

**Amy O'Halloran**  
**Irish Research Council Government of Ireland Postgraduate Scholar**  
**School of Law,**  
**University College Cork**

**Email: aohalloran@ucc.ie**

**Twitter: @AmyOHalloranLaw**

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#### **A. Introduction**

Certain arenas of human life such as technological development may at first appear to be technical in nature possessing no distinctly juristic element. However, the American jurist Karl Llewellyn showed us that 'there is almost no part of culture which is not also "legal" in nature (whatever else it is as well)'.<sup>1</sup> He reasoned that social interactions are attended by the risk of conflict or grievance, and as a result, the law is always in the background regardless of how seemingly non-juristic the context.<sup>2</sup> He concluded that law is "mixed into any coordinated action" such that the law "infests" human culture.<sup>3</sup> Accordingly, when trouble arises, the law emerges to resolve disputes, channel conduct, reorientate the social group towards coordinative action, and restore harmony. The great environmental crises of our time (i.e. climate; biodiversity loss; pollution and waste)<sup>4</sup> have engendered trouble to a critical level

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<sup>1</sup> Llewellyn K., "The Normative, the Legal, and the Law-Jobs: The Problem of the Juristic Method" (1940) 49(8) *The Yale Law Journal* 1355 at p 1377.

<sup>2</sup> *Ibid.*

<sup>3</sup> Llewellyn notes that a similar remark could be made about economics or governance which also tend towards infesting areas of human cultures beyond their typical domains - see Llewellyn 1940 (n 1) at p 1377.

<sup>4</sup> Inger Andersen, Executive Director of the United Nations Environmental Programme at the United Nations Environment Assembly, Proceedings of the United Nations Environment Assembly at its fifth session 24 February 2021 UNEP/EA.5/25 at [7]. See also United Nations Environmental Programme, *Making Peace With Nature: A scientific blueprint to tackle the climate, biodiversity and pollution emergencies* (2021) p 5

today. These crises and the risks posed to societies are provoking legal and normative development through new mechanisms which don't sit comfortably within the legal and political paradigm of State and international law.<sup>5</sup> For example, the European Union seeks to implement its circular economy agenda by utilising novel decision-centres such as industrial alliances as a spur to generate the development of product standards.<sup>6</sup>

This paper will examine the role of industrial alliances in progressing normative development towards achieving a European circular economy for plastics. As industrial alliances are not centralised within a unitary system of State law-making, the involvement of industrial alliances in the development of European standards presents us with a polycentric governance context comprising *inter alia* the EU institutions and industrial alliances.<sup>7</sup> This configuration for normative input creates a research challenge for jurists who are more accustomed to analysing the formal law-making bodies of the State (e.g. legislatures, common law courts etc.). One approach to addressing this research challenge, is to analyse industrial alliances through functionalist conceptions of law such as Karl Llewellyn's 'law jobs theory'<sup>8</sup> for which William Twining provides a contemporary interpretation.<sup>9</sup> The law-jobs theory provides a elucidating research paradigm for examining functionalist aspects of law which do not fit neatly within the formal, and mostly monocentric,<sup>10</sup> law-making institutions of States.

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<<https://www.unep.org/gan/resources/report/making-peace-nature-scientific-blueprint-tackle-climate-biodiversity-and-pollution>> (date accessed 12<sup>th</sup> August 2022).

<sup>5</sup> Walker N., *Intimations of Global Law* (Cambridge University Press, 2015) at pp 16-18.

<sup>6</sup> European Commission, "Commission launches Circular Plastics Alliance to foster the market of recycled plastics in Europe" <[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_6728](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_6728)> (date accessed 12<sup>th</sup> August 2022).

<sup>7</sup> Polycentricity "connotes many centres of decision making that are formally independent of each other. Whether they actually function independently, or instead constitute an interdependent system of relations is an empirical question in a particular cases." - Ostrom V., Charles T.M., Warren R., "The Organization of Government in Metropolitan Areas: A Theoretical Inquiry" (1961) 55(4) *American Political Science Review* 831 at pp 831-832; Ostrom E., *Beyond Markets and States: Polycentric Governance of Complex Economic Systems* (2010) 100(3) *The American Economic Review* 641 at p 643.

<sup>8</sup> Llewellyn 1940 (n 1).

<sup>9</sup> Twining W., *General Jurisprudence: Understanding Law from a Global Perspective* (Cambridge University Press, 2009) at pp 103-121.

