

informed cities

MAKING RESEARCH WORK FOR LOCAL SUSTAINABILITY

KNOWLEDGE BROKERAGE IN ACTION IN EUROPEAN CITIES

KEY INSIGHTS FROM FIVE SUCCESSFUL KNOWLEDGE BROKERAGE INITIATIVES

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PRIMUS -

POLICIES AND RESEARCH FOR AN INTEGRATED MANAGEMENT OF URBAN SUSTAINABILITY



IMPRINT

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INTRODUCTION

The Informed Cities Initiative applied the theory of knowledge brokerage to the field of urban sustainability, in a research project funded by the European Commission under the 7th Framework Programme. This brochure is one of the project's outputs; it reports the findings from five European case studies, using data collected via structured questionnaires and follow-up telephone interviews with key figures in the brokerage process in the case study cities.

WHAT IS KNOWLEDGE BROKERAGE?

Knowledge brokerage involves promoting the importance of knowledge sharing and transfer in order to break down the barriers that impede interaction, collaboration, and healthy communication. Much of the academic literature about knowledge brokerage has been developed in the field of Health. Its essence is summarised below:

'[Knowledge] ... brokering focuses on identifying and bringing together people interested in an issue, people who can help each other develop evidence-based solutions. It helps build relationships and networks for sharing existing research and ideas and stimulating new work.'

(CHSRF, 2003)

INTRODUCTION TO THE CASE STUDIES

The five case studies each contain unique insights into the development of successful knowledge brokerage processes. Each will be explored in turn, with common issues being highlighted in each case study, including:

- How knowledge brokerage works 'on the ground' in different geographic locations across Europe
- The various theoretical models explaining the development of brokerage initiatives
- The key factors necessary to develop a successful brokerage process, according to practitioners involved in brokerage initiatives
- Barriers that can 'de-rail' the brokerage process, as experienced by practitioners
- How brokerage processes can inform and assist in policy delivery for sustainable development and economic development

A literature review identified knowledge brokerage as being most widely used and most advanced in Northern and Western European countries. The selection of case studies reflects this, with all five coming from Northern or Western Europe. This does not mean that successful knowledge brokerage initiatives do not exist in Southern and Eastern Europe.



CASE STUDY 1: NEWCASTLE, UNITED KINGDOM

BACKGROUND

The City of Newcastle is in the north of England. It is the unofficial 'capital' of the Tyne & Wear sub-region – which contains around 1 million people – with a population of approximately 278,000. Newcastle has two large universities and a significant student population. Northumbria University has over 34,000 students and Newcastle University around 20,000; during term time, 15-20% of the city's population is made up of students.



Fig 1: Signpost at Newcastle Civic Centre illustrating the proximity of both universities

The key players in the brokerage process are Newcastle City Council [NCC], Newcastle University (particularly Newcastle Institute for Research on Sustainability [NIRES], Northumbria University (particularly Sustainable Cities Research Institute [SCRI]) and the neighbouring local government of Gateshead Borough Council [GBC]. Private sector partners are involved in specific initiatives which are products of the brokerage process.

HOW DOES THE BROKERAGE PROCESS FUNCTION IN NEWCASTLE?

The brokerage process in Newcastle functions at three levels:

- High level meetings between the Council Chief Executives (NCC and GBC), senior management teams and the Vice Chancellors from both universities (Newcastle and Northumbria)
- **2.** Meetings between senior council teams Executive (Service) Directors [NCC] and Deans of Faculties within the Universities, and joint management team meetings
- **3.** Regular meetings between operational staff from the council and universities (policy officers, academics and researchers)

The brokerage process in Newcastle functioned on an informal basis for several years, but over the last two years there has been a concerted effort to formalise the process. The original impetus for the brokerage process was day-to-day contact between policy officers from NCC and academics at the two universities. Significantly, this interaction occurred at a very junior level within the institutional structures of each organisation. The formative stages of



the brokerage process in Newcastle demonstrated the importance of having proactive individuals who assist the policy process by transferring information via ad hoc meetings.

