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/ Report



INDUSTRIAL WASTE **AND SECONDARY RAW** **MATERIALS 2004-2018**

English summary (Edition 2019)

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This document gives an English summary of the report on the evolution of waste and
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In 2019, OVAM published a report on industrial waste and secondary raw materials for the period 2004-2018. You can find the full text in Dutch on the OVAM website: <https://www.ovam.be/bedrijfsafvalstoffen>. This summary gives you a translation of the main conclusions.

Two explanatory notes:

- 1) For industrial waste, we make a distinction between 'primary industrial waste' and 'secondary industrial waste'. Primary industrial waste is industrial waste generated by the original waste producer. Secondary industrial waste materials are waste materials generated by companies that process waste materials (the waste processors). The numbers below relate to primary industrial waste.
- 2) In a circular economy, residual materials are recycled and re-injected into the economy as new raw materials - then called 'secondary raw materials'. In this report we focus on the material flows falling within the framework of secondary raw materials of the VLAREA¹ (until 2010) and within the regulation of the VLAREMA² (since 2012), and of which sufficient data is available.
- 3) The indicator "primary industrial waste without secondary raw materials, excluding construction and demolition waste, sewage sludge and polluted soil" is necessary, because our policy is not aimed at reducing these 3 flows. After all, renovations are often necessary in order to achieve a more material and energy-efficient building stock. The Flemish environmental policy stimulates an increased degree of connection to the sewage system and a thorough soil remediation. This inevitably results in large quantities of construction and demolition waste, sewage sludge and polluted soil. Moreover, these waste flows are released very irregularly, which often leads to fluctuations between years. If we want to measure the success of prevention and separate collection for 'regular' waste, we have to exclude these three waste streams. In fact, this concerns about half of the total primary industrial waste, so it could mask the evolution of the flows on which we do pursue an effective policy.

¹ Order of the Flemish Government for the establishment of the Flemish regulations relating to waste prevention and management, repealed

² Order of the Government of Flanders adopting the Flemish regulation on the sustainable management of material cycles and waste, dd. 17/02/2012



Figure 1. Evolution of the total amount of primary industrial waste, including & excluding the waste streams construction and demolition waste, sewage sludge and contaminated soil (2004-2018) in ktonnes

Figure 1 shows that the total amount of primary industrial waste, excluding the waste streams construction and demolition waste, sewage sludge and contaminated soil, decreases at the beginning of the period 2004-2018. After that, year after year, there was a slight increase in the volume of primary industrial waste, excluding construction and demolition waste, sewage sludge and contaminated soil.

The figure clearly shows the effects of the economic crisis in the period 2007/2011. Afterwards, we see a steady increase in the quantity of primary industrial waste. As this mainly consists of process-related waste products, the quantity will increase as the economy picks up.

