

Whilst an ROTC is usually (perhaps even invariably) framed so that the conditional aspect is the payment of the price (and thus the ROT transaction is a form of secured credit), the reservation of the right to disposal may be able to provide more to a seller than protection as against a buyer's insolvency. The very statutory wording, and the historical background, suggests that there may be other possible uses for ROTC. That is, it may be possible to combine the retained title with a condition concerning something other than payment. Fundamentally, the ROTC provides the seller with an element of control over the goods. The ROTC cases have, unsurprisingly, been focused on the monetary aspect: how the seller's control generates protection as against the buyer's insolvency. At the same time, there has not been an overarching commercial policy reason to control the goods for other purposes; certainly, no policy as dominant as that of protection against counterparty insolvency. However, the rapid and substantial increase in commercial interest in circular economics, alongside actual commercial practices where parties are apparently retaining ownership to generate circular economic transactions, provides evidence of a new and increasingly important commercial policy reason to enable sellers to control goods. Moreover, it must be acknowledged that this is not a zero-sum policy game: ROTC can *both* protect against insolvency and provide down-chain transactional control at the same time.

That an ROTC can have such a broader purpose is not entirely obvious, but it can be discerned from various sources. ROTCs provide a proprietary protection, because the reservation of title means the seller retains

99 (1816) 6 Taunt 433; 128 ER 1103, at Benjamin, *Sale of Personal Property* (n 98) 275-276.

100 (1816) 6 Taunt 433, 433-434; 128 ER 1103, 1103.

101 (1816) 6 Taunt 433, 435; 128 ER 1103, 1103.

102 Benjamin, *Sale of Personal Property* (n 98) 276.

103 cf Iwan Davies, *Effective Retention of Title* (Fourmat Publishing 1991) 46: 'The whole purpose of the retention of title clause is that it is *not* limited in this way'.

104 cf Benjamin (n 98) 566: 'can the vendor exercise a *quasi* right of stoppage *in transitu*, - a right that might perhaps be termed a stoppage *ante-transitum*?' See also at 578: 'his Lordship was very emphatic in repudiating any supposed analogy with stoppage *in transitu* [and the unpaid vendor's lien], citing *McEwan v Smith* (1849) 2 H L Cases 309, 328; 9 ER 1109, 1117 per Lord Campbell.

the general property in the goods.<sup>105</sup> This means, as Worthington pointed out in her classic analysis, proprietary interests are ‘vitaly important when the defaulting party is insolvent; however, even outside that context they remain a powerful coercive tool’.<sup>106</sup> As Raczynska perceptively noted in her recent excellent monograph, *The Law of Tracing in Commercial Transactions*, an ROTC provides the seller with an interest in the asset itself, and not in its value.<sup>107</sup> It is this important distinction which provides the seller with the ability to control the asset;<sup>108</sup> it can repossess it should it be threatened by the buyer’s actions.<sup>109</sup> It may also attempt to follow through into dispositions by the buyer (rather than being left with an interest in any funds such a disposition realizes), though as will be seen this is not an easy task.

There are further, more oblique, references to the capacity of an ROTC to introduce conditions other than those concerning repayment. Thus, in a footnote to a statement that the seller will protect himself against the buyer’s default by making property passing conditional on payment, de Lacy puts it beguilingly

simple: ‘Property may also be retained subject to the buyer’s performance of other conditions’.<sup>110</sup> Most recently, there is the following from the leading text on personal property security:

Protecting its interests in the event of the debtor’s insolvency is not the creditor’s only possible motive for taking security. From the creditor’s point of view, security, when allied to enforcement rights often operative without recourse to the courts, gives the creditor the opportunity to take speedy measures to abate future losses. A secured creditor, moreover, is able to control the affairs of the debtor at critical moments and is equipped with the means to monitor the affairs of the debtor.<sup>111</sup>

It is accepted that immediately after the just-quoted passage it is noted that ‘control and monitoring needs’ can be provided for by ‘detailed financial covenants, coupled with rigorous events of default clauses’.<sup>112</sup>

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105 Michael Bridge, *Personal Property Law* (4th edn, Clarendon Press 2015) 169: it is ‘well settled’ that ROT sellers ‘retain the general property and not some unnamed security’. See e.g. *McEntire v Crossley* [1895] AC 457.

106 Sarah Worthington, *Proprietary Interests in Commercial Transactions* (Clarendon Press 1996) 2.

107 Magda Raczynska, *The Law of Tracing in Commercial Transactions* (OUP 2018) 144: ‘Security interests and title-based interests are proprietary interests asserted in assets, not value, even though upon their enforcement, they are realized through sale and realization of the current market value’.

108 cf Worthington (n 106) 2: ‘property is concerned with control over access to the benefits of resources’.

109 In this sense the ROTC is more than a mere seller’s lien, which is waived by implication in credit sales. For an illustration of the importance of this capacity, see e.g. *Re Galway Concrete Ltd* [1983] ILRM 402, 406 (Keane J): ‘Its objects would be wholly frustrated if the owner was not entitled to repossess the chattels in the event of a default in payment on the part of the buyer or, at the very least, in the event of a repudiation on the part of the buyer of the agreement’, cited by Davies (n103) 78-79. See also John de Lacy, ‘The Evolution and Regulation of Security Interests over Personal Property in English Law’ in John de Lacy, *The Reform of UK Personal Property Security Law* (n 25) 5-7 (noting inter alia how it is possible, if rare, for parties to protect themselves in this way).

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110 J de Lacy, ‘Romalpa theory and practice under retention of title in the sale of goods’ (1995) 24 *Anglo-American Law Review* 327, 349 fn 75. Others put it by means of implication, often leading to some uncomfortable assertions: Davies (n 103) 124: ‘The emphasis on property reservation allows the owner to seize the property should the debtor fail in one of his primary obligations, especially the payment of the price. Essentially, the only commercial purpose of property retention is to ensure priority: the supplier is not retaining the asset himself but rather the right to use the asset to gain payment of the debt to him’. Here the first sentence (a repetition of that at 70) clearly allows for the possibility of an obligation other than price. The second sentence must thus be understood as a normative claim and thus can be qualified. Instead of ‘the only commercial purpose’, it might be better to have said the *main* commercial purpose. Other purposes, of substantial commercial value, may exist.

111 Hugh Beale and others, *The Law of Security and Title-Based Financing* (3rd edn, OUP 2018) [1.09]. Compare the qualified language in other older texts, e.g. Henry Aitken, *The Principles of the Law of Sale of Goods* (Edinburgh, E & S Livingstone 1921) 61: ‘[The seller] desires to retain the property until the price is paid or some other condition has been performed by the buyer ... The object of receiving the right of disposal of the goods is generally to secure that the price shall be paid before the property passes’ (emphasis added).

112 *ibid*.

However, in line with the caveat noted at the outset of this article,<sup>113</sup> there is no claim here that the ROTC approach is the only possibility. What is suggested is simply that the ROTC approach may be used to provide the necessary control to the supplier, such that they can attempt to prevent waste plastics from being disposed of by down-chain users so that they can present their transactions as being circular economics compliant. Nevertheless, it is suggested that the ROTC approach might have some benefits compared to, say, 'detailed financial covenants' due to the simplicity of the ROTC. Rather than having to ascertain (and negotiate) the covenants, the ROTC offers a 'ready-made' mechanism that enables the seller to maintain that level of control necessary for circular economic transactions; the ROTC provides a lower transaction-cost mechanism.

There is however a noticeable lack of clarity as to the extent of non-financial conditions that an ROTC could introduce. The ROTC case-law is, perhaps unsurprisingly, overwhelmingly concerned with financial conditions. The lack of guidance requires the development of an appropriate condition that may be used as part of an ROTC in order to achieve the type of control that this article suggests is possible. The condition could take this form: 'In order to comply with the principles of circular economy, title to all goods, including products of processes involving such goods, will be retained by the owner until the goods are transferred to an authorised third party for the expressly agreed purpose of treating the goods as a waste product for the purposes of the Waste Directive'. This example is merely illustrative, and the possible variations will depend on a wide range of factors. Different types of commercial situations will of course require additional, or different, variations on this. The preamble aspect, reflecting circular economic principles, is something of a flourish than anything else (especially in the absence of any specific legal formulations as to 'principles of circular economy'). Nevertheless, what it can provide is evidence of contractual intention, in particular, an intention to retain title for a purpose other than the common

understanding of ROTC as securing against buyer insolvency per se. Doing so will be valuable in aiding courts to see how the parties are trying to avoid the pitfalls that can be created when parties attempt to reach into the financial value of products (rather than the objects themselves). Further evidence could be specified by explicit reference not only to a power to recapture, but by additional explanatory language regarding the purpose of such recapture (e.g. to prevent surplus going to waste, or indeed to take surpluses as waste, depending on the factual matrix).

