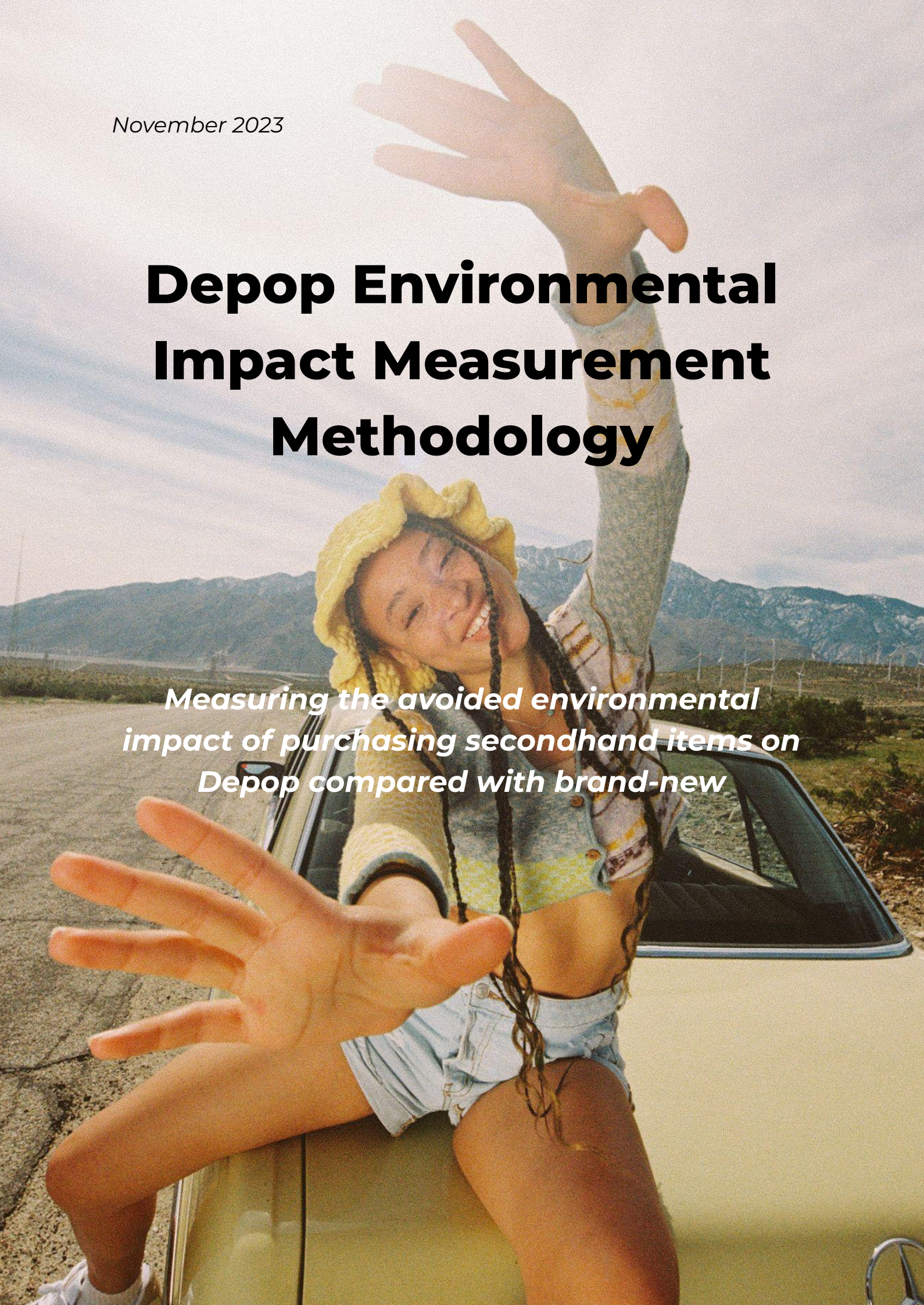


November 2023

# Depop Environmental Impact Measurement Methodology

*Measuring the avoided environmental  
impact of purchasing secondhand items on  
Depop compared with brand-new*







## DISCLAIMER

This methodology sets out Depop's approach to estimate the environmental impact of secondhand purchases made on Depop compared to brand-new items. Depop and its partner consultant, Sustainability Analytics, have exercised customary care in preparing the methodology, but have not independently verified the methodology or information taken from publicly available sources. Limitations in the methodology are clearly set out.

All items have an environmental impact (including secondhand ones) and this methodology does not claim that items purchased on Depop have no environmental impact. Avoided environmental impact does not replace Depop's greenhouse gas (GHG) inventory accounting, which is reported in line with the GHG Protocol Corporate Accounting and Reporting Standard annually in the [Etsy, Inc. 10-K filing](#).

At the time of preparation, the methodology was based on the latest available data and information. We aim to continuously update the methodology in line with the latest data and best practice where appropriate. If you have any suggestions, complaints or any other feedback, please contact [sustainability@depop.com](mailto:sustainability@depop.com).