<sup>10</sup> However, law-making within State systems of governance may also exhibit some polycentric tendencies and a considerable degree of institutional diversity. For example, Stephan, Marshall and McGinnis explain that; "the three branches of the US national government defined in the Constitution are formally independent, though functionally they are interdependent in numerous ways. The US Constitution serves as an overarching set of rules, but there is no-higher level institution that oversees all three branches. In addition, this Constitution leaves space for citizens to work together to establish new forms of collective action that were not specified in that document (including such critically important entities as political parties!). Many of the decision centres subsequently formed focus on matters of economics, professional expertise, religion, or

Llewellyn's law jobs theory identifies six functions (i.e. law-jobs) performed by law which are understood as necessary for the continuing survival and welfare of social groups.<sup>11</sup> The most relevant law-jobs or functions for pursuing an analysis of the EU's engagement with industrial alliances are; firstly, the provision of 'net drive' by the EU institutions through the EU's circular economy agenda.<sup>12</sup> Secondly, the 'rechannelling of conduct and expectations' within industry to foster normative development in the direction of more circular patterns of behaviour.<sup>13</sup> However, before examining these matters in detail, I will begin by looking at the existence of a trouble case, which Llewellyn considered was a preeminent factor in the emergence of law.

### **B. The Trouble Case – The Plastic Pollution and Waste Crisis**

Llewellyn expressed the view that one of the fundamental functions of law in society is resolving and avoiding disputes, which if amplified and multiplied, could potentially threaten the survival or welfare of society. Llewellyn describes such disputes as 'trouble cases'.<sup>14</sup> If 'trouble cases' remain unresolved then this causes a destabilising effect on society which could potentially lead to the dissolution of social groups.<sup>15</sup> Alas, the deterioration of our environment presents us with many trouble cases such as the crises of climate, biodiversity loss, and pollution and waste.<sup>16</sup> The pollution and waste crisis has been driven in part by the exponential growth in plastic production, and plastic waste generation. Indeed, the proliferation of plastic waste and pollution and the attendant risk to society presents us with a 'trouble case' which has roused the concern and angst of officials, policy makers,

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community solidarity, resulting in a dazzling array of institutional diversity that must be considered an important consequence of the way polycentric governance was set up at the constitutional level." Stephan M., Marshall G., McGinnis M., "An Introduction to Polycentricity and Governance" in Thiel A., Blomquist W.A., Garrick D.E., *Governing Complexity: Analyzing and Applying Polycentricity* (Cambridge University Press, 2019) at p 32.

<sup>11</sup> Llewellyn's law jobs theory can be said to identify the following six law-jobs: (i) dealing with trouble cases, (ii) channelling of conduct and expectations, (iii) rechannelling of conduct and expectations, (iv) allocation of authority within a social group, (v) provision of net drive, (vi) the juristic method (i.e. legal specialisation in the performance of the other law-jobs). Llewellyn 1940 (n 1) at pp 1373-1400.

<sup>12</sup> Llewellyn 1940 (n1) at pp 1376-1383.

<sup>13</sup> Llewellyn 1940 (n 1) at pp 1387-1391.

<sup>14</sup> Llewellyn 1940 (n 1) at pp 1375-1376.

<sup>15</sup> *Ibid.*

<sup>16</sup> Inger Andersen (n 4).

environmentalists, and society.<sup>17</sup> For example, commenting on the particularly deleterious effect of plastic pollution on the marine environment, the United Nations Environmental Assembly recently expressed the view that marine plastic pollution is a ‘serious environmental problem at a global scale.’<sup>18</sup> Indeed, plastics can be said “pervade every environment on Earth. Plastic waste can be found in the remotest areas, far from its place of origin.”<sup>19</sup> The presence of plastic materials in the environment poses risks to wildlife, human health and marine activities. For example, marine animals may become entangled or asphyxiated upon coming into contact with plastic debris. Some marine animals may ingest plastics mistaking such materials for food.<sup>20</sup> Once ingested, plastic materials and toxins can bioaccumulate in marine animals,<sup>21</sup> and thereby pose a threat to human health through the food chain.<sup>22</sup> Several species of fish consumed by humans have been found with toxic plastics in their stomachs (e.g. mackerel, striped bass and Pacific oysters).<sup>23</sup> There is also a growing concern regarding the risks of toxins being transferred to humans directly from plastic products and packaging,<sup>24</sup> because chemicals added to plastics with a view to improving

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<sup>17</sup> United Nations Environment Programme, “Year Book 2014: Emerging Issues in Our Global Environment: Plastic debris in the ocean” (2014) at pp 48-53.

<sup>18</sup> United Nations Environment Assembly, Resolution adopted by the United Nations Environment Assembly on 15 March 2019 UNEP/EA.4/Res.6 preamble para 1.

<sup>19</sup> Oxford Atlas of the World 27th ed. (2020) at p 9. See also Thompson R.C., Swan S.H., Moore C.J., vom Saal F.S., “Our Plastic Age” (2009) 364(1526) *Philosophical Transactions: Biological Sciences* 1973; Barnes D. K. A., Galgani F., Thompson R. C., Barlaz M., “Accumulation and fragmentation of plastic debris in global environments” (2009) 364(1526) *Philosophical Transactions: Biological Sciences* 1985.

