

Innovation Partnerships: Case Study - ABS Production Wexford



Focused on the niche market of submersible electric pumps, ABS Production Wexford is a well-established leading player in the waste water sector. In order to keep up with demands from the market for more efficient and cost effective pumps ABS Production Wexford sought support from the Innovation Partnership Programme.

Since its establishment in Wexford in 1973 ABS Production Wexford, a subsidiary of ABS Group, has grown steadily. The firm currently employs 250 people and sells 120,000 submersible pumps throughout Europe each year for an estimated market price of EUR80 million.

A submersible pump has a hermetically sealed motor close-coupled to the pump body. The whole assembly is submerged in the liquid to be pumped. ABS's submersible pumps, which range from 1KW to 30 KW motor capacity, are primarily aimed at municipals (councils) or companies that have been employed by councils to maintain the quality of a city or county's water supply.

Reacting to market demand

Responding to growing demand in the market for more efficient and cost effective submersible pumps, ABS Production Wexford decided to conduct in-depth research into the area. An ABS employee James Wall would carry out the research, which would form the basis of his Masters degree from Dublin City University (DCU).

"We were mainly interested in investigating ways in which we could improve submersible motors; it's not an area that the industry has really researched so far," explained Ben Breen, head of research and development at ABS Production Wexford.

The college would assist in the project, providing guidance and equipment for the specialised research. This narrow field of submersible pumps was of interest to DCU, which was also performing ongoing investigations into the area.

Work on the project commenced in November 2005 and now that the project is more than half way through Breen says he's confident that all targets will be reached by November 2007. The research has proceeded well so far with ABS, Wall and DCU all satisfied with progress to date.

"Our main objective from this project is learning, and getting a deeper understanding of submersible pumps and how we can improve the design and development," said Breen. *"Any new discovery coming out of the research would be a bonus."*

(Continued Overleaf)

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Ben Breen,
ABS Pumps

A thriving partnership

ABS Production Wexford already had a good working relationship with DCU prior to embarking on the Innovation Partnership Programme. Lecturers from DCU regularly visited ABS as part of an outreach training programme for employees there.

DCU’s role in the research project was invaluable, according to Breen, who said the input from Wall’s supervisor, Dermot Brabazon, was extremely helpful in guiding the project and the work in the right direction.

The Innovation Partnership Programme’s part was also key, said Breen, who explained that the funding made the project possible. *“It’s an economical way of getting vital research done, and for us, it means that James’ advanced knowledge can become an invaluable asset to ABS.”*

Mutual benefit for researchers and company

For DCU, the benefits of taking part in the Innovation Partnership Programme are also compelling: *“The funding and support from the Innovation Partnership Programme was an enabler for the research that was undertaken, and the application form for the project helped us to develop a detailed plan for the work we were to carry out,”* said Brabazon, a lecturer with DCU. *“Conducting this type of applied research means that we get to apply our skills to solving practical problems.”*

Brabazon also explained that the project has the advantage of raising DCU’s profile through conference, journal or patent publications that may arise from the partnership.

The project has been such a success that ABS Production Wexford and DCU will be re-applying for funding in order to upgrade Wall’s research to PhD level. This will see Wall conducting an even more detailed investigation into the field of submersible motors.

“This is a huge commitment from James to continue his research to PhD level, while also working with us. It’s a long term investment for ABS too, but we’re confident the outcome will be a positive one for all involved,” concluded Breen.