Newcastle City Council has made a conscious policy decision 'to open its doors and look outwards' toward the City. Practically, this has meant NCC bringing partner organisations in to Chair council committees (e.g. Its Green Capital Steering Group has an external Chair: the Director of NIRES). The brokerage process in Newcastle is not heavily restricted by the political process, whose overriding priority is policy delivery. The council leadership grants individual NCC policy

officers the flexibility to seek out relevant knowledge from its partners in order to deliver its policies. Newcastle respondents considered NCC policy officers to be in a fortunate position, as they do not need political approval to develop programmes of co-operation with university partners. If collaboration makes sense and clearly aids policy delivery, then policy officers have the autonomy to make the necessary connections. In terms of formal links with the two universities, NCC is a key partner on specific University local, national and European research projects (e.g. e-mobility in the North Sea Region, INTERREG). It also funds PhD studentships, hosts student placements, and a high number of NCC staff have benefited from full and part time courses at both universities.

TIMESCALE AND FORMALISATION OF THE BROKERAGE PROCESS

Formalised Memorandums of Understanding are in the process of being signed between the two local governments (Newcastle and Gateshead) and the two universities (Northumbria and Newcastle). There is no set timescale for the brokerage process to operate; it is envisaged that collaboration between the institutions will be on-going, growing in strength and becoming more formalised as time progresses. The current funding environment in the UK, in both local government and academic circles, is extremely tough and the vast majority of bro-

kerage occurs without designated funding. For local governments like NCC, resources for policy delivery are scarce, and central policy officers have been granted a 'filtering of information' role, requiring them to evaluate initiatives before the Council decides whether or not to engage officers to deliver them. This screening phase is vital; a vast range of projects are brought to the attention of NCC and it only has the resources to fund a limited number of projects; effectively the council is involved in strategically selecting 'winners'.





KEY FACTORS FOR CREATING A SUCCESSFUL BROKERAGE PROCESS

In the Newcastle case study, the following factors are associated with a successful brokerage process:

- · Shared objectives between key partners, e.g. agreed end goals
- Excellent interpersonal relationships between key staff in the main institutions involved in the brokerage process
- A range of staff involved in the brokerage process, so that it is not reliant on a few key individuals
- High levels of motivation from all the participants: one respondent suggested it was 'very important that the 'will' to collaborate is there and networking is viewed as useful'



KEY BARRIERS TO THE SUCCESS OF THE BROKERAGE PROCESS

In the Newcastle case study, the following factors were identified as potential barriers to an effective brokerage process:

- Lack of time for key staff to devote to the brokerage process
- Lack of funding, and failure to think innovatively in order to maximise existing funding
- Lack of clarity regarding the agenda and objectives of individual initiatives within the brokerage process
- Attitude of certain partners, who may be blinkered, heavy-handed, or only interested in pursuing their own objectives

OTHER SIGNIFICANT FEATURES OF THE NEWCASTLE BROKERAGE INITIATIVE

Geographical proximity was reported by the respondents from NCC as a key factor in the success of the brokerage process in Newcastle. Three of the key institutions in the brokerage process are located in the City Centre, within about five minutes' walk of each other. This close proximity is viewed as a key reason for the high levels of informal contact between policy officers, politicians and University staff.

Equally significant is the wider context: Newcastle is a peripheral area within the national economic and geo-political context, a long way from the centres of power in London and South East England. The partners appreciate that they carry more political weight when acting in unison than each does alone. A change of political leadership is not viewed as a threat to the brokerage process in Newcastle. This occurred in May 2011 when control of NCC reverted to the Labour Party after eight years of control by their political opponents, the Liberal Democrats. This has had little impact in terms of local policy objectives. Fundamental to a successful brokerage process in Newcastle is the fact that the central objectives of all the partners are broadly aligned.

CASE STUDY 2: TILBURG, THE NETHERLANDS

BACKGROUND

Tilburg is the sixth largest city in the Netherlands; it is located in the south, with an approximate population of 200,000 residents. It was formerly a heavy industrial city. Tilburg is the largest conurbation in the Midden-Brabant region, a grouping of ten local authorities. The

brokerage initiative was started in 2007 by the former Mayor of Tilburg, who set out to re-invigorate the local economy by bringing together representatives from local government, the local business community, education and research. The subsequent *Midpoint Initiative* is an alliance including a number of research and educational institutes, the local government and private sector companies in the region.

