

## Online Supplementary Material

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### First metagenomic survey of the microbial diversity in bioaerosols emitted in waste sorting plants

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**Table S1:** Proportion of identified 16S sequences from bioaerosol at different taxonomic ranks in samples taken in the WSP. Bioaerosol samples were collected in the Sorting Cabin (SC) and in the Outdoor Reference (OR).<sup>a</sup>: Illumina sequencing; <sup>b</sup>: 454 pyrosequencing.

Parameters	SC1	SC2	SC3	OR
<i>Proportion of identified bacterial 16S rDNA sequences<sup>a</sup></i>				
Total number of reads	100,895	100,2115	69,655	78,603
Phylum rank (%)	80.93	81.65	84.08	87.10
Familly rank (%)	72.85	73.04	73.59	73.76
Genus rank (%)	60.69	59.69	58.48	64.08
<i>Proportion of identified Eukaryota 18S rDNA<sup>b</sup> sequences</i>				
Total number of reads	14,546	16,082	21,206	6,588
Phylum rank (%)	99.41	99.49	99.49	69.97
Familly rank (%)	98.63	98.65	98.96	58.03
Genus rank (%)	98.63	98.65	98.96	58.03

**Table S2:** Bacterial diversity at the family rank (proportion of 16S rDNA reads)

Phylum	Family	OR	SC1	SC2	SC3
Acidobacteria	<i>Acidobacteriaceae</i>	0.01%	0.40%	0.42%	0.16%
Actinobacteria	<i>Brevibacteriaceae</i>	0.04%	2.40%	1.63%	2.10%
	<i>Corynebacteriaceae</i>	0.12%	0.70%	0.64%	0.97%
	<i>Dermabacteraceae</i>	0.01%	0.48%	0.58%	0.61%
	<i>Geodermatophilaceae</i>	0.00%	0.21%	0.16%	0.46%
	<i>Intrasporangiaceae</i>	0.00%	0.15%	0.15%	0.11%
	<i>Kineosporiaceae</i>	0.88%	0.13%	0.09%	0.17%
	<i>Microbacteriaceae</i>	0.44%	0.50%	0.62%	0.80%
	<i>Micrococcaceae</i>	0.06%	1.90%	2.36%	1.90%
	<i>Nocardiaceae</i>	0.01%	0.10%	0.16%	0.15%
	<i>Nocardioideaceae</i>	0.01%	0.35%	0.52%	0.37%
	<i>Nocardiosaceae</i>	0.27%	0.15%	0.19%	0.12%
	<i>Promicromonosporaceae</i>	0.00%	0.43%	0.23%	0.14%
	<i>Propionibacteriaceae</i>	0.53%	0.07%	0.12%	0.43%
	<i>Pseudonocardiaceae</i>	0.56%	0.68%	0.54%	0.59%
	<i>Streptomycetaceae</i>	0.01%	0.42%	0.47%	0.38%
Bacteroidetes	<i>Bacteroidaceae</i>	0.00%	0.17%	0.17%	0.01%
	<i>Chitinophagaceae</i>	3.12%	0.56%	0.91%	0.22%
	<i>Cytophagaceae</i>	0.01%	0.18%	0.46%	0.82%
	<i>Flavobacteriaceae</i>	0.14%	4.93%	4.84%	3.82%
	<i>Porphyromonadaceae</i>	2.00%	0.31%	0.22%	0.86%
	<i>Prevotellaceae</i>	0.00%	0.03%	0.09%	0.10%
	<i>Sphingobacteriaceae</i>	1.22%	0.96%	1.14%	1.09%
	<i>unclassified_Bacteroidetes</i>	0.13%	0.28%	0.35%	0.86%
Chloroflexi	<i>unclassified_Chloroflexi</i>	0.01%	0.13%	0.10%	0.45%
Cyanobacteria	<i>unclassified_Cyanobacteria</i>	1.73%	1.40%	1.03%	0.96%
Deinococcus thermus	<i>Deinococcaceae</i>	0.00%	0.05%	0.30%	0.54%
Firmicutes	<i>Aerococcaceae</i>	0.03%	0.59%	0.91%	0.98%
	<i>Bacillaceae</i>	0.22%	1.80%	1.80%	2.89%
	<i>Carnobacteriaceae</i>	0.02%	0.36%	0.40%	0.25%
	<i>Clostridiaceae</i>	0.01%	0.36%	0.21%	0.00%
	<i>Enterococcaceae</i>	0.04%	1.11%	1.22%	0.63%
	<i>Erysipelotrichaceae</i>	0.01%	0.32%	0.28%	0.18%
	<i>Family_XI_Incertae_Sedis</i>	0.01%	0.15%	0.14%	0.06%
	<i>Family_XII_Incertae_Sedis</i>	0.00%	0.19%	0.12%	0.25%
	<i>Lachnospiraceae</i>	0.03%	0.91%	0.94%	0.03%
	<i>Lactobacillaceae</i>	0.06%	2.41%	2.46%	2.35%