Thus, we can see that ROTC can provide a mechanism (though it is not the only possibility) for the implementation of circular economic practices. The seller can retain a title to plastics, and by doing so, they retain the capacity to either direct the usage of the goods or, in the event that the use or treatment of the goods by down-chain parties is not in accordance with the conditions of the initial ROT transaction, they can recapture the goods. They have this power because they have the legal title to the goods, and as such this gives the ROT seller power to repossess the goods in the event of breach of the ROTC (in contrast to mere personal rights against the ROT buyer).<sup>114</sup>

Now it may well be that this title may be transferred by virtue of an exception to the basic rule *nemo dat quod non habet*;<sup>115</sup> the ROT buyer may qualify as a buyer in possession and thus their dispoonees may be able to acquire a title to the goods by virtue of the Sale of Goods Act 1979, section 25: buyer in possession exception. Two issues arise from this.<sup>116</sup> First, this protection for sub-purchasers may not actually be available in such cases. This is the consequence of the reasoning in *Re Highway Foods*. There it was held that

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114 cf *Worthington* (n 106) 16 noting that the buyer is in control, in the sense that title will pass if the buyer pays the price (or, for these purposes, does whatever condition is required). But, as *Worthington* rightly notes (at fn 50), the buyers 'control' is really a consequence of the contractual provisions. These provisions are likely to be determined by the seller: J R Bradgate, 'Reservation of Title Ten Years On' [1987] Conv 434, 444.

115 Sale of Goods Act 1979, section 21.

116 There are other issues, discussed with clarity in *Raczynska*, *Law of Tracing* (n107) 74-110.

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113 See text following (n 23).

because the transactions were on ROT terms, there was at best only an 'agreement to sell', and as such the Sale of Goods Act 1979, section 25 buyer in possession exception was not applicable.<sup>117</sup> Second, even if the *Re Highways Food* approach is incorrect,<sup>118</sup> then it may well be questioned whether or not the effect of the ROTC is to take the transaction outside the scope of the Sale of Goods Act 1979 altogether. This is the possible implication of the decision in *Bunkers*, and that is discussed further below.<sup>119</sup> This article though will put to one side the potential complications of the English *nemo dat* law for circular economics, and will consider instead the problems that are central to the ROT transaction itself. Specifically, it needs to be considered whether and to what extent the potential control that comes from retained title can actually be extended through to sub-disponees.

Until 1976, and the decision in *Aluminium Industrie Vaassen BV v Romalpa Aluminium*,<sup>120</sup> 'the notion of retention of title was in virtual abeyance'.<sup>121</sup> In cases following the (in)famous *Romalpa* decision,<sup>122</sup> a division between 'simple' and 'extended' ROTC arose. Simple ROTC involves sellers retaining ownership of goods supplied to one another. Such clauses operate as functional security interests, but they are not formal security interests (because they involve the retention

of title, rather than the grant of an interest).<sup>123</sup> Because ROTCs 'have little practical utility if the goods have a short commercial life',<sup>124</sup> parties have tried different forms of extended ROTC: the basic type involves a seller attempting to retain an interest in the supplied product even after it has been through a manufacturing process by the buyer.<sup>125</sup> The danger with extended ROTC is that they may be recharacterized as a charge, granted by the buyer, and (invariably) void for want of registration. This distinction between simple and extended ROTC thus has an obvious impact on how best to structure circular economic commercial transactions involving plastics, especially the utilisation of waste plastics as recyclates. Consider the following:

New plastics are created by Company A. Company A has signed up to engage in CE practices, and the ROTC it utilises attempts to introduce elements of CE practices, specifically providing Company A with what it believes to be an element of control down the chain of transactions. By retaining title, it hopes to be able to prevent plastics being used inappropriately (including disposal as waste). Furthermore, it hopes to be able to re-acquire the plastics for re-use in the event that their disponees have surplus plastics. The clause is of the nature set out above: 'In order to comply with the principles of circular economy, title to all goods, including products of processes involving such goods, will be retained by Company A until the goods are transferred to an authorised third party for the expressly agreed purpose of treating the goods as a waste product for the purposes of the Waste Directive'.

Company A sells plastics on to Companies B, C and D. Company B uses plastics directly with other goods (in the manufacture of widgets); C uses plastics directly,

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117cf Louise Gullifer, 'Exceptions to the *nemo dat* rule in relation to goods and the Law Commission's proposals in the Consultative Report' in John de Lacy, *The Reform of UK Personal Property Security Law* (n 25) 188, 193: these sort of cases are 'theoretically covered' by the Factors Act 1889, section 9.

118 See Sean Thomas, 'The Role of Authorization in Title Conflicts Involving Retention of Title Clauses: Some American Lessons' (2014) 43 *Common Law World Review* 29.

119 See text following n 215.

120 [1976] 1 *WLR* 676.

121 de Lacy, 'Romalpa theory' (n 110) 329.

122 *Re Bond Worth Ltd* [1980] Ch 228; *Borden (UK) Ltd v Scottish Timber Products Ltd* [1981] Ch 25; *Hendy Lennox (Industrial Engines) Ltd v Grahame Puttick Ltd* [1984] 1 *WLR* 485; *Clough Mill Ltd v Martin* [1985] 1 *WLR* 111 (CA); *E Pfeiffer Weinkellerei-Weineinkauf GmbH v Arbutnot Factors Ltd* [1988] 1 *WLR* 150; *Compaq Computer Ltd v Abercorn Group Ltd* [1991] BCC 484; *Armour v Thyssen Edelstahlwerke AG* [1991] 2 AC 339.

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123 *McEntire v Crossley Brothers Ltd* [1895] AC 457, 462 (Lord Halsbury LC); *Clough Mill v Martin* [1985] 1 *WLR* 111, 120-121 (Robert Goff LJ); *Armour v Thyssen Edelstahlwerke AG* [1991] 2 AC 339, 353 (Lord Keith), 354 (Lord Jauncey). For comparison with the US position see Gerard McCormack, *Secured Credit under English and American Law* (CUP 2004) ch 6.

124 Beale and others (n 111) [1.23].

125 cf Gerard McCormack, *Reservation of Title* (2nd edn, Sweet & Maxwell 1995) 2 (five types of ROTC: simple, current account; extended; tracing; and aggregation).

without other goods (in the manufacture of different types of plastic); D uses plastics indirectly (as moulds necessary for the production of doodads). Company E is a plastics recycler, receiving surplus and waste plastics from Companies A, B, C and D. Company E sells the recycled plastics back to the four mentioned companies, as well as to other third parties. At this stage it should of course be noted that the determination of each case will depend on the specific nature of the particular clause,<sup>126</sup> and the transaction as a whole.<sup>127</sup> The specific transactions will no doubt each have substantial documentation, including that relating to financing as well as other commercial issues. However, it remains a sufficiently simple and precise point to ask, to what extent can Company A control the use of goods it has supplied using ROTC? Conversely, to what extent is Company A able to rely on the ROTC to keep the surplus and waste plastics out of Company E's control?

The answer to these questions is depends on three aspects of ROTC law. First, there is the danger that without careful framing of the retention of title, the transaction may be characterised as a charge (and inevitably void for non-registration). Second, the transformation of the goods may be such that any title that the seller had in the goods is lost in favour of the buyer-manufacturer. Third, to what extent is it possible for parties to actually agree between themselves such that the title is retained by the seller even though the buyer processes the goods? The main focus here is on the second and third aspects. To illustrate the problems, we can look at *ICI New Zealand v Agnew*,<sup>128</sup> a decision of the New Zealand Court of Appeal, on facts which are especially relevant to the specific focus of this article,<sup>129</sup> i.e., the capacity of English law to provide mechanisms that enable circular economic practices involving plastics to operate so as

to reduce wastage. *ICI New Zealand v Agnew* involved plastic pellets that were transformed into containers; a process that did not require additional materials but only the 'application of energy to the pellets, and the use of expensive machinery'.<sup>130</sup> The New Zealand Court of Appeal held it 'an unanswerable conclusion that pellets which were used to produce the container had lost their original identity – namely their identity as pellets. It cannot matter that they can be reconverted back to that identity, even assuming that could be a practical exercise. The question requires a common-sense answer'.<sup>131</sup> The (allegedly) common-sense answer was that the plastic contain was different to the pellets. Thus, any attempt to use an ROTC to provide control over the processed goods would be unsuccessful.

Unfortunately, stating that this question 'requires a common-sense answer' appeared to be the extent of the reasoning: it appears the Court was persuaded by counsel presenting them with a container, made of the pellets, which was itself full of the pellets. This appeared to be enough to convince the Court that the pellets' identity was lost; they were 'completely different in form'.<sup>132</sup> This seemed to be the determinative factor, as opposed to counsel's suggestion that a number of other factors should be accounted for, namely the reversibility of the process, the lack of admixture with other goods, the intention of the parties, and the 'limited extent of the change in physical appearance'.<sup>133</sup>

This decision thus stands headfast against any attempts to develop a circular economics approach to plastics, where such an approach relies on the retention of ownership in the seller-initiator of the circular economic transaction and that the seller-initiator can use this retained ownership right in order to control the use of the plastics down a chain of transactions, so as to prevent wastage and/or to recapture surpluses. It will be seen in the remainder of this sub-section that it is possible to argue that changes in goods

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126 *Re Bond Worth Ltd* [1980] Ch 228; Beale and others (n 111) [4.22].