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# 1. Introduction

## 1.1 Why secondhand?

The clothes we wear cause environmental impact when they are made, used and disposed of. Production of raw materials, fabric processing and manufacturing of garments are all major contributors to the overall environmental impact of a piece of clothing – with detrimental effects including high emissions of greenhouse gases, water consumption, excessive waste, and contamination of water sources and land<sup>1</sup>.

A simple way to reduce the overall environmental impact of fashion is to reuse what already exists – displacing brand-new purchases with secondhand ones.

## 1.2 Measuring our impact

After months of work, we are proud to share our first methodology to estimate the avoided environmental impact of secondhand purchases made on Depop. Our objective is to help our community and stakeholders better understand the environmental impact of resale. By publicly disclosing our methodology, we want to hold ourselves accountable to industry best practices, invite challenge and give our stakeholders confidence in our commitment to transparency.

Collaboration between resale platforms and brands to align and improve environmental impact measurement methodologies in resale is crucial to reinforcing the case for new circular fashion businesses and paving the way for a fashion industry built on circular principles. We hope that by showcasing the environmental benefits of shopping secondhand rather than brand-new, we can continue to bring circular fashion to more people.

## 1.3 Avoided environmental impacts

We estimate the avoided environmental impact through secondhand purchases made on Depop for three major areas: greenhouse gas emissions (GHG), waste and water consumption.

*Why those three areas?*

- **GHG emissions** – Around 70% of the fashion industry's GHG emissions are generated at upstream stages of the value chain, particularly raw material production, yarn and fabric processing, and garment assembly. The rest are associated with downstream activities like distribution (transport), retail, product use and end-of-life.<sup>2</sup>

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<sup>1</sup> [McKinsey & Company and Global Fashion Agenda, Fashion on Climate - How the fashion industry can urgently act to reduce its greenhouse gas emissions \(2020\) p.7.](#)

<sup>2</sup> [McKinsey & Company and Global Fashion Agenda, Fashion on Climate - How the fashion industry can urgently act to reduce its greenhouse gas emissions \(2020\) p.5.](#)



- **Waste** – Textile waste is created both at the point of production and at the end-of-life of a garment. Offcuts are responsible for roughly 20% of the industry's waste<sup>3</sup> and it is estimated that 73% of clothing produced each year is incinerated or sent to a landfill<sup>4</sup>.
- **Water** – Producing new garments requires substantial amounts of water to grow crops, as well as dye and finish fabrics – the industry uses nearly 93 billion m<sup>3</sup> of water annually<sup>5</sup>, estimated to grow to 118 billion m<sup>3</sup> by 2030<sup>6</sup>. Water consumption can add to water shortages in stressed regions, and textile finishing processes can contaminate water sources and the surrounding land<sup>7</sup>.

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<sup>3</sup> [European Parliamentary Research Service, Environmental impact of the textile and clothing industry \(2019\) p.4.](#)

<sup>4</sup> [A New Textile Economy, Ellen MacArthur Foundation, \(2018\) p.37.](#)

<sup>5</sup> [A New Textile Economy, Ellen MacArthur Foundation, \(2018\) p.38.](#)

<sup>6</sup> [Global Fashion Agenda & BCG, Pulse of the Fashion Industry \(2017\) p.10.](#)

<sup>7</sup> [A New Textile Economy, Ellen MacArthur Foundation, \(2018\) p.38.](#)



## 2. Glossary

The following terms used throughout the report are explained in more detail below.

Term	Explanation
<b>Avoided environmental impact</b>	The volume of greenhouse gases, waste or water use avoided through the purchase of a secondhand item compared to brand-new. See <a href="#">Section 3.1</a> for full details on scope of the methodology.
<b>Displacement rate</b>	The proportion of secondhand purchases that prevent the purchase of what would otherwise have been a brand-new item purchased elsewhere <sup>8</sup> .
<b>Downstream</b>	Post-manufacturing activities in a supply chain associated with distributing the product to the final customer <sup>9</sup> .
<b>End-of-life</b>	Lifecycle phase of a garment when it has completed its useful life. At the end of a garment's life, it may be disposed of via methods including incineration and being sent to a landfill, or the materials may be reused or recycled into new materials.
<b>Footprint</b>	Measurement of the environmental assets or resources consumed by a population, activity or product <sup>10</sup> .
<b>Greenhouse gas (GHG) emissions</b>	Greenhouse gases in the atmosphere that absorb heat from the sun. Human interference, especially burning of fossil fuels, has led to high concentrations of GHG emissions in the atmosphere. This causes a greenhouse effect, whereby heat is trapped close to the surface of the Earth, leading to global warming and climate change <sup>11</sup> . GHG emissions are measured and reported in carbon dioxide equivalent (CO <sub>2</sub> e).
<b>Item category</b>	Classification of garment types for items with shared characteristics. i.e. outerwear, bottoms, tops, etc.
<b>Item subcategory</b>	Classification within a category for items with shared characteristics. e.g. subcategories within the category 'bottoms' include: jeans, casual trousers, shorts, skirts.

