

**THE CONCEPT “CIRCULAR ECONOMY”: TOWARDS A MORE  
UNIVERSAL DEFINITION**

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## 1. INTRODUCTION

The transition to a circular economy is gaining traction. Both on the international<sup>2</sup>, European<sup>3</sup> and the national level (e.g. Germany and China)<sup>4</sup> initiatives are being taken globally to leave the current linear economic model (take – make – waste) behind in favour of 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>5</sup> Although there is a great amount of enthusiasm around the concept of a circular economy, (scientific) research on the topic is still in its infancy.

This article is focused on the definition of the concept “circular economy”. This contribution first addresses the definition of circular economy and the qualification of the concept as an umbrella term. In fact, the importance of a good definition for (legal) practice is undeniable. If a legislator, by way of illustration, were to choose to reduce the selling rights or to grant subsidies in the event of circular demolition and reconstruction, both the consumer, contractor and notary need to know what the legislator understands by a 'circular' demolition and construction process.<sup>6</sup> The question rises if a good definition is feasible. Is

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<sup>2</sup> UNITED NATIONS, “The 17 goals”, <https://sdgs.un.org/goals>.

<sup>3</sup> Communication from the Commission to the European parliament, the council, the European economic and social committee and the committee of the regions concerning *'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality*, COM(2021) 550; Communication from the Commission to the European parliament, the council, the European economic and social committee and the committee of the regions concerning a *new Circular Economy Action Plan for a cleaner and more competitive Europe*, COM(2020) 98.

<sup>4</sup> Germany: Gesetz zur Neuordnung des Kreislaufwirtschafts- und Abfallrechts, 24 februari 2012. China: The Circular Economy Promotion Law, 29 augustus 2008;

<sup>5</sup> Communication from the Commission to the European parliament, the council, the European economic and social committee and the committee of the regions concerning *an EU action plan for the Circular Economy (Closing the loop)*, COM(2015) 614, 2.

<sup>6</sup> The current Flemish legislation on selling and registration rights isn't really clear at the moment on the subject of circular ambitions: K. ZEE, J. VOORTER, *Verlaagd tarief in het verkooprecht bij sloop en herbouw. Een uitbreiding op losse schroeven*, *NjW* 2021, afl. 441, 330 – 337.

circular economy not to be considered as an essentially contested concept? This is discussed in the second part of this article. After a brief presentation of the general conditions of application, the theory is applied to the concept of the circular economy in order to establish whether providing a definition is possible at all. In a third part, after explaining why there is any need, a more universal description or definition is put forward. Within this analysis the authors have examined legislation in France, the Netherlands, Belgium and Romania.

## 2. THE CIRCULAR ECONOMY AS AN UMBRELLA TERM

### 2.1 *An umbrella term*

The Ellen Macarthur Foundation characterizes the circular economy as “*an industrial system that is restorative or regenerative by intention and design [...]. It replaces the ‘end-of-life’ concept with restoration, shifts towards the use of renewable energy, eliminates the use of toxic chemicals, which impair reuse, and aims for the elimination of waste through the superior design of materials, products, systems, and, within this, business models*”<sup>7</sup>

This definition albeit a popular one<sup>8</sup> lacks certain key elements of the circular economy concept, such as the paradigm shift the transition to a circular economy entails or

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<sup>7</sup> Ellen Macarthur Foundation, “Towards the circular economy: Economic and business rationale for an accelerated transition”, 2013, [www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf](http://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf), 7.

<sup>8</sup> For example: D. PETOSA, *Bouwen in een circulaire economie. Een benadering vanuit het privaat aannemingsrecht*, in E. MEES, Y. MUSSCHEBROECK (eds.), *Overheidsopdrachten voor werken en private aannemingsovereenkomsten: capita selecta*, Limal, Anthemis, 2021, 262; B. VERHEYE, *Toekomst van de circulaire vastgoedeconomie*, TPR 2019, 111 -113; A. VAN VAERENBERGH, F. LEYMAN, “*Product als dienst*”-overeenkomsten, een stap in de richting van een circulaire economie, MER 2019, afl. 1, 21; V. MAK, *Consumentenbescherming bij servitisation*, TPR 2019, afl.

the consumer perspective (*infra*). In fact, the term 'circular economy' appears to be a collection of different ideas and concepts and therefore an umbrella concept.<sup>9</sup> After all, the circular economy is influenced by ideas such as Cradle to Cradle, Industrial Ecology, Biomimicry, Performance Economy, Blue Economy<sup>10</sup>, Natural Capitalism, Industrial Capitalism, etc.<sup>11</sup> For example, the Cradle to Cradle idea uses the 'biological metabolism' as a model to also develop a 'technical metabolism'. Within these 'metabolisms', product components can be designed for continuous recovery and reuse as biological or technical nutrients.<sup>12</sup> The cyclical course of the circular economy follows from this. The 'Performance Economy', a notion developed by Stahel, wants to shift the focus from the purchase of products to their use by consumers (in which the company is encouraged to market

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3-4, 783 en B. KEIRSBILCK, E. TERRY, E. VAN GOOL, *Consumentenbescherming bij servitisation en product-dienst-systemen (PDS)*, TPR 2019, afl. 3-4, 826; J. HART, K. ADAMS, J. GIESEKAM, D. DENSLEY TINGLEY, F. POMPONI, *Barriers and drivers in a circular economy: the case of the built environment*, *Science Direct – 26<sup>th</sup> CIRP Life Cycle Engineering (LCE) Conference*, Amsterdam, Elsevier 2019, 619; M. GEISSDOERFER, P. SAVAGET, N. M.P. BOCKEN, E.J. HULTINK, *The circular economy – A new sustainability paradigm*, in *Journal of Cleaner Production* 2017, afl. 143, 759. Some of these articles also refer to the definition of the European Commission in: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on *Closing the loop – An EU action plan for the Circular Economy*, COM(2015) 614, 2.

<sup>9</sup> F. BLOMSMA, G. BRENNAN, *The emergence of circular economy. A new framing around prolonging resource productivity*, in *Journal of industrial ecology* 2017, vol. 21, afl. 3, 604. Also in: M. BORRELLO, S. PASCUCI, L. CEMBALO, *Three propositions to unify circular economy research: a review*, *Sustainability* 2020, afl. 12, 5; Ciraig, "Circular Economy: A critical literature review of concepts", 2015, [http://www.ciraig.org/pdf/CIRAIG\\_Circular\\_Economy\\_Literature\\_Review\\_Oct2015.pdf](http://www.ciraig.org/pdf/CIRAIG_Circular_Economy_Literature_Review_Oct2015.pdf), 64;

<sup>10</sup> G. PAULI, *Blauwe economie: versie 2.0*, Amsterdam, Nieuw Amsterdam, 2017, 384p.