127 *Agnew v Commission of Inland Revenue* [2001] AC 710; *Helby v Matthews* [1895] AC 471; Beale and others (n 111) [4.21].

128 [1998] 2 NZLR 129.

129 It is worth noting that this case is not mentioned at any point in Raczynska (n 107).

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130 [1998] 2 NZLR 129, 130 (Henry J).

131 *ibid* 135 (Henry J).

132 *ibid* 134-135 (Henry J).

133 *ibid* 134.

wrought by a manufacturing process might not lead to a loss of title. Specifically, it will be suggested that the decision in *ICI New Zealand v Agnew* should not be followed rigidly, thus opening a space for plastics suppliers to use ROTCs to cover the products of plastics reprocessing.

The balance between the material effects (i.e. the change to the original goods in the manufacturing process) and the contractual agreement 'is not entirely settled',<sup>134</sup> and the key test seems to be whether the original goods have 'lost their identity'.<sup>135</sup> This makes it sometimes difficult to draw the line between [cases where goods have lost their identity] and those (few) cases ... where the goods have 'merely' been processed and have not lost their identity. No clear principle has yet emerged from the cases, which merely assert that the original goods have (or have not) 'lost their identity' and/or have been 'transformed' into a 'new product' ... Nevertheless, it has been suggested that, contractual provisions apart, whether the supplier's title is lost or retained in the product should depend on 'economic realities' and 'issues such as whether reversing the process is economically realistic, and whether the goods have increased in value to make them a qualitatively different thing'. A cursory survey of the cases certainly suggests that if the processing increases the value of the original goods significantly, then the supplier's title is lost and this accords with an understandable reluctance to confer a 'windfall' on the supplier by holding that the more valuable products are still his.<sup>136</sup>

This extensive quotation is necessary to demonstrate the lack of clarity on the law.<sup>137</sup> There are divergent views on this matter. *Benjamin's Sale of Goods* goes slightly further in cautiously accepting the potential

effect of party intention, as well as acknowledging that numerous factors may play a role in the determination.<sup>138</sup> Davies implicitly indicates that the specific agreement may be determinative,<sup>139</sup> and Worthington takes a similar view.<sup>140</sup> De Lacy has strongly argued that if goods supplied are subjected to a process that can be reversed without material damage, then an ROTC will be effective to allow the seller to recover the property on the buyer's default.<sup>141</sup> Furthermore he argued that, 'It is clear from the reasoning [in *Clough Mill*] that there was no legal principle preventing effect being given to a stipulation that title to manufactured products vested with the supplier ... it remains open to the parties to expressly cater for the buyer's input into the finished product'.<sup>142</sup>

On the other hand, Raczynska argues that whilst there may be considerable freedom of contract, it is not an 'absolute' freedom and 'must be accommodated within

134 Citing *Clough Mill Ltd v Martin* [1985] 1 WLR 111, noted above (n 175).

135 Beale and others (n 111) [7.13].

136 *ibid* [7.15]. The suggestion about 'economic realities' is supported (at fn 105) by reference to Duncan Webb, 'Title and Transformation: Who Owns Manufactured Goods?' [2000] JBL 513, 540.

137 See also McCormack, *Reservation of Title* (n 125) ch 3, and 122-127.

138 M G Bridge (gen ed), *Benjamin's Sale of Goods* (10th edn Sweet & Maxwell 2017) (*Benjamin*) [5.151]: 'the question whether or not goods which are still identifiable, but have to a greater or less extent been worked on by the buyer or incorporated in other articles, remain the property of the seller would seem to depend upon what intention is to be imputed to the parties, having regard to such factors as the nature of the goods, the product, the degree and purpose of incorporation, and the manufacturing or other process applied'.

139 Davies (n 103) 32: 'There is no doubt that the approach taken by the Court of Appeal in *Clough Mill* and the House of Lords in *Armour* restores the lustre of retention of title clauses to suppliers of goods. One reason for this is that great emphasis was placed upon the agreement between the two parties as determining the issues. ... Although it was not really at issue in *Clough Mill*, both Robert Goff and Oliver LJ held at common law property in new goods made by material supplied could vest in the supplier so long as there was an agreement to this effect'.

140 Worthington (n 106) 14: it is possible, though not probable, and the necessary intention needs clear manifestation. See also, at 142, fn 128: the rules on *specification* are only relevant in the absence of contrary contractual agreement as to the location of title in manufactured products. It is also worth pointing out that Worthington also correctly noted (at 32) that windfall arguments against the seller having rights in products 'ought to be irrelevant'.

141 de Lacy, 'Romalpa theory' (n 110) 351.

142 de Lacy, 'Romalpa theory' (n 110) 355-356.

the existing legal framework which contains various limits' especially concerning property distribution rules.<sup>143</sup> Webb, whose work appears particularly influential,<sup>144</sup> goes even further in reifying rules of property over party intention. He argued that although 'courts have taken the view that there is no conceptual bar to such a contractual clause having the effect contended', 'such an approach is artificial and results in considerable inconsistencies',<sup>145</sup> 'inconsistencies in[...] the relationship between the law of contract and property which are unacceptable'.<sup>146</sup> The 'traditional analysis that any title in new goods must necessarily be acquired from the manufacturer, as that is where the title as a matter of law resides' has 'the advantage of simplicity. It requires no reformulation or addition to existing rules of law. It is consistent with and follows from the basic premises of property law'.<sup>147</sup>

Two responses can be made to this claim. First, it rests on the idea that property rules should not be susceptible to contractual manipulation. The problem here is that Webb's approach to this idea is rather absolutist, yet such a claim cannot be seriously held as applying without exception. Contractual agreements can and do have the effect of altering proprietary rights and interests; indeed contracts are one of the few ways by which we can voluntarily alter proprietary rights. Why should they not have such an effect in cases involving the production of goods? Furthermore, adherence to this absolute priority of property over contract has the effect of trying to do too much. It is not the purpose of this article to argue that there should not be any possibility of property rules providing the structure for transactions and that everything should simply be a riot of contracting. Instead, it is merely suggested that at the edges of the doctrine's application the strictness of Webb's approach starts to break down. This is arguably alluded to by Raczynska, who concludes her chapter on loss of

proprietary interest in an asset by stating that '[n]one of the events discussed here allow the parties to prevent the loss of proprietary interest by a stipulation in contract, although in a number of events there is flexibility for parties to provide for a proprietary response after the event, for example in the case of manufacture'.<sup>148</sup> This is typical of the general tenor of the literature, which is an accurate reflection of the case-law; a position Webb essentially dismisses with the claim that property rules must always defeat contractual agreement. The point is simple: the courts have accepted that in principle parties can contractually agree as to the location of proprietary interests post-manufacture.<sup>149</sup> Webb claimed that the fact that courts have 'invariably strained to prevent such clauses from operating by placing impossibly high requirements on them, thereby preventing the parties from implementing their contractual intentions', indicates the practical unworkability of such clauses.<sup>150</sup> However, it is suggested that this should be turned on its head. A better reading of the cases is that courts are trying to point out what needs to be done by contracting parties: the requirements imposed are not 'impossibly high'.<sup>151</sup>

The second response to Webb's approach is fundamentally a policy-driven argument. Webb suggests that favouring the contractual approach would generate practical problems. Thus, he states that a manufacturer could argue that it vests its goods directly in its customers: this would mean there would not be a sale.<sup>152</sup> It should be recognised that this is actually a policy argument, not a practical one. The policy that Webb is arguing for is that manufacturers should not be allowed to argue that they have not

143 Raczynska (n107) 204.

144 Webb (n 136). As to its influence see Beale and others (n 111) [7.16] fn 113.

145 Webb (n 136) 514.

146 *ibid* 531.

147 *ibid* 532.

148 Raczynska (n 107) 112. See also at 179: An ROTC 'could be interpreted as a contract whereby the parties intend that the seller becomes the owner of the products manufactured ... there is nothing that prevents the contributors to the joinder from agreeing to depart from the default rule ... Whether the agreement departs from the default rule, and the extent to which it does, is a matter of construction of contract'.

149 cf Raczynska (n 107) 180, noting how this approach 'allows greater respect for freedom of contract'.

150 *ibid* 539.

151 cf Worthington (n 106) 32: it is theoretically possible.

152 *ibid* 536-537.

sold their goods. However, in light of the policy underlying circular economics, this needs to be rethought. That the absence of a sale is inherently within the conceptual structure of circular economic practices, which rests solidly on the idea that there will merely be contracted-use as opposed to any transfer of property, should be clear. It may well be that there is something intrinsically revolutionary about the idea that a contractual agreement can operate to vest title in a supplier rather than a manufacturer. However, radical, if not outright revolutionary, thinking will be needed to deal with plastics in circular economics. If it is the case (and it is acknowledged that the following is inherently controversial for any lawyer, including this writer) that circular economics will require a move away from an ownership-central economy to one that rests on contracted-use, a system where product-as-service is the governing reality, then something will have to give in the face of the practical commercial reality that such new forms of goods-transactions will become dominant.<sup>153</sup> What could and perhaps should give is the idea that ownership rights to inputs must necessarily be extinguished at each instance of a manufacturing step. There is no clear way by which suppliers of plastics will be able to control the use of the plastics if every time the plastics are modified into a different form, the original title is extinguished: this is clear from the decision in *ICI New Zealand v Agnew*.<sup>154</sup> To continue with this approach is to necessarily accept that the manufacturing process is linear, one of creation

and destruction. Therefore, something different is needed.

