

The Role of HEIs in Linking Innovation and Territorial Development

John Goddard

Professor of Regional Development
Studies

Deputy Vice Chancellor
Newcastle University, UK

Overview

- OECD (IMHE/GOV) Programme: supporting the contribution of HEIs to regional development
- Drivers for engagement
 - Region → HEIs
 - HEIs → Region
- Barriers to regional engagement
- Overcoming the barriers: a case study

Objectives of OECD Programme

- Response to multiplicity of initiatives across OECD to mobilise HEIs in support of regional development (HEIs + region)
- Synthesise experience into coherent body of policy and practise to guide HEIs and regional and national governments
- Provide opportunity for dialogue between stakeholders and help with clarification of roles and responsibilities (i.e. assist with capacity building in each country/region)

Participants

- 12 Countries and 14 regions which opted into the programme (i.e. not a pre-determined selection)
- Criteria – nationally recognised administrative region with some history of working with HEIs
- All HEI operating in regions to identify division of tasks plus their key partners
- Wide variety of regional and national contexts and types of HEIs
 - Metropolitan ↔ rural
 - Central ↔ peripheral
 - Research intensive ↔ vocational
 - Devolved ↔ centralised countries

Methodology

- Common framework for regional self-evaluation developed by OECD task group
- Self evaluation report by regional consortium using OECD guidelines
- Site visit by international peer review team (HEI, Regional, National Experts)
- Peer Review Team review team report and response from the region
- Analysis and synthesis by OECD task group drawing upon regional case studies and commissioned review of literature
- Production and dissemination of synthesis report

Outcomes

- 14 substantial self evaluation reports with recommendations
- Meetings of Peer Review Team Review Team with over 1,000 stakeholders at regional and national level
- 14 substantial peer reviews each containing 25+ recommendations
- Linkage to OECD Territorial reviews (Finland, UK, Korea, Denmark, Sweden)
- Reviews a snapshot of an ongoing process of dialogue between HEIs and regional/national partners

