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Karl-Henrik Robèrt, Sven Borén, Henrik Ny, Göran Broman



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A strategic approach to sustainable transport system development - Part 1: attempting a generic community planning process model

Karl-Henrik Robèrt^a, Sven Borén^{ab}, Henrik Ny^a, Göran Broman^a,

^a Department of Strategic Sustainable Development, Blekinge Institute of technology, 37179 Karlskrona, Sweden.

^b Corresponding author. Email: sven.boren@bth.se, Telephone: +46455385723.

Abstract

Electric vehicles seem to offer a great potential for sustainable transport development. The Swedish pioneer project GreenCharge Southeast is designed as a cooperative action research approach that aims to explore a roadmap for a fossil-free transport system by 2030 with a focus on electric vehicles. It is the following *combination* of objectives that puts demand on a new process model adapted for cross-sector and cross-disciplinary cooperation: (i) a fossil-free transport system in Sweden by 2030 and, to avoid sub-optimizations in the transport sector, (ii) assuring that solutions that support (i) also serve other aspects of sustainability in the transport sector and, to avoid that sustainable solutions in the transport sector block sustainable solutions in other sectors, (iii) assuring cohesive creativity across sectors and groups of experts and stakeholders. The new process model was applied in an action-research mode for the exploration of electric vehicles within a fully sustainable transport system to test the functionality of the model in support of its development. To deliver on the above combination of objectives, a framework was needed with principles for sustainability that are universal for any sector as boundary conditions for redesign, and with guidelines for how any organization or sector can create economically feasible step-by-step transition plans. The Framework for Strategic Sustainable Development (FSSD) is designed to serve such purposes and therefore is embedded into the new process model. The exploration of this new model also helped to identify four interdependent planning perspectives ('Resource base', 'Spatial', 'Technical' and 'Governance') that should be represented by the respective experts and stakeholders using the model. In general, the new process model proved helpful by giving diverse stakeholders with various competences and representing various planning perspectives a common, robust, and easy-to-understand goal and a way of working that was adequate for each of their contexts. Furthermore, the evolving process model likely is relevant and useful not only for transport planning and electric vehicles, but for any other societal sector as well and thus for sustainable community planning in general.

Keywords: Sustainability, Framework for Strategic Sustainable Development, FSSD, Traffic, Transport, Strategic planning

Abbreviations:

ABCD	A procedure for strategic planning towards sustainability
CO ₂	Carbon dioxide
EU	European Union
EV	Electric vehicle
FFF	Investigation for how to reach a fossil-fuel-independent vehicle fleet by 2030
FSSD	Framework for Strategic Sustainable Development
GHG	Greenhouse gas
SP	Sustainability principle

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