<sup>20</sup> Thompson et al. 2009 (n 19) at p 1975; Barnes et al. 2009 (n 19) at pp 1988, 1994-1995; Gregory M. R., “Environmental implications of plastic debris in marine settings—entanglement, ingestion, smothering, hangers-on, hitch-hiking and alien invasions” (2009) 364(1526) *Philosophical Transactions: Biological Sciences* 2013; Savoca M.S., Tyson C.W., McGill M., Slager C.J., “Odours from marine plastic debris induce food search behaviours in a forage fish” (2017) 284(1860) *Proceedings B of the Royal Society of Biological Sciences* 1.

<sup>21</sup> GRID Arendal, “An example of how microplastics could end up on a consumer's plate” <<https://www.grida.no/resources/6915>> (date accessed 12<sup>th</sup> August 2022); GRID Arendal, “How plastics enter the food web” <<https://www.grida.no/resources/6904>> (date accessed 12<sup>th</sup> August 2022); Maphoto/Riccardo Pravettoni, “Plasticized animal species” <<https://www.grida.no/resources/6927>> (date accessed 12<sup>th</sup> August 2022).

<sup>22</sup> Groh K. J., Backhaus T., Carney-Almroth B., Geueke B., Inostroza P. A., Lennquist A., Leslie H.A., Maffini M., Slunge D., Trasande L., Warhurst M., Muncke J., “Overview of known plastic packaging-associated chemicals and their hazards” (2019) 651(2) *The Science of the Total Environment* 3253.

<sup>23</sup> Savoca M., “Bait and switch: Anchovies eat plastic because it smells like prey” (2017) <<https://theconversation.com/bait-and-switch-anchovies-eat-plastic-because-it-smells-like-prey-81607>> (date accessed 6<sup>th</sup> May 2022); Rochman C.M., Tahir A., Williams S.L., Baxa D.V., Lam R., Miller J.T., The F.C., Werorilangi S., The S.J., “Anthropogenic debris in seafood: Plastic debris and fibers from textiles in fish and bivalves sold for human consumption” (2015) 5(1) *Science Reports* 1.

<sup>24</sup> Thompson et al. 2009 (n 19) at p 1976; Wagner M., Oehlmann J., “Endocrine disruptors in bottled mineral water: total estrogenic burden and migration from plastic bottles” (2009) 16(3) *Environmental Science and Pollution Research International* 278.

product performance (e.g. plasticizers, stabilizers, and flame retardants etc.) can pose risks to human health.<sup>25</sup> Plastic pollution can also interfere with human activities and there are various examples of plastic pollution impacting upon fishing,<sup>26</sup> shipping and transport,<sup>27</sup> and tourism.<sup>28</sup>

Despite negative environmental impacts and health risks, there are also significant benefits accrued through the utilisation of plastics towards addressing important social needs. Plastics are 'inexpensive, lightweight, strong, durable, corrosion resistant, with high thermal and electrical insulation properties.'<sup>29</sup> By virtue of possessing such properties, various plastics have facilitated technological advances that have benefited society in the areas of vehicle manufacture, fuel efficiency, electronics, utilities, medicinal products, and food preservation.<sup>30</sup> Given the utility of plastics, some scholars have expressed the view that "[a]ny future scenario where plastics do not play an increasingly important role in human life therefore seems unrealistic."<sup>31</sup> Indeed, projections indicate that plastic production is going to increase significantly in the coming decades.<sup>32</sup>

The plastics industry occupies a position of significant economic importance and the United Nations Conference on Trade and Development (UNCTAD) has estimated the value of the global plastics sector at over US\$1 trillion in 2018, representing about 5% of the total value of global trade.<sup>33</sup> In Europe in 2019, the plastics industry (producers and convertors) employed

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<sup>25</sup> Thompson et al. 2009 (n 19) at pp 1975-1976.

<sup>26</sup> Asia-Pacific Economic Cooperation, "Update of 2009 APEC Report on Economic Costs of Marine Debris to APEC Economies" (2020) <<https://www.apec.org/Publications/2020/03/Update-of-2009-APEC-Report-on-Economic-Costs-of-Marine-Debris-to-APEC-Economies>> (date accessed 12<sup>th</sup> August 2022) p 15; Ng J., Tam J., "Sinopec admits owning plastic pellets in spill" (6<sup>th</sup> May 2022) South China Morning Post <<https://www.scmp.com/article/1014372/sinopec-admits-owning-plastic-pellets-spill>> (12<sup>th</sup> August 2022).

<sup>27</sup> APEC Report 2020 (n 26) at p 15.

<sup>28</sup> *Ibid.*

<sup>29</sup> Thompson et al. 2009 (n 19) at p 1973.

<sup>30</sup> *Ibid.* at p 1974.

<sup>31</sup> Andrady A.L., Neal M.A., "Applications and Societal Benefits of Plastics" (2009) 364(1526) *Philosophical Transactions: Biological Sciences* 1977 at p 1983.