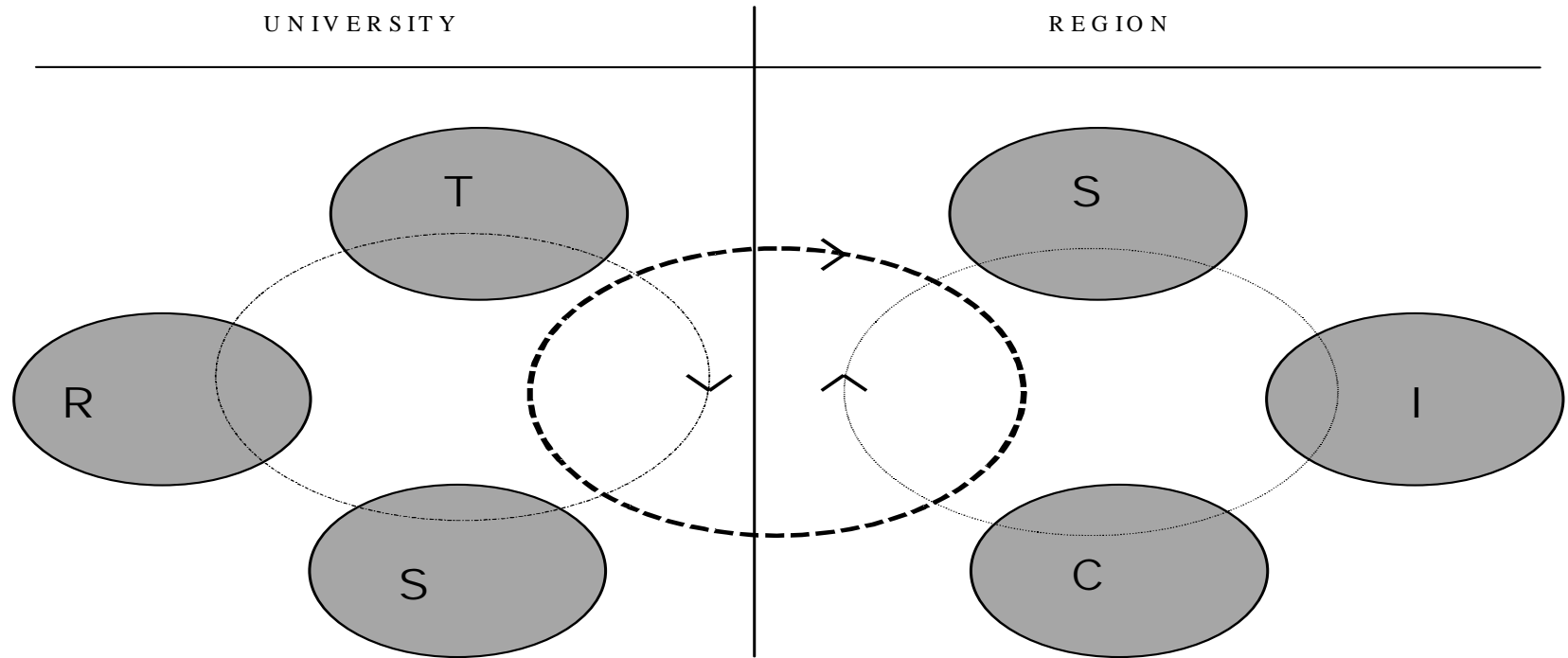
Regional Drivers

- Post WW2 emphasis on reducing centre/peripherary disparities: nationalisation of HE
- 1970s structural adjustment problems in core cities: end of redistributive regional policy
- 1980s emergence of innovation orientated regional policy (innovative milieu: industrial clusters: learning regions)
- 1990s threats and opportunities of globalisation
- Current perspective: widening range of immobile supply side influences where HE has role (tacit knowledge, skills, cultural and social inclusion)

