

Scientific Competitiveness, Internationalisation and the 'Mobility Imperative'

Professor Louise Ackers

European Law & Policy

Research Group





The Relationship between human mobility and knowledge generation transfer/translation processes

What kinds of *mobilities* promote optimal
knowledge exchange?

And optimal research outcomes?



Challenging the Politics of 'Common Sense'

Policy makers often try to measure processes before they understand and conceptualise them.

Nowhere is this more evident than in the pursuit of internationalisation

The more people conflate mobility with internationalisation the more it becomes received wisdom that:

- High levels of scientific mobility (migration) equate to excellence (survival of the fittest at individual and institutional level)



Indicators: The 'Risk'

That we evaluate something ***because it is measurable*** and not because it is meaningful and in the process institutionalise a skewed and partial conceptualisation.

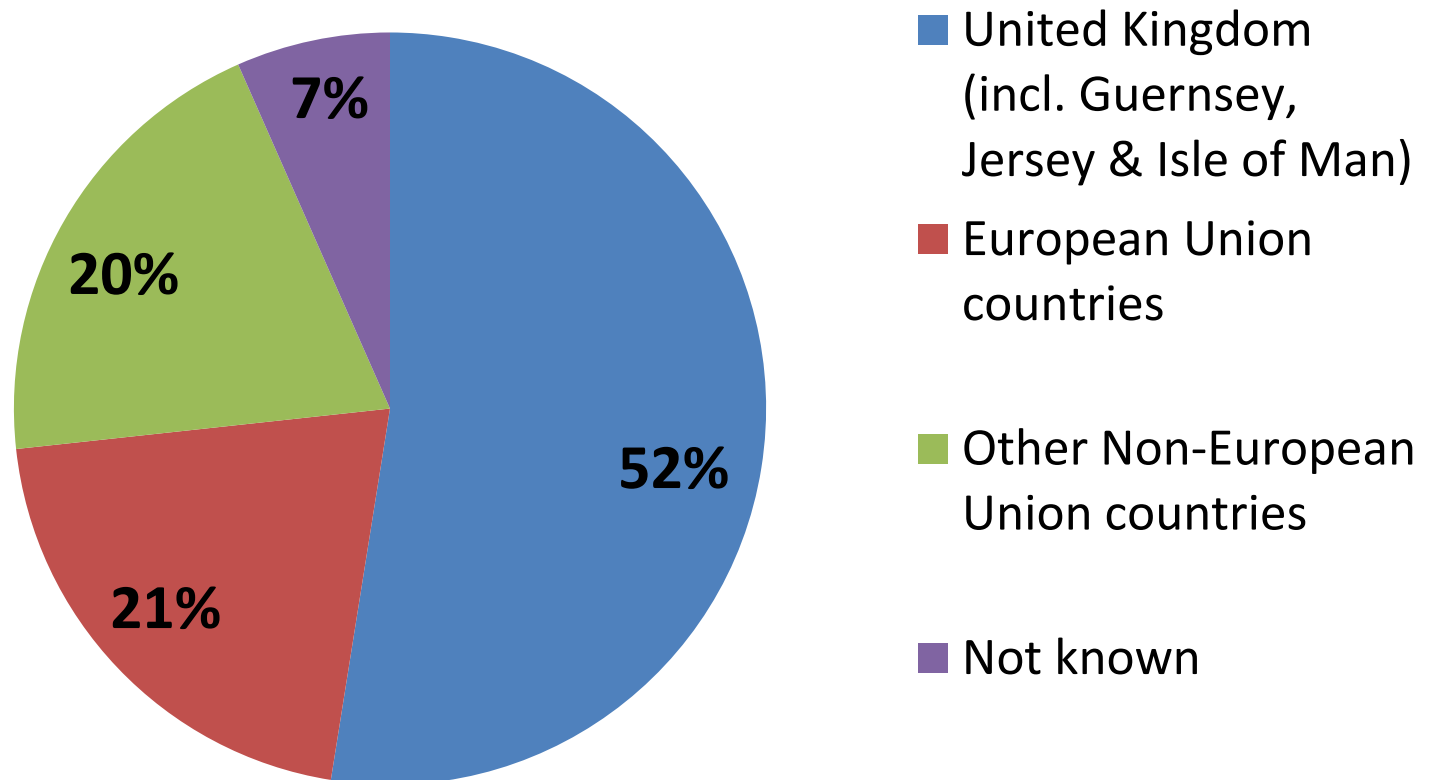
- What does it mean to be 'international' – how does that relate to Mobility?