<sup>8</sup>[WRAP-valuing-our-clothes-the-cost-of-uk-fashion WRAP. \(2020\) p.12 & 38.](#)

<sup>9</sup>[Resonance - Upstream, Downstream, Extended, and Ethical: The Growing Vocabulary of Supply Chain Management \(2022\).](#)

<sup>10</sup>[Global Footprint Network - Ecological Footprint \(2023\).](#)

<sup>11</sup>[Centre for Sustainable Fashion and Condé Nast - The Sustainable Fashion Glossary: Greenhouse gases \(GHGs\).](#)



<b>Life cycle</b>	The journey a garment makes from raw materials, through production and usage, all the way to disposal <sup>12</sup> .
<b>Life cycle assessment (LCA)</b>	A method used to evaluate the environmental impacts of a product through all stages in its life cycle, encompassing extraction and processing of raw materials, manufacturing, distribution, use, recycling, and final disposal. <sup>13</sup>
<b>Production waste</b>	Waste generated during the production of a garment (e.g. during yarn preparation or assembly).
<b>Representative item</b>	An item that is most typical of an item category based on Depop sales.
<b>Secondhand</b>	An item that has previously been owned by or in the possession of an individual, whether worn or not, with or without a tag <sup>14</sup> .
<b>Upstream</b>	Activities in a supply chain associated with procurement and production of raw materials that inputs into products <sup>15</sup> .
<b>Waste</b>	In the scope of lifecycle stages specified in this methodology, waste refers to production waste and waste incurred through the disposal of unfit purchases. It does not include end-of-life waste. See <a href="#">3.1 Life cycle</a> for more details on the scope.

<sup>12</sup> [Redress Design Awards - A garment's lifecycle: Sustainable fashion educator pack \(2018\) p.3.](#)

<sup>13</sup> [Ilgin, Mehmet Ali; Gupta, Surendra M. "Environmentally Conscious Manufacturing and Product Recovery \(ECMPRO\): A Review of the State of the Art". Journal of Environmental Management. \(2010\).](#)

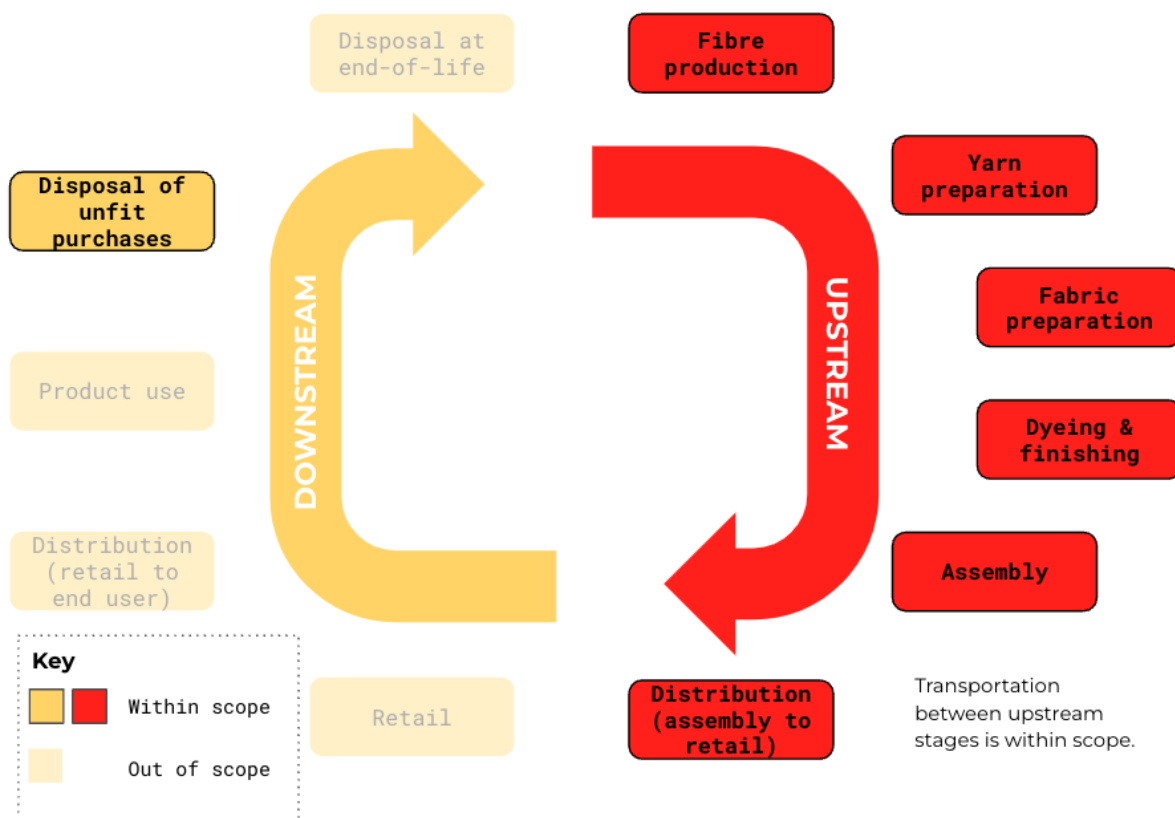
<sup>14</sup> [Depop - Circular Fashion at Depop.](#)