<sup>32</sup> GRID Arendal "Are most of the plastics produced still around?" <<https://www.grida.no/resources/6923>> (date accessed 12<sup>th</sup> August 2022)

<sup>33</sup> Furthermore, these global trade statistics do not account for the value and volume of "hidden" plastics embedded in products and packaging. See Barrowclough D., Deere Birkbeck C., Christen J., "Global trade in plastics: insights from the first life-cycle trade database" UNCTAD Research Paper No. 53 UNCTAD/SER.RP/2020/12 at p 4 <<https://unctad.org/webflyer/global-trade-plastics-insights-first-life-cycle-trade-database>> (date accessed 12<sup>th</sup> August 2022).

over 1.5 million people, and generated an aggregate sectoral turnover of over €350 billion which created a positive trade balance of €13.1 billion in then EU28. The sector also contributed around €28.6 billion to European public finances and welfare.<sup>34</sup>

Accordingly, the challenge for society is to facilitate the beneficial utilisation of plastics while also managing plastic and plastic waste in a way that does not result in deleterious impacts to the environment or human health. This challenge is made more difficult given that the current scale of waste generation is unsustainable. The World Bank has estimated that around 33% of the municipal solid waste is not managed in an environmentally safe way.<sup>35</sup> The pressures on the world's waste management systems became particularly apparent following the introduction of waste import restrictions by China,<sup>36</sup> Malaysia,<sup>37</sup> and Turkey.<sup>38</sup> The proper management of waste also presents an economic challenge in relation to the efficient management of resources. The generation of plastic waste and the loss of plastic materials remains high with around 31% of plastic waste going to landfill, and around 39% going to incineration. The European Commission has also estimated that around 95% of the value of plastic packaging material is lost after a single-use.<sup>39</sup>

Surveying the utilisation of plastics within modern societies we can say that plastics production and consumption are attended by both environmental and economic challenges. While plastics may be beneficial to human welfare and the wider economy, plastics may also

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<sup>34</sup> PlasticsEurope, "Plastics – the Facts 2020: An analysis of European plastics production, demand and waste data" (2020) <<https://plasticseurope.org/knowledge-hub/plastics-the-facts-2020/>> (date accessed 12<sup>th</sup> August 2022).

<sup>35</sup> World Bank, "What a Waste 2.0: A Global Snapshot of Solid Waste Management to 2050" (2018) p 3.

<sup>36</sup> Hook L., Reed J., "Why the world's recycling system stopped working" (25<sup>th</sup> October 2018) <<https://www.ft.com/content/360e2524-d71a-11e8-a854-33d6f82e62f8>> (date accessed 12<sup>th</sup> August 2022). For an overview of the impact of China's National Sword policy in the United States see – United States Environmental Protection Agency, "Sustainable Materials Management (SMM) Web Academy Webinar: China's Green Sword: Impacts to State and Local Governments" <<https://www.epa.gov/smm/sustainable-materials-management-smm-web-academy-webinar-chinas-green-sword-impacts-state-and>> (date accessed 12<sup>th</sup> August 2022).

<sup>37</sup> Reuters, "Malaysia permits import of U.S. plastic waste shipment after it passes new UN treaty test" 24<sup>th</sup> March 2021 <<https://www.reuters.com/article/us-malaysia-environment-plastic-idUSKBN2BG0ZL>> (date accessed 12<sup>th</sup> August 2022); BBC News, "Malaysia returns 42 containers of 'illegal' plastic waste to UK" 20 January 2020 <<https://www.bbc.com/news/uk-51176312>> (date accessed 12<sup>th</sup> August 2022).

<sup>38</sup> Laville S., "Turkey to ban plastic waste imports" 19th May 2021 The Guardian <<https://www.theguardian.com/world/2021/may/19/turkey-to-ban-plastic-waste-imports>> (date accessed 12<sup>th</sup> August 2022).

<sup>39</sup> Commission Communication, A European Strategy for Plastics in a Circular Economy SWD(2018) 16 final [2].

have a destabilising effect on social groups if we fail to address long-term environmental and health risks. Accordingly, the utilisation of plastics by societies presents us with a classic Llewellyn “trouble case” with the potential for many conflicts between competing interests as they confront difficult environmental and economic challenges.