INTERNATIONAL STUDENTS



University of Cambridge: Staff by Nationality Marker 2008-09 as Percentages of Total (Total Staff 5472)





University of Cambridge: Contract Type by Nationality Marker (2008/9)

Nationality marker	Open- ended/Permanent	Fixed-term contract	Total
UK	1164 (41%)	1710 (59%)	2874
EU	179 (16%)	957 (84%)	1137
TCN	210 (19%)	890 (81%)	1100
Total	1588	3885	5472



Unintended Consequences?

The strongest negative effect of marriage on scientific attainment is the **constraints on mobility** that it imposes. Since scientific promotions and pay increases are often tied to a change in employment, women's limited geographic mobility may, in part, account for gender differences in career attainments (Kid and Green, 2006)

Female scientists (in Austria and Germany) aged 40-45 have 0.9 children on average. **44% remain childless.** (Buber et al 2011)

In-bred Faculty does not get tenure with less scientific merits than PhDs from other institutions (Cruz-Castro and Sanz-Menendez, 2010)



Understanding Processes and Outcomes

Distinguish labour migrations from research-enhancing mobilities

- Positives – internationalisation and relationship building: what kinds of mobilities support effective international collaborations and research outcomes?
- Shift focus from free movement of people to the ***free movement knowledge.***
- Engage with the concept of ‘partial migrations’



Optimal Co-Presence in Place?

1. Communication/Dissemination Spaces
 - Networking: Social Capital and Dissemination/Conferencing – of fairly universal /critical value
 - Co-presence remains v. Important – only partially substitutable by virtual mobilities
 - Short stays – often v. frequent (10-12 per year or 30+days per year in total) – disparate locations.
 - ECR need funding for this!

MARIE CURIE Stays

Category of Fellow	Stays abroad of 3 months or more	Stays abroad of 1 to 3 months	Short stays abroad, academic visits	Conferences	No national or foreign travel / stays
Former FP5 HOST Fellows	335 70.4%	48 10.1%	95 20.0%	185 38.9%	23 4.8%
Former FP6 Fellows	865 38.8%	339 15.2%	932 41.8%	1412 63.4%	85 3.8%
Current FP6 Fellows	541 35.7%	344 22.7%	879 58.0%	1195 78.9%	40 2.6%



2. Substantive Needs of Research – highly contextual/contingent:

- Discipline/Field
- National/Location
- Research Approach



The Standardisation- Contextualisation Continuum - Maths

Breinbauer – the most standardised discipline

Conveys qualifications largely independent of
cultural contexts/apparatus

Highly Transferable- ‘paper and pencil’

Little subjective engagement with data –
‘footloose’

Can go anywhere but location = irrelevant.

Lone scholar or large teams



*All the infrastructure we need is computers.
Nowadays we just plug in the socket and work.
Travel is of course important*

The decision about how much co-presence is required to develop or sustain research relationships is quite personal:

- *‘I can maintain a relationship by email without ever seeing that person but I am sure there are people who need to actually see a person – look into their eye before they can talk meaningfully’.*



The 'Expectation of Mobility' - Culture or Function? Physics

The 'BTA' Metric

***Location as 'Facility' /Infrastructure
(Shallow Internationalisation)***

We go [to the Sainsbury laboratory in Great Britain] just for one experiment of 10 days, and then we come back. So we use the facilities. But when we go there, we work day and night on experiments.



Particle Physics – Partial Migrations?

