

## 2017 Strategic Technology & Innovation Management Programme

### The cost of delay to R&D Projects

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#### Summary of project

R&D projects are notoriously subject to delay but it is often difficult to justify the cost - in terms of money or management effort – required to prevent this, or to recover time once lost. A believable estimate of the likely financial impact of delay would help managers decide which projects are the most time-sensitive, and what expenditure may be worthwhile to keep them on track. This project aims to find approximate, “rule of thumb”, methods for doing this. Initial work suggests that in extreme cases the cost of delay can amount to tens or even hundreds of thousands of pounds per week.

#### Expected deliverables

1. A small number of “rules of thumb”, validated in a number of trials, that can be used to assess how sensitive a given type of project may be to delay and what the approximate cost to the company would be in financial terms - in the form “A month’s delay will cost £X k”
2. Examples of actual costs, suitably anonymised, so that partners can assess whether the magnitudes are likely to be large enough to warrant adopting the method

#### Engagement opportunities

We seek to interview R&D and project managers to assess one or more recent examples of key types of project. Data on the Sales and Gross margin history of recent projects will be needed, together with R&D costs. Each company will receive a written report on their projects but cases will be anonymized before sharing.

#### Approach

The main costs of project delay are reductions in the sales return over the product lifetime. This includes: reduction of product lifetime; reduction in sales volume; and loss of premium pricing and learning curve opportunities in the early phase. But the effects may be reduced if there is an option to continue selling a preceding product while waiting for the new one. Also to be considered are the direct and opportunity cost of wastage of R&D effort that may be occasioned by the delay.

Delays in the early phases of a project, when there is still a possibility of cancellation, must be treated differently from those in the later phases.

An estimating approach for different types of project has been developed and briefly piloted in the last year. It now needs to be properly trialed and refined into a useable framework.