Chemours™

EVOLVE 2030

Sustainable Offerings Assessment Method

Version 2.0, June, 2024

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1. Purpose and Overview

At Chemours, our vision is that together, we can create a better world through the power of our chemistry. To realize this vision, we established four strategic pillars, supported by our Corporate Responsibility Commitment (CRC) goals, all of which are built on the foundation of our values.

With more than 95% of all manufactured goods touched by the business of chemistry,[1] our world increasingly depends on chemistry to fuel humanity's social progress, defined as "the capacity of a society to meet the basic human needs of its citizens."[2] Chemistry enables advances across virtually all aspects of daily life, like communications, transportation, housing, nutrition, and energy; to enhance the quality of people's lives and help them reach their full potential. At the same time, science tells us that we must minimize the planetary burdens that human activities can create, from greenhouse gas (GHG) emissions to resource depletion to waste generation, so we don't compromise the ability of future generations to meet their own needs.

To articulate these societal needs and challenges, the United Nations (UN) member states unanimously adopted the Sustainable Development Goals (SDGs) in 2015[3] as "the blueprint for achieving a better and more sustainable future for all."[4] Because SDGs are widely accepted and often referenced, they are the logical framework by which to identify opportunities for Chemours to help create a better world through the power of our chemistry. Therefore, one of our CRC goals, Sustainable Offerings, seeks to ensure that 50% or more of our revenue comes from offerings that make a specific contribution to the UN SDGs.[5]

[1] *American Chemistry Council*

[2] *Institute for Strategy and Competitiveness, Harvard Business School, Social Progress Index*

[3] *Historic New Sustainable Development Agenda Unanimously Adopted by 193 UN Members*

[4] *Take Action for the Sustainable Development Goals*

[5] *Make the SDGs a reality*

Chemours' EVOLVE 2030 is the method by which we assess our product portfolio across our businesses to qualify and quantify revenue that makes a specific contribution to the UN SDGs and measure our progress toward achieving this goal. More importantly, the outputs of EVOLVE 2030 assessments inform our decision-making by identifying ways that we can maximize our products' societal contributions while minimizing their planetary burdens. This includes providing assessment insights into our innovation management process. Simply put, EVOLVE 2030 helps us to transform our portfolio for a sustainable future.

As Chemours announced our CRC goals in 2018, the World Business Council for Sustainable Development (WBCSD) published the Chemical Industry Methodology for Portfolio Sustainability Assessments (PSA),[6] which became the basis for EVOLVE 2030. Because the world and its expectations are constantly evolving, we are, too. Version 2 of EVOLVE 2030 incorporates assessment of product and packaging material circularity, as well as lessons we learned from 2020 to 2024.

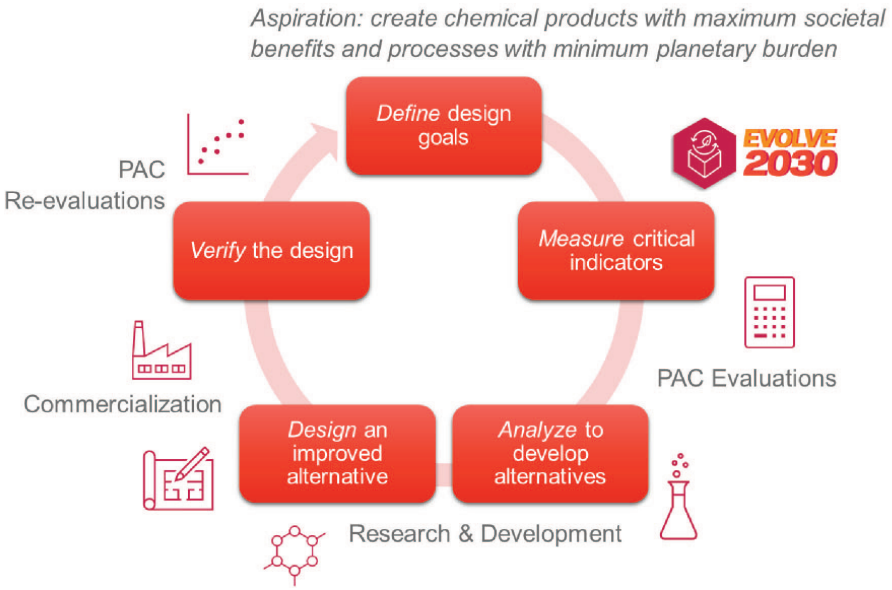
Aligned with the WBCSD PSA, our unit of analysis is a Product—Application Combination (PAC), which allows the combined consideration of a product's benefits and burden through its life cycle. Fundamental to our approach is the estimation of each PAC's Contribution to the UN SDGs and the PAC's "Imprint"—or net impact on society and the environment.

- Contribution—Each PAC is evaluated for its contribution to the Targets and Indicators associated with the 17 UN SDGs. Contribution is measured in two dimensions:
  1. Significance, indicates the relative role of the Chemours' product in the complete solution helping to meet the SDG; and
  2. Magnitude, indicates the relative; and importance of the solution for achieving the SDG.
- Imprint—Aligned with the WBCSD PSA, the "Imprint" is an approach to create an understanding of the PAC's net impact on society and the environment. The Imprint includes several attributes with direct links to other Chemours CRC goals, (e.g., impact on climate change, landfill intensity, and emissions of fluorinated organic chemicals to air and water) as well as additional attributes covering topics such as risk to human health and public sentiment.

[6] *Chemical Industry Methodology for Portfolio Sustainability Assessments (PSA)*

In combination, a PAC's Imprint and Contribution scores determine if the PAC makes a "specific contribution" and if its revenue qualifies to advance the Sustainable Offerings 2030 CRC goal.

To effect change, the outcomes of PAC evaluations are integrated into business processes to provide insights and options for consideration in decision-making:



- **Define objective:** Design chemical products and processes that maximize societal benefits while minimizing societal/planetary burden in the SDG framework
- **Measure indicators:** By EVOLVE 2030 method
- **Develop and design alternatives:** In collaboration with or support of business and functional teams through various business processes; some examples include new product development, manufacturing process changes, capital investment, and procurement of more sustainable raw materials or energy
- **Verify design:** By EVOLVE 2030 method in re-evaluations, either triggered by time (i.e., 5-year cycle) or by an event (e.g., process improvement, change in regulations, new scientific results)

In this way, we intend to help guide investments in sustainable solutions that are manufactured and used responsibly throughout their life cycle, thereby reshaping our portfolio to advance our company vision.