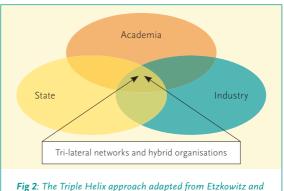


Fig 2: The Triple Helix approach adapted from Etzkowitz and Leydesdorff (2000)



HOW DOES THE BROKERAGE PROCESS FUNCTION IN TILBURG?



The theoretical underpinning for the initiative is the triple helix approach (Etzkowitz, 2008; Etzkowitz and Leyesdorff 2000), which incorporates interaction across university, government and private sector industry institutional boundaries. Etzkowitz (2008) describes organisations like Midpoint as 'hybrid' organisations that act as a bridge between the institutional spheres of higher education, local governance and commerce.

At the outset of the initiative a significant amount of research and scoping was done to pinpoint the strengths of the Midden-Brabant region. The aim of the scoping process was to develop a stronger regional economic identity.

Four key economic sectors were selected: Leisure, Logistics, Aerospace & Maintenance and Life sciences. For each of the four sectors, five common themes apply:

- Sustainability
- Labour market policies
- Safety
- Innovation and entrepreneurship
- Social innovation and societal value creation.

The objectives of Midpoint are:

- To position the Central Brabant region as the region for social innovation
- To create an open source knowledge and development platform
- To stimulate an excellent business and living environment
- To develop a top institute for social innovation (TISIL)
- To stimulate and facilitate new governance processes

The Board Members of Midpoint (the Mayor, Rector Magnificus and Chief Executive Officers [CEOs]) run the brokerage process predominantly through their own personal networks. They develop and implement the high level programme philosophy (social innovation) and set out the programme lines of operation. The Board is supported by an advisory board of 30 key stakeholders. For the overall Midpoint project there is an Ambassador Network, a crosscutting group of 10 people from across the initiative, whose aim is to ensure that the initiative does not descend into a silo mentality, and that cross-cutting initiatives are facilitated. The day-to-day operation of the Midpoint initiative is run by a Director, supported by individual programme managers.



KEY FACTORS FOR CREATING A SUCCESSFUL BROKERAGE PROCESS

The experiences of the Midpoint initiative suggest that the following factors are associated with a successful brokerage process:

- Adequate financial resources to fund the initiative for a number of years
- Sustained political support from all key stakeholders
- Highly-skilled programme and project management staff
- Enthusiastic local leaders who display strong support for the initiative
- A common interest and understanding with regard to the added value of co-operation

KEY BARRIERS TO THE SUCCESS OF THE BROKERAGE PROCESS

From the experiences of the Midpoint initiative, the following factors have been identified as potentially jeopardising the success of the brokerage initiative:

- An absence of quick wins, which are very important to build momentum and confidence
- Lack of flexibility. The brokerage approach demands a new way of thinking, and a new governance model. Political arenas are not always ready to make this change

OTHER SIGNIFICANT FEATURES OF THE MIDPOINT INITIATIVE

The initiative is being monitored on an ongoing basis by a steering group where all the key stakeholders are represented. As yet, no individual reports have been produced for specific projects, but the Annual Report of Midpoint summarises the monitoring details for each project. A respondent from Tilburg suggested that a change in political leadership in the

area would 'not really be a big issue for Midpoint'. There is a consensus that the issues identified by Midpoint 'are the big issues for the foreseeable future', and these issues are not politically led. The same respondent thought that the role of individual personnel was crucial, suggesting that it was critical not to lose good project managers in the formative stages of developing a project cluster, as the individual project manager becomes a figurehead and is crucial to raising the profile of the cluster.



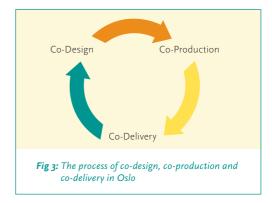
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CASE STUDY 3: OSLO, NORWAY

BACKGROUND

Oslo is the capital of Norway and a city of approximately 600,000 residents; around 1.4 million people live in the Greater Oslo metropolitan area. In terms of the wider economic context, the national economy in Norway is very robust due to an economic surplus generated by oil and gas reserves. Norway does not face the same economic constraints on its local governments that are currently common elsewhere in Europe.