### **C. How the Law Assists the Avoidance and of Trouble Cases**

Llewellyn explains that to avoid trouble and conflicts it is necessary to establish order by channelling the conduct of individuals and groups within society.<sup>40</sup> Law plays a key role in the channelling of conduct as the imperative nature of law controls behaviour by upholding obligations and expectations.<sup>41</sup> However, in order to channel the conduct of individuals it is firstly necessary to determine the lines along which behaviour is to be channelled.<sup>42</sup> In a legal system this function, or “law job”, is typically performed by those bodies or actors vested with law-making capacities by the State, such as legislatures, officials and regulators. This law-making function can be described as the ‘rechannelling of conduct and expectations’.<sup>43</sup>

Given that the current scale of plastic waste generation is unsustainable,<sup>44</sup> societies require a rechannelling of conduct towards more sustainable practices of production and consumption which adequately address the environmental and economic challenges we face today, and those we will face in the future. Addressing such matters can help to ameliorate and reduce the incidences of trouble and conflict in the longer term.<sup>45</sup> However, before attempting a rechannelling of conduct across society, we firstly require a coalescence around certain common objectives which can orientate the direction of legal and normative development.<sup>46</sup> To identify the common European objectives in relation to our future management of plastics we need to consider European Union policy.

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<sup>40</sup> Llewellyn 1940 (n 1) at pp 1376-1383.

<sup>41</sup> Llewellyn 1940 (n 1) at p 1376.

<sup>42</sup> *Ibid.* at p 1383.

<sup>43</sup> Twining 2009 (n 9) at p 105; Llewellyn 1940 (n 1) at p 1383.

<sup>44</sup> World Bank Report 2018 (n 35) at p 3.

<sup>45</sup> Llewellyn 1940 (n 1) at 1383.

<sup>46</sup> Llewellyn 1940 (n 1) at p 1389.

#### **D. European Union Policy**

The EU intends to establish a circular economy “where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised”.<sup>47</sup> The achievement of this objective will require a rechanneling of conduct across societies to ensure that plastic materials can be retained in the economy through reuse and recycling. To this end, the EU seeks to mobilise all relevant actors towards the aim of achieving a climate neutral, resource efficient, and competitive economy.<sup>48</sup> These overarching objectives underpin the European Green Deal,<sup>49</sup> and the Commission has adopted Action Plans<sup>50</sup> and Strategies<sup>51</sup> for the purpose of translating these objectives into policies and actions. The EU’s current Circular Economy Action Plan also sets out the Commission’s intention to develop a ‘sustainable product policy framework’ which seeks to steer a shift towards greater circularity in terms of product design, production processes and through consumer empowerment.<sup>52</sup>

The Commission’s implementation strategy for its circular economy agenda involves greater engagement with industry,<sup>53</sup> and the EU’s new Industrial Strategy published in 2020,<sup>54</sup> and updated in 2021,<sup>55</sup> seeks to orientate industry towards circularity by formalising cooperation through industrial alliances. Industrial alliances have been described some scholars as an organisational form within industry which seeks to mobilise industrial actors towards conquering technological objectives.<sup>56</sup> To address the technological challenges associated

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<sup>47</sup> Commission Communication, “Closing the loop - An EU action plan for the Circular Economy” COM(2015) 614 final preamble.

<sup>48</sup> Commission Communication, “The European Green Deal” COM(2019) 640 final preamble, [2.1.3].

<sup>49</sup> *Ibid.*

<sup>50</sup> Commission Communication, “A new Circular Economy Action Plan: For a cleaner and more competitive Europe” COM(2020) 98 final; Commission Communication, “Closing the loop - An EU action plan for the Circular Economy” COM(2015) 614.

<sup>51</sup> Commission Communication, “A European Strategy for Plastics in a Circular Economy” SWD(2018) 16 final.

<sup>52</sup> Commission Communication, “A new Circular Economy Action Plan: For a cleaner and more competitive Europe” COM(2020) 98 final [2].

<sup>53</sup> This approach accords with the European Green Deal which states that achieving a circular economy will require the “full mobilisation of industry”. See Commission Communication, “The European Green Deal” COM(2019) 640 final [2.1.3].

<sup>54</sup> Commission Communication, “A New Industrial Strategy for Europe” COM/2020/102 final.

<sup>55</sup> Commission Communication, “Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe’s Recovery” COM(2021) 350 final.

<sup>56</sup> Huang J., Wang H., Wu J., Yang Z., Hu X., Bao M., “Exploring the Key Driving Forces of the Sustainable Intergenerational Evolution of the Industrial Alliance Innovation Ecosystem: Evidence from a Case Study of China’s TDIA” (2020) 12(4) Sustainability 1320 at [1].

with realising a circular economy, the Commission seeks to utilise a number of industrial alliances across key value chains,<sup>57</sup> including the plastics sector where the Circular Plastics Alliance was established in 2018.<sup>58</sup> In particular, the Circular Plastics Alliance has been tasked with progressing the development of product design standards.<sup>59</sup>

To analyse the respective roles of the EU institutions and the Circular Plastics Alliance in normative development towards a European circular economy we can apply two aspects of Llewellyn's law jobs theory. Firstly, we can analyse the role of the EU institutions in providing a 'net drive' to coalesce European society around the common objective of achieving a European circular economy.<sup>60</sup> Secondly, the Circular Plastics Alliance can be analysed in relation to 'rechannelling of conduct and expectations' within industry to align behaviour with the objectives of the EU's circular economy agenda.<sup>61</sup> These aspects of the law jobs theory will now be applied in turn.

