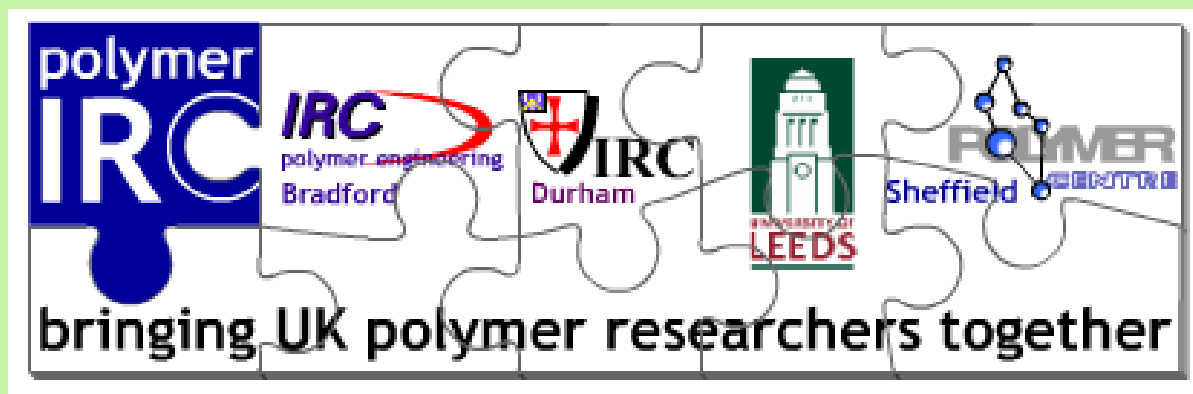


Chemistry

Polymer Materials Science



Engineering

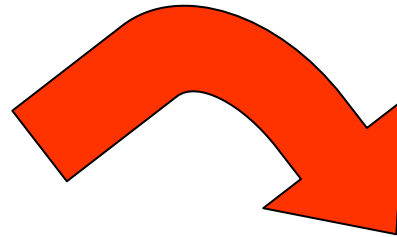
Physics/Chemistry/Appl. Maths

The Polymer IRC

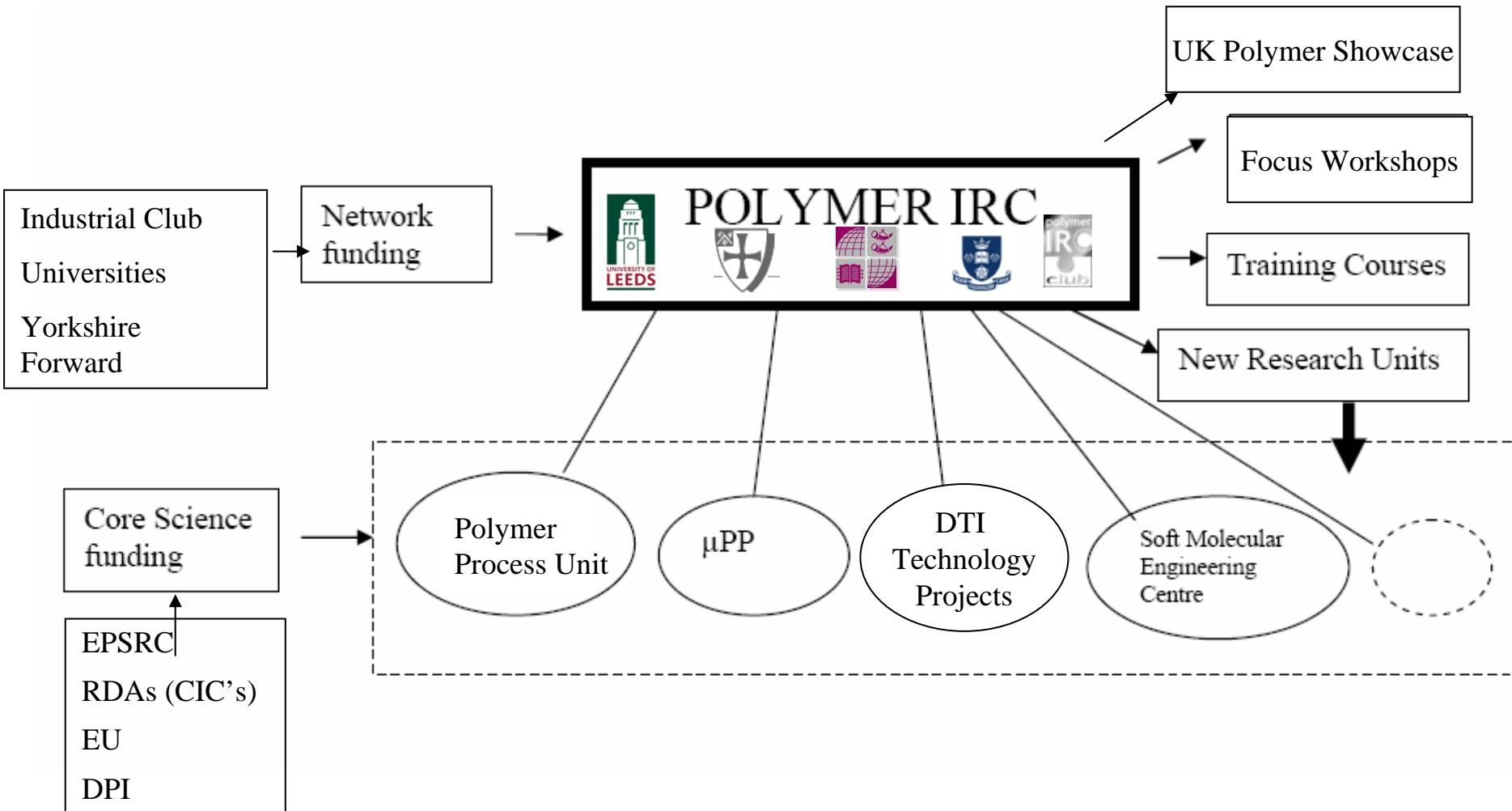


- A focal point for UK Polymer/Soft Matter Science since 1989
- Connecting Industry and Academia
- Linking Chemistry-Physics-Engineering
- >100 staff over 4 sites + >150 PhDs and PDRAs
- Research spend of ~£5M p.a.
- Core Science + Knowledge Transfer
- Industrial training and conferences

Evolve or Die!



