

## Impact Section

TL; DR

As described in the 'Market Overview' the Company is seeking to contribute to the growth of the 'Circular Economy', through the provision of a low-friction and cost-efficient insurance. The increased trust created by insurance should in turn result in two targeted outcomes that ensure the aforementioned market growth: a) Increased Velocity – Lenders are more willing to lend out existing shared (otherwise known as 'club') goods; b) Increased Volume – Existing and new lenders are more willing to create additional 'club' goods.

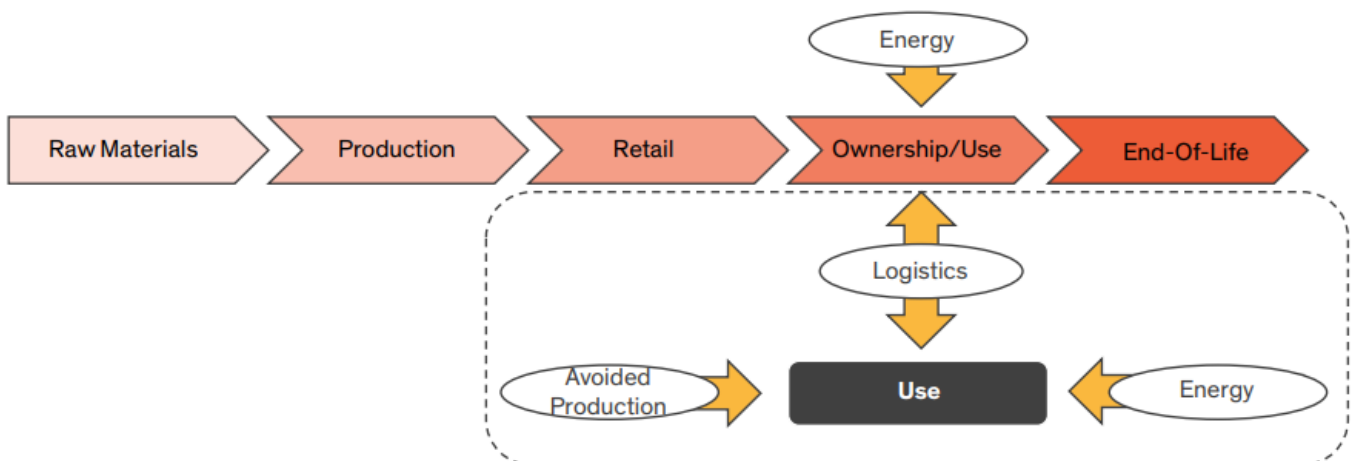
Therefore, the Company's impact can be said to be 'lock-step' as the Company generates revenue through the sale of insurance policies, which are in themselves perfectly correlated with the facilitation of the 'Circular Economy' transactions. These transactions (in the most part) are increasing the utilisation of goods, and therefore decreasing the demand for private goods, which can lead to reduced Green House Gas (GHG) emissions associated with the production (of these private goods).

Mustard Seed Maze will seek to measure this impact through determining the 'Increased Use of a Basket Goods' (with this basket based on families of goods sourced from Concito, a Danish environmental think-tank and other similar sources), which should evidence the additionality of the Company in generating impact and driving value to the Circular Economy Marketplaces.

Mustard Seed Maze has undertaken to segment its appraisal of the Company's impact into two distinct segments: i) Impact Background and Supporting Data; and ii) Impact Framework and Metrics, as outlined below:

### i) Impact Background and Supporting Data

The impact of the Company's product is environmental. In order to understand the Company's impact case it is important to reflect it on the context of the circular economy. The circular economy is the value in taking underutilised assets and making them accessible online to a community, leading to a reduced need for ownership of those assets. The key argument in the impact case of the circular economy is that more sharing equals less consumption that equals less manufacturing. The latter is the goal that will result from changing consumption patterns and its relevance derives from the fact that most of the energy used in a product's lifecycle is during the manufacturing process (e.g. manufacturing represents 70% of a typical laptop computer's total energy consumption). If implemented successfully, circular economy marketplaces can help break the cycle of purchase and non-use and reduce consumption of stuff. The lifecycle phases associated with a product being shared through a circular marketplace is visualised below:



The average household in the US in 2007 had over 50 unused items at home worth \$3,100. One can only assume that the number has increased during the last 13 years, with figures on underutilisation of items a clear indictment

of consumerist culture: a power drill is used for just 12 minutes over its entire lifetime; private vehicles are parked 95% of the time. This underutilisation extends into the economic theory behind the impact case of circular economy marketplaces is explained by the fact that these marketplaces provide access to club goods. These are goods that are excludable but not rival in consumption. A good is said to be non-rival if multiple people can use it simultaneously (e.g. FM radio signal), whilst a good is said to be excludable if the provider has the means of withholding the good from specific users (e.g. access to the gym for members only); therefore through providing access to club goods, circular economy marketplaces can optimise the use of a durable good by making them available to more consumers.

