

Costs relative to the cell budget (%)

0.1

1

10

100

Total cell budget

Essential genes

Spore life cycle

Membrane lipids

Flagellum

Homeostasis

Maintenance energy

Heat shock

Chemotaxis

Swarming

Competence

Genome replication

Biofilm

10^8

10^9

10^{10}

10^{11}

ATP molecules per generation

