

**Cambridge Graphene Technology Days 2015**  
**3<sup>rd</sup> CIR Graphene Business Conference, 6 November**  
**[www.hvm-uk.com](http://www.hvm-uk.com)**

## **Patent Landscape in Graphene Research**

Dr Mash-Hud Iqbal

## A little about Marks & Clerk ...

- Largest UK firm of patent / trade mark attorneys
- Regional offices throughout UK
  - Cambridge / Manchester
  - London / Oxford / Birmingham
  - Scotland (Glasgow, Edinburgh, Aberdeen)
- Global presence
  - Beijing, Hong Kong
  - Canada, Europe, Asia-Pacific, Australia
- Dedicated Graphene team handling innovations in Graphene

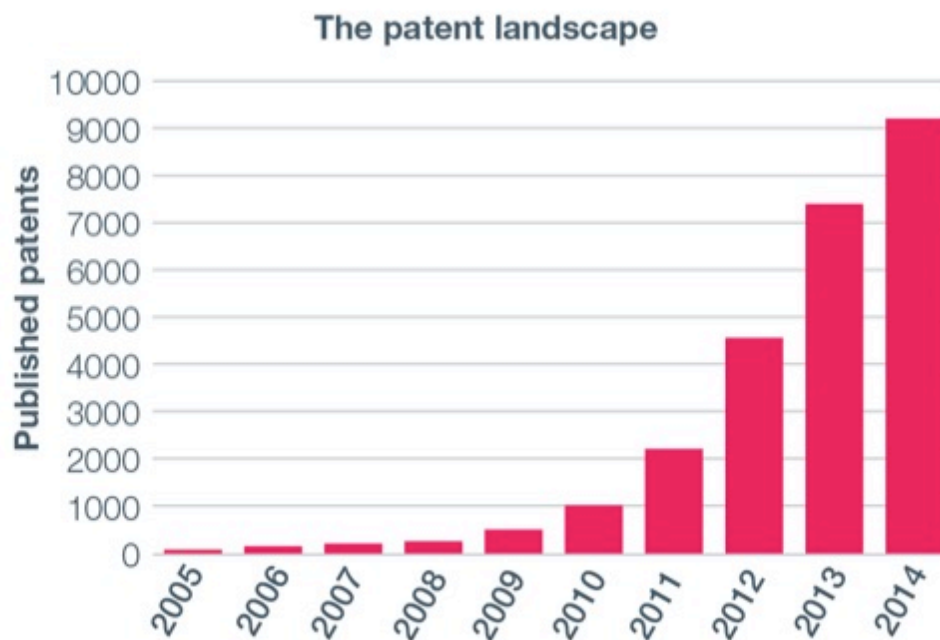
## Graphene research has received a significant boost

Worldwide innovation in graphene technologies has received a significant boost in recent years since the award of a Nobel Prize in Physics in 2010 to Andre Geim and Konstantin Novoselov at the University of Manchester "for groundbreaking experiments regarding the two-dimensional material graphene".

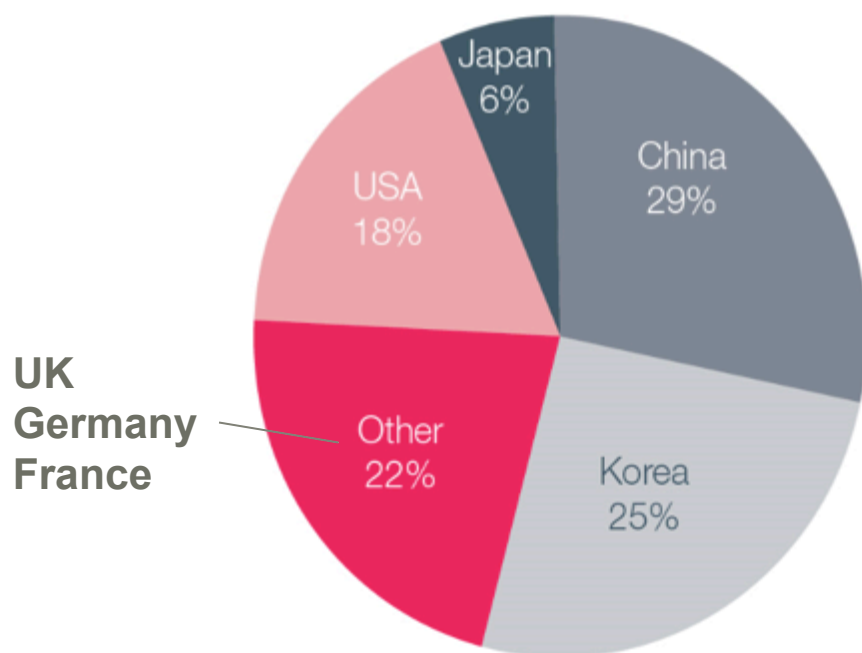
With the graphene materials market predicted to grow from \$20m in 2014 to \$390m in 2024, identification and protection of IP in this market is of critical importance to maintaining a competitive commercial advantage.