<sup>11</sup> A. SACCHI HOMRICH, G. GALVAO, L. GAMBOA ABADIA, M. M. CARVALHO, *The circular economy umbrella: Trends and gaps on integrating pathways*, in *Journal of Cleaner Production* 2018, afl. 175, 527; M. GEISSDOERFER, P. SAVAGET, N. M.P. BOCKEN, E.J. HULTINK, *The circular economy – A new sustainability paradigm*, in *Journal of Cleaner Production* 2017, afl. 143, 759; J. KORHONEN, A. HONKASALO EN J. SEPPÄLÄ, *Circular Economy: the concept and its limitations*, in *Ecological Economics* 2018, afl. 143, 39; Ellen Macarthur Foundation, "Schools of Thought", <https://www.ellenmacarthurfoundation.org/circular-economy/concept/schools-of-thought>.

<sup>12</sup> M. BRAUNGART EN W. MCDONOUGH, *Cradle to Cradle. Afval = voedsel*, Heeswijk, Search Knowledge, 2010, 129; Ellen Macarthur Foundation, "Schools of Thought", <https://www.ellenmacarthurfoundation.org/circular-economy/concept/schools-of-thought>.

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sustainable and resistant products as a service).<sup>13</sup> The fact that the circular economy focuses on the ecological aspect as well as the economic component is reflected in the theory of 'Natural Capitalism'. According to this theory, protecting the biosphere can go hand in hand with making profits and increasing competitiveness, e.g. by making the use of raw materials more efficient and productive.<sup>14</sup>

## **2.2 The consequences of the qualification**

The fact that the concept “circular economy” is an umbrella term has two consequences: 1) umbrella concepts can serve as a catalyst for further knowledge acquisition and research to fill an existing knowledge gap and 2) umbrella concepts all develop in a similar way.<sup>15</sup> In the context of this paper, it is mainly the second element that is interesting.

The development of an umbrella concept normally goes through four different phases: 1) a period of enthusiasm in which everyone welcomes the emergence of the new umbrella term - that connects recently unrelated ideas and concepts - with great interest; 2) the period in which the validity of the umbrella concept is challenged. In this second period, there are a lot of possible definitions and there is no real framework available in which the new concept can function; 3) further work tries to give the concept further (theoretical)

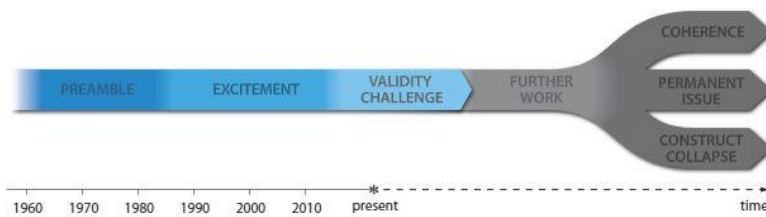
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<sup>13</sup> Product Life Institute, <http://www.product-life.org/en/node>.

<sup>14</sup> A. SACCHI HOMRICH, G. GALVAO, L. GAMBOA ABADIA, M. M. CARVALHO, *The circular economy umbrella: Trends and gaps on integrating pathways*, in *Journal of Cleaner Production* 2018, afl. 175, 527.

<sup>15</sup> P.M. HIRSCH, D. Z. LEVIN, *Umbrella advocates versus validity police: A life-cycle model*, in *Organization Science* 1999, vol. 10 , afl. 2, 204 -205.

support after which the concept 4) collapses, develops as a coherent concept or remains a contested concept (permanent issue).<sup>16</sup>



Picture 1: Development trajectory of the umbrella term “circular economy”<sup>17</sup>

Scholars conclude that the circular economy is currently in the second phase ('validity challenge period').<sup>18</sup> This period would imply, among other things, that there is currently still a great deal of uncertainty about the concept of “circular economy”. This does appear to be the case.<sup>19</sup> However, this raises the question whether the concept of “circular economy” is not an “essentially contested concept” and therefore, by definition, cannot be defined. Considering the similar course of development of umbrella concepts, this would mean that the future of the circular economy does not necessarily look very bright,<sup>20</sup> and legal uncertainty will remain.

<sup>16</sup> HIRSCH and LEVIN argue that this development trajectory is similar to the life cycle of products, technologies and industries: P.M. HIRSCH, D. Z. LEVIN, *Umbrella advocates versus validity police: A life-cycle model*, cit., 204.

<sup>17</sup> F. BLOMSMA, G. BRENNAN, *The emergence of circular economy. A new framing around prolonging resource productivity*, in *Journal of industrial ecology* 2017, vol. 21, afl. 3, 607.

<sup>18</sup> *Id.*, 610.

<sup>19</sup> JULIAN KIRCHHERR ET AL., *Conceptualizing the Circular Economy: An Analysis of 114 Definitions* 221, (2017).

<sup>20</sup> Bear in mind that the lack of an adequate definition is merely one of the elements which can influence the development trajectory of an umbrella term.

### **3. CIRCULAR ECONOMY AS AN ESSENTIALLY CONTESTED CONCEPT?**

#### ***3.1 Theory***

##### *1° Definition of an essentially contested concept*

W.B. Gallie established the theory of “essentially contested concepts”. In his 1956 contribution, Gallie explicitly states that, for him, essentially contested concepts are concepts that give rise to endless disputes between users about the “correct” use of these concepts.<sup>21</sup> Academic literature points out that, according to Gallie, a concept is essentially contested if there is an agreement between the various stakeholders about the goals of the concept but disagreement about 1) how the concept should be defined, 2) the analysis methods to be used in order to grasp the dynamics of the concept, 3) what the conceptual cornerstones of the concept are and 4) what research methodology is desirable or useful.<sup>22</sup> By introducing the term, Gallie intends to provide a strict and systematic framework for the analysis of such contested concepts.<sup>23</sup>

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<sup>21</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 169.

<sup>22</sup> J. KORHONEN, C. NUUR, A. FELDMANN, S. ESHETU BIRKIE, *Circular economy as an essentially contested concept*, in *Journal of Cleaner Production* 2018, afl. 175, 545.

<sup>23</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies* 2006, vol. 11, afl. 3, 236.

