

Improving linear transport infrastructure efficiency by automated learning and optimised predictive maintenance techniques (INFRALERT)

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Abstract. The on-going H2020 project INFRALERT aims to increase rail and road infrastructure capacity in the current framework of increased transportation demand by developing and deploying solutions to optimise maintenance interventions planning. It includes two real pilots for road and railways infrastructure. INFRALERT develops an ICT platform (the expert-based Infrastructure Management System, eIMS) which follows a modular approach including several expert-based toolkits. This paper presents the methodologies and preliminary results of the toolkits for i) nowcasting and forecasting of asset condition, ii) alert generation, iii) RAMS & LCC analysis and iv) decision support. The results of these toolkits in a meshed road network in Portugal under the jurisdiction of Infraestruturas de Portugal (IP) are presented showing the capabilities of the approaches.