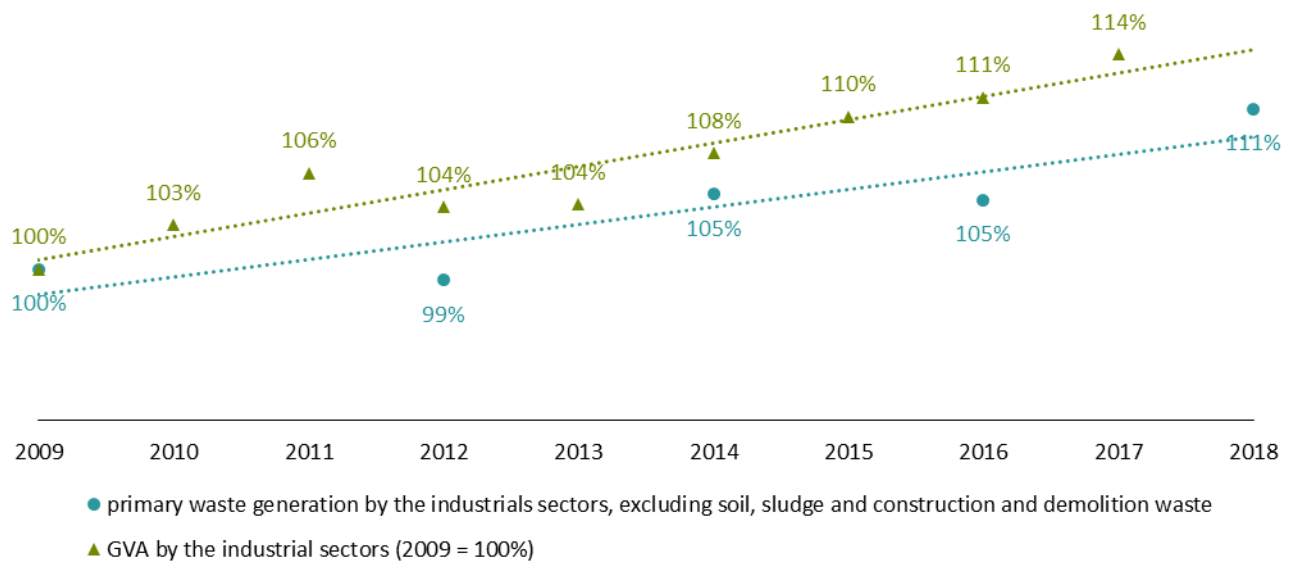


Figure 2. Evolution of the primary industrial waste production and the gross value added (GVA) by the industrial sectors³ in Flanders (2009-2018)

Figure 2 shows that primary waste production of the industrial sectors³ in Flanders shows an increasing trend between 2009 and 2018. The gross value added is also increasing. The trend lines for both parameters are almost parallel. There is therefore no decoupling in the industrial production.

³ the chemical sector, printing companies, the energy sector, wood processing companies, metal processing companies, mining, paper production, refineries, rubber production and processing, the textile sector, meat production and processing, the food sector and the production of ferrous and non-ferrous materials, jewellery, furniture, means of transport and mineral products.

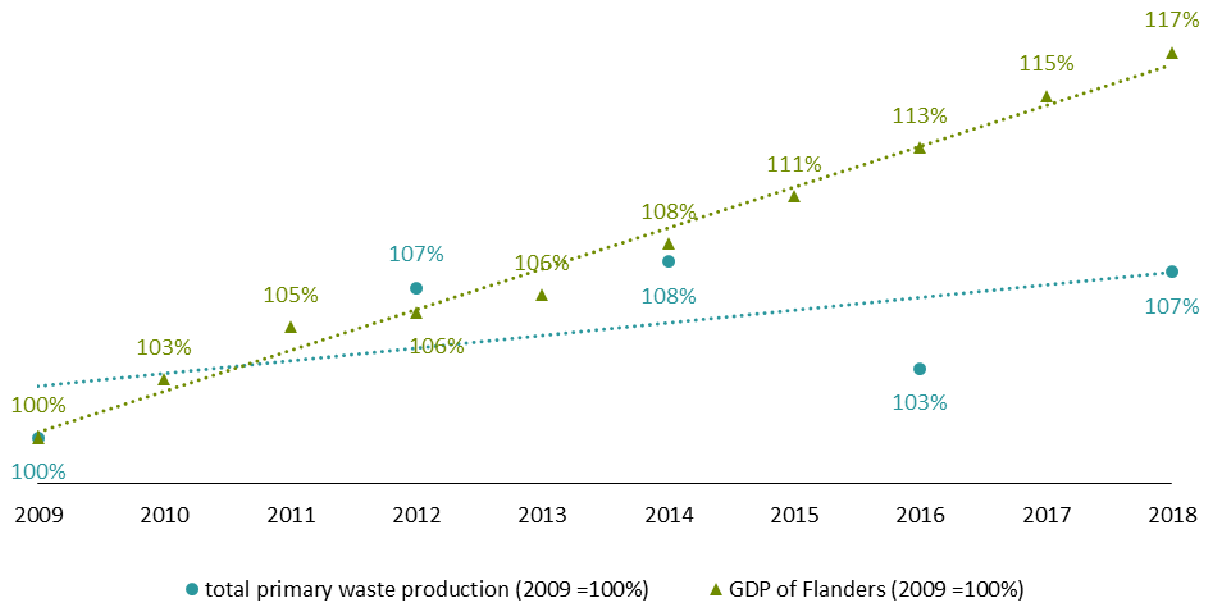


Figure 3. Evolution of the total primary industrial waste production and the gross domestic product (GDP) in Flanders (2009-2018)

