



CIRCULTICS®



ELLEN MACARTHUR
FOUNDATION

Method introduction

Executive summary

Measuring progress gives us the ability to know where we are in the transition towards a circular economy, and how fast we are progressing. As this is a transition of the economy, it is important that we measure the progress of its main actors: companies.

As most companies are early in their transition to a circular economy, The Ellen MacArthur Foundation's Circulytics measures the aspects that enable company-wide transformation (such as strategic importance of the circular economy and ability to innovate for the circular economy). At the same time, it gives credit to companies which already show circular economy outcomes, for example in terms of their material flows or the way in which they have designed their services.

The purpose of Circulytics is to support companies' transition to a circular economy by, for example:

- Measuring the entire company's circular economy performance, not limited to just its products and material flows.
- Supporting decision making and strategy development for circular economy adoption. A company's Circulytics score is presented in a score card (Exhibit 1), which is confidentially shared with each company and is designed to help increase understanding of strengths and areas for further development.

- Highlighting inspiring case studies of companies who have found creative solutions to adopting circular economy principles, by the Ellen MacArthur Foundation (the Foundation will only use a company's score in case studies with consent from the company in question).
- Providing industry benchmarks. The number of industries that will receive benchmarking will increase with time as this requires a sufficient number of companies completing the survey per industry to keep the results anonymised.

Completing Circulytics allows the Ellen MacArthur Foundation to assess circular economy performance comprehensively, based on the data provided via an online survey, which is available on the Foundation's [website](#).

Circulytics 1.0 was developed by the Ellen MacArthur Foundation in collaboration with 13 Strategic Partners and Member organisations, and tested by more than 30 companies before it launched in 2020. Circulytics 2.0 has been developed as an update to Circulytics 1.0 with an improved methodology and was also developed through collaboration with Member organisations, including more than 15 companies and academic institutions.



Example Company

Circulytics Summary



Overall Score B

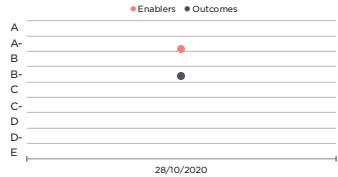
Enabler Score A-

Outcomes Score B-

Date of Submission 28/10/2020

Scoring Date 12/11/2020

Score history



Score breakdown

	Score
Overall	B
Enablers	A-
Strategy and planning	B
Innovation	A
People and skills	B
Operations	A-
External engagement	B-
Outcomes	B-
Products and Materials	C
Services	B-
Plant, property and equipment (PPE) assets	A-
Water	B
Energy	C-
Finance	N/A

Further Resources

Thank you for participating in Circulytics. This scorecard gives an overview of your company's progress on the journey towards circular economy, by way of two overarching categories 'Enablers' and 'Outcomes', as well as the eleven themes within these categories.

We encourage you to dive into areas where your company has opportunity for improvement, and hope that the theme level scores help you to prioritise activities.

Due to team capacity constraints, we only provide bespoke analyst commentary to companies within the Ellen MacArthur Foundation (EMF) network, but we invite you to explore the following resources to further your company's progress towards being a circular business. Links to these resources can be found below.

Browse EMF's extensive library of circular economy case studies for inspiration.

Discover an abundance of resources for the business context in the EMF Learning Hub. We are constantly working on new content, like hands-on toolkits, podcasts, guidelines, or interactive webinars, so it is always worth a visit.

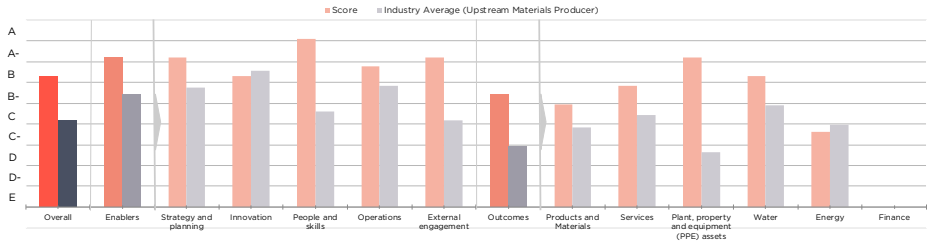
Aspiring to commit further? Learn more about the EMF network of organisations that provides a pre-competitive space to learn, share knowledge, and put ideas into practice. You can apply to be part of the EMF network by completing the form linked below.

We look forward to seeing your circular achievements and invite you to refresh your assessment after we launch Circulytics 3.0 in October 2021.

Resource Links

- EMF Case Study Library <https://www.ellenmacarthurfoundation.org/case-studies>
- EMF Learning Hub <https://www.ellenmacarthurfoundation.org/explore>
- EMF Network Application Form <https://www.ellenmacarthurfoundation.org/our-story/our-network>

