

Supplementary Materials:

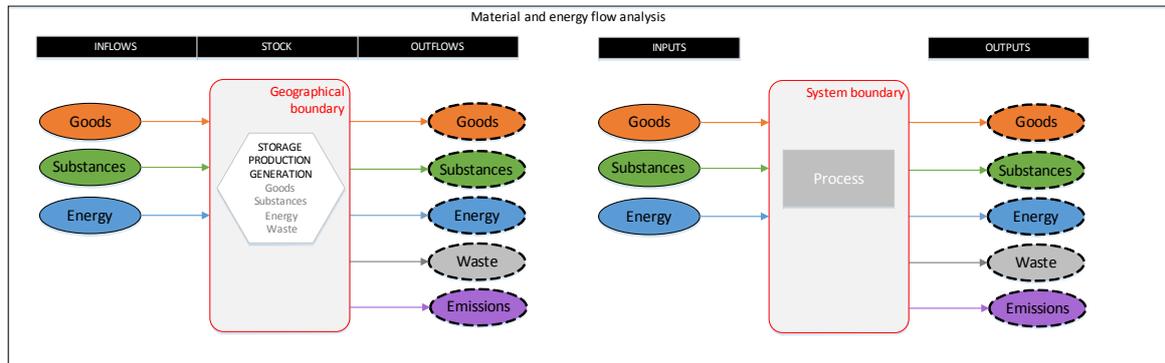


Figure S1. Simplified schematic representation of MEFA, flows, stocks and boundaries. In this figure, goods represent material goods with a positive economic value only (excluding waste and emissions). Inflows, outflows and stocks are connected to geographic boundaries (left), inputs and outputs to system boundaries (right).

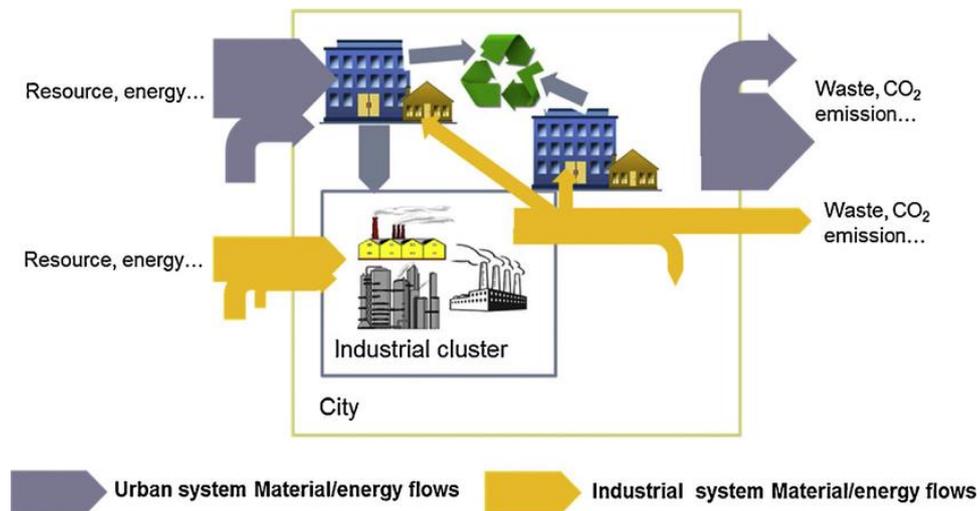
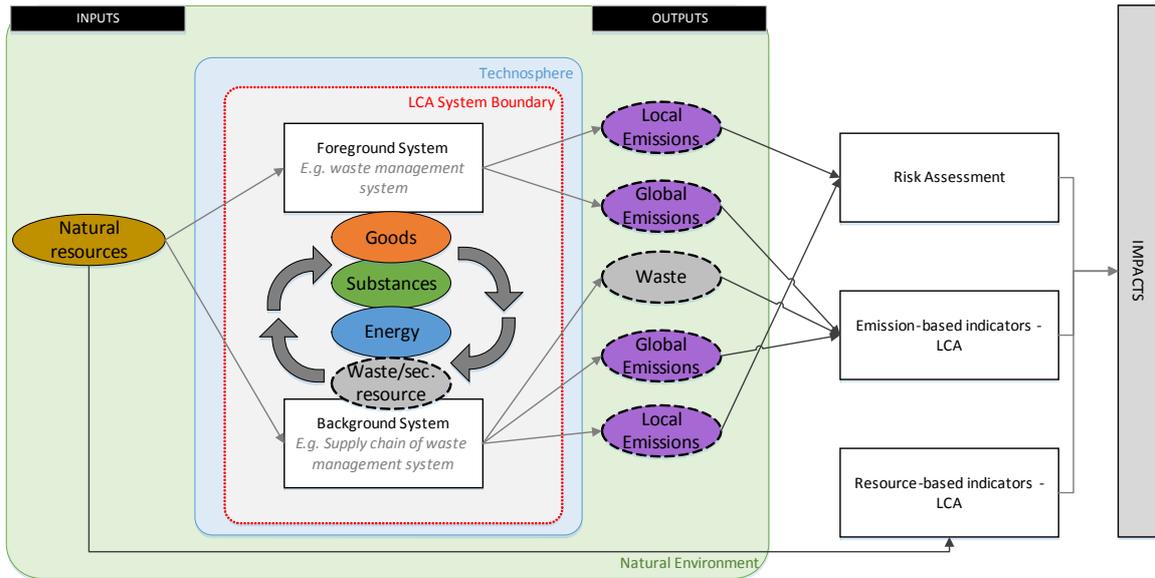
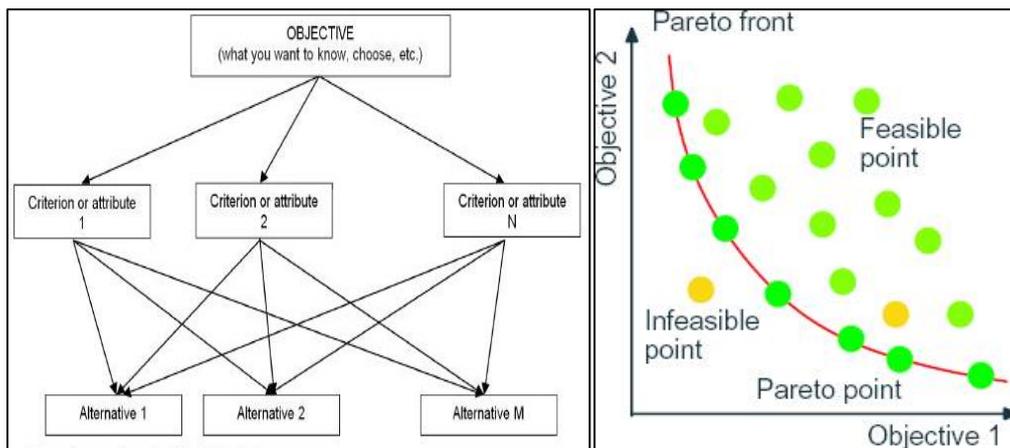