## The Worldwide Patent Landscape in 2015 (UKIPO report)

Worldwide  
trends in  
graphene



## Geographic distribution of applicants for patents in the field of graphene

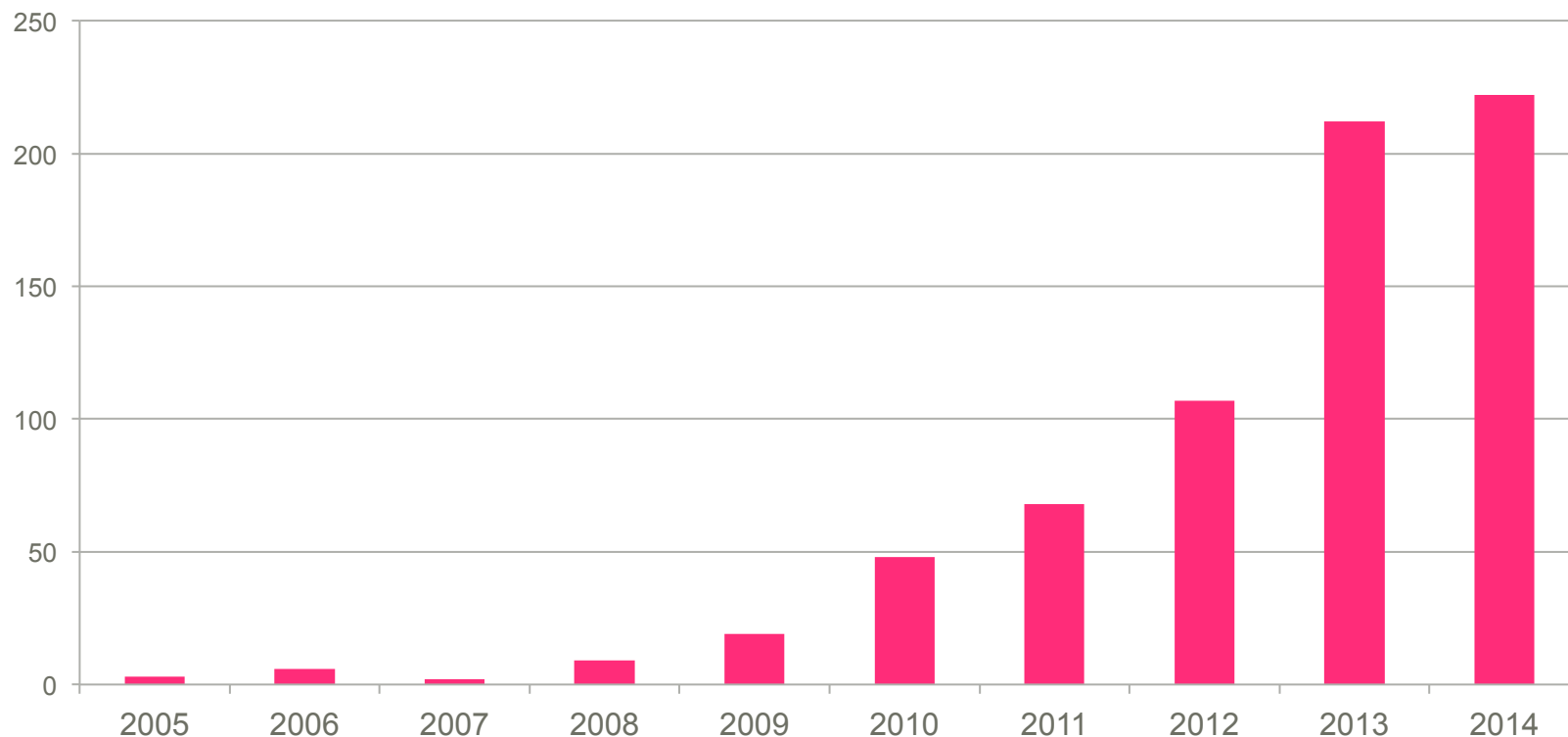


The global  
graphene snapshot

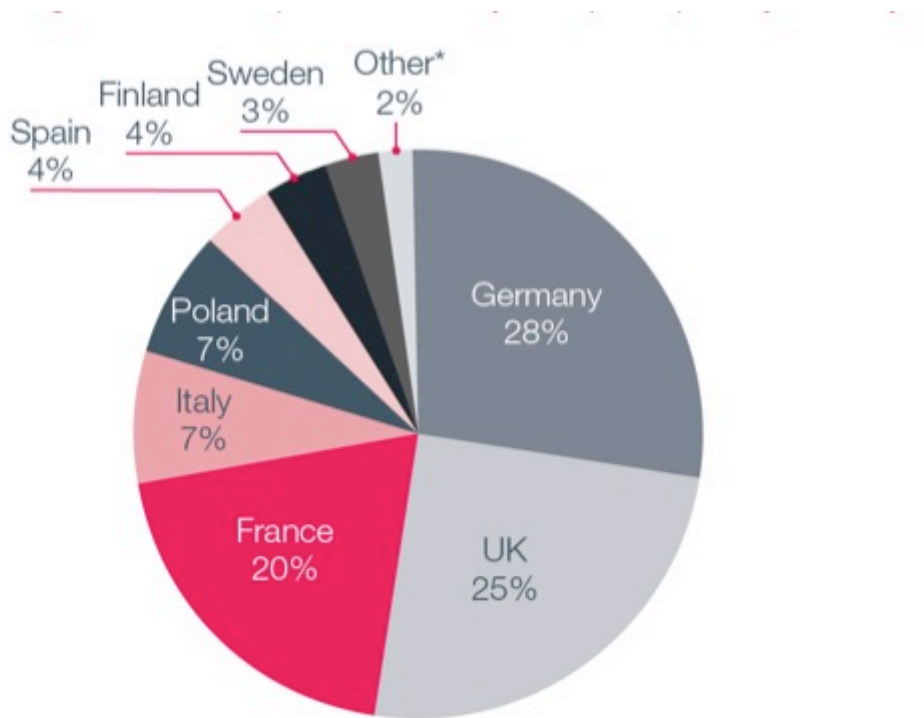
Chinese applicants represent the biggest filers of patent applications in the graphene field (2014 figures)