Score chart and industry benchmark*

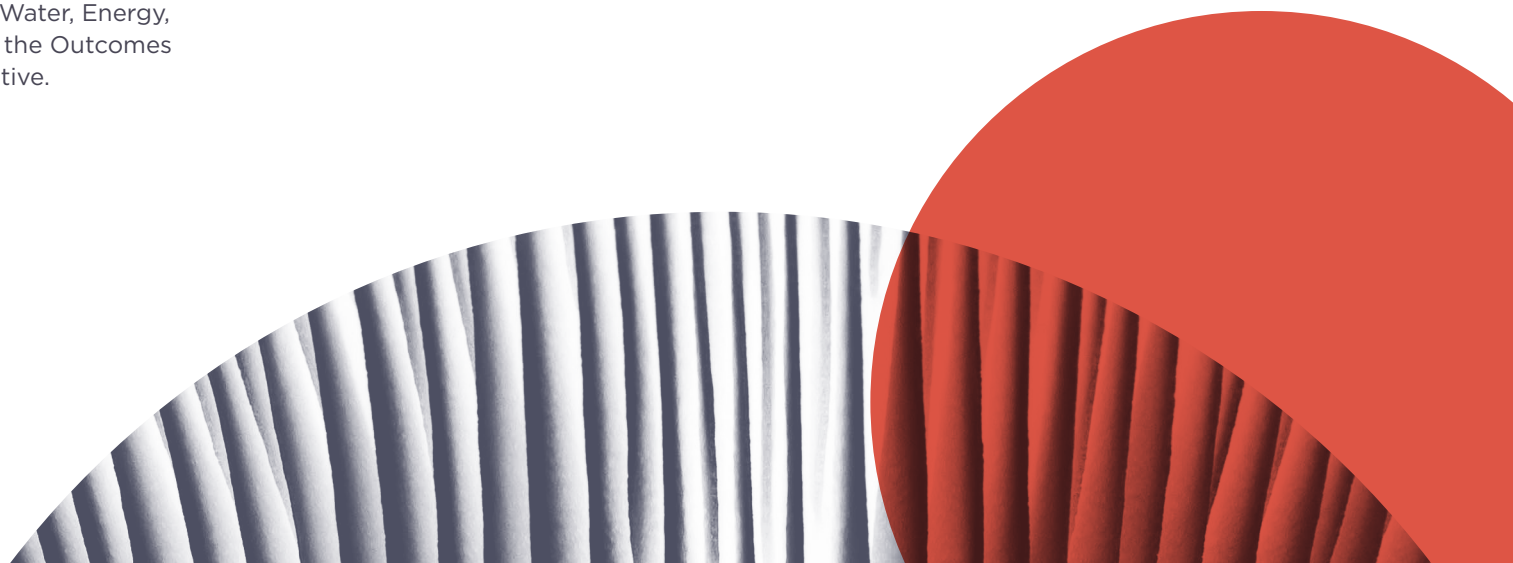


* Industry average available when there is data from >10 companies in your industry

EXHIBIT 1: SAMPLE SCORECARD

Summary of changes in Circulytics 2.0

- 1** The industry classification list has been updated to the Circulytics Industry Classification System for ease of use.
- 2** The letter score (Appendix 1) has been modified to follow a linear scale and better reflect conventional scoring scales.
- 3** The indicators in the Enablers category are mostly the same as Circulytics 1.0 with a few minor changes to the definitions.
- 4** The Outcomes category has been split into six themes: Products and Materials, Services, Plant property and equipment assets, Water, Energy, and Finance. This change makes the Outcomes theme level scores more informative.
- 5** The theme on Water is completely new to Circulytics 2.0
- 6** The indicators in the other Outcomes themes have been updated to be more descriptive and intuitive, with specific response options to select from.
- 7** Circulytics 2.0 is available in English, Chinese, Spanish, and Portuguese.



The method overview

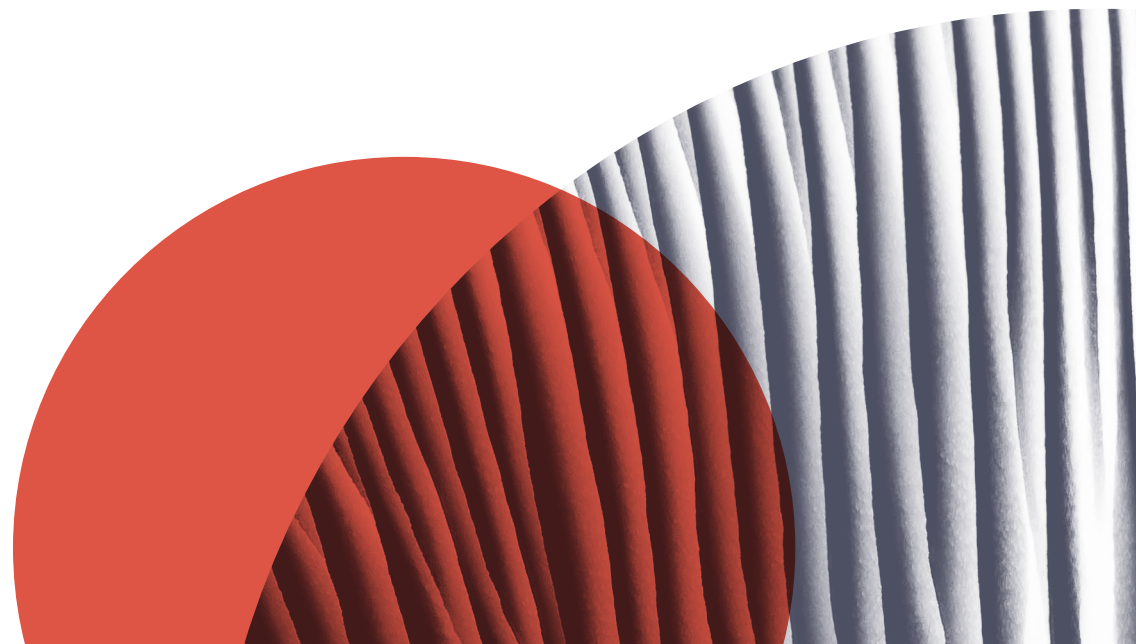
Circulytics builds on work by multiple organisations and looks at both enablers for change and actual outcomes. The 'Enablers' are largely based on aspects that allow a company-wide transformation to happen, modified for the context of the circular economy (e.g. by adding weight to the importance of innovation).

