

# Thomas Hills

British Citizen

Full, clean UK driving licence

More information available at [uk.linkedin.com/in/thomashills/](https://uk.linkedin.com/in/thomashills/)

Languages: English: Native speaker. French: B-Grade at A-level (B2)

References are available on request.

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## PROFILE

- A PhD with skills in carbon management technologies, knowledge of the cement & construction industries, statistics, mathematical modelling and material science.
  - Has successfully leveraged these skills to deliver climate and energy policy appraisal, techno-economic and technology maturity benchmarking to a range of clients.
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## WORK EXPERIENCE

- Research Associate, Cement Sector Decarbonisation - LEILAC project** 2016-present  
*Department of Chemical Engineering, Imperial College London, UK*
- **Design, construction and commissioning** of a laboratory reactor for evaluating carbon capture technology feasibility
  - **Manufacture and technical assessment** of cement clinker from the capture process
- Technical advisor, Cement Decarbonisation Policy development** 2014-present  
*Department of Business, Innovation and Skills, UK*
- Invited to act as a **third-party expert** in the development of decarbonisation pathways for the cement industry
  - **Advised civil servants, consultants and industry** actors on the suitability of technologies to decarbonise cement manufacture
  - **Provided critical feedback** on the consultants' work
  - **Invited to continue in the same role** for the second phase of the project
- Research Associate, Industrial Energy Policy** 2013  
*Grantham Institute - Climate Change and the Environment, Imperial College London*
- **Development and coordination** of an international grant proposal
  - **Process modelling** and exergy analysis of several industries
  - **Economic assessment** of various process integration options
- Consultant, "Halving Global CO<sub>2</sub> by 2050: Technologies and Costs"** 2012-2013  
*Delivered by the Grantham Institute - Climate Change and the Environment for AREVA*
- **Techno-economic assessment** of thermal electricity generation methods
  - **Worldwide electricity generation market scenario development**
- Research Technician** 2010  
*National Nuclear Laboratory (NNL), Workington (12 weeks)*
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## EDUCATION

Thomas Hills

**PhD student: Carbon Capture in the Cement Industry**  
*Department of Chemical Engineering, Imperial College London, UK*

2011- 2016

- **Activities:**
  - Statistical analysis
  - Techno-economic assessment
  - Mathematical modelling (MATLAB, SPSS)
  - Cement synthesis and technical analysis
- **Funding:** Industrial (CEMEX) and academic (Grantham Institute)
- **Output:** Two papers published; three in the pipeline

**Masters of Engineering in Chemical & Nuclear Engineering (1<sup>st</sup> Class Honours)** 2007-2011  
*Department of Chemical Engineering, Imperial College London, UK*

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### COMMUNICATION & ORGANISATION EXPERIENCE

- **Coordination and training of volunteers** for a humanitarian mapping project in Epworth, Zimbabwe 2015-present
- 4 positions (including **President**) in **Engineers without Borders Imperial** 2009-2013
- Member of the **Imperial College Student Union Council** 2011-2012
- **Treasurer** of a project in Tanzania to build rainwater harvesting systems 2009

### PRESENTATION EXPERIENCE

- Presented as part of **International Energy Agency delegation** to Chinese Ministry of Science and Technology, Beijing 2013
  - **Elevator pitches** in Climate-KIC entrepreneurship summer school (Finalist) 2011
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### OTHER EXPERIENCE

- **Researcher, Decarbonisation of industrial heat production & use:** Applied the principles of systematic reviews and Rapid Evidence Assessments to categorisation of data and gap analysis 2013
  - **Tutor for the 'EWB Challenge' course at Imperial College:** Guided and marked first year undergraduate engineering students through the principles and application of engineering design in an international development context. 2012-2014
  - **Finalist in the Climate-KIC Innovation & Climate Change Summer School:** Development of a business model for verified carbon credit generation. Presented of an 'elevator pitch' and won a £10k grant to develop the idea. 2011
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### OTHER INTERESTS

Heavily involved in Missing Maps, a humanitarian mapping project run by Médecins sans Frontières and the Red Cross. This includes training new volunteers and developing new work flows and tools for inputting data sent from developing countries.