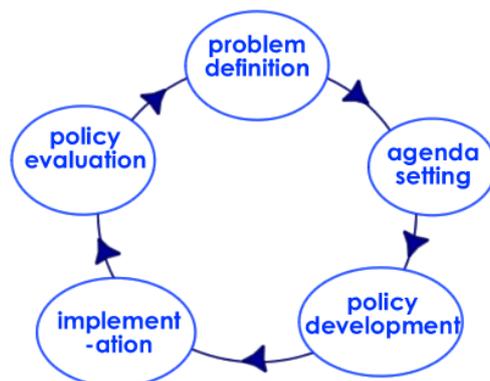
Figure S2. Representation of industrial and urban symbiosis within a city [1].



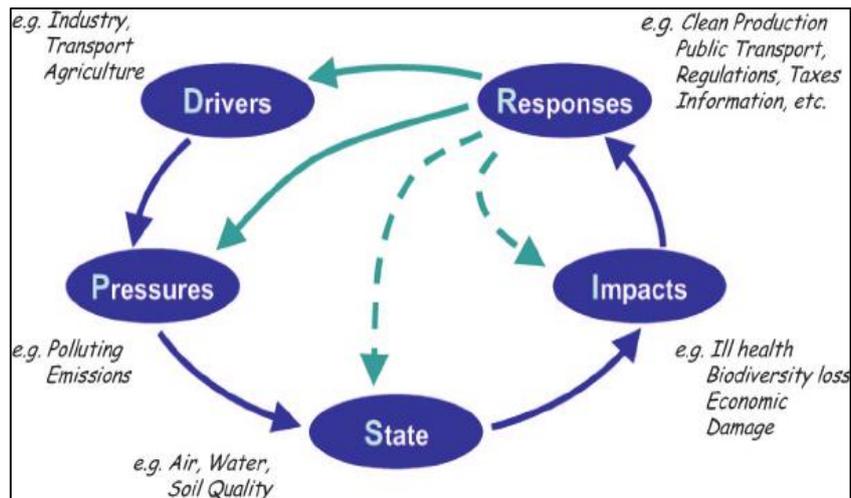
**Figure S3.** Simplified schematic representation of flows and boundaries considered within the following assessment methods; A) risk assessment (RA) focusing on emissions causing local impacts, B) process-based LCA containing both emissions-based and resource-based indicators to assess mainly global impacts. In this figure, goods represent material goods with a positive economic value only (excluding waste and emissions).



**Figure S4.** Simplified schematic representation of the concept of A) the Analytical Hierarchy Process (AHP) which makes use of a hierarchy of criteria and alternatives [2] and B) the pareto-optimization method.



**Figure S5.** The policy making cycle [3].



**Figure S6.** Simplified schematic representation of the concept DPSIR: Driving forces—Pressures—States—Impacts—Responses Framework (DPSIR) which helps to structure indicators in the context of a causal chain [4].

## References

1. Sun, L.; Li, H.; Dong, L.; Fang, K.; Ren, J.; Geng, Y.; Fujii, M.; Zhang, W.; Zhang, N.; Liu, Z. Eco-benefits assessment on urban industrial symbiosis based on material flows analysis and emergy evaluation approach: A case of Liuzhou city, China. *Resour. Conserv. Recy.* **2016**, *119*, 78–88, 10.1016/j.resconrec.2016.06.007.
2. Wollmann, D.; Steiner, M.T.A.; Vieira, G.E.; Steiner, P.A. Details of the analytic hierarchy process technique for the evaluation of health insurance companies. *Production* **2014**, *24*, 583–593, 10.1590/S0103-65132013005000070.
3. Buljan, I.; Kotlar, V. The use of deliberative method in education reform. *J. Contemp. Manage.* **2016**, *21*, 207–220.
4. European Environment Agency (EEA). Air Pollution in Europe. Executive summary. European Environment Agency (EEA): Copenhagen, Denmark, 1997.