The Products and Materials and Water themes in 'Outcomes' build on existing measurement frameworks, and we have been in discussion with other major efforts (e.g. GRI, ISO, CDP, WBCSD) in order to pursue the greatest viable degree of alignment as to how we collectively define and measure the circular economy for companies. The Outcome indicators not only measure the circular economy performance of companies' material and water flows, but also product and service design outcomes, procurement and decommissioning of property, plant, and equipment assets, and energy use. 'Outcomes' also include a unique set of indicators designed for companies which do not directly belong to material value chains, such as service providers, energy providers, and financial institutions.

An overview of how different types of companies are assessed is shown in Exhibit 2. A more detailed view of the specific themes displayed in Outcomes based on company type is shown in Appendix 2 (all Enabler themes are displayed to all companies and therefore not included).

The principles of creating the method were to:

- Keep the scope strictly within the realm of the circular economy.
- Ensure full alignment with the circular economy principles (design out waste and pollution; keep products and materials in use; and regenerate natural systems).
- Be mindful of companies' 'survey fatigue', while a multitude of other non-financial metrics surveys exist. As such, we keep the number of indicators as low as possible, and design them for ease of responding.




BASIC INFORMATION

We first ask you about your industry and the types of materials you use.

INDUSTRY

+

MATERIAL FLOWS

 = Company

ENABLERS

Next come the Enablers, where the indicator questions will be consistent for all, regardless of industry or material type.

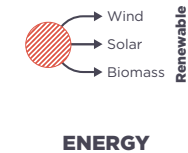
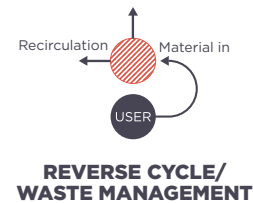
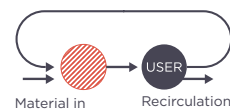


OUTCOMES

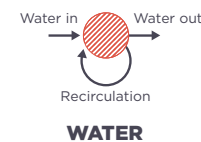
In the Outcomes, the questions about your energy consumption and assets will be consistent for all.



+



+

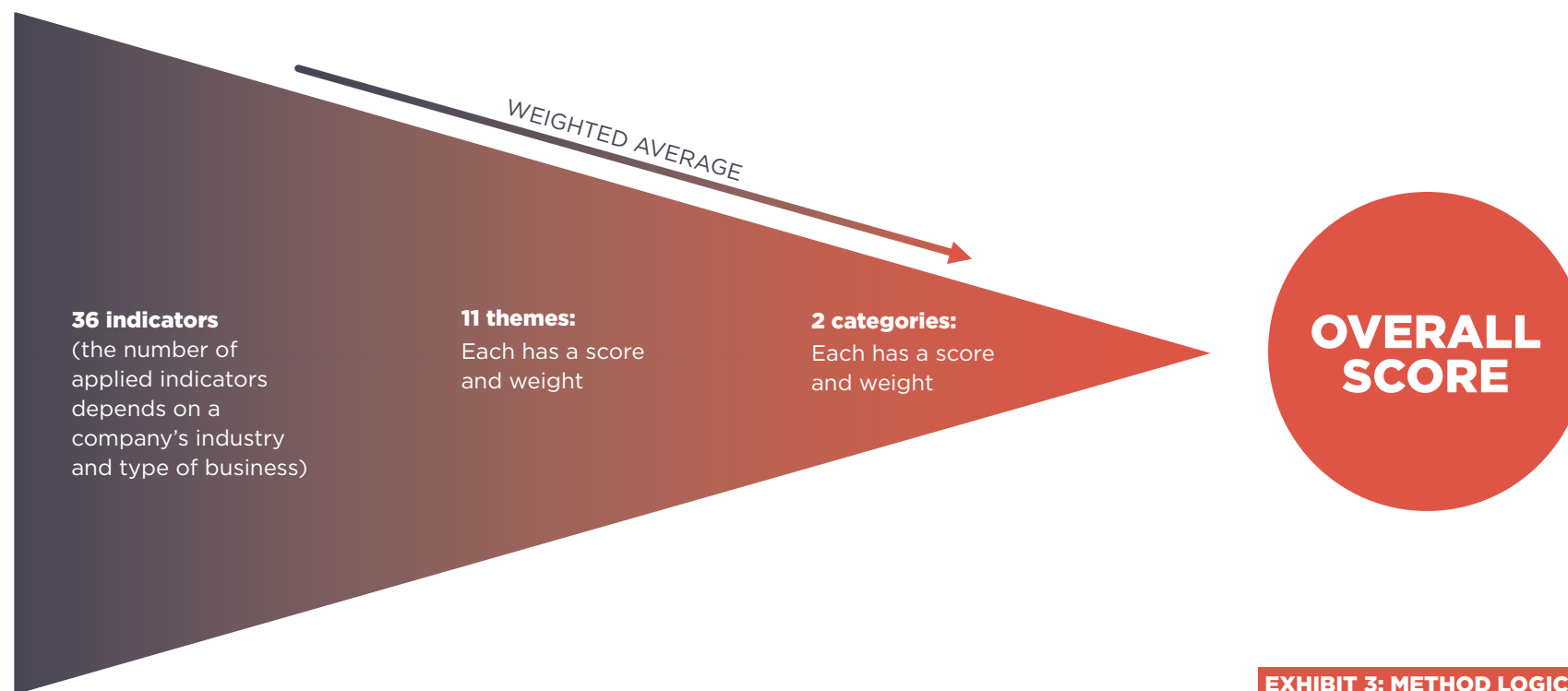


Companies in water-intensive industries will also be asked questions on their water flows.

