Borderlands is the name the International Centre for Local and Regional Development (ICLRD) has chosen for its journal because its work crosses borders in Ireland and abroad, aiming to be cross-border, cross-jurisdictional and cross-disciplinary.

Now in its tenth year, the International Centre for Local and Regional Development (ICLRD) has benefited from the support of the International Fund for Ireland (IFI), InterTradeIreland, the EU INTERREG IIIA and IVA programmes, the Irish Government through the Higher Education Authority (HEA), the Department of Environment, Community and Local Government and the Department of Foreign Affairs and Trade, and the Northern Ireland Executive through the Department for Regional Development and the Department for Social Development. A big thank you to all!
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Mr. Tom Reid of the Department for Regional Development Northern Ireland launching the AIRO-ICLRD publication, ‘The Atlas of the Island of Ireland: Mapping Social and Economic Patterns’. The Atlas was produced with INTERREG IVA funding under the CroSPiA-N II Programme.
We are living in a time when population needs are becoming more complex and in need of precise, agile and focused evidence-based interventions and services. The rate at which this complexity of need has grown has an inverse variation to the availability of resources. The development of Shared Services agendas, with a dominant driver of efficiency and reducing duplication of resources, both public and private, has been one response to this. Shared services implies the transcending of organisational, administrative, interdisciplinary and interjurisdictional boundaries to achieve more effective ways of meeting shared aims and delivering on shared and desired outcomes. Successful shared services delivering successful outcomes implies the importance of creating the right conditions for this work to be successful and to be the best use of existing resources for optimal impacts.

Equally, we also live in an era when soundbites and terminology can circulate as a currency which has been decoupled from the deeper concepts, actions and benefits from which they are derived. Arguably, ‘Shared Services’ is in danger of being one of those concepts which is lauded as a good thing without perhaps as much focus on the ‘why?’ and ‘for what purpose?’ In this sense, and without an ethically-driven critique of purpose, and related scrutiny of efficacy and outcomes, a shared services agenda could arguably add to an existing and costly problem of duplication of investments and resources by cumbersome, bureaucratic systems which fail to meet the needs of their end users and therefore struggle, unreformed, to deliver on outcomes.

The ICLRD, in this issue of Borderlands: The Journal of Spatial Planning in Ireland, has sought to point to evidence-bases and models which go to make up what might be suggested as good practice based on an informed response to need. In this publication we draw on the knowledge which has arisen from the testing and implementation of these models, so that those with an interest in developing shared services might apply that knowledge in future endeavours. The models and approaches featured here highlight area-based, collaborative approaches to providing sustainable solutions to shared problems. It is no accident that a considerable portion of the experience described is based on solutions found in border regions, where resourcefulness and creativity have been fostered in such matters in recent decades, through the commitment of both domestic and European Regional Development Fund (ERDF) resources to support innovation.

As a praxis organisation which is committed to the value of knowledge gained through action, the International Centre for Local and Regional Development (ICLRD) values – and facilitates – not only the development and action-orientated analysis of structures and processes, but also the cultural and social capital which can animate these structures and processes for the greater good. In this way, the processes and models featured in this issue of Borderlands are also the frameworks on which deeper models of collaboration can be built. For example, while one set of partners come together to respond to the physical aspects of an environmental event such as flooding, other partners can become involved in the same system to respond to additional dimensions of the problem – such as the emotional and physical health needs of children and families affected by flooding. Shared services, based on good collaborative practice and a clear sense of purpose, can deliver forms of intervention and types of service integration which individual sectors and organisations will struggle to do – or simply do not have the remit to do-alone.

Whether a shared service development is multi-dimensional, with an area-focus, such as shared environmental public service provision, or whether it is
internal between two organisations for the management of corporate affairs such as procurement or payroll, it will only work if it has clarity of purpose, a robust purpose based on evidence of need and a holistic analysis of feasibility, and a connection throughout its lifecycle to the need or opportunity which it sets out to address.

We in ICLRD hope that this offering of studies compiled by our various associates and partners provides some reflective insight for those who are considering the development or evaluation of shared services initiatives. The ICLRD prides itself in its unique ability to combine international, peer-reviewed research expertise with innovative and experienced practitioner knowledge, and to contribute to the development and growth of both these fields which are so crucial for the development of sustainable and healthy communities and places which work well. We are committed as an organisation to the thread and reciprocal responsiveness which connects the citizen to high-level policy-making, decisions and resource allocation at local, regional, national and international level. It is in this context that we continue to make our enquiry and share the findings with you.

Ms. Caitriona Mullan
Chair
International Centre for Local and Regional Development

Ms. Caitriona Mullan is Chair of the International Centre for Local and Regional Development (ICLRD), a post she has held since late 2014. She has over 20 years’ experience of working in translational spaces between policy and implementation, including leading transboundary and interjurisdictional collaboration. A TCD History graduate, Caitriona is one of the few practitioners to hold a stand-alone track record in two major cross-border collaboration fields - regional development, and health and social care. She is a specialist in strategic change and applied whole systems approaches aimed at promoting equality, prosperity and stability.
INTRODUCTION

Mr Jack Keyes

This fifth edition of Borderlands: The Journal of Spatial Planning in Ireland, continues the International Centre for Local and Regional Development (ICLRD) tradition of linking policy, practice and research. The following articles by academics and practitioners – and influencers of policy – discuss the issue of the shared services agenda and the progress being made in the delivery of services through a Shared Services Model. The articles also acknowledge, importantly, that not all services can be delivered more efficiently and effectively in this way. Rather, they stress the importance of rigorous analysis on a case by case basis, and suggest that innovative local governance models may be the optimum solution in some cases.

The Sharing of Services

As noted by the 2013 ICLRD report on shared services¹, the reform of public services is high on the political agenda in every EU country and reflects the constant challenge for local and national governments in meeting local service needs at a time of severe financial restraints and declining public resources. Indeed, Local Government Systems across the world have a long history of cooperation in, and delivery of, shared services in a range of activities; with many of the coordinating mechanisms and systems being designed by the Central Government for uniform implementation by Local Authorities². There are many examples of joint initiatives in the shared services space, including cross-border joint initiatives, joint service provision agreements (e.g. fire service cover across boundaries) and regionally structured actions.

The Reform Process 2008-2014

The economic downturn between 2008 and 2014 created a wholly different environment for all public bodies on the island of Ireland. Increased efficiencies and demonstrating value for money became the order of the day. The impact of the global recession in the Republic of Ireland (heretofore referred to as ‘Ireland’) was particularly severe. Significant cutbacks were initiated by central government on the public sector; cuts that were to prove to be the most severe in history. Capital expenditure was reduced by up to 80% across the public service. Local government suffered a 22% cut to its day-to-day spending between 2008 and 2015 (in comparison, health and education, which are both delivered outside of local government, experienced cuts of less than 10%). Targets were set by Central Government and implemented locally, resulting in a 27% reduction in staff numbers (representing a fall from 37,801 to 28,882 personnel) in the same period. More than 80% of savings were a result of staff reductions but other reforms including the introduction of an expanded range of shared services also delivered significant cost and efficiency savings. As noted by Tomkinson (2007)³, while local Councils have shared activities over a long period, “the potential that sharing gives to restrain expenditure and improve service delivery has become more and more important”.

An Efficiency Review Group oversaw progress on 106 recommendations it made in 2010 (63% were delivered). A target of €511 million savings was set for local government – €770 million was delivered. The number of local authorities was reduced from 114 to 31 as 80 town councils were abolished and councillor numbers reduced from over 1,600 to 949. Commissions were established to examine future mergers/boundary changes in a further 9 locations. A project management office (PMO) was established by local government in 2012 to coordinate the implementation of reforms in each local authority and specifically to systematically plan, assess and oversee...
implementation of the shared services agenda. Irish Water was established to deliver water services in a unified fashion - replacing the individual local authorities as the water authority. Progress is now reported on to the National Oversight and Audit Committee (NOAC).

The Role of the Project Management Office (PMO) in Managing Shared Services

The PMO was established in 2012 by the County and City Management Association (CCMA) to assess and implement a suite of projects aimed at enhancing the efficient and effective delivery of local government services including a shared services programme. Within Ireland, where the emphasis has primarily being on shared services in back-office functions, the concept of shared services is defined as "single centralised units providing specialised administrative and back office support services to a number of organisations, which are often geographically dispersed, leading to (a) greater efficiency, (b) increased quality of service, and (c) a more service focused ethos" (Department of Finance, 2012iv).

Since its establishment, the PMO has managed a portfolio of 40 projects of which 19 are classified as Shared Services. These are collectively known as the CCMA Shared Service Programme (CCMA SSP). Of the 19 shared service projects, 13 are operational or in transition, the remaining 6, for reasons identified in the report, are not currently operational.

Oversight of the delivery of the CCMA Shared Service programme is provided by the Public-Sector Reform Oversight Group (PSROG). This Group is made up of senior representatives of the CCMA, the Local Government Management Agency (LGMA), the Department of Environment, Community and Local Government (DoECLG), and the private sector. The PSROG provides guidance, makes decisions or refers initiatives to relevant organisations, including the committees of the CCMA and LGMA, for action. The PMO and the PSROG have now been integrated into the LGMA which provides institutional and administrative support.

The PMO methodology was designed to ensure a structured and robust approach to the assessment and delivery of a shared service. The methodology involves the following steps:

- Preparation of a Project Initiation Document setting out the case for the shared service proposed;
- If there is sufficient evidence in favour of a shared service a Business Case is prepared;
- The Business Case is Peer Reviewed and completed;
- Where appropriate, there is a competitive process among Local Authorities to appoint a Lead Authority or consortium of authorities to deliver the shared service.

This latter process has proven to be a fair and objective way of deciding who should lead the shared service and several of the smaller local authorities now lead a service for the whole system (e.g. Donegal, Laois, Offaly).

Within the CCMA Shared Service Programme, five different types of shared services have evolved:

- **Transactional Shared Services.** These are shared services that focus on streamlining repetitive back office transactions based on the development of common processes and infrastructure. An example is "MyPay". This is a sectoral priority project and flagship of Local Government shared services. Laois County Council was selected as the lead authority to build and deliver a Shared Service Centre (SSC) for all local government payroll and superannuation. Other examples are the Road Management Office and Procurement Centres.

- **Collaborative Initiatives.** Two initiatives have been implemented as purely collaborative projects demonstrating the sector's capacity to share approaches and benefit from best practice in a chosen subject: Internal Audit and Debt Management.

- **ICT Enablers.** Common ICT systems are developed to enable Local Authorities to optimise and standardise the deployment and support of best practice technology enablers. An example is the Local Government Portal built by the LGMA (localgov.ie) to host a range of Local Government services from one site. Other areas of progress...
include the Library Management System, FixMyStreet.ie and Building Control.

- **Policy Implementation through a Shared Service Model.** The policy environment in which Local Government operates is not static. A range of new initiatives has been assessed using the rigors of the PMO methodology to ensure effective delivery of government policy. The Water Framework Directive (WFD) involves regional and local implementation of the WFD, particularly to ensure public engagement on water catchment management. This national shared service will be delivered by Tipperary County Council in partnership with Kilkenny County Council. Other examples include Waste Enforcement and the Housing Assistance Payment (HAP).

- **Changing Direction.** These include Treasury Management, Legal, Veterinary & Laboratory Services, Motor Tax and Accounts Payable. For reasons associated with government policy, sectoral developments or legislation these did not proceed as per the proposal set out in their respective original business cases.

**Applicability of the Above Model**

It will be noted that the projects listed above have been “back-office” or arguably be amenable to a central approach. There is a significant body of research available internationally pointing to the unsuitability of sharing labour intensive services. In addition, services that are important to the morale and identity of communities (and thus generate savings through quality of life benefits) may be best delivered as close to the people as is possible. Local government is predicated on delegation of decision-making to the local democratic structures — it could be argued that the removal of local autonomy could undermine democracy by rendering local governments less meaningful to the citizenry. The development of local governance models which link organisations horizontally through cooperation eschewing government entities may point the way forward for local areas.

**Conclusion**

As noted by the ICLRD (2013), it is argued that cooperation through a shared services agenda can “be a practical and cost-effective way for councils to share experiences and resources, tackle common tasks or take advantage of economies of scale” (Financial Sustainability Review Board, 2005: 85). Across Ireland, reforms have been delivered by the local government sector either by using a pure shared service model, or through business process improvements and collaborative models. Thirteen of the 19 shared services proposed have been implemented and significant savings achieved (for further details the reader is referred to the March 2016 report from the LGMA on Shared Services - see http://www.lgma.ie/sites/default/files/report_on_delivery_of_shared_services_march_2016.pdf). This initiative also provides the sector with an opportunity to continue to assess alternative methods of delivery of a range of services or new policy initiatives in future years — with the caveat that there are many services that may not be suitable to a shared service approach including for reasons other than is evidenced by limited cost-benefit analysis. A further benefit to the programme — often ‘under-recognised’ — it its contribution to multi-stakeholder governance. Models of shared services can be an innovative mechanism to include government and non-government interests in developing local collaborative solutions to particular issues.

Following a career of successful leadership and management in the public and private sectors, including 10 years as Cavan County Manager, Jack Keyes now works as a senior advisor. With continued involvement in a diverse range of areas including organisational development, lecturing, mentoring and project management, Jack retains a strong passion for public service. He has been appointed by Government to chair the boundary review committees for Athlone and Drogheda. He is currently Chairman of a range of groups including: the National Water Services Committee and National Expert Committee (Group Water Scheme Sector), Cavan Institute, the National Network of Age-friendly Alliances and Cavan Health, Sport and Leisure Co Ltd. Jack holds a number of board positions — including the ICLRD Executive Board and The National
Library. Jack holds qualifications in Leadership, Strategic Management, Public Management, Accountancy, Personnel Management and Civil Engineering and is a Fellow of Engineers Ireland. He is an associate lecturer in Leadership, Management and Innovation in the Institute of Public Administration (IPA). Jack can be contacted at jackkeyes60@hotmail.co.uk

Endnotes


ii As part of the CroSPiAn II Programme, funded under INTERREG IVA, the ICLRD has developed a portal on the shared services agenda which includes a database of local authority-led shared services case studies. See http://iclrd.org/sharedservices/ for further details.


Prof. Deborah Peel

Shared services are increasingly advocated as a means to achieve efficiency savings in public administration and improve user experiences. Understood as a type of partnership, involving new structures and processes of governance, it is argued that designing and implementing shared services involves attending to both practical/operational aspects and cultural/institutional dimensions. Taking Scotland as a case study, this article critically reflects on the evolving nature of shared services in the public sphere. With reference to the PESTLE (political, economic, social, technological, legal, environmental) methodology, the discussion considers how shared services, and community planning in particular, aim to reorient and reconfigure public service design and delivery through attention to the need to build social capital. Specifically, the paper focuses on the shift to a new public governance through shared outcomes, as articulated in Scotland’s National Performance Framework, which serves to steer contemporary public services.

Introduction

Answers to fundamental questions about managing the welfare and collective social and physical environment of a particular area continue to change over time and space. Certain questions remain the same. What type of public services should be provided, to whom, how, and with what resources? Related questions concern who should deliver these services and to whom delivery agents should be accountable. Underpinning these practical — and ethical — questions are then a number of core principles relating to equity, efficiency, effectiveness — and, more recently, excellence. Changing demands, ever-declining public resources and pressures to reduce government spending, however, have converged to demand radical public sector reform (Creamer & Driscoll, 2013). The Scottish Parliament (2013), for example, noted that, despite some progress in public sector reform, taken together with external drivers, such as new legislation, policy initiatives, and regulatory requirements, diminishing resources necessitated extending the pace and reach of reform. Given that “change in public services is inevitable and necessary” (Doherty, 2010: 16), there is a growing interest in devising alternative approaches to public service provision at the local level.

The interest in rethinking and reinventing public services to meet contemporary challenges is an international one. An OECD (2008) report on Ireland, for example, identified a tendency for public sector reform and modernisation to be inward-focused and primarily concerned with internal processes and structures. It made the case for improving policy coherence and coordination by reducing service segmentation and fragmentation, improving cross-sectoral dialogue and networks, developing scalar inter-dependencies, and
working towards an integrated and systemic approach (OECD, 2008). Such an extensive agenda is not an instrumental one, rather it involves a mind-set change towards delivering “broader citizen-centred societal outcomes” and devising performance measures that focus on “outcomes rather than inputs and processes” (OECD, 2008: 12). Indeed a central argument made by the OECD (2008) was that citizens better relate to results and service outcomes. But what does an outcomes-focus mean in practice? How can such a focus be brought about?

