OBJECTIVES
The Supergen Bioenergy consortium’s theme on system analysis aims to facilitate an informed answer to the question: “What is the best use of our limited biomass resource?” by consistently and comprehensively assessing the relative economic, environmental and social impacts of bioenergy conversion to electricity, transport fuels and heat.

METHODOLOGY
Combines process modelling, techno-economic analysis and life-cycle assessment to assess the sustainability of entire bioenergy systems, including production, collection, processing and conversion.

RESULTS
Comparisons of the greenhouse gas savings, ecological impacts, social impacts, and economic effectiveness of different bioenergy systems are presented below, along with corresponding policy recommendations. Further information on the final results from the project will be available by autumn 2011.

Risks associated with implementation
Application of a post-normal framework for classifying risks related to certification credibility and the impacts of cultivation demonstrated how bioenergy-specific risks and uncertainties can be evaluated at different levels, corresponding to different types of uncertainty, which interact with stakeholders’ differing knowledge and expectations. The uncertainties present a strong case for inclusive policy development.