Policy arguments can be adduced to justify, normatively, a change in our approach. Furthermore, such a change is arguably not as doctrinally impossible as Webb suggests. What follows is a closer examination of the doctrine than that usually found in the literature, in the sense that it focuses directly and specifically on the capacity to extend into products, but not for the purpose of protecting against insolvency. In simple terms, we are at this point looking to see *whether* it is possible in English law.

*In re Bond Worth* involved an attempt to use a ROTC to maintain an interest in yarn being used in carpet production.<sup>155</sup> The seller, Monsanto, had failed to provide any restriction on Bond Worth dealing with the yarn; the ROTC was essentially meaningless 'so long as Bond Worth remained apparently good for the money'.<sup>156</sup> Monsanto argued that they had retained 'equitable and beneficial ownership', but Slade J said that the particular terms were such that 'the proper manner of construing the retention of title clause, together with all the other relevant provisions of the contracts of sale read as a whole, is to regard them as effecting a sale in which the entire property in the Acrilan passes to Bond Worth followed by a security, *eo instanti*, given back by Bond Worth to the vendor, Monsanto'.<sup>157</sup>

In *Borden (UK) Ltd v Scottish Timber Products Ltd*, the claimant's title to the resin ceased when the resin was irretrievably incorporated with woodchips during the manufacture of chipboard.<sup>158</sup> Bridge LJ concluded that:

[i]f a seller of goods to a manufacturer, who knows that his goods are to be used in the manufacturing process

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153 There is a vast literature on the role of policy in (private) law; here only two indicative references will be made. First, Bradgate, 'Reservation of Title Ten Years On' (n 114) 443-444: 'academic quibbles should not prevent the law responding to changing commercial practices in a commercially and socially desirable way'. Second, Karl N Llewellyn, *Cases and Materials on the Law of Sales* (Callaghan 1930) 568: implicitly noting the contradiction between (i) 'fairness in court can be achieved only by taking the policy considerations of the case into consideration' and (ii) '[c]onsiderations of policy – especially any single writer's views on policy – is no substitute for the positive law'. The point here is simply that we cannot dismiss arguments of policy on the basis that they are arguments of policy, nor should we avoid the issue by dressing up arguments of policy as something else.

154 [1998] 2 NZLR 129.

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155 [1980] Ch 228.

156 *ibid* 244.

157 *ibid* 256.

158 *Borden (UK) Ltd v Scottish Timber Products Ltd* [1981] Ch 25, 44 (Templeman LJ): 'When the resin was incorporated in the chipboard, the resin ceased to exist, the plaintiffs' title to the resin became meaningless and their security vanished'.

before they are paid for, wishes to reserve to himself an effective security for the payment of the price, he cannot rely on a simple reservation of title clause such as that relied upon by the plaintiffs. If he wishes to acquire rights over the finished product, he can only do so by express contractual stipulation. We have seen an elaborate, and presumably effective example of such a stipulation in [*Romalpa*]. An attempt to acquire rights over the finished product by a stipulation which proved ineffective for want of registration ... is to be seen in [*In re Bond Worth*].<sup>159</sup>

The clear implication is that ‘express contractual stipulation’ would suffice to extend control over processed products. Three years later came *Re Peachdart*,<sup>160</sup> where Vinelott J held it ‘impossible to suppose that ... the parties intended’ for the seller to have the right to take leather that had partly or completely been produced into handbags.<sup>161</sup> This was partly because there was no condition in the sale agreement that records of each manufactured handbag be kept, nor was there any other evidence that the parties even contemplated this possibility.<sup>162</sup> Vinelott J also accounted for the alteration in the values of the raw materials, with a tipping point occurring when the leather lost its value as a raw material due to it being worked on.<sup>163</sup> He further held that the contract drafter had failed to delineate between a sale on ROT terms and the generation of a charge.<sup>164</sup>

The Court of Appeal in *Clough Mill Ltd v Martin* would deal with ROTC over yarn used in fabric manufacturing.<sup>165</sup> Robert Goff LJ was willing to follow Vinelott J’s judgment in *Re Peachdart*,<sup>166</sup> and

was of the opinion that whilst in cases where A’s goods are used by B to create new goods, the ‘property in the new goods will generally vest in B, at least where the goods are not reducible to the original materials’.<sup>167</sup> This ‘generally’ bears some weight, as Robert Goff LJ immediately implied: ‘it is difficult to see why, if the parties agree that the property in the goods shall vest in A, that agreement should not be given effect to’.<sup>168</sup> What is interesting is how in the literature this position appears to have been flipped. Whilst Robert Goff LJ noted the difficulty of seeing why the agreement should not be given effect, commentators have tended to talk of the difficulty of seeing why the agreement should be effected.<sup>169</sup> Yet it must be accepted that a properly-drafted ROTC could provide for such an event;<sup>170</sup> what seems necessary is a way to account for

the possibility that the buyer may have paid part of the price for the material, but also that he will have borne the cost of manufacture of the new goods, and may also have provided other materials for incorporation into those goods; and the condition is silent, not only about repaying such part of the price for the material as has already been paid by the buyer, but also about any allowance to be made by the plaintiff to the buyer for the cost of manufacture of the new goods, or for any other material incorporated by the buyer into the new goods.<sup>171</sup>

Robert Goff LJ thus found it

impossible to believe that it was the intention of the parties that the plaintiff would thereby gain the

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159 *ibid* 42.

160 *Re Peachdart Ltd* [1984] Ch 131.

161 *ibid* 142.

162 *ibid*.

163 *ibid* 142-143.

164 *ibid* 143.

165 *Clough Mill Ltd v Martin* [1985] 1 WLR 111.

166 *ibid* 120.

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167 *ibid* 119, citing *Bl Comm* (17th ed 1830) vol 2, 404-405.

168 *Clough Mill Ltd v Martin* [1985] 1 WLR 111, 119.

169 See eg Raczynska (n 107) 179: ‘Courts are very unlikely to find that, as a matter of construction of the parties’ agreement, parties intended that the seller should have ownership of the product’.

170 As implied in Davies (n103) 32, 70.

171 *ibid* 120.

windfall of the full value of the new product, deriving as it may well do not merely from the labour of the buyer but also from materials that were the buyer's without any duty to account to the buyer for any surplus of the proceeds of sale above the outstanding balance of the price due by the buyer to the plaintiff.<sup>172</sup>

Yet Oliver LJ also noted that the case itself did not actually concern the problems of manufacturing,<sup>173</sup> and thus Robert Goff LJ's comments can only really have been obiter. This means that the actual specifics of the content of a ROTC which effectively reaches into products are not necessarily those set out by Robert Goff LJ. Coming back to the point of principle, it was clear that while Oliver LJ appeared to accept that the production of a new thing would mean that any attempt to retain title was futile,<sup>174</sup> this was not an absolute rule:

English law has developed no very sophisticated system for determining title in cases where indistinguishable

goods are mixed or become combined in a newly manufactured article and, to adopt the words of Lord Moulton in *Sandeman & Sons v Tyzack & Branfoot Steamship Co.* [1913] A.C. 680, 695, 'the whole matter is far from being within the domain of settled law'; and though, like Sir John Donaldson MR, I prefer to reserve my opinion, I am not sure that I see any reason in principle why the original legal title in a newly manufactured article composed of materials belonging to A and B. should not lie where A and B. have agreed that it shall lie.<sup>175</sup>

Later cases have adopted the same approach. *Modelboard Ltd v Outer Box Ltd* might appear to be of particular interest as there the contract provided that the buyer was 'licensed ... to process the goods' and that the products should be marked as being made with the contracted goods, and admixtures were to be considered the seller's 'sole and exclusive property'.<sup>176</sup> Unfortunately though, the implications of this license were not considered – later in this article it will be considered whether the use of licenses as a means to resolve the problems arising in the ROTC context may work.<sup>177</sup> Coming back to the specific decision, Michael Hart QC, sitting as a deputy High Court judge, could 'see no reason why the plaintiff should not retain property in the board so far as it remained identifiable notwithstanding its having had value added to it by the plaintiff's labour and materials, if that is what the contract on its true construction provides'.<sup>178</sup> The earlier focus on the relevance of value added by third parties seems potentially blurred in light of the policy of upholding a commercially common sense construction of what the contracting parties agreed. Thus, in *Ian Chisholm Textiles v Griffiths*, where the claimant supplier of cloth argued for title in manufactured cloth products, David Neuberger QC held that:

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172 *ibid* 120. Sir John Donaldson MR was (at 125) '[s]o far as is material in deciding this appeal ... in complete agreement with the judgment of Robert Goff L.J.'. He did however allude to a multi-stage test for situations like this (though notably he said 'they are not the circumstances which exist in the instant appeal'). It is only if there needs to be assessment of whether or not there is a new product (consisting of the goods concerned and other material), that we need to 'determine who owned the product'. Once there has been such a determination, we can work out whether the owner is the seller or the buyer. If it is the buyer, then as a matter of law there is a charge. However, he failed to set out how this process of determining who owned the product is to be undertaken (as Oliver LJ said, at 124, on the uncertain issue of 'determining title in cases [of mixtures and new articles], 'like Sir John Donaldson MR, I prefer to reserve my opinion'), and it is not clear from the Master of the Roll's analysis whether this is a matter of law (in the sense of it being a necessary consequence of the mixing of the goods that it is the buyer who is the owner), or dependant on party intention (as suggested above, the Master of the Rolls' agreement with Robert Goff LJ's analysis implies the latter).

