Bachelor- / Masterthesis

Topic:
Study concerning Alternative Methods for Chemical Vegetation Control on Railway Tracks

Situation:
Railway tracks, in particular sidewalks and ballast, lose their functionality and safety through emerging plants. Current measures for vegetation control in the European rail network rely on foliar herbicides, mainly Glyphosate that raises ecological and health concerns. The approval of the currently used substances (e.g. Glyphosate) by the responsible regulatory authorities has an uncertain future. When combining this uncertainty with the aim to reduce environmental impacts, it is necessary to develop alternative methods for vegetation management on railway tracks, which are legally compliant, safe, economic, and environment-friendly but at the same time without damage or negative effects on the existing infrastructure.

In this work, the capacities and limitations of thermal / mechanical / electrical methods shall be investigated.

Assignments:
- Literatur research of alternative methods
- Required calculations according to the method (E.g. energy demand, water consumption, electromagnetic compatibility, costs)
- Analysis and weighting of the data

The work could be written in English or German.

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