2020 BSI Student Research Programme Case Study

Exploring the usefulness of new BSI guidance on responsible innovation

Researching the commercialization of purple tomatoes







Over 14 long years, a biotech research institute and its spin-off¹ have worked to create and commercialize a purple-fleshed tomato with nutritional benefits². What difference to the developmental obstacle-course would the use of BSI's new standard – PAS 440 on responsible innovation – have made? This was the question that Isabela Cabrera Lalinde set out to answer in her master's dissertation.

Isabela was doing a Masters in Management of Bioeconomy, Innovation and Governance (MSc BIG) at Edinburgh University. Her work with Professor Joyce Tait – the technical author of PAS 440 – had helped ignite a deeper interest in responsible innovation. Plus the story of the purple tomatoes struck a chord. Isabela wanted to know if the responsible innovation framework set out in PAS 440 would have accelerated the purple tomatoes' path to market; helped align conflicting research and commercial goals; smoothed the bureaucracy of getting the product approved for the US market; and helped the market be more accepting of a technology it doesn't understand. She wanted to "road-test" the PAS and ask if, for an SME, it would be useable or too bureaucratically burdensome.

BSI's Student Research Programme

We also wanted to know how our new standard was performing. Dan Barlow, BSI Head of Innovation Policy explains: "PAS 440 is really important. We need innovations to combat societal inequality, the pandemic and climate change. But organizations need to be able to demonstrate how their innovations are relevant and responsible." As a result, we included Isabela's dissertation project in our Student Research Programme (SRP) in 2020. We supported her academic exploration and in particular added value by clearly stating our aims as stakeholders. Notes Isabela: "These were the questions that BSI needed answers to in order to develop the standard further. So it really helped me provide information that was needed in a strategic way, and created a solid foundation for my research."

The results

Isabela reports that BSI was supportive throughout and a particularly "big win" for her was how our experts helped deepen her understanding of standardization and the powerful role it can play in supporting policy, regulation and the acceptance of innovation.

The project also helped Isabela solidify her future career aspiration to specialize in science communication, bridging between scientists, regulators and markets so that responsible innovations are successfully and quickly delivered. In conclusion she says that BSI's backing of students and our knowledge are worth taking advantage of, and that she was really grateful for the opportunity to take part in the SRP.

About BSI's student research programme

BSI's Student Research Programme exists to match postgraduate students with a BSI research need. We gain valuable information about an area of interest to our standardization work, while the students benefit from business mentorship and the chance to gain knowledge and exposure that may increase their future employability.

"This project gave me a lot of insight into the sensitivity of multi-disciplinary interactions and scientific development, and how crucial it is for the stakeholders to be aligned in order to achieve a successful collaboration. I want to continue learning how to improve that."



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 $^{\rm 2}$ The tomatoes contain high levels of anthocyanins that can reduce the incidence of cancer and improve cardiovascular function, among other health benefits, while doubling the tomatoes' shelf-life.