Concepts such as “democracy” and “the rule of law” are pre-eminent examples of “essentially contested concepts”.<sup>24</sup> Gallie first of all uses a hypothetical example to further introduce the term “essentially contested concepts”. He proposes a (football) championship with the following characteristics: 1) In the championship, each team specialises in a specific style of play, strategy or method. 2) The 'champion' is not determined by the highest number of successes but by the level of the performance(s) delivered. "Being champion" means: having played the match in the best possible way; 3) "Champion" is not a title that is awarded at a certain point and that one can wear for a certain period of time, but it can change after each match; 4) As there is no real points system (there is no jury and there are no strict rules to determine the winner), the title of champion takes the form of a "claim" by the team with the biggest or "loudest" supporters. Each team has its loyal core of supporters, but there is also an ever-fluctuating group that can switch teams based on the play delivered; 5) Each supporters' group considers its team to be the 'champions' (e.g. the deserved champions, the moral champions, etc.). Gallie indicates that the supporters' groups will accept that a team is - at a certain point in time - the effective champion, but this does not imply universal recognition. Indeed, supporter groups will continue to try to prove that their favourite team is the true champion because they believe that their team represents the best way to play. As a result, there is a constant battle/competition between the rival teams. This battle is not only about the recognition as 'champions', but also about the definition of the correct criteria to designate the champion.<sup>25</sup>

2° *The attributes of an “essentially contested concept”*

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<sup>24</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 180. Also: D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies* 2006, vol. 11, afl. 3, 222.

<sup>25</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 170 -171.



Gallie ultimately identified seven (7) characteristics of an 'essentially contested concept': 1) appraisiveness; 2) internal complexity; 3) diverse describability; 4) openness; 5) reciprocal recognition; 6) original exemplar and 7) progressive competition.<sup>26</sup>

The first characteristic (appraisiveness) implies that the concept carries a valued (normative) accomplishment or achievement.<sup>27</sup> Thus, Gallie states that democracy has a positive normative value<sup>28</sup> and can, from a normative perspective, even be considered to be the political concept *par excellence*. After all, one of the main questions in any major policy decision today is: "is it democratic?"<sup>29</sup>

The second (internal complexity) and the third (diverse describability) property are often treated together as they are related.<sup>30</sup> Other authors consider that, internal complexity means that the concept consists of various, often overlapping, criteria.<sup>31</sup>

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<sup>26</sup> J. KORHONEN, C. NUUR, A. FELDMANN, S. ESHETU BIRKIE, *Circular economy as an essentially contested concept*, *Journal of Cleaner Production* 2018, afl. 175, 548. Also: D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 216 -222; J. PENNANEN, *After essentially contested concepts*, onuitg. Masterthesis filosofie Universiteit van Jyväskylä, 2012, 16 -50.

<sup>27</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 216.

<sup>28</sup> A negative normative appraisal is also possible D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 216 en J. PENNANEN, *After essentially contested concepts*, onuitg. Masterthesis filosofie Universiteit van Jyväskylä, 2012, 17.

<sup>29</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 184.

<sup>30</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 216.

<sup>31</sup> J. PENNANEN, *After essentially contested concepts*, onuitg. Masterthesis filosofie Universiteit van Jyväskylä, 2012, 18 – 19.

The example of democracy can clarify matters. After all, the concept of 'democracy' contains various internal components. These may include, for example, the right of the majority to make decisions, the equality of all citizens to achieve positions of political leadership and/or responsibility, or the continuous and active participation of citizens in political life at all levels.<sup>32</sup> It is this internal complexity (second characteristic) that ultimately also leads to the fact that the concept can be described in different ways (third characteristic).<sup>33</sup>

The fourth characteristic focuses on the openness of the concept. This means that changing circumstances could lead to a revision of the content of the concept. Such changing circumstances may/cannot have been foreseen beforehand.<sup>34</sup> As an example GALLIE presents another fictitious situation. He refers to a bowling championship where a certain team focuses on a particular technique. This team will always have to be aware of the circumstances in which the match is played or the events that occur during the match and will have to adapt its way of performing this technique in the best possible way in order to be able to claim the championship title.<sup>35</sup>

Reciprocal recognition is the fifth characteristic of an "essentially contested concept". This means that the different parties - who have a different opinion about the correct content or use of the concept - also recognise that the use they advocate is contested by the

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<sup>32</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 217.

<sup>33</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 172; D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 217.

<sup>34</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 172;

<sup>35</sup> *Id.*, 173 – 174. In the same line: J. Pennanen, *After essentially contested concepts*, unpublished, Masterthesis philosophy University of Jyväskylä, 2012, 23.

other party/parties.<sup>36</sup> For Gallie it is mainly about each party being able to see on the basis of which criteria the other parties support the (correct) content of the concept.<sup>37</sup>

Gallie defines the sixth characteristic (original exemplar) as the derivation of any concept from an original appearance whose authority is recognised by all users of the concept.<sup>38</sup> There is much discussion about this sixth property since Gallie uses the term appearance both *sensu lato* and *sensu stricto*.<sup>39</sup> The interpretation *sensu lato* means - in short - that the exemplar also consists of various features to which different parties attribute different values. So, the original exemplar itself can also take on different forms.<sup>40</sup> The interpretation *sensu stricto*, in turn, assumes that the essentially contested concept is anchored in some kind of original, transcending, uncontested and fully delimited manifestation of the concept.<sup>41</sup> It is important to point out that, in the context of an “essentially contested concept”, different parties discuss the correct use or interpretation of a concept. This is different in the case of “confused concepts”, in which two ideas or elements of the same concept are emphasised without a form of contestation.<sup>42</sup>

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<sup>36</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 219.

<sup>37</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 172.

<sup>38</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 180: “the derivation of any such concept from an original exemplar whose authority is acknowledged by all the contestant users of the concept”

<sup>39</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 219 -220.

<sup>40</sup> *Id.*; J. PENNANEN, *After essentially contested concepts*, unpublished, Masterthesis philosophy University of Jyväskylä, 2012, 33.

<sup>41</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 219 -220.

<sup>42</sup> *Id.*; J. PENNANEN, *After essentially contested concepts*, unpublished, Masterthesis philosophy University of Jyväskylä, 2012, 33.

The “Progressive competition” is the final characteristic of an 'essentially contested concept'. Gallie believes that, by continuing to discuss the use of the concept, the quality of the arguments put forward will also increase.<sup>43</sup> Again, there is an interpretation *sensu lato* and *sensu stricto*. In the interpretation *sensu stricto*, progressive competition leads the parties to reach more agreement on the original appearance.<sup>44</sup> In the *sensu lato* interpretation, Gallie argues that since there will be no general principle to determine who is right about the interpretation of the concept, progressive struggles can enhance the rationality of the arguments surrounding the interpretation of a particular use of the concept.

### ***3.2 Application and consequences***

#### *1° Application to the concept of “circular economy”*

Now that Gallie's theory around “essentially contested concepts” has been explained, it is possible to examine whether the concept of “circular economy” also falls within the contours of this concept. Scholars already tried to perform this thought exercise once in 2018.<sup>45</sup> This ultimately led to the conclusion that the circular economy is indeed an 'essentially contested concept'.<sup>46</sup> We do not share this opinion.

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<sup>43</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 193.