<sup>15</sup> [Masterclass - Upstream Supply Chain: How Upstream and Downstream Differ \(2022\).](#)

### 3. Scope

#### 3.1 Life cycle

Purchasing a secondhand garment can displace the environmental impacts that would otherwise have occurred if a new garment was purchased in its place. To ascertain the scope of our methodology, we considered the entire life cycle of a secondhand garment. The final scope includes the lifecycle stages that do not occur again for a secondhand garment (i.e cradle-to-gate), and any additional stages that only occur for secondhand garments<sup>16</sup>. Stages that are in common for both new and secondhand garments are not included in the scope because the impacts are either the same for both new and secondhand (i.e product use and disposal at end-of-life), or there is not enough industry information to be able to make meaningful comparisons (i.e for retail and distribution). For stages that fall into the latter category, we considered this appropriate only when the impact is higher for brand-new items. The lifecycle stages included in the methodology are shown in the following diagram<sup>17</sup>:



<sup>16</sup> Definitions of lifecycle stages are based on those developed by Quantis with some adjustments to account for the specificities of a secondhand garment journey and ensure a conservative approach. [Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study \(2018\) p.11.](#)

<sup>17</sup> The diagram is a representation of lifecycle stages and the exact supply chain is dependent on the specific item.





## 3.2 Stages omitted from the methodology

The following stages are omitted from the methodology, which is consistent with other quoted studies<sup>18</sup>:

### Retail

- The environmental impacts of retail vary significantly between e-commerce and physical stores, making it difficult to measure at scale across the sector. It is estimated that 3% of a garment's greenhouse gas footprint occurs at retail stage<sup>19</sup>. Given that Depop does not utilise warehouses or physical stores within our operations, nor do we oversee the day-to-day operations of sellers on the platform, we deemed that excluding retail from the comparison between new and secondhand was appropriate. We expect the impacts derived from physical operations for new purchases are likely to be higher than Depop's operational footprint<sup>20</sup> because it does not include physical storage of garments or processing of sales. Details of Depop's operational greenhouse gas footprint can be found on our [Climate Action page](#).

### Distribution (retail to end user)

- Since transportation of items to customers (e.g shipping or customer pick-up) occurs for both secondhand and new purchases, it is excluded from the scope. It is estimated that 3% of a garment's greenhouse gas footprint occurs during the transport stage<sup>21</sup>. Whilst brands and retailers may incur additional environmental impacts through returned items, returns on Depop are at the discretion of sellers and not enabled at scale. Depop enables unfit purchases to be resold on Depop through 'Repop', which is captured within the scope of the methodology.
- Packaging materials and weights vary significantly between brands and retailers, and may occur for both new and secondhand purchases. According to Quantis, packaging impact on the overall footprint of an apparel item is considered negligible<sup>22</sup>, and is therefore excluded.

### Product Use

- Impacts related to use rely strongly on assumptions of consumer behaviours, which are likely to vary widely. Given that impacts of secondhand and new items in the use phase are comparable, we considered that introducing it into the assessment would not materially influence the results but instead risk adding uncertainty. It is estimated that 20% of a garment's greenhouse gas footprint occurs during product use<sup>23</sup>.

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<sup>18</sup> [Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study\(2018\) p.12](#) or [Green Story - Comparative Life Cycle Assessment \(LCA\) of second-hand vs new clothing \(2019\) p.14](#).

<sup>19</sup> [McKinsey & Company and Global Fashion Agenda, Fashion on Climate - How the fashion industry can urgently act to reduce its greenhouse gas emissions \(2020\) p.5](#).

<sup>20</sup> [In 2022, Depop's scope 1-3 GHG emissions totalled 20,059 tonnes CO2e. p.7](#).

<sup>21</sup> [McKinsey & Company and Global Fashion Agenda, Fashion on Climate - How the fashion industry can urgently act to reduce its greenhouse gas emissions \(2020\) p.5](#).

<sup>22</sup> [Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study p.12 \(2018\) p. 12](#).

<sup>23</sup> [McKinsey & Company and Global Fashion Agenda, Fashion on Climate - How the fashion industry can urgently act to reduce its greenhouse gas emissions \(2020\) p.5](#).



### Disposal at end-of-life

- Buying a secondhand item can prevent it from being disposed of prematurely, but not permanently. Given that both new and secondhand items will eventually be disposed of – resulting in comparative impacts – disposal at end-of-life is omitted. It is estimated that 3% of a garment's greenhouse gas footprint occurs at end-of-life<sup>24</sup>.

### Assembly

The following aspects of the assembly stage are excluded<sup>25</sup>:

- **Cleaning and ironing:** Cleaning and ironing during assembly is estimated to have a negligible impact on the overall footprint of an apparel item.
- **Trims:** Items such as buttons, laces, zippers and other accessories are excluded. Since the weight of these materials is negligible in the total weight of an apparel item, they are considered to have a negligible impact on apparel's overall footprint.