2. Principles and Scope

As stated above, the objective of creating this method is to inform our decisions with sustainability information and insights —decisions about our product portfolio, our investments in innovation, and how we deploy our resources, with the intent of reshaping our portfolio to support achieving a better future for people globally, our shared planet, and our company. To effectively achieve this objective, our method must strive for completeness, accuracy, reproducibility, efficiency, speed, and balance.

For objectivity, EVOLVE 2030 is constructed to be data-driven and science-based, relying on rubrics with clear criteria for scoring. Because data quality can vary greatly, we identify information gaps, work to fill them, and account for uncertainty and data quality in our analyses. In addition, EVOLVE 2030 seeks to be holistic in its considerations because basing decisions on an incomplete view of the system as a whole, like driving while only looking out the front windshield, will almost certainly lead to regrettable decisions and unintended consequences.

At the same time, speed is critically important in addressing some of the biggest global challenges we face, and an effective method must consider this urgency. EVOLVE 2030 is designed to deliver insightful analyses as quickly as possible by utilizing existing data sources and outputs from existing processes, avoiding redundancies, and focusing efforts on what is necessary for decision-making. For example, in comparing energy efficiency, if an analysis concluded that two options under consideration require 20 and 40 kilowatt-hour (KWh) to perform the same function, it's not likely one would need to refine the analysis to 20.3 and 40.7 KWh to reach a robust decision. Therefore, to avoid analysis paralysis, EVOLVE 2030 pursues the necessary and not the minutia. In its tiered approach, EVOLVE 2030 intends to provide the framework to quickly reach sound conclusions or, if justified, dedicate the appropriate level of effort to refining the analysis necessary to reach a well-informed decision. In this way, we intend to efficiently steer decisions to make the biggest positive contributions to society as quickly as possible with available resources.

We also recognize that bias is inevitable. To minimize bias, we developed EVOLVE 2030 in partnership with Anthesis Group, a global sustainability advisor. Additionally, Anthesis has participated in all PAC evaluations to provide expertise across subject matters and broad perspectives across companies and industries. In 2019, after completing our pilots, we obtained third-party assurance from Lloyd's Register Quality Assurance Ltd (LRQA). In 2024, with the majority of our portfolio reviewed and the second

version of EVOLVE 2030 completed, we received a new limited assurance statement from LRQA.

As mentioned above, because change is certain and seemingly accelerating, our approach to this method is one of flexibility and constant improvement. By quickly establishing our method in 2019, we were able to learn organically from our experiences while making progress. Furthermore, we conducted an empirical study to test the reproducibility of our evaluations. The knowledge and insights we gained led to improvements in our PAC evaluation processes, instructions, and documentation. These and the additional procedures to evaluate product and packaging material circularity are included below. By relentlessly pursuing ways to become more accurate, reproducible, efficient, and faster, we strive to evolve and stay relevant in this constantly changing world. Therefore, this version of EVOLVE 2030 is a single frame in the motion picture of time.

The consideration of PAC Contribution and Imprint often requires comparisons of alternatives. For pragmatic reasons, this method is not intended to consider comparisons outside of current societal norms. For example, society has decided to have air conditioning (e.g., heat pumps) as a climate adaptation option and refrigeration to minimize food loss and waste in the face of deteriorating food security from climate change and geopolitical conflicts. So alternative air conditioning refrigerant options may be assessed, but we are not assessing the option of using a fan or opening a window as a means to stay cool, nor will we consider not using refrigeration as a means of preserving food and pharmaceuticals.

The EVOLVE 2030 method applies to existing revenue-generating PACs and PACs in Research and Development projects. Additionally, where Chemours has a controlling interest (>50%), a joint venture's portfolio is in scope for evaluation using EVOLVE 2030. The footprint of internal product transfers and site-limited intermediates are included in the evaluations of the finished products. As general guidance, products whose revenue contributes to Chemours total net sales (i.e., the denominator of our 50% goal) should be considered in-scope for evaluation (i.e., the numerator). The EVOLVE 2030 method can also be applied within Chemours' mergers and acquisitions activities.

3. General Requirements

3.1 Business Process Overview

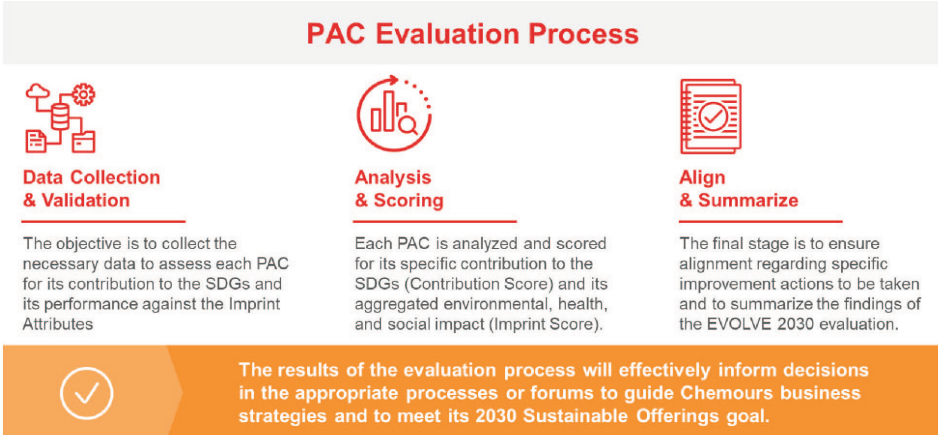
The PAC evaluation process consists of three stages (see Figure 1):

1. Data Collection & Validation—The objective of the first stage is to collect the necessary data, including understanding substances' mass partitioning and fate through the life cycle. For efficiency through maximizing first-pass yield, all information needed for defining PACs, alternatives, functional units, as well as for assessing each PAC's Imprint attributes and contributions to SDG Targets, should be validated.
2. Analysis & Scoring—Each PAC is scored for its specific contribution to the SDG Targets (Contribution score) and its net environmental, health, and social impact, assessed by the PAC's aggregated Imprint attributes (see Figure 2). Details on the scoring methodologies are described in section 3.2. These scores determine the PAC's qualification for making a specific contribution and whether its revenue will count towards the Sustainable Offerings goal. In addition, opportunities to increase contribution or improve net impact are identified and prioritized.
3. Align & Summarize—The final stage of the PAC evaluation process is to ensure alignment regarding specific improvement actions to be taken and to summarize the findings of the EVOLVE 2030 evaluation for effectively informing decisions in the appropriate processes or forums to guide Chemours business strategies and to meet its 2030 Sustainable Offerings goal.

Importantly, this collaborative process results in collectively owned outcomes and commitments to take improvement actions.