One feature of public sector reform is the increasing usage of partnerships, new delivery forms and structures, and alternative joint-working arrangements, including the use of state and non-state actors (Johnston, 2015). Shared service organisations feature as part of this mixed mode, multi-actor form of public service delivery (Grant et al., 2007). Involving new structures and relations, it is argued that such new forms of working involve network governance and require alternative “control” mechanisms, since established forms of hierarchical or market governance do not fit the rather more diverse operating arrangements (Kenis & Provan, 2006). Moreover, as explored in more detail by Grant et al. (2007), implicit in these different models of collaborative or shared service are various types of multi-tiered governance involving different executive, operational and tactical roles and responsibilities. Moreover, the reasons for initiating shared services vary. Research by Paagman et al. (2015), for example, points to a fundamental concern with improving service delivery, consistency and quality, but also highlights access to external skills and resources and internal sharing of capabilities as important motivating influences. These findings demonstrate that the use of shared services can extend beyond reasons of cost and efficiency savings and seeking economies of scale. Given that interests and motivations will likely differ among the constituent parts, however, it follows that ‘governing’ such networks may demand rethinking oversight, management or steering approaches.

Grounding this think piece in light of international efforts to promote shared services in the public sector and comparative research on community planning, the aim of this paper is to reflect on more than a decade of concerted effort to rework the delivery of public services in Scotland. It is contended that public services remain in a state of constant transition in an effort to reach some sense of transformed public state. It will be suggested that, in Scotland, there has been a fundamental conceptual shift from presenting shared services as an operational objective to reorient effort and expenditure, in relation to the precepts of best value, to one advocating working towards shared outcomes as part of on-going attempts to radically change (transform?) the culture of what is understood as public service governance. In other words, this paper argues that shared services may be seen as emblematic of an intended re-balancing of state-market-civil relations to reshape what is understood as collective action. The discussion distinguishes between efforts to generate efficiency savings (an organisational perspective) and aspects of shared service provision which improve the individual citizen’s (user’s) - and wider community - experience of service interventions. Taken together, this dual perspective is intended to enrich our understanding of the broader shared services agenda, the different forms service sharing may take, and the ways in which aligning shared outcomes may be advanced.

The paper outlines the background to the reform of public service delivery models and traces the development of shared services in Scotland. As a mixed-actor response to service provision, community planning requires multi-sectoral, inter-institutional, and multi-scalar working (Pemberton et al., 2015). Community planning may thus be seen as representing a fundamental shift away from traditional, sectoral and specialised public service provision by the state, to a more collaborative model. Predicated on devising a partnership approach, and underpinned by a statutory duty to cooperate, it is suggested here that community planning provides a sophisticated litmus-test for exploring the evolution of shared services. In examining how central government is seeking to instil a collaborative ethos in public sector reform, the paper presents the National Performance Framework, Scotland Performs (Scottish Government, 2016), which serves as an overarching strategic management device for monitoring performance and
guiding service outcomes in Scotland. The discussion focuses on examining this outcomes-focused approach. The paper concludes with some general reflections on the implications for shared working.

Rethinking Public Services
In terms of rethinking public services, it is generally accepted that the nature and remit of the Welfare State in the UK began to be severely questioned during the late 1970s. Terry (2004), for instance, characterised the 1980s as one of “massive upheaval”, not only in terms of the institutional arrangements and structures for delivering public services, but the privatisation of state utilities, creation of new executive agencies, contracting out of local government services, and an emphasis on improving financial management and accountability — all inspired by theories of (the then emerging) New Public Management.

The subsequent deployment of inspectorates and audit bodies during the 1990s was subsequently driven, it is held, by a desire by central government to control and maintain services standards, although this performance regime itself was deemed to be a somewhat blunt approach, introducing unhelpful tensions between inspector and inspected (Terry, 2004). The resulting marketisation of service provision created diversity in service form and function and contrived to lead, in some instances, to service fragmentation and duplication, whilst the nature of the auditing and business management metrics imposed also proved burdensome. Unintended consequences prompted further attempts at modernisation and reform and new models of service delivery. Such insights hint at potential challenges for governance “control” regimes.

The UK Government’s White Paper, Modernising Government (Cabinet Office, 1999), for example, asserted the case for more joined-up, accountable and responsive public services. Shared services are part of this new mix; indeed, it has been contended that “a more collaborative shared services approach constitutes the ‘new age’ of public sector management” (Paagman et al., 2015: 110). In a critical literature review of a range of different models for delivering public services in the 21st century dedicated to the museums sector in Scotland, Doherty (2010), for example, highlighted the importance of clearly understanding the nature of the very different legal, institutional and inter-organisational aspects involved in adopting new public service delivery models. Furthermore, Doherty (2010) differentiated between individual and collaborative models, advocating considerable care when selecting the most appropriate type of service provision model.

As Table 1 illustrates, shared services are but one option in an expanding set of public service delivery models, and, as a sub-set of service models, shared services themselves involve a number of alternatives. Shared services may thus be understood as a spectrum of service options spanning both “back-office” internal functions — such as, payroll, accounting and procurement — and externally delivered, or “front-line”, public services but which potentially involve “common operational processes and systems” (Scottish Executive, 2006a: 2).

For the purposes of this discussion, community planning is located within this wider family of shared services. Effectively multi-sectoral partnerships with common responsibilities for defined local areas, in practice, community planning partnerships are encouraged to share the use and maintenance of local assets, such as public buildings, facilities and vehicles, and to find other ways of reducing duplication and rationalising service provision. In contrast to IT-based back-office functions, such citizen-centred activities may be considered to represent a sophisticated form of service sharing.

It is important to be aware that there are a number of counter-arguments in relation to the adoption of shared services based, in part, on a fundamental concern that a 1980s’ business solution might not easily transfer to the public sector (Kearney, 2005). Attention has been drawn to the potentially significant up-front costs involved and important qualification that “shared services will not provide all the answers to efficiencies and should not be seen as an end in themselves” (SOLACE Scotland, 2011: 23). Concerns include the potential adverse human resource implications, including the devaluing
Table 1: Potential Public Service Delivery Models

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<tr>
<th>Level 1 Service Provider</th>
<th>Level 2 Collaboration Partner Model</th>
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<tr>
<td>Local authority</td>
<td>Shared services</td>
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<td>Trust</td>
<td>• Co-location of services</td>
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<td>Social enterprise</td>
<td>• Joint provision of services</td>
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<td>Mutual organisation</td>
<td>• Provision of specialist services</td>
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<tr>
<td>Community Interest Company</td>
<td>• Provision of emergency / out of hours cover</td>
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<tr>
<td>Industrial and provident society</td>
<td>• Cross public sector provision</td>
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<td>Community limited by guarantee</td>
<td>• Process simplification or standardisation</td>
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<td>Scottish charity</td>
<td>• Training</td>
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<td>• Community planning</td>
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<td>Consortium</td>
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<td>Public Social Partnerships</td>
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<td>Service-based models</td>
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<td>• Place-based commissioning</td>
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<td>• Framework agreements</td>
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<td>• Indefinite delivery /indefinite quantity</td>
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<td>Investment-based models</td>
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<td>• Private Finance Initiative</td>
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<td>• Concession</td>
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<td>• Integrator</td>
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<td>• Alliancing</td>
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(Source: Derived from Doherty (2010))

of professional skills and expertise and the loss of personalised service (Unison Scotland, 2001); and change management issues, such as overcoming internal organisational resistance (McCracken & McIvor, 2013). Establishing a consensus around shared benefits is thus a prerequisite for multi-actor active engagement.

In advancing the concept of New Public Governance to better capture the multi-actor, multi-directional context of public services, Osborne (2006) differentiates between the plural state, comprising multiple inter-dependent actors, and the pluralist state, involving multiple processes and influences. Sensitive to the asymmetric nature of new organisational forms, Osborne (2006) contends that the new conditions of service delivery have shifted emphasis from output-oriented and intra-organisational effectiveness associated with New Public Management to a concern with inter-organisational and relational dimensions, service effectiveness and outcomes. The reorientation from results to relationships, outputs to outcomes, and intra- to inter-organisational working is profound, raising questions about how such new working arrangements can be achieved in practice. It is maintained, for instance, that joint working involves overcoming silo-thinking so as to better work across various organisational, institutional, professional and geographical boundaries (Sullivan & Skelcher, 2002). Arguments to encourage or promote partnership working
have emphasised the need for collaborative networks to be based on trust and cooperation (Bevir & O’Brien, 2001). How can such a shared state be secured in practice?

Collaborative public service provision is predicated on the political will and attendant institutional and organisational capacity to co-design, co-produce and co-deliver services. Following Favoreu et al. (2015), operational dimensions of collaborative working may be characterised as falling under the rational approach to strategic policy design and implementation, offering, in practice, limited insights into the political, highly complex and potentially conflictual contexts of pluralistic public service delivery environments where there is unlikely to be strategic homogeneity of aims, priorities, practices and values. Indeed, it is recognised that collaborative approaches to service design, delivery and management require a relatively more sensitised understanding of network governance (Kenis & Provan, 2006). Releasing creativity and experimentation requires a different environment. Favoreu et al. (2015: 6) summarise a detailed literature review as follows:

“Coordination within these multi-stakeholder arrangements is based mainly on flexible social and relational mechanisms such as trust, shared values, implicit standards, collaboration and consultation, thus distancing itself from rational bureaucratic mechanism based on control, hierarchy and chains of command. Inter-organisational flows of exchange are considered to encourage innovation through pooling of different visions, experiences and perspectives, leading to learning phenomena and, ultimately, to the development of social capital.”

This analysis would suggest that an important question is the extent to which the necessary social capital for network governance evolves organically or whether new forms of influence are required. If the latter, what does this mean for traditional forms of hierarchical government control?

Since the turn of the millennium, and against the back-cloth of emerging pluralistic service models, political devolution in the UK has provided the opportunity for greater experimentation in public service delivery at the local level. This is a complex position. The reform agenda may be understood as involving both a technocratic dimension, primarily emphasising improvement in the efficiency and effectiveness of public services, and a democratic dimension, highlighting issues of equity and engagement and, in particular, addressing growing societal inequalities and the complex needs of the most vulnerable. In terms of putting shared services into practice, two domains merit particular attention: practical/operational aspects; and cultural/institutional aspects.

The next section traces experience of shared services in Scotland, considering the different dimensions involved in operationalising shared services through applying the PESTLE framework. Used in change management contexts, for example, this methodology uses the acronym PESTLE to designate the Political, Economic, Social, Technical, Legal and Environmental aspects of organisational management. PESTLE serves to structure the discussion.

Shared Services in Scotland

Traditionally, individual local authorities in Scotland have had primary responsibility for the delivery of a wide range of public services, including: cultural services, economic development, education, fire and police services, housing, leisure and libraries, planning and the environment, regulatory and protective services, roads and transportation, regeneration, social work, and waste management. Conventionally, these public services have been delivered by individual departments within local council areas. The shared services idea, however, provides a new context for the design, management and delivery of such public services and invites consideration of the sharing of services both within (intra-) and between (inter-) local authorities. Efforts to reform the public sector in Scotland provide useful insights into the emergent strategic management of central-local and cross-scalar relations through the advocacy of a shared public service practice and culture. Notably, the guidance supporting the introduction of community planning, for example, highlighted the comprehensive nature of collaborative working:
A local authority which fully embraces the concept of Community Planning will demonstrate joint working in its political management structure; corporate planning and service planning; consultation with stakeholders; communications with staff and others; codes of governance; allocation of resources; training and development and its review machinery and so on (Scottish Government, 2004: 11).

This combined ambition is intended to be open-ended, implying an ever-evolving and holistic embracing of joint-working in all aspects in the management of change.

As the concept of shared services has matured, models of shared service provision have diversified and extended to involve private and third sector partners (Scottish Parliament, 2013). Implementing shared services raises two sets of related questions. As set out in earlier government guidance (Scottish Government, 2007), there are practical issues of implementation to consider. There is a need to make a clear business case setting out a strategy to take account of legal, financial, technological and resource implications. Such strategies must be well communicated internally and externally. The required personnel with the right skills need to be in place, including those with the necessary leadership qualities. A second set of organisational issues relates to mobilising a multi-sectoral approach. Shared services potentially challenge professional domains and service fiefdoms since the core logic is one of cross-departmental, if not inter-organisational, working. Creating a culture for the type of shared working required by shared services/community planning demands more than an instrumental/technical approach; a change management strategy is also a prerequisite.

**Political**

In Scotland, political support for shared services was prompted by a drive to secure efficiency savings through joining up public services and minimising duplication (Scottish Executive, 2004; 2006a). The Shared Services Guidance Framework (Scottish Government, 2007) published by a minority Scottish National Party, provided background information and resources on shared services, setting out the policy aim as follows:

“To support Shared Services opportunities that will provide Scotland wide solutions for smaller simpler Government, which improve the service to the customers” (Scottish Government, 2007: 5).

From an operational perspective, putting a shared model of service delivery into practice and sustaining the momentum then required certain strategic and managerial aspects, alongside an understanding of whether service improvements have been made in practice. The Scottish Government’s overarching Purpose provides the guiding strategic management framework for public sector activity in Scotland. Succinctly stated, the Scottish Government’s Purpose is:

“To focus government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.” (Scottish Government, 2016).

Introduced in 2007 as part of the Spending Review, and subsequently refreshed in 2011 and 2016, the National Performance Framework (Scottish Government, 2016) elaborates the strategic vision by means of five strategic objectives, an associated set of national outcomes, and an accompanying dashboard of indicators intended to monitor progress towards the various objectives.

Scotland’s outcomes-based approach has been enshrined in legislation through the Community Empowerment (Scotland) Act 2015 and may be seen, following Kenis and Provan (2006), as an attempt to define public goods and exert control over diverse networks. Articulation of an outcomes-focus is intended to mobilise shared effort around results achieved for service users, rather than sectoral/organisational inputs and outputs. The objective is to improve individuals’ quality of life through making sustainable improvements to public services. Critically, the Government’s aim is to instil a partnership approach and to align the public
sector around the Government’s Purpose and National Outcomes. Based on the 2007 version of national guidance, Table 2 sets out how it was anticipated that shared services could contribute to the Government’s high level national objectives.

Table 2: Role of Shared Services in meeting the Scottish Government’s Strategic Objectives

<table>
<thead>
<tr>
<th>Strategic Objective</th>
<th>Role of Shared Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wealthier and Fairer</td>
<td>Delivery of high quality, multi-channel services, as cost effectively as possible to ensure that citizens and businesses contribute less of their wealth to support the State.</td>
</tr>
<tr>
<td>Healthier</td>
<td>Development of efficient, responsive high quality health and community care services delivered on a cross-agency basis to return citizens to a state of health and well-being as quickly and simply as possible, especially in disadvantaged communities.</td>
</tr>
<tr>
<td>Safer and Stronger</td>
<td>Implementation of efficiency gains that, in turn, allow public sector organisations to reinvest in local communities and frontline services to offer improved quality of life.</td>
</tr>
<tr>
<td>Smarter</td>
<td>Expansion of choice to access multi-channel early development, education and lifelong learning opportunities.</td>
</tr>
<tr>
<td>Greener</td>
<td>Reduction in the need to make contact with a range of dispersed agencies; development of common business processes to support multi-channel access, virtual delivery mechanisms and choice of access; and provision of options for flexible and remote working, potentially reducing individuals’ carbon footprint.</td>
</tr>
</tbody>
</table>

(Source: Derived from Scottish Government, 2007: 4)

The prevailing political ideology, taken together with research, pilot initiatives, case studies and guidance, has provided a particular politically-driven learning context for the introduction and continuous improvement of the public sector, including shared service arrangements. Drawing together a wide evidence base, the final report of the Local Government and Regeneration Committee (Scottish Parliament, 2013) nevertheless noted the relatively slow progress in shared services and identified a number of issues and lessons learned with respect to shared services. Learning points included the need for good baseline information, being clear on what service might usefully be shared, accepting that one size solutions do not fit all, investigating economies of skills and, interestingly, “avoiding treating partnership and shared services as necessarily a good thing” (Scottish Parliament, 2013: 15).

Economic
Securing efficiency gains remain a critical fillip driving shared services in Scotland. Initially, emphasis was placed on the potential benefits of deriving economies of scale and a commitment to tackle the perceived “waste, bureaucracy and duplication in Scotland’s public sector” (Scottish Executive, 2006a: iii). Explicitly articulated as a transformational ambition (Scottish Executive, 2006b), however, the shared served services agenda comprises a number of objectives, including continuously improving...
efficiency, productivity and quality, encouraging innovation, increasing accountability and ensuring services are organised around users’ and citizens’ needs, rather than the convenience of service providers.

