

Scientific publications

Projects carried out within the f3 centre and the collaborative research program *Renewable transportation fuels and systems* (f3 and the Swedish Energy Agency) usually present their results in project reports. Several projects, both from phase 1 (2011-2014) and the current phase 2 (2014-2017) have though delivered results in the form of scientific publications. The below list includes published articles and linked projects up until November 2017, sorted by project title. NB! The list only includes publications reported to f3 and might not be complete.

Project title	Article title	Authors
A global overview of bio-economy strategies and visions	The bio-economy in Europe: An overview	McCormick, K. & Kautto, N.
	Strategies and Policies for the Bioeconomy and Bio-Based Economy: An Analysis of Official National Approaches	Staffas, L., Gustavsson, M. & McCormick, K.
Accumulated Impacts from Increased Biofuel Consumption in Sweden	Reviewing the environmental implications of increased consumption and trade of biofuels for transportation in Sweden	Martin, M. et al.
Biogas from agricultural wastes and residues - Where and how much?	Analyzing key constraints to biogas production from crop residues and manure in the EU—A spatially explicit model	Einarsson, R. & Persson, M.U.
Biogas in the transport sector – An actor and policy analysis	Biogas in the transport sector—actor and policy analysis focusing on the demand side in the Stockholm region	Ammenberg, J. et al
Carbon Vision? Reviewing Environmental Systems Analyses of Biofuel Production in Sweden	Life cycle assessments, carbon footprints and carbon visions: Analysing environmental systems analyses of transportation biofuels in Sweden.	Martin, M. & Lazarevic, D.
Comparative system analysis of carbon preserving fermentation for biofuel production	Techno-economics of carbon preserving butanol production using a combined fermentative and catalytic approach	Nilsson, R. et al.
Enabling the transition to a bio-economy: innovation system dynamics and policy	Towards a Bioeconomy in Europe: National, Regional and Industrial Strategies	de Besi, M. & McCormick, K.
	Biorefineries in Sweden: Perspectives on the opportunities, challenges and future	Voytenko Palgan, Y. & McCormick, K.
	Innovation system strengths and weaknesses in progressing sustainable technology: the case of Swedish biorefinery development	Hellsmark, H. et al.
	The role of pilot and demonstration plants in technology development and innovation policy	Hellsmark, H. et al.
	Unpacking resource mobilisation by incumbents for biorefineries: the role of micro-level factors for technological innovation system weaknesses	Hansen, T. & Coenen, L.
	Path creation in Nordic energy and road transport systems – The role of technological characteristics	Hansen, T. et al.

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Environmental and Socio-Economic Benefits from Swedish Biofuel Production	Assessing the aggregated environmental benefits from by-products and utility synergies in the Swedish biofuel industry	Martin, M. et al.
Ethanol production in biorefineries using lignocellulosic feedstock - GHG performance and energy balances	Ethanol production in biorefineries using lignocellulosic feedstock – GHG performance, energy balance and implications of life cycle calculation methodology	Karlsson, H. et al.
Glycerol-based isobutanol	Pore Condensation in Glycerol Dehydration: Modification of a Mixed Oxide Catalyst	Hulteberg, C., Laveau, A. & Brandin, JGM.
	Is there a future in glycerol as a feedstock in the production of biofuels and biochemicals?	Bauer, F. & Hulteberg, C.
How can forest-derived methane complement biogas from anaerobic digestion in Swedish transport sector?	Forest-derived methane in the Swedish transport sector: A closing window?	Lönnqvist, T., Grönkvist, S. & Sandberg, T.
Impact of biogas energy crops on GHG emissions, soil organic matter and food crop production - A case study on farm level	Greenhouse gas and energy assessment of the biogas from co-digestion injected into the natural gas grid: A Swedish case-study including effects on soil properties	Lantz, M. & Börjesson, P.
Integrated assessment of vehicle fuels with sustainability LCA - social and environmental impacts in a life cycle perspective	Addressing positive impacts in social LCA— discussing current and new approaches exemplified by the case of vehicle fuels	Ekener, E., Hansson, J. & Gustavsson, M.
LCA and techno-economic analysis of on-site enzyme production in 2nd generation bioethanol production	Integrating enzyme fermentation in lignocellulosic ethanol production: life-cycle assessment and techno-economic analysis	Olofsson, J. et al.
LCA of biorefineries. Identification of key issues and methodological recommendations	Review of methodological choices in LCA of biorefinery systems - key issues and recommendations	Ahlgren, S. et al.
Optimization of biofuel supply chains based on liquefaction technologies	Cost optimization of biofuel production – The impact of scale, integration, transport and supply chain configurations	de Jong, S. et al.
Public procurement as a policy instrument to support the diffusion and use of renewable transport fuels	What Characterizes a System Builder? The Role of Local Energy Companies in Energy System Transformation.	Palm, J. & Fallde, M.
	Strategic use of green public procurement in the bus sector: challenges and opportunities	Aldenius, M. & Khan, J.
	Public procurement of electric vehicles as a way to support a market: Examples from Sweden	Palm, J. & Backman, F.

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Scenarios for large-scale integration of renewable fuels in the Swedish road transport sector	Biofuel futures in road transport - A modeling analysis for Sweden	Börjesson, M. et al.
	Bioenergy futures in Sweden – system effects of CO2 reduction and fossil fuel phase-out policies	Börjesson, M. et al.
Sustainability performance of lignocellulose-based ethanol and biogas co-produced in innovative biorefinery systems	Possibilities for sustainable biorefineries based on agricultural residues – A case study of potential straw-based ethanol production in Sweden	Ekman, A. et al.
Sustainable biofuels - critical review of current views and case studies using extended systems analysis providing new perspectives and positive examples	Bioenergy production and sustainable development: science base for policymaking remains limited	Robledo-Abad, C. et al.
	How to analyse ecosystem services in landscapes—A systematic review	Englund, O., Berndes, G. & Cederberg, C.
	Future demand for forest-based biomass for energy purposes in Sweden	Börjesson, P., Hansson, J. & Berndes, G.
	The potential role of forest management in Swedish scenarios towards climate neutrality by mid century	Cintas, O. et al.
Techno-economic analysis of biomethane production with novel upgrading technology	Techno-economic evaluation of biogas upgrading using ionic liquids in comparison with industrially used technology in Scandinavian anaerobic digestion plants	Xie, Y. et al.
	Evaluation of imidazolium-based ionic liquids for biogas upgrading	Xie, Y., Ma, C., Lu, X. & Ji, X.
Transport Biofuel Futures in Energy-Economic Modeling – A Review	Transport biofuels in global energy–economy modelling – a review of comprehensive energy systems assessment approaches	Ahlgren, E.O., Börjesson Hagberg, M. & Grahn, M.
The role of electrofuels: a cost-effective solution for future transport?	Electrofuels for the transport sector: A review of production costs	Brynnolf, S. et al.
	The Potential for Electrofuels Production in Sweden Utilizing Fossil and Biogenic CO2 Point Sources	Hansson, J. et al.