Enablers and Outcomes further break down into key themes. The themes have been selected to exhaustively describe each category.

Finally, each theme is constructed of indicators, both qualitative and quantitative. The following logic is used to generate a single score, building up from indicators. This logic is illustrated in Exhibit 3:

- Each qualitative indicator response option is translated into a quantitative 'score' from 0-100.
- Each quantitative indicator asks for a percentage input from 0-100.
- Each indicator is given a weight that collectively adds to 100 per theme. These weights are used to calculate a weighted average score (from A to E) for each theme.
- Each theme is also given a weight, and these weights are used to calculate a weighted average score (from A to E), which is the category level score.
- Finally, each category is given a weight of 50 to calculate an overall score. If a company scores higher in the Outcomes category compared to Enablers, their Outcomes score will be used as the overall score. This is because we do not want to penalise companies that have achieved tangible circular outcomes without following the enabling conditions defined in the Enablers category.
- Scores are displayed on a scale (from A to E). The conversion from number score to the letter scale is shown in Table 1.





Lower limit	Upper limit	Letter
88.89	100	A
77.78	88.89	A-
66.67	77.78	B
55.56	66.67	B-
44.44	55.56	C
33.33	44.44	C-
22.22	33.33	D
11.11	22.22	D-
0	11.11	E

TABLE 1: NUMERICAL SCORE TO LETTER SCORE TRANSLATION

Weighting and scoring approach

The weights are defined as follows:

- Enablers theme weights, as shown in Exhibit 4, are based on:
 - What is shown to be important in company transformation,
 - Consultation with companies during the development phase,
 - Circulytics 1.0 beta-test results in 2019
- In the Enablers category, indicators within each theme have equal weights, with the exception of 'External Engagement'. In External Engagement, indicators on customers and suppliers (Indicators 5a and 5b) are weighted at 30%, indicators on financiers and policy makers (5c and 5d) at 15% and the indicator on initiatives (5e) at 10% to better reflect the importance of each of these external stakeholders to the companies' activities.

The score percentage awarded for each response option in Enablers indicators follows a linear scale (e.g. for an indicator with five response options, the responses from worst to best would give 0%, 25%, 50%, 75%, and 100%). In the assessment survey, each response option will have a pie chart diagram next to it to represent this, as shown in Exhibit 5.

EXHIBIT 4: PATH FROM ENABLERS TO OUTCOMES

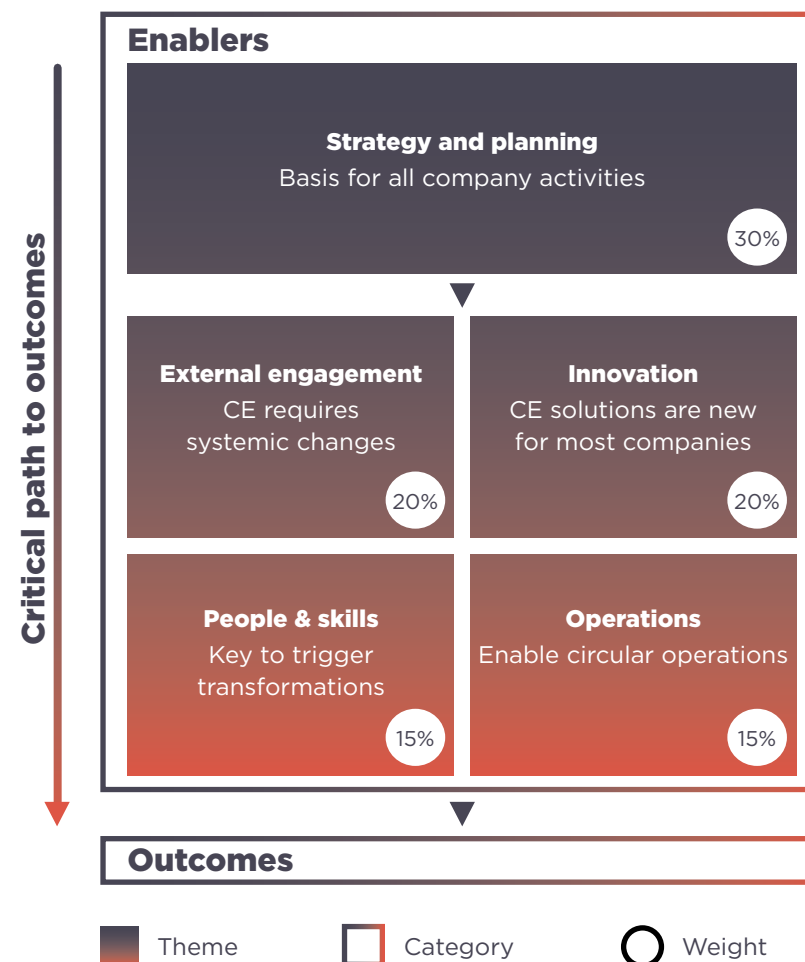


EXHIBIT 5: EXAMPLE OF ENABLER CATEGORY INDICATOR RESPONSE OPTIONS

1a. How central is circular economy to your CEO's agenda?