HOW DOES THE BROKERAGE PROCESS FUNCTION IN OSLO?

The brokerage process in Oslo focuses on CIENS, the Oslo Centre for Interdisciplinary Environmental and Social Research, which is a consortium of independent scientific partners. The CIENS group hosts 550 scientists from a broad range of scientific disciplines, who are employed by the nine institutes listed in table 1, and come together in a formal collaboration to make up CIENS.

TABLE 1: SCIENTIFIC PARTNERS IN CIENS

Norwegian Institute for Water Research (NIVA)	Norwegian Institute for Urban and Regional Research (NIBR)
Institute for Transport Economics (TØI)	CICERO – Centre for Climate Research
Norwegian Meteorological Institute	University of Oslo
Norwegian Institute for Nature Research (NINA)	Norwegian Institute for Air Research (NILU)
Norwegian Water Resources and Energy Directorate (NVE)	

CIENS and Oslo City Council Department for Environment and Transportation are the two key partners in the brokerage process in Oslo; for specific projects other scientific partners and various divisions in the Oslo city administration are also involved. CIENS was established in 2006, and the formal brokerage process between CIENS and the City of Oslo started in 2008 with a strategic discussion about how to strengthen the links between the city and applied academic researchers. The key players in this development were the former Co-ordinator of Environmental Affairs at Oslo City Administration and the Director of Research at CIENS.

Good relations developed over many years between different research institutes in CIENS and various departments in the Oslo city administration (e.g. the Norwegian Institute for Water Research [NIVA] has a long established relationship with Oslo Water and Sewage Works). Until recently, co-operative activities between the partners have been only at an informal level. The CIENS umbrella is a start of a more formalized and systematic pattern for co-operation. Co-operation in the brokerage process in Oslo operates at both senior and junior level within the two partner institutions, with contacts and research activities involving each of the partners in the CIENS family and the City of Oslo's various departments.

A seminar was held in October 2009, involving three representatives from each institution, to begin the formal brokerage process. Over 80 participants from the City of Oslo and CIENS attended. Participants formulated project ideas and research objectives, which were then developed into a report, 'Environmental challenges and knowledge needs in Oslo', which aimed to generate wider discussion about potential research activities



Subsequently, 11 project proposals in nine co-operation areas were identified. Examples include:

- 1. Eco-city Oslo Oslo the recycling city
- **2.** Blue and green structure biodiversity and outdoor recreation
- 3. Social development for good neighbourhoods
- 4. Climate and environmentally friendly mobility
- 5. Mobilising the public & businesses to reduce Green House Gas (GHG) emissions
- **6.** Eco-efficiency, management and administration



The planning team will meet regularly - at least annually - to assess progress and develop new collaborative research ideas. The brokerage process in Oslo has been developed on firm foundations, with a strong degree of 'strategic fit' between the political strategy of the city administration and the mission statements of the university and CIENS. The brokerage process in Oslo also illustrates partnership principles of co-design, co-production and co-delivery:

- Co-design: Oslo and CIENS work together to design a research programme
- Co-production: Oslo and CIENS work together to carry out the applied research
- **Co-delivery:** Oslo and CIENS work together to ensure that the outputs from a gramme or activity are delivered efficiently and effectively to achieve the desired outcomes and to ensure the research outputs are taken up by all partners



TIMESCALE AND FORMALISATION OF THE BROKERAGE PROCESS

The CIENS-City of Oslo co-operation is a brokerage process anchored strategically in the Environmental Policy and Urban Ecology Programme of the City of Oslo. The brokerage process in Oslo is currently relatively informal, with no formalised signed relationship between the partners, although there are some linked formalised agreements, relating primarily to Masters and PhD studentships between the University of Oslo and the City of Oslo. CIENS aims to continue the partnership for the foreseeable future, and establish a lasting formalised co-operation.

