

# Chemistry Innovation

Driving Innovation and Value for the UK chemistry-using industries

Knowledge  
Transfer  
Network

Chemistry Innovation



Rebecca Wood

27<sup>th</sup> November 2014

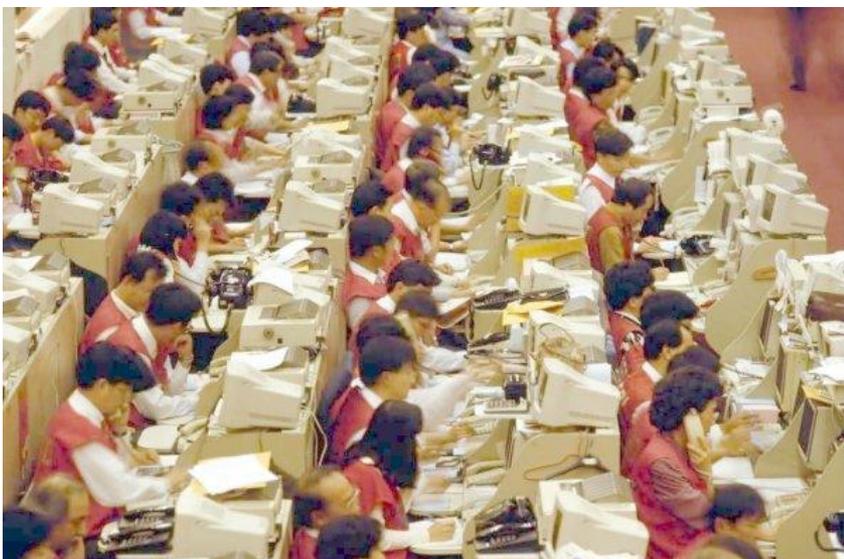
# Contents

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- My inspiration and motivation
  - Why I chose Chemistry
- My career to date
  - Key decisions
  - Highlights
  - My job now

# Inspiration and Motivation!

- Work Experience



Didn't want an office job  
Wanted to work in manufacturing

# How come Chemistry.....

- Apprentice Engineer
- Standard education route
- Chemistry Laboratory Assistant
  
- Gathered as much information as possible

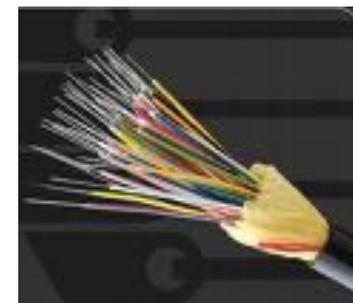
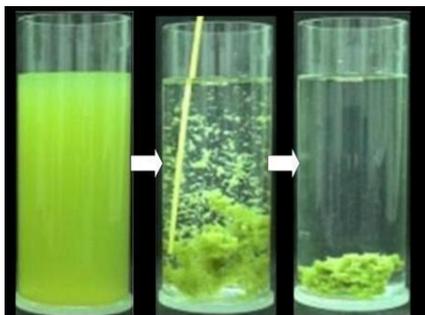


Laboratory Assistant allowed me to work and still obtain degree

# Ciba - The early years (1998 – 2005)



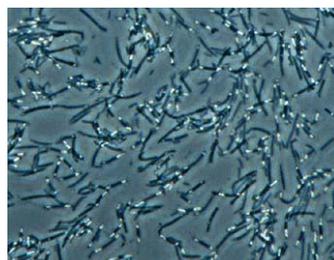
- Laboratory Assistant / Junior Chemist



Project Management, Supervisory Experience

# Bio-Chemistry (2005-2008)

- Replacing petrochemical feedstock's
- Utilising safer / less energy intensive biocatalysts



# Process Development (2008-2009)

- Opportunity to progress successful project
- International commissioning experience



## In the meantime.....

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- BSc (Hons) – Chemistry with Chemical Engineering
  - Won various awards from University and Ciba
- Where next
  - PhD?
  - Sponsored by Ciba?

