The development of efficient ways to produce renewable energy and biofuels is becoming a more and more important research topic. Therefore the research project CyanoFactory was founded by the European Union consisting of ten leading partners to achieve this goal. Synthetic biology based methods and systems biology grounded metabolic analyses are employed to improve the hydrogen production of the model organism Synechocystis sp. PCC 6803. Further more the research is targeting the design of highly efficient photobioreactors.

In our group, a knowledge base based on a data warehouse system is developed to improve the collaboration between the research partners, to facilitate knowledge generation by data integration, cross-linking and modelling, and finally for dissemination.