As depicted by the improvement cycle diagram above, we commit to refresh our evaluations as a part of this five-year cycle. However, additional re-evaluations will be triggered by significant changes, such as demonstrated manufacturing process improvements or the development of macro trends that may result in changes in Contribution and/or Imprint scoring or present new opportunities to enhance the sustainability of our offerings. New research and development projects will trigger evaluations, as can merger and acquisition activities.

Figure 1. EVOLVE 2030 PAC evaluation process



The evaluation of products in their applications is based on the analyses and judgment of experts, supported by the best available scientific data.

Experts and representatives from the following organizations are involved in the PAC evaluation process:

Organization	Responsibility/Expertise
Product Sustainability	Methodology owner. Leads the evaluation process, manages data, communicates outcomes, manages improvement actions, and provides training/orientation. Subject matter experts (SMEs) from this organization carry out the evaluation and scoring for several Imprint attributes. Note that all SMEs are responsible for clearly documenting the process followed, sources of information, data quality, and key assumptions and uncertainties.
Sustainability Technology	Scoring for Imprint attributes associated with life cycle climate impact, manufacturing processes, and product circularity
Business Unit Leadership	Provides business strategy and decisions through the governance process
Product Manager	Management of product portfolio; provides product and application-specific knowledge, including revenue allocations
Market Manager	Product performance, market overview & dynamics
Technology	Manufacturing process engineering & chemistry; product synthesis chemistry & physical/chemical properties; application technology and end-use
Operations	Provides operational data and manufacturing process information
Finance	Provides net sales reported then classified according to PACs assessment
Procurement	Raw materials & their suppliers

3.2 Analysis and Scoring

3.2.1 Imprint Attributes Overview

The term "Imprint" represents a PAC's net impact on society and the environment. Any PAC's Imprint is represented by multiple attributes, whose scope and benchmarks for scoring are shown in Figure 2.

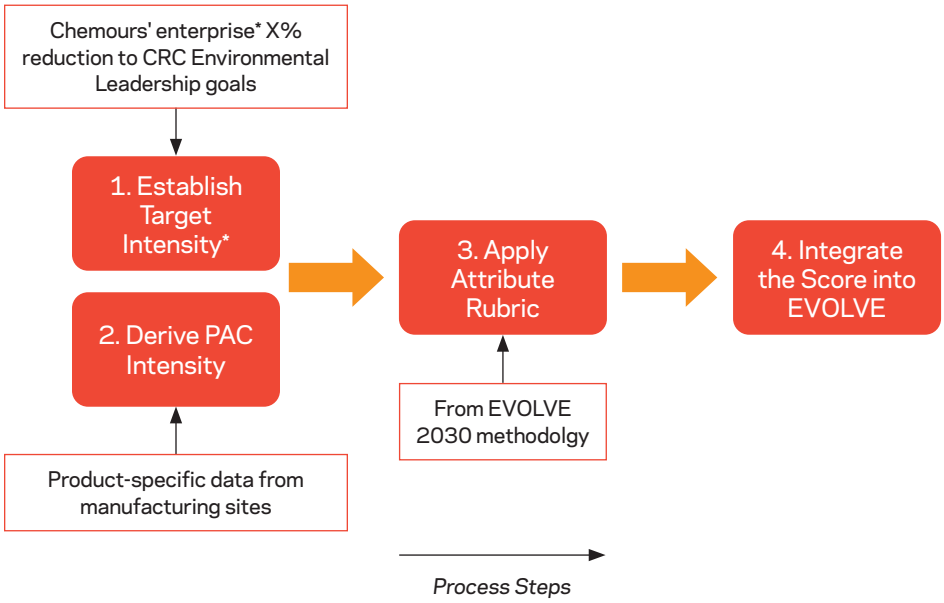
Figure 2. Scope and benchmark for attribute analysis and scoring

Attribute	Scope	Absolute vs. Relative to alternative
1a. Landfill Volume Intensity	Gate-to-gate	Absolute vs. CRC Goal Targets
1b. Packaging Material Circularity	Gate-to-grave	Absolute
2. Fluorinated Organic Chemicals (FOCs) Emissions to Air and Water	Gate-to-gate	Absolute vs. CRC Goal Targets
3a. Climate: GHG Emissions Intensity	Gate-to-gate	Absolute vs. CRC Goal Targets
3b. Life Cycle Impact on Climate	Full Lifecycle	Relative to Alternative
4. Product Material Circularity	Full Lifecycle	Absolute
5. Human Health Risk	Gate-to-grave	Absolute
6. Environmental Risk	Gate-to-grave	Absolute
7. Social Impact	Full Lifecycle	Relative to Alternative
8a. Regulatory Activity	Full Lifecycle	Absolute
8b. Public Sentiments	Full Lifecycle	Absolute

As noted in Figure 2, some attributes are judged against an absolute standard. For example, the manufacturing intensities (Attributes 1a, 2, and 3a) of the PAC under evaluation are compared to the Chemours CRC goal target intensities. Similarly, human health and environmental risks are assessed based on chemical properties, hazards, and exposures, with no regard to those of the alternative to which this PAC is compared. In contrast, the climate impact through the life cycle (Attribute 3b) score is based on the performance of the PAC relative to an alternative.

For Attributes 1-3, the overarching design principle is to be consistent with the definitions, calculations, and scope of the CRC Environmental Leadership goals. Figure 3 is a graphical representation of the evaluation process for these attributes.

Figure 3. Evaluation process for Attributes 1-3



*Baseline & Target Intensity are defined in subsequent Sections

3.2.1.1 Attribute 1: Landfill Volume Intensity

Attribute (1a) includes both hazardous and non-hazardous waste generated during the entire product manufacturing process. PACs are assessed for performance against our goal to reduce landfill intensity by 70% by 2030.[7] To better understand and improve the circularity of our products' packaging material, we added Attribute (1b) to this version of EVOLVE 2030. Where Attribute (1a) aims to minimize the landfill intensity of our operations, Attribute (1b) seeks to measure and reduce waste resulting from Chemours products' packaging. Analogous to Attribute (3b), Attribute (1b) expands the scope to consider downstream impacts.