☐ Not mentioned in external communications
0%

☐ Relevant concept (e.g. circulation of materials, a new business model that follows the principles of circular economy, acknowledging that the solution is not just resource efficiency) mentioned in the past 12 months, in external communications
93%

☐ Circular economy mentioned explicitly as a strategic priority once in the past 12 months, in external communications
97%

☐ Circular economy mentioned explicitly as a strategic priority multiple times in the past 12 months, in external communications
100%

Outcome weights are a factor of:

- The material mass a company uses. If the ratio of a company's material inflows is 60/40 between materials suitable for the technical cycle and biological cycle, the indicators in these material categories will be also weighted 60/40.
- The company's Industry Classification and whether or not they operate in a water-intensive industry. The relative weighting of individual indicators within themes depend on the industry a company is part of. (we have updated the industry classification to the *Circulytics Industry Classification System*).
- The place in the value chain a company is part of. A consumer goods manufacturer can gain a higher score for a 'tighter' recirculation loop, while upstream basic material producers can gain a higher score for the 'loosest' loop.
 - Recirculation loops in the technical cycle from 'tightest' to 'loosest' are as follows:
 - reuse/redistribution
 - refurbishment/remanufacture
 - recycling
- Whether or not the company produces products and/or sells services.

A set of base weights are used for the Outcome indicators which are adjusted according to the influences mentioned above. The base weights are for a company in a water-intensive industry that has material flows and services. These weights are displayed in Table 2.

The base weights are formed on the following principles:

- For a consumer goods company, such as an automobile manufacturer, the ratio of materials flowing into products (cars) versus assets (factory and equipment) is estimated at 85:15.
- Equal emphasis has been placed on energy and water flows that support material circularity.
- For most manufacturing companies, services revenue is a small proportion of business.

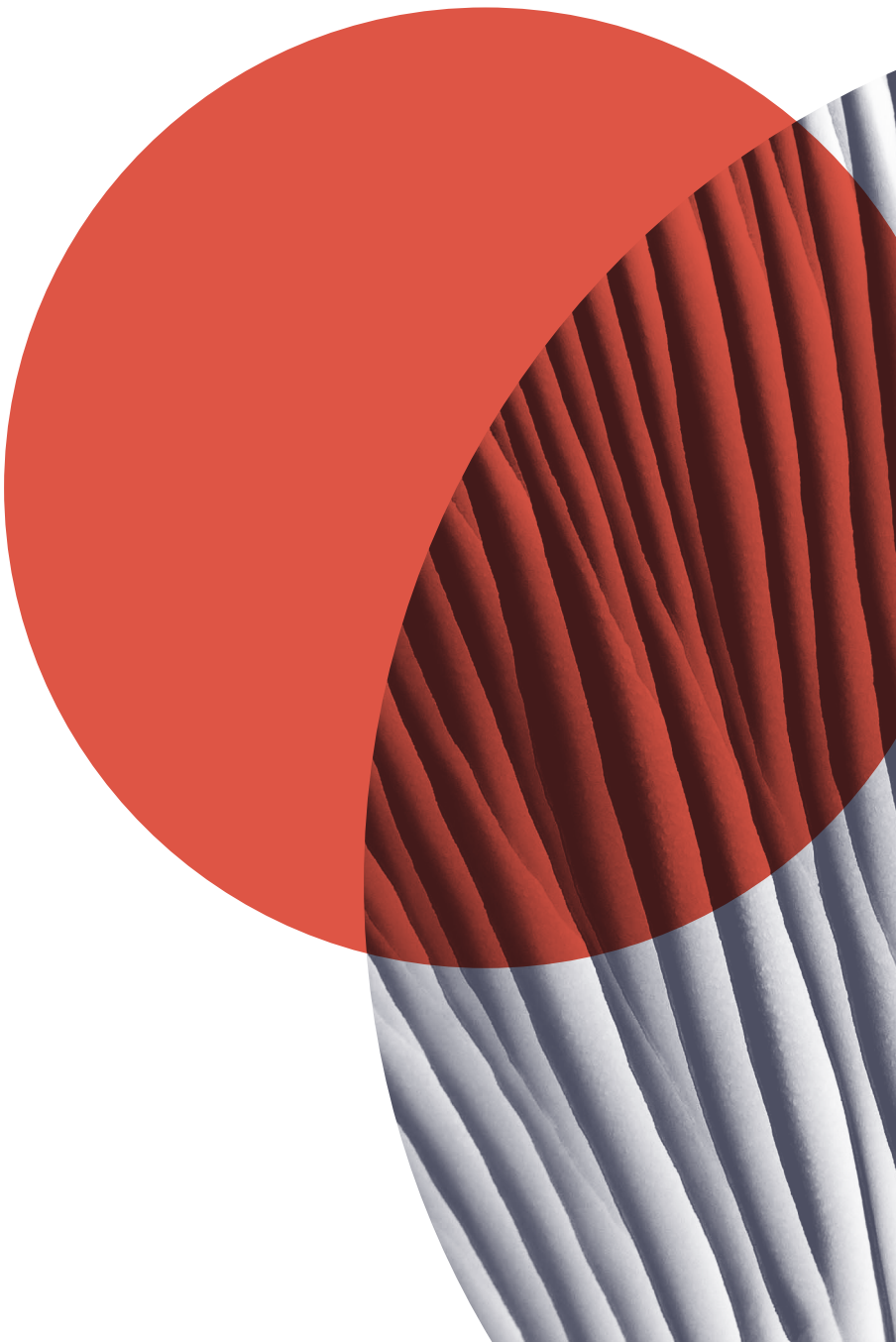
Outcomes theme	Base weight
Material Flows	65%
Services	5%
Assets	10%
Water	10%
Energy	10%
Finance	0%

TABLE 2: BASE WEIGHTS USED FOR A WATER-INTENSIVE INDUSTRY WITH MATERIAL FLOWS AND SERVICES.