# Young Ambassador 2006/7

30 Monday, July 24, 2006 Telegraph & Argus Business

**AWARD: CHEMIST IS NAMED YOUNG AMBASSADOR**

## Rebecca lands top honour

by MARK CASCI

**T&A Reporter**

A young Bradford woman has been appointed the UK's Young Ambassador for the chemical industry.

Rebecca Farnell, a senior chemist at CIBA Specialty Chemicals in Low Moor, was selected from dozens of applicants to represent the UK industry at youth level.

Her appointment will see her travelling to the Labour party conference at Brighton later this year and doing work across the UK to get more young people interested in chemistry.

At 21, Miss Farnell is one of the youngest to hold the Young Ambassador title, which is for people up to the age of 35. She said: "It was a total shock when I was chosen even though I knew my company had nominated me."

"I will be at the Labour party conference and will be a representative of young people at most big meetings of the UK chemical industry."

"It is quite an honour. As part of her interview for the position, Miss Farnell gave a presentation on how she would set about ending young people's decline in interest in science."

She is a huge chemistry enthusiast, having been fascinated with the subject since she was very young.

Part of her role will be to work towards getting more young people interested in the subject.

"I would like to see more people in the chemical industry going into schools and start talking to students to get rid of some of the wrong perceptions of the industry," she said.

"I think a lot of youngsters still think of the industry as being a throwback to the industrial revolution and an industry that causes a lot of pollution."

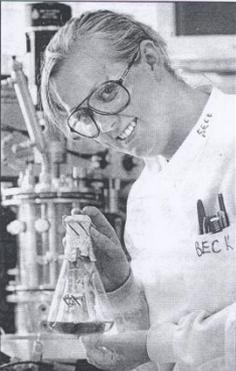
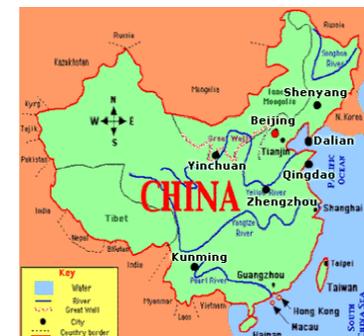
"However most people do not realise how much work we do to combat pollution and improve quality of life."

"Changes need to be made to the national curriculum and I really think I can make a difference in terms of providing a sustainable future for the industry."

Miss Farnell went straight into the chemical industry after finishing her GCSEs in 1998. Alongside her work in the research department she carried on her studies at Bradford College before completing a degree in chemistry part time at the University of Huddersfield.

As well as her new role, Miss Farnell continues as a senior research chemist at CIBA.