173 *ibid* 121.

174 *ibid* 123.

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175 *ibid* 124.

176 *Modelboard Ltd v Outer Box Ltd* [1992] BCC 945, 948 (Michael Hart QC).

177 Text following (n 228).

178 *ibid* 952.

While the rights of the parties under a retention of title agreement, just as under any other agreement, must depend upon the proper construction of the agreement concerned, it seems to me that there must be a strong presumption, essentially based on commercial common sense, to the effect that, in the absence of very clear words, the parties would not have intended [that title in the manufactured product remaining with the plaintiff].<sup>179</sup>

Notably though he went on to state that ‘I do not read [*Clough Mill* and *Re Peachdart*] as laying down as a matter of law that the construction for which the plaintiff contends is impossible ... [and that if the supplier is to not only retain title to his supplied goods but to obtain title to the manufactured product] very clear words must be used’.<sup>180</sup> It thus seems that the contractual specifics are still of considerable, and potentially determinative, force in ascertaining the rights in such cases; just not in this case.<sup>181</sup> Like in the earlier cases though, David Neuberger QC found it ‘a little difficult’ to see how the goods other than those supplied by the claimant which formed part of the manufactured product could be transferred to the claimant, because whilst ‘the extra items would not be of great value’, there was ‘added value’ coming from the defendants ‘design and workmanship and other treatment’.<sup>182</sup>

Two points should be noted here. First, the important extra ‘value’ is not in the financial value of the goods, but in the more inchoate value of the work done to the goods. Second, these cases involve combinations of supplied goods and other goods of a different nature resulting in the manufactured product. This

could have an impact on how the first point is really understood. It is thus not that there is extra work done on the goods, but rather, the added value comes from the work done in combining different types of goods.<sup>183</sup> This can perhaps be contrasted with the situation that might arise in the context of plastics waste recyclates. In such cases, the goods concerned are much closer in their inherent nature. The effect of this can be observed in considering cases where the goods concerned were worked on, but were not combined with goods of different types. Thus a distinction could be drawn between situations where goods were simply attached, in a reversible manner, to other goods,<sup>184</sup> or where goods were merely physically reshaped in such a way that they ‘retain their essential identity’,<sup>185</sup> and situations where the ‘original goods “lose their identity” and are used to create a new product’.<sup>186</sup>

A brief note at this stage can be made to *Chaigley Farms Ltd v Cranford, Kaye & Graysire Ltd*.<sup>187</sup> There the goods were live animals, which were then slaughtered. Counsel had followed the reference to Bracton and Blackstone, via Crossley Vaines,<sup>188</sup> in *Hendy Lennox*,<sup>189</sup> and argued that the issue was whether the goods were turned into a different ‘species’.<sup>190</sup> Thus grapes turning into wine would result in a loss of title (to the grapes), but a picked grape has not so turned into a different ‘species’; consequently a slaughtered animal remains

<sup>179</sup> *Ian Chisholm Textiles v Griffiths* [1994] BCC 96 (ChD) 101. <sup>180</sup> *ibid* 102.

<sup>181</sup> *ibid* 104: ‘In the instant case, there is simply no provision in the agreement dealing with the rights of the parties once the cloth is incorporated in an article with other goods’.

<sup>182</sup> *ibid* 102-103.

<sup>183</sup> As the quoted sentence in n 181181 implies: ‘once the cloth is incorporated in an article with *other goods*’ (emphasis added).

<sup>184</sup> Such as engines with identifying marks (serial numbers): *Hendy Lennox (Industrial Engines) Ltd v Grahame Puttick Ltd* [1984] 1 WLR 485, 494 (Staughton J).

<sup>185</sup> Such as cutting metal into sheets: *Armour v Thyssen Edelstahlwerke AG* [1991] 2 AC 339; or wood to logs: *New Zealand Forest Products Ltd v Pongakawa Sawmill Ltd* [1992] 3 NZLR 304.

<sup>186</sup> Beale and others (n 111) [7.13].

<sup>187</sup> [1996] BCC 957.

<sup>188</sup> E L G Tyler and N Palmer, *Crossley Vaines on Personal Property* (5th edn Butterworth 1973) 430.

<sup>189</sup> *Hendy Lennox (Industrial Engines) Ltd v Grahame Puttick Ltd* [1984] 1 WLR 485, 494 (Staughton J): ‘According to Bracton and Blackstone when a thing is changed into a different species, as by making wine, oil, bread or malt out of the grapes, olives, wheat or barley of another, the operator becomes the new owner thereof and is only liable (in damages) to the former proprietor for the value of the materials he has so converted’.

<sup>190</sup> [1996] BCC 957, 961-962.

of the same 'species'. However, Garland J said there was 'an inescapable difference between a live animal and a dead one, particularly a dead one minus hide or skin, offal, blood, bone, hoof horn and other parts not sold on as butchers' meat'.<sup>191</sup> What this case indicates though is not that there cannot be a case where there is no maintenance of the disputed goods as being of the same 'species', such that a ROTC can continue into products; rather, if there is such a situation then it will require special facts (and this case did not because the slaughter of animals did alter their 'species') and in particular a very precise contractual agreement to maintain the ROTC into the product.<sup>192</sup>

This loss of identity test would appear to cover the case of plastics: *ICI New Zealand v Agnew*.<sup>193</sup> However, in light of the preceding analysis, it is very difficult to square the decision in *ICI New Zealand v Agnew* with those cases which had held that a change in form (even

an irreversible change in form<sup>194</sup>) would not necessarily lead to a loss of identity. Furthermore, those cases which do illustrate a loss of identity involve either an irreversible change or an admixture. To be convinced by the fact that the product concerned can contain examples of the supplied goods, where the goods concerned are by their very name as *plastic* a type of material that can be formed and, importantly, *reformed*, is almost a perverse misunderstanding of the nature of the goods, i.e. plastics. To this it may be countered that the expense or limited technical feasibility of the reversal process may be enough to justify this distinction between supplies and products, on the grounds that in cases involving a manufacturing process have emphasised the addition of value through such a process.<sup>195</sup> Yet such an approach fails to account for the distinction in the process of reversion both in terms of feasibility (compare the technical *difficulty* of reverting plastic products back to plastic supplies, with the technical *impossibility* of reverting meat back to cattle, or wine to grapes), and in terms of inherent qualities of the material concerned – some plastics at least are specifically made in order to be reversionable.<sup>196</sup>

In conclusion, parties can, if they frame their agreements with sufficient precision and clarity, extend an ROTC claim into products. The fact that there is limited evidence of successful contracting of this nature must be considered just to be a consequence of insufficient drafting clarity rather than an issue of

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191 *ibid* 963.

192 *cf Re Weddel (NZ) Ltd* (1996) 5 NZBLC 104, 055 (New Zealand High Court), noted John de Lacy, 'Retention of Title and Claims Against Processed Goods: A Different Approach' (1997) 13(5) *Tolley's Insolvency Law and Practice* 163. The New Zealand High Court held that the supplier of live animals could assert title to the products of slaughter. In following *New Zealand Forest Products Ltd v Pongakawa Sawmill Ltd* [1992] 3 NZLR 304, Gallen J said there process of slaughter had not changed the nature of the stock, which had not lost its identity. For de Lacy, this decision shows 'a fundamental difference in approach' between English and New Zealand courts, and that 'in New Zealand any manufacturing process that does not involve the addition of extraneous material to the end product will not cause title to be transferred from seller to buyer. The labour, industry and associated costs necessary to bring about the manufacturing or other process are, apparently, to be disregarded in deciding the question of the location of title'. In this regard de Lacy suggests that 'the key to reconciling this divergence of approach is an understanding of the economic, social and geographic policy divides which have emerged over time between the two jurisdictions and are now beginning to manifest in their respective common laws'.

193 [1998] 2 NZLR 129.

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194 *New Zealand Forest Products Ltd v Pongakawa Sawmill Ltd* [1992] 3 NZLR 304, 309 (Richardson J): 'goods worked on retain their identity must depend on the nature and extent of the work permitted to be done and actually done ... Here the goods supplied were logs; they were sawn to provide sawn timber ... There is no suggestion that the processing was extensive or expensive... Importantly the processing simply modified the form of the logs which as sawn timber retained its essential character. In that regard we cannot discern any significant difference between the timber in this case and the steel in *Armour v Thyssen*'.

