

# A Career in Knowledge Transfer & Project Management

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Outline of this presentation:



1995 – 2001: The undergraduate years!

2001 – 2005: The postgraduate years!

2005 – Present Day: The real world!













Support the Fibre-Reinforced Faces Team

@ http://moteam.co/fibre-reinforced-faces





#### 1995 – 2001: The undergraduate years!









BSc (Hons) Chemistry with Chemical Engineering

4 year Sandwich Course with 1 year industrial placement

Final year project funded by the Ministry of Defence looking at hydrogen cyanide and cyanogen chloride removal in gas mask respirators



Sandwich placement in Frankfurt, Germany

6 months working in electrochemistry department and 6 months working in the chemical engineering department





### 1995 – 2001: The undergraduate years!











Two summer placements:

- Installing and commissioning a new £5M tablets packaging line
- Helping with the internal launch of a new drug



One summer placement:

- Carried out a time and motion study





#### 2001 – 2005: The postgraduate years!







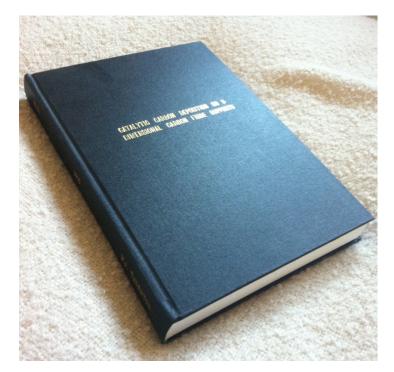


PhD in Materials Science and Engineering

EPSRC CASE Award sponsored by Dunlop Aircraft Braking Systems

Thesis Title:

Catalytic Carbon Deposition on 3 Dimensional Carbon Fibre Supports















2005 – 2006: Knowledge Transfer Partnership Associate at The University of Reading and J G Shelton and Company Ltd



Worked for 18 months on a project looking at materials for the removal of mercury from crematoria flue gases





2006 – 2013: Materials Advisor at The Institute of Materials, Minerals and Mining and Polymer Sector Leader at the Materials Knowledge Transfer Network













#### **Knowledge Transfer Professional - Good Points:**

- Travel
- No two days are the same
- Very diverse range of topics, applications, problems etc...
- Working at the interface between industry, academia and government
- Meeting a lot of different people from different backgrounds











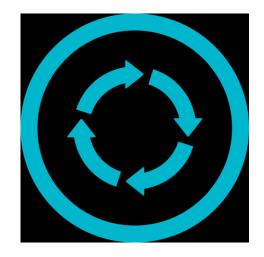


NanoSynth: Graphene-Reinforced Epoxies for High Performance Applications





Up-Scaled Production of Graphene Reinforced Thermosetting Polymers for Composite, Coating and Adhesive Applications



#### **Composites Innovation Cluster – Process Theme**

**UK-BIOCOMP:** Stimulating the UK supply chain for BioComposites

**UK-THERMOCOMP:** Stimulating the UK supply chain for high performance thermoplastic composites











**Top 5 Skills Required for a Career in Knowledge Transfer / Project Management:** 

- 1. Inquisitiveness
- 2. Open Mindedness
  - 3. Communication
    - 4. Influencing
    - 5. Experience

A degree in chemistry (or science in general) is a strong foundation for all of these...











#### One Key Piece of Advice:

If you want to work in industry, academia or even the third sector it is important to gain (industrial) experience whenever you can.

No one is going to come knocking on your door!





- Composites research and innovation
  - Bio-derived resins and fibres
  - Self-reinforced plastics
  - Nanocomposites
  - Recycled composites
- Process development
- Prototyping
- In-house development centre
- Proposal preparation
- Project management
- Consultancy

















- Advise on future industry trends
  - Market intelligence and foresighting
- Events
  - Conferences and workshops
  - Training courses
- Networks and knowledge transfer
  - Network Group for Composites in Construction (NGCC)















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### Thank you for listening. Questions?

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