The weight of services is increased for services companies. For example, for a purely services based company without material flows or water flows, the Outcome weights are in Table 3. Here, compared with the weights in Table 2, material flow weight has been moved into services, and water weight has been distributed to services, assets, and energy proportionally:

Outcomes theme	
Material Flows	0%
Services	77.78%
Assets	11.11%
Water	0%
Energy	11.11%
Finance	0%

TABLE 3: BASE WEIGHTS USED FOR A PURE SERVICES COMPANY WITHOUT MATERIAL OR WATER FLOWS.



Themes and indicators

As a result of method development principles, themes and indicators have been developed with the following in mind:

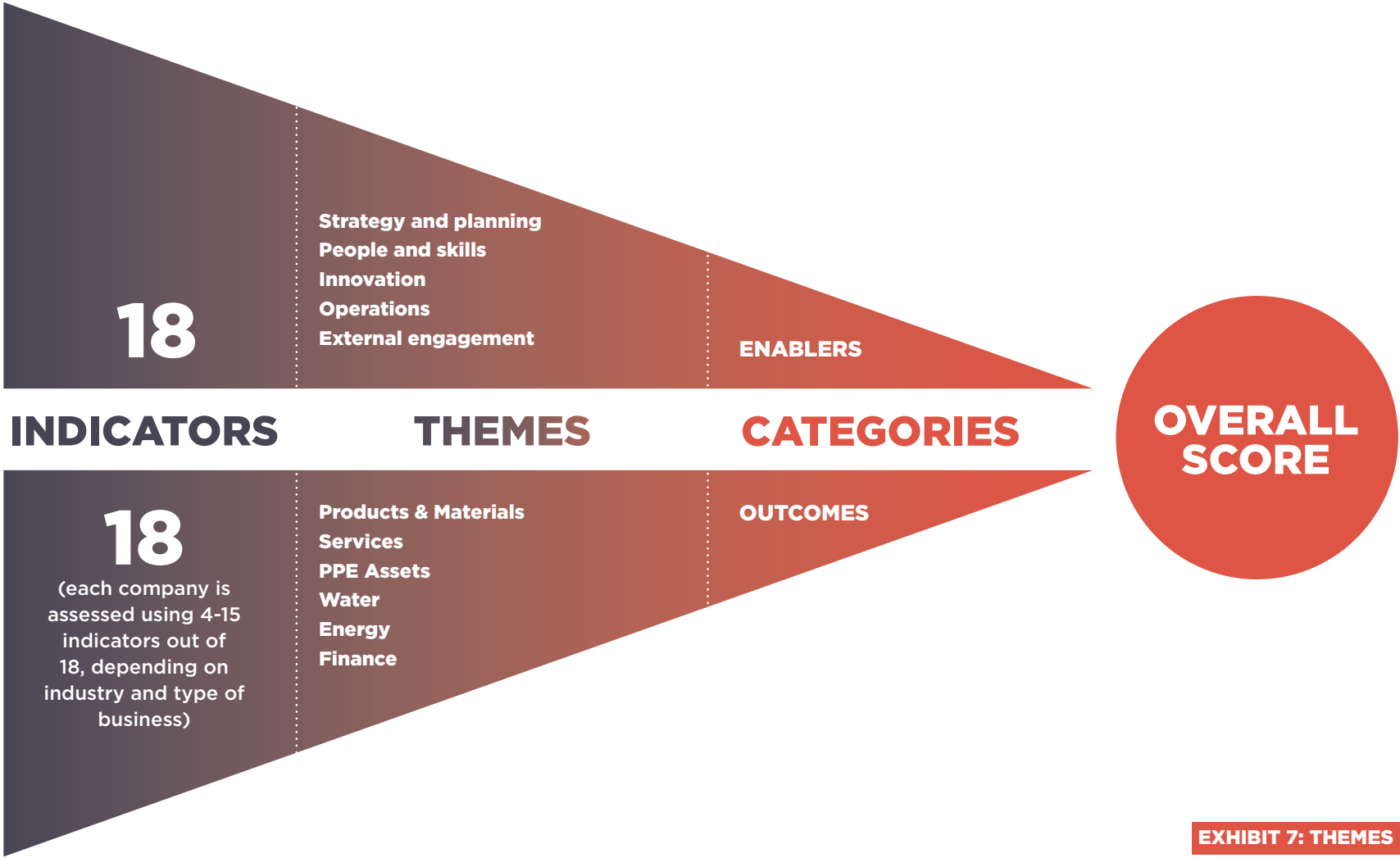
- They should holistically cover each category with as few themes as possible, and as few indicators as possible
- Indicators should be defined so they focus on the circular economy, leaving little room for interpretation. While some indicators have descriptive response options, there is always an 'other' option in order not to limit the solutions companies can develop to improve their circular economy performance
- They should align with existing indicators and definitions where possible (e.g. GRI, CDP, WBCSD, ISO)

The Score has 11 themes, five for Enablers and six for Outcomes. The themes are shown in Exhibit 7.