<sup>44</sup> D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006 vol. 11, afl. 3, 220.

<sup>45</sup> J. KORHONEN, C. NUUR, A. FELDMANN, S. ESHETU BIRKIE, *Circular economy as an essentially contested concept*, in *Journal of Cleaner Production* 2018, afl. 175, 548 -549.

<sup>46</sup> *Id.*, 549.

The first characteristic relates to the appreciation (positive/negative) of the concept of the circular economy under discussion. As authors state, we do agree, that stakeholders today attach enormous value to the transition to a circular economy and that the circular economy holds enormous potential.<sup>47</sup> This first condition is therefore perfectly fulfilled.

The second property (internal complexity) and third property (diverse describability) will be discussed together here. It is certain that the circular economy consists of several internal components, e.g. reuse, greater focus on services, product design, cradle to cradle, etc..<sup>48</sup> By focusing on one or more of these components, the concept can therefore also be described in different ways. This also happens in practice.<sup>49</sup> The concept of “circular economy” therefore also meets the second and third characteristic of an “essentially contested concept”.

The circular economy satisfies the fourth characteristic (openness of the concept) by stating that our interpretation of a circular economy will still change since our knowledge about our impact on nature is not yet complete and is still evolving.<sup>50</sup> The concept of the circular economy therefore seems to satisfy this characteristic as well. After all, there is an idea today about what the circular economy should look like, but insights and/or events in the future - which cannot be predicted at present - may cause the circular economy to have to adapt.

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<sup>47</sup> J. KORHONEN, C. NUUR, A. FELDMANN, S. ESHETU BIRKIE, *Circular economy as an essentially contested concept*, in *Journal of Cleaner Production* 2018, afl. 175, 548.

<sup>48</sup> This is similar to the exemple concerning democracy: D. COLLIER, F.D. HIDALGO, A.O. MACIUCEANU, *Essentially contested concepts: Debates and applications*, in *Journal of Political Ideologies*, 2006, vol. 11, afl. 3, 219 -220, vol. 11, afl. 3, 217.

<sup>49</sup> J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, afl. 127, 221 – 232.

<sup>50</sup> J. KORHONEN, C. NUUR, A. FELDMANN, S. ESHETU BIRKIE, *Circular economy as an essentially contested concept*, *Journal of Cleaner Production* 2018, afl. 175, 549.

It is the fifth characteristic (reciprocal recognition) which, in our view, poses a problem. Gallie explicitly states concerning this fifth characteristic that the use of an essentially contested concept must be aimed at using it both defensively and offensively.<sup>51</sup> The aforementioned authors are of the opinion that the concept "circular economy" also meets this characteristic. For this, they refer to the strong promotion of the concept by the Ellen MacArthur Foundation, among others. However, the concept of "circular economy", in our opinion, stumbles over this particular property. After all, one cannot deny that the current discussion about the concept "circular economy" (focus on recycling, link with sustainability, need for new business models, etc.) cannot be compared with discussions about concepts such as "art" and "democracy". In "art" and "democracy" it is very clear that one can emphasise a certain merit, e.g. equality of all citizens in a democracy, or a certain preference, e.g. Cubism as a favourite art form. Other people will argue, with any valid reasons, that the works of Jan Van Eyck constitute art rather than Cubism or that democracy is more about the will of the majority. There is no general principle that can and will ultimately determine which view is preferable.<sup>52</sup>

This is different for the circular economy. Current definitions emphasise different elements/ideas of the same concept. Stakeholders do not recognise that they are using visions of the circular economy that are diametrically opposed to the visions of other stakeholders.<sup>53</sup> Someone who says that the circular economy is about reuse, while another person says that for them it means focusing on product-service systems, are simply describing two sides of the same coin - both are interesting, valid and possible pathways to achieve a fully circular economy. In addition, in the context of the circular economy there are general principles that,

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<sup>51</sup> W.B. GALLIE, *Essentially contested concepts*, *Proceedings of the Aristotelian Society* 1956, afl. 56, 172.

<sup>52</sup> W.B. GALLIE, *Essentially contested concepts*, in *Proceedings of the Aristotelian Society* 1956, afl. 56, 178.

<sup>53</sup> This is not in line with the fictional "championship used by GALLIE (*Supra* n. 10).

in a certain sense, determine which view or method is preferable (e.g. based on the ladder of Lansink, reuse is a better solution than recycling).

The arguments presented above seem to demonstrate that the concept of “circular economy” is not an “essentially contested concept” but a “confused concept”. This distinction was the reason for the assumption of the sixth characteristic. As already indicated above, stakeholders discussing the concept of “circular economy” today tend to emphasise different ideas within this concept (two sides of the same coin), whereas in the context of an “essentially contested concept”, it is precisely the concept itself that is being discussed (what is art?). The seventh characteristic (progressive competition) does not in our opinion detract from this conclusion.

#### *2° Consequences*

The fact that the concept "circular economy" is not an "essentially contested concept" can be positively associated with the development trajectory of an umbrella concept.<sup>54</sup> After all, the concept "circular economy" is as submitted currently in the "validity challenge period", as a result of which in subsequent phases more clarity will have to emerge on, for example, the content of the concept, possible tools, etc. Building on this line of reasoning the next paragraph wants to contribute to the debate providing elements why a clear definition is needed and what elements should be included.

## **4. TOWARDS A CLEAR AND (MORE) UNIVERSAL DEFINITION**

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<sup>54</sup> *Supra* n. 4 – 5.

#### 4.1 *Is a (universal) definition necessary and useful?*

Despite its possible impact on the development of an umbrella concept and its importance for practice, one may wonder whether the current lack of unanimously accepted definition in our legislation will actually be a major problem. Does it matter so much, then, that companies, knowledge institutions and governments colour the circular economy according to their own place in the circular story? In other words, is it necessary to work towards a strictly defined universal definition? This is indeed considered to be a problem. Today, the circular economy is used and studied by many different stakeholders. Without a generally accepted (universal) definition, the concept may blur. A concept that is interpreted and used in this way may eventually collapse or become bogged down in good intentions.<sup>55</sup> There is a need for a well-thought-out definition.<sup>56</sup>

Furthermore, from a legal point of view, a clear definition offers great added value. It allows for policy making and enforcement, but also, more generally, for greater clarity and legal certainty for other policy makers (e.g. the local level), businesses and consumers.<sup>57</sup> This can be illustrated. The principle of legal certainty implies for example that the law must be foreseeable and accessible, so that the person seeking justice can reasonably foresee the consequences of a certain act at the time when the act is performed and that the government

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<sup>55</sup> *Supra* numbers 7 – 8. Also in: J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, afl. 127, 221; J. KIRCHHERR, M. HEKKERT, R. BOUR, A. HUIBRECHTSE-TRUIJENS, E. KOSTENSE-SMIT, J. MULLER, *Breaking the barriers to the circular economy*, 2017, <https://www2.deloitte.com/nl/nl/pages/risk/articles/breaking-the-barriers-to-the-circular-economy.html>, 4.