195 See eg *Modelboard Ltd v Outer Box Ltd* [1992] BCC 945, 952, noted at n 178.

196 The fact that some plastics cannot be reformed is neither here nor there as to the general point. As to the potential for plastics recycling under current and potential future technical feasibility, see generally Rethinking the Future of Plastics (n 60).

principle.<sup>197</sup> The problem in *ICI New Zealand v Agnew*, for example, is that the seller's terms were of general application for the sale of all types of goods (imprecision as to the specific assets).<sup>198</sup> On the other hand, claims to 'equitable and beneficial ownership', such as in *In re Bond Worth*, are insufficient, because the extent of such a claim is unclear and imprecise (as to the nature of the claim). It is also strongly arguable that whilst giving any authority to sub-sell the goods will itself explode any competing term attempting to retain ownership past that point, this is also just the impact of imprecise contracting (imprecise due to contradiction). Thus, it can be suggested that there is no inherent difficulty with the possibility of a seller extending into manufactured products, especially where there are no other goods involved in the manufacture. The test depends on the content of the agreement between seller and buyer.

Having identified at least some of the seemingly more secure boundaries limiting the extent of an ROTC, it is now possible to ascertain what an acceptable ROTC which extends into products might look like. Earlier it was noted that an ROTC will need to prevent dispositions unless of a specific authorised nature, but that formulating anything more specific will depend on the particular factual matrix of the

transaction.<sup>199</sup> This makes it essential to recognise that the best example here will necessarily be rather vaguer than those which practical application might generate.

Using the example ROTC from *ICI New Zealand v Agnew*, we can see that ownership would remain with the seller if the goods retained their identity (clause 10.1). If there was a change (though it has been argued above that this was not that case there), then the clause pertaining to such events (clause 10.2) rested on the financial relationship between the parties. If as suggested above, there is nothing preventing an ROTC from being created without reference to the financial aspect, then it is possible to sidestep the difficulties raised by attempting to ascertain the pro-rata (or otherwise) relationship between the buyer's debt and the processed goods. There are other factors though that Henry J identified as demonstrating that clause 10.2 actually created a charge. It is suggested that changes to these factors, through explicit contractual language, would create an ROTC that would enable control of the goods. Henry J stated that, in addition to the (now sidestepped issue of indebtedness), '[s]eparate, and thereafter continuing, identification would be required', but for him, 'such an exercise was obviously never intended and would also be quite unworkable'.<sup>200</sup> Moreover, as a practical aspect, enhanced tracking of goods is essential to achieving the overarching aims of circular economics,<sup>201</sup> even if it does remain somewhat technologically challenging.<sup>202</sup> Nevertheless, it is possible that progress will be made,<sup>203</sup> and combined these changes in the broader commercial context suggest that parties explicitly engaged in circular economic practices would explicitly intend for separate and continuing

197 See eg *ICI New Zealand v Agnew* [1998] 2 NZLR 129, 135: 'we accept as a matter of principle that in some circumstances contracting parties can effectively agree that legal title to a manufactured article can vest in one of them when the article comes into existence'.

198 [1998] 2 NZLR 129, 134 (Henry J). Cf Beale and others (n 111) [7.17] fn 122: 'the judge regarded the issue as one of construction of the contract, leaving open the possibility that it is possible for a supplier to acquire title to the product otherwise than by way of charge'. The phraseology used possibly shows an unconscious denial of the possibility that title to products could be detained. It should be clear that the supplier is *retaining* title, not *acquiring* title: this subtle and revealing shift has the effect of incorrectly flipping the argument, in a way that clearly does unacceptable violence to the agreement of the parties concerned; unacceptable because it is a clear contradiction not only to the agreement in and of itself but also because it substitutes the suppliers actual argument (for retention of that which was originally theirs) to something quite different (for acquisition of something that was not originally theirs).

199 See text following (n 113).

200 [1998] 2 NZLR 129, 135.

201 See eg EC (n 10) 11: policy recommendation to set up a 'coordination mechanism, combining technical, commercial and behavioural expertise, for tracking material flows and renewable feedstock inventories, and for strategic long-term investments in plastics production, collection, sorting and recycling infrastructure across Europe'.

202 EC (n 10) 104-105.

203 See eg EC (n 10) 109, recommending funding to develop tracking technologies.

identification of goods within a circular economic transactional structure.

Furthermore, Henry J stated that the ROTC had ‘no prohibition against incorporating other materials into a manufacturing process’.<sup>204</sup> Thus a circular economic-compliant ROTC would have such a prohibition. Processes which utilise other goods will need to be accounted for though. It is not entirely clear what the best way forward may be in such situations. It is possible for parties to agree to a joint ownership though,<sup>205</sup> so there would be nothing in principle against an ROTC that explicitly outlines a potential joint ownership situation in such an event. It may however not be possible to avoid a third party refusing to enter such an agreement, and it must be considered that that would be outside the boundaries of a circular economic transaction; whilst going so far a ROTC cannot operate to enforce a particular commercial policy on third parties contrary to their intention. Indeed this serves to emphasise the aim of this article, which is merely to demonstrate how parties that wish to enter into a circular economic-compliant transaction may be able to construct an appropriate agreement (i.e. one which will not be recharacterized as a charge, and one which provides the appropriate capacity for a party to control goods down a chain of transactions).

It has been demonstrated that ROTC can provide a level of control which may be useful for plastics manufacturers (and indeed other commercial actors), to prevent goods being used in a manner incompatible with circular economics. This level of control could even extend into the products of processing. The nature of plastics recycling is such that the danger of mixing different types of goods, in terms of preventing ownership from being extended, becomes less relevant. Furthermore, there is the possibility of developing ROTC that do not concern the financial aspects of the transactions. That is, it is possible to sell goods on ROT terms, where such terms concern other conditions. This would be a small measure to

enhance the capacity of parties to engage in circular economics. As was noted earlier, the recent Waste Strategy suggested, though without any substantive detail, possible use of ‘regulatory or economic instruments if necessary and appropriate’ to deal with the problems of waste generation and recycling.<sup>206</sup> Recognising that English ROTC doctrine can possibly be used, as such an ‘instrument’, to achieve the policy aims of circular economics, requires acknowledgment that the law can go beyond the mere aim of dealing with (the threat of) insolvency. Should commercial actors wish to extend control, to prevent waste and to enable more effective recapture for the purposes of recycling, they have the capacity if they are willing to decouple the financial aspects from the property-control aspects of the transaction in an explicit manner. At this point it becomes necessary to consider the potential implications of the recent *Bunkers* decision.

### 3.1.1 *Bunkers*

In 2016, the Supreme Court engaged with the very foundations of understanding of ROTC, in *PST Energy 7 Shipping LLC v O W Bunker Malta Limited* (commonly known as the *Bunkers* case).<sup>207</sup> Lord Mance, giving the judgment of the Court, held that the effect of an ROTC combined with ‘a feature quite different from a contract of sale of goods - the liberty to consume all or any part of the bunkers supplied without acquiring property in them or having paid for them’,<sup>208</sup> took the transaction concerned outside the Sale of Goods Act 1979 (SGA) regime. Instead we now have a ‘third way’; a sale that is not a sale for the purposes of the SGA. For want of a more taxonomically elegant conceptualisation, this novel form of transaction has garnered the moniker of a *sui generis* sale.<sup>209</sup>

204 [1998] 2 NZLR 129, 135.

205 See eg *Coleman v Harvey* [1989] 1 NZLR 723, where the New Zealand Court of Appeal held that a mixture of silver was to be co-owned. This case was not cited in *ICI New Zealand v Agnew*.

206 See above text accompanying (n 78).

207 [2016] UKSC 23. It is also sometimes called *Res Cogitans*, after the ship involved.

208 *Bunkers* [2016] AC 1034 [34].

209 cf *Raczynska* (n 107) 15: ‘they may be *sui generis* contracts with retention-of-title for the supply of goods with licence (authority) to sub-sell or to manufacture or, in other words, a licence (authority) to destroy the seller’s proprietary interest’.

*Bunkers* has received numerous critical responses. Gullifer has questioned whether or not the whole structure of sales and retention of title needs to be rebuilt.<sup>210</sup> For her, *Bunkers* has the effect of effectively neutering SGA s 49,<sup>211</sup> showing ‘the lack of ‘fit’ between the SGA and the use of ROT clauses’.<sup>212</sup> Saidov described *Bunkers* as potentially a ‘wrong turning’ which may ‘reduce the scope and significance of the sale of goods law’.<sup>213</sup> Low and Loi are even more biting in their criticism: ‘the Supreme Court has plunged English law and commerce into a state of Carrollian irrationality’.<sup>214</sup>

Certainly, a number of issues remain unclear following *Bunkers*. Most obviously, there are doubts about the nature of the *sui generis* sale: Lord Mance suggested that such contracts ‘would contain similar implied terms as to description, quality, etc to those implied in any conventional sale’,<sup>215</sup> but which statutory terms would necessarily be implied into such transactions remains unclear.<sup>216</sup> Little can really be said here about specific implications for plastics waste transactions.