KEY FACTORS FOR CREATING A SUCCESSFUL BROKERAGE PROCESS

The experiences of the Oslo case study suggest that the following factors are associated with a successful brokerage process:

- The creation of 'win-win' situations for both partners in the brokerage process
- Good interpersonal relations between key personnel involved in the brokerage process



KEY BARRIERS TO THE SUCCESS OF THE BROKERAGE PROCESS

Three potential barriers to the successful functioning of the brokerage process were identified from the Oslo experience:

- · Lack of funding for projects
- Lack of staff time and capacity to manage partnership relations
- Loss of key staff in the embryonic stages of the brokerage process (although this becomes less of a problem as the systems mature and stability improves)

OTHER SIGNIFICANT FACTORS ABOUT THE BROKERAGE PROCESS IN OSLO

The brokerage process is still in a relatively embryonic phase. No fixed contact patterns have yet been established, although the plan is to establish a system of meeting on an annual basis. The new research projects will build on the strong tradition of bilateral links between departments in Oslo and each CIENS research institute.

The proximity of the partner institutions, which are only 15 minutes apart, is seen as an important factor in the success of the brokerage process. A recent change in Oslo's political administration was thought to have been beneficial to the brokerage process.

CASE STUDY 4: NORRKÖPING, SWEDEN

BACKGROUND

The municipality of Norrköping in the east of Sweden has a population of approximately 130,000, and is the eighth largest municipality in Sweden. Linköping University [LiU] is a significant university in Sweden with approximately 27,300 students. The university has two campuses, one in its home city of Linköping, and one in the neighbouring municipality of Norrköping.



Fig 4: Members of the brokerage process meeting in Norrköping) Peter Modi



HOW DOES THE BROKERAGE PROCESS FUNCTION IN NORRKÖPING?

The key partners in the brokerage process are Norrköping municipality (the local government), LiU and local businesses. When the local publicly-owned energy company was sold to a private sector owner, the buyers created a fund for city development. Researchers can apply to the fund for financial support for their research projects. The Sustainable Norrköping research group submitted an application to the fund to enhance sustainable city development based on infra-systems. Prior to this, a dialogue was held with politicians, officials and local businesses to ensure the resulting initiative would be useful to all parties.

A key feature of the Sustainable Norrköping brokerage process is regular meetings of the members of a reference group consisting of officials from the municipality, local business representatives, members of the regional green technology association, and research staff from the university.



A research team at LiU has close contact with some of the departments of the municipality, especially the management department and the spatial planning department, but also with locally owned companies (e.g. water supply, water treatment, and biogas companies). In October 2011 the research team at LiU held a conference on sustainable city development, which aimed to create a platform for networking and the exchange of experiences be-

tween researchers and practitioners, both in the public and private sectors. The conference, 'Sym City – Rethink the City', was highly successful, putting Norrköping on the map as a leading sustainable city in Sweden. It was attended by delegates from all over Sweden, featured internationally-renowned speakers, and received widespread media coverage in Sweden.

The aim of the research programme, Sustainable Norrköping, is to contribute to decision making processes by providing research findings which allow practitioners to make evidence-based policy decisions. The Sustainable Norrköping research team also facilitate seminars, and are often invited to speak at the municipality's internal meetings and conferences.

An additional dimension of the research programme in Norrköping is the focus on making its research results more publicly available by utilising visualisation techniques. There is an advanced visualisation centre in Norrköping, which is a partnership between LiU and Norrköping municipality. The Sustainable Norrköping research team has just produced its first visualisation, which is open to the public, and shows how individuals' daily lives have an impact on technical systems. For example, waste in the sewage system can become fuel for buses, via conversion to biogas. Waste can also be redirected back to households as heat, via a district heating system. The aim of the Sustainable Norrköping initiative is to try to illustrate a fairly closed ecological system where many products are recycled and reused.



TIMESCALE AND FORMALISATION OF THE BROKERAGE PROCESS

Sustainable Norrköping was initially funded for two years. A further two years of funding has been agreed, but the research team express their hopes that this is just the beginning of a long and fruitful partnership. Additional funding will not be available from the research fund after 2013, as the fund set up by the utility company will be fully allocated, but the partners plan to develop joint research applications for funding.



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The collaboration in Norrköping between research staff at LiU and policy staff in the local government has developed over a long time, as a result of research staff performing evaluations of the city's sustainability efforts and contributing to the development of a green technology promotion organisation, which is a collaboration between Norrköping city, Linköping city, LiU and local environmentally-driven companies. Sustainable Norrköping builds from this, but is a more systematic and focused collaboration that enables researchers and practitioners to explore different areas using the same approach.