Figure 3 shows the decoupling between the total primary industrial waste production and the GDP of Flanders. The primary production of industrial waste does not show a clear trend, while GDP in Flanders continues to rise. This is a relative decoupling, because the trend line for industrial waste is rising less quickly than that for GDP. The increase in the share of the service sector in GDP also plays a role in this figure with the decoupling in total economic production. The share of the service sector in the Flemish GDP is growing steadily. Because this sector produces relatively little waste compared to industry, this will be part of the explanation. On the other hand, product-service systems are (a small) part of the services sector and can also have an effect.

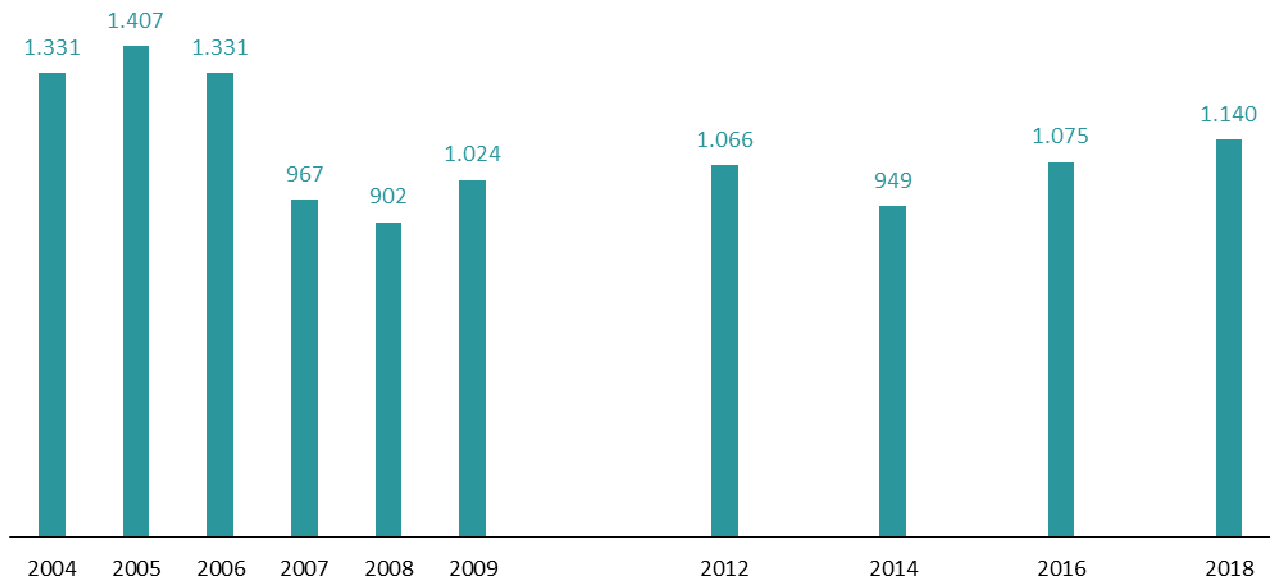


Figure 4. Evolution of primary industrial residual waste (2004-2018) in ktonnes

The amount of primary industrial residual waste has fluctuated around 1 million tonnes since 2007. In recent years, however, the volume of industrial residual waste seems to have risen slightly. Despite fairly good separate collection, the construction sector still produces a very large amount of industrial residual waste. In addition, we detect the following sectors with a large quantity of industrial residual waste and, in particular, with a very high proportion of industrial residual waste in relation to the total quantity of post-consumer waste⁴: catering industry; health care; administrative activities; education.

