“Smart Materials: Efficiency, Complexity and Design” was a one-day meeting held at the University of Warwick on 21 October 2015. The meeting was designed to bring together synthetic and polymer chemists to discuss creativity in monomer design, by addressing three themes: improved efficiency, accessing complexity, and tailoring function. 40 delegates attended the meeting.

The day began with short presentations from polymer chemists, explaining how collaborations with synthetic chemists have, or have the potential to, enhance their research. Scientific presentations were delivered by Prof Cameron Alexander (University of Nottingham), Dr Francisco Fernandez-Trillo (University of Birmingham), Dr Matthew I. Gibson (University of Warwick) and Dr Helen Willcock (Loughborough University). Dr Rachael Rowlands-Jones (Knowledge Transfer Network) also gave a brief overview of KTN and the role they can play in providing links between academics and industry.

The afternoon was devoted to round-table discussions centred around efficiency, complexity and design. The overall consensus of the day was that collaborations between synthetic chemists and polymer chemists would be beneficial, with the synthetic chemist being able to offer different routes to polymers, either by applying their knowledge to the individual monomers, or post polymerisation. A common theme throughout was the need for better analytical techniques to characterise the ‘complex’ polymers. Tying in with other themes of Dial-a-Molecule, it was pointed out that embracing theory and prediction prior to synthesis would be beneficial.