The intention of providing public services that are user-centred is predicated on an ethos of a set of services that are joined-up. The personal user experience is thus intended to be one of minimal separation between services, better reflecting, perhaps, the composite or wicked (Rittel & Webber, 1973) nature of the inter-related and inherently complex problems experienced by some individuals and communities. Economic gains should not therefore be understood solely in terms of organisational financial savings based on reconfiguring existing services, but rather in terms of potential value added of savings (in terms of human and financial costs) to be gained through integrated and anticipatory services driven by a preventative service focus.

Social
The ambition of shared services, and particularly the mainstreaming of community planning, may be seen as a way to instil collective/collaborative working as integral to public service planning, delivery and review across providers. This agenda is articulated through a commitment to address social issues and the widespread inequalities of outcomes experienced by communities across Scotland. A refocusing of effort onto preventative measures, greater community engagement and involvement by local people in decision-making, for example, were highlighted by the Christie Commission (2011) as necessary to improve community planning. Progressive advocacy of community empowerment in Scotland may be seen as further evidence of the Scottish Government’s commitment to active community engagement in public services, whilst the preparation of Local Outcome Improvement Plans (formerly Single Outcome Agreements) is designed explicitly to align the work of the local authority led community planning partnerships with national priorities.

In terms of what might be understood as the acculturation of mixed mode partnerships and generation of social capital (Favoreu et al., 2015), there are clearly efforts to reinforce key messages and build capacity. By way of example, it is hard not to miss the reiteration of the term “shared” in Audit Scotland’s (2014) report, Community Planning: Turning Ambition into Action, for example. Continuous improvement, it is contended, involves addressing the increasing pressures and demands on public services by recognising “shared strategic challenges” (p.9), making community planning more of a “shared enterprise” (p.10), developing a stronger sense of “shared ownership” (p.10), and working towards “shared and agreed community planning priorities” (p.12). Audit Scotland (2014) suggests that emphasis should be less on formal accountability arrangements but instead focus on “trust between partners, [and] a shared commitment to change” (p.14). In practical terms, joint working might involve “a shared approach to community consultation” (p.22), based on a “shared set of principles”. Ambitiously, then, the emphasis on sharing extends beyond definitions, understanding, aims and commitment to encouraging the sharing of savings through preventive work, shared properties, resources and budgets. It also involves strong shared leadership (p.30). Related efforts include the development of outcomes frameworks (see, for example, Ford et al., 2014) which, it is argued, can help to assist individual service providers identify shared outcomes with other service partners. Given the comprehensive list of ambitions needed to enact community planning, the implications are that building social capital remains somewhat elusive.

Technological
In broad terms, international experience has drawn attention to the potential advantages offered by technological innovation and the positive benefits of shared services in terms of cost savings, improved effectiveness and enhanced service user experience (Dolley et al., 2009). In practical terms, the Scottish Government’s (2011) guidance emphasised the need for an appropriate ICT strategy to underpin a shared service business strategy, for example. Supported by new institutional arrangements, such as the Improvement Service and National Shared Services Board, for example, strategic projects have emphasised shared capacity, collaborative workforce planning, Scotland-wide initiatives such as MyJobScotland, and shared specification of ICT provision. Here, the internet has
provided opportunities for shared learning. A Scotland-wide survey of collaboration (Improvement Service, 2009), for example, revealed a range of shared service approaches happening on the ground, including: process simplification/standardisation and the sharing of out-of-hours or emergency cover services across geographical areas.

**Legal**

As the Scottish Parliament (2013) noted, public services find their legitimacy in statute. The statutory arrangements relating to individual public services are relatively complex, involving particular duties, regulatory responsibilities and accountability regimes. In operational terms, shared services necessitate organisational flexibility. Despite some apparent concerns around sharing responsibility and accountability, the Scottish Parliament (2013) found no evidence that the statutory basis of particular bodies and associated legal arrangements adversely affected joint-working in community planning in practice, although the need for some guidance was identified to address perceived barriers in terms of sharing staff, funding sources and budgets.

The Local Government (Scotland) Act 2003 gave community planning statutory force. The initial legislation required the setting up of community planning partnerships involving joint-working and partnership to achieve community well-being. Most recently, the Community Empowerment (Scotland) Act 2015 has given communities a greater say in how public services are to be planned and provided. More specifically, a community body can request that a service is improved, or help improve a service, if it believes such action is needed to tackle inequality, contribute to regeneration or economic development, or improve health or well-being. Importantly, it was deemed necessary to introduce the 2015 legislation to strengthen the duty on relevant partners to work together to improve outcomes for local communities based on nationally agreed outcomes. Why has this legal instrument been necessary?

**Environment**

The Christie Commission (2011) asserted not only the case for improved efficiency gains through the removal of duplication, but also advocated the prioritisation of services that prevent negative outcomes; improve outcomes; and empower individuals and communities to be involved in the co-design and delivery of services. In short, the Commission stated that community planning partnerships, as vehicles for maximising shared capacity, needed to work better with each other and with local communities. This perspective goes beyond an understanding of shared services as a back-office function; rather this vision of shared services emphasises a collective and deliberative endeavour by partners and users based on continuous learning. The Christie Commission (2011: 13) noted:

“Increasingly, we will look to leaders of Community Planning Partnerships across Scotland to disrespect boundaries between public services and focus on the achievement of shared outcomes and cross-sectoral workforce development strategies. Articulating the values and principles for shared learning are likely to prove fundamental in securing what may be seen as potentially transformative change. Added value does not stem from achieving efficiency gains (alone) but from securing greater effectiveness and equity - the transformative potential to individuals’ quality of life”.

The Scottish Parliament (2013: 3) acknowledged that attitudes to risk, disconnection from local communities, poor communication and leadership and “very deep-seated attitudes and behaviours” were undermining progress in community planning, clearly a flag-ship policy initiative in terms of integrated service delivery. Importantly, then, a turn to an outcomes-based approach in Scotland represents an important step-change in advancing a shared culture for co-producing public services, addressing what the Scottish Parliament (2013: 62) defined as “cultural challenges”. Importantly, then, the reshaping of public services in Scotland continues to redesign the working environment. Indeed, the Community Empowerment (Scotland) Act 2015 has given statutory force to the use of national outcomes and enshrined a duty to cooperate on partners. Resorting to statutory provisions illustrates just how hard inculcating
sharing certain services may be in practice, indicates that
the necessary social capital falls short, and points to the
continuing challenges around government control and
public service governance.

Closing Observations: Towards Shared Outcomes?
Public services are no longer the sole remit of the
state but provided through a mix of state, market,
and voluntary sources. As a mixed mode of delivery,
shared services at the local level comprise a range of
approaches, based on the type of service, experience,
expertise and institutional arrangements involved, but
also depending on the leadership, resourcing and
institutional and individual personal commitment present
(Peel et al., 2012). A challenging agenda, implementing
shared services requires actively working with a range
of agencies, bodies, charities, and the private sector –
as well as local communities themselves. Such
integrated working requires a new crucible for melding
service expertise and specialisation in understanding
and intervening to address particular issues and invites
questions around strategic management. As such,
operationalising shared services necessitates coaching
partners towards a shared ethos since it not only
necessitates practical questions around service design
and delivery, but cultural issues of collaboration and
coordination. As such, shared services call for conformity
in norms, values and culture.

The case for shared services has gathered a particular
momentum in Scotland, but its unique role has also
been questioned. Ultimately, shared services are but
one tool in the tool-box, a tool also requiring bravery
at senior and political level in terms of implementation
(Scottish Parliament, 2013). As the Local Government
and Regeneration Committee examining progress on
public sector reform in Scotland concluded:

“…a prerequisite for success in finding new
ways of delivering services is a shared common
understanding and purpose of the vision, aims,
and purpose of any initiative. In simple terms, where there’s a will, there’s a way”

Sometimes that way is statutory force. Initially
introduced in 2003, community planning may be
understood as a sophisticated form of shared services.
This policy initiative has been strengthened via the
Community Empowerment (Scotland) Act 2015 with
a clear emphasis on multi-sectoral partners adopting
an outcomes-based approach and aligning service
delivery with national priorities. This turn to outcomes
is consistent with Osborne’s (2006) characterisation of
New Public Governance and suggests an externalisation
of focus away from inward-looking organisation-centric
preoccupations with inputs, systems and processes to
an explicit concern with those experiencing services
and assessing results on the ground. As the opening
quotation highlights, those service users may well be the
most vulnerable in society; service results matter.

Experience in Scotland reveals the complexity of
operationalising shared service as network governance
within a government context. Adopting an outcomes-
based approach is one mechanism for securing
alignment of activities across a pluralist state and of
effecting strategic government control. Building what
Favoreu et al. (2015) identify as social capital for
network governance then involves political, technocratic
and democratic dimensions, as well as making a
sophisticated economic case around economies of skills
and gains derived through preventative spend. There are
also social dimensions to consider, including professional
aspects, across scales and boundaries, and building
social relations of trust and cooperation.

Over a decade of experience, critical reflection and
learning in Scotland suggests that public sector reform
involving shared services requires a multi-pronged
approach. This includes demanding, collecting and
disseminating evidence at a national level; resourcing
and reviewing local pilot projects; facilitating dialogue
through consultation papers and parliamentary debate;
using case studies to show practice on the ground; and
ultimately, perhaps, giving legal weight through statutory
levers, such as those strengthening partners’ duties in
relation to community planning. As communities line
up to play a more significant role, it is clear the journey
towards shared service responsibility is not complete and
the nature of the shared service agenda has to continue to evolve and innovate.

**Acknowledgement**
The author wishes to thank the Planning Exchange Foundation for funding the project ‘Exploring New Models of Community-based Planning in the Devolved UK’ upon which this article draws.

**Professor Deborah Peel, PhD**, is an independent scholar. She is Emeritus Professor at the University of Dundee and Visiting Professor in the Land Use Planning Group, Wageningen University. Deborah previously held the Chair of Architecture and Planning at the University of Dundee, and was Professor of Planning Research and Scholarship at Ulster University. Prior to becoming an academic, Deborah worked in local government.

**References**


The multiple socio-economic benefits ascribed to cycling are increasingly recognised by politicians and policymakers on the island of Ireland. Although a network of greenways and long-distance cycle routes are under construction in many urban and rural areas, harnessing the numerous opportunities in the Irish border region remains under-developed. To progress the development of cycling infrastructure in the border region, it is asserted that local and national policy frameworks require strengthening and integration; that strategic coordination and master-planning processes should be initiated; and, innovative funding mechanisms are needed to enable on-the-ground delivery. Improved cross-border connectivity is considered a critical component in realising the promised ‘cycling revolution’ on the island.

Introduction
In 2014, the then Northern Ireland Minister for Regional Development, Danny Kennedy MLA, promised to deliver a ‘cycling revolution’ in Northern Ireland following a fact-finding trip to Sweden and Denmark (BBC, 2014). The region presently compares unfavourably with Scandinavia and other places in continental Europe, particularly in the provision of a high-class cycling infrastructure and the concomitant creation of a cycling culture within the general population. For example, whereas the yearly spend on cycling in the Danish city of Copenhagen is approximately £20 per person, the equivalent spend by the Department for Regional Development (DRD) in Northern Ireland is 55 pence per person (McKibbin, 2014a: 3). The extremely low levels of walking and cycling in Northern Ireland contrasts markedly with the overwhelming dependency on the private car, the usage of which is considered “habitual, convenient and normal” for everyday transportation needs (McKibbin, 2011: 1). Similar patterns are repeated in Ireland, where recent census figures suggest that the combined modal share for walking, cycling and public transport usage amongst the population fell from 34 per cent in 1991 to 24 per cent in 2011 (Department of Transport, Tourism and Sport, 2014: 6). Indeed, the number of those cycling to their place of employment in Ireland was 1.9 per cent in 2006, in comparison with 5.9 per cent in 1986 (Manton & Clifford, 2011: 2). The implications of these trends for the environment, economy and health and well-being will be significant if left unchecked, and not in a way conducive to improving socio-economic and environmental indicators.

Policymakers on the island of Ireland have evidently accepted within the last decade that both jurisdictions needed to pursue a radically different approach to cycling in order to address these negative trends. The publication in 2009 of Ireland’s First National Cycle Policy Framework by the Department of Transport heralded a new policy approach, while the successful staging of the Giro d’Italia Big Start in 2014 also highlighted the potentially lucrative cycling tourist market that is presently under-developed locally. However, in spite of these encouraging signs, the development of cycling on the island of Ireland, for the present, remains an evolutionary process rather than a revolutionary one. For instance, the implementation gap between policy and practice in the delivery of much-needed physical infrastructure, such as greenways and segregated cycle routes, ensures that the infrastructure deficit remains the principal barrier to the creation of a more vibrant cycling culture (Fálte Ireland, 2007; Manton & Clifford, 2011; McKibbin, 2011; Caulfield, 2014). Furthermore, certain cycling policies are rather limited in their geographic reach, prioritising urban areas in the case of Changing...
Gear: A Bicycle Strategy for Northern Ireland, while arguably too narrowly focused on achieving a modal shift from private cars (McClelland, 2014; Committee for Regional Development, 2015; Department for Regional Development, 2015). As McClelland (2014: 9-10) argues, policymakers should explicitly adopt ‘an inclusive and all-embracing approach’ to the provision of cycling infrastructure aimed at ‘commuter, recreational, tourist and other types of cyclist’ in urban and rural areas, thereby accommodating ‘the multiple outcomes toward which greenways and cycle routes can contribute’. Perhaps more pertinent, from the perspective of cross-border cooperation in this area, a coordinated approach to the long-term development of cycling infrastructure in the Irish border region has yet to be elaborated by government.

The purpose of this paper is to outline a number of recommendations aimed at supporting the development of a comprehensive cross-border network of greenways and cycle routes in the Irish border region. These recommendations are principally derived from a recent review of the academic and policy-based literature relating to cycling in Ireland and Northern Ireland by the International Centre for Local and Regional Development (ICLRD), which culminated in the publication of Cross-Border Greenways and Cycle Routes on the Island of Ireland: A review of policies and future opportunities in the development of a regional network (McClelland, 2014). The paper begins by briefly reflecting on the multiple socio-economic benefits typically associated with cycling, before moving on to discuss the improved institutional and policy environment that is emerging on the island of Ireland. The findings of the cycling policy review are subsequently outlined, with particular emphasis on the creation and promotion of a cross-border network of greenways and cycle routes. The review was carried out under the auspices of the Cross-Border Spatial Planning and Training Network (CroSPiAN II) programme managed by the ICLRD, and funded by the Special EU Programmes Body (SEUPB) under INTERREG IVA.

Reiterating the multiple benefits of cycling

It is unnecessary to elaborate in great depth the multiple benefits typically ascribed to cycling within the policy and academic-based literature. Indeed, the cross-cutting contribution that cycling can make to achieving multiple public policy goals, and towards ensuring better outcomes for a wide range of citizens, is reinforced in much of the literature, and is not just confined to the lobbying outputs of cycling advocacy groups. For instance, the provision of infrastructure and facilities to encourage activities such as cycling and walking is shown to improve the physical and mental health of the population (West & Shores, 2011; Starnes et al., 2011; Lee & Maheswaran, 2011; Rojas-Rueda et al., 2013; Dallat et al., 2013). This is particularly important in the context of what Kohli et al. (2012) call the global ‘pandemic of physical inactivity’, with 53 per cent of adults in Northern Ireland, according to the Chief Medical Officer (cited in Committee for Regional Development, 2014a), not currently meeting the physical activity guidelines. In relation to the environment, cycling is considered the ‘ultimate “zero carbon” and environmentally friendly solution’ for personal transportation (Chapman, 2007: 363), leading to a reduction in the use of private cars and congestion, and a concomitant lessening in greenhouse-gas emissions (Lumsdon, 2000; Weston & Mota, 2012; Manton & Clifford, 2013). Furthermore, the provision of greenways can safeguard important habitats, provide corridors for wildlife and people, while reinvigorating underused and historic transport infrastructure such as canal towpaths and old railways beds (Lumsdon, 2000; Mundet & Coenders, 2010). It is also asserted by McClelland (2014) that greenways and cycle routes, in both urban and rural areas, can contribute towards the ‘shared space’ agenda promoted by government in Northern Ireland. This is supported by the experience of the Great Western Greenway, which has acted as a ‘social’ and a ‘tourism corridor’ since its opening, thereby promoting community relations by uniting ‘small towns and villages in the vicinity’ (Robinson & O’Connor, 2013: 311).