KEY FACTORS FOR CREATING A SUCCESSFUL BROKERAGE PROCESS

Experiences in the Norrköping case study suggest that the following factors can contribute to a successful brokerage process:

- Effective communication between all the partners in the brokerage process
- Understanding each partner's situation and goals
- A high degree of trust between the partners in the brokerage process
- A willingness to try new approaches and to 'think outside the box'

KEY BARRIERS TO THE SUCCESS OF THE BROKERAGE PROCESS

The Norrköping case study highlights the following issues, which could prove to be barriers to a successful brokerage process:

- Lack of available funding for the brokerage process
- Instability in local or national politics, meaning that the brokerage process and similar connectivity initiatives may not be viewed as priorities
- Individuals with a hidden agenda who attempt to exploit the brokerage process for their own purposes



OTHER SIGNIFICANT INFORMATION ABOUT THE BROKERAGE PROCESS IN NORRKÖPING

Collaboration within the Sustainable Norrköping project occurs on various different levels according to the development phase of the different projects within the research programme. The researchers from LiU define the project ideas and the content of the projects. However, these are then discussed and refined in collaboration with politicians and the business sector. A reference group meets twice a year for this purpose, consisting of representatives from local government departments (e.g. spatial planning, mobility, and business development), local businesses (e.g. energy and compost companies, and energy consultants), and a transport research institute. The team at Sustainable Norrköping has organised workshops on different themes, such as energy and transport planning, which are open to both officials and politicians; this, together with the reference group meetings, has led to many new connections or collaborations between the people working in Norrköping. A significant factor in Norrköping is the level of synergy between the political aims of the local government and the corporate mission of the University.

CASE STUDY 5: TURKU, FINLAND



Fig 4: Turku Cathedral

BACKGROUND

Turku is a city on Finland's South West coast. It has a population of approximately 178,000 people, making it Finland's fifth largest city. The wider Turku region, with a population in the region of 300,000, is the third largest urban conurbation in Finland. The city of Turku is bilingual and contains two universities: Åbo Akademi, the only Swedish-speaking university in Finland, and the Finnish-speaking University of Turku.

HOW DOES THE BROKERAGE PROCESS FUNCTION IN TURKU?

The brokerage process in Turku, the *Turku Urban Research Programme*, was initiated in 2007 between the Mayor of Turku and the Vice-Rector of Turku University. Prior to the brokerage process beginning, the University had been in discussions with the City of Turku to increase co-operation in urban research.



The official starting point for the brokerage process was a seminar entitled 'Development of urban research and urban policy', held in Turku in February 2008. Speakers from Helsinki were invited to introduce the co-operation (brokerage) model that was being used in Helsinki. There was wide participation from local government, but only a few academics attended the event.

The result of this seminar was a decision to draft a joint initiative and co-operation model for the City of Turku and the local universities. The planning group included



the Mayor and Vice-Rector, who communicated frequently with the steering group, which included a number of academic and practitioners. The City Board made the decision to initiate the Turku Urban Research Programme in May 2008. The preparation phase began with a research study on urban research and city-university co-operation in Turku from 2003-2007. Based on the results, an outline of four broad research themes – the core around which the programme is organised – was drafted in November 2008, based on the study. The Turku Urban Research Programme was approved in August 2009. An undertaking was made to employ a Research Director of Urban Studies to manage the programme (i.e. to be 'the broker'). The broker's first tasks were to organise seminars and conduct interviews with key stakeholders in order to establish the city's research needs. The broker is employed by the University, and has offices in both the city's central administration and at the University of Turku. The broker described this dual base as a significant advantage, with an office in the city meaning s/he could have close involvement in strategic management of the city:

'They feel I am part of the personnel and can discuss openly the strategically matters with me. It is easier to stay informed and suggest options how university co-operation could be involved early in the policy development process. I am often referred to as "a common resource" between the city and the universities.'

The governing body is the Steering Group; it discusses all of the major decisions as well as the co-operation process. The Steering Group of Turku Urban Research Programme includes the Rector of the University of Turku (chairman), the Mayor of Turku (vice-chairman), three Vice-Mayors, the Strategic Manager of the City of Turku, a number of Professors in different disciplines, the Research Director of Urban Studies, and the Urban Policy Secretary of the City of Turku.