## Looking into European filings on Graphene

Graphene applications published in Europe by year of publication



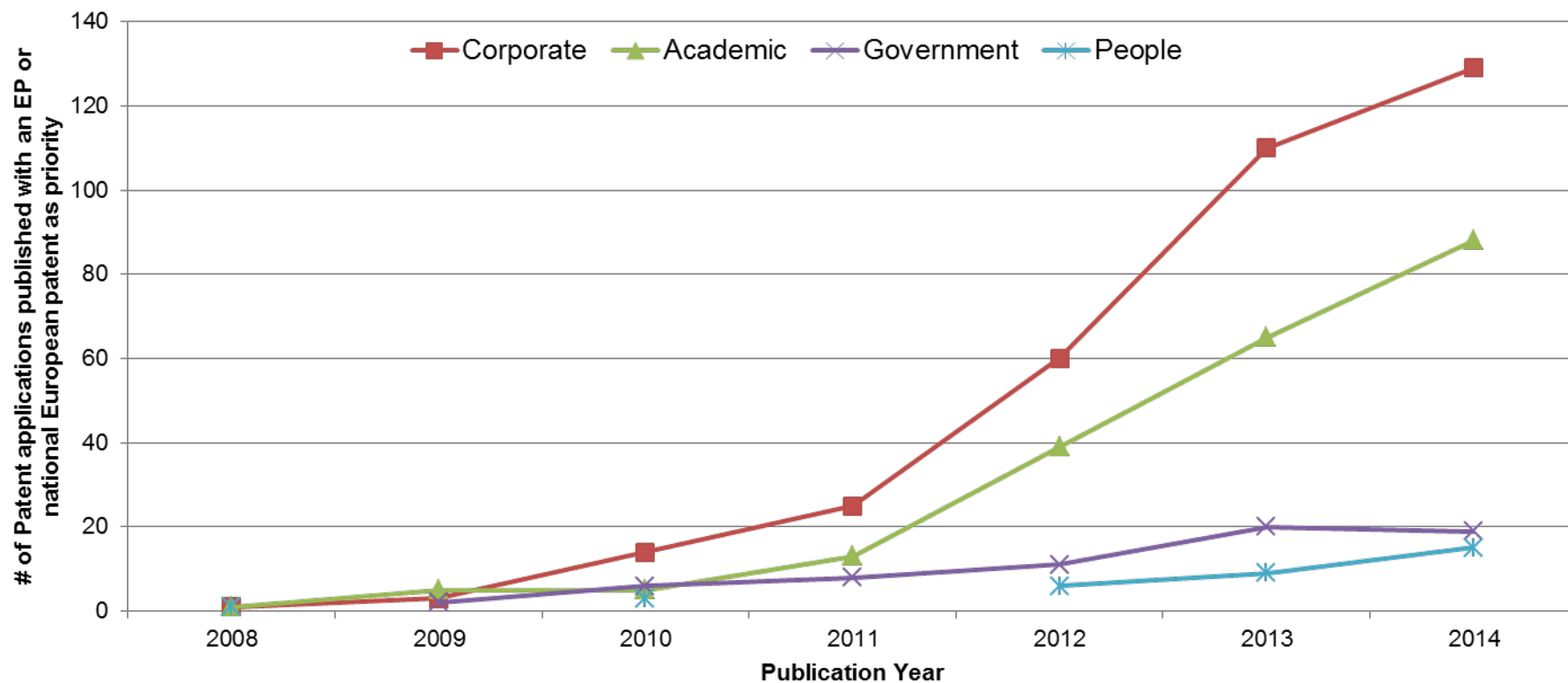
## Number of European national patent