<sup>56</sup> A. MURRAY, K. SKENE, K. HAYNES, *The circular economy: an interdisciplinary exploration of the concept and application in a global context*, *Journal of Business Ethics* 2015, afl. 140, 377.

<sup>57</sup> *Supra* number 3.



may not deviate from it without objective and reasonable justification.<sup>58</sup> A clear definition of the term ‘circular economy’ can help achieve this ambition for legal certainty and more clarity.

In Flemish environmental law, only the Materials Decree<sup>59</sup> currently refers to the concept of the circular economy. Article 4 indicates that the objective of the Materials Decree is to establish measures to promote a circular economy.<sup>60</sup> However, the term is not defined in the Decree creating legal uncertainty. The same is true for Italian and French legislation. It mentions the notion of circular economy both at state and regional level, yet never defines it<sup>61</sup>. Meanwhile, Romanian waste legislation has only recently been updated to the EU standards.<sup>62</sup>

This may come as a surprise. Hence, the Italian legislation brings up the circular economy as *raison d’être* or even as purpose of enactment of a new law. The concept emerges above all in the Italian Environment Code (hereafter, IEC) in particular in Part IV of the code, which deals with waste management, a sector identified as one of the key elements in the transition

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<sup>58</sup> For example: I. OPDEBEEK, S. DE SOMER, *Algemeen bestuursrecht*, Antwerpen, Intersentia, 2019, 411; RvS (Council of State) 21 februari 2011, nr. 211.392, *vzw vlaamse dierenartsenvereniging et al.*

<sup>59</sup> Decree of 23rd December 2011 on the sustainable management of material cycles and waste, *Belgian Official Gazette* 28 February 2012, 12.943

<sup>60</sup> Chapter 6 (article 67) explicitly deals with the transition to a circular economy.

<sup>61</sup> A generic and non-binding description of the concept of Circular economy can be found in annex 2 of the ministerial decree 11 June 2020 issued by the Italian Ministry of Economic Development, which states that „*circular economy refers to an economic model in which the value of products, materials, and resources is maintained for as long as possible, and waste generation is minimized*“. For France: Loi n° 2020-105 du 10 février 2020 relative à la lutte contre le gaspillage et à l’économie circulaire.

<sup>62</sup> The transition towards a Circular economy is mentioned in Government’s decree: Ordonanța de urgență nr. 92/2021 privind regimul deșeurilor, *Romanian Official Gazette*, Part I, n. 820, 26 August 2021. The decree has been adopted after receiving a letter of formal notice from the European Commission.

to a circular economy<sup>63</sup>. However unintended there is an apparent reductive nature of the legal promotion of the concept as currently used: it seems to be linked only to the notion of “waste” and to the waste hierarchy<sup>64</sup>. This link is nonetheless correct but insufficient and even useless since this would only be aimed to protect the environment. Therefore, a correct and clear common understanding is needed to enhance legal certainty and to unleash the full potential of the concept. Besides providing legal certainty, the acceptance of a universal definition has other advantages. On the one hand, it provides a framework within which the government and a sector (e.g. construction) can consider specific legislation or standards to achieve the circular objective and further shape the transition.<sup>65</sup> On the other hand, clarity on the concept of 'circular economy' can also lead to better enforcement to counter non-circular practices or 'greenwashing'<sup>66</sup>. In fact, academic literature affirms that the implementation of circular economy seems perfectly thought on paper but still needs concrete measures at legislative level through clear and unambiguous rules.<sup>67</sup> It is therefore not a coincidence that

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<sup>63</sup> The Italian Environmental code was enacted with the Legislative decree 03 April 2006 n. 152, *Italian Official Gazette* 14 April 2006, n. 88. and the circular economy is mentioned in article 177.

<sup>64</sup> The common objectives of waste management and circular economy are pointed out in Article 180 and followings: foster sustainable production and consumption; promoting more efficient products considering their life cycle and the best available techniques *etc.*

<sup>65</sup> It could be a framework to guide circular public procurement. On circular public procurement: S. VAN GARSSE, *Circulair aankopen – Enkele reflecties*, in C. DE KONINCK, P. FLAMEY, P. T HIEL, B. WATHELET (eds.), *Jaarboek Overheidsopdrachten 2020 – 2021*, Brussels, EBP Consulting, 2021, 517 – 524; PLATFORM CB’23, *Leidraad circulair inkopen. Leidende principes voor een circulaire bouw*, [https://platformcb23.nl/images/leidraden/Platform\\_CB23\\_Leidraad\\_Circulair-Inkopen\\_versie1.pdf](https://platformcb23.nl/images/leidraden/Platform_CB23_Leidraad_Circulair-Inkopen_versie1.pdf); D. SÖNNICHSEN SÖNNICH, C. JESPER, *Review of green and sustainable public procurement: towards circular public procurement*, in *Journal of Cleaner Production* 2020, iss. 245, 1 - 18.

<sup>66</sup> E. VAN GOOL, *De rol van informatie binnen het omgevingsrecht*, in E.S. VAN AGGELEN, *Informatie en recht*, Antwerpen, Intersentia, 270.

<sup>67</sup> A. MURATORI, *Il nuovo piano d’azione per l’economia circolare: buoni propositi, ma anche un bel po’ d’aria fritta*, in *Ambiente&Sviluppo*, 2020, vol. 4, p. 289-294.

the lack of common understanding and a clear definition<sup>68</sup> has been criticized by scholars<sup>69</sup> and demonstrated by stakeholders.<sup>70</sup>

#### **4.2 The core elements of a circular economy**

In order to shape a more universal definition, it is necessary to look for the different elements that actually characterise the circular economy. To this end, this contribution draws heavily on the insights already gained by KIRCHHERR et al. in their 2017 study analysing 114 (95 unique) definitions of a circular economy.

A first element concerns the systemic and holistic character of the transition to a circular economy. The transition acts on different levels: the micro (product), meso (industrial parks, demand systems) and macro level (city, region, country,...).<sup>71</sup> In addition, the circular economy also involves a paradigm shift.<sup>72</sup> The pursuit of a circular economy

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<sup>68</sup> Providing a legal definition of the concept of circular economy would represent a boost for a whole new “Circular State” unlike the models of the past. F. DE LEONARDIS, *Economia circolare: saggio sui suoi tre diversi aspetti giuridici. Verso uno stato circolare?*, in *Dir. Amm.*, 2017 vol. 1, 40; M. COCCONI, *Circular economy and environmental sustainability*, *AmbienteDiritto*, 2020, vol. 3, p. 225-247; A. MURATORI, *Il nuovo piano d'azione per l'economia circolare: buoni propositi, ma anche un bel po' d'aria fritta*, *Ambiente&Sviluppo*, 2020, vol. 4, p. 289-294; S. ANTONIAZZI, *Transition to the Circular Economy and Services of Economic General Interest: An Overview of the Issue*, in *Federalismi*, 7, 2021, p. 1-21.