Whilst questions about the appropriateness of the terms concerning description, quality and fitness for purpose (for instance) are live and would be highly relevant to plastics waste transactions, they would also be relevant to any *sui generis* sale not just those concerning plastics waste.

Will *Bunkers* apply in all cases where goods are supplied for the purposes of consumption? This question is not entirely clear (unsurprisingly).<sup>217</sup> However, soon after *Bunkers* the Court of Appeal, in *Wood v TUI Travel Plc*,<sup>218</sup> gave some sort of indication as to the potential judicial response. In *Wood*, there was a claim for compensation on the grounds that the claimant suffered food poisoning following eating at a self-service buffet. An issue arose as to who bore the risk of food, which in turn led to discussion of the point at which title in the food passed. Burnett LJ held that property in food passes when it is served. The alternative approach, that like *Bunkers* the property in the food never passed to the claimant holidaymakers but remained with the hotel at all times until the object was destroyed by being eaten, was dismissed as overly metaphysical.<sup>219</sup> This suggests perhaps that *Bunkers* may not be of widespread application. Nevertheless, the necessarily obiter nature of the discussion in *Wood* means that that point was not fully considered. There may be scope for further consideration here, as to the nature of ‘consumption’. In *Bunkers* Lord Mance referred to the liberty to *consume*. It is a potentially arguable point as to whether this specifically means consumption, in the form of a destructive using up. If this narrow interpretation is correct, then it is hard to really see the difference between *Bunkers* and *Wood*, as both clearly involved the consumption-to-destruction of a product in the form of a fuel (bunkers as fuel for the *Res Cogitans*; buffet food as ‘fuel’ for the holidaymakers). Yet it is also worth noting that some commentary is not so strict. Consider for instance Beale

210 Louise Gullifer, “Sales” on Retention of Title Terms: Is the English Law Analysis Broken? (2017) 133 LQR 244.

211 *ibid* 256: ‘left with very little application’. The relationship between the SGA and ROTC was considered in *Caterpillar (NI) Ltd (formerly FG Wilson (Engineering) Ltd) v John Holt & Co (Liverpool) Ltd* [2013] EWCA Civ 1232; [2014] 1 WLR 2365. For an excoriating critique, see Louise Gullifer, ‘The Interpretation of Retention of Title Clauses: Some Difficulties’ [2014] LMCLQ 564. For analysis of the potential way forward for SGA s49 in light of *Bunkers*: Djakhongir Saidov, ‘Sales Law Post-Res Cogitans’ [2019] JBL 1, 8-19.

212 Gullifer, “Sales” on Retention of Title Terms’ (n 210) 256.

213 Saidov (n 211) 1.

214 Kelvin F K Low and Kelry C F Loi, ‘Bunkers in Wonderland: A Tale of How the Growth of *Romulpa* Clauses Shrank the English Law of Sales’ [2018] JBL 229, 232 (referencing Lewis Carroll, *Alice in Wonderland*).

215 *Bunkers* [2016] AC 1034 [31]. At [34]: being *sui generis* ‘does not mean that its terms, as regards undertakings as to description and quality, would not be modelled on those applying in the sale of goods’.

216 See eg Henry Moore, ‘Case Comment: Unconventional “Sales”’ (2016) 75 CLJ 465, 467: the lack of guidance is ‘regrettable’; Low and Loi (n 214) 251: ‘it would be foolhardy to attempt to predict with any confidence which terms will be implied’.

217 See Saidov (n 211) 7-8.

218 *Wood and another v TUI Travel plc (trading as First Choice)* [2017] EWCA Civ 11; [2018] 2 WLR 1051.

219 cf Low and Loi (n 214) 252-253: the ‘much derided nanosecond ... transfer of property theory’ would resolve the difficulties in this area. Saidov (n 211) takes a similar view.

and others, where it is said that ‘such supply contracts are likely (if on-sale or use of the goods before title passes is envisaged) to be classified as *sui generis supply* and not (conditional) *sale* contracts’.<sup>220</sup> Clearly ‘use’ is wider than ‘consumption’, even where use and on-sale are distinguished. This is important, because in the context of a circular economic plastics industry the focus (as illustrated by the *ICI New Zealand v Agnew* case) is clearly going to be at least as much on a form of *use* of plastics as it is on a *consumption-to-destruction* of plastics.

Raczynska usefully hints at both the difficulties and opportunities which *Bunkers* provides: ‘it would initially seem that such a supplier could seek to assert a proprietary interest in the new asset [defined as a manufactured product or sale proceeds] in the same way’.<sup>221</sup> It is suggested that there are opportunities following *Bunkers* for parties to utilise the additional freedom they appear to be given, to manipulate the contractual terms in order to more effectively delineate proprietary rights and obligations. In doing so this may still allow for a conceptualisation of the *sui generis* sale as one which sits within the broad ambit of the sales doctrine operating under the SGA framework. Specifically, the argument that *Bunkers* provides greater party freedom is commensurate with the basic principle enunciated in *Cochrane v Moor*,<sup>222</sup> and enthroned in the Sale of Goods Act 1979, section 17: parties can pass property *when they intend*, as opposed to property passing on delivery. For Gullifer, this ‘exemplif[ies] freedom of contract ...[and thus a] seller who wants protection [following delivery] has to bargain for it’.<sup>223</sup>

If they do so bargain, then sellers can obtain ‘a powerful method of proprietary protection against counterparty credit risk by manipulating the passing of property after delivery’.<sup>224</sup> The buyer

gets everything it wants under the contract except bare title to the goods: it gets possession and, in the case of inventory, the right to sell the goods, often the right to use the goods in manufacturing or other processes and sometimes the right to consume the goods. The seller will usually provide for the right to repossess the goods on non-payment, which, crucially, will survive the buyer’s insolvency because of the seller’s proprietary interest in the goods.<sup>225</sup>

Unpacking this statement is key to understanding the implications of *Bunkers*. Gullifer suggests that the sorts of contractual manipulation implied above would be insufficient to meet desires of sellers and buyers in financing contexts, pre and post-insolvency.<sup>226</sup> However, analysis of ROTC through an insolvency lens does not really help in situations where parties do not go insolvent. In other words, does (and if so, to what extent) an ROTC have value outside of post-insolvency asset distribution questions?<sup>227</sup> Certainly it is the case that an ROTC can be used to impose ‘whatever conditions’ the seller wishes,<sup>228</sup> and it has been examined above how ROTC can provide

220 Beale and others (n 111) [7.02] fn 4.

221 Raczynska (n 107) 15.

222 *Cochrane v Moor* (1890) 25 QBD 57, 71-73 (Fry LJ).

223 Gullifer, “Sales” on Retention of Title Terms’ (n 210)

246. Cf Ji Lian Yap, ‘Predictability, Certainty, and Party Autonomy in the Sale and Supply of Goods’ (2017) 46 CLWR 269, arguing that *Bunkers* reduces party autonomy, as the courts failed to account for the fact that the parties considered the transaction to be one of sale, and the wide ranging potential implications reduce the levels of predictability and certainty for commercial parties. Though it should be noted that Yap also suggests (at 280) suggests that if parties wish to stay within the SGA then they would need to provide for this in the contract, ‘an example of the parties obtaining a measure of certainty by means of contractual drafting, which is in itself an exercise of party autonomy’. This illustrates the potential contradictions in this area.

224 Gullifer, “Sales” on Retention of Title Terms’ (n 210) 246.

225 *ibid*.

226 *ibid* 250.

227 *ibid* 249-250: the developments by contractual interpretation have distorted the (insolvency-focused) ‘system of proprietary protection of creditors’, and instead of ‘an overarching view being taken of the balance that should be reached between creditors, and the underlying policies driving this balance, the development of the law is at the mercy of the ingenuity of those drafting contracts (who seek to get the best of all worlds) and the vagaries of which cases come before the courts and in what circumstances’.

228 *Benjamin* [5.133] citing *Wait v Baker* (1848) 2 Exch 1, 7-9; 154 ER 380, 383-384.

proprietary protection that goes beyond mere protection against insolvency.<sup>229</sup>

In the context of this article's argument, we can possibly reformulate the question thusly: what might the impact of this doctrinal shift be in the context of circular economic approaches to plastics waste? What is the extent to which the parties may be able to agree on terms which affect the extent to which the buyer is able to use or consume the goods? Recalling Gullifer's explanation,<sup>230</sup> the buyer 'often' has the right to use and 'sometimes the right to consume': the possibility alluded to is clearly whether a ROTC could provide for limitations on such rights.

