

Development of Multidisciplinary Partnerships between HEIs and their External Clients

***Gail Wyman, MBA, MInstKT, Dip IDM
C3RI, Sheffield Hallam University***

*Professor Paul Chamberlain, Professor Steve Haake, Professor Simeon Yates,
Mike Smith, Pro Vice Chancellor Research and Knowledge Transfer*

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Today's presentation

1. Our understanding of the need to foster multidisciplinary partnerships and the challenges around doing so.
2. Sheffield Hallam University projects designed to overcome cross discipline collaboration barriers
3. Summary

Sheffield Hallam University knowledge transfer and exchange services

4 Faculties and 16 Research Centres

- Research & Development
- Consultancy
- Facilities
- Knowledge Transfer Partnerships
- CPD
- Student & graduate placements

Challenges to external engagement

- Differences between academic & business cultures
- Perceptions of threat to research excellence
- Key metrics and rewards in HEI
- Administration structures
- Costing & pricing

These fundamental challenges become more complex when we need to create multidisciplinary engagements and partnerships.

Need for multidisciplinary collaboration

The world's problems and opportunities . . .

- Healthcare
- Energy & the environment
- Security & crime detection
- Food & Hunger
- Ageing
- Schooling & children
- Globalisation ?

. . . don't organise themselves along academic disciplines

Innovation is the focus

"Gentlemen we have no money,
therefore we must think"

Benjamin Franklin

inventor, writer, printer, diplomat

- innovation is dependent on creativity, and
- creativity is not single discipline focussed

Our 'prior work' projects

Cross-disciplinary collaboration with external clients

Prior Work

- Centres for Industrial Collaboration (CICs)
- Food Innovation Project
- SportsPulse

New Work

- Innovation Futures
- Knowledge Transfer Champions
- Lab4Living
- Field Labs

Centres of Industrial Collaboration

Sheffield Hallam was selected for establishment of 2 CICs:

- MARS
- Design Futures

The Food Innovation Project

Key Features:

£1.27million HEIF4 project to support SMEs

Industry led raison d'être

Strong external strategy group

6 disciplines integrated in offer

Food Innovation Project - output measures

Collaborations with food sector	pre project (2006)	during project (2007/08)
Research Centres	2	10
Number of participating faculties	2	4
Staff involved in collaborations	4	46
Number of engagements with SMEs	--	42
Number of engagements with retailers, large companies, other organisations	--	41
Further business awarded	--	£1.5 million
Further business possible	--	£890,000

SportsPulse

Key Features:

Public private partnership

Ambitious mission

£2.8 million ERDF funding, £6.7 million total project

5 years duration

8+ disciplines integrated in offer

Exceptionally diverse set of initiatives

For example:

Business Networking, including event development support

R&D and Innovation - sports entrepreneurs and disability sports equipment

International Training Camps

Sports Performance centre services

Sport national governing bodies cluster

SportsPulse output measures

Collaborations with sports sector	during project (2003-2008)
Businesses supported	88
R&D projects completed	41
Companies created	9
New business turnover	£10,000,000+
Jobs created	80+
Collaborations with other research centres	4+

uk sport
innovation partner

Describe our current innovation
projects with external engagement

Innovation Futures

Key Features:

University matched investment - £1.5 million / £3.2 million

Fundamental multidisciplinary ethos

Centrally Managed

Cluster focussed

Defined yet flexible offer

Innovation Futures programme outputs

Measure	2009-2010
First prospect / project database shared across faculties	✓
Personal client introductions to other research centres	✓
Innovation Futures business contacts	317
Assessments / engagement starts	60
Total university staff involved in IF projects	60+
Number of cross faculty projects	20

"We thought we knew everything and everyone in our industry . . . and we did. We knew the governing bodies, the retailers, all the BtoB folks, but we didn't realise how much we'd lost touch with our end user . . . without this project we'd be a year behind. . .

IF client quote

Knowledge Transfer Champions

Key Features:

- Expertise from outside HEI

- PhD or other post doc degree holders

- Support Culture Change

- Engage with External Partners

- Network and support cross Faculty activity

Lab4Living

Key Features:

Inspiring mission

Jointly led

Unique & flexible physical space

Team organisation

User centered research is a key driver

Projects & partners:

Future Bathrooms: Ideal Standard

Living Rooms 1&2 : Chang Gung
University medical & design researchers

SMART rehabilitation: The Stroke
Association

Every-sense: ROMPA

Tactile Map: Sheffield Institute of the
Blind, hotels, museums, Sheffield City
Council

Medical connectors: regional hospitals,
University of Leeds (psychology), BBraun

CLAHRC: Royal Hallamshire Hospital

Lab4Living outputs and impact

Research council and industry funded research projects	£1million+
Multidisciplinary masters & PhD students	10
Interdisciplinary course developed	✓
Community researcher network established	✓
Number of researchers involved across university	16+
EPSRC "Bridging the Gap" programme competition	£735,000

Field Labs

Key Features:

- Development of facilities

- Located in clients' environment

- Open innovation

Answering the "so what?" question

- Field labs create a Technology enabler
- Promotes engagement with different sets of end users
- Evaluation requires diverse skills

**Decision makers
& investment**

**Multidisciplinary
evaluation**

Potential impact

Summary reflections

1. Project co-ordination takes more time and effort
2. Language is important to creating the possibilities
3. Leverage the work & drive of our impact-driven academics for internal culture change
4. Physical space is an important community builder/locater
5. Incorporate Design as a process – it will increase creativity, outcomes & impact

Summary reflections

6. Continue to promote value of external engagement
7. Understand internal expertise strengths
8. Costing/administrative systems need to be more innovative
9. Capacity and timescales are challenges
10. Students should form part of capacity