office first-filings for graphene-related technologies



The European graphene landscape

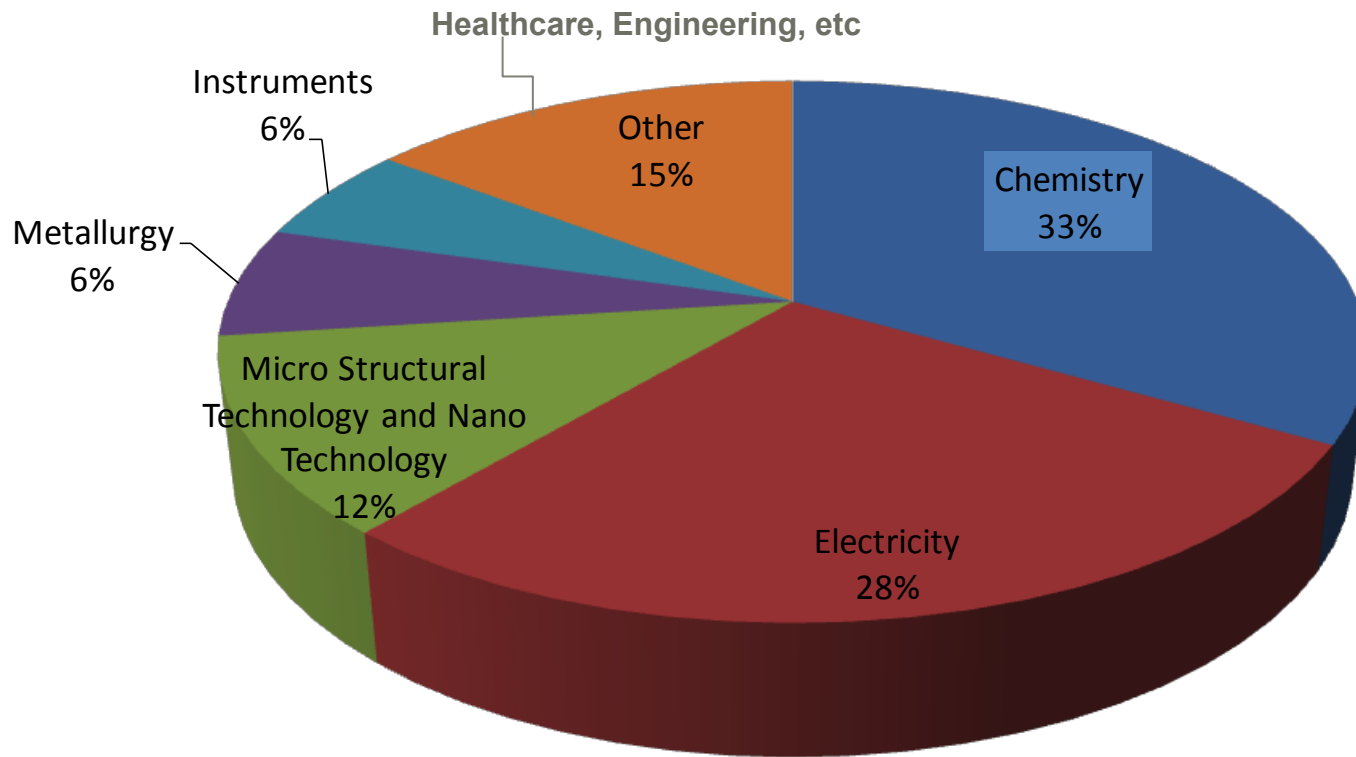
\*Portugal, Denmark, Lithuania, Ireland, Luxemburg, Netherlands