<sup>69</sup> A. VAN VAERENBERGH, F. LEYMAN, “*Product als dienst*”-overeenkomsten, een stap in de richting van een circulaire economie, *MER* 2019, afl. 1, 21; J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, afl. 127, 221 – 232.

<sup>70</sup> Within his PhD research, Jonas Voorter also conducted semi-structured interviews with stakeholders from the Belgian construction sector. It became apparent that they all defined circular economy in another way.

<sup>71</sup> K. ANASTASIADIS, J. BLOM, M. BUYLE, A. AUDENAERT, *Translating the circular economy to bridge construction: Lessons learnt from a critical literature review*, in *Renewable and Sustainable Energy Reviews* 2020, afl. 117, 2.

<sup>72</sup> V. PRIETO-SANDOVAL, C. JACA, M. ORMAZABAL, *Towards a consensus on the circular economy*, in *Journal of Cleaner Production* 2018, afl. 179, 605.

presupposes a fundamental change in our society.<sup>73</sup> The scientific literature confirms this vision.<sup>74</sup>

A second element concerns the strategies to be used to achieve the circular economy. The strategies to be used can be represented according to a so-called "R-framework". In their contribution, the authors refer to the 4R framework that, for example, underlies the European Waste Framework Directive and consists of 'Reduce', 'Reuse', 'Recycle' and 'Recover'.<sup>75</sup> These strategies are also part of a hierarchy where 'Reduce' is the best choice from a circular perspective and 'Recover' is the least good.<sup>76</sup> Besides the 4R framework, there is also a 3R framework ('Reduce', 'Reuse' and 'Recycle')<sup>77</sup> and even a 6R and 9R framework: 1) 'Refuse',

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<sup>73</sup> N. VAN BUREN, M. DEMMERS, R. VAN DER HEIDEN, F. WITLOX, *Towards a circular economy: The role of Dutch logistics industries and governments*, in *Sustainability* 2016, afl. 8, 5.

<sup>74</sup> P. JONES, R. BROWN, *Approaches to the circular economy* in H. KAUFMANN, M. PANI (eds.), *Handbook of research on contemporary consumerism*, Pennsylvania (USA), IGI Global, 2019, 75; B. VERHEYE, *Toekomst van de circulaire vastgoedeconomie*, *TPR* 2019, afl. 1, 113; B. MOULIGNEAU, A. VAN PELT, *De Vlaamse aanpak van de transitie naar een circulaire economie*, *MER* 2019, afl. 1, 4; M. ESPOSITO, T. TSE, K. SOUFANI, *Introducing a circular economy: new thinking with new managerial and policy implications*, in *California Management Review* 2018, 2; A. SACCHI HOMRICH, G. GALVAO, L. GAMBOA ABADIA, M. M. CARVALHO, *The circular economy umbrella: Trends and gaps on integrating pathways*, in *Journal of Cleaner Production* 2018, afl. 175, 526; D. REIKE, W.J.V., VERMEULEN, S. WITJES, *The circular economy: new or refurbished as CE 3.0? – Exploring controversies in the conceptualization of the circular economy through a focus on history and resource value retention options, Resources, Conservation & Recycling* 2018, afl. 135, 259; V. PRIETO-SANDOVAL, C. JACA, M. ORMAZABAL, *Towards a consensus on the circular economy*, *Journal of Cleaner Production* 2018, afl. 179, 605; KIRCHHERR ET AL., *supra* note 20.; M. LIEDER, A. RASHID, *Towards circular economy implementation: a comprehensive review in context of manufacturing industry*, in *Journal of Cleaner Production* 2016, afl. 115, 37; A. MURRAY, K. SKENE, K. HAYNES, *The circular economy: an interdisciplinary exploration of the concept and application in a global context*, in *Journal of Business Ethics* 2015, afl. 140, 373.

<sup>75</sup> *Id.*

<sup>76</sup> *Ibid.* This hierarchy is not absolute. For example: article 4, 2. Directive 2008/98/EG which explicitly mentions the possibility to derogate from this hierarchy. See concerning cement: J.M. ALLWOOD, *Squaring the circular economy: the role of recycling within a hierarchy of material management strategies* in E. WORRELL, M.A. REUTER (eds.), *Handbook of recycling*, Amsterdam, Elsevier, 2014, 468.

<sup>77</sup> This is, for example, part of the Chinese law to promote circular economy: K. ANASTASIADES, J. BLOM, M. BUYLE, A. AUDENAERT, *Translating the circular economy to bridge construction: Lessons learnt from a critical literature review*, in *Renewable and Sustainable Energy Reviews* 2020, afl. 117, 2.

2) 'Reduce', 3) 'Reuse', 4) 'Repair', 5) 'Refurbish', 6) 'Remanufacture', 7) 'Repurpose', 8) 'Recycle' and 9) 'Recover' (energy).<sup>78</sup> So far, 38 different 're-words' have been found in the literature on circular economy.<sup>79</sup> These 38 words can all be fitted into the 4R framework in one way or another.<sup>80</sup> The strength of the framework is that it assumes a hierarchy.<sup>81</sup> After all, from a circular point of view, 'Reduce' is in principle much more interesting than recycling materials.<sup>82</sup> In addition, the different 're-words' can cover different charges<sup>83</sup>, leaving enough room for technological innovations or socio-economic developments.<sup>84</sup>

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<sup>78</sup> N. VAN BUREN, M. DEMMERS, R. VAN DER HEIJDEN, F. WITLOX, *Towards a circular economy: The role of Dutch logistics industries and governments*, in *Sustainability* 2016, afl. 8, 3.

<sup>79</sup> D. REIKE, W.J.V., VERMEULEN, S. WITJES, *The circular economy: new or refurbished as CE 3.0? – Exploring controversies in the conceptualization of the circular economy through a focus on history and resource value retention options*, in *Resources, Conservation & Recycling* 2018, afl. 135, 253.

<sup>80</sup> K. ANASTASIADES, J. BLOM, M. BUYLE, A. AUDENAERT, *Translating the circular economy to bridge construction: Lessons learnt from a critical literature review*, in *Renewable and Sustainable Energy Reviews* 2020, afl. 117, 2. KIRCHHERR et al. also prefer this framework.