Baseline for (1a) and (1b): 2018 intensity[8]

Target for (1a): 2018 Enterprise Landfill Volume intensity X 0.3 to reflect the goal of 70% reduction

Target for (1b): 2018 Percentage of Products not sold in Reusable, recyclable, or inclusion packaging X 0.3 to reflect the original Landfill Volume goal of 70% reduction

[7] *Chemours 2030 Goals*

[8] *The 2018 baseline intensities for Attributes 1-3a are determined by the ratio of 2018 Enterprise-level outputs (i.e. Landfill Volume, Fluorinated Organic Chemicals, and Greenhouse Gas, respectively) to total sold Chemours product volume*

Scoring Rubric*:

+2	PAC intensity is an improvement over the Target by more than 15%
+1	PAC intensity is within +/- 15% of Target
0	PAC intensity is greater than the Target by at least 15%, but there is a plan to achieve Target by 2030
-1	PAC intensity is greater than the Target by at least 15% but less than its 2018 baseline intensity, and reduction plan does not achieve Target by 2030
-2	PAC intensity is higher than the 2018 baseline level for the PAC, and reduction plan does not achieve Target by 2030

*+/-15% is a factor chosen to allow for a range of intensity values instead of a single value, which could imply 100% data accuracy with no uncertainty.

3.2.1.2 Attribute 2: Fluorinated Organic Chemicals Emissions to Air and Water

This attribute focuses attention on PACs of fluorinated products. PACs are assessed regarding their performance against our goal to reduce air and water process emissions of fluorinated organic chemicals by 99% or greater.[7] Note: for PACs without Fluorinated Organic Chemicals emissions associated with manufacture, a score of "0" is assigned.

Baseline: 2018 intensity

Target: 2018 Enterprise Fluorinated Organic Chemicals emissions intensity X 0.01 to reflect the goal of 99% reduction

Scoring Rubric*:

+2	PAC intensity is an improvement over the Target by more than 15%
+1	PAC intensity is within +/- 15% of Target
0	PAC intensity is greater than the Target by at least 15%, but there is a plan to achieve Target by 2030
-1	PAC intensity is greater than the Target by at least 15% but less than its 2018 baseline intensity, and reduction plan does not achieve Target by 2030
-2	PAC intensity is higher than the 2018 baseline level for the PAC, and reduction plan does not achieve Target by 2030

*+/-15% is a factor chosen to allow for a range of intensity values instead of a single value, which could imply 100% data accuracy with no uncertainty.

3.2.1.3 Attribute 3: Climate

The evaluation methodology for Climate is divided into two parts: greenhouse gas (GHG) emissions intensity (3a) and life cycle impact on climate (3b). For emission intensity (3a), PACs are assessed regarding their performance against our goal to reduce GHG intensity by 60% by 2030. For Life cycle impact on climate (3b), PACs are assessed regarding their GHG emissions per functional unit through the life cycle, compared to a reference scenario.

▪ 3a. Greenhouse Gas (GHG) Emissions Intensity (2030 Goal).[7]

Baseline: 2018 intensity

Target: 2018 Enterprise GHG emissions intensity X 0.4 to reflect the goal of 60% reduction

Scoring Rubric*:

+2	PAC intensity is an improvement over the Target by more than 15%
+1	PAC intensity is within +/- 15% of Target
0	PAC intensity is greater than the Target by at least 15%, but there is a plan to achieve Target by 2030
-1	PAC intensity is greater than the Target by at least 15% but less than its 2018 baseline intensity, and reduction plan does not achieve Target by 2030
-2	PAC intensity is higher than the 2018 baseline level for the PAC, and reduction plan does not achieve Target by 2030

*+/-15% is a factor chosen to allow for a range of intensity values instead of a single value, which could imply 100% data accuracy with no uncertainty.

▪ 3b. Life cycle impact on climate.

+2	The intended use of PAC results in more than 20% lower GHG emissions than the use of alternative in the reference scenario
+1	The intended use of PAC results in lower GHG emissions than the use of alternative in the reference scenario
0	The intended use of PAC results in GHG emissions that are equivalent to the reference scenario or no analysis is available, but there are strong indications* that the PAC is reducing GHG emissions, when compared to the reference scenario
-1	The intended use of PAC results in higher GHG emissions than the reference scenario, but a plan is in place to eliminate the excess emissions or no analysis is available
-2	The intended use of PAC results in higher GHG emissions than the reference scenario

* For example, preliminary or incomplete studies or studies done on similar PACs,

3.2.1.4 Attribute 4: Material Circularity

This attribute has been added to the second version of EVOLVE 2030 in response to increasing concerns about resource extraction and depletion, as well as waste generation and pollution. As EVOLVE 2030 was developed within the PSA framework, this attribute similarly benefits from the knowledge and experiences of those who created the WBCSD Circular Transition Indicators (CTI) framework.[9]

Percent material circularity, as expressed by CTI, accounts for both inflow and outflow, with outflow defined as the product of recovery potential and actual recovery.

$$\text{\% product material circularity of PAC} = \frac{\text{\% circular inflow + \% circular outflow}}{2}$$

$$\text{\% product material circularity of PAC} = \frac{\text{\% circular inflow + (\% recovery potential X \% actual recovery)}}{2}$$

[9] *World Business Council for Sustainable Development, Circular Transition Indicators V3.0 (2022). At the time of method development, this was the most current version available.*

Annually, the Circularity Gap Report[10] estimates the circularity of the global economy, which we have chosen to use as the dynamic benchmark against which we will score the material circularity of PACs.

Scoring rubric:

+2	The PAC's material circularity is greater than two times the circularity of the global economy
+1	The PAC's material circularity is greater than the circularity of the global economy, but below twice that number
0	The PAC's material circularity is above a 5% threshold but less than the circularity of the global economy, or the PAC's material circularity is <5% but it substantially improves the system's circularity
-1	The PAC's material circularity is <5% with no substantial positive impact on the system, but concrete improvement plans are in place to reach the 5% threshold within 3 years
-2	The PAC's material circularity is <5% with no substantial positive impact on the system and no improvement plans, or the PAC creates a significant technical barrier to system circularity

3.2.1.5 Attribute 5: Human Health Risk

The human health assessment focuses on the product and its specific use as defined by the PAC. Toxicologically important impurities are included within the scope of this assessment. Please note that the human health risk during the manufacture of our product is not included in the scope of this assessment. Risk to workers is assessed and addressed by Environment, Health and Safety (EHS) procedures[11] in place at Chemours production sites, and inclusion here would be redundant at best, and has the potential to cause confusion.

Scoring Rubric:

+2	The PAC is determined to be very low human health risk
+1	The PAC is determined to be low human health risk
0	A 0 score is not applicable (N/A) for this attribute – PAC must fall into one of the other scores
-1	There is an opportunity for reasonably foreseeable misuse of the PAC by the general population that could result in adverse effect
-2	Advanced PPE like supplied air or full acid suits is critical for the safe use of the PAC

[10] *Circulatory Gap Report*

[11] *Chemours uses a robust Environmental Health and Safety (EHS) management system to identify, assess and control potential human health and environmental risks from our Chemours manufacturing, processing, and mining operations. Our commitment is stated in our Environment, Health, Safety, and Sustainability Policy. The scope, governance, and implementation are further defined in our protocols and standards that cover specific aspects of occupational safety and health, process safety management, safe distribution of material, and protection of the environment*

3.2.1.6 Attribute 6: Environmental Risk

This attribute is intended to capture the environmental risk posed by substances associated with the use and end of-life of the PAC, including degradation products. The score considers the product's fate, with a particular focus on persistence and potential harm to aquatic life.

