

AUTONOM – Integrated through life support for high-value systems

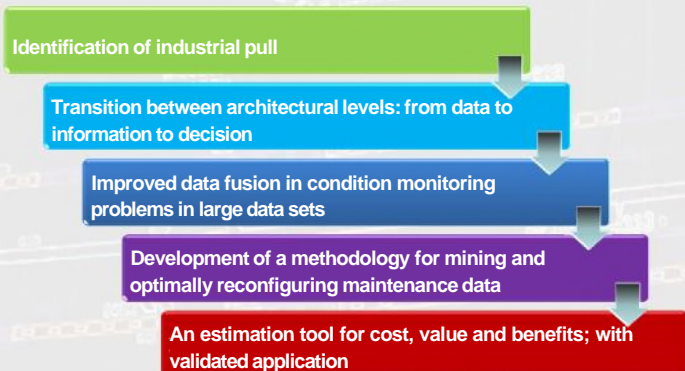
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Autonomous and Intelligent Systems Programme

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1. Introduction

The AUTONOM project aims to enable autonomous integration between architectural levels in data-rich environments in automated, intelligent maintenance, responding to business pull and demonstrating value

Objectives:

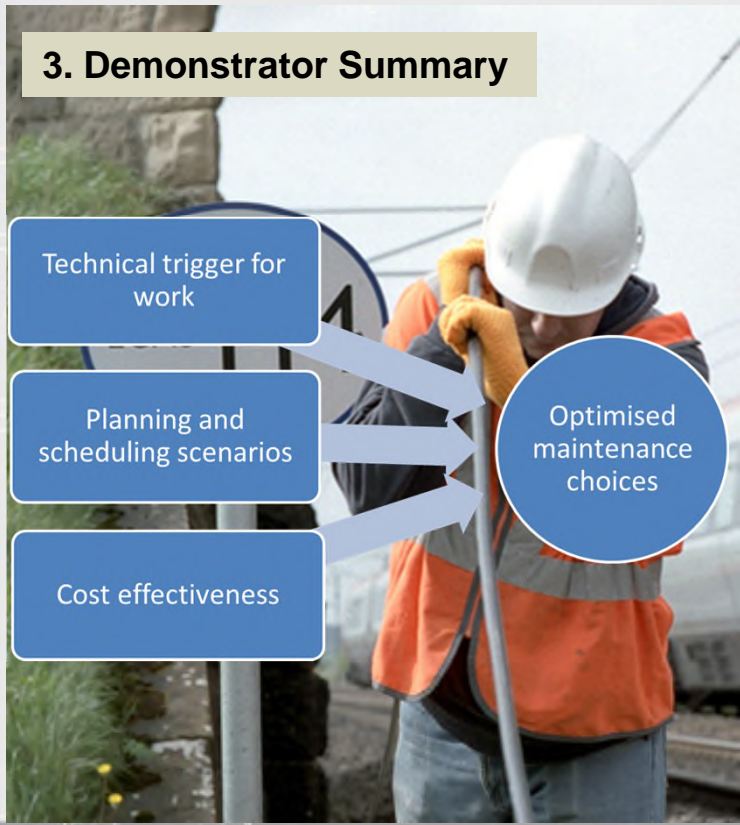


2. Four Themes



Integration	Data fusion & mobile platforms	Planning & scheduling	Cost analysis
Developing a top down architecture for data/information/decision structures	Capturing how stationary sensor nodes and mobile sensors can work together	Developing a multi-objective optimisation framework for planning and scheduling	Identify drivers, model and estimate the costs, value and availability

3. Demonstrator Summary



4. Expected Outcomes

A framework architecture for data/information/decision structures with clear value chains enabling the integration of condition-monitoring, optimal planning and cost effectiveness

A methodology to optimally reconfigure maintenance data for automated planning and scheduling of rail maintenance tasks, using an evolutionary, multi-objective optimisation framework

Tools and frameworks for estimating cost-benefit of integrated maintenance, through-life costs of condition monitoring. These strategic questions are supported by analysis of operational level maintenance costs

www.cranfield.ac.uk/sas/autonom

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