

## Executive summary

The central government wants to make the largest possible contribution through purchasing to a circular and low-carbon economy. The Waste Management and Raw Materials Management category is responsible for the procurement of waste processing and strives for the highest possible level of processing of the waste flows of the National Government. As of 1 January 2021, the Waste Management and Raw Materials Management category wants to tender the coffee grounds that the Government produces separately (nationally). Circular Matters has been asked to investigate:

- Whether separate tendering of the coffee grounds has a chance of success and whether the market is ready for it and if so under what conditions?
- How could the possible tenders for the coffee grounds to be processed separately be best marketed?
- How can the logistical process, concerning the transport of the waste to possible recyclers, be arranged in such a way that the lowest possible environmental impact is achieved?
- What the market for recyclers and logistics service providers looks like.

It can be said that there are higher-quality processing methods for coffee grounds where the coffee grounds remain fully available and are of higher quality than composting or fermentation. In these methods the coffee grounds are used for the production of consumer products or, and that is the most high-quality application, for the production of food.

Not all processing methods are the CO<sub>2</sub> data are not available to be able to compare (eg based on CO<sub>2</sub> emissions per tonne of coffee grounds or with replacement products). Processing methods. For the time being, mutual comparison is only possible for the two oyster mushrooms growing methods. Many different collection methods are used. The collection methods will not be prohibitive in the tendering process. The local recyclers have a lower CO<sub>2</sub> impact due to the low mileage per tonne of coffee grounds and the use of environmentally friendly vehicles.

Part of the legal aspects, such as the environmental permit and the recycling of coffee grounds or coffee grounds substrate by the recyclers in accordance with the Fertilizers Act, needs to be adequately regulated by a number of recyclers.

The central government releases about 230 tonnes of coffee grounds annually. Not all locations and quantities are unknown. Approximately 85 tons of the known quantity of 100 tons are released on a few locations. The total known most high-quality processing capacity is 185 tonnes on an annual basis, of which 85 tonnes by a nationally operating processor. The remaining processing capacity is locally oriented. Although the locations of the recyclers do not fully correspond to the locations where the coffee grounds are released, a good match between supply and demand can be made, assuming an average processing capacity of 3 to 5 tonnes per local recycler. The precondition is, however, that all local recyclers can achieve the growth required for this, in addition to organic growth. Due to the lack of sufficient economic data, this is not certain. Because processing capacity on the highest step is also available on national level and because the bio-based approach is available, sufficient processing capacity is available to be able to process all the coffee grounds of the central government on steps 3 and 5 of the Moerman ladder. Not all business models relate their processing costs to a tonnage. It is expected that high-quality processing will cost more than the current processing costs. The question is there is budgetary room to pay this "additional costs".

Not all the risks of tendering the processing of all coffee grounds from the central government can be eliminated, such as the higher processing costs or the available processing capacity. However, it is expected that in the period up to the tendering there will be sufficient possibilities, possibly in collaboration with the recyclers, to fill in the outstanding risks and to deal with any remaining uncertainties in the offer via conditions and criteria.