#### **E. Provision of 'Net Drive' by the European Union Institutions**

Net drive refers to the collective orientation of society towards certain ideas, objectives and standards which are seen as important for the survival or welfare of society as a whole.<sup>62</sup> Net drive can be provided by political leadership and/or the law, as both claim to speak for society as a whole.<sup>63</sup> Llewellyn explained that "net drive" describes the impetus or drive of society towards certain ends minus the centrifugal tendencies of individuals or sub-groups which might pull in the direction of their own particular interests. Accordingly, net drive can be said to describe the overall drive of society towards a coalescence around certain objectives.<sup>64</sup>

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<sup>57</sup> See European Commission, "Industrial alliances" <[https://ec.europa.eu/growth/industry/strategy/industrial-alliances\\_en](https://ec.europa.eu/growth/industry/strategy/industrial-alliances_en)> (date accessed 12<sup>th</sup> August 2022).

<sup>58</sup> Circular Plastics Alliance <[https://ec.europa.eu/growth/industry/strategy/industrial-alliances/circular-plastics-alliance\\_en](https://ec.europa.eu/growth/industry/strategy/industrial-alliances/circular-plastics-alliance_en)> (date accessed 12<sup>th</sup> August 2022).

<sup>59</sup> European Commission, "Commission launches Circular Plastics Alliance to foster the market of recycled plastics in Europe" (2018) <[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_6728](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_6728)> (date accessed 12<sup>th</sup> August 2022).

<sup>60</sup> Llewellyn 1940 (n 1) at pp 1387-1391.

<sup>61</sup> Llewellyn 1940 (n 1) at pp 1377-1379.

<sup>62</sup> Llewellyn 1940 (n 1) at p 1387.

<sup>63</sup> Llewellyn 1940 (n 1) at p 1389.

<sup>64</sup> *Ibid.* at p 1389.

In terms of establishing a European circular economy, ‘net drive’ is provided by the EU institutions, in particular the European Commission. The European Commission has the authority to speak for the EU as a whole, and through its current Circular Economy Action Plan<sup>65</sup> and Industrial Strategy,<sup>66</sup> the Commission seeks to coordinate European society and industry towards the realisation of a circular economy. The provision of net drive is important for normative development as net drive shapes the environment within which industry is embedded and thereby helps to steer the normative and technological outputs of industrial alliances.<sup>67</sup>

#### **F. Rechannelling of Conduct by the Circular Plastics Alliance**

The rechannelling of conduct is concerned with selecting the future lines along which behaviour is to be channelled.<sup>68</sup> Where a net drive propels a society towards change then it is likely that a rechannelling of conduct within society will be required. The net drive established by the EU’s circular economy agenda requires the reorientation of activities towards more circular patterns of production, consumption and disposal. The Circular Plastics Alliance has been tasked with rechannelling of conduct in the plastics sector in the short term through securing voluntary commitments from industrial actors, and in the longer term through progressing the development of design-for-recycling standards which are intended to regulate the design choices in plastics value chains.<sup>69</sup> The main objective of these tasks is to foster the establishment of a European single market which provides 10 million tonnes of recycled plastics by 2025.<sup>70</sup>

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<sup>65</sup> Commission Communication, “A new Circular Economy Action Plan: For a cleaner and more competitive Europe” COM(2020) 98 final.

<sup>66</sup> Commission Communication, “A New Industrial Strategy for Europe” COM/2020/102 final; Commission Communication, “Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe’s Recovery” COM(2021) 350 final.

<sup>67</sup> Huang J., Wang H., Wu J., Yang Z., Hu X., Bao M., “Exploring the Key Driving Forces of the Sustainable Intergenerational Evolution of the Industrial Alliance Innovation Ecosystem: Evidence from a Case Study of China’s TDIA” (2020) 12(4) Sustainability 1320 at [2.3.2].

<sup>68</sup> Llewellyn 1940 (n 1) at p 1383.

<sup>69</sup> European Commission, “Commission launches Circular Plastics Alliance to foster the market of recycled plastics in Europe” <[https://ec.europa.eu/commission/presscorner/detail/en/IP\\_18\\_6728](https://ec.europa.eu/commission/presscorner/detail/en/IP_18_6728)> (date accessed 12<sup>th</sup> August 2022).

<sup>70</sup> Circular Plastics Alliance, Updated Design for Recycling Work Plan (2021) p 6 <<https://ec.europa.eu/docsroom/documents/47334>> (date accessed 12<sup>th</sup> August 2022).

