



AUTOMAIN

Innovation Information

Innovation Title	Optimized preventive grinding of main lines	
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Opportunity / Need	<p>The loads and speeds are steadily increasing on the main lines resulting in greater wear and less track engineering time for maintenance. This has resulted in an increasing level of Rolling Contact Fatigues (RCF) having a negative impact on the rail life time and with the safety risks of rail breakage and derailment. Typically conventional grinding trains operating at speeds requiring track engineering time, a scarce commodity, has been used as counter measure.</p> <p>For some years now the opportunity to perform preventive rail care (control the development of RCF) has been possible by means of the High Speed Grinding (HSG) concept developed by Vossloh Rail Services. The HSG trains operate at a speed of 80 km/h and can hence be planned as a regular train and do not require track engineering time. With a capacity of up to 100 ground km per shift, no opportunity cost and an acoustically optimized grinding surface HSG not only offers optimal preventive rail care but also at a higher technical grinding level than before.</p>	
Proposed Innovation	<p>The technical performance of the High Speed Grinding should be studied in order to implement the output with the aim of:</p> <ul style="list-style-type: none"> • Optimizing preventive grinding on main lines (control the development of RCF) • Defining a clear specification of 'WHAT is optimal preventive grinding?' • Defining a clear specification of 'HOW is optimal preventive grinding planned and executed on main lines?' 	
Next Steps	<ul style="list-style-type: none"> - Study the technical performance and output from High Speed Grinding - Comparison with the technical performance of conventional grinding trains - Define in a high level perspective how preventive rail maintenance shall be done - Define how the different actions shall be using lean-tools like value-stream-mapping etc. 	
Opportunity for involvement	<p>A strong support from the Infra Structure Manager is a necessity since they are the one's responsible for the contracts between Entrepreneurs and Central Rail Administrations.</p>	