

Background

Aughinish Alumina Ltd., situated on a 1,000 acre site on the Shannon Estuary, is one of the leading industrial plants in Ireland. It is the largest Alumina Refinery in Europe, producing 1.5 million tonnes per annum of product that is the primary raw material for the production of aluminium. It has a history of continuous improvement and innovation and is now considered to be a world leader in the industry. The company is embarking on a period of very significant development.

More details about the company are available on its website: www.aughinish.com. The plant site is located some 25 km from the City of Limerick.

For the past two years Aughinish Alumina and the University of Limerick have been working together to forge a strong scientific and technical relationship. The aim is to

- develop and reinforce their scientific co-operation and learning;
- establish activities in fields of mutual Scientific, Commercial and Educational interest
- design and execute joint research projects; and
- enhance other types of cooperation including training, professional development and co-operative education which both Parties agree as mutually beneficial.

There are currently four areas of research between UL and Aughinish. Projects include:

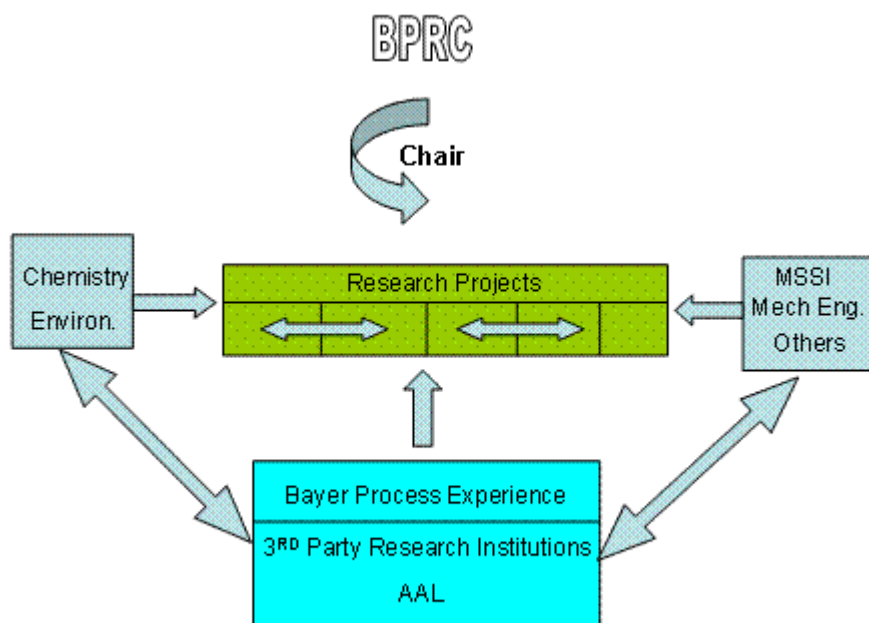
- Computational Fluid Dynamics – 3 MSc and 1 Postdoc.
- Organics identification in liquor -1 Postdoc.
- Gibbsite crystallization – 1 MSc
- Scale growth and inhibition – 1 MSc

A senior technical engineer from Aughinish's Technology Department leads each of these projects.

Progress on these has been very good and shows the potential of cooperative research. We now wish to accelerate our programmes. The attached document gives an overview of the University and its capabilities.

The Marie-Curie actions under the EU 6th framework offer an opportunity for world class researchers to come to the University for a 2 year fellowship and work in joint cooperation with Aughinish Alumina. The fellowships are very well funded. The Programme offers lifelong research training opportunities to researchers in academia and industry. Research can be done in all of the Sciences. Universities, Institutes of Technology and companies in Ireland can use these schemes to attract researchers worldwide at all levels (postgraduate, postdoctoral and senior researcher). See the following website for more details: europa.eu.int/mariecurie-actions. Aughinish has submitted two proposals under Marie-Curie with research programmes of approximately 20 man years each. We will know the outcome of these proposals by the end of 2003.

We have a vision for the structure of an evolving Bayer Process Research Centre. Our vision of the structure is shown below.



We are interested in attracting

1. Researchers with a background in any area of Bayer process chemistry including crystallization, organics, iron and silica chemistry, bauxite chemistry, etc.
2. Manager of research projects
3. Consultant engineer with minimum 10 years alumina industry experience

More details for the last two positions are as follows:

Manager of Research Projects

This position is contingent on Aughinish having a successful application under Marie-Curie. If successful the post will be for a minimum of 2 years or a maximum of 4 years.

Criteria

- Qualified in a scientific area – Chemistry, Mining or related discipline
- Minimum 10 years experience
- Demonstrated leadership capabilities in a research environment
- Industry experience is an advantage
- Proven track record
- The candidate will be expected to have excellent problem solving, analytical and leadership skills
- Innovative person
- Ability to manage a multi-disciplined team
- Track record of achieving goals including taking research through to plant implementation
- Organiser
- Mentor to other team members
- Typical candidates may be – Professor in University, Senior Lecturer, Head of R & D lab, Senior Manager in industry, etc.

Consultant Engineer

The job offered is a permanent position within the Plant Technology Department at Aughinish. The position may be filled via a 2 to 3 year secondment(s) to Aughinish Alumina. This position is independent of the Marie-Curie research proposal.

- Opportunity to work in one of the world's flagship alumina refineries where innovation and leadership are promoted
- The job involves being responsible for medium to long-term process development of the Aughinish plant
- The person will work in the Plant Technology and Laboratory Department at Aughinish
- The person will work with the plant personnel and other process engineers throughout the plant to optimise the process control and process efficiencies
- The person will use one of the most advanced computer technologies available to the Process Industry, as well as having access to an experienced process development team and extensive research laboratories.

Expertise and competences required

- A degree in Chemical Engineering or a related discipline
- Minimum 10 years experience in the alumina industry
- Problem solving and analytical skills
- Demonstrated leadership and communication skills
- Team work skills and ability to work with variety of people and disciplines
- Innovative person
- The candidate will be expected to have excellent problem solving, analytical and leadership skills
- Recognised expert in their field

Those with an interest in becoming involved in this exciting venture should contact Katie Sheehan at Aughinish Alumina (katie.sheehan@ugh.com or phone +353-61-604346) and/or Prof. Kieran Hodnett at the University of Limerick (kieran.hodnett@ul.ie or phone +353-61-213127) for more details. Deadline for applications is September 2003.