In September 2021, the Circular Plastics Alliance published a Design-for-Recycling Work Plan.<sup>71</sup> The Work Plan is geared towards developing design guidelines which will address a number of priority products and plastic types across agriculture, packaging, construction, and electrical and electronic equipment.<sup>72</sup> In terms of normative development thus far, the Circular Plastics Alliance has mapped the areas wherein it considers that standardisation is required if we are to establish a European market for recycled plastics. The Alliance identified the following areas as requiring harmonised standards;

1. Design-for-recycling
2. Quality of waste
3. Quality of recyclates
4. Integration of recyclates into products<sup>73</sup>

The Alliance has also published a Guidance document of waste definitions in respect of priority sectors for waste (e.g. agriculture; automotive; packaging; electrical and electronic equipment; and construction).<sup>74</sup>

The work of Circular Plastics Alliance in mapping of the areas in need of standardisation, and articulating definitional guidance, has informed a draft standardisation request submitted by the European Commission to the European standardisation bodies CEN<sup>75</sup> and CENELEC<sup>76</sup> in late 2021.<sup>77</sup> The Commission's draft request calls upon these European standardisation

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<sup>71</sup> *Ibid.*

<sup>72</sup> *Ibid.* at p 9.

<sup>73</sup> Circular Plastics Alliance, "Circular Plastics Alliance – Roadmap to 10 Mt recycled content by 2025" (2021) at pp 38-40 <<https://ec.europa.eu/docsroom/documents/46956>> (date accessed 12<sup>th</sup> August 2022).

<sup>74</sup> Circular Plastics Alliance, "Guidance on Waste Definitions" (2021) <<https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewi85rCw1L73AhVKUMA KHTGLBh8QFnoECA0QAQ&url=https%3A%2F%2Fec.europa.eu%2Fdocsroom%2Fdocuments%2F46954%2Fattachments%2F8%2Ftranslations%2Fen%2Fdefinitions%2Fpdf&usg=AOvVaw16utwHMhvCUqDeK7P7kWfG>> (date accessed 12<sup>th</sup> August 2022).

<sup>75</sup> European Committee for Standardization (CEN) <<https://www.cenelec.eu/about-cen/>> (date accessed 6<sup>th</sup> May 2022).

<sup>76</sup> European Committee for Electrotechnical Standardization (CENELEC) <<https://www.cenelec.eu/about-cenelec/>> (date accessed 12<sup>th</sup> August 2022).

<sup>77</sup> European Commission, "Draft standardisation request as regards plastics recycling and recycled plastics in support of the implementation of the European Strategy for Plastics in a Circular Economy" (2022) <<https://ec.europa.eu/docsroom/documents/48814>> preamble [5], p 10 (date accessed 12<sup>th</sup> August 2022). See also Regulation (EU) No 1025/2012 of the European Parliament and of the Council of 25 October 2012 on European standardisation OJ L 316, 14.11.2012 Article 12.

bodies to develop voluntary single market standards for recycled plastics.<sup>78</sup> While such standards would initially be voluntary in nature, the EU legal framework for ecodesign could influence the normative strength of such standards in practice. To understand the rechannelling of conduct in this area, we therefore need to examine how the EU's emerging legal framework for Ecodesign might interact with any future harmonised standards for recycled plastics that might be adopted by CEN and CENELEC. Accordingly, to illuminate this polycentric governance context composed of the EU institutions, CEN and CENELEC and the industrial alliances, it is necessary to consider what influence legal authority might have in relation to reinforcing the regulatory impact of voluntary harmonised standards for recycled plastics.

### **G. The Imperativeness of Law**

Llewellyn explains that what distinguishes the law from other forms of social organisation is the binding nature of legal obligations. There is an *imperative* aspect to law, meaning that an individual can choose whether to follow non-legal norms or advice, however, the individual *must* follow the law or face the consequences.<sup>79</sup> Llewellyn asserts that what makes law distinctive is that it has “teeth”.<sup>80</sup> In other words, when law comes under attack it will prevail over other arguments even if such arguments might appear more ‘right or just’ to a particular individual.<sup>81</sup> To consider how imperative standards may develop for plastics we can examine the European Commission’s Proposal for a Regulation<sup>82</sup> which would establish a new framework for ecodesign thereby replacing the current Ecodesign Directive.<sup>83</sup> The current Ecodesign Directive applies to energy-related products, however the Proposed Regulation would extend the application of an ecodesign approach to address circularity throughout all product life-cycles.

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<sup>78</sup> This draft has not yet been adopted or endorsed by the European Commission.

<sup>79</sup> Llewellyn 1940 (n 1) at p 1364.

<sup>80</sup> *Ibid.* at pp 1364, 1367, 1381.

<sup>81</sup> *Ibid.* at 1364.

<sup>82</sup> Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC COM(2022) 142 final.

<sup>83</sup> Directive 2009/125/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products OJ L 285, 31.10.2009.

