

Developing a Water Technology Diffusion model as a framework for analysis of innovation in water technologies

Jan '16 – Oct '18

Researcher
Paul O'Callaghan

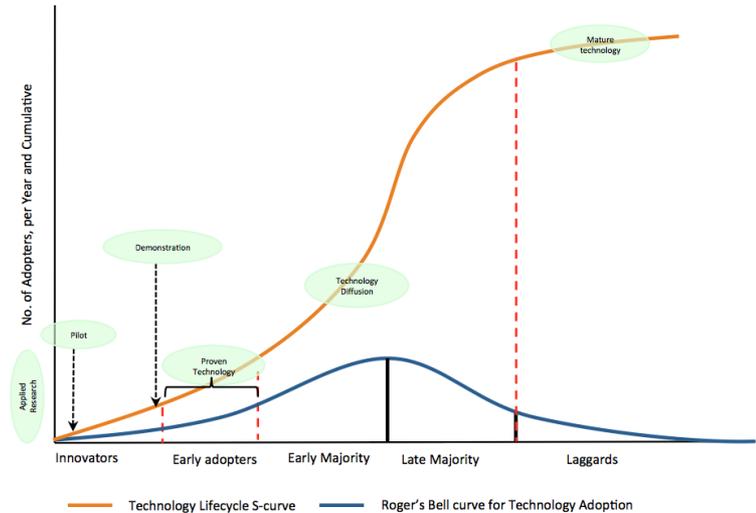
Supervisor
Prof. dr. ir. Cees Buisman

Promotor
Prof. dr. ir. Cees Buisman

Motivation

The motivation for this thesis can be summarized with the following key points:

- Challenges in relation to water quality and availability exist and will be further exacerbated in the decades ahead due to multiple macro level drivers.
- Water Technology innovation can help to address issues relating to water quality, availability and efficient energy and resource management.
- There is a high level of research and development activity and investment in developing innovative water technologies.
- Currently the level of productive outputs and return on capital from this research and development work is poor based on metrics including percentage of technologies that make it through the technology diffusion process.



Technological challenge

- Current models to analyse Water Technology Diffusion exist, but they are incomplete and not designed for the water sector.
- The development of a Water Technology Diffusion model as a framework to analyse the process of water technology can help increase the efficiency in the use of capital to develop water technologies to address issues relating to water quality and availability and efficient use of resources and energy in water and wastewater management.

- We will describe the development of a Water Technology Diffusion model to cover the complete cycle of technology development from applied research through to technology maturity. The model combines and adapts elements from other technology innovation models to create a framework that can be used to analyse the process of water technology development and technology diffusion.



CV Researcher; Paul O'Callaghan
 Graduated; Napier University, M.Sc. 1998
 a
 Hobbies; Playing Music, sea-kayaking, theatre
 e-mail; Paul.ocallaghan@bluetechresearch.com
 tel; +1 604 676 3581
 website; www.bluetechresearch.com