The brokerage process in Turku has two central goals:

- To increase the amount of academically-relevant urban research which provides policy advice to the city
- To enhance the exchange of information between the city and local universities about their work



OTHER SIGNIFICANT FACTORS ABOUT THE BROKERAGE PROCESS IN TURKU

The brokerage process in Turku is semi-formal. The governing body, the Steering Group of Turku Urban Research Programme, is jointly appointed. While the City Board approved the programme on behalf of the city, there was no equal decision made on behalf of the University, and no joint agreement has been signed. The City Board approved the current Turku Urban Research Programme for 2009-2012, and there is strong support for its renewal after this date. The current programme will be lengthened for a year, due to the city's on-going strategy process, and an updated version will be drafted next year.

KEY FACTORS FOR CREATING A SUCCESSFUL BROKERAGE PROCESS

The experiences of the Turku case study suggest that the following factors are associated with a successful brokerage process:

- High levels of trust and faith in the process from all participants
- Willingness to truly co-operate even if it requires extra effort and resources
- Willingness to develop new processes and to try challenging ideas
- Willingness to attempt to apply research findings to decision-making, and re-consider institutional goals if necessary

KEY BARRIERS TO THE SUCCESS OF THE BROKERAGE PROCESS

From the experience of the Turku brokerage initiative, the following factors are viewed as potentially jeopardising the success of brokerage processes:

- Inner power struggles and a politicisation of the process
- A lack of resources to adequately fund and manage the brokerage process

OTHER SIGNIFICANT FACTORS ABOUT THE BROKERAGE PROCESS IN TURKU

The Turku respondent thought it was a good idea to have one, full time broker, whom everybody knows and can easily contact. Two areas for future development in the Turku brokerage process are formal mechanisms for staff to move between institutions (e.g. on secondments), and developing the informal networking element of the brokerage process, by hosting social and networking events to bring new interested parties into the brokerage process. In the experience of the broker, co-operation in Turku works well because of a willingness on all sides to find solutions and develop effective research ideas together.



CONCLUSION: KEY THEMES FROM THE CASE STUDIES

This section summarises the findings with regard to the key cross-cutting themes about successful knowledge brokerage that are apparent from the five case studies:

- All of the case studies build on strong existing (often informal) networks that existed between practitioners and academics/researchers
- Several case studies held a formal seminar or event at the outset of the formal brokerage process to gather key stakeholders together and discuss research priorities
- Shared institutional goals, high levels of trust and good interpersonal relationships were associated with successful brokerage in all the knowledge brokerage case studies
- Adequate financial resources were viewed as essential in most of the case studies, although the Newcastle case study shows that knowledge brokerage can be achieved with very limited financial resources
- The Turku and Tilburg examples illustrate that a designated knowledge broker is a significant advantage in terms of pushing the knowledge brokerage process forward
- Failure to keep an open mind and lack of willingness to truly co-operate were viewed as significant barriers to successful brokerage processes
- Physical proximity of key institutions in the brokerage process was viewed as a advantage by respondents, but not essential, providing that the distance between institutions was not too great

REFERENCES

CHSRF (Canadian Health Services Research Foundation) (2003) The Theory and Practice of Knowledge Brokering in Canada's Health System, available at: http://www.chsrf.ca/brokering/pdf/Theory_and_Practice_e.pdf (accessed June 2011)

Etzkowitz, H., & Leydesdorff, L. (2000). The Dynamics of Innovation: From National Systems and 'Mode-2' to a Triple Helix of University-Industry-Government Relations. Research Policy, 29(2), 109-123

Etzkowitz, H., (2008). The Triple Helix: University-Industry-Government Innovation in Action, Routledge: Oxford



INFORMED CITIES

Informed Cities is an initiative which aims to enhance the connectivity between research and policy-making in sustainable development. This is done by encouraging interaction and face-to-face discussions between researchers and policy-makers, as well as through explorative application of research-based tools for sustainable urban management by local governments across Europe.

Informed Cities outlines how the results of research, if consistently applied, can help to achieve considerable improvements in governance mechanisms on local, national and European levels.





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