Scoring Rubric:

+2	The substances of the PAC break down quickly and won't harm life in the relevant compartment(s), e.g., water, air, soil
+1	The substances of the PAC break down and won't harm life in the relevant compartment(s)
0	The PAC contains some substances that do not break down, but these substances are contained (e.g., tightly controlled during use, recovered at the end of life, immobilized in a matrix)
-1	The PAC contains substances that have potential to harm life in the relevant compartment(s) at the end of the PAC life cycle
-2	The PAC contains substances that either do not break down (other than those categorized in score 0) or are expected to cause harm to life in the relevant compartment(s) over time

3.2.1.7 Attribute 7: Social Impact

The Social Impact Attribute focuses on the holistic impact of the PAC through its life cycle (cradle to grave). This attribute intends to capture positive or negative social impacts associated with the PAC (when compared to the alternative that would be used if the PAC did not exist) that are not captured by other Imprint attributes, e.g., the social benefit of reduced carbon emissions is assumed to be captured in Attribute (3b), Life cycle impact on climate and should not be considered when scoring this attribute.

The social impact assessment was developed to align with the six principles of the WBCSD Social Life Cycle Metrics for Chemical Products (Relevance, Completeness, Consistency, Transparency, Accuracy and Feasibility).[12] However, this assessment is qualitative and is based upon a review of existing data and information by a cross-functional team at Chemours. As a starting point for the assessment, this team reviews the potential impact on workers, local communities, and consumers within the context of relevant social topics identified in the WBCSD Social Life Cycle Metrics for Chemical Products. These social topics cover a broad range of issues, which fall into the following overarching categories: basic rights and needs, employment, health and safety, skills and knowledge, and well-being. In addition to

12 World Business Council for Sustainable Development, Social Life Cycle Metrics for Chemical Products

consideration of the topics identified by WBCSD, the team also considers other negative and positive social impacts that may be unique to the PAC. Based on the topics identified, the team then scores the social impact based on the type of impact associated with the PAC, using the following definitions:

Note that the examples presented below are provided for illustrative purposes and are not intended to be exhaustive.

- Life-changing positive impact: Alters the courses of people's lives. Examples:
  - Provide means (e.g., training, education, financing, jobs) for people to move out of poverty
  - Reduce undernourishment[13] and stunting[14]
  - Reduce death rate
  - Increase availability of potable water
  - Provides access to electricity
- Life improving: Improves the quality of life. Examples:
  - Increase the standard of living
  - Increase access to healthy diets
  - Ease pain and suffering from health issues
  - Comfort to the extent of preventing health issues
  - Improve the quality of potable water
  - Improves the reliability of electrical supply
- Convenience/aesthetics: Expedience or provides a positive psychological response. Examples:
  - Entertainment or recreational end-uses (non-drug)
  - "Want" versus "need"
- Possible to cause negative social impacts: Possible under unusual or unexpected scenarios–unintended uses or inappropriately used. Example:
  - Enabling a solution that can be used in applications that lead to health concerns (e.g., vaporizer used in many applications, but can be used for electronic cigarettes)
- Likely to cause negative social impacts: Intended applications have known social concerns (e.g., health). Possible under circumstances similar to misuses in the past. Examples:
  - Enabling a solution that leads to health concerns (e.g., choosing to sell fruit flavors to the vaping industry)
  - Extraction or production of raw material that involves human rights violations (e.g., forced or child labor) or extensive negative environmental impact (e.g., deforestation or biodiversity impact)

[13] *Undernourishment means that a person is not able to acquire enough food to meet the daily minimum dietary energy requirements, over a period of one year. The Food and A Agriculture Organization of the United Nations defines hunger as being synonymous with chronic undernourishment.*

[14] *The Food and Agriculture Organization of the United Nations, Hunger and food insecurity*

The justification for the attribute score for each PAC is documented by the assessment team, along with any assumptions and supporting evidence as appropriate.

Scoring Rubric:

+2	**Outstanding performance**—PAC results in life changing positive impact at a local, national or global scale or life improving positive impact at a global scale. Any potential or likely negative social impact disqualifies the PAC for a +2 score.
+1	**Good performance**—PAC results in life improving positive impact at the local or national scale, and any potential or likely negative social impacts are effectively mitigated
0	**Standard performance**—PAC impact is restricted to improved convenience for consumer and/or improved aesthetics, but social impact is limited or too small to evaluate.
-1	**Inadequate performance**—PAC has the potential to create negative social impacts at a local scale which supersede any positive social impacts.
-2	**Unacceptable performance**—PAC has the potential to create negative social impacts at a national or global scale, which supersede any positive social impacts, or PAC is likely to have a negative social impact at a local, national, or global scale which supersede any positive social impacts.

*Bold font indicates the level titles from WBCSD Social Life Cycle Metrics for Chemical Products associated with each score

A PAC with a -2 score in this attribute cannot be considered to make a "specific contribution to the UN SDGs," and its revenue cannot be counted toward the Sustainable Offerings goal.

3.2.1.8 Attribute 8: Stakeholder Sentiment

As noted in the WBCSD PSA, many traditional assessment tools (e.g., environmental and social life cycle assessments) don't consider market perception and regulatory developments when assessing product and company-level risks.

Unlike other attributes within the EVOLVE 2030 assessment, Attribute 8 is based on stakeholder impressions of environmental and social impacts, which may or may not be based on scientific evidence.

Nevertheless, these perceptions can lead to significant business risks and require careful consideration when evaluating PACs' contributions to the UN SDGs. Therefore, we have taken an approach that is consistent with the WBCSD PSA guidance.

The evaluation methodology for Stakeholder Sentiment is divided into two attributes:

- 8a. Regulatory Activity (Current and potential regulatory scenarios)

This attribute is assessed by conducting a search using subscription-based third-party tools to check for current or proposed regulatory bans or restrictions that may be relevant to the PAC, as input to score according to the rubric below.

