

EPSRC supported EngD: Sustainable consumer goods – from formulation to pilot process

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Tax free bursary of £ 25,737 per annum plus fees paid.

Project Description:

Most of consumer goods products consist of multiple compounds that are carefully formulated together, of which the physical appearance could be solid, liquid, pods, tablets, foams – reflecting the evolving science and innovation in the sector that contribute over £149bn to the Gross Value Added of the UK economy.

The aim of this project is to develop a suite of highly innovative water-free composite material as a novel platform for consumer goods. This involves formulation screening and development, scaling up to pilot scale, process optimization, product evaluation, which closes the feedback loop in driving the sustainability profile.

The project has the following objectives: i) to develop fundamental insight concerning the effect of drying process on polymer/surfactant mixtures as a function of their chemical nature; ii) to scale up laboratory preparation to pilot scale and optimise the processing condition; iii) to correlate microstructural characteristics of the resulting composite with formulation and process, using both first principle and statistical analysis; iv) to make recommendations on the design and manufacturing of the future consumer goods products.

Working closely with the industrial partner P&G, the EngD candidate will develop a wide range of skills in product development, process optimisation, and performance evaluation, establishing a broad appreciation of formulation engineering. They will develop a portfolio of transferrable skills such as project management, communication and team working, which ensures excellent employability upon completion of the project.

If you have a background in Chemistry, Physics, or Chemical Engineering and are passionate about sustainability, this is an excellent opportunity.

Funding Details:

To be eligible for EPSRC funding candidates must have at least a 2(1) in an Engineering or Scientific discipline or a 2(2) plus MSc.

To apply please email your cv to cdt-formulation@contacts.bham.ac.uk.

Open to UK nationals only due to funding restrictions.

For details on the Engineering Doctorate scheme visit the [homepage](#).

Deadline: Friday 17th January 2025