

Technological Task #34

1	Task Name	Treatment of Defective Earthworks
2	Problem Statement	It is necessary to develop a technology that increases the intervals between repairs on these sections, with the goal of maintaining the track geometry for an extended period and enabling higher train speeds.
3	Problem Scale	Currently, there is an urgent need for regular summer track work on 84 sections with defective earthworks and 145 sections with track settlement issues that have speed restrictions and require the use of ballast cleaning machines (RM). These works result in significant expenses due to the high cost of ballast and the long transport distances. Additionally, due to the complex geological conditions of the repaired sections, the track geometry deteriorates rapidly again. Specifically, the ballast becomes contaminated due to the mixing of crushed stone particles with the underlying soil, leading to the expulsion of the ballast from under the rail and sleeper grid and a high rate of wear on the railway ballast under the loads of passing trains. This results in frequent repairs of the same sections of the track, leading to inefficient use of resources.
4	Current Solutions	-
5	Expected Outcomes	Application of new technologies to solve these problems.
6	Necessary Research and Work for Problem Solving	-
7	Required Technological Parameters	-
8	Initial Data for Finding Solutions	-
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10	Expert Notes	