Scoring Rubric:

+2	No component is currently banned or restricted under industrial chemical management regulations and is not associated with any proposed bans and/or restrictions.
+1	No component is currently banned or restricted under industrial chemical management regulations, but at least one component is associated with proposed bans and/or restrictions.
0	One or more components are currently banned or restricted under industrial chemical management regulations but there are reasonable indications that the ban or restriction could be removed or one or more components are proposed for regulations, but there are reasonable indications that the ban or restriction would not come into effect.
-1	An intentional component is banned or restricted in one jurisdiction.
-2	Intentional component is banned or restricted in an influential jurisdiction or in multiple jurisdictions globally or is considered a Substance of Very High Concern (SVHC) or if any component is classified as Group I by IARC.

Components include intentional, unintentional, and degradants.

While the focus is on industrial chemical management regulations, other regulations relevant to the PAC will be considered when appropriate.

▪ 8b. Public Sentiments

This attribute is assessed by surveying the sentiments of aspects such as communities, direct customers, value chains, media, and considers the scores of all other attributes:

Scoring Rubric:

+2	No known perception issues and scores above neutral in all other attributes (i.e., unlikely to have perception issues based on other attributes)
+1	No known perception issues BUT scores at or below neutral in one or more other attributes (i.e., possibility of other attribute causing perception issue)
0	No perception issues identified for the PAC, but it includes consumer use and/or contact
-1	Localized or limited public concerns identified or PAC includes consumer contact use and issues exist for adjacent PAC(s)
-2	Severe or widespread concerns identified

3.2.2 UN SDG Contribution Scoring and Rubrics

The Contribution score rates a PAC's contributions to the UN SDGs at the Target level with consideration of Indicators for greater specificity. It is measured in terms of Significance, how important the product is to the Solution's contribution to an SDG, and Magnitude, how important the Solution's contribution is to achieve an SDG, as compared to an appropriate reference (e.g., "Business as Usual" (BAU) or best demonstrated alternative technology). Adapted from WBCSD guidance, Significance and Magnitude shall be scored on a scale from 0 to 5.[15]

When considering contributions to SDG Targets, the Subject Matter Experts (SMEs), Product Steward, and relevant experts from the Business whose PAC is under evaluation are encouraged to identify as many SDGs as possible where PACs may contribute. The entire hierarchy of SDGs (Goals, Targets, and Indicators) should be considered to gain the best understanding of the spirit and intent of the SDG framework.[16] In many cases, examining further detail (e.g., Indicator level) is helpful to fully understand the meaning of the preceding level (e.g., Targets). A breakdown of scoring for Significance and Magnitude is provided in the following rubrics.

[15] *Scoring rubrics were adapted from WBCSD guidance with respect to the significance of the contribution of chemical products to value chain avoided emissions based on the functionality approach described in Guidance on Avoided Emissions*

[16] *See The 17 Goals for complete listings of the SDG framework.*

Significance Scoring Rubric

Level	Description	Score
Fundamental	The product is the key component that enables positive SDG contribution of the PAC. There are no known practical alternatives that could replace the product (or its equivalent) in the PAC's ability to deliver the stated contribution.	5
Extensive	The product is part of the key component and its properties and functions are essential for enabling positive SDG contribution of the PAC. Known practical alternatives would lead to very significant negative impacts in environmental protection or development (social or economic), and a responsible PAC provider would not use the alternative, if given the option.	4
Substantial	The product cannot be substituted easily without reducing positive SDG contribution or creating negative contribution of the PAC.	3
Minor	The product cannot be substituted easily without reducing positive SDG contribution or creating negative contribution of the PAC, but there are practical barriers to widespread adoption (e.g. economic, technical robustness, supply).	2
Insignificant	The difference in contribution between the product and alternative is measurable, but the alternatives have significant advantages (e.g. economic, technical robustness, supply).	1
None or too small to communicate	The product can be substituted by an alternative without changing the SDG contribution of the PAC.	0

Magnitude Scoring Rubric

Level	Description	Score
Fundamental	The PAC directly or indirectly contributes to closing the gap between current Business as Usual (BAU) and the 2030 SDG. Magnitude of the contribution is large. The PAC is considered a best available technology (BAT)[17] or a potential BAT. Eliminating the PAC and replacing with an alternative would be noticed internationally and garner concerns and actions by multiple stakeholders.	5
Extensive	The PAC directly contributes to an SDG as part of BAU. Magnitude of contribution is large.	4
Substantial	The PAC directly contributes to an SDG as part of BAU. Magnitude of contribution small.	3
Minor	The PAC indirectly contributes to an SDG as part of BAU.	2
Insignificant	The difference in contribution between the PAC and BAU is measurable, but the there are alternatives that similarly contribute and are more feasible (e.g. technically, economically).	1
None or too small to communicate	Any contribution to and SDG is too small to communicate.	0

The Significance and Magnitude scores are multiplied to calculate the Contribution score. A score equal to or above the threshold of six (6) indicates that the PAC meets one of the criteria for making a specific contribution to an SDG. However, the contribution score alone does not indicate if a PAC's revenue may be counted as a specific contribution towards our 50% Sustainable Offerings goal. The PAC must also earn a non-negative overall Imprint score.

Each PAC may contribute to several UN SDGs. When multiple SDG Targets are considered, the highest score for one SDG Target will be considered as the PAC's Contribution score for the purpose of placement on the 2x2 matrix described in section 3.2.4, i.e., multiple contribution scores to several SDG Targets shall not be summed to achieve an overall higher Contribution score.

[17] *Best available technology (BAT) is used here to designate solutions that are commonly considered to be leading candidate technologies to addressing sustainable development gaps; it is not used in a formal legal or regulatory sense.*

3.2.3 Imprint Scoring and Aggregation

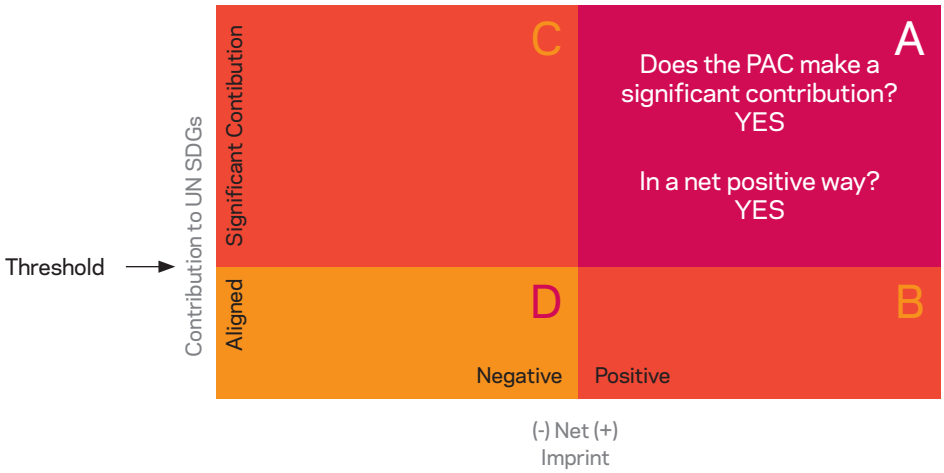
To allow plotting on a simple matrix, individual PAC Imprint attribute scores (as per section 3.2.1) are aggregated to an overall score using simple summation. We chose to use simple summation because developing weighting factors is complex, likely subjective, and often controversial. The intention of this exercise is to surface opportunities to improve, amplify strengths, and, where justified, further examine and refine our analyses. We feel this can be accomplished without the need for weighting factors.