HE Drivers

- Heightened regional expectation of third “public interest” role of HEIs
- New teaching orientated HEIs to meet local as well as national skill needs
- Global competition facing research intensive HEIs – search for local externalities
- Declining public funding – entrepreneurial universities engaged in economic development
- Blurring of the boundary between HEIs

University/region value added



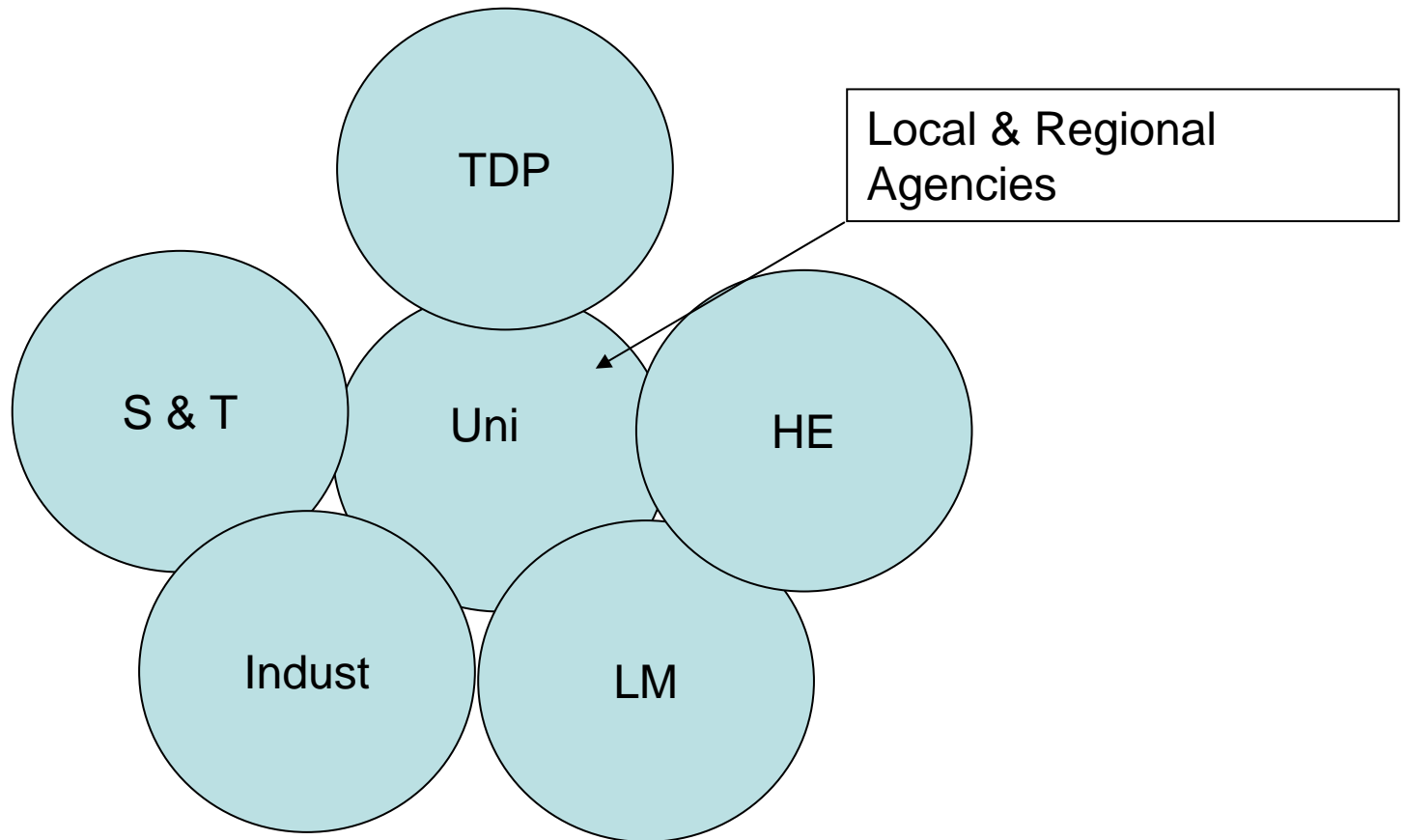
T = Teaching
R = Research
S = Service to the community