<sup>81</sup> D. REIKE, W.J.V., VERMEULEN, S. WITJES, *The circular economy: new or refurbished as CE 3.0? – Exploring controversies in the conceptualization of the circular economy through a focus on history and resource value retention options*, in *Resources, Conservation & Recycling* 2018, afl. 135, 253; KIRCHHERR et al., *supra* note 20. N. VAN BUREN, M. DEMMERS, R. VAN DER HEIJDEN, F. WITLOX, *Towards a circular economy: The role of Dutch logistics industries and governments*, in *Sustainability* 2016, afl. 8, 3.

<sup>82</sup> For example: article 4, §3, 1° Decree of 23rd December 2011 on the sustainable management of material cycles and waste, *Belgian Official Gazette* 28 February 2012, 12.943. In specific cases, it could be more interesting to recycle instead of reusing products. 'Reuse' and/or 'Recycling' will not always lead to desirable results: W. HAAS, F. KRAUSMANN, D. WIEDENHOFER, C. LAUK, A. MAYER, *Spaceship earth's odyssey to a circular economy – a century long perspective*, in *Resources, Conservation & Recycling* 2020, afl. 163, 2.

<sup>83</sup> J.M. ALLWOOD, *Squaring the circular economy: the role of recycling within a hierarchy of material management strategies*, in E. WORRELL, M.A. REUTER (eds.), *Handbook of recycling*, Amsterdam, Elsevier, 2014, 445 – 477. This article mentions 'reduce', 'reuse' and 'recycle'.

<sup>84</sup> R. MERLI, M. PREZIOSI, A. ACAMPORA, *How do scholars approach the circular economy? A systematic literature review*, in *Journal of Cleaner Production* 2018, afl. 178, 704 -705.

A third point for discussion is who will have to help shape the circular economy. In the first instance, one immediately thinks of companies that can accelerate the circular economy with their business models and innovations.<sup>85</sup> In addition to these business models, however, consumers also have an important role to play.<sup>86</sup> After all, if we fail to take consumer behaviour into account, a kind of 'rebound effect' may arise. Companies that achieve (economic and ecological) efficiency gains in the creation of circular products will see their production costs fall, which will also reduce the cost price of these products. Lower prices will lead to higher consumption levels if consumption patterns are not adjusted as part of the transition to a circular economy. In this way, increased economic efficiency cancels out ecological gains.<sup>87</sup> This is an important point that also confirms the holistic nature of the transition.

The transition to the circular economy represents a possible path to a more sustainable society. Sustainability has both an economic, ecological and social component.<sup>88</sup>

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<sup>85</sup> T. LAHTI, J. WINCENT, V. PARIDA, *A definition and theoretical review of the circular economy, value creation, and sustainable business models: where are we now and where should research move in the future?*, in *Sustainability* 2018, afl. 8, 1 -19. M. LEWANDOWSKI, *Designing the business models for circular economy – towards the conceptual framework*, in *Sustainability* 2016, vol. 8, afl. 1, 1 – 28. See in a critical way: T. ZINK EN R. GEYER, *Circular economy rebound*, in *Journal of Industrial Ecology* 2017, vol. 21, afl. 3, 593 – 602.

<sup>86</sup> For example: P. JONES, R. BROWN, *Approaches to the circular economy*, in H. KAUFMANN, M. PANNI (eds.), *Handbook of research on contemporary consumerism*, Pennsylvania (USA), IGI Global, 2019, 75; J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, afl. 127, 228; N. VAN BUREN, M. DEMMERS, R. VAN DER HEIJDEN, F. WITLOX, *Towards a circular economy: The role of Dutch logistics industries and governments*, in *Sustainability* 2016, afl. 8, 2.

<sup>87</sup> J. KORHONEN, A. HONKASALO, J. SEPPÄLÄ, *Circular Economy: the concept and its limitations*, in *Ecological Economics* 2018, afl. 143, 43. Further reading: T. ZINK, R. GEYER, *Circular economy rebound*, in *Journal of Industrial Ecology* 2017, vol. 21, afl. 3, 593 – 602. T. ZINK and R. GEYER also point to the risk that secondary products will not replace primary materials and, instead, establish a whole new market. This can also hamper the environmental ambitions of a circular economy. See as well: D. MASI, S. DAY, J. GODSELL, *Supply chain configurations in the circular economy: a systematic literature review*, in *Sustainability* 2017, afl. 9, 1 and 15.

<sup>88</sup> J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, afl. 127, 224.

The link between sustainability and the circular economy can be approached in different ways. Geissdoerfer et al. establish in their research that the link can be seen as conditional, beneficial or as a trade-off. They conclude, rightly so, that the link is rather beneficial in nature. More specifically, they refer to the subgroup relationship ('subset') in which the circular economy is one of the possible solutions for creating a sustainable system (see table below). They come to this conclusion because the current definition and research on the circular economy focuses mainly on the economic aspect, oversimplifies the ecological aspect and (completely) leaves out the social aspect.<sup>89</sup> Considering the sustainable development goals<sup>90</sup> - and the fact that the circular economy does not address all formulated sustainability goals - the choice for the subgroup relationship can be confirmed.

**Table 4**  
Relationship types between the Circular Economy and sustainability.

General direction	Type of relationship	Short description Circularity/closed loop systems are seen as ...	Examples in literature	Graphical representation
Conditional	Conditional relation	One of the conditions for a sustainable system	Läpple, 2007 Rashid et al., 2013	A → B
	Strong conditional relation	The main solution for a transformation to a sustainable system	Bakker et al., 2014 EMF, 2013b UNEP, 2006	A ⇨ B
	Necessary but not sufficient conditional relation	A necessary but not sufficient condition for a sustainable system	Nakajima, 2000	
Beneficial	Beneficial relationship	Beneficial in terms of sustainability, without referring to condition-ality or alternative approaches	European Commission, 2014	+A → +B
	Subset relation (structured and unstructured)	One among several solutions for fostering a sustainable system	Allwood et al., 2012 Bocken et al., 2014 Evans et al., 2009 Garetti and Taisch, 2012 Seliger, 2007 Weissbrod and Bocken, 2017	
	Degree relation	Yielding a degree of sustainability with other concepts being more and/or less sustainable	OECD, 2009	
Trade-off	Cost-benefit/trade-off relation	Having costs and benefits in regard to sustainability, which can also lead to negative outcomes	Allwood, 2014 Andersen, 2007	
	Selective relation	Fostering certain aspects of sustainability but lacking others	Murray et al., 2015	

<sup>89</sup> In the proposed holistic approach, there is time and also a need for equal opportunities for research on the economical, ecological or societal aspect of sustainability.

<sup>90</sup> *Supra* footnote 4.