All of the above benefits are all intimately linked of course, particularly in relation to the multivariate financial contribution that cycling can make to the local economy, which is the primary focus of much of the contemporary
literature. For example, Henrikson et al. (2010) consider the financial saving for employers derived from reduced rates of absenteeism amongst cycling commuters, in comparison with their non-cycling colleagues. The cost effectiveness of investment in cycling infrastructure vis-à-vis other health-related spending is favourably referenced by Kohl et al. (2012), Dallat et al. (2013) and Deenihan & Caulfield (2014), particularly concerning the use of the World Health Organisation’s (WHO) Health Economic Assessment Tools (HEAT)\textsuperscript{i}. However, the most prominently discussed economic benefit relates to the tourism revenue generated, an area within which both jurisdictions on the island of Ireland are presently underperforming (Manton & Clifford, 2011; Committee for Regional Development, 2015). The existence of a good cycling infrastructure, particularly in rural areas, has the capacity to develop the local tourism industry, making it less seasonally dependent; to enhance existing tourism attractions through improved connectivity; and often representing an additional visitor attraction in its own right (Lumsdon, 2000; Mundet & Coenders, 2010). The European cycle tourist industry was estimated to be worth €54 billion (Lumsdon et al., 2009: 8), with cycle tourists representing a much sought after, and high-spending, segment of the market, particularly from Germany (Lumsdon et al., 2009; Downward et al., 2009; Meschik, 2012; McKibbin, 2014b). Indeed, the potential value of cycling to the Irish tourism industry has already been demonstrated by the opening of the Great Western Greenway, which attracted a €7.2 million spend in the local economy in 2011, €2.8 million of which came from approximately 8,000 overseas visitors (Fitzpatrick Associates, 2011; Deenihan et al., 2013). Replicating this success, including on a cross-border basis, would contribute to bolstering the local economy, bringing economic opportunities to rural areas often bypassed by tourism and other forms of industry.

The development of cycling infrastructure, and the creation of a vibrant cycling culture, are not unproblematic objectives, however, and various challenges and potential trade-offs are identifiable within the literature. For example, recent research in Ireland suggests that a modal shift of 115 commuters per year from private cars to bicycles is required in order to offset the carbon footprint of constructing one 10km asphalt greenway (Manton et al., 2014, p.3). In other words, the reduction in carbon emissions is dependent upon achieving critical mass in behavioral change. Furthermore, the attraction of foreign cycling tourists to a particular destination is closely related to the facilities on offer, with the availability of long-distance greenways and segregated cycle routes key to unlocking the cycling tourist market in Europe (Downward et al., 2009; McKibbin, 2014b; Deenihan & Caulfield, 2014). The creation and promotion of the EuroVelo network by the European Cyclists’ Federation (ECF), with two routes crossing the island of Ireland — the Atlantic Coast Route (EuroVelo 1) and the Capitals Route (EuroVelo 2) — is testament to this fact (see Figure 1). Overcoming negative perceptions of the weather as an inhibiting factor to increased outdoor cycling and walking is also a challenging local issue, albeit weather can be construed as both a ‘product of both environmental forces and socio-cultural interpretation’ (Prior et al., 2014: 79). The most problematic issue in the development of cycling relates to perceptions of safety, a factor which has a pronounced gender and age dimension, with younger males more likely to cycle to work or for recreational and touristic pursuits (Pucher & Buehler, 2008; Wegman et al., 2012; Short & Caulfield, 2014; Committee for Regional Development, 2015). The provision of segregated routes is the decisive decision-making factor for many individuals and groups of people, including families and tourists, as to whether they feel safe cycling (Caulfield et al., 2012; Aldred, 2015; Aldred et al., 2015; Deenihan & Caulfield, 2015). This, and the other issues briefly outlined above are not insurmountable and, ultimately, relate to the choices that policymakers and politicians must make in the context of the prevailing evidence, and the outcomes that they are seeking to achieve.

An improving institutional and policy context on the island of Ireland

The policy context for cycling on the island of Ireland has undoubtedly improved over recent years and the numerous photo opportunities that cycling-related announcements have afforded politicians in this period attests to its increasing visibility on the political agenda.
Northern Ireland

The DRD (soon to be renamed the Department for Infrastructure) is the principal policymaker and institutional sponsor for cycling in Northern Ireland, in addition to its wider remit covering strategic spatial planning and transportation. The DRD published a range of policy documents since the turn of the millennium specifically focused on cycling, or referencing it positively as part of a suite of other policies dealing with regional development, sustainable transport and
active travel. In respect of the latter, the most important publications are the *Regional Development Strategy 2035: Building a Better Future* (DRD, 2010), *Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation* (DRD, 2013a) and *Building an Active Travel Future for Northern Ireland*, together with its associated Action Plan (DRD, 2012; DRD, 2013b). These documents are predominantly strategic in their outlook, containing high-level aims and objectives that are broadly supportive of cycling and other forms of sustainable transport, and which emphasise the necessary interdependencies with other government policies and strategies. The *Northern Ireland Cycling Strategy*, published in 2000, was, for many years the most pertinent policy document solely occupied with cycling, which envisaged the quadrupling of the number of bicycle trips by 2015 (DRD, 2000). The outcomes, however, were poor, with the number of trips achieved being ‘well below’ the targets established in the Strategy (McKibbin, 2011: 4). The evidence suggested that a sustained and better-resourced effort was required to fundamentally alter the balance between private and sustainable forms of transport in Northern Ireland.

In part response, a dedicated Cycling Unit was created within the DRD in 2014 with the aim of developing and promoting the bicycle ‘as an everyday mode of transport for everyone in Northern Ireland’ (Northern Ireland Executive, 2014). An early intervention by the Cycling Unit saw the introduction of a *Draft Bicycle Strategy for Northern Ireland* for public consultation, with comments invited by the end of November 2014 BOOK. The resulting strategy, *Changing Gears: A Bicycle Strategy for Northern Ireland*, seeks, over a 25-year horizon, to establish a “community where people have the freedom and confidence to travel by bicycle for every day journeys” (DRD, 2015: 8). A ‘three-pillar’ approach — ‘build-support-promote’ — is proposed to achieve this, involving the provision of cycling infrastructure, supportive measures dealing with such concerns as safety and security, and promotional activities centered on flagship events and responsible cycling (DRD, 2015). The Strategy recognises that there are differences between using the bicycle in an urban area and in a rural area; with the opportunities and challenges presented by each requiring investment. Importantly, the Strategy makes a commitment to support local authorities in the development of additional Greenways throughout Northern Ireland where possible; recognising that greenways offer the potential to link housing areas, schools and amenities — as well as being a valuable tourist attraction. The Strategy sets clear targets for 2025 and 2040 and makes a commitment to carry out regular evaluations to measure the extent to which these are being achieved.

The creation of the 11 new local authorities in April 2015, and their acquisition of a range of planning, regeneration and tourism-related powers previously held at central government level in Northern Ireland, arguably provides a significant opportunity to progress cycling initiatives at the local level. The impact of the former local authorities was limited in this space, although several cycling initiatives in recent years were led by, or involved, local authorities, including those referenced in *An Action Plan for Active Travel in Northern Ireland* (DRD, 2013). This includes the provision of greenways, cycling and walking routes under the Sustrans Connect 2 project in Omagh and the Derry City Council Active Travel Programme, while Armagh City and District Council also completed a project linking Armagh city centre, the two cathedrals and the Mall area with the historic Palace Demesne (Northern Ireland Executive, 2013). However, in contrast to their counterparts across the border, as seen below, the development plans prepared by the Department of the Environment for the former council areas contiguous with the border are significantly out-of-date. Indeed, as McClelland (2014) underlines, the *Banbridge/Newry & Mourne Area Plan 2015* is the only one that remains within its intended period of operation, and it was adopted a mere two years before its expiration date. The new local authorities are responsible for development planning, providing greater scope for policy formulation and innovation in practice in the development of cycling infrastructure, in addition to facilitating the ‘up-to-dateness’ of local development plans.

Although the cycling charity Sustrans is not a public body or institutional actor, it has been central to many of the positive cycling developments that have occurred in Northern Ireland in the past several decades, particularly
in the development of the National Cycle Network (NCN). The NCN in Northern Ireland extends over some 1000 miles of both on, and off-road, routes, including the Newry Canal Towpath (NCN Route 9), Comber Greenway (NCN Route 99) and the Foyle Valley Cycle Route (NCN Route 92). A number of trails were also developed on a cross-border basis, with the 230-mile Kingfisher Cycle Route (NCN Route 91) the first to be mapped and signposted on the island of Ireland. Sustrans will undoubtedly remain an important stakeholder, partner and potential implementation-body in relation to cycling in Northern Ireland and the Irish border region.

Ireland

In Ireland, the Department of Transport, Tourism and Sport (DTTAS) has been the primary institutional sponsor for cycling, responsible for the publication and implementation of Smarter Travel – A Sustainable Transport Future and Ireland’s First National Cycle Policy Framework. The former seeks, amongst other things, to reduce work-related commuting by car from 65 per cent to 45 per cent, while the latter focuses exclusively on measures to promote the development of walking and cycling in Ireland. A number of other public agencies and bodies are very active in this space and have published their own reports focused on the development of cycling in Ireland. This includes the introduction of the National Roads Authority’s (NRA) – now known as Transport Infrastructure Ireland® - National Cycle Network, Scoping Study in 2010, as well as Fáilte Ireland’s A Strategy for the Development of Irish Cycle Tourism in 2007, both of which visualise the creation of an Irish National Cycle Network. The Irish Sports Council’s National Trails Office is engaged in promoting the creation and use of recreational trails, while the National Transport Authority (2011) published design standards for cycling lanes and associated infrastructure and facilities. Such diversity of output by multiple government agencies contrasts with Northern Ireland, where, for example, the Northern Ireland Tourist Board (NITB) has been criticised for the continued absence of a cycling tourism strategy, publication of which the Committee for Regional Development (2015, p.6) considers ‘a matter of urgency’.

Local authorities in Ireland have also been actively integrating cycling policies into their respective county development plans, while progressing the development of greenways and cycle routes on-the-ground in tandem with other public bodies and agencies. A suite of development plans for the border counties have recently been adopted or are in draft form, and, as Table 1 indicates, each plan identifies a range of existing and proposed cycling routes. In addition, all of the plans positively link cycling with an array of public policy arenas, including tourism development, farm diversification, sport and recreation, health and wellbeing, a reduction in greenhouse gas emissions, air quality, and a modal shift from private cars. Further policies relate to the promotion of cycling, parking provision for cyclists, road safety issues, and the necessity to improve mobility on routes for those with disabilities. From a practical point-of-view, local authorities have also been to the fore in advancing greenways and cycle routes in Ireland. For instance, Mayo County Council and Waterford County Council led on the development of the Great Western Greenway and the Deise Greenway respectively, while Louth County Council and Monaghan County Council recently completed sections of the Ulster Canal Greenway and the Carlingford to Omeath (Eastern) Greenway as part of longer proposed routes.

Cross-border on the island of Ireland

Cross-border cooperation on the island of Ireland is growing in the areas of spatial planning, infrastructure development and environmental protection. The publication of the Framework for Cooperation: Spatial Strategies of Northern Ireland & the Republic of Ireland in 2013 by the DRD and the Department of Environment, Community and Local Government (DoECLG), in theory enhanced the prospects for cross-border cooperation in spatial planning. The Framework makes no specific reference to greenways or cycle routes, but the importance of ‘cost effective and environment friendly infrastructure’, and the ‘careful conservation and enhancement of shared natural and cultural heritage assets’, is underlined (DRD & DECLG, 2013: 27-28). Multiple strategy and policy documents in both jurisdictions refer to the potential development of greenways and cycle routes, including the Regional Development Strategy 2035 (DRD, 2010), the Regional
Table 1: Existing/proposed greenways and cycle routes identified in county development plans

<table>
<thead>
<tr>
<th>Local authority plan</th>
<th>Existing/proposed greenways and cycle routes</th>
</tr>
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| **Cavan County**                     | • NCN Cavan Leitrim Greenway – proposed  
• NCN Boyne Valley to Lakelands County Greenway and associated looped Kingscourt Greenway – proposed  
• NCN SLNCR (The Sligo Leitrim North Counties Railway Greenway) from Enniskillen to Sligo – proposed  
• NCN Cavan Lakelands Cycle Loop extending from Cavan Town to Killashandra Village – proposed |
| Development Plan 2014-2020            |                                                                                                               |
| **Louth County**                     | • Eastern Greenway – partially complete (Phase 1 Carlingford-Omeath)  
• NCN Dundalk to Sligo (Route 1) – proposed  
• NCN Dundalk to Wexford (Route 5) – proposed  
• NCN Drogheda to Trim (Route 3) – under development  
• Brú na Boinne Greenway Drogheda to Mornington – partially complete |
| Development Plan 2015-2021            |                                                                                                               |
| **Leitrim County**                   | • Sligo to Enniskillen route along railway line (NCN SLNCR) – proposed  
• NCN Sligo to Dundalk (Route 1) – proposed  
• NCN Limerick to Carrick-on-Shannon (Route 11) – proposed  
• NCN Carrick-on-Shannon to Mullingar (Route) – proposed  
• Dromod to Mohill and Ballinamore route along railway line – proposed  
• Kingfisher Cycle Route – existing  
• North West Trail – existing  
• Tour De Humbert Trail – existing |
| Development Plan 2015-2021            |                                                                                                               |
| **County Donegal**                   | • North West Cycle Trail – existing  
• Inis Eoghain Cycleway – existing  
• Ballyshannon to Ballycastle – existing  
• Foyle Valley Cycle Route – existing  
• The Gap Trail (Ardara/Glenties) – existing |
| Development Plan 2012-2018            |                                                                                                               |
| **Sligo County**                     | • Strandhill, Rosses Point, Ballysadare and Collooney to Sligo City routes – proposed  
• Claremorris to Collooney route along railway line – proposed |
| Development Plan 2011-2017            |                                                                                                               |
| **Monaghan County**                  | • Kingfisher Cycle Route – existing  
• Ulster Canal Greenway – existing and proposed |
| Development Plan 2013-2019            |                                                                                                               |

(Source: adapted from McClelland, 2014: 40)
Planning Guidelines (2010-2022) for the Border Region (Border Regional Authority, 2010), and Smarter Travel — A Sustainable Transport Future (Department of Transport, 2009b). The Bicycle Strategy for Northern Ireland and A Strategy for the Development of Irish Cycle Tourism both briefly reference cross-border cooperation, but the still extant Northern Ireland Cycling Strategy and Ireland’s First National Cycle Policy Framework fail to do so, suggesting a somewhat intermittent focus by policymakers on this issue. At the local government level the picture is more straightforward, with each of the local county development plans indicated in Table 1 positively referencing cross-border cooperation on cycling infrastructure. The policy environment, therefore, is broadly conducive to progressing cooperation in this area, although it remains an emergent concern of policymakers in need of accelerated and more detailed elaboration.

Cross-border cooperation between the various government departments, agencies and the cross-border implementation bodies on the development of cycling infrastructure is also an emergent activity. For example, a representative from Waterways Ireland is included on the National Trails Advisory Committee in Ireland, while the possibility of a DTTAS official joining the recently established DRD Greenways Working Group in Northern Ireland was recently mooted (North South Ministerial Council, 2014). Arguably the most prominent example of cooperation between the respective government departments to date concerns the inclusion of a Sustainable Transport theme in the SEUPB’s INTERREG funding programme for the period 2014-2020, including for the ‘development of a comprehensive cross-border cycle network’ (SEUPB, 2014: 16). Only a percentage of the £40 million initially allocated under this theme will be directed towards cycling, but its inclusion in the programme was supported by the intervention of DRD officials, together with their colleagues in Ireland and Scotland (Committee for Regional Development, 2014b). At the local government level, engagement on this issue is already taking place amongst a number of local authorities, including under the auspices of the Memorandum of Understanding between Louth Local Authorities and Newry, Mourne and Down District Council. The further progress of the Ulster Canal Greenway also featured in recent discussions between Monaghan County Council and Armagh City and District Council (now Armagh City, Banbridge and Craigavon Borough Council). The completion of the reform of local government will undoubtedly bolster the potential for further cooperation given the increasing alignment of planning and other functions on either side of the border.