	<i>Leuconostocaceae</i>	0.08%	3.36%	3.44%	3.99%
	<i>Listeriaceae</i>	0.01%	0.47%	0.26%	0.51%
	<i>Paenibacillaceae</i>	0.39%	0.36%	0.32%	0.62%
	<i>Planococcaceae</i>	0.13%	2.41%	1.88%	2.16%
	<i>Ruminococcaceae</i>	0.01%	0.23%	0.24%	0.78%
	<i>Staphylococcaceae</i>	0.16%	5.68%	6.08%	6.89%
	<i>Streptococcaceae</i>	0.06%	2.96%	2.47%	2.83%
	<i>Thermoactinomycetaceae</i>	0.00%	0.10%	0.13%	0.33%
	<i>unclassified_Firmicutes</i>	4.98%	3.63%	3.97%	4.30%
Planctomycetes	<i>Planctomycetaceae</i>	2.40%	0.01%	0.52%	1.02%
Proteobacteria	<i>Acetobacteraceae</i>	0.04%	0.84%	0.97%	1.65%
	<i>Aeromonadaceae</i>	0.01%	0.44%	0.14%	0.10%
	<i>Alcaligenaceae</i>	0.02%	0.53%	0.74%	0.64%
	<i>Alcaligenes</i>	0.01%	0.05%	0.23%	0.00%
	<i>Bradyrhizobiaceae</i>	5.76%	0.17%	0.36%	0.24%
	<i>Brucellaceae</i>	0.58%	0.08%	0.04%	0.10%
	<i>Burkholderiaceae</i>	21.52%	0.73%	0.90%	0.83%
	<i>Caulobacteraceae</i>	4.36%	0.73%	1.00%	1.14%
	<i>Comamonadaceae</i>	5.07%	0.96%	0.74%	0.91%
	<i>Enterobacteriaceae</i>	0.32%	9.88%	9.83%	8.32%
	<i>Halomonadaceae</i>	0.01%	0.05%	0.15%	0.20%
	<i>Hyphomicrobiaceae</i>	0.01%	0.24%	0.25%	0.35%
	<i>Methylobacteriaceae</i>	0.01%	0.20%	0.26%	0.48%
	<i>Moraxellaceae</i>	10.06%	5.82%	5.22%	4.70%
	<i>Nitrosomonadaceae</i>	0.00%	0.00%	0.00%	0.00%
	<i>Oxalobacteraceae</i>	0.08%	0.95%	1.23%	1.02%
	<i>Phyllobacteriaceae</i>	3.91%	0.31%	0.32%	0.10%
	<i>Pseudomonadaceae</i>	0.97%	4.68%	5.34%	4.62%
	<i>Rhodobacteraceae</i>	0.06%	1.23%	1.13%	0.59%
	<i>Rhodospirillaceae</i>	0.00%	0.20%	0.03%	0.00%
	<i>Sinobacteraceae</i>	0.00%	0.02%	0.10%	0.00%
	<i>Sphingomonadaceae</i>	0.46%	0.57%	0.48%	1.00%
	<i>unclassified_Proteobacteria</i>	6.34%	1.69%	1.79%	2.60%
	<i>Vibrionaceae</i>	0.01%	0.32%	0.23%	0.26%
	<i>Xanthomonadaceae</i>	8.10%	3.33%	2.50%	2.04%