

## Measures, metrics and methods: New approaches to capturing the impact of higher education

OECD IMHE international conference

Globally competitive, Locally engaged  
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## Context – Why measure?

- Increasing emphasis on contribution of higher education institutions to regional and national economies
- Driven by changing nature of global economy – development of 'knowledge economy'
- Desire to fully exploit the knowledge possessed by higher education institutions for the good of wider society
- Desire to see return on public investment
- Desire to have indicators for resource allocation purposes

## UK desire for metrics

- Move towards metrics development relating to HE driven primarily by government
  - For resource allocation
  - For evidence of return on investment
  - General evaluation of efficiency and effectiveness
- Current measures not seen to be fit for purpose ;
  - Because the readily available data focussed mainly on narrow and limited aspects of HEI activity - e.g. patents and licensing, no of 'spin-off companies' created
  - Because they do not capture links between interventions and desired outcomes ( eg increase in national competitiveness resulting from funding support for HEI – Business interaction)
- But *are the right things being measured?*

## Terms, Definitions and Concepts

- 'Third Task'
- 'Third Stream'
- 'Knowledge Transfer'
- Do they mean the same thing or different things?
- Based on assumption that Teaching and Research are 'first and second ' and the 'third task ' of external engagement can be separated from these
- 'Knowledge transfer' also has many different definitions and interpretations

## What do we want to measure?

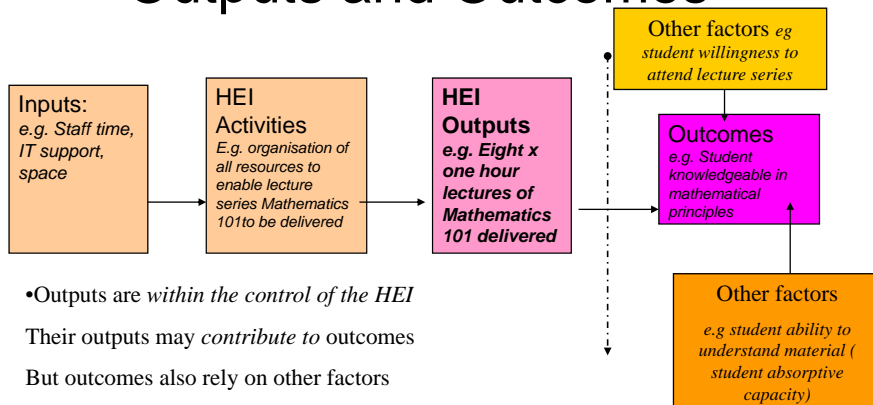
Comments from the 2006 ESRC Networks on HEIs and regional economies

- “*What are the impacts? What do we want to measure? What is the impact of knowledge transfer on wealth generation and business?*” UNITE Network
- “*Despite the changing role of universities and the heightened pressure to engage with regional and local economies, appropriate metrics are lacking...Research metrics, such as patents and citation impacts, do not tell us much about the quality and value of these impacts....*” The Embedded University Network
- “*Lastly, there is a clear gap in the collection of many of the metrics that would be of use in further application of these studies especially at the regional level and the city-region level. In part this is due to a lack of full understanding of what metrics might be of use, in part due to the availability of patent and spillover data and partly to a lack of underlying theory within the area...*” HERE Network

## Terms, Definitions, Concepts

- Our work focuses on the role of the **Higher Education Institution (HEI)** and the capabilities of the **HEI** not ‘Higher Education’ in general
- We are also therefore focussed on developing ways to quantify the **outputs** of HEIs i.e what the HEIs actually produce
- Current difficulty with metrics development is the focus on *outcomes*
- Only metrics based on **OUTPUTS** can give meaningful performance indicators for HEIs

## Outputs and Outcomes



- Outputs are *within the control of the HEI*
- Their outputs may *contribute to outcomes*
- But outcomes also rely on other factors

Knowledge **Transmission** is an **output** of an HEI but Knowledge **Transfer** is an **outcome**, requiring the active involvement of other parties and ability to absorb the knowledge transmitted. Hence an HEI cannot be measured on its success in knowledge transfer as this is beyond its boundaries.

## *Towards the estimation of the economic value of the outputs of Scottish higher education institutions*

- Initial pilot case study work 2004
- Methodology development report 2005  
(available from: <http://www.strath.ac.uk/projects/economicrole>)
- Current pilot project ( Completion date end October 2007) with application of methodology to 3 areas of activity:
  - cultural outreach
  - community outreach,
  - public policy advisory work
- Seeks to quantify and show how these areas of external engagement can be valued

**Cultural Outreach SOME EXAMPLES**

Outputs	Measurable	Possible Measures in natural Units	Possible ACCESSIBLE data Sources	Is this priced ?	Is this a free market price?	Possible Free Market price comparison	Rate Known?
Gallery Exhibitions	Yes	Number of Exhibs/Number of attendees	Gallery Records	no	no	Typical Cost of Entry to Formal Exhibition x Number of Attendees	Variable £3 - £14
Workshops	Yes	Number of Workshops/Number of Participants	Gallery Records	sometimes	no	Typical Cost of Entry to Formal Workshop X Number of Attendees	£20 per day per person
Ramshorn Theatre Performances	Yes	No of perfs/number attendees	Theatre Records	yes	don't know	Typical Cost of Entry to Formal Performance X Number of Attendees	Variable £7 - £20
Artistic Courses Provided	Yes	number provided/duration/participants	Theatre Records	yes	no	Commercial Equivalent Price x Number of Participants	Will Vary by type of Course
Tours undertaken	Yes	number /duration	Theatre Records	yes	don't know	Use Price as is or A Commercial Equivalent if this exists	??
Chamber Choir	Yes	No of perfs/number attendees	Director of Music	Sometimes	don't know	At minimum Equal to payment of Musicians as per the ISM (1) . Use price of commercial performance x Number attending if higher	Varies depending on Size and Composition of band. Commercial Performances vary by venue