S = Skills
I = Innovation
C = Culture and community

----- Value added university management processes
..... Value added regional management processes
----- University/regional dynamic interface

Integration of Teaching, Research and Third Strand Activities in a City and Regional Context

- Knowledge creation through research and its exploitation via technology transfer (spin out, IPR, consultancy)
- Knowledge transfer via teaching (workplace learning, graduate recruitment, professional development / continuing education)
- Students establishing the social relations on which knowledge exchange is built
- Cultural activity and campus development contributing to vibrant places that attract and retain creative people
- The university's role in local civil society, joining up separate strands of national policy (learning and skills, research and innovation, culture and social inclusion)



National policies impacting on university / regional relations

Key:	S & T	Science and Technology
	TDP	Territorial Development
	HE	Higher Education
	LM	Labour Market
	Indust	Industry policy

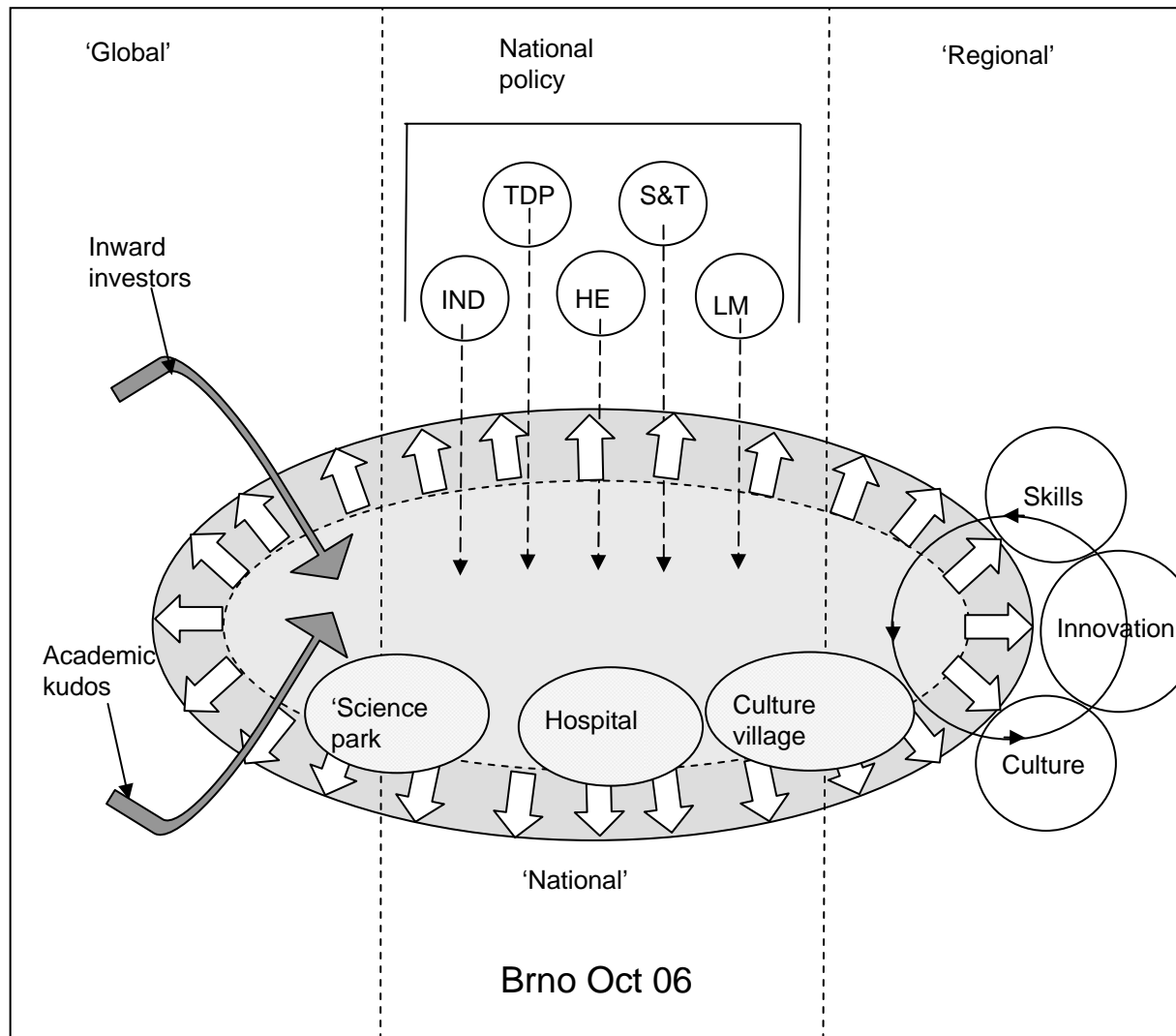
Top Down Perspective

- Increasing investment in the science base partly driven by desire to raise business competitiveness via innovation
- Universities expected to contribute to knowledge creation and its exploitation
- National initiatives from Ministries of Science and Technology and Ministries of Education to maintain world-class research capacity to sustain global positions

The Bottom Up Perspective

- Territorial development agencies looking to local universities to contribute to city and regional performance through knowledge exploitation
- Universities alongside airports as new “magic bullets” in cities and regional strategies
- Symbols of perceived significance of global / local nexus

The regionally engaged multi-modal and multi-scalar university (after Arbo and Benneworth)



Barriers (1): National Systems of HE/S&T Policy

- Lack of a territorial dimension to HE policy
- HE meeting national/international research and education aspirations
- Uncoordinated HE, S&T and territorial policy at national level
- HEIs reinforcing hierarchies of regions
- Neglect of the role of teaching and learning in knowledge transfer and human capital development
- Barriers between levels in HE (e.g. vocational and non vocational HEIs)

Barriers (2): Regional Structures and Governance

- HE not domain of local government
- Fragmented local governments
- Limited regional level powers/authority
- Intra regional competition and urban/rural tensions
- Absence of strong private sector R&D base
- Inchoate SME populations

Barriers (3): Finance

- Third role legislation but not part of core funding
- Teaching funding related to student numbers/graduate output – poorly connected to regional needs
- Research not fully costed – no headroom for investment in translational research capacity
- Intra regional competition for consultancy / CPD
- Short term project based funding from variety of non HE sources (nb EU)
- Metrics – outcomes in non HE domains (e.g. job generation)

Barriers (4): HEI Governance, Leadership and Management

- Limited institutional autonomy to respond to regional opportunities
- No control over key place creating assets (estates)
- Weak internal management in old research intensive HEIs
- Unrelated drivers for T, R and O
- Partnership working confined to senior management and / or isolated entrepreneurial academics
- Intermediate organisations (e.g. science parks, centres for continuing education) detached from academic heartland

Finland: Science and Technology Policy Council

Knowledge, Innovation and Internationalisation

- “The success of Finland in combining extensive production and utilisation of knowledge with other areas, such as promotion of welfare and sustainable development”
- “Education, science and technology and innovation policy must be able to guide and support regional development to ensure measures taken at the national and regional level support each other”
- “Challenge to raise knowledge and know how and their utilisation to a level which withstands international competition in all regions”

(contd)

- “The issue in terms of national higher education policy is to merge this and regional development policy together in a rational and expedient way”
- “The aim is to achieve internationally higher quality, and structural development is required to meet this goal”
- “One major questions is how the university as an institution will be able to manage the pressures and growing expectations directed at it with regard to social, cultural and economic development – whether the university has the internal capacity for renewal”
- “The need to address these questions is tangible because the changes taking place in university missions and funding structures is systemic, shaking up the institution to its core”