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<sup>24</sup> [McKinsey, Fashion on Climate \(2020\) p.5.](#)

<sup>25</sup> [Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study \(2018\) p.12.](#)

## 4. Methodology

### 4.1 Methodology overview

This methodology was developed in collaboration with Sustainability Analytics, a third-party impact valuation specialist consultancy<sup>26</sup>.

As the majority of the impact savings come from the avoided manufacture of garments and shoes, the methods applied are similar to those used to assess the impacts of new fashion. Those methods have been used by a number of brands in the fashion and retail industries to assess the environmental impacts of their supply chains<sup>27</sup>.

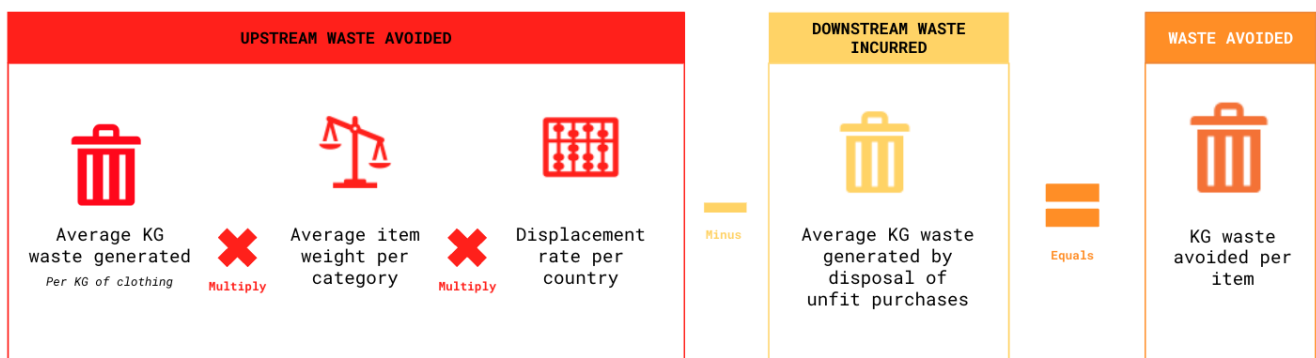
The methodology uses multiple inputs, including in-depth life cycle assessment data from multiple sources, Depop sales data and primary data on our users' behaviours.

The results provide an indication of the average GHG emissions, water, and waste avoided through the purchase of a secondhand item on Depop compared to a new one for key item categories.

### 4.2 Methodology by type of impact avoided

#### 4.2.1 Waste avoided (kg)

To estimate the volume of waste avoided per secondhand item sold on Depop, we use the following approach:



#### Calculation walk through:

##### Upstream waste avoided

- Waste is routinely generated during the production of garments and we assume that this waste is disposed of. We assume that 1.7 kg waste is generated for every 1

<sup>26</sup> <https://www.sustainabilityanalytics.co.uk/>.

<sup>27</sup> [Kering's Environmental Profit & Loss report](#) or [Adidas Environmental Impact Report](#).

kg of garments produced, according to estimations by WRAP (The Waste and Resources Action Programme)<sup>28</sup>.

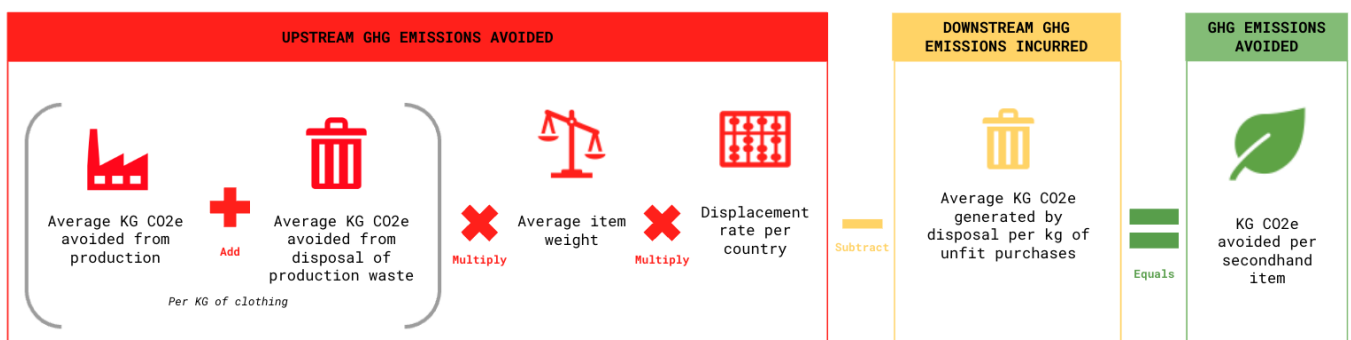
- We multiply the average kg waste generated per kg clothing by the average item weight for the specific category. See [4.3.3 Average weight of representative items](#) for more details.
- We then multiply the average kg generated per item by the displacement rate for that item category, according to the country of sale<sup>29</sup>. For more details on displacement rate methodology, see [4.3.1 Displacement rate](#).