**Sheet One : Events Open to the Public**

Event Type	Description	How many per year	Approx length	Pre/post event reception?	Av. Attendance
<b>NOTES</b>					
PLEASE INCLUDE ALL EVENTS OPEN TO PUBLIC DO NOT INCLUDE TEACHING EVENTS Make your best estimate of attendance and time spent, it is not expected that you have exact figures					
Please make any additional comments/events here					
<b>EXAMPLE completion</b>					
Public Lectures/Seminars	Town & Gown Lectures	3	1hr lecture	Usually 45 mins wine reception	200
	Annual/Evening Lecture	1	1hr lecture	Usually 45 mins wine reception	200
	Classical/Business guest Lecture	2	1hr lecture	Usually 45 mins wine reception	120
	Inaugural Lectures	3	1hr lecture	no	80
<b>Additional seminars/Workshops</b>					
	Drama Workshops for schools	2	6 hours	NA	20
	Gallery Art Workshops	3	2 hours	NA	80
	Music (Annual jazz fest)	1	5 day session	NA	80
	Hands On Object Handling Sessions	10	1 hour	NA	20 per session
<b>EXAMPLE COMMENTS</b>					
This is a pilot study which is seeking to analyse and estimate the possible economic value (which includes the potential broader value to society) of a range of HEI activity, the volume of which has previously been unknown.					
The study is focusing on Community Cultural outreach and public policy advisors work of HEIs.					
The information obtained from HEIs will be supplemented where possible from a wide range of other sources including HEBCIS, SCOMUL, national museum audit etc. however information from other sources on the areas of interest is patchy and not always very reliable. Hence the need to seek additional assistance from institutions.					
If you need to discuss any aspect of this further or get clarification in the information sought please contact Ursula Kelly (University of Strathclyde) 0141548 4206 <a href="mailto:U.kelly@strath.ac.uk">U.kelly@strath.ac.uk</a>					

Performance Type	Description	How many	average length	average attendance	Annual cost
<b>EXAMPLE COMPLETION</b>					
Chamber Choir	Lunchtime recitals	usually one recital per month	45 minutes	20 - 25 people	none
Theatre Group	Lunchtime Plays	6 per year	1 hour	20 people	£3 at door
	Evening perfs				
2005/6 academic year perfs	Much ado about nothing	5 nights	2 hours	80 - 100	£10/5 conc
	Anna Karenina	10 nights	2 hours 15 mins	80 - 100	£10/5 conc
	AN OTHER ETC	8 nights	1 hour 45 mins	60 - 70	£15/7 conc

	DESCRIPTION	NUMBER/OPENING LENGTH	Av NO OF VISITORS	Estimated length of stay	Any charge?	How much ?
Permanent Exhibitions	Hunter, Man, Medic & Collector		100/day over all 3	2 hour stay on av (Over all exhibits)	None	
	The World of Dinosaurs		100/day over all 3	2 hour stay on av (Over all exhibits)	None	
	AN OTHER Exhibition		100/day over all 3	2 hour stay on av (Over all exhibits)	None	
Temporary/Special Exhibitions						
	2005/06 academic year James Joyce Exhibition	6 weeks	30/day	45 mins	None	NA
	AN OTHER Exhibition	6 weeks	50/day	30 mins	Donation asked	DK
	AN OTHER Exhibition	3 weeks	10/day	1 hour	None	NA
Other eg Degree Shows						
	Architecture Hons year	1 open 5 days	15/day	20 mins	None	NA


# ESRC Impact of HEIs on Regional economies initiative

<http://ewds.strath.ac.uk/impact>

*“The primary purpose of the initiative is to better understand the key economic and social impacts generated by HEIs in relation to the UK regions of Scotland, Wales, Northern Ireland and the regions of England...”* ESRC Network Call

Five preliminary network awards ( 2006) followed by call for full proposals autumn 2006.

Nine projects selected ,all starting in 2007 and lasting 1, 2 and 3 years.



# ESRC Impact of HEIs on Regional Economies Initiative: 9 Projects


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## Regional Competitiveness

1. *Higher education Institution Knowledge and its impact on Regional Competitiveness* ( University of Sheffield: 2 Year project Ends May 2009)
2. *Impact of Research and Innovation Networks on Regional competitiveness: The Role of HEIs* (University of Manchester: 2 Year Project: Ends February 2009)

## University- Industry relationships

3. *University-Industry Knowledge Exchange: Demand Pull, Supply Push and the Public Space role of Higher Education Institutions in the UK Regions* ( University of Cambridge: 2 Year Project Ends March 2009)
4. *Investigating business-university innovation linkages* (Institute of Fiscal Studies and University of Bristol : 1 Year project. Ends April 2008)



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## STUDENTS AND GRADUATES

5. *Students as catalysts of City and Regional Growth* (University of Glasgow: 18 month project)
6. *The Impact of Economics and Quality of Life on Graduate Flows and Subsequent Innovative Capacity of Cities in the UK* ( Institute of Employment Studies : 1 Year project)

## SOCIAL IMPACT

7. *Universities and Community Engagement: Learning with Excluded communities* ( University of Newcastle: 2 Year project )
8. *Higher Education and Regional Transformation: Social and Cultural Perspectives* (Open University: 2 year project)

## OVERALL

9. *The overall impact of HEIs on Regional Economies in the UK* ( University of Strathclyde: 3 Year project. Ends March 2010)