Best Outstanding Contribution to Research Impact

Name: Thomas Bennett and Guilhem De Hoe
Faculty: Henry Royce Institute
Position: Research Fellows
Research area: Materials science; plastic recycling; sustainability

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Both Dr Bennett and Dr De Hoe have backgrounds in chemistry, then took up postdoc positions working on various research projects. Having both previously worked to develop new sustainable materials, they joined Manchester's Sustainable Materials Innovation Hub in 2021.

In your own words, please describe your outstanding research whether that be an output, impact, contribution to the environment:

This would be the creation of The Sustainable Materials Innovation (SMI) Hub team interface that helps busniness owners and their employees to navigate through the minefield of materials sustainability, using a data-driven approach to answer questions like "what packaging should I use?" and "what is the most sustainable end-of-life option for my product?". We worked in tandem with industry partners in order to deliver the core capabilities of this initiative – providing environmentally sustainable advice; performing materials assessment to inform sustainable choices; and driving innovation through our independent research projects, addressing real-world problems in plastics.

What motivated you to do this?

We were motivated by our passion to use our knowledge to positively influence our society by continually refining our understanding of sustainability to enable all of us to use materials in a way that strikes the best balance between preventing damage to the planet and providing benefit to our society.

What are you planning to do next?

We are continuing our work in material science and we are looking to develop our careers as well as support the next generation of scientists. We also hope to investigate key challenges in materials sustainability including those in recycling and biodegradation. I (Dr De Hoe) hope to spearhead productive partnerships across industry, academia, and government to systematically address and improve upon the current (and predominantly linear) paradigm of materials use. And I (Dr Bennett) intend to take up a leadership position at the non-profit spin-out ReCon^2 and steer the company through its initial years as a fully operating business, including managing our transition into an off-site laboratory space in Manchester.