Picture 2: Possible relations between circular economy and sustainability<sup>91</sup>

Sustainable development is essentially about *people, profit and planet*.<sup>92</sup> In addition to these ecological, economic and social dimensions, Kirchherr et al. also add a time aspect in their search for a definition. After all, the Brundtland report explicitly states that "*humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.*" (own emphasis).<sup>93</sup> This intergenerational addition is welcomed and will be included in the proposal for a universal description that will be the subject of the next section.

#### 2° Proposing a universal characterization

The preceding section makes it clear that there are various elements that characterise the circular economy. It is therefore desirable to provide a description that encompasses the core of the circular economy. This universal description will at certain points deliberately remain vague in order to leave room for new insights and trends. Any further research or legislative initiative may focus on specific parts of the circular economy, such as for example the business models, the consumption behaviour, the system change, etc. If a stakeholder specifically identifies the specific point of the universal description of the circular economy he/she is working on, the focus points of the transition towards a circular economy can be crystallised and the current confusion ('confused concept') surrounding the concept will

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<sup>91</sup> M. GEISSDOERFER, P. SAVAGET, N. M.P. BOCKEN, E.J. HULTINK, *The circular economy – A new sustainability paradigm*, in *Journal of Cleaner Production* 2017, afl. 143, 766.

<sup>92</sup> K. ANASTASIADES, J. BLOM, M. BUYLE, A. AUDENAERT, *Translating the circular economy to bridge construction: Lessons learnt from a critical literature review*, in *Renewable and Sustainable Energy Reviews* 2020, afl. 117, 2.

<sup>93</sup> Report of the World Commission on Environment and Development "Our Common Future", 1987, <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>, nr. 27; J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, Afl. 127, 224.



slowly disappear. In this way, we will take a further step towards leaving the 'validity challenge period' behind us.<sup>94</sup>

Eventually, Kirchherr et al. propose the following definition:

*"A circular economy describes an economic system that is based on business models which replace the 'end-of-life' concept with reducing, alternatively reusing and recovering materials in production/distribution and consumption processes, thus operating at the micro level (products, companies, consumers), meso level (eco-industrial parks) and macro level (city, region, nation and beyond), with the aim to accomplish sustainable development, which implies creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations."*<sup>95</sup>

In addition, a large number of different definitions and descriptions were found in the literature. Considering the elements examined above, one other definition stands out:

*"The circular economy is an economic system that represents a change of paradigm in the way that human society is interrelated with nature and aims to prevent the depletion of resources, close energy and materials loops, and facilitate sustainable development through its implementation at the micro (enterprises and consumers), meso (economic agents integrated in symbiosis) and macro (city, regions and governments) levels. Attaining this*

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<sup>94</sup> *Supra* number 8. Also: R. MERLI, M. PREZIOSI, A. ACAMPORA, *How do scholars approach the circular economy? A systematic literature review*, in *Journal of Cleaner Production* 2018, afl. 178, 704 -705. MERLI et al. confirm in this article that the concept 'circular economy' is still in the validity challenge period.

<sup>95</sup> J. KIRCHHERR, D. REIKE, M. HEKKERT, *Conceptualizing the circular economy: An analysis of 114 definitions*, in *Resources, Conservation & Recycling* 2017, afl. 127, 224 - 225.

*circular model requires cyclical and regenerative environmental innovations in the way society legislates, produces and consumes.”<sup>96</sup>*

This definition is particularly interesting because it strongly (more) emphasises the system perspective, which should be a necessary element in any description of a circular economy (Supra).

When the strengths of the above-mentioned definitions are combined, a comprehensive description (definition sensu latissimo) of a circular economy emerges:

*“The circular economy is an economic system that represents a change of paradigm in the way that human society (business models and consumer behaviour) is interrelated with nature and aims to replace the ‘end-of-life’ concept with reducing, alternatively reusing, recycling and recovering resources, energy and materials, thus operating at the micro level (products, companies, consumers), meso level (eco-industrial parks) and macro level (city, region, nation and beyond), in order to accomplish sustainable development, which implies creating environmental quality, economic prosperity and social equity, to the benefit of current and future generations.”*

## 5. CONCLUSION

Our society is evolving. Today, there is much greater interest in elements such as the climate, the scarcity of earthly resources, our focus on consumption, etc. The transition to a circular economy is seen as an opportunity to make our society more sustainable.

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<sup>96</sup> V. PRIETO-SANDOVAL, C. JACA, M. ORMAZABAL, *Towards a consensus on the circular economy*, in *Journal of Cleaner Production* 2018, afl. 179, 610.

As explained the term 'circular economy' is an umbrella term that, given this qualification, has a fixed development trajectory. It is important that clarity is provided in due course so that the life of the circular economy concept does not come to an untimely end.

Some authors have suggested that the concept of "circular economy" is an essentially contested one, which would make it very difficult or even impossible to provide a definition. In this article, however, it is argued that the circular economy does not meet at least one of the conditions for application.

Since it is clear that working out a definition *sensu latissimo* is a possibility, it is interesting to look for the constitutive elements for this definition of a circular economy. Especially the earlier work of Kirchherr is a great source of inspiration here. Ultimately, this contribution proposes a universal definition that is very much in line with Kirchherr's proposal, but with a somewhat stronger focus on the (social) paradigm shift that the transition to a circular economy presupposes.

A definition *sensu latissimo* is, looking at the earlier observation concerning the qualification of the circular economy as an umbrella term, in our view also useful, desirable and plausible in the light of the principle of legal certainty.

The (legal) transition to a circular economy will increase in importance in the coming years. With an adequate and universal description, policymakers, but also entrepreneurs and consumers, can work to further integrate and apply the concept. It forms an ideal but also necessary starting point to give the transition to a circular economy an extra boost and to avoid the concept eventually collapsing and becoming bogged down in good intentions.

**Abstract.** *The transition to a circular economy is a systemic change that has gained considerable attention in the past few years. It has as a main purpose the replacement of the current linear economy (take – make – waste), and its enormous repercussions on society,*

*with a more cyclical approach. It is undeniable that circular economy is a possible pathway to a more sustainable society. Nonetheless, from a legal perspective the concept of circular economy itself has not been defined yet. The paper starts with an in-depth analysis of the notion of circular economy as an umbrella term and the consequences of its qualification as an “essentially contested concept” pursuing the theory that was coined by Walter Bryce Gallie in 1956. As a consequence, if the study shows that the “circular economy” turns out to be an essentially contested concept, it would not be possible to give an adequate definition of this notion. Hence, we wouldn’t have a general principle to decide which vision of the circular economy is right or wrong. On the other hand, even if the concept would turn out not to be an essentially contested concept, therefore likely to be defined, there is no certainty that this will be, in fact, achieved. Therefore, the general aim of this paper is to provide an answer to a specific question: the possibility to provide a universal definition of the concept “circular economy”.*