

Commercial Skills for Chemists: Introduction & Overview

Market Research-Desired Skills of Chemistry Graduates

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This resource was produced as part of the National HE STEM Programme



Market Research – Desired Skills of Chemistry Graduate Recruits



What Makes for Employability?

Interviews of Chemical Industry Partners
Procter and Gamble, Afton Chemicals (Ethyl), Ingenza, Syngenta, Sasol, comments from GSK, Selex-Galileo

Key findings – potential recruits need to be good at

- Innovation*
- Working in team based activities*
- Problem solving*
- Working through formal project/process systems*
- Integrating their specialist knowledge with others'*
- Communication Skills*

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Employability - comments

What would you regard as being the key skills of chemistry graduate recruits ?

'Its rare that people use more than 10% of the science they know at any time with us. But what we need is for them to understand, interface and interact with people from other disciplines (commercial and technical such as engineers and life scientists)'

'We interview hundreds of potential 'strategic recruits' each year. Most fail their technical interviews, not because they don't know their science but because they are not good at applying what they know to problems we might ask about'

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KCI Associates and the School of Chemistry of the University of Edinburgh

Desired Skills of Chemistry Graduate Recruits

KKI Associates, and the School of Chemistry at the University of Edinburgh, were asked to develop Commercial Skills Modules following a proposal to the Royal Society of Chemistry. The project has been supported by the National HE STEM project. The National HE STEM Programme (<http://www.hestem.ac.uk>) is a three-year HEFCE/W- funded initiative aiming to widen participation in Science, Technology, Engineering and Mathematics and enhance the skills and knowledge base of the workforce in these areas.

The RSC commented in 2011: *'Several reports sought to identify deficits in the skills of graduates in general and chemical science graduates. Employers reported a clear knowledge gap with regard to financial and commercial skills required to effectively turn ideas into business and urged curriculum development in this area.'*

We reviewed some of the documents and research available. There is some research from the viewpoint of recent recruits,

http://www.heacademy.ac.uk/assets/ps/documents/graduate_skills/chemistry.pdf

and in Europe Cefic produced this summary report¹,

[http://www.cefic.org/Documents/Learn%20and%20Share/CEFIC-Skills-For-Innovation-Web-04%20\(2\).pdf](http://www.cefic.org/Documents/Learn%20and%20Share/CEFIC-Skills-For-Innovation-Web-04%20(2).pdf)

However, we felt we should check their conclusions with some more substantial input from employers. The picture below summarises the key findings, and more detailed comments are given on the following pages.

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¹ *Although the conclusions look interesting the full report doesn't seem to be available anywhere*