### Downstream waste incurred

- *Waste incurred through the disposal of unfit purchases:*
  - Some users might not be fully satisfied with their purchase. We therefore assume that some secondhand items purchased on Depop will be disposed of. We use average dissatisfaction with purchases (7%)<sup>30</sup> as a proxy to estimate the proportion of items that will be disposed of. This is a conservative assumption since only 5% of our users who clear out their wardrobe report disposing of items via general rubbish/trash<sup>31</sup>.
  - The waste incurred from the disposal of unfit purchases is subtracted from the upstream waste avoided to obtain the net waste avoided.

## 4.2.2 GHG emissions avoided (kg CO2e)

To estimate the volume of GHG emissions avoided per secondhand item sold on Depop, we use the following approach:



### Calculation walk-through

#### Upstream GHG emissions avoided

- *GHG emissions from production*
  - We used life cycle assessment (LCA) data from various LCA databases including Ecoinvent, GaBi, and published LCAs for specific materials to

<sup>28</sup> [WRAP. Valuing our clothes: the cost of UK fashion \(2017\) p.26.](#)

<sup>29</sup> [Depop Displacement Research \(2022\) p.25 & 26.](#)

<sup>30</sup> [Depop Displacement Research \(2022\) p.27.](#)

<sup>31</sup> [Depop Displacement Research \(2022\) p. 34-36.](#)





estimate the average savings for key item categories across the lifecycle stages set out in section [3.1 Life cycle](#)<sup>32</sup>.

- This LCA data was consolidated into impact avoided estimations according to material composition per item category by Green Story for ThredUp<sup>33</sup>.
- The dataset was used as a proxy for Depop's inventory, given the data is based on industry averages and to promote consistency between resale platforms' methodologies.
- *GHG emissions from the disposal of production waste*
  - When production waste is disposed of, GHG emissions are incurred. We therefore accounted for those emissions as a saving when buying a secondhand item.
  - We estimate those GHG emissions by considering the disposal methods per country (e.g. incineration, landfill) and their respective GHG footprint<sup>34</sup>, according to the location of each production step<sup>35</sup>.
- GHG emissions from production and the disposal of production waste are summed up, then multiplied by the average item weight for the specific category.
- We then multiply the average kg generated per item by the displacement rate for that item category, according to the country of sale<sup>36</sup>.

### **Downstream GHG emissions incurred**

- *GHG emissions incurred through the disposal of unfit purchases:*
  - Downstream disposal of garments also incurs GHG emissions. As noted in the waste section above, we assume some secondhand items will be disposed of when considered unfit. We subtract downstream emissions incurred from disposal of unfit purchases from upstream GHG emissions avoided.
  - As noted in section [3. Scope](#), GHG emissions related to the disposal of an item at end-of-life are not within scope, as we assume that both secondhand and brand-new items generate similar GHG emissions when thrown away.

#### **How do we calculate GHG emissions associated with the disposal of garments?**

We use the following assumptions for GHG emissions associated with upstream waste avoided, and downstream waste incurred.

- **Location:**
  - *Upstream GHG emissions avoided (from the disposal of production waste):*

<sup>32</sup> [Green Story - Comparative Life Cycle Assessment \(LCA\) of second-hand vs new clothing \(2019\) p.19.](#)

<sup>33</sup> [Green Story - Comparative Life Cycle Assessment \(LCA\) of second-hand vs new clothing \(2019\) p. 43 & 44 \(Table 4-5 Impact avoidance by product category\).](#)

<sup>34</sup> [Waste disposal method per country: The World Bank, What A Waste Global Dataset \(2019\) - GHG emissions derived from item disposal \(incineration & landfill\) - Defra. Greenhouse Gas Reporting: conversion factors 2020 \(2020\).](#)

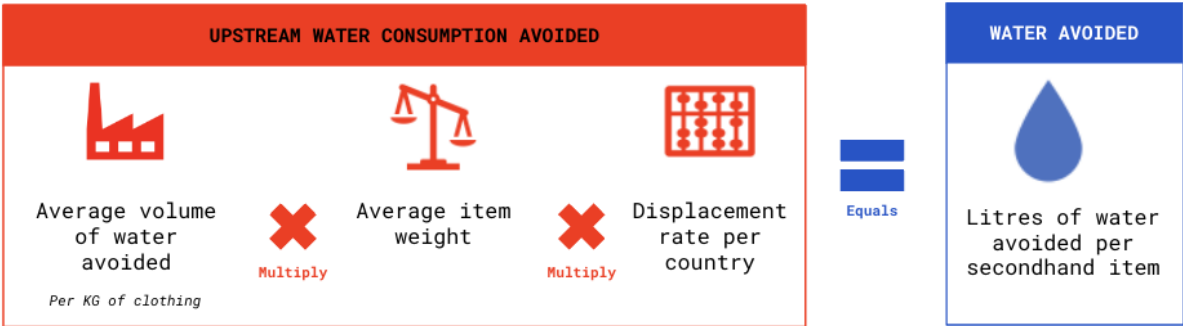
<sup>35</sup> [Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study \(2018\) p.57.](#)

