Interreg North Sea Region ProCirc
European Regional Development Fund
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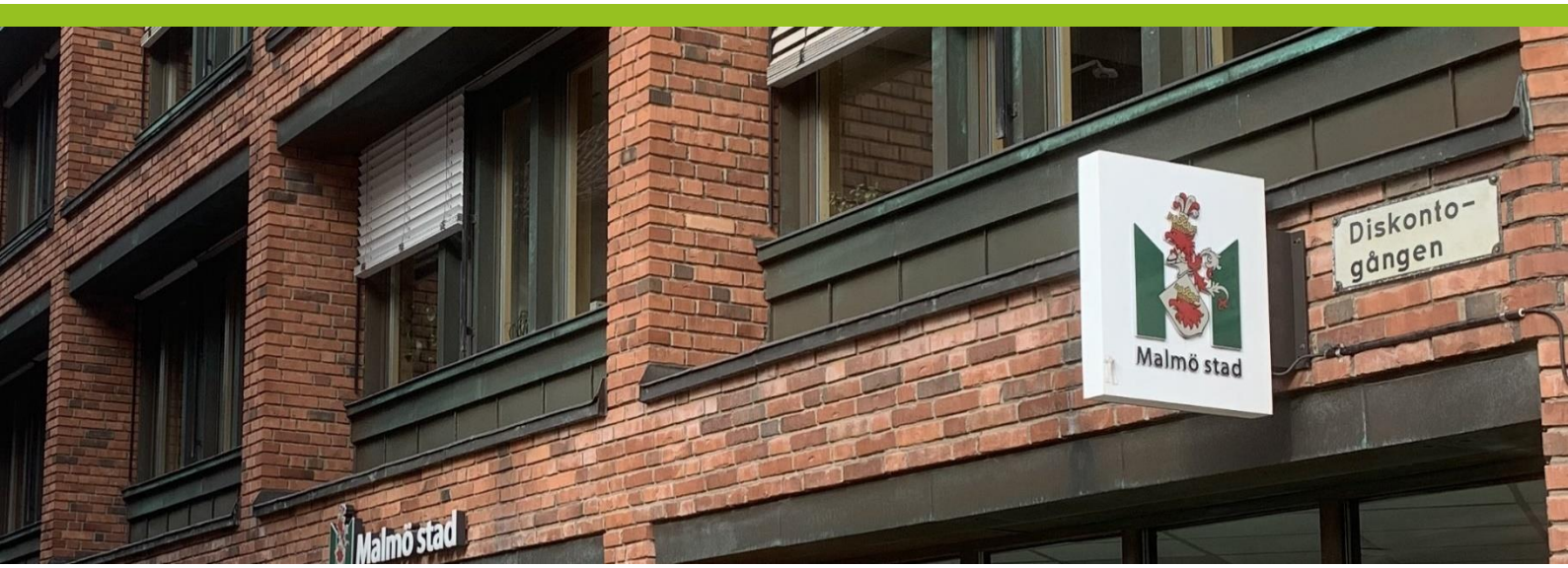
Pilot Case Study



Circular signs and navigation

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Introduction

This Interreg NSR ProCirc pilot relates to the circular procurement of signage and navigation by the City of Malmö. Signs mainly for buildings, stating what kind of operation the building accommodates, and signs for navigation inside.

The City of Malmö hasn't had a framework contract within this category before and therefore the value and scope was difficult to calculate. The estimation was calculated at about 200 Euros a year. The city is also discussing a new graphical profile and therefore this also needs to be taken into consideration during the contract period.

The ambition is to lower the climate impact from signs, therefore to boost circularity, through reuse of the organisation's (City of Malmö's) signs to as high a degree as possible. Firstly the signs should be reused within the organisation, and secondly reused or redesigned by the supplier. The last stage is recycling. New signs and material for repairing signs must deliver on several environmental standards, with avoiding hazardous chemicals as the goal. Reused acrylic should be used. The contract also includes design, consultation, assembly and repair, and the supplier must set up a list of what kind of signs may be taken back. The supplier should also help the City of Malmö to estimate saved CO_2 emissions and prevented waste.

The focus for this procurement was on the process of managing the product over its lifecycle and not only on the product itself. The supplier developed a process document on how the loop should be closed for signs. This is a process that we can learn from and implement in relation to other product categories.

Procurement process

The market dialogue was done via consultations with experts and a Request for information (RFI). The tender was withdrawn after being published once since some of the criteria were open to a lot of interpretation. In the second round, the criteria were changed to be easier to evaluate.
The tenderer could receive awarding points for three different circular criteria (separately):

1. Reuse within the customer's organisation

The tenderer must show proof of experience with keeping and storing products for customers. Acceptable proof: References from two different customers. Possible awarding points: 10% price reduction during tender evaluation.

2. Reuse within the supplier's organisation
The tenderer must show proof of experience with taking back products from customers after they have been "consumed" and of reusing them in the production of new products. Acceptable proof: References from two different customers as well as invoices or other documents showing an agreement/ commitment to take back products after they have been "consumed" by the customer. Possible awarding points: 10% price reduction during tender evaluation.

3. Recycling of signs and electronics
The tenderer must show proof of having an optimal recycling process where a product's different materials (plastics, aluminium, glass, electronics) are recycled separately. Acceptable proof: First proof is a description of how the recycling process is operated - what does the separation-process look like and who is in charge. Second proof is a product description and drawing showing the product design and the possibility to separate the different materials from the product. Possible awarding points: 20% price reduction during tender evaluation.

The contract will give the city the possibility to learn a lot. The focus for the contract period will be on the process for managing products over their lifecycle and not only the product itself. What kind of strategies will be the main focus to lower CO_2 equivalents from the purchasing of signs? Repair? Recycled material? Minimising numbers of signs? Thinner signs? As the supplier was very engaged in creating a circular system, a lot of help came from them. If a supplier with less enthusiasm had won the contract the city would have had to put more time into safeguarding the circularity in the contract. This will hopefully give a good indication as to if it's beneficial to aim for contracts where the supplier is responsible for the whole cycle for a product, selling new products (made more and more from reused material), selling reused products, repairing and disposing.

Results

To evaluate the circular approach, the municipality did a life cycle assessment (LCA) where they looked at two of the most common signs in the contract: a regular sheet metal sign and a facade sign with lighting. The result from the LCA shows that updating a metal sign provides a 85 percent saving in carbon dioxide emissions, compared to producing and putting up a new metal sign. For one sign that is a saving of 16,8 kg CO2 eq.

When it comes to the facade sign, the analysis shows that carbon dioxide emissions are halved if you choose to replace only certain components of the sign, instead of disposing the complete sign when it is broken, or when the information on the sign needs to be updated. The saving for one sign is 258 kg CO2 eq.

The LCA has also looked at different types of aluminum, to use reused aluminum compared to virgin aluminum saves 42,6 kg CO2 eq for one metal sign. The LCA also includes an analysis of resource depletion, where the circular signs have far less impact.

Lessons learned

- Finding the right type of supplier was key in this procurement, working with a supplier that does not have circularity as an integrated part of their business model would not work here. Be specific about the aim of the procuring organisation, like sustainability goals etc. and how they relate to the tender. This will make it easier to justify certain choices along the way.