- The five *Enabler* themes are based on a path of company transformation, from strategic prioritisation of the circular economy to the implementation of circular economy principles.
- The six *Outcome* themes holistically cover circular economy outcomes on a company level.
 - Products and Materials – describes the material inputs and outputs to and from a company, using the same approach as the circular economy system diagram (Exhibit 8), while including approaches to product design. These

indicators are asked to all companies that produce materials/products as well as service providers that deal with materials/products.

- Services – looks specifically at whether services are designed in line with the principles of the circular economy. These indicators are asked to companies that sell services, whether or not they include materials/products.
- Plant, Property, and Equipment Assets – investigates how these assets used in company operations are procured and treated at their end-of-use to enable the circular economy. These indicators are asked to all companies.
- Water – looks at the flow of water in and out of companies from a circular economy perspective. This theme is only asked to companies in water-intensive industries.
- Energy – looks at the procurement of renewable energy (a key pillar to enabling the circular economy) for all types of companies and the production of renewable energy specifically for energy producers.
- Finance – investigates how financial institutions are screening for and funding circular economy initiatives.



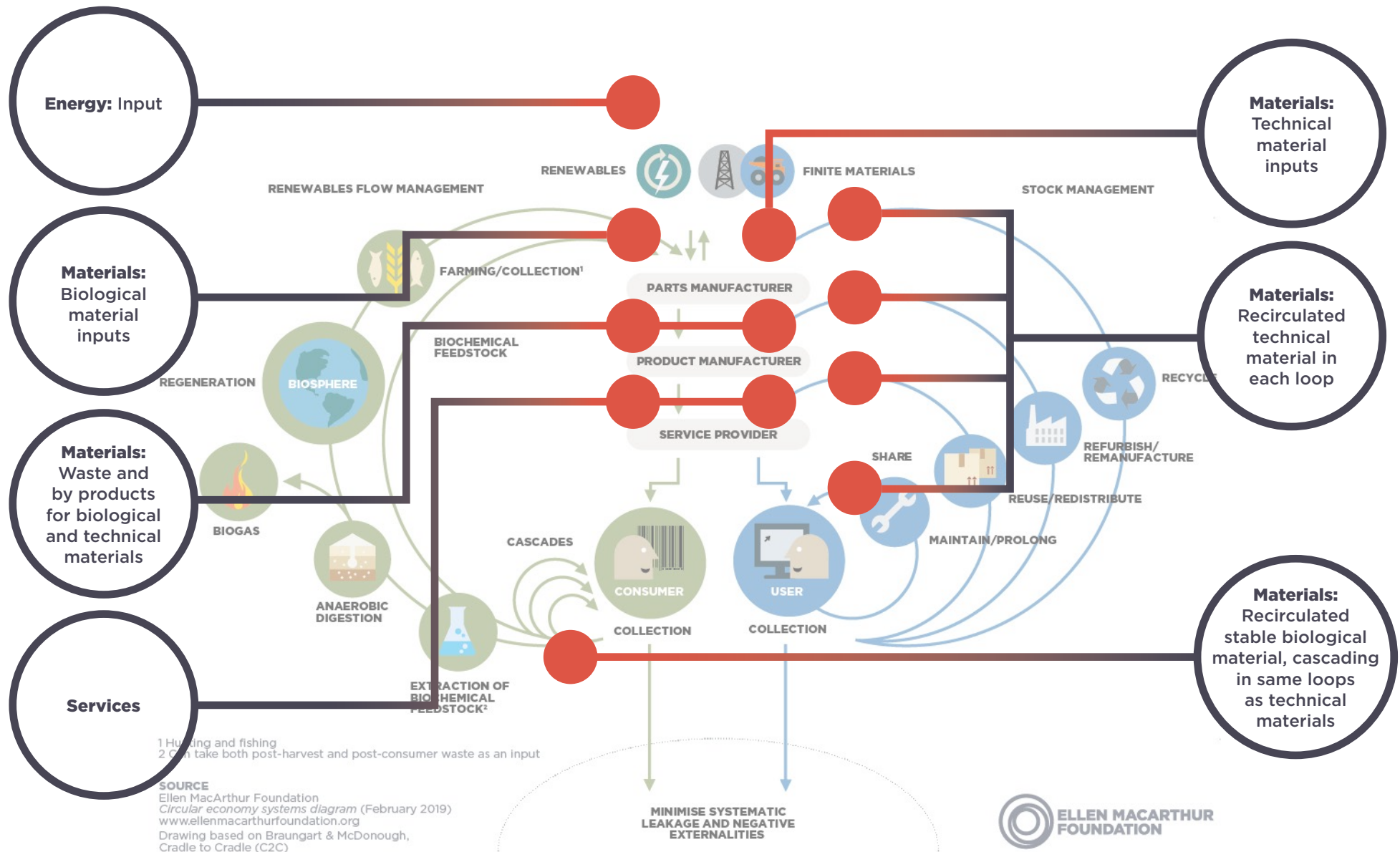


EXHIBIT 8: OUTCOME THEMES AND INDICATORS ON CIRCULAR ECONOMY SYSTEM DIAGRAM

Data submission and use

Circulytics uses the Qualtrics platform for submitting responses. Companies can sign up to a unique account for the Qualtrics platform via our website and can choose to view the assessment in English, Chinese, Spanish, or Portuguese (note: if completed in a non-English language, supporting comments and reference documents must be added in English to be interpreted by our team). The information received via Qualtrics will be used to generate a scorecard with company, category, and theme level scores. The participating company will also be provided with Ellen MacArthur Foundation analyst commentary, should they be a network Member, a Partner of the Foundation, or if they have an annual revenue that exceeds USD 1 billion. The information submitted will be anonymised and aggregated to multi-company averages for industry-level benchmarking. The Foundation will not publish individual company information, but companies may disclose their score if they wish to do so. The full terms and conditions on data collection are included in the Circulytics agreement, which appears upon entering the online survey platform, and is available throughout the survey in the survey footer.

