

## Process Industries 2020—Sandpit Event

Chemistry Innovation and the EPSRC jointly sponsored a “Sandpit” event in 2006/7 aimed at generating long term academic projects that would deliver adventurous science and technology to meet the challenges of the chemistry-using industries over the next 20 years.

The ‘Process Industries 2020’ sandpit brought together 17 academics from a diverse range of disciplines. It was led by two ‘directors’ with relevant industrial experience and facilitated by an experienced EPSRC team.

A number of industrialists were also engaged as mentors and, along with the EPSRC team, formed a Peer Review Panel to ensure that any emerging projects met the stringent EPSRC quality test. In addition, senior industrialists joined the sandpit each day to lend their experience in performing a mid-process review on candidate proposals.

The key aim of the sandpit was to link science and technology capability in academia with business and societal trends in order to develop adventurous, high risk, high reward projects.

Inputs were in the form of challenges faced by the Process Industries over the next 20 years emerging from society, business and competitive activities.

Participants worked with the mentors to define technological responses to these challenges. As potential research projects began to emerge, the external panel provided guidance on the strategic fit and shape of the project to assist in the final definition before a peer review process took place with key industrialists.

Three key projects emerged from the Process Industries 2020 sandpit event:

- **Process 2020 Innovation (SAtnAV)** £0.7m – led by Elaine Martin (Newcastle University)
- **Adaptive Processing of Renewable Feedstocks** £1.1m – led by Alexei Lapkin (Bath University)
- **Evolutionary Processing Design** £1.1m – led by Lee Cronin (Glasgow University)

All projects met EPSRC’s stringent quality test and brought together highly multi-disciplinary teams from different institutions that had not collaborated before.

As a result of the quality of the projects emerging EPSRC increased funding to allow all three projects to proceed and Chemistry Innovation agreed to provide the ongoing mentoring and industrial contacts as the projects developed.

Feedback from academics and industrialists alike was highly positive with the recognition that none of the projects would have emerged without the sandpit event.

### WHAT IS A ‘SANDPIT’ EVENT?

First developed by the Engineering & Physical Sciences Research Council (EPSRC), “sandpits” offer a dynamic approach to collaborative development of concepts for innovative projects.

Sandpits are intensive, interactive workshops - typically run over 4/5 days, involving 20-30 participants, a director and independent stakeholders.

They are a highly effective ‘ideas factory’ used to address long term issues where adventurous, multi-functional approaches are required.

An essential element of a sandpit is the multidisciplinary mix of participants - including active researchers and potential users of the research outcomes - to drive lateral thinking and radical approaches to addressing particular research challenges with a view to gaining EPSRC funding to progress project outcomes.

Critical to the success of a Sandpit is that the participants develop their own strategy and projects in response to broad inputs from the directors and facilitators. These projects are then put through a rigorous testing process developed by EPSRC.