⁴post-consumer waste flows that can usually be related to commercial packaging: paper and cardboard, plastics, wood, glass, metals

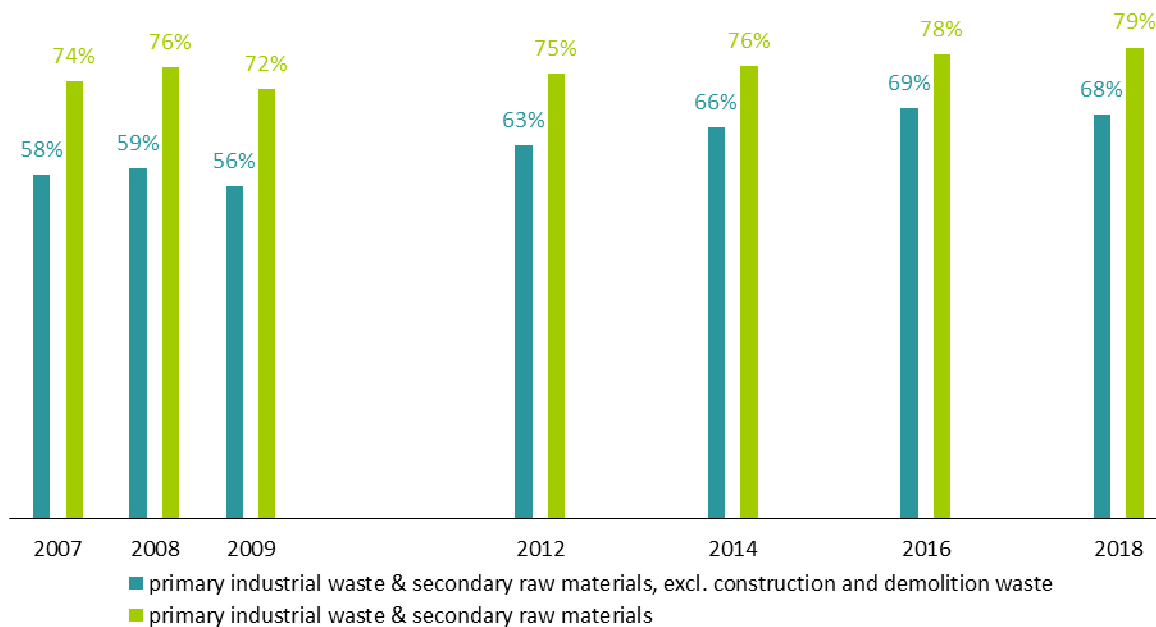


Figure 5. Percentage of primary industrial waste & secondary raw materials that have a second life after two processing steps

The share of primary industrial waste (excluding construction and demolition waste) that was given a second life through reuse, recycling, composting or use as a secondary raw material after two processing steps was 68% in 2018. This is a slight decrease compared to 2016.

The gradual increase in industrial waste that is given a second life after two processing steps is partly due to the secondary raw materials that were not reported or were reported less before 2012, but also to a real increase in the quantity of secondary raw materials as a result of economic growth.

Figure 6 shows how much industrial waste and secondary raw materials (excluding construction and demolition waste) is already assigned a final destination in the first processing step and how much is assigned to a final destination after two processing steps. In 2018, 13% of primary industrial waste and secondary raw materials (excluding construction and demolition waste) have not reached their final destination after two processing steps. It needs even more processing steps before it is returns as a material (material recycling), landfilled or incinerated. After 2 processing steps, 9% went to a landfill site and 10% to an incineration plant.