**Progressing the development of a cross-border network of greenways and cycle routes**

The creation of cycling infrastructure on a cross-border basis will depend on the sustained intervention of government and other stakeholders. A number of recommendations made by McClelland (2014) provide some guidance on the sort of intervention required to progress this agenda over the medium-long term. Firstly, policy references to the development of cross-border cycling infrastructure should be more explicitly reinforced in national/regional and local level policy documents in both jurisdictions on the island. This includes within the local development plans introduced by the new local authorities in Northern Ireland, the Local Economic and Community Plans (LECPs) nearing completion by southern local authorities, the future reworking of specific cycling policy documents, and the forthcoming replacement for the National Spatial Strategy (NSS) in Ireland. However, reinforced policy references should also be accompanied in practice by joined-up and integrated land-use planning and transport strategies, which should be complementary and positively reinforcing. The evidence from continental European countries, particularly the cycling success stories of the Netherlands, Germany and Denmark, suggests that the development of cycling requires an integrated approach to spatial and transport planning and the ‘coordinated implementation of […] [a] multifaceted, mutually reinforcing set of policies’ through strict land-use planning systems (Pucher & Buehler, 2008: 495). This inevitably requires a mixture of ‘carrots’ and ‘sticks’ aimed at achieving behavioural change. That such a preferential situation does not yet exist on the island of Ireland is recognised (see, for instance, DTTAS, 2014; Committee for Regional Development, 2015). Acting on a cross-border basis arguably exacerbates the challenges faced by those politicians and policymakers striving for a more joined-up approach within their own
jurisdiction. Nonetheless, for the full benefits of cycling to be fully realised, particularly in rural areas that have not tangibly benefitted from tourism or sustainable rural development, it is essential that the key stakeholders in the Irish border region coordinate their approaches to constructively address the issues at hand.

Secondly, rather than the piecemeal and uncoordinated approach that characterises the present state of play in the Irish border region, it is asserted that a master-planning process for the development of greenways and cycle routes should be initiated to guide strategic decision-making over the long-term (McClelland, 2014). Furthermore, a coordinating body/mechanism should be identified (or created) to prepare for, and implement, a coherent strategy and masterplan, bringing together the key stakeholders from central and local government, in addition to non-governmental actors such as Sustrans. The North South Ministerial Council’s (NSMC) role in cross-border cooperation on transportation is noted favourably by the DTTAS (2009b), while the ongoing work of Waterways Ireland is similarly instructive, particularly given the potential usage of canal towpaths for cycling and walking. Local authorities will remain critical to the delivery of greenway projects on both sides of the border, and the former DRD Minister noting in May 2015 that councils in Northern Ireland will primarily be responsible for their development, similar to their counterparts in Ireland (Northern Ireland Assembly, 2015). A number of prominent opportunities undoubtedly exist for the provision of high-quality cycling infrastructure on the island of Ireland, whether utilising the Ulster and Newry canals or following the route of disused rail lines such as the Sligo Leitrim Northern Counties Railway (SLNCR). Proposals for these routes are at various stages of implementation or elaboration (as outlined in part in Table 1), and GIS-based mapping work has been undertaken by the Irish Trails Office and others to visualise what a comprehensive network might look like.

Finally, the critical issue of finance for capital intensive developments such a greenways and long-term cycle routes is clearly problematic at a time of pressurised public finances. The Declaration of Madrid promotes the creation of a ‘European Green Network’ and articulates the necessity for ‘permanent funding lines for planning, construction, promotion and maintenance of greenways’, including investment from the private sector backed by ‘strategies of corporate social responsibility’ (European Greenways Association, 2010: 3). This suggests the need to explore a diverse range of potential funding sources, whether from central and local government, European funds, the lottery and other major sponsors of charitable causes, in creating a financial cocktail sufficient to develop quality cycling infrastructure. The use of tax incentives, the philanthropic activities of multinational corporations, and harnessing more innovative means of financing, such as online ‘crowdfunding’, should also be encouraged to maximise long-term impact. Indeed, rather than pursuing a competitive approach to the allocation of scarce resources, it is asserted that conceiving of the creation of greenways and cycle routes as a long-term objective, facilitated by a coordinated master-planning process, is more likely to ensure collaboration across the region in delivering a comprehensive network for the mutual benefit of everyone. This might ultimately assist in overcoming some of the local objections to the development of cycling infrastructure experienced to date in certain locations in Ireland.

Conclusions

Hanna (2014: 288), examining the history of cycling in Dublin in the period 1930-1980, informs how cyclists were effectively ‘rendered invisible in planning the city after 1960’, when traffic engineers and planners were preoccupied with catering for the private car in the built environment. Such attitudes were common in urban and rural areas on the island of Ireland in this time period and contrast markedly with the pro-cycling measures reinforced over many decades in other European countries (McKibbin, 2014a). As discussed above, present-day policymakers and planners are increasingly adapting the concerns of cyclists into their policies, plans and practices, supported by a plethora of data evidencing the multiple socio-economic benefits that can be accrued. Much more could be done to resource and implement this ‘cycling revolution’ on the ground in both jurisdictions, but the direction of travel appears favourable, with a weight of public expectation increasingly driving political opinion towards positive
intervention. For instance, the growth in individual membership of Cycling Ireland, from 5,600 in 2009 to 23,000 in 2014, attests to the burgeoning interest (Cycling Ireland, 2014: 5). Nonetheless, the potential for cross-border cooperation in this area is in its infancy, and the type of greenway and long-distance cycling routes needed to drive a modal shift from the private car, and attract high-value cycling tourists, remain largely on the drawing board at present.

Figure 2: Cycling-themed mural on The John Hewitt bar in Belfast’s Cathedral Quarter

(Source: Andrew McClelland)

For the Irish border region to capitalise on these opportunities, policy frameworks require strengthening and integration; strategic coordination and master-planning processes should be initiated as a matter of urgency; and, the identification of long-term and innovative funding mechanisms are deemed a prerequisite to creating a comprehensive network. As the Belfast mural above illustrates (see Figure 2), every turn of the wheel may represent a revolution of sort, but the pace of developments on the island of Ireland needs quickening if cycling is to reach its full revolutionary potential.

Dr. Andrew McClelland began his career at the Ulster Architectural Heritage Society, where he was Heritage Projects Officer with responsibility for the Built Heritage at Risk Northern Ireland project in the period 2002-2009. He subsequently worked on several
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SEUPB INTERREG-funded cross-border spatial planning projects on the island of Ireland, in association with the International Centre for Local and Regional Development (ICLRD) and the Centre for Cross Border Studies (CCBS). Andrew holds an MA in Town and Country Planning from the University of the West of England, Bristol and was awarded his Doctorate from Ulster University in June 2014. His research and consultancy interests include planning and architectural history, public policy and cross border cooperation on the island of Ireland. In September 2016, Andrew will be taking up a Marie Skłodowska-Curie Fellowship at Maynooth University.

Endnotes

i CroSPiAN II formed part of the wider Ireland-Northern Ireland Cross-Border Cooperation Observatory (INICCO II), led by the Centre for Cross Border Studies (CCBS) in Armagh.

ii See www.heatwalkingcycling.org.

iii In light of the comments received during the public consultation exercise, the DRD intimated that substantial changes would be made to the Strategy prior to its publication. The Consultation Report on the Draft Bicycle Strategy for Northern Ireland can be found here: http://www.drdni.gov.uk/consultation-report-on-the-draft-bicycle-strategy.pdf.

iv Transport Infrastructure Ireland came into being in August 2015 following the merger of the National Roads Authority with the Railway Procurement Agency.

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Adapting to climate change is challenging in border regions where emergency situations can become amplified on a cross-border basis. Such amplification is largely the result of more agencies becoming involved in the response; groups that are often geographically dispersed, bring more divergent agendas to the ‘table’ and are often less well acquainted with each other. However, acting to build adaptive responses across international borders serves to increase resilience and decrease vulnerability to climate change. Over the coming decades climate change is likely to increase flood risk. On the island of Ireland, border regions are amongst the most vulnerable to hazards such as flooding. Developing effective cross-border emergency management will require collaborative planning, capacity building and innovative leadership. This paper sets out the urgency of adapting to climate change in border regions and provides an overview of progress and capacity building in moving towards greater shared services in border communities in Ireland.

Introduction
Anthropogenic climate change will pose profound challenges to society over the coming decades. Adapting to climate change will involve transformational change, requiring significant capacity to be empowered, to act, and to be resilient in the face of increasing risk (O’Brien et al., 2009; Adger et al., 2009; Adger et al., 2013; Twigger Ross et al., 2014). Adapting to climate change is seen as most challenging in close proximity to international boundaries. However, acting to build adaptive responses across international borders serves to increase resilience and decrease vulnerability to climate change (Wilder et al., 2010). Challenges for adaptation in border regions stem from emergency situations which are likely to be amplified on a cross-border basis as ‘more participants become involved, while participants tend to be more dispersed, have more divergent agendas and are less well acquainted with each other” (Ansell et al., 2010). Furthermore addressing climate change in border regions will involve new and transformational forms of collaborative planning that stretch current governance arrangements and institutions.

With increasing greenhouse gas emissions, the island of Ireland will face significant risks as a result of climate change, especially in the areas of fluvial, coastal and pluvial flooding. Across the island, recent extreme events have highlighted our vulnerability to such conditions. Winter 2013/14 brought unrelenting storms and rainfall and is likely the stormiest winter on record in the domain of Ireland and the UK (Matthews et al. 2014). Floods in November 2009 affected much of the island with record insurance losses (see Figure 1). While it is a challenge to link these events to human driven climate change, they uncover our vulnerability to weather extremes driven by a high level of exposure.

On the island of Ireland, border regions are amongst the most vulnerable to hydro-climatic hazards such as flooding. Recent floods have exacted a heavy toll on communities and individuals in Fermanagh and Tyrone; with Strabane, for example, showing acute socio-spatial
flood vulnerability. Economic development over the past decade and a half has been frustratingly slow and border communities continue to exhibit acute and high levels of socio-spatial disadvantage (AIRO, 2014). Historically, the border region has suffered from a lack of joined-up thinking and action - including around shared environmental issues and climate adaptation. Whilst the Peace Process has bequeathed cross-border cooperative mechanisms these remain fragile and embryonic.

The role of emergency management in reducing current and future losses from floods is widely recognised. Among the border counties, Fermanagh has a particularly high exposure to flooding, especially along the heavily managed Lough Erne system. In October and
November 2009 widespread flooding had a profound influence on life in the county at both individual and community level. In a review of the 2009 floods, a cross-departmental taskforce established by the Office of the First Minister and Deputy First Minister (OFMDFM) concluded that flood risk in Fermanagh cannot be eliminated through engineering approaches alone. It went on to recommend that all organisations engaged in flood response should ensure that emergency plans and networks are further developed to deal with the consequences of future serious flooding (OFMDFM, 2010). Additionally, the importance of maintaining essential services to local communities, particularly emergency services and contingency plans, during times of flood was highlighted, together with the need to ensure preparedness and information on assets exposed to flooding.

Against this backdrop and cognisant of the fact that climate change will not respect borders, this paper aims to provide an overview of ongoing development of cross-border relationships in emergency management. It builds on the work undertaken in 2014 where the International Centre for Local and Regional Development (ICLRD) and the All Island Research Observatory (AIRO) collaborated with the recently established Cross Border Emergency Management Working Group (CBEMWG) to develop institutional capacity in coordination and liaison arrangements in cross-border emergencies. Such innovative, and indeed transformative, approaches to managing extreme events underpin effective adaptation to climate change through building cooperative strategies to increase capacity and resilience to extreme events in some of the most vulnerable regions of our island.

A future with more floods
Climate change is expected to result in increases in flood risk across the British-Irish isles. While there is limited research, to date, that examines observed and projected changes in climate on an island of Ireland basis, some is beginning to emerge. For instance, Murphy et al. (2013) developed a hydrometric reference network of river flow gauges for the Republic of Ireland (heretofore referred to as Ireland). Such networks identify the best available river flow measurements that are free from confounding factors such as urbanisation, land-use change etc. and thus can be used for examining climate signals in river flow records. In their analysis, Murphy et al. (2013) combined their network with reference stations in Northern Ireland that comprise the UK benchmark hydrometric network. The analysis of changes in floods across 43 catchments on the island revealed that significant increasing trends are apparent, particularly since the early 1990s. Such increasing trends are likely a manifestation of natural climate variability but nonetheless indicate an increase in the magnitude of floods over the last decade and an half. Long-term rainfall records also support this idea of a wetter, more flood prone island. Noone et al. (2015) developed a homogenised, long-term rainfall network for the island of Ireland which comprises 25 monthly rainfall gauges, both North and South of the border, dating from 1850-2010. Again, analysis of trends in this very valuable long-term series indicates a strong signal of wetter winters and drier summers over the full period of record.

In terms of projected changes in flooding over the coming decades no research has been carried out on an island of Ireland basis. However, work done in both jurisdictions, together with broader scale European analyses, suggest that continued wetting will result in increased flood risk; the magnitude of floods is likely to increase, while flood events are likely to occur more frequently. In particular, increased flooding is likely to be associated with increases in extreme rainfall events. While we generally associate flooding with fluvial forms i.e. river flooding, other types of flooding are also identifiable. These include pluvial flooding, which is associated with large amounts of surface runoff due to heavy rainfall that typically exceeds the infiltration capacity of the surface; and groundwater flooding, which is typically associated with long rainfall events that cause the water table to reach the surface for prolonged periods of time. Flooding is also associated with failure of infrastructure and joint events in coastal areas where storm surges can combine with sea level rise and onshore flooding to cause extensive damage in coastal areas.

For Ireland, Murphy (2014) has assessed the likely changes in flooding for various catchments. While results are dependent on how emissions of greenhouse gases
Figure 2: Storm Desmond flooding on Lifford/Strabane Bridge (Donegal/Strabane border) and in Castlefin, County Donegal in 2015

(Source: Donegal County Council, 2015)
are likely to evolve over the coming century (i.e. the successfullness of global mitigation strategies), individual catchment properties such as land-use and soil type, and on methodological choices such as which Global Climate Model employed, the overall indication is of increased flooding. In many catchments it is suggested that floods that are experienced once every one hundred years at present are likely to occur as frequently as once every twenty years or so by the middle of this century. Given the similar hydrology North and South of the border, it is not a great leap to assume that similar changes can be expected for flooding in Northern Ireland also.

Particularly noteworthy of recent flood events has been their large spatial extent; the 2009 floods and their wide spatial influence spring to mind, as well as the winters of 2013/14 and 2015/16 (see Figure 2). Both of these island-wide floods were driven by exceptionally cyclonic conditions. Cyclones are essentially the mid-latitude equivalent of tropical hurricanes. Across the UK and Ireland as much as 70 percent of total winter rainfall can be derived from the passage of such storms. Indeed these islands find themselves located right on the storm track all year round. Of high importance then to understanding flood risk under climate change is to understand how the characteristics of the storm track and individual cyclones is likely to change. While there is uncertainty over this, the consensus is that storms are likely to become more intense in a warmer world. Therefore, the risk of megafloods - floods that are large in spatial extent and affect multiple sectors at the same time - is likely to increase in future.

Meeting future challenges: adapting to climate change
Given the likelihood of increased flood risk, furthering efforts to adapt to climate change is essential. There are multiple definitions of adaptation in operation within the vast climate change literature. One of the most widely used is that of Smit et al. (2001) who define adaptation as:

"adjustments in ecological, social or economic systems in response to actual or expected climatic stimuli and their effects or impacts. It refers to changes in processes, practices, and structures to moderate potential damages or to benefit from opportunities associated with climate change (Smit et al., 2001: 879)."

This definition, used by the Intergovernmental Panel on Climate Change (IPCC), draws attention to the technologies, regulations, policies and practices that enable society to live with change. In terms of timing, adaptation can be both reactive and anticipatory. In terms of the latter, emphasis has been placed on developing adaptation strategies for specific sectors or resource systems, the production of tools to help decision-making processes and planning in developing policy measures. One limitation of such conceptualisations of adaptation is that they are incremental; adding to systems that are already in place. For systems in which vulnerability is high and risk exceeds resilience, continued functioning of the system may only be possible through transformational adaptation.

