Collaboration at its best: How to Achieve a Successful Knowledge Transfer Partnership

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Introduction

• The Problem
• The Project
• The Collaboration
• The Winning Formula
• The Achievements
30,000 miles of water pipes
30,000 miles of sewers
2,000 treatment works

1.3 billion litres of drinking water to deliver each day
2.45 million households

Invested £1.2 billion to maintain our services from 2010 to 2015.
The Problem
1. To develop statistical models to forecast asset performance.

2. To develop an optimisation tool for planning expenditure over a short, medium and long-term planning horizon.
The Collaboration

University

KTP Associate

Company

Scottish Water

Trusted to serve Scotland
The Collaboration

- Prof Lesley Walls (Head of Management Science, Strathclyde University)
- Prof Tom Archibald (Head of Management Science, Edinburgh University)
- Prof Jake Ansell (Edinburgh University)

Expertise:
- Reliability modelling involving expert knowledge
- Managing uncertainty
- Risk management and the optimisation of investment
The Collaboration

Academic Partnerships
- Edinburgh University
- University of Strathclyde
- Glasgow

Industry Partnerships
- Scottish Water
- Risk Consortium
- Water Statistics User Group
- Yorkshire Water
- UKWIR
The Winning Formula

- Using a “win-win” situation
- Current problem that has potentially large benefits
- Problem has longevity
- Solutions that can be owned by the company afterwards
The Winning Formula

- 2 associates, 2 universities
- Project sponsor in a high enough position
- Company supervisors who know enough of the subject and can help embed the problem into the company
- Keeping on track

The will to SUCCEED!
The Achievements

• Long-term forecasts of asset performance, risk and investment allocation
• Genuine savings for the company and regulator recognition
• Finalist for the ‘Best of the Best KTP in the UK’ Award 2015
• Associates employed permanently in the company
• Academic papers presented at international conferences
• Teaching advantages for the Universities – real-life examples
• Continued collaboration on various projects
• Expansion of company team into Asset Intelligence and company ownership and further development of the knowledge gained in the project
Purpose Statement:

To help Scottish Water succeed by improving the quality and availability of data and enabling insightful analytics led decisions.

Primary Functions:
Thank You –
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