<sup>36</sup> [Depop Displacement Research \(2022\) p.25 & 26.](#)

- We determined the location of production waste disposal, leveraging research by Quantis which maps the production location for each stage in a garment's production process<sup>37</sup>.
    - *Downstream GHG emissions incurred (from the disposal of unfit purchases):*
      - We assumed that the country of disposal is the same as the purchase country of the item.
  - **Disposal method:** We determined the proportion of clothing disposed of per disposal method (e.g landfill or incineration) according to World Bank data<sup>38</sup>, which showed the disposal methods split per country. Where no country data was available, we used the global average. The method identifies the share of clothing that is estimated to be disposed of (into waste treatment) if not sold via Depop. A further share would be recycled if not sold on Depop, but the impacts of recycling are lower and may displace new material manufacture. Therefore recycled share is excluded from the estimation.
  - **Emission factors:** Waste emission factors from Defra UK are used to estimate the GHG emissions from each waste disposal method per country<sup>39</sup>.

### 4.2.3 Water consumption avoided (litres)

To estimate the volume of water consumption avoided per secondhand item sold on Depop, we use the following approach:



#### Calculation walk-through

**Upstream water consumption avoided:**

- To estimate the volume of water avoided per kg of clothing, we used LCA data from Green Story for ThredUp<sup>40</sup>.
- We multiply the volume of water avoided per kg clothing produced by the average item weight for the specific category.

<sup>37</sup> [Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study \(2018\) p.57.](#)

<sup>38</sup> [Waste disposal method per country: The World Bank. What A Waste Global Dataset \(2019\).](#)

<sup>39</sup> [GHG emissions derived from item disposal \(incineration & landfill\): Defra - Greenhouse Gas Reporting: conversion factors 2020 \(2020\) Clothing emission factor is used.](#)

<sup>40</sup> [Green Story - Comparative Life Cycle Assessment \(LCA\) of second-hand vs new clothing \(2019\) p. 43 & 44. \(Table 4-5 Impact avoidance by product category\).](#)



- We then multiply the average volume of water avoided per item by the displacement rate for that item category, according to the country of sale<sup>41</sup>.

## 4.3 General assumptions used for modelling

The following assumptions are applied to each of the three environmental impact areas (GHG emissions, waste and water).

### 4.3.1 Displacement rate

Displacement rate refers to the proportion of secondhand purchases that prevent the purchase of a brand-new item elsewhere. Displacement rates are used to discount the avoided environmental impact of secondhand purchases, by accounting for those that have not prevented the purchase of a brand-new item.

- In March 2022, in collaboration with QSA Partners<sup>42</sup> and Icaro Consulting, Depop conducted research, via a survey of Depop buyers, and estimated the displacement rate of key item categories sold on Depop across 3 regions (UK, USA, Australia)<sup>43</sup>. See [Depop Displacement Research](#) for the full methodology.
- In this methodology, we use different displacement rates per item category and country of purchase. These displacement rates were established using the following approach:
  - A survey of Depop users (based in the US, UK, and Australia) asked respondents a series of questions related to the last item they purchased, including whether purchasing a secondhand item on Depop prevented them from purchasing a brand-new item elsewhere.
  - The survey results were used to estimate the displacement rate of key item categories per country.
  - For item categories with insufficient survey data (i.e. less than 150 survey respondents per category in each country), net displacement rates for clothing (per country) are applied. Net displacement rate is calculated by combining data from the relevant categories. For example, the net clothing displacement rate is the average of all clothing categories such as dresses, trousers, coats etc. Where the minimum sample size of 150 was not met globally (i.e less than 150 survey respondents per category globally), categories are excluded entirely. See [4.3.4 Item categories](#) for all categories in scope.
  - We estimated displacement rates for purchases made in the rest of the world using the average displacement rates per category across the UK, US and Australia.

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<sup>41</sup> [Depop Displacement Research \(2022\) p.25 & 26](#).

<sup>42</sup> [QSA Partners](#).

<sup>43</sup> [Depop Displacement Research \(2022\) p.20-22](#) - Based on a sample of 5,531 Depop users in the UK, US and Australia who made a purchase on Depop between December 2021 and February 2022.



### 4.3.2 Item condition

We only estimate the avoided environmental impact of secondhand purchases made on Depop. In this context, secondhand items are identified as items listed by sellers in any 'used' condition.

'Used' condition is the umbrella term for the following condition listing attributes used on the app:

- Like new
- Used - excellent
- Used - good
- Used - fair

Items described as 'brand-new' are not considered in the scope, given that we estimated the impact avoided for secondhand purchases only.

### 4.3.3 Average weight of representative items

Each item category was assigned an average weight, calculated via a weighted average of representative items in each item subcategory. The weights of representative items are estimated by Depop based on secondary sources and revisited annually. Since the weights of items sold for each category are based on a sample, weights of individual items are subject to natural variability of items sold.