Further information

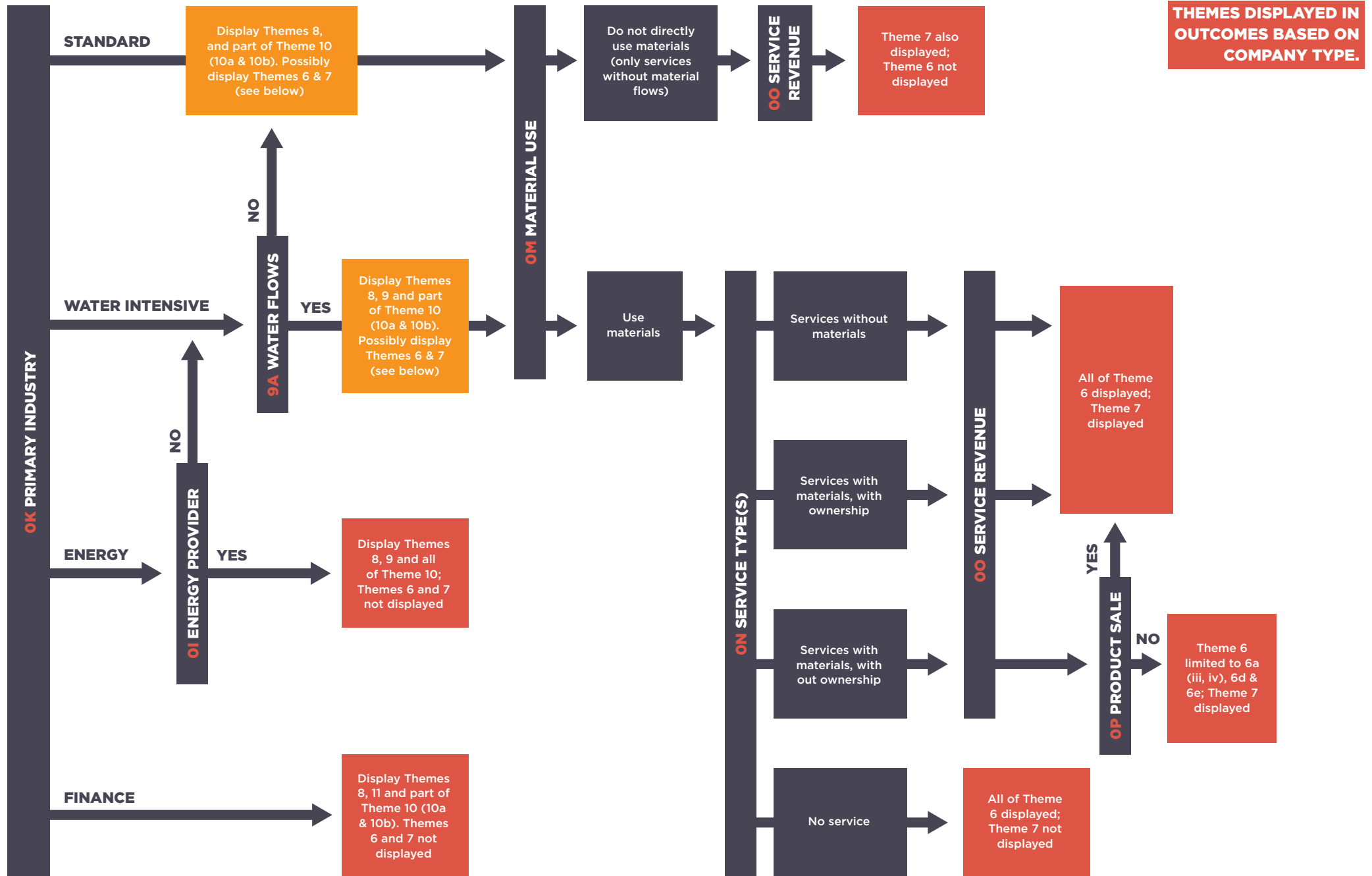
Please refer to our [website](#) for further information, including FAQs and how to sign up for the Circulytics survey. For any other questions, please get in touch via circulytics@emf.org.

Appendix 1

Lower limit	Upper limit	Letter V2 (new)	Letter V1 (old)
88.89	100	A	A+
77.78	88.89	A-	A
66.67	77.78	B	A-
55.56	66.67	B-	B+
44.44	55.56	C	B
33.33	44.44	C-	B-
22.22	33.33	D	C
11.11	22.22	D-	D
0	11.11	E	E

CHANGES TO SCORING IN CIRCULTYCS VERSION 2 COMPARED TO VERSION 1.

Appendix 2





CIRCULYTICS®



**ELLEN MACARTHUR
FOUNDATION**