Turku University

“We are experiencing every day these growing demands. It will be fine if we could receive more funds accordingly and discontinue not so important activity. This is not easy because of the historical burden (of preserving disciplines)”

“The new university law favours entrepreneurial aspects even too much from a comprehensive university’s point of view ... The university has other duties than the third task alone”

“Internationalisation and high quality research and teaching is crucial for our external impact”

“Long term core funding must form the basis for creating dynamic operational environments ... (and).... to channel those funds innovatively and not automatically based on “historical reality”. This requires greater autonomy for the university”

Finnish Higher Education Evaluation Council – Regional Engagement Reviews

- Initiation of processes of institutional adjustment to enable the university to both respond to and shape the development of the wider society
- Adjustment not a downgrading of aspirations to solely reacting to local needs but the creation of mechanisms linking the locality to global body of scientific and cultural knowledge
- Local and regional engagement a crucible within which more dynamic and open institutions are forged

The Finnish Reviews

- Towards the Responsive University: the Regional Role of Eastern Finland Universities (1998)
- Learning Regional Engagement: A Re-evaluation of the Third Role of Eastern Finland Universities (2003)
- External Engagement and Institutional Adjustment: An Evaluation of the University of Turku (2000)
- Progressing External Engagement : A Re-evaluation of the University of Turku (2003)

Reflections on the Evaluations

- External engagement requires strong institutional management
- It must be an active process and is never a completed task
- Key words: responsive, learning, adjustment, progressing
- Evaluation plays a key role in raising institutional self awareness, learning and development and partnership with external stakeholders
- While external engagement is a matter for all universities the regional context varies: it is not a level playing field.

OECD Jyväskylä Review: Wellness Technology and Ageing

- Basic research funded by the Academy of Finland in the Faculty of Sport and Health Sciences of the University.
- Establishment of an independent foundation with a strong representation from civil society (including the voluntary and community sector) to underpin the development of systems and services to support active ageing (Gerocentre).
- Translation of the research into products using the Wellness Dream Lab coordinated by the Polytechnic and supported by EU funding from the Regional Council
- Driving the social innovation necessary to facilitate the uptake of technology through practice based polytechnic applied research in hospitals and community services.
- Practitioner training undertaken in the Polytechnic and the flow of practitioners into the research programmes in the University to undertake higher degrees.
- A Human Technology Forum where actors in the system meet and exchange knowledge and experience
- A building (Viveca) owned and managed by the Science Park where selected parts of the above chain can operate, including spin out companies

Obstacles to More Effective Regional Engagement by HEIs

- National innovation system with three separate pillars and no territorial dimension (except Centres of Expertise linked to local science parks)
- Current funding model for HE – no full economic costing for research and 3rd strand activities
- No mandate for Regional Councils to engage in development of regional strategies for higher education
- Overly rigid demarcation boundaries between Universities and Polytechnics and limited capacity for joint working
- Limited autonomy of Universities and related underdeveloped management capacity to build entrepreneurial institutions linking the global and the local

Overcoming Obstacles at the National Level

- Unequivocal regional development role for universities as well as polytechnics
- A single Higher Education and Regional Development Fund (capital and revenue)
- Competitive bidding led by universities and polytechnics and other regional stakeholders (Municipalities, Regional Councils, Science Parks, Chambers of Commerce etc)
- 5 year programme and selection from a range of activities (translational research, knowledge transfer, skills development, community/cultural development)
- Clear mechanism for programme management, monitoring and evaluation of impact.

Overcoming Obstacles at the University/Polytechnic Level

- More joint working building upon and supplementing current ad hoc collaboration
- Shared one stop shop for business support
- Review of educational pathways from the region into and through HEIs and into the local labour market
- Joint academic planning unit
- Integration of University, Open University and Continuing Education into regional engagement strategy
- Strengthen management of regional engagement within the University – disseminating good practice throughout the academic heartland
- Baseline studies and ongoing impact assessment of regional engagement by both the HEIs in partnership with the regional stakeholders.

Building Regional Higher Education AND Development Systems

- Challenges of accountability
- Evaluating conjoint impacts (HEIs on regions and regions on HEIs)
- Co-ordinating policy at the national level
- Towards an expanding international learning network