### 4.3.4 Item categories

The following item categories are included in the scope of this methodology, across menswear and womenswear:

- tops
- bottoms
- dresses
- outerwear
- shoes

These item categories include item subcategories. For example, the bottoms category includes subcategories such as trousers, jeans, skirts, shorts, sweatpants, etc.





## 5. Limitations

We recognise the complexity in estimating the environmental impact of secondhand fashion. By publishing this methodology, we want to contribute to promoting more data transparency and collaboration, in order to improve environmental impact measurement in the nascent resale industry. We acknowledge the following limitations in our methodology:

- **Inventory oversight:** Depop does not directly manage the inventory sold on the platform, and lifecycle or material composition data for individual items we sell is unavailable. We therefore base the estimated savings on average impacts for representative items in each item category.
- **Displacement:** Given that data provided via user surveys is self-reported, we acknowledge that survey questions may be open to interpretation by different users. Response data, though indicative of the associated environmental saving, is by nature, not conclusive. Broader studies at scale are necessary to demonstrate whether the rise in secondhand fashion is having a direct impact in slowing fashion production. See the [Displacement rate methodology](#).
- **Life cycle scope:** As noted in [3.1 Life cycle](#), we do not consider all lifecycle stages when making comparisons between secondhand and new purchases.
- **Item condition:** We use condition information provided by our sellers in their listings to determine item condition and do not verify this data.

## 6. References

This methodology references and uses assumptions from a number of studies which were selected in collaboration with Sustainability Analytics. They were the most up-to-date sources available at the time of creating the methodology. They adhere to broadly accepted standards in environmental impact measurement and have been used by other peers in the industry within their own methodologies.

The following table provides reasons to explain how we selected specific literature, in more detail:

Ref. #	Literature referenced	Reason(s) for selecting the literature
27	<a href="#">Kering's Environmental Profit &amp; Loss report</a> or <a href="#">Adidas Environmental Impact Report</a>	Our methodology follows a similar approach as the methods widely used by fashion brands to assess the environmental impacts of their supply chain (e.g. Adidas, Kering).
28	<a href="#">WRAP, Valuing our clothes: the cost of UK fashion (2017) p.26</a>	For average waste generated by garments produced, we selected WRAP data as a third-party NGO which shares the latest research on the environmental impacts of the clothing industry in the UK.
29-31, 36, 41, 43	<a href="#">Depop Displacement Research (2022) p. 25-26, 27, 36, 20-22</a>	In March 2022, in collaboration with QSA Partners and Icaro Consulting, Depop conducted research via a survey of Depop users. In collaboration with QSA, we used the survey data to estimate the displacement rates of purchases made on Depop, in each of our key 3 markets (UK, USA, Australia). A similar methodology has been used by other players in the industry to estimate their displacement rates.
32-33, 40	<a href="#">Green Story - Comparative Life Cycle Assessment (LCA) of second-hand vs new clothing (2019) p.19, 43-44</a>	Green Story LCA data was selected for the following reasons: <ul style="list-style-type: none"> <li>• The data was the most up-to-date available at the time of the study.</li> <li>• The analysis was carried out on categories similar to those used by Depop.</li> <li>• The analysis was neutral in comparison to others available, as it did not rely on brand-specific assumptions on consumer behaviour which may not have held true for Depop users (e.g. washing and disposal of clothes).</li> </ul>
34, 38	<a href="#">Waste disposal method per country: The World Bank, What A Waste Global Dataset (2019)</a>	World Bank data was selected for the following reasons: <ul style="list-style-type: none"> <li>• It is the only dataset available on global waste treatment methods.</li> <li>• It was the most up-to-date study available at the time of the analysis.</li> <li>• While Defra releases a new report each year, these factors have not changed since the 2020 version. We note that at some point, Defra may update underlying studies used to source the factors. We will monitor developments each year and aim to update our methodology, where appropriate.</li> </ul>



35, 37	<a href="#">Quantis - Measuring Fashion - Environmental Impact of the Global Apparel and Footwear Industries Study (2018), p.57</a>	This was the most up-to-date source offering a breakdown of manufacturing locations of textiles for clothing and shoes. The organisation is reputable and widely used by the fashion industry. The outputs are in a neutral format applicable to Depop as they do not include specific assumptions about user behaviour. We will monitor new studies, as they arise, to identify if any are appropriate and could be used to replace this source.
39	<a href="#">GHG emissions derived from item disposal (incineration &amp; landfill) Defra, Greenhouse Gas Reporting: conversion factors 2020 (2020)</a>	Waste emission factors for clothing published by Defra are used to estimate the GHG emissions from each waste disposal method per country. The Defra figures are an authoritative government backed source for emissions factors. These are widely used by many organisations. We will monitor for UK government updates to this data, on a yearly basis and aim to update our methodology, where appropriate.
42	<a href="#">QSA Partners</a>	QSA Partners is a specialist team of circular business experts with experience in consumer markets, mobility and displacement rate studies. For displacement rates used in our methodology (and widely used by resale brands), QSA combined industry knowledge insights with Depop user-specific analyses to produce the relied upon displacement rates per country.