## European applications published 2008-2014 based on industry sector



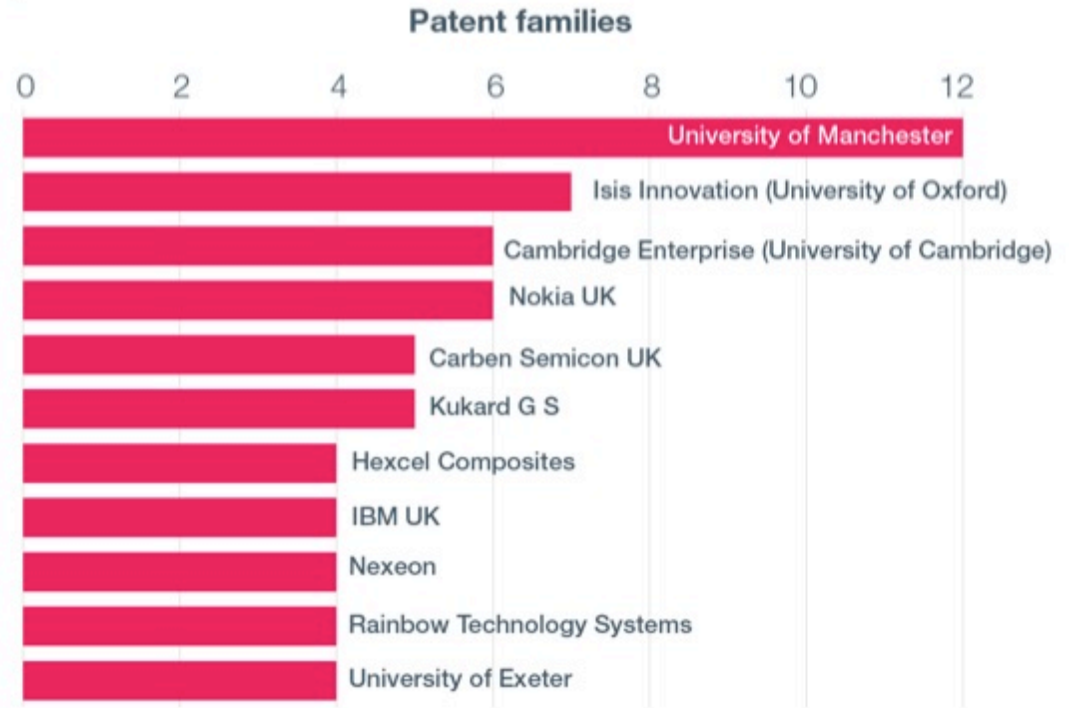


## European Applications based on Technology Sector



## UKIPO report shows the top filers of graphene-related patent applications in the UK

The UK  
graphene  
landscape



**Marks&Clerk**



**Questions?**

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**Graphene article**

**<http://www.insidermedia.com/insider/north-west/138975-graphene-patent-landscape-changing>**

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