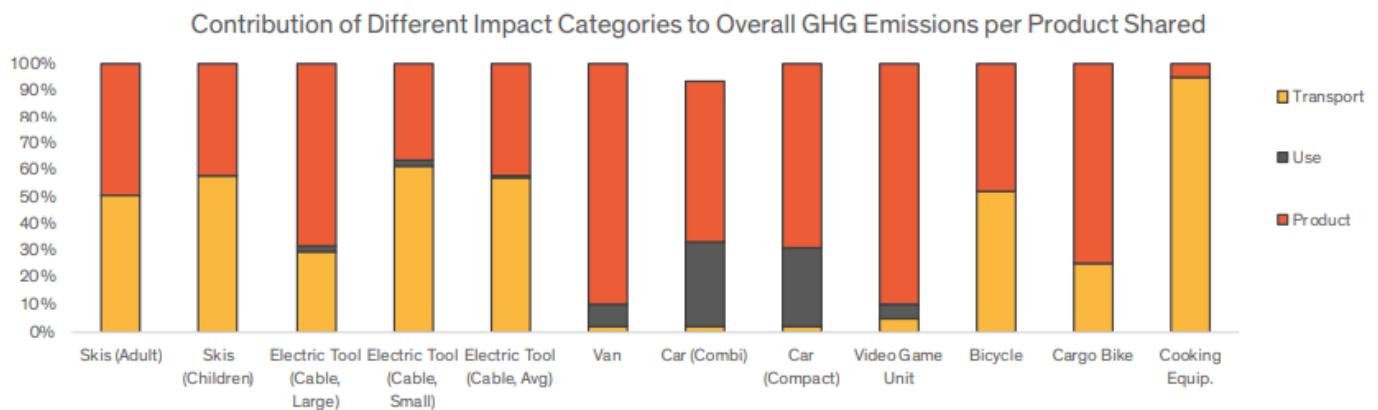
It is important to note that it has been observed that most club goods made available on circular economy marketplaces were previously private goods. This is a critical observation as private goods are 'rival' (e.g. one person's consumption of a good reduces someone else's enjoyment of it) and are excludable, and owners of private goods would refrain from entrusting them to other users with the fear of potential damage and lack of protection against such occurrence. This is where the Company plays a fundamental enabling role in helping circular economy marketplaces achieve their impact potential: by providing an insurance platform that promotes trust amongst circular economy marketplaces' users, allowing them to transition their goods from private to club.

In this regard, the impact case of the Company can be summarised as being multiplying. This means that the Company's impact is not confined to a set of users or goods but rather it is multiplied and augmented by the growing number of rental relationships that take place in circular economy marketplaces, or to put it in simpler terms, the Company is not having direct impact on increased usage of goods but it is a plug-in that allows circular economy marketplaces achieve their impact potential of reducing consumption.

The impact of the Company is the increased usage and better utilisation of goods. By enabling users to rent their goods, the Company promotes the circular economy which results in less consumption and less manufacturing. This is the impact hypothesis that Mustard Seed Maze is taking on the Company. Therefore, the Company's impact case can be explained to be lockstep in nature because the driver of revenues is intrinsic to its environmental case: rental transactions in marketplaces. The Company will only generate revenues if users are lending and borrowing goods, which reflects a better utilisation of what would otherwise be unused items. As a result, revenues and environmental impact grow together and are mutually reinforcing. In 2018, a research initiative named 'Assessing the environmental potential of collaborative consumptions: peer-to-peer product sharing in Hammarby Sjostad, Sweden', promoted by Michael Martin, David Lazarevic and Charlie Gullstrom. The research undertook a thorough assessment of the environmental impact of collaborative consumption in a specific urban area of Sweden by using the data and example of Hygglo. The methodology included the creation of a baseline which was compared to data on sharing, which was sourced from real data at Hygglo and it was assumed that each product would be shared at least three times per year (hence the number of rentals being superior to the number of listings).

