



What was Mtechs' brief?

To assist Water Service NI in the delivery of a water treatment plant. The desired approach was to incorporate the development of an integrated team from design through to main contractors, supply chain and operations.



THE CLIENT

Water Service NI (now Northern Ireland water) are the providers of water and water treatment for Northern Ireland. As a Government Department they are responsible for the construction, operation and maintenance of water pipelines, pumping stations, reservoirs and treatment plants.

What did the client want to achieve?

Water Service NI wished to implement a design and build water treatment plant in the Mourne Mountains, south of Belfast, which fully utilised the Egan partnering ethos.

What area of Mtech expertise did we employ?

Techniques such as supply chain management, value stream management and lean principles were to be at the heart of the project delivery.

What did Mtech actually do? What did we facilitate?

Having established an integrated team and with the design work nearly completed, work started on site. The first assignment was to map the processes for the erection of shuttering and concrete pour for 12 water containment tanks. Each of these tanks comprised 4 sets of shuttering used some 200 times in all, producing 800 wall sections. As this was a repeatable process, it was ideal for continuous improvement through the identification, quantification and elimination of non-value adding activities (waste).

To achieve this, value stream management (VSM) techniques were used and measured the distance travelled by people and materials, the cost of quality, the time consumed by delays (the non-productive time) and health and safety issues in the process. The VSM activity identified that some 95% of the process, as measured in time, was non-value adding and hence, open to possible opportunities for improvement. After Mtech developed revised processes, the shuttering team had reduced the time taken to erect, pour concrete and disassemble by 40% and the size of the team had reduced by 35% generating a commensurate increase in productivity and releasing team members from each shuttering team to carry out other activities.

What was the result of the work Mtech carried out?

The redeployment of the workforce contributed to a project delivery 20% ahead of target date and 15% below budget. Water Service NI observed that the VSM approach enabled decision making based on facts not perception and encouraged cost stewardship throughout the workforce.

