

**Table S1. Definitions related to the concept of functional diversity observed in the literature**

Characterization and classification of functional genes presented in these tables was realized using information available in databases such as NCBI, UniProt or EXpasy but also based on extensive literature reviews.

**Table S2. List of putative microbial genotypic functional traits**

Characterization and classification of functional genes presented in these tables was realized using information available in databases such as NCBI, UniProt or EXpasy but also based on extensive literature reviews.