Parties aiming for circular economic practices could create more appropriate transactional frameworks utilising ROTC in order to control plastics. Although it was suggested that parties might be able to utilise an ROTC to provide for a level of post-sale control, and that in principle this is possible, it needs to be recognised that such actions run a considerable risk that such agreements will actually be (re)characterized as a charge. Rather than risking the danger of recharacterization through an imprecise drafting of an ROTC, parties may wish to focus on an even more fundamental aspect: the contract as one of *sale*. More specifically, achieving the necessary levels of post-'sale' control for effective circular economies requires the vendor to utilise the power it has in the first place to construct the nature of the transaction. *Bunkers* offers a new route: a *Bunkers*-style ROTC, that is, one which demonstrates persuasively that the transaction concerned is not actually a sale.<sup>231</sup> Thus by contractual agreement, parties can reformulate the transaction as something other than an SGA sale. The institutional structure of sale rests on a very solid notion of property: a sale is defined as a transfer of the property

in goods for a price.<sup>232</sup> The centrality of property is exemplified by *Rowland v Divall*, where the failure to pass property was sufficient for there to be a total failure of consideration: 'The whole object of a sale is to transfer property from one person to another'.<sup>233</sup> Yet as Gullifer rightly suggests *Bunkers* demonstrates the incompatibility of the retention of title 'structure' and the 19th century sales jurisprudence encapsulated in the SGA. The problem beforehand concerned the insufficient clarity of contractual terms to alter the basic proprietary operations in terms of combining goods. The way out of the problem is by redirecting the strength that does come from party agreement, towards the nature of the agreement itself, and agreeing that the transaction is not a sale. This of course would be a step somewhat further than that taken by Lord Mance in *Bunkers*, who merely took the contract out of the SGA regime. But the logical end point of this emphasis on the power of the parties to characterize their transaction is that contracts for the supply of products that are by their nature consumed can be framed as licenses. And as Lord Mance put it, there was a 'liberty to consume all or any part of the bunkers supplied without acquiring property in them or having paid for them'.<sup>234</sup> It is thus necessary to view the transaction as a licence.<sup>235</sup>

By coming outside of the conceptual structure of a sale (whether SGA or *sui generis*), the use of licences also negates the use of ROTC. This may be beneficial, in that parties will no longer have to run the risk of having their transaction (re)characterized as a charge with the attending registration obligations. In the event that a transaction is a license to use, then the rights that a licensee obtains would be limited to the extent granted by the licensor.<sup>236</sup> Thus in *Bunkers*, the supplier

229 Text following (n 93).

230 Text to (n 225).

231 This is in accordance with Saidov, who suggests that there needs to be a combination of an ROTC, credit terms, and a right to consumption for the transaction to be a *sui generis* sale; absence of one of those elements would make it a sale: Saidov (n 211) 7.

232 SGA s 2(1). This arguably goes back to Blackburn's path-breaking text on sale, which focused on the proprietary aspect: Colin Blackburn, *A Treatise on the Effect of the Contract of sale, on the Legal Rights of Property and Possession in Goods, Wares, and Merchandize* (London 1845) xiii. The classic critique, still valid for the English doctrine, is K N Llewellyn, 'Through Title to Contract and a Bit Beyond' (1938) 15 NYU Law Q Rev 159.

233 [1923] 2 KB 500, 506-507.

234 *Bunkers* [2016] AC 1034 [34].

235 See above (n 209).

236 cf *Modelboard Ltd v Outer Box Ltd* [1992] BCC 945, above (n 176).

provided the bunker oil for the purpose of it being consumed so to propel the ship. This clearly was not a disposition enabling the user of the oil to do some other commercial action, such as sub-selling the oil; indeed such an action was specifically prohibited in the *Bunkers* transaction.<sup>237</sup>

In the instance of plastics waste recycling, if the supplier were merely to licence the use of plastics for consumption in a manufacturing process, rather than selling them, then clearly the buyer/licensee would be limited in their capacity to dispose of any surplus or waste. Such surplus or waste would necessarily remain the property – one could say remains owned by – the supplier. What then of the plastic that is used by the buyer/licensee? It cannot be said that they have acquired any property in the supplied plastics, because the transactional form prevents such property transferring. If the ideology underlying the circular economy is adhered to, then the ideal result even following a manufacturing process is that the supplier remains the owner of the produced goods.

What can be seen then is the possibility of using English personal property law as a mechanism to enhance the achievement of circular economic practices. The power to control goods, through the ability to recapture based on the retention of ownership, can be extended by means of conditions within an ROTC, provided those conditions are sufficiently clear (and decoupled from the financial aspects of the transaction). This is however a narrow possibility, and whilst the courts have remained open to the option in principle, there may also be scope for suggesting an alternative, and more radical option: the license approach suggested by *Bunkers*. The specific content of this license would of course turn on the particular circumstances of the transaction. Essential to this assessment will be ascertaining, again as with the ROTC approach, the specific contractual intention of the different parties. But key to assessing the value of this approach is distinguishing between how *Bunkers*

shows the impact of consuming (to destruction) the goods, and how it also demonstrates that parties can generate transactions that can go outside the Sale of Goods Act 1979. Were commercial parties to take up this option, then there would be room to generate and demonstrate the sorts of transactional relationships necessary to enable parties to control goods down a chain of transactions, according to principles of circular economy.

However, a clear note of caution is needed here. Certainly there is clear value in the increased use of licences as a means to enable circular economic practices involving smart technology.<sup>238</sup> Licences provide a quick and easy mechanism to enable the structuring of the sort of transactions envisaged by circular economy advocates, where there is no transference of ownership. Nevertheless, the licence approach is necessarily limited. It is not easy to see whether it will be of special benefit in the context of plastics recycling. Its most likely value is merely as part of combined new approach to commercial transactions, which would involve the use of multiple different systemic elements already situated within the doctrinal framework, just in a different manner to that previously understood.

## 4 CONCLUSION

The increasing general prevalence of circular economic practices, and the growing potential of such practices as means of dealing with plastics waste, provides justification for examining how doctrinal mechanisms could be structured to aid the development of such practices. However, there remain potential legal complications regarding how surplus and waste plastics can be effectively recaptured back into circular

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<sup>237</sup> *Bunkers* [2016] AC 1034 [14]: clause H2 of the transaction said buyer 'shall not be entitled to use the bunkers other than for the propulsion of the vessel, nor mix, blend, sell, encumber, pledge, alienate, or surrender the bunkers to any third party or other vessel'.

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<sup>238</sup> Sean Thomas, 'Law, Smart Technology, and Circular Economy: All Watched Over By Machines of Loving Grace?' (2018) 10 *Law, Innovation & Technology* 230.

economic loops. Such problems have not been specifically identified in the circular economics literature concerning plastics (nor indeed in the broader circular economic literature). The current regulatory framework on waste rests on the importance of control, and of the treating of waste as a resource. Both of these aspects are central to circular economic practices, and moreover, can be addressed through the doctrinal framework for ROTC offered by English law.

The English law on ROTC is currently in a rather confused state regarding the capacity of parties to generate contractual agreements that enable suppliers to reach into products. Whilst there is a strong argument in favour of the supplier's interest disappearing, and a new title generating in favour of the party undertaking the manufacturing or similar such process, such an approach is not entirely unchallengeable. Certainly on policy grounds, it could be strongly argued that parties in the specific context of plastics recycling should be allowed to form transactions which allow for the supplier to maintain control over any surplus or waste resultant from processes undertaken over his supplied goods, thus more easily enabling the development of circular economic practices. Moreover, it has been demonstrated that there are reasons to accept that what the courts have been doing is not prohibiting the possibility of parties agreeing that the seller will have control of products; rather they have merely been noting that such agreements need to be clearly made and that the cases before the courts have not managed to do this. Arguably the importance of such control for circular economic transactions will provide a strong commercial justification for lawyerly efforts to construct appropriate transactional forms.

In the event though that working within the ROT doctrinal framework is not possible, it may be that the *Bunkers* decision offers an alternative. *Bunkers* shows the possibility of *sui generis* transactions which may be more flexible, allowing parties greater freedom in constructing contracts. It was suggested that the necessary consequence of this approach of non-SGA sales, is the increased possibility of the development of licence-for-use as a viable transactional form. The removal of property as a central transmittable core of a 'sales' transaction provides the necessary foundations for circular economic transactions which involve the initiator retaining ownership in the fullest sense, for

the purposes not of protecting themselves against their counterparty's insolvency, but of providing themselves with a level of control over the way the goods are used: minimising surplus and avoiding waste.

In conclusion, circular economic transactions will need legal mechanisms that enable 'sellers' to control the use and disposition of goods down a chain of transactions. One possible way of enabling such control is to use the ROTC mechanism. This is of course not the only possibility, but it is one which will fit within the general tenor of commercial practices and especially those in circular economic thinking which already rests heavily on notions of retaining ownership. It is arguably possible that the current doctrine can allow for sellers to own the products of a manufacturing process, provided appropriate contractual formulations of sufficient clarity to demonstrate party intent can be constructed. In addition, it is also possible using the recent *Bunkers* case to take such transactions outside of the classic sales framework. Thus, in the alternative to an ROTC, it may be appropriate to simply licence goods. Either way, English personal property law provides mechanism that can be used to generate workable circular economic transactions which enable plastics wastes to be controlled down a chain of transactions.

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