Structure





Current Industrial Club:

The low-subscription IRC Industrial Club gives industry rapid access to know-how, science, training and research teams across the IRC. Benefits include:

- Easy access to teams and facilities;
- Guaranteed Showcase Places;
- Road-Mapping Workshops;
- Discounts on Training Courses;
- Technology alerts.

DSM

ICI

Invista Performance Technologies

Dupont Teijin Films

Infineum

Mitsubishi

Unilever + Unilever Corporate Research

Victrex

Smith and Nephew

Dow

CYTEC

Arizona Chemical

Artenius

Bayer

Proctor and Gamble

4 Core Universities

Vertellus Chemicals

Huntsman Core Technology Group

Scott Bader

Mitsui Chemical

Goodfellow

SABMiller





Activities:

- Industrial Club meetings - spring and autumn
- “UK Polymer Showcase Autumn Meeting”
 - This year York, 16 – 18 September
- Evolving research programme
- Training courses for PhDs and industry
- Rapid-Reaction Platform for projects and networks
- Scoping Workshops

Annual Polymer Materials Course

- Week One
 - Basic Polymer Science
 - Polymer Characterisation & Analysis
 - Polymer Chemistry
 - Polymer Engineering (Polymer Processing)
 - Polymer Physics
- Week Two
 - Multi-phase Polymer Materials and Composites
 - Polymer Dynamics and Macromolecular Rheology
 - Polymeric Biomaterials
 - Polymer Nanotechnology

The poster features a purple background with a molecular structure pattern. At the top is the 'polymer IRC' logo, which consists of the word 'polymer' in a white box above the letters 'IRC' in a larger font, with a purple drop shape below the 'C'. Below the logo, the text 'POLYMER IRC' is written in white, followed by 'Introduces' in a smaller, italicized font. The main title 'Polymer Science & Technology' is in a large, bold, white font. Below this, '9 Day Modular Course' is written in a bold white font, and the dates '29th October 2007 – 8th November 2007' are in a smaller white font. The venue 'Venue Novotel Sheffield' is also in white. At the bottom, there is a white banner with the 'polymer IRC' logo on the left and four smaller logos for 'IRC polymer engineering Bradford', 'ARC Durham', 'Leeds', and 'POLYMER Sheffield' on the right. The slogan 'bringing UK polymer researchers together' is written in black at the bottom of the banner.

**polymer
IRC**

POLYMER IRC

Introduces

**Polymer Science &
Technology**

9 Day Modular Course

29th October 2007 – 8th November 2007

Venue
Novotel Sheffield

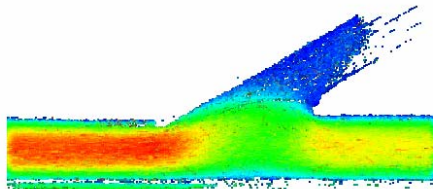
**polymer
IRC** **IRC** **ARC** **Leeds** **POLYMER**
polymer engineering Bradford Durham Leeds Sheffield

bringing UK polymer researchers together

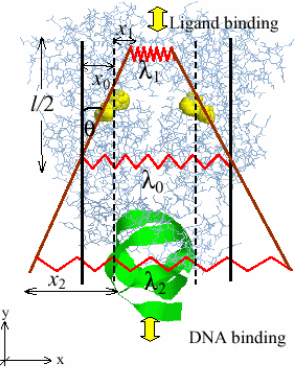
Current Themes :

(1) Novel Architectures

- Control of polymer processing
- Drug delivery
- Smart sensors

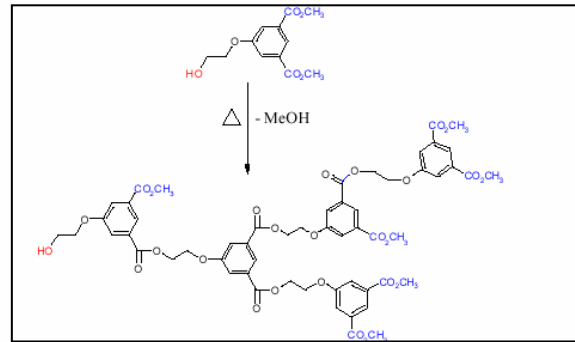


LDPE coextrusion: real time velocity field measurements by video particle tracking:
67% mass flow in bottom, layer ratio: 1: 0.49 – flow instability



(4) Biopolymer Science

- Cell culture media
- Renewable materials
- Bio-nano devices



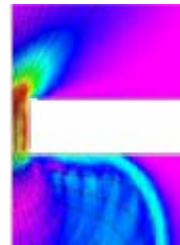
(2) Reactive Blending

- Advanced composites for aerospace
- Molecular design of adhesives
- High performance packaging



(3) Polymers for electronics

- Novel photovoltaics
- Conductive polymers
- Flexible batteries



(5) Microscale Polymer Processing

- Molecular design of new resins
- Multi-scale modelling of processes
- Advanced property control