Each individual Imprint attribute score of -2 must be reviewed to bring greater focus on improvement opportunities.

3.2.4 EVOLVE 2030 Matrix

As shown in Figure 4, the Contribution and Imprint scores can be plotted on a 2x2 matrix to identify in which quadrant each individual PAC is located. For PACs located in the upper right quadrant (quadrant A in Figure 4), their Imprint and highest single UN SDG Target Contribution scores meet the requirements for specific contribution, and their revenue may be counted toward the 50% Sustainable Offerings goal. Revenue of PACs located in quadrants B, C, and D do not count towards the 50% Sustainable Offerings goal.

Figure 4. Mapping of Imprint and Contribution scores



While only revenue from PACs whose scores place them in quadrant A are counted toward the CRC Sustainable Offerings goal, those in quadrant B also have a net positive Imprint and contribute to UN SDGs, albeit to a lower degree than the threshold we set.

Our intention is to improve the Imprint scores (i.e., over time, migrate PACs from left to right on the EVOLVE 2030 matrix); even for those in quadrants A and B, there are opportunities. As mentioned above, Imprints attributes with scores of -2, along with PACs in quadrants C and D, will command greater attention for improvement.

3.3 Summarize and Report

3.3.1 PAC Summary

A key output of the PAC evaluation process is the PAC Summary. Generated for each individual PAC, the summary will include an overview of the PAC (including PAC definition, alternative considered in the PAC evaluation, functional unit, and PAC revenue), its Imprint attributes scores, and its Contribution scores, along with component Significance and Magnitude scores. Perhaps most importantly, this summary includes a list of opportunities for improvement. The PAC summaries will inform the strategy for progressing toward achieving the Sustainable Offerings CRC goal, and inform business decisions in areas such as investments in product development, application development, process improvements, mergers and acquisitions, and portfolio management. The target audience includes product managers, market managers, technology engineers, scientists, managers, and other appropriate stakeholders within each business.

4. High-level screening

As noted in Section 3.1, the in-depth evaluation of PACs described above requires the participation of more than a half dozen business roles, in addition to experts in subjects like toxicology, risk assessment, life cycle analysis, regulatory data, compositional data, etc. For PACs whose risks are apparent, the investment of thousands of person-hours to fully evaluate a PAC will produce few, if any, additional insights, making the work hard to justify.

To focus limited expert resources on efforts that generate greater societal benefits, we use high-level screening to identify PACs whose most material improvement opportunities can be identified without using the full extent of evaluations described in Section 3.2. Two conditions apply to high-level screened PACs:

1. The revenue of these PACs may not be counted toward the 50% Sustainable Offerings goal; and
2. The known material improvement opportunities must be discussed with the aim of formulating recommendations that lead to action, analogous to -2 scores described in Section 3.2.3

5. Management Approach

EVOLVE 2030 is substantially integrated into many, if not all, functions across Chemours as we transform our offerings to meet societal needs and deliver those offerings responsibly.

The EVOLVE 2030 PAC evaluation outcomes guide decision-making in the appropriate business processes and forums to shape and improve Chemours business strategies and to meet our Sustainable Offerings goal by 2030. Innovation is critical to the long-term success of our company and our ability to increasingly contribute to the SDGs. Therefore, in addition to our existing portfolio of offerings, the EVOLVE 2030 methodology is incorporated into the business processes, which have the potential to reshape our portfolio, including our new product and application development processes. We update PAC evaluations on a specific frequency or as material changes occur to a product or its application. Using EVOLVE 2030, we will drive rapid progress through innovation, collaboration, and partnership that can provide unmatched solutions to achieve the SDGs.

6. Definitions

Absolute –The benchmarks against which the PAC is scored are set by invariant historical values or intrinsic properties.

Alternative –To be considered as an alternative to a given PAC, the solution must provide a comparable function to the PAC for the end user and be readily available in the market.

Business as Usual (BAU) –The most commercially viable alternative product/application/PAC to a given product or PAC being evaluated.

Life cycle impact on climate – A PAC's GHG emissions per functional unit through the life cycle is evaluated against a reference scenario[18] using an Alternative.

Contribution –Each PAC is evaluated for its contribution to the Targets and Indicators associated with the 17 UN SDGs. Contribution is measured in two dimensions: 1) Significance, indicating the relative role of the Chemours' product in the complete PAC helping to meet the SDG, and 2) Magnitude, the relative importance of the PAC for achieving the SDG.

Corporate Responsibility Commitment (CRC) –Chemours' public commitment to bring responsible chemistry to life, and hold ourselves accountable for our progress.

Environmental Fate –How a substance distributes (e.g., to air, water, soil) and changes in the environment.

Exposure –Both the amount of and the frequency with which a chemical substance reaches a person, group of people, or the environment.

Fluorinated Organic Chemicals Emissions –These are emissions of fluorinated organic chemicals to air and water from our manufacturing processes. Fluorinated organic chemicals are defined as compounds containing one or more carbon-fluorine bonds. Air emissions of these compounds are tracked for GHG reporting purposes, and both air and water emissions will be tracked for our Water goal.[7]

[18] *Adapted from Guidance on Avoided Emissions*

Functional Unit –ISO 14040 International Standard for Life Cycle Assessment (LCA) defines functional unit as, "…a measure of the performance of the functional outputs of the product system. The primary purpose of a functional unit is to provide a reference to which the inputs and outputs are related. This reference is necessary to ensure the comparability of LCA results. Comparability of LCA results is particularly critical when different systems are being assessed to ensure that such comparisons are made on a common basis. EXAMPLE: The functional unit for a paint system may be defined as the unit surface protected for a specified time period."

