The goal of eco-industrial development is to establish industrial systems that are both ecological and economical. Cement is among the most used materials in the world with extensive resource consumption and environmental impact. Biogas solutions are part of a larger transition towards a bio-based economy where resources are used in a cascading, circular, and renewable manner. In this thesis, life-cycle assessment and multi-criteria analysis are used, as two complementary approaches, for investigating the feasibility, potential, and resource efficiency of different development pathways in these industries. These approaches provide input into strategic decision-making processes and can lead to more informed decisions. For both cement and biogas systems, industrial symbiosis involving collaboration and better utilization of local/regional secondary resources, can result in resource-efficient eco-industrial development.