Recently, consideration of transformative adaptation has become more widespread. Pelling (2014) draws out distinct uses of the concept of transformation in the context of adaptation. Of particular importance here is that transformation is often used as an approach to adaptation that aims to shift fundamental relations to open new scope for adaptation, innovation and collaboration. Such shifts may include combinations of technical innovations and tools, institutional reforms, behavioural shifts and cultural changes by individuals, institutions and governments. Transformational adaptation requires a strengthening of existing capacities to effect change (Rickards & Howden, 2012). Improving the capacity of civil society and governments is crucial for transformative change. At a local level, undertaking adaptive actions can be influenced by factors including leadership capacities, learning capacities, social network capacities, economic capacities, technical capacities, individual capacities, government institution and legislative capacities, private sector capacities and knowledge capacities amongst others (O’Brien et al., 2009; Folke et al., 2010; Gelcich et al., 2010; Pelling & Manuel-Navarrete, 2011; IPCC, 2012; Reví et al., 2014).
Transforming cross-border emergency management

With the above in mind, climate change and increased flood risk increases the need for innovative and transformative approaches to emergency management in border regions. In recent years, there has been increasing international attention on the need for cross-border cooperation on emergency planning and crisis management in general, including within the European Union (EU). Yet, while it is an obvious truism to state that natural disasters or man-made crises are no respecters of jurisdictional boundaries, questions remain as to how effective the EU can be when faced with transboundary crises (Boin et al, 2014). This raises the question as to whether the challenge of emergency planning is best addressed by national government, or indeed regional and local government? Geography, for example, is a common driver for cross-border cooperation on emergency planning, especially in locations where a neighbouring local authority can more readily fulfill an emergency service provision. In identifying opportunities for shared services between and among local governments, for example, the notion of functional service areas underpin the logic of ‘proximity creates opportunities’ for providing and maintaining services, even at a time of budget cutbacks (Peel et al, 2012: 8). The concept of working with neighbouring local authorities in providing services supports the spatial planning concept of ‘clustering’. And while there are many documented cases of where local and regional governments cooperate across borders in emergency planning (Princen et al., 2014; Ansell et al, 2010; Palm & Ramdell, 2007), there are inconsistencies in the trend overall (Princen et al., 2014) and to the depth of collaboration taking place. As argued by Ansell et al (2010), crises management becomes increasingly difficult when events cross geographical borders and indeed, policy boundaries. More participants, which tend to be geographically dispersed and often operating to divergent agendas, become involved. This raises questions around not only the management of these networks of actors but also the role of various participants as transformative leaders - individuals who effectively operate across complex inter-organisational and geographic boundaries.

Ansell et al (2010) contend that the response to a transboundary crisis requires a specific set of organisational and procedural tools, with the actors involved being both nimble and adaptive to the various type of situations that may arise. These individuals - or 'leaders' - must be critical facilitators of cross-boundary coordination; or as Williams (2010) would call them, "boundary spanners". With a growing emphasis being placed on civic engagement and the need for communities to become resilient to global events - including environmental conditions such as climate adaptation - there is, as noted by Peel (2013), a growing corollary around new forms of civic leadership.

At the local level, involving for example local government, a well-developed emergency management programme must involve the sharing of resources including workforce, equipment, and expertise (Palm & Ramdell, 2007). In the United States, the Federal Emergency Management Agency (FEMA) is a strong proponent of equipping local communities for civil emergencies; with an emphasis placed on preparedness, protection, response, recovery and mitigation (McClelland, 2014). Across the UK, Local Resilience Forums (LRFs) are being established. These are multi-agency partnerships made up of representatives from local public services, including the emergency services, local authorities, the NHS, the Environment Agency and others (Creamer & Driscoll, 2013). Their aim is to plan and prepare for localised incidents and catastrophic emergencies, and work to identify potential risks and produce emergency plans to either prevent or mitigate the impact of any incident on their local communities (Cabinet Office, 2011). In Germany and the Netherlands, cross-border cooperation in the fields of policing and emergency management was formalised in 2000 as part of the work programme of the Euroregio. The Ariem-112 project involving the areas of Galicia, Castilla y Leon and the North of Portugal, for example, has not only led to joint training programmes and drills but also to the development of a computer application for handling emergency information (see http://www.ariem112.eu/Paxinas/Ariem_gal.cshtml). The Nordic countries of Finland, Sweden, Iceland, Norway and Denmark are all signatories to the Haga II Declaration which promotes cooperation across six areas relating
to civil emergencies: rescue services, exercises and training, responses to CBRN emergencies, crisis communication with the general public, recruitment of volunteers and civil-protection related research (Bailes, 2014).

The efficient use and pooling of often limited resources in tackling common challenges makes financial sense - an increasingly key impetus for collaboration among local authorities - particularly in sparsely-populated areas (Princen et al., 2014). Collaboration, based on a shared interest and responsibility is, according to Sullivan and Skelcher, "central to the way in which public policy is made, managed and delivered" (2002: 1). Such shared services are increasingly becoming key tools in the delivery of local services - with the rigidity of both organisational and physical boundaries becoming more porous (Creamer & Driscoll, 2013). For the island of Ireland and more specifically the peripheral border counties, cross-council and indeed cross-border collaboration is increasingly to the forefront of strategic planning policy and practice. With a growing emphasis being placed on the roll-out of a shared services programme in both jurisdictions, cross-border cooperation initiatives are viewed as the creation of a connected and resilient approach to emergencies which will ultimately derive mutual benefits and reassurance to all those living and working in a border region (McClelland, 2014).

Building capacity: Emergency planning pilot in the Irish Border Region

There is a long tradition of emergency services in the Irish border region supporting each other on a case-by-case (or emergency-by-emergency) basis – largely based on proximity and response times. While this could be considered a disjointed approach to emergency management, its value added cannot be disputed. The Northern Ireland Fire and Rescue Service (NIFRS), for example, has a Service Level Agreement with Donegal Fire Service by which NIFRS provides first response to calls in Donegal in the border areas of Londonderry, Strabane & Belleek. The NIFRS & Donegal Fire Service also regularly participate in joint exercises & familiarisation visits, as well as the sharing of best practices. Between 2007 and 2013, Co-operation and Working Together (CAWT), the cross border partnership for the Health Authorities located along the border between Northern Ireland and the Republic of Ireland, held a series of cross-border training events and courses to foster shared approaches to various types of emergencies. The objective was to ensure that the presence of the border would not become an obstacle to the efficiency of responders. In 2011, the Councils of Louth and Newry and Mourne signed a Memorandum of Understanding (MOU) setting out key areas of collaboration with the objective of supporting and promoting the economic development and competitiveness of this cross-border region. One such area of cooperation was in emergency planning, with the Councils committing to “optimise the use of resources through sharing of services, facilities and personnel in responding to emergencies”.

These experiences, together with the aforementioned heightened frequency and severity of flooding incidences in the border counties led, in 2014, to the identification of emergency planning as an arena for closer cooperation and the sharing of services between local government and other agencies and the subsequent establishment of the Cross Border Emergency Management Working Group (CBEMWG). Its role was to ‘act as a strategic multi agency grouping for agencies involved in emergency management on a cross-border basis’ (CBEMWG, 2014). This Working Group represents a more formalised basis for multi-agency collaboration; a formalisation deemed necessary to enhance regional emergency management capabilities and ensure an effective responses to emergency situations (O’Flynn, 2014). In pursuance of the principle of reciprocity, the CBEMWG has been structured to ensure equal representation from key government agencies in Ireland and Northern Ireland (see Table 1). Its membership includes ten representatives from the Southern and Western Emergency Preparedness Groups in Northern Ireland, and a further ten representatives from the North West and North East Major Emergency Management Regional Working Groups in Ireland. In addition, nominated representatives from the Office of the First and Deputy First Ministers’ Civil Contingencies Policy Branch, the Headquarters of the Police Service of Northern Ireland, the Department of Environment,
Community and Local Government, and the Garda Headquarters Branch have also been invited to attend meetings.

As ‘boundary spanners’ who work in ‘fresh spaces’ between existing functions and who perform this additional role as part of a wider portfolio of activities (Williams, 2010), the CBEMWG began drafting and subsequently agreed a three-year strategy document. The resulting Strategic Plan articulates a number of strategic priorities concerning the internal functioning of the group, the implementation of cross-border emergency management arrangements, enhanced training and information sharing, and the principle of continuous improvement. Amongst the short, medium and long-term actions also identified, is the development of a cross-border risk register, the strengthening of existing Memoranda of Understanding on the provision of mutual aid, and the creation of a multi-agency programme of regular training exercises. The Strategic Plan covers the period 2015-2018, and sets the group a challenging agenda that will undoubtedly require adequate resourcing and the buy-in of each of the organisations represented on the CBEMWG to ensure its successful implementation.

Within months of its establishment, the International Centre for Local and Regional Development (ICLRD) and the All Island Research Observatory (AIRO) began working with the CBEMWG on an emergency planning pilot project in the Irish border region. This work programme was funded under the EU-funded INTERREG IVA project, CroSPiAaN®; the focus of which was on the role of local government in driving a shared services programme of activity. The emergence of the CBEMWG represented a promising local authority-led initiative to advance a shared services agenda in emergency management and planning, especially in the context of the (then) impending local government reform in both jurisdictions.

The principal focus of the emergency planning pilot project in the Irish border region was the development of a ‘proof of concept’ mapping tool by the ICLRD and AIRO for the CBEMWG (see Figure 3). The online mapping tool integrates, for the first time in the Irish border region, a range of easily navigable datasets that will enable local emergency managers to better plan for, and react to, major cross-border emergency incidents. Amongst the assets located on the tool are fire stations, command support units, specialist rescue teams, community facilities, sandbag locations, and local authority offices. In addition to details of the various assets available to emergency managers, the mapping tool identifies Seveso/COMAH sites in the region, which necessitate the compilation of detailed risk assessments, management plans and other information required under associated EU Directives. The mapping tool is further complemented by the inclusion of a comprehensive emergency contact directory for the cross-border region, which will be updated on a regular basis by the CBEMWG.

Table 1: The Groups represented on the CBEMWG

<table>
<thead>
<tr>
<th>Ireland</th>
<th>Northern Ireland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local government (including Fire Service)</td>
<td>Local government (Southern and Western Group Environmental Health Groups)</td>
</tr>
<tr>
<td>An Garda Síochána</td>
<td>Police Service of Northern Ireland</td>
</tr>
<tr>
<td>Health Service Executive</td>
<td>Northern Ireland Ambulance Service</td>
</tr>
<tr>
<td></td>
<td>Public Health Agency &amp; Health and Social Care Trusts</td>
</tr>
<tr>
<td></td>
<td>Northern Ireland Fire and Rescue Service</td>
</tr>
</tbody>
</table>
The mapping tool is of immediate utility for members of the CBEMWG, providing an overview of existing resources to aid the strategic decision-making of emergency managers, particularly in the preparedness and response phases of a major emergency. The pilot initiative facilitated the collation of sometimes difficult to access data from government agencies, especially the information held on a more fragmented basis in the border counties in Ireland (in comparison with the centrally available information in Northern Ireland).

As a proof of concept, the mapping tool provides a solid platform from which the CBEMWG can develop a more powerful GIS-based system to aid multi-agency interoperability. Indeed, as McClelland (2014) points out, the integration of dynamic features, such as remote sensing, air dispersion models, and social media platforms, into a future GIS-based mapping tool, would significantly enhance its capacity to aid emergency managers in the Irish border region in all the phases of the emergency management process—assessment, mitigation, preparedness, response and recovery. Indeed, the mapping tool serves several existing functions for emergency managers in the border region, thereby enhancing the efficiency and effectiveness of service delivery. It provides an overview of existing resources to aid strategic decision-making in their allocation and use, particularly in relation to the preparedness and response phases of a major emergency incident such as a flood. Moreover, the tool provides a solid platform from which the CBEMWG can develop a more comprehensive and powerful GIS-based system, integrating additional datasets and analytic capabilities relevant to their ongoing work, while drawing upon the parallel research conducted during the pilot while the mapping work was underway. Indeed, much of the most difficult to access data has already been collated thanks to the pilot initiative, especially the information held on a more fragmented basis in the border counties in Ireland, in comparison with the centrally available information in Northern Ireland.

Nonetheless, technological innovation must also go hand-in-hand with solving ‘people issues’, ensuring that resilient organisational structures and good communication channels are in place as it is these, rather than technical considerations, that are often the most difficult to overcome (Allen et al., 2014: 425). As such, in support of the mapping component of the pilot, the ICLRD produced a detailed report for the CBEMWG entitled Cross-Border Emergency Planning on the island of Ireland: Existing arrangements, critical issues

![Figure 3: A screen-shot showing the ICLRD & AIRO-developed GIS-based mapping tool](Source: AIRO, 2014).
and learning from international experience (McClelland, 2014). The report provides a comprehensive account of the necessity for cross-border cooperation in emergency planning on the island of Ireland, outlines some of the history of cooperation in this area, and identifies certain policy gaps evident in the key guidance and framework documents used by public agencies in both jurisdictions, insofar as cross-border cooperation is concerned.

Pertinent recommendations are made on the necessity for additional policy guidance and protocols. Furthermore, the learning derived from the academic and practice-based literature, and the insights emanating from several European case studies, provides the CBEMWG with a range of ‘sign-posts’ to progressing cross-border cooperation in emergency planning. For example, the innovative use of IT in emergency management, practical issues concerning insurance, liability and legal and professional safeguards for emergency personnel when crossing borders, and the critically important task of achieving ‘interoperability’ amongst emergency responders, are each considered in the report. The report also provides practical examples of how others have resolved, or are attempting to resolve, such issues in their own cross-border contexts. Consequently, in terms of finding applicable solutions to problems through joint actions, a more expansive range of reference points is available to the CBEMWG from which to derive the transferable lessons for their own purposes.

Conclusions
Emergency management is a key tool in adapting to climate change. It is obvious that we cannot physically engineer flood risk to zero and, therefore, emergency management will play an enhanced role in reducing losses as the risk of flooding increases in a changing climate. In the Irish border region, vulnerability to floods is high and incremental adaptation will not suffice in avoiding losses. Steps towards development of cross-border emergency management undertaken by the CBEMWG show evidence of transformative change in flood risk management where transformative leaders play an active role in negotiating policy.

The success of CBEMWG to date is based on developing cross-sectoral spaces for information sharing and collaborative discussion in building policy networks. Within these networks sharing of expertise and information is critical. As developed by the ICLRD and AIRO, mapping tools provide an opportunity to build capacity and move away from a reliance on ‘who you know’ to having actual shared resources to which all have equal access. The potential of this pilot to inform and drive further collaborative efforts in emergency planning in the border region cannot be overstated — with the process and learning also demonstrating a pathway to heightened cooperation and peer-to-peer sharing for other sectors.

Dr. Conor Murphy is a Senior Lecturer in the Department of Geography at Maynooth University and researcher with the Irish Climate Analysis and Research Units (ICARUS). His research interests have a particular focus on modelling impacts of climate change, quantifying uncertainty and exploring how uncertainty in future impacts can be integrated into decision making; the detection and attribution of climate change signals from observations and the reconstruction and analysis of long-term records of key climate variables; and understanding the social dynamics of adaptation to climate change. Conor sits on the National Adaptation Committee, and is an expert reviewer for the reports of the Intergovernmental Panel on Climate Change. He serves on the editorial board of the Journal of Extreme Events and is Review Editor for the Urban Climate Change Research Network Global Assessment Report. He is also a member of the Irish National Committee for the International Hydrological Programme.

Ms. Caroline Creamer is Director of the International Centre for Local and Regional Development (ICLRD) and a Research Fellow with the National Institute for Regional and Spatial Analysis (NIRSA) at Maynooth University. A qualified town planner, Caroline has been working with local government, communities and other key stakeholders in the Irish border
region for the past decade. Her research interests include spatial planning practice and policy, regional and local development and regeneration, collaborative and participative decision-making, building community resilience, and inter-territorial and cross-border development.

Dr. Andrew McClelland began his career at the Ulster Architectural Heritage Society, where he was Heritage Projects Officer with responsibility for the Built Heritage at Risk Northern Ireland project in the period 2002-2009. He subsequently worked on several SEUPB INTERREG-funded cross-border spatial planning projects on the island of Ireland, in association with the International Centre for Local and Regional Development (ICLRD) and the Centre for Cross Border Studies (CCBS). Andrew holds an MA in Town and Country Planning from the University of the West of England, Bristol and was awarded his Doctorate from Ulster University in June 2014. His research and consultancy interests include planning and architectural history, public policy and cross border cooperation on the island of Ireland. In September 2016, Andrew will be taking up a Marie Skłodowska-Curie Fellowship at Maynooth University.

Prof. Mark Boyle is Professor of Geography at Maynooth University and National Contact Point for Ireland for the Urbact III programme (www.urbact.eu). His research interests include urban and regional development, spatial planning and urban policy.

References


Endnotes

i This is based on considering both the intensity and frequency of cyclones together.

ii CBRN emergencies are Chemical, Biological, Radiological and Nuclear disasters.

iii As part of the CroSplaNII Shared Services Project two pilot initiatives were undertaken: one focusing on Tourism; and a second on Emergency Management Services that worked towards the development of an emergency planning mapping portal for the cross-border region of Ireland.


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IRELAND’S INPUT-OUTPUT FRAMEWORK – WHERE ARE THE REGIONS?

Ms. Mary A. Carey and Prof. Thomas G. Johnson

Input-output models have been developed, modified and studied extensively around the world since Leontief’s pioneering work in the late 1930s. This article considers Ireland’s Input-Output framework including the methodological approach and the assumptions required to produce consistent tables. This article also outlines the basic principles that are essential in the development of a Multi-Regional Input-Output (MRIO) model and specifies some of the main options available to regionalise the national Input-Output tables. We conclude that an MRIO model would significantly add to the ability to produce evidence-based policy in Ireland at local and regional level. Institutional support across all levels of Government is required to maximise fully the potential of such a regional model.

