BSI investigates industry demand for a responsible innovation framework

Client challenge

Technology organizations are innovating fast - in ways that impact both individuals and society. Innovation is occurring across all industry sectors and affects the way that products and applications are developed, manufactured and brought to market.

The concept of responsibility in business is evolving too, with organizations recognizing the practice of responsible innovation when developing new products and services. Sujata Bhatia, assistant director of undergraduate studies in biomedical engineering at Harvard University explains "No one has a better appreciation for the capabilities of the technology and the ways that technology might be used or misused than the engineer who designs [it],"[1].

Innovate UK, the UK's innovation agency, identified the need for a framework that would allow innovating organizations to ensure that their processes are developed with broader societal implications in mind and demonstrate they are behaving responsibly.

Innovate UK wanted to develop a Publicly Available Specification (PAS), but first needed evidence to show that there was real market demand and that this would be used by organizations. BSI was commissioned to investigate the meaning of 'responsible' in the context of different industries to understand what would need to be covered by a framework.

[1] EVA KAPLAN-LEISERSON, EVA. Do PEs have an ethical responsibility to think ahead to help prevent harmful effects of technology? ILLINOIS INSTITUTE OF TECHNOLOGY. Available from: http://ethics.iit.edu/EEL/PE%20May%202015%20Cover.pdf [accessed March 2020].

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BSI's approach

Responsible innovation means different things to different sectors, so the research needed to understand the various attitudes across key industries. It was essential to get a detailed understanding from each sector about responsible innovation so that the PAS would enable companies to think through, in a structured way, the issues raised by their proposed innovation.

BSI's Research and Intelligence team are experienced in designing and conducting research tailored to our client's needs and objectives. We conducted individual depth interviews with expert stakeholders which allowed participants to discuss technological innovation openly, without external influence and in the context of their specific industry.

In order to have maximum impact, a responsible innovation standardization document should apply to all technologies and all sectors. To test the breadth of interest, we conducted interviews with 48 leading innovators from a range of technologies and sectors including:

- AI and big data
- Life sciences
- Robotics and autonomous systems
- Social media
- Advanced materials

It was important to Innovate UK that findings should benefit public and private sector organizations, consumers and society. It was also essential that the research included corporates, as well as SMEs and start-ups to encourage adoption of the framework.

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> " The outcomes of the research exceeded all our expectations, in the level of engagement achieved among companies that participated and also in the amount of useful information they contributed to helping define the scope of the standardization document and the next stages of its development."

Professor Joyce Tait,
Technical Author of PAS 440 and Co-director Innogen Institute, University of Edinburgh.

The impact

The research revealed that an overwhelming majority of participants saw the importance of having a framework governing innovative technologies. Not only did the participants welcome the development of a framework, but many also stated that if it had been created years ago it may have prevented a number of the current issues with poor innovation in some areas.

As a result, Innovate UK created a PAS with BSI. This standardization document can be developed in around 9-12 months, which means it can be brought to the marketplace quicker than a British Standard to meet demand.

An additional benefit of the stakeholder research was that it helped to identify several suitable members of the PAS Steering Group to advise on its scope, structure, content and, improving its value and usability.

The PAS process built the necessary industry consensus to ensure the document produced was practical and useful. PAS 440 will help innovators to work through the demands of innovating responsibly and to demonstrate their responsible behaviour to interested stakeholders. It's a practical guide that accounts for the demands on organizational time and money in often fiercely competitive, international markets.

With the expert input of stakeholders from the research, PAS 440 was designed to be relevant to all those taking new products, services or processes in any technology or sector to market, and is also of interest to: members of the public, customers, scientists/innovators, regulators/policy makers, financiers and investors, suppliers, current and prospective employees, and collaborators.

Get your free copy of PAS 440.

Working towards success

As an independent organization, our expertise, integrity and commitment to continual improvement set BSI apart. Our dedicated, multi-disciplinary research team combines the expertise of professional Information Specialists, Market Research, and Data Analysts to conduct high-quality standards intelligence, market insight, and sector research.

Our research covers a wide variety of sectors and emerging areas. We work closely with sector colleagues, both internal and external, to include specific technical expertise. The robust research approaches and methods used within the Research and Intelligence team, alongside sector knowledge and expertise ensures that we deliver high-quality, meaningful services to our clients.

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Find out how our Research and Intelligence team can help you:

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