Regular travel to CERN (in huge teams)

‘[place] doesn’t make much difference - we joke at conferences that we bump into the same people and they say, ‘I’ve changed jobs but all that’s changed is my email address. You’re still working with the same people. It doesn’t necessarily matter where your home institute is. You have to be prepared to travel all the time but the pressure to live abroad is declining as the opportunities for remote access and shorter meeting-related trips increase’.



The Production of Place- Contextualised Knowledge: Fieldwork and the ‘Safari’ Method

- Field work may involve mobility in order to access a research site –plant specimens, an arctic survey, a geological cruise or in-depth ethnographic research.

The mobility involved is directly concerned with knowledge acquisition - the data they seek to collect (whether plants or artefacts) is physically embedded in geographically significant places.



Objects or Subjects?

- *I go to Edinburgh to work [during the summer vacation] I'm going on an expedition collecting plant.*
- Fieldwork may also be socially and/or culturally embedded where the research involves human processes and subjects.



Archaeology

- Regular stays (several months) in Egypt since first degree.
- Collection of artefacts
- No relationships with local people/country
- But presence of large international teams – circulation of data (samples), internal labour markets and social capital



History: Contextualised Knowledge

Engage directly and in a very intense way with the local context.

Spanish History specialist – travels to Spain 10-12 times per year (thanks to Easyjet)

Few physicists have any command of the languages of the countries in which they spend time, most historians working on other countries have to speak at least two foreign languages and sometimes more.



Lone Scholar Model: National History

- *[In history] we don't have very expensive materials or labs. I have book cases that probably need polishing but it's mainly the human investment.*
- *Co-authorship – not highly valued....*



Social History - Methods

Portuguese war veterans (interview work)

NO interaction with national HE institutions at all (only data = subjects)

Co-presence in place is central to this researcher's knowledge acquisition objectives and requires extensive stays in that location.

'Deep internationalisation'



Philosophy

We are in a different position to computing science – they can manage because of the symbolic nature of computing even if their language is poor. In philosophy this isn't the case. If we spend time talking about the 2 different meanings of liberty and your language isn't that good you will struggle to pick up the nuances – the subtleties of meaning may be lost.

Co-authorship – not highly valued!



Theoretical Research

- Those who deal with theoretical work ‘are as mobile as the embodiment of these immaterialities allows them to be’ (Jöns, 2007).



Proportion of Respondents Indicating that, 'The project was only possible in Germany'
Jöns, 2007.

Natural Sciences (theoretical work)	18%
Natural Sciences (empirical work)	22%
Arts and Humanities (theoretical work)	50%
Arts and Humanities (empirical work)	58%



Artificial Cosmopolitanism?

'It is slightly dangerous to delude yourself that you will get an in-depth understanding and think that you are an expert.

It can be tempting to believe you've been part of another culture and engaging with life in another country when actually what you've been engaging in is a bubble within that country. I think the social mores of university life are really quite distinct'.



Internationalisation, Interdisciplinarity and Impact

Veterinary research involving animal husbandary as part of a development project

Participatory research aimed at achieving place-significant (localised) impact.

Multiple levels of engagement

Engaging with human subjects as sources of 'data' but also as agents of change – human agency.



This project thus has both inter-disciplinary and impact (knowledge transfer) elements that together determine the need for co-presence in place.

Research Life-Course:

I spent a substantial amount of time overseas which limited how much travel I could do (for other purposes). [Since then] I presented at a number of conferences



Conclusions?

Free Movement of Knowledge is the Goal
Mobilit[ies] are 1 mechanism to achieve that
Mobilities are not an end in themselves
Should be evaluated according to research
outcomes
Privileging mobility (migration) as a metric
generates policy externalities that are both
discriminatory and inefficient.



Policy Messages?

- Increase funding for short stays
- esp conferences and networking events and
- Pump prime new research collaborations
- Improve mentoring
- esp for early career researchers
- And esp to disciplines where large scale external grant funding is less common.
- Focus on workload management – to ensure researchers have the time to travel
- Exercise extreme caution in interpretation of bibliometrics esp on co-authorship