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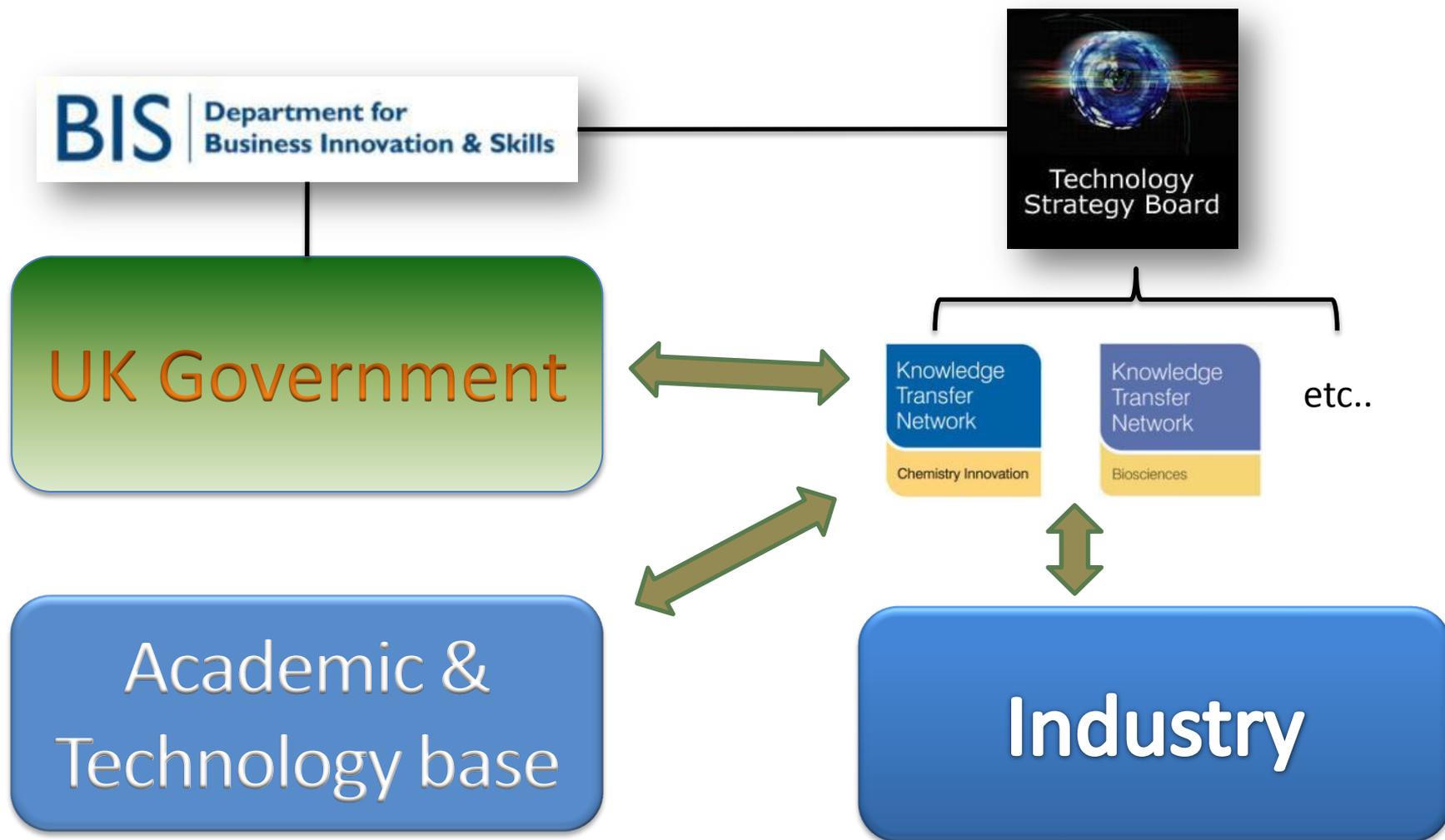



Emerging  
leaders  
challenging  
perceptions



Seeing the bigger picture, develop profile in industry and soft skills  
Don't need a PhD to progress.....

# Chemistry Innovation Knowledge Transfer Network



*A Strategy for Innovation  
in the UK Chemistry-  
using Industries,  
June 2013*



# Focus areas for innovation

**Raw materials for the 21<sup>st</sup> century**

Renewable feedstocks

Unconventional  
oil and gas

Scarce metals and  
minerals

**Smart manufacturing processes**

Chemical processes

Biological  
transformations

Resource efficiency

**Design for functionality**

Novel materials and  
their creation

Formulated products

Design for a circular  
economy

**Prerequisite: Sustainable and with compelling UK advantage**

# Renewable Feedstocks & Biological Transformations



## Why I enjoy it....and what are the challenges

- Variety of the role and ‘freedom’ to try new ways of working
- Learning about new technologies
- Development opportunities
  - High profile role, senior individuals
  - Managing a team
- Paid to talk to people

However.....

- Impact of what you do not always known or obvious
- Miss the urgency of manufacturing environment

## Suggestions.....

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- Don't just follow the norm or expected
  - Find **what** you want to do and then identify the **how**
- Always have a personal development plan
  - Article success factors
  - Process to identify what you enjoy and need to work on
  - Transferable skills
- Find a mentor
  - Successful, offer advice, help think about your career 2 or 3 steps ahead