Introduction

Policy-makers, researchers, community groups, industry officials and others are often interested in the economic impact of specific sectors on the economy. Economic impact models are used frequently to analyse the impact of sector expansion, firm closure and regulatory changes on the economy. Economic impact analysis models are based, most commonly, on adaptations of the Input-Output framework (Siegel & Johnson, 1993). The Input-Output framework was developed by Professor Leontief in the late 1930s, and focused on the interdependence of industries in an economy by analysing inter-industry flows for a specific geographical area (Leontief, 1936). The Input-Output (I-O) framework represents inter-industry relationships that exist within the different sectors of an economy in a statistical or accounting format. It is a simple general equilibrium model based on the flows of goods/services between the different sectors of the economy. Industries produce goods/services for consumption by other industries, households and the public sector while simultaneously consuming other sectors’ goods/services (e.g. raw materials from other industries, labour from households and public goods supplied by governments and local authorities). The basis of the I-O approach is that production of an ‘output’ requires ‘inputs’. The flow of goods and services or the linkages between the different sectors in an economy lead to the notion of feedback loops and multipliers. The basic multiplier effect refers to the boost to the local economy generated by money spent in the locality as opposed to money leaking to the wider economy. Input-Output tables measure the intensity of multipliers in an economy by analysing upstream linkages (inputs into the production process) and downstream linkages (selling output) in an economy.

Leontief’s basic model has been extended in many ways since the 1930s and now provides a wide variety of economic analysis models. The I-O framework has, for example, also been extended to incorporate social, environmental and energy issues. In 2007, a working paper by the Economic and Social Research Institute (ESRI) demonstrated an environmental Input-Output model for Ireland for the year 2000, with a focus on selected emissions (O’Doherty & Tol, 2007) while in 2015, Grealis and O’Donoghue from NUI Galway produced a preliminary report on the development and uses of a bio-economy Input-Output model. According to Miller & Blair (2009), extensions to the I-O framework are considered, mostly, to deal with data availability/limitations and increasing methodological complexity such as incorporating additional information on...
economic activity (over time and space) and connecting I-O models to other economic analysis tools.

Under European Union Regulation, Ireland is required to produce National Input-Output tables every five years. The latest National Input-Output tables, describing year 2011, was published by the Central Statistics Office in December 2014 and uses the NACE Rev. 2 classification of economic activity. Ireland’s Input-Output framework is based on the revised European System of Accounts methodology and the United Nations’ Handbook of Input-Output Tables. It is important that we understand the methodology in use, and the assumptions required to produce consistent tables before considering options to regionalise Input-Output tables. A discussion of the options available to regionalise the national Input-Output tables to a higher level of spatial disaggregation (NUTS 3 or county level) and the potential benefits which are likely to arise will be a useful exercise for the authors, other interested researchers and policy-makers alike.

This article introduces the basic fundamentals of I-O tables, and discusses the assumptions of Ireland’s Input-Output framework. It introduces the basic principles of regional I-O tables and considers the potential benefits of such models. The article then considers the methods available to regionalise National Input-Output tables and concludes with a discussion on a shared-service proposal to facilitate the continued development and use of a Multi-Regional Input-Output (MRIO) model.

**Input-Output Models: The Fundamentals**

Input-output models are simple but powerful representations of the structures of national and regional economies. They are based on data regularly collected by governments to produce national accounting indicators such as gross domestic product, national income, and balance of trade. I-O models combine these data to produce tables that reflect the interrelationships among national or regional businesses, households, governments, non-governmental organisations, and the rest of the world. The resulting models are then used to produce estimations of changes in income, production, consumption, saving, imports and exports given any of a wide range of ‘what if’ scenarios. These estimations are used to predict the economic consequences of policy changes, natural disasters, and changes in trade patterns, for example, by governments. Businesses use I-O models to describe their importance to their regional economy, or to predict changes in demand for their products. Researchers use I-O to test theories about technological change, income distribution, and a variety of other questions.

I-O models are fundamentally mathematical systems based on the equation of money flows to and from businesses, households and governments. The basic structure of an input-output model for \( n \) business sectors can be represented as follows:

\[
(I - A)x = f
\]

and solving for \( x \) using standard matrix algebra:

\[
x = (I - A)^{-1}f
\]

where:
- \( x \) is a vector of gross output
- \( A \) is an \( n \times n \) input-output coefficient matrix
- \( I \) is the identity matrix (“1” in the diagonal, “0” in all other fields)
- \((I - A)^{-1}\) is an inverse of a square matrix (also known as the Leontief inverse)
- \( f \) is a vector of final demand.

Final demand is the sum of purchase by governments and buyers outside the region. Making a number of assumptions (see section below), it is possible to measure regional economic impacts as a result of changes in final demand \((\Delta f)\) and expressed as changes in gross output \((\Delta x)\) in each sector. The basic I-O equation is solved mathematically by inverting the \((I - A)\) matrix. The resulting Leontief inverse \((I - A)^{-1}\) shows change in output in each sector due to a unit change in final demand. The Leontief inverse is used as a multiplier matrix providing two types of multipliers - Type I & Type II (see Table 1).
Table 1: Composition of Multipliers

<table>
<thead>
<tr>
<th>Type I Multipliers</th>
<th>Type II Multipliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final-demand change</td>
<td>Final-demand change</td>
</tr>
<tr>
<td>+ Direct impacts</td>
<td>+ Direct impacts</td>
</tr>
<tr>
<td>+ Indirect impacts</td>
<td>+ Indirect impacts</td>
</tr>
<tr>
<td></td>
<td>+ Induced impacts</td>
</tr>
<tr>
<td>Total impact</td>
<td>Total impact</td>
</tr>
</tbody>
</table>

(Source: Authors, 2016)

Type I measures the impact of the increase in a product as producers respond to the increased final demand (direct effect) and as producers purchase inputs from other sectors (indirect effect). Type II measures the direct, indirect and induced impacts. Induced impact relates to the subsequent spending of income received by economic agents through the direct and indirect impact. The I-O model would need to be closed with respect to households (moving the household sector into the interrelated endogenous sectors) to generate the induced impact. Using these multipliers from the Leontief inverse, Input-Output tables are important tools in economic impact analysis.

The first set of I-O tables for Ireland, referring to year 1964, were published by the Central Statistics Office in 1970 (MacFeely, 2011). Ireland’s Input-Output framework is set out under the European System of Accounts (ESA, 2008) and consists of Supply & Use tables and Symmetric Input-Output tables. Ireland, similar to many other countries, also publish tables showing estimates for the coefficients of domestic product flows and the Leontief inverse of domestic flows with multipliers for other inputs.

The Supply and Use system was designed to better handle secondary production in the I-O Framework (UN, 1999). A ‘Supply table’ details the supply of goods and services by domestic industries as well as imports of goods and services from abroad. The supply table is a product-by-industry table with rows corresponding to products and columns corresponding to industries and imports. Industries are classified according to the product that translates into the largest share of its output, its principal product. An industries’ principal product is shown in the diagonal cells while secondary products are shown in the off-diagonal cells. The ‘use table’ details the use of goods and services by use (domestic industry and final demand) and is also a product-by-industry table with products and components of Gross Value Added in the rows and the categories of use in the columns.

The main aggregates in the CSO’s supply and use tables are consistent with Ireland’s National Accounts data. The CSO populates the supply and use tables with data from other state institutions and its many business surveys; Census of Industrial Production, Building and Construction Inquiry and the Annual Services Inquiry. Given the variety of sources used to construct supply and use tables, it is reasonable to expect that the tables may not balance initially. A process called the RAS technique (Stone, 1961) is often employed to balance the tables. The RAS process calculates differences in receipts and expenditures for each sector and distributes the difference proportionately across receipts and expenditures until the matrices are balanced (with the national accounts and the corresponding column/row totals in the supply table are equal to the column/row totals in the use table). Since changes in one sector affect the balance in other sectors, RAS must iteratively make several rounds of adjustments until stable estimates are found. This is important as the supply and use tables are the building blocks of the I-O framework, and form the basis for the transformation of the data contained in the supply and use tables to an Input-Output table. The transformation process depends on the assumption made in relation to the treatment of secondary production in the production process.

Input-Output Models: Assumptions & Application

The Eurostat Manual of Supply, Use and Input-Output Tables and in the UN Handbook of Input-Output Table Compilation and Analysis provide a comprehensive discussion on the four basic assumptions used to transform supply and use tables into symmetric input-output tables. The assumptions relate to the treatment of secondary production/by-products in the production process. The four main assumptions used are (i) Product Technology Assumption; (ii) Industry Technology Assumption; (iii) Fixed Industry Sales Structure; and (iv) Fixed Product Sales Structure Assumption. A
symmetric Input-Output table can be a product-by-product or industry-by-industry matrix and, as such, the assumptions chosen are based on the desired final arrangement of the matrix. The two models based on the technology assumption generate product-by-product I-O tables with homogenous products in rows and homogenous branches of productions in the columns. The remaining two models are based on the fixed sales structure assumption and generate industry-by-industry I-O tables with products provided by industries in the rows and industries in the columns (Eurostat, 2008).

The Product Technology Assumption supposes that the input structure (inputs used) of each product is the same regardless of the industry where it is being produced. This Assumption is the most commonly used method to transform supply and use tables into symmetric I-O tables. However, the transformation using the Product Technology Assumption may produce negative elements in the technical coefficients matrix that are "improbable or even impossible" (ESA, 2010).

The Industry Technology Assumption supposes that an industry’s principal and secondary products are produced using the same input structure. This Assumption is the less preferred option in generating product-by-product I-O tables. However, the Industry Technology Assumption (ITA) is preferable to the Product Technology Assumption for two limited reasons – the ITA is applicable to rectangular I-O tables, and it always generates positive elements.

The Fixed Industry Sales Structure Assumption supposes that each industry has its own sales structure irrespective of the mix of products it produces. The firms will supply their products (principal and secondary) in the same proportions to buyers. This strong assumption is, generally, considered unrealistic (Eurostat, 2008) and thus is rarely used to transform asymmetric supply and use tables into symmetric I-O tables.

Finally, the Fixed Product Sales Structure Assumption supposes that every product has its own specific sales structure regardless of the industry involved. This assumption does not yield negatives elements and has been used by several European Union Member States (for example Denmark, Netherlands, Finland) to complete the transformation process.

Essentially, the choice of model will depend on the desired final tables, product-by-product or industry-by-industry tables, and the advice and procedures provided by international organisations on generating I-O tables. Many of these organisations seem to agree that the Fixed Product Sales Structures Assumption and the Product Technology Assumption are preferable (Eurostat, 2008; UN, 1999). Ireland’s Supply and Use tables are transformed to a Symmetric Input-Output table using the Product Technology Assumption. The Supply and Use tables to Symmetric Input-Output table transformation process use a series of ‘intermediate’ tables. The ‘intermediate’ tables include a use table converted to basic prices from purchases’ prices and domestic & imported use tables that articulate the assumptions made regarding the production of secondary production (Product Technology Assumption in Ireland’s case).

A condensed version of Ireland’s 2011 Input-Output table is presented in Table 2. Ireland’s published I-O table is a product-by-product symmetric table valued at basic prices and closed with respect to households. Product-by-product refers to the fact that the I-O table shows the use of products in the production of other products, it allows for a simultaneous examination of inputs (columns) and outputs (rows) and is symmetric in that the sum of the columns will equal the sum of the rows. The basic price is the price retained by the producer (price received minus tax due plus any subsidy received). Households are considered exogenous in Ireland’s National I-O table and, as per Table 1, the multipliers derived from the I-O table are Type I.
Table 2: 2011 Symmetric Input-Output table of domestic product flows €m

<table>
<thead>
<tr>
<th>Products</th>
<th>Agriculture</th>
<th>Manufacturing</th>
<th>Construction</th>
<th>Distribution</th>
<th>Business services</th>
<th>Other services</th>
<th>Total inter-industry</th>
<th>Cons and GFCF</th>
<th>Exports</th>
<th>Total Outputs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>1,162</td>
<td>3,448</td>
<td>28</td>
<td>73</td>
<td>1</td>
<td>19</td>
<td>4,731</td>
<td>1,444</td>
<td>1,102</td>
<td>7,277</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>591</td>
<td>4,154</td>
<td>1,462</td>
<td>1,331</td>
<td>491</td>
<td>890</td>
<td>8,919</td>
<td>4,948</td>
<td>84,464</td>
<td>98,331</td>
</tr>
<tr>
<td>Construction</td>
<td>60</td>
<td>325</td>
<td>1,032</td>
<td>344</td>
<td>139</td>
<td>212</td>
<td>2,113</td>
<td>7,442</td>
<td>0</td>
<td>9,555</td>
</tr>
<tr>
<td>Distribution</td>
<td>365</td>
<td>4,859</td>
<td>456</td>
<td>5,105</td>
<td>3,919</td>
<td>1,035</td>
<td>15,740</td>
<td>24,457</td>
<td>27,945</td>
<td>68,142</td>
</tr>
<tr>
<td>Business services</td>
<td>196</td>
<td>1,744</td>
<td>723</td>
<td>6,935</td>
<td>18,508</td>
<td>3,599</td>
<td>31,705</td>
<td>18,617</td>
<td>53,128</td>
<td>103,450</td>
</tr>
<tr>
<td>Other services</td>
<td>22</td>
<td>167</td>
<td>135</td>
<td>664</td>
<td>1,431</td>
<td>3,935</td>
<td>6,355</td>
<td>37,815</td>
<td>447</td>
<td>44,618</td>
</tr>
<tr>
<td><strong>Total Intermediate consumption</strong></td>
<td>2,398</td>
<td>14,697</td>
<td>3,836</td>
<td>14,453</td>
<td>24,489</td>
<td>9,690</td>
<td>69,562</td>
<td>94,724</td>
<td>167,086</td>
<td>331,373</td>
</tr>
<tr>
<td>Imports</td>
<td>2,653</td>
<td>45,988</td>
<td>3,092</td>
<td>16,382</td>
<td>29,801</td>
<td>3,801</td>
<td>101,717</td>
<td>30,681</td>
<td>0</td>
<td>132,398</td>
</tr>
<tr>
<td>Product taxes less subsidies</td>
<td>134</td>
<td>381</td>
<td>171</td>
<td>1,033</td>
<td>1,498</td>
<td>684</td>
<td>3,901</td>
<td>10,949</td>
<td>0</td>
<td>14,851</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,185</td>
<td>61,066</td>
<td>7,099</td>
<td>31,868</td>
<td>55,788</td>
<td>14,175</td>
<td>175,181</td>
<td>136,354</td>
<td>167,086</td>
<td>478,621</td>
</tr>
<tr>
<td>COE</td>
<td>586</td>
<td>8,792</td>
<td>3,791</td>
<td>16,596</td>
<td>16,004</td>
<td>24,306</td>
<td>70,076</td>
<td>0</td>
<td>0</td>
<td>70,076</td>
</tr>
<tr>
<td>GOS</td>
<td>3,296</td>
<td>27,792</td>
<td>-1,360</td>
<td>19,130</td>
<td>31,242</td>
<td>6,313</td>
<td>86,413</td>
<td>0</td>
<td>0</td>
<td>86,413</td>
</tr>
<tr>
<td>Other taxes less subsidies</td>
<td>-1,790</td>
<td>681</td>
<td>25</td>
<td>547</td>
<td>417</td>
<td>176</td>
<td>-297</td>
<td>0</td>
<td>0</td>
<td>-297</td>
</tr>
<tr>
<td><strong>Value added</strong></td>
<td>2,092</td>
<td>37,265</td>
<td>2,456</td>
<td>36,273</td>
<td>47,663</td>
<td>30,442</td>
<td>156,192</td>
<td>0</td>
<td>0</td>
<td>156,192</td>
</tr>
<tr>
<td><strong>Total inputs (= total outputs)</strong></td>
<td>7,277</td>
<td>98,331</td>
<td>9,555</td>
<td>68,142</td>
<td>103,450</td>
<td>44,618</td>
<td>331,373</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: CSO, 2014)

The I-O table can be separated into three main components:

- **Inter-industry transactions** – the blue shaded area of Table 2 – represents the flows of goods and services produced and consumed by the different sectors in Ireland. This component is also called "intermediate demand" with rows describing the distribution of a producer’s output and columns describing the composition of inputs required by an industry to produce its output;

- **Final demand sector** – the green shaded area in Table 2 – represents the sales by sector to the ultimate consumers (households, investors, government, and exports) for final consumption or use; and

- **Factors of production** – the pink shaded area in Table 2 – represent the value added rows of non-industrial inputs to production (i.e. labour, taxes etc.).