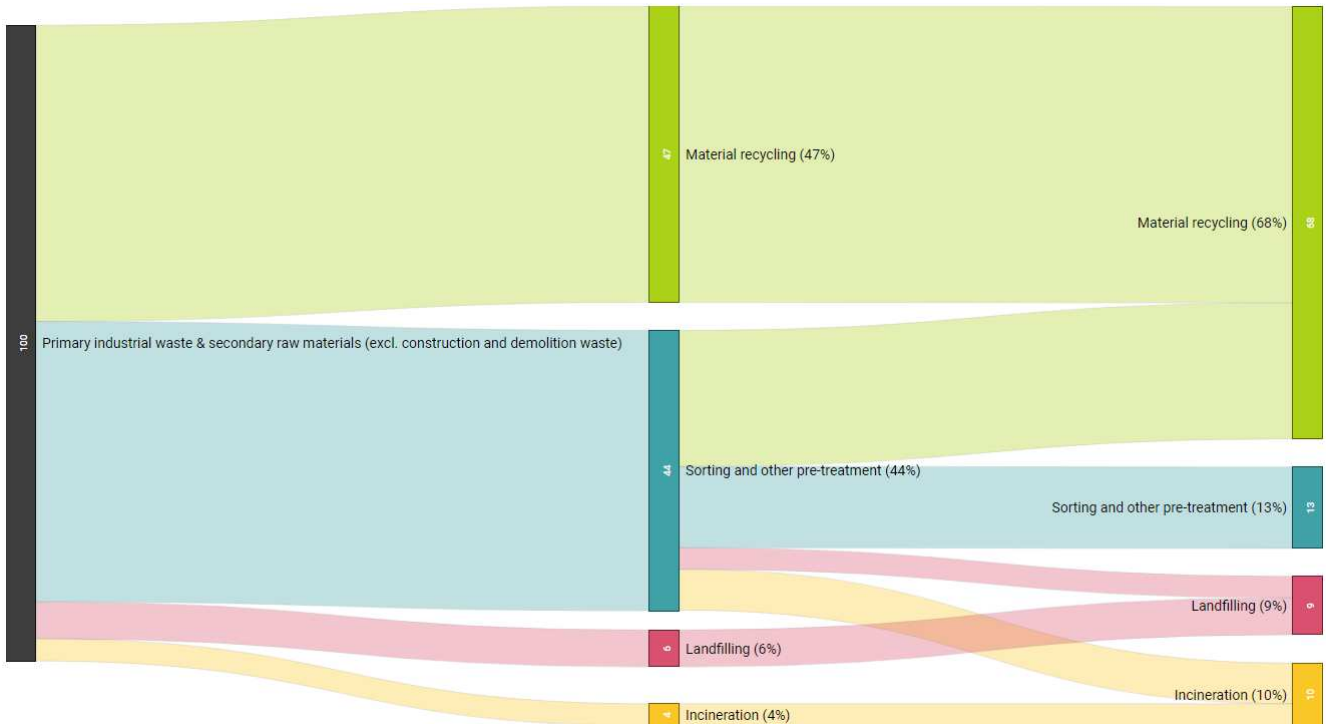


Figure 6. Flow chart with indication of the processing of primary industrial waste and secondary raw materials (excluding construction and demolition waste) after one or two processing steps in Flanders in 2018

The black bar on the left of the figure shows primary industrial waste (16,374 kt), excluding construction and demolition waste (- 3,554 kt) and secondary raw materials from non-waste processors (+ 6,784 kt). This amounts to 19,604 ktonnes and is shown in the figure as 100%.

The vertical bars in the centre of the figure show the percentage of material that goes directly to material recycling in the first processing step (47%; reuse, use as secondary raw material, recycling and composting). 4% goes directly to incineration and 6% directly to landfill. The remaining 44% goes to a sorting installation or other pre-treatment of the waste.

The figure also shows what happens with the remaining 44% in the second processing step (right). An additional 21% of the primary industrial waste and secondary raw materials (excluding construction and demolition waste) goes to a form of material recycling in the second processing step, 3% is then incinerated and 6% is landfilled. In the second processing step, almost one third goes back to a form of sorting or other pre-treatment. Compared to the total amount of primary industrial waste and secondary raw materials, excluding construction and demolition waste, approximately 13% needs more than two processing steps.

Taking the results of the first and second processing steps together, 68% of primary industrial waste and secondary raw materials excluding construction and demolition waste go to a form of material recycling after two processing steps.