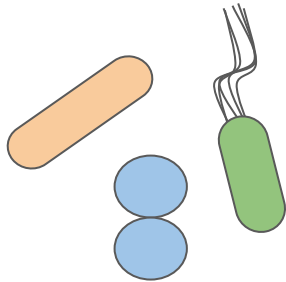
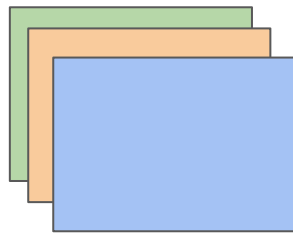


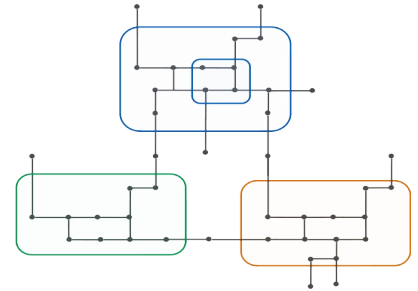
(A) Community



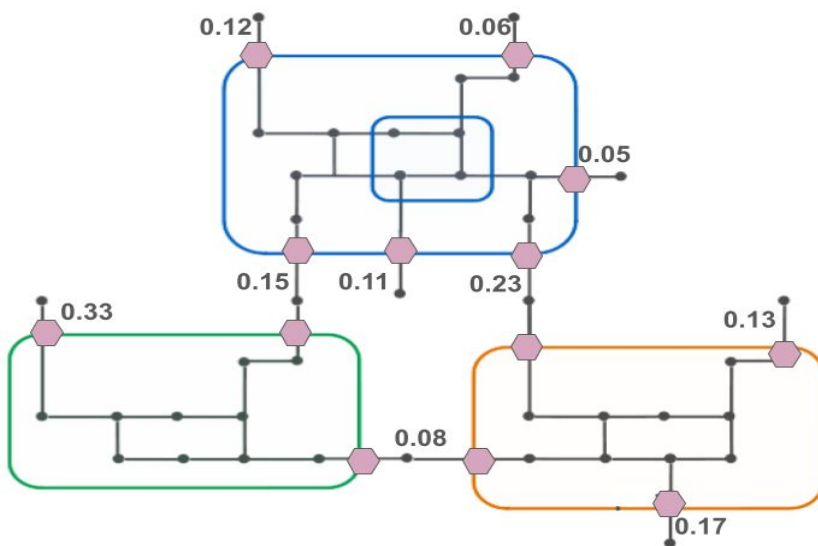
(B) MAGs



(C) Community model



(F) Flux simulations



(D) Environmental data



(E) Constraint-based methods

$$\begin{aligned} \max \quad & f(v) \\ \text{s.t.} \quad & Sv = 0 \\ & v_{\min} \leq v \leq v_{\max} \end{aligned}$$