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Pilot Case Study

Prolonging lifecycle of baby strollers for preschools

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Commissioned by: city of Malmö, Sweden

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Introduction

In Sweden, most preschools are run by the municipalities. In the city of Malmö, there are over 200 preschools for which the municipality procures baby strollers and buses. The products are generally of good quality and have the potential to last for many years. However, in the past, suppliers of the products did not provide maintenance service, as that was not part of the procurement and contract. A local caretaker provided the maintenance, or it was not done at all. There has not been a clear procedure for this, resulting in products that are quick to malfunction and unnecessary new purchases.

The city of Malmö has ambitious sustainability goals, including becoming a net-zero emissions organisation by 2030 and specific targets for resource efficiency and circularity. Purchasing and procurement have been identified as key areas and tools to achieve these goals. So when the framework agreement for the baby strollers and buses was due for renewal, the municipality of Malmö seized the opportunity to include circular ambitions in the tender. By adding maintenance, refurbishment and repair to the tender, the aim is to prolong the lifecycle of the strollers. The estimated value of the framework agreement is around EUR 560,000.

Procurement process

The circular targets in the tender for baby strollers and baby buses focused on preserving and extending the lifecycle of the products. In the assessment of the criteria, added value was given to tenderers that could deliver spare parts for a longer period (seven years for baby buses and five years for baby strollers) and tenderers who could offer a longer warranty period.

To ensure the availability of spare parts, an additional criterion was developed. If suppliers are unable to deliver spare parts in the specified time frame, they are obliged to buy back the baby stroller. The aim is to encourage suppliers to keep spare parts in stock, so that a lack of spare parts is not an obstacle to repairs.

Tenderers also need to offer a maintenance and repair service for baby strollers and provide a strategy for how this would work in practice. Maintenance, including the cleaning, adjustment and replacement of worn-out parts, should be done once a year, plus additional repairs as needed. The suppliers were asked to indicate whether they could deliver the service themselves, or whether they would use a subcontractor, and to specify a contact person and means of communication.

Establishing a clear procedure makes it easy for the preschools to work with this method. The cost of the services was part of the tender evaluation to avoid unreasonable pricing. If the cost of service is not exposed to competition, there is a risk that the winning supplier will demand a price that is too expensive for the buyers. Therefore, it was included in the tender evaluation.

Criteria for material content, restriction of hazardous substances and other environmental standards (such as OEKO-tex certification for textiles), were also an important part of the tender. This is important as baby strollers are products used to transport children and exposure to chemicals should be minimised. Environmental criteria for transport were added to reduce CO_2 emissions. It must be possible to dismantle all products offered by the tenderer and to recycle them at end of life.

The procurement officer and the sustainability coordinator were the main proponents of circular ambitions in the tender. However, the reference group, consisting of representatives from the preschools, was also positive about the ambitions.

The market dialogue was done through an RFI (Request for Information). Only two companies replied as it is a niche market in Sweden. Questions were asked about availability of spare parts, warranty, chemical content, recycling, transport and packaging.

The RFI was the city of Malmö's guarantee that the service for baby strollers would not be a problem for the suppliers. However, the market did make it clear that baby buses would be a challenge. So we had to look within the organisation for ways to maintain and repair baby buses. The internal service department agreed to take responsibility for this. They are responsible for the maintenance and repair of the city's service bikes, and the baby buses are similar in construction to bikes.

The RFI also asked about the possibility of reusing material content in the products. Unfortunately, none of the companies could offer this, stating that it was not available in the market for these products. Instead, this circular ambition was included as a development project with the winning supplier during the contract period. One possibility is to do a pilot project together, another is to update the product range in the contract if reused materials do become available. The winning supplier responded positively to both options.

The implementation of the contract will be carried out by the preschools' central purchasing team. The implementation and contract management are essential to achieving the circular ambitions in this contract. If maintenance and repair services do not work, it will not be possible to prolong the lifecycle of the products. The procedures for this need to be followed up with both the preschools and the supplier on a yearly basis.

Results

The framework contract was awarded to one of the two companies. The contract period started in November 2021.

Expected lifetime for a baby stroller is 8 years, based on information from the supplier combined with the experience from the preschools. With maintenance and repair, the estimation is that we can prolong the lifecycle with 5 years, making the expected lifetime 13 years instead. This means that we can reduce the total number of baby strollers that we buy yearly, which reduces the climate impact for the product category with 37,8%. Based on LCA-data from the supplier for a standard baby stroller, this equals a saving of 1905 kg CO2 eq and 638 kg of raw material yearly for the product category. Baby buses are not part of the calculation since the municipality doesn't have LCA data available for this product category. Emissions from spare parts is not included, so in reality the climate impact will be a bit higher. Hopefully the yearly maintenance will prevent some repairs, so that the usage of spare parts can be minimized.

Lessons learned

- Although baby strollers and baby buses are a relatively small product group, they are a good test case for implementing circular criteria in a tender; you can learn from it and spread awareness in the organisation.

- When the supplier stated that it was unable to provide the service for baby buses, the city of Malmö looked internally for possibilities that might be relevant for other products as well. The tender shows that the internal organisation can help solve circular problems that would otherwise have been addressed to the market.

- In a niche market with only a few suppliers, it is difficult to make the circular added value criteria decisive in the tender evaluation due to the limited competition. Therefore, the greatest circular gain of this contract is not in the procurement phase, but in its implementation and contract management. Through this tender, we helped set up new circular procedures in the organisation that will hopefully spread and inspire new behaviours.

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