PAUL SCHERRER INSTITUT

Technology Assessment Group
Laboratory for Energy Systems Analysis
Paul Scherrer Institut
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Master thesis topic: LCA of Swiss transport infrastructure

The topic of this thesis is to update and improve the Life Cycle Inventory (LCI) data for the production of roads, fuels and other transport infrastructure. This new LCI data will also consider potential future developments until 2050. This includes potential expansions of the road network, replacement of bridges and tunnels, and also the potential for alternatives for road materials, for example recycled materials. Transport related infrastructure also includes the fuel processing and distribution infrastructure: Swiss fuel refineries and distribution of different fuel types including hydrogen. The new LCI data shall be submitted to the ecoinvent database, which guarantees high data quality due to independent peer-review.

The thesis is to be performed within the Technology Assessment group in the Laboratory for Energy Systems Analysis and the Paul Scherrer Institute in Villigen, Switzerland. This thesis is part of the SCCER Mobility.

Interested students are encouraged to contact Brian Cox* for more information. Please include a short academic background on yourself including study programme, course list, and current grades.

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SCCER Mobility project webpage: www.sccer-mobility.ch/
Ecoinvent database (www.ecoinvent.org)