## CO<sub>2</sub> FOOTPRINT OF THE EUROPEAN PAPER SACK IN 2015



## Impact of improvement

Comparing the results for 2007 to those for 2015, the total CO<sub>2</sub>e improvement for one year\* equals



➤ about 27,200 circumnavigations around the globe\*\*



the emissions due to consumption (food, living, travel etc.) produced by a small town of about 14,800 people per year\*\*\*

\* About 5 billion paper sacks are produced per year in Europe by EUROSAC's members. Due to the improvements in the carbon footprint from 2007 to 2015, emissions fell by 130,000 tCO,e. \*\* Considering that the average CO, emissions of a newly registered passenger car are 119,5 g/km, this equals almost 1,09 billion passenger car kilometres. \*\*\* On average, 8,8 tCO2e are produced per capita in Europe in 2015.

### Good to know

Sustainably managed forests act as a carbon sink. 1m<sup>3</sup> of wood captures 1 t of carbon dioxide while emitting 0.7 t of oxygen.

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## What is CO<sub>2</sub>e?

CO<sub>2</sub> equivalent (CO<sub>2</sub>e) is a measure for describing how much global warming a given type and amount of greenhouse gas may cause, using the functionally equivalent amount or concentration of carbon dioxide  $(CO_2)$  as a benchmark.

#### **Management Summary**

Between 2007 and 2015, the European kraft paper and paper sack industry made continued and significant improvements to its carbon footprint:



✓ The carbon intensity of 1 tonne of average European kraft paper – which accounts for 60% of the carbon footprint of a paper sack – was optimised by 20%.



 $\checkmark$  In the further course from cradle to gate, the overall carbon intensity of one individual paper sack has improved by 22%, partly due to lightweighting efforts.

Extending the analysis to include additional aspects would give an even more complete picture of the carbon footprint of European paper sacks.

✓ Taking into account end-of-life emissions and any benefits arising from emissions avoided due to recovery and waste management activities reduces the carbon footprint per average European paper sack to 85 gCO<sub>2</sub>e (instead of 92 gCO<sub>2</sub>e).

It is a well-known fact that forests sequester and store carbon. The sustainable management and growth of forest areas in Europe is a central element of the value chain for paper sacks. If the increasing biomass in Europe's forests were considered in the calculation, the carbon footprint would actually be negative, at -214 gCO<sub>2</sub>e per sack.

The results presented are based on a study conducted by the Swedish research institute Innventia on behalf of:

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