Greenhouse Gas (GHG) –The six gases listed in the Kyoto Protocol: carbon dioxide (CO_2); methane (CH_4); nitrous oxide (N_2O); hydrofluorocarbons (HFCs); perfluorocarbons (PFCs); and sulphur hexafluoride (SF_6).[19]

Globally Harmonized System (GHS) –Globally Harmonized System of Classification and Labeling of Chemicals.[20]

Global Warming Potential (GWP) –A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO_2.[21]

Hazard –Hazard refers to the inherent properties that make a substance able to cause a risk, e.g., make it capable of causing harm to human health or the environment. Risk is the measure of potential harm based on both hazard and exposure. Exposure describes both the amount of and the frequency with which a chemical substance reaches a person, group of people, or the environment. When chemicals are discussed in the context of a "risk assessment," it refers to a comprehensive evaluation of both the inherent hazard of a particular substance as well as the exposure.

Imprint –Aligned with the WBCSD PSA, the "Imprint" is a method to create an understanding of the PAC's net impact on society and the environment. The Imprint includes several attributes with direct links to Chemours CRC goals, (e.g., impact on climate change, landfill intensity, and emissions of fluorinated organic compounds to air and water) as well as additional attributes covering topics such as risk to human health and public sentiment.

Imprint Attribute –The Imprint includes 10 attributes which each assess a specific environmental or social impact of the PAC.

[19] *Kyoto Protocol - Targets for the first commitment period*

[20] *About GHS*

[21] *Product Life Cycle Accounting and Reporting Standard*

Intensity –Expression of impact per unit of physical activity or unit of economic value (e.g., tonnes of CO_2 emissions per unit of electricity generated).[22]

Magnitude –The relative importance of the solution for achieving the SDG.

Offerings –Refers to a specific Chemours product, service, or group of products or services.

Portfolio Management –Approach that provides characterization and stratification across all products within a company's portfolio, allowing for reporting of performance (e.g., per revenue) as well as prioritization of action (e.g., putting focus on innovating new products that can replace poorly performing current products)

Portfolio Sustainability Assessments (PSA) –For the purposes of EVOLVE 2030, PSA refers to the WBSCSD PSA Methodology, a holistic approach designed to: 1. Build a common understanding of what is considered "sustainable" within product portfolios; 2. Improve robustness of existing PSA approaches, by adopting best practice approaches applied by peers; 3. Increase credibility of externally communicated results, by agreeing on requirements with which a high-quality PSA must comply; 4. Reduce complexity for companies starting with PSA, by providing pragmatic "how-to" guidelines and case examples; 5. Improve consistency in communication on sustainability attributes and performance.[6]

Product Application Combination (PAC) –A PAC is a set of products and applications for which environmental and social impact (both positive and negative) is similar as per the WBSCD Chemical Industry Methodology for Portfolio Sustainability Assessment (the WBCSD PSA or simply "PSA method"). It is a segmentation approach intended to allow for the evaluation of unique impacts that result from the product (offering) in specific applications across the full life Cycle. For efficiency, products and applications are grouped as much as possible—i.e., products with similar operational footprints and benefits to society, if possible, are grouped into the same PACs.

Product Sustainability Risk Assessment Executive Review –The Product Sustainability Risk Assessment (PSRA) is a standard process designed to assist Chemours' employees and businesses to responsibly manage the environmental, health, safety, sustainability (EHSS) and regulatory aspects and impacts of Chemours raw materials, products and services throughout the life cycle and across the value chain in order to minimize risks and maximize business value. A PSRA Executive Review is when participants review

[22] *Adapted from Intensity Ratio definition from GHG Protocol*

and accept ongoing management of action items designed to minimize risks and maximize business value.

Refresh –An update to the evaluation of a PAC (Imprint and/or Contribution) conducted either as part of a regularly scheduled update or triggered by a change occurring relative to one or more evaluation criteria, e.g., a new alternative to the PAC becomes viable in the market, a change in the manufacturing process is expected to alter the Imprint score.

Relative to Alternative –For some scoring, comparison to an alternative technology is central to the evaluation. For example, "Life cycle impact on climate," defined as CO_2e emissions avoided less that caused by the PAC under evaluation, necessarily compares the impact of using the subject PAC with its alternative.

Revenue –For purposes of the EVOLVE 2030 method, revenue refers to the total sales value (USD) of a given PAC for the fiscal year being assessed.

Risk Ratio –The ratio of a health benchmark versus the estimated concentration in an environment. The risk ratio will vary according to the population in the environment; sometimes the population is the general public (in the case of consumer goods), other times the population is workers on a manufacturing line.

Significance –Relative role of the Chemours' product/offering in the PAC helping to meet the SDG.

Solution –The WBCSD PSA defines solution as, "…Any product in its application along the value chain, a chemical product, a material from another industry, a component or a final technology which fulfills the need of the purchaser."

Specific Contribution –PACs that are considered to have a specific contribution are those whose score places them in Quadrant A of the EVOLVE 2030 Matrix (Figure 4); therefore, the PAC has been demonstrated to have an Imprint score greater or equal to zero and a Contribution score of 6 or greater.

Substances of the PAC –These include intentional components and identified impurities and degradants.

Sustainable Offering –A part of Chemours' broader Corporate Responsibility Commitment goals, the Sustainable Offerings goal is to ensure 50% or more of our revenue will be from offerings that make a specific contribution to the United Nations Sustainable Development Goals by 2030.

Toxicity –Ability of a substance or article to cause health-related damage to an organism (both mammalian and aquatic) or the environment.

United Nations Sustainable Development Goals (UN SDGs / SDGs) – The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries—developed and developing—in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.[5]

World Business Council for Sustainable Development (WBCSD) –WBCSD is a global, CEO-led organization of over 200 leading businesses working together to accelerate the transition to a sustainable world.

7. Appendix I: Revisions to EVOLVE 2030 V1.0

Revisions to EVOLVE 2030 resulted from (1) experiences of conducting PAC evaluations over the last several years, (2) findings from a reproducibility study in 2021, (3) the development and pilot testing of material circularity assessment method from 2021 to 2023, and (4) third-party assurance conducted in 2023-2024. In addition, our PAC evaluation process has evolved with the development of data management and visualization systems that have brought greater efficiency, discipline, robustness, clarity, and accessibility to nearly every stage of our process.

The results of the reproducibility study led to the development of a detailed operations manual, along with scores of tools, including decision trees, templates, and process flow diagrams.

Because the environmental risk of site operations is reviewed in a separate process, it became apparent during our work since 2019 that a separate assessment of Environmental Risk during manufacture was redundant. Therefore, the two parts of that attribute were consolidated into a single score based on the properties of the substances associated with the PACs. This is now more consistent with the human health scoring, which has always considered only the PACs from gate to grave rather than including a score for manufacturing.

While relying heavily on WBCSD CTI in developing the method to evaluate material circularity, other references from the Ellen MacArthur Foundation, the United Nations Environment Programme, the U.S. Environmental Protection Agency, and the European Parliament were also incorporated into our approach and implementation.