The overarching objectives of the Proposed Regulation are to reduce the environmental impacts across product life-cycles while also ensuring the functioning of the internal market.<sup>84</sup> The Proposed Regulation intends to achieve these objectives by creating a legal requirement that any products placed on the EU market must conform to the ecodesign requirements of the Regulation and any relevant “delegated acts” adopted by the Commission.<sup>85</sup> Article 4 of the proposed Regulation empowers the Commission to adopt delegated acts pursuant to Article 290 TFEU.<sup>86</sup> Delegated acts are non-legislative acts of general application which supplement parent legislation in relation to non-essential elements of the legislative act.<sup>87</sup> Delegated acts tend to be used where there is a need for regular amendments to account for scientific and technological progress. In the case of the proposed Regulation, the Commission may adopt delegated acts in relation to detailed ecodesign requirements for specific types of products.<sup>88</sup> The requirements which may be addressed by the Commission may relate to; ‘(a) product durability and reliability; (b) product reusability; (c) product upgradability, reparability, maintenance and refurbishment; (d) the presence of substances of concern in products; (e) product energy and resource efficiency; (f) recycled content in products; (g) product remanufacturing and recycling; (h) products’ carbon and environmental footprints; (i) products’ expected generation of waste materials.’<sup>89</sup>

The adoption of a delegated act pursuant to the Proposed Regulation could influence the normative strength of any voluntary harmonised standards (e.g. adopted CEN, CENELEC, ETSI) which correspond to a delegated act or part thereof. In such circumstances, conformity with the voluntary harmonised standard is presumed to indicate conformity with a corresponding

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<sup>84</sup> Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC COM(2022) 142 final at p 1. The proposed Regulation is advanced pursuant to Article 114 of the Treaty on the Functioning of the European Union (TFEU) which mandates the adoption of legislative measures aimed at ensuring the effective functioning of the single market.

<sup>85</sup> Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC COM(2022) 142 final Article 1.

<sup>86</sup> Delegated acts under the Proposed Regulation must be adopted in accordance with Articles 4, 5, 6, 7 and Chapter III.

<sup>87</sup> Treaty on the Functioning of the European Union Article 290.

<sup>88</sup> Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC COM(2022) 142 final Article 4. Delegated acts should set out the elements provided for in Annex VI of the Proposed Regulation.

<sup>89</sup> Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC COM(2022) 142 final Article 1(1).

delegated act.<sup>90</sup> Therefore, if the Commission were to adopt a future delegated act in relation to recycled plastics under the Proposed Regulation, then some harmonised standards developed by CEN or CENELEC could come to regulate access to the European market for certain plastic products.

Whether effective harmonised standards in relation to plastic recycling, and/or the Proposed Regulation are adopted remains to be seen. However, it is clear that normative development in this area is polycentric involving the input of industrial alliances, the EU institutions, and European standardisation bodies (e.g. CEN and CENELEC).<sup>91</sup>

## H. Conclusion

While some arenas of human life such as technological development may appear to be non-juristic in character, when we delve deeper, we observe that law usually tends to be mixed into most coordinated actions. As Karl Llewellyn suggests, law “infests” human culture.<sup>92</sup> When we delve into the EU’s implementation of its Circular Economy agenda we can observe a polycentric governance context wherein the EU institutions, industrial alliances, and European Standardisation bodies all exercise influence. If we accept the premise in the European Green Deal that the achievement of a European Circular Economy requires the “full mobilisation of industry”,<sup>93</sup> then we can say that no decision-centre, not even the EU institutions, possess the *defacto* ultimate authority to achieve a circular economy acting alone. Accordingly, while the EU institutions may possess formal authority over industrial alliances and European standardisation bodies, there is a functional interdependence between each of these decision-centres. While this type of polycentric law-making presents a research challenge for jurists, it has been the contention in this paper that such law-making can be captured and elucidated within the research paradigm of Karl Llewellyn’s law jobs theory. The law jobs theory provides us with a functionalist perspective of law from which we can observe and conceptualise the roles of different actors within the development of the law. This is an important mode of analysis given the recent influence of the Circular Plastics

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<sup>90</sup> Proposal for a Regulation establishing a framework for setting ecodesign requirements for sustainable products and repealing Directive 2009/125/EC COM(2022) 142 final Article 34.

<sup>91</sup> Circular Plastics Alliance, Updated Design for Recycling Work Plan (2021) <<https://ec.europa.eu/docsroom/documents/47334>> (date accessed 12<sup>th</sup> August 2022).

<sup>92</sup> Llewellyn 1940 (n 1) at p 1377.

<sup>93</sup> Commission Communication, “The European Green Deal” COM(2019) 640 final [2.1.3].

Alliance in relation to the potential development of voluntary harmonised standards for recycled plastics. If effective harmonised standards and the Proposed Regulation are adopted, then these instruments could play an important part in addressing both the environmental and economic challenges associated with our utilisation of plastics, by firstly ensuring better management of plastics throughout product life-cycles, and secondly establishing a reliable European market for recycled plastics.