Products	Quantity / Unit / Number of Uses PA	Rentals / Number of Listings
Skis (adult)	3 / days / 2	132 / 44
Skis (children)	3 / days / 2	132 / 44
Electric tool (w/o battery) e.g. table saw	20 / min / 20	72 / 24
Electric tool (w/o battery) e.g. drill	29 / min / 20	12 / 4
Electric tool (w/ battery) e.g. drill	20 / min / 20	12 / 4
Van	5 / km / 100	10 / 3
Car (Combi)	5 / km / 200	24 / 8
Car (Compact)	5 / km / 200	10 / 3
Video Game Unit	60 / min / 100	12 / 4
Bicycle	10 / km / 300	48 / 16
Cargo Bike	10 / km / 300	12 / 4
Cooking Equipment	- / - / 150	24 / 8

The research methodology then established assumptions across several sub-sections, including transportation, circular economy marketplaces infrastructure (i.e. data and energy use for searches), use and product lifetime (of each item) and avoided product consumption.



The results of the research were conclusive: the sharing marketplace showed significant GHG reduction potential compared to the baseline scenario. In the baseline scenario, GHG emissions corresponded to roughly 22,000 kg CO<sub>2</sub>e annually whereas the sharing scenario showed emission reduction corresponding to over 18,000 kg CO<sub>2</sub>e.

The study also found that the two main impact categories across the lifecycle phases contributing to the reduction of GHG emissions are product avoidance (i.e. reduced consumption) and transportation. Whilst the avoidance of consumption has an overall significant impact across all items, the van and the cars are the ones for which the environmental impact is stronger during the usage period.

## ii) Impact Framework and Metrics

According to the Mustard Seed Maze impact policy, each portfolio company is assessed against the framework and guidelines of the Impact Management Project (IMP). The first high level assessment is presented below:

**a) What?** - The outcome proposed by the Company is the increased utilisation of goods that otherwise would be unused. This outcome has an important positive effect on the planet because an increase in sharing is associated to a decrease in consumption which can be translated into CO<sub>2</sub>e savings.

**b) Who?** - The impact of the Company is environmental and as such it is positively affecting the planet. The users of circular economy marketplaces are currently underserved in terms of options to increase the utilisation of their goods due to the lack of trust enablers, such as insurance options.

**c) How Much?** - The impact of the Company is focused on scale and is represented by the volume of transactions that are insured in circular economy marketplaces.

**d) Contribution?** - According to evidence from research papers, circular economy marketplaces can reduce CO<sub>2</sub>e emissions. The Company's contribution to that is related to an increase in transactions upon adoption of its insurance option by marketplaces.

**e) Risk?** – Mustard Seed Maze believes there are 2 (two) significant impact risks, which are outlined as follows:

- Attribution – The nature of the Company business could result in significant challenges in attributing impact, as externalities ranging from individual marketplace success (or failure) and consumer sentiment (towards specific goods, marketplaces or the circular economy as a whole) can influence users' adoption of circular economy marketplaces; and
- Increased Consumption – An accusation levelled at the circular economy is that it facilitates increased consumption amongst users as (individuals') cashflow is freed from the capital inefficient structure of ownership. However, to date Mustard Seed Maze has found no quantitative and unequivocal evidence to support this accusation.

Therefore, on the basis of the above framework, Mustard Seed Maze proposes the following impact goal to be monitored on a regular basis according to the guidelines of the Fund's impact policy:

#### **Increased Usage of a Basket of Goods**

This will provide an understanding of how much a specific good is utilised by being constantly rented on circular economy marketplaces in comparison to the baseline of how much would be that good's utilisation at baseline if not shared. The reference to a basket of goods is explained by the combination of all goods transacted in a marketplace, avoiding the unnecessary granularity of creating families of goods or even looking at goods individually. The metric will be expressed as a percentage increase in the average usage of all goods insured by the Company, compared to a baseline. The baseline will be based on families of goods sourced from Concito, a Danish environmental think-tank and other similar sources.

In summary, the impact goal will be translated into 'x% increase in the usage of goods in comparison to the baseline'. The target value is yet to be defined and this exercise will be done in conjunction with the team.