The Leontief inverse calculated using the National I-O table includes output multipliers and direct and indirect multipliers for other inputs used in the production cycle. The direct plus indirect multipliers for other inputs show how the additional €1 of final demand was spread across imports, taxes less subsidies, compensation of employees, consumption of fixed capital and net
operation profit. There is no duplication in the direct plus indirect multipliers for other inputs and each product column will sum to 1. The output multipliers show how much direct plus indirect (and induced if households are endogenous) output is required across all domestic products per €1 of final demand of each product sector. Output multipliers are based on gross outputs rather than value added of products and thereby the estimate includes a duplication of output. For example, in the 2011 Leontief Inverse estimates for Ireland, each €1 of final demand in the “agriculture, forestry and fishing” sector requires €1.459 worth of output to be produced in order to satisfy the increased final demand. The output multiplier of €1.459 (in gross terms) includes €1.194 worth of domestically produced output in the “agriculture, forestry and fishing” sector, €0.053 worth of domestically produced output in the “wholesale trade” sector, €0.021 worth of output in the domestically produced “food & beverages and tobacco products” and tiny amounts of other domestically produced goods and services. The duplication occurs due to the interrelationship between products and costs of production that are absorbed into the value of each product. Value added, on the other hand, excludes the value of inputs included in the value of the gross output.

I-O models are widely used to estimate the full consequences of changes in exports, changes in final demand by household, change in government purchases, changes in investment patterns, new firms or business closures, natural disasters, and many other scenarios. With appropriate care, I-O models can be used to estimate the full consequences of technological change, labour and resource shortages, and other exogenous structural changes in regional economies.

To illustrate the usefulness of multipliers, a hypothetical case of a firm in the “food & beverages and tobacco products” sector, exporting an additional €1 million worth of produce is considered. To assess the impact of this firm’s additional exports we can estimate the effect on output to meet this additional final demand by applying the appropriate multiplier for the sector concerned. Multiplying the direct impact (€1 million) by the Type I output multiplier for the “Food & beverages and tobacco products” sector group (1.456) gives a total of direct plus indirect impacts of €1.456 million. Subtracting the initial direct impact gives the additional indirect impact throughout the Irish economy as €0.456 million. Other types of multipliers can also be calculated for income, Gross Value Added, and employment enriching the economic impact analysis. This is a simple illustration highlighting the usefulness of output multipliers at the aggregate sector and national level. Imagine, therefore, the usefulness of multipliers at a more disaggregated sectoral or geographical level.

Regional Input-Output Models: The Fundamentals

There are two features related to regional economies that necessitate a distinction between national and regional input-output models (Miller & Blair, 2009). The first specific feature relates to the structure of production of the respective regions. The structure of the economy in a particular region may or may not be similar to the structure of the economy at the national level. Milk production in the South-West region of Ireland, for example, probably uses the same inputs in the same proportions as milk production in the South-East. However, electricity that is produced in the Mid-East by hydroelectric means (Turlough Hill Power Station) would require a different mix of inputs to electricity produced from coal in the Mid-West (Moneypoint power station). For this reason, the level of sectoral disaggregation is also an important factor in the construction of I-O models since highly disaggregated sectors are more likely to reflect regional differences in sectoral composition. The second feature relates to the size of the economic area. According to Miller & Blair (2009), the smaller the economy of a region, the higher the interdependence with other regions in terms of sales “exported” outside the region and inputs “imported” into the region.

Numerous Regional Input-Output tables have been compiled in Ireland for a single region in isolation; for example Ni Dhubhain et al. (1994) and Fannin & Johnson (2004), while MacFeely (2011) compiled the first set of fully integrated Supply and Use and domestic Input-Output Tables for the entire country. However, MacFeely’s tables were produced at a low level of spatial disaggregation - NUTS 2 level i.e. the Border, Midland and West (BMW) and Southern & Eastern (S&E) regions.
This limited the amount of information possible from any regional economic analysis. We believe any further regional input-output model developed in an Irish context should have a lower level of spatial disaggregation (at NUTS 3 or county level) and should take into consideration the interconnectedness between regions. One option in this regard is the Multi-Regional Input-Output - or MRIO - model.

Multi-Regional Input-Output (MRIO) models not only capture the economic relationships within each region, and sum them to the national accounts, but they also show the interregional linkages. This allows analysts to estimate the consequences of changes that occur in one region, on the economies of all other regions, including any feedback effects on the region where the original change occurred. To illustrate, let’s return to the hypothetical example used above of a firm in the “food & beverages and tobacco products” sector, exporting an additional €1 million worth of produce. If we now know the firm is located in say the South-West region of Ireland, then an increase in the export of products in the South-West region would lead to increased economic activity in the South-West region and other regions as the food and beverages sector purchased inputs. The increases in these other regions may lead to a subsequent increase in tourism and other expenditures in the South-West region. The strength of this effect (direct and indirect) would depend on the economic linkages between the food & beverage sector and other sectors and the interregional relationships between the South-West region and the other regions.

Multiregional IO Model (MRIO)
The Chenery-Moses Multi Regional Input-Output model (Chenery & Clark, 1953; Moses, 1955) extends the standard I-O arrangement to a larger system where each sector in each region has a separate row and column. The key elements of the basic MRIO are the multiregional matrix (A) of technical coefficients and the matrix of coefficients of proportion (C). The objective is to capture the various economic transactions between and among the several regions in a multi-regional economy.

An eight-region MRIO would be expressed as follows:

\[(I - CA)x = Cf,\]

and the solution for x is shown as follows (similar to the standard I-O solution for x):

\[x = (I - CA)^{-1}Cf,\]

where:

\[A = \begin{bmatrix} A^B & 0 & \ldots & 0 \\ 0 & A^M & \ldots & 0 \\ \vdots & \vdots & \ddots & \vdots \\ 0 & 0 & \ldots & A^{SW} \end{bmatrix}, \quad I = \begin{bmatrix} I & 0 & 0 \\ 0 & I & 0 \\ \vdots & \vdots & \ddots \\ 0 & 0 & I \end{bmatrix}, \quad C = \begin{bmatrix} c^{BB} & c^{BM} & \ldots & c^{BSW} \\ c^{MB} & c^{MM} & \ldots & c^{MSW} \\ \vdots & \vdots & \ddots & \vdots \\ c^{SW.B} & c^{SW.M} & \ldots & c^{SW.SW} \end{bmatrix}, \]

\[x = \begin{bmatrix} x^B \\ x^M \\ \vdots \\ x^{SW} \end{bmatrix}, \quad f = \begin{bmatrix} f^B \\ f^M \\ \vdots \\ f^{SW} \end{bmatrix}, \]
Then the MRIO can be expressed as,

\[ x \]
is a vector of gross output for each of the 8 regions (B, M, W, D, ME, MW, SE, SW)

\[ A \]
is a regional technical coefficient matrix of sub-matrices

\[ I \]
is the Identity matrix ("1" in the diagonal, "0" in all other fields)

\[ (I - A)^{-1} \]
is an inverse of a square matrix (also known as the Leontief inverse)

\[ C \]
is a coefficient of shipments within and between regions

\[ f \]
is a vector of final demand in each region

The Multiregional I-O model uses a regional technical coefficients matrix \( A^R \) in place of the input coefficient matrix A in the standard national I-O model. For each region, a regional technical coefficient, can be calculated if information on the amount of inputs from sector i used by sector j in region r is available. The data requirements of regional technical coefficients are less onerous than other regional models and are more readily available (at least in theory). When data is not available, the problem becomes how to transform the national coefficient matrix A into appropriate regional coefficient matrix \( A^R \).

Non-survey based regional I-O models are constructed using an estimation procedure to generate interregional sales and purchased. Most non-survey estimation procedures assume the average technologies employed by regional firms is the same as the average technologies used at the national level. They assume, therefore, that regional firms use the same level of inputs but since regional firms will purchase some of their inputs within the regions and the remaining inputs from sources outside the region. Regionalisation of I-O models involves estimating the proportion of inputs purchases from regional firms in each sector. Location Quotients (LQs) are amongst the most common estimation procedure used. LQs methods are used to reduce coefficients from the National Input-Output tables to smaller regional coefficients. Round (1978) suggested that any regional purchase coefficient is a function of three variables: (1) the relative size of the supplying sector i, (2) the relative size of the buying sector j, and (3) the relative size of the region, r. These three variables, or some of the variables, form the basis of the Location Quotient calculations.
The Simple Location Quotients (SLQs) and the Cross-Industry Location Quotient (CILQ) are the most commonly used LQs and can be defined as follows.

Simple Location Quotients

\[
(SLQ_{ij}^r) = \frac{x_i^r}{x_i^r} \times \frac{x^n_j}{x_i^n}
\]

Cross Industry Quotients

\[
(CLQ_{ij}^r) = \frac{x_i^r}{x_i^n} \times \frac{x^n_j}{x_j^n} \quad \text{or} \quad \frac{LQ_i^r}{LQ_j^n}
\]

where

- \(x_i^r\) denotes regional output (or employment) in supplying sector i;
- \(x_j^r\) denotes regional output (or employment) in buying sector j;
- \(x_i^n\) denotes national output (or employment) in supplying sector i;
- \(x_j^n\) denotes national output (or employment) in buying sector j;
- \(x^r\) and \(x^n\) are the respective regional and national output (or employment total).

The SLQs estimate the ratio of the proportion of region r’s total output contributed by sector i to the proportion of national output contributed by sector i. SLQs reflect the reality that small sectors are not able to supply all the demands of local buyers, but SLQs do not consider the relative size of the buying sector. A relatively larger sector will tend to pass over regional suppliers to purchase some of the inputs from sellers in other regions. For example, taking the office furniture sector supplying the relatively large Information & Communication Technology (ICT) sector in the Dublin region, we would expect the ICT sector to import much of its office furniture from outside of the Dublin region and outside of the country even to satisfy their needs. This reality is addressed with cross-industry location quotients that take the size of the buying sector into consideration. However, CILQs do not account for the size of the region \(x^r/x^n\). Round (1978) proposed the use of the below approach which applies a logarithmic transformation to the selling region LQ.

Semilogarithmic Quotient

\[
(Semi \ LQ_{ij}^r) = \frac{LQ_i^r}{\log_2(1 + LQ_j^n)}
\]

However, SLQ applications have not proven to be an advancement over the simpler SLQ or CIQ (Miller & Blair, 2009). Flegg & Webber (1997) questioned the reasoning for applying the logarithmic transformation to \(SLQ_j^n\) instead of \(CLQ_{ij}^r\) and suggested an alternative approach. The Flegg Location Quotient (FLQ) modifies the \(CIQ_{ij}^r\) by incorporating an additional measure for the relative size of the region, and adjusting national coefficients based on the relative size of the region (reduce national coefficients less for larger regions assuming they import less). The FLQ is defined as follows;

Flegg Location Quotient

\[
(FLQ_{ij}^r) = (\lambda \ast) CIQ_{ij}^r \quad \text{if} \ i \neq j
\]

\[
(FLQ_{ij}^r) = (\lambda \ast) SIQ_{ij}^r \quad \text{if} \ i = j
\]

where:

\[
\lambda^* = \left\{ \log_2[1 + (x^r/x^n)] \right\}^\delta, 0 \leq \delta \geq 1
\]
However, $\delta$ must be specified in advance and it is not clear what value should be used - Miller & Blair (2009) summarised the literature on this topic and found that the most commonly used value for $\delta$ is 0.3. Following some critics of the approach, Flegg adapted the estimation procedure to reflect regional specialisation (Flegg & Webber, 2000).

**Augmented Flegg Location Quotient ($AFLQ_{ij}^T$) = $FLQ_{ij} \times \log_2(1 + LQ_j)$ if $SLQ_j > 1$**

The Augmented Flegg LQ (AFLQ) allows national coefficients to be increased if the SLQ is greater than 1. The basic idea is that specialisation in a region may lead to increased intra-regional trade as other firms that supply the specialised sector are attracted into the region. None of the other LQs allow the national coefficient to be increased even if the region is highly specialised. The existence of regional clusters in Ireland (such as “Silicon Docks” in the Dublin region) is likely to warrant consideration of the LQ approach, which allows for specialisation, in the construction of regional I-O tables. An additional benefit of the AFLQ approach is that cells can be adjusted individually, instead of uniformly, across each row (as with many other non-survey techniques). For a more detailed discussion of other non-survey techniques, including Regional Purchase Coefficients (RPCs), Supply-Demand Pool approach and gravity model formulations, see Miller & Blair (2009).

**Conclusion**

This article outlines the methodology implied and assumptions utilised in the construction of Ireland’s Input-Output framework. Ireland’s I-O framework is based on the revised European System of Accounts methodology, and the United Nations’ Handbook of Input-Output Tables. Ireland’s Supply and Use tables are transformed into a Symmetric Input-Output table using the Product Technology Assumption. Hybrid models combine a “top down” approach with the survey based “bottom up” approach. Hybrid models can help overcome some of the shortcomings of both the survey-based method (expensive and time-consuming) and the non-survey method (mechanical and inaccurate).
A shared-service type arrangement between the Central Statistics Office, the Department of Environment, Community and Local Government, the reconfigured Department of Regional Development, Rural Affairs, Arts & the Gaeltacht (following the national election in February 2016), the Regional Assemblies, the Local Authorities, interested semi-state institutions and academics could be used in the development and implementation of Ireland’s Multi-Regional I-O model. An I-O statistics Expert Users Group could be formed to bring together the statisticians and users of the I-O tables. Such a group would play a core role in the promotion of such a tool in the development of evidence-based policy as well as in the sharing of expertise and experiences. The group would also be a forum in which to discuss the technical aspects of existing and developing methodologies and identify any potential issues with data or analysis being undertaken (including the MRIO).

An alternative to the shared-service arrangement would be “outsourcing” the running and implementation of the model to a privately owned company – similar to the IMpact analysis for PLANning (IMPLAN) example in the United States with interested parties paying a fee to access the data and software technology (see http://implan.com for more information on IMPLAN). Essentially, whichever approach is taken, making the most comprehensive model available to all interested parties should be the primary objective from the outset.

The ability to conduct comprehensive economic impact analyses at local and regional level in Ireland would assist in providing evidence-based policy. Unquestionably, Ireland’s Regional Operational Programmes, the recent Local Economic and Community Plans (LECP) process, and the forthcoming National Planning Framework (the National Spatial Strategy Mark II) and Regional Spatial and Economic Strategies – as well as other local/ regional/national policies - would greatly benefit from the availability of a Multi-Regional I-O model. So who’s up for the challenge?

Ms. Mary Carey is a part time PhD student in the Public Policy Programme at University College Dublin and a Walsh Fellow, in the Rural Economy and Development at Teagasc. Mary was a visiting Fulbright scholar at the University of Missouri, USA between January and May 2016. Separate to her research activities, Mary works as an economist in the Department of Agriculture, Food and the Marine as part of the Irish Government Economic and Evaluation service.

Dr. Thomas G. Johnson is Professor Emeritus at the University of Missouri. He formerly had a joint appointment as the Frank Miller Professor of Agricultural and Applied Economics, and Professor in the Harry S Truman School of Public Affairs at the University of Missouri. He is Director of the Community Policy Analysis, which is affiliated with the Rural Policy Research Institute. His recent research areas include the causes and consequence of rural economic development, fiscal and economic impact analysis, renewable energy, rural entrepreneurship, and rural wealth creation. He has studied rural policy issues in Canada, Korea, and several European countries. He is a founding member of the International Comparative Rural Policy Studies Consortium. He is the 2002 Fellow of the Southern Regional Science Association, 2006 recipient of the Outstanding Contribution through Economics Award from the Northeast Agricultural and Resource Economics Association, and 2007 recipient of the USDA Undersecretary’s Group Honor Award for Excellence. Professor Johnson has authored over 250 articles, papers, and book chapters and has co-authored or co-edited five books.
Endnotes

i Issues around data availability, comparability and compatibility for the island of Ireland have been highlighted in detail by the All Island Research Observatory (AIRO) in Maynooth University (see for example Gleeson et al, 2008).

ii NACE is the acronym for “Nomenclature statistique des activités économiques dans la Communauté européenne” and translates to the statistical classification of economic activities in the European Community.

iii All notation used will follow the notation convention included in Miller & Blair (2009)

iv The Census of Industrial Production comprises two separate but closely related annual inquiries, namely: (i) the Census of Industrial Enterprises which covers those enterprises which are wholly or primarily engaged in industrial production and have three or more persons engaged; and (ii) the Census of Industrial Local Units which covers all industrial local units with three or more persons engaged.

v The Building and Construction Inquiry is an annual statutory survey which collects structural information from key year end accounting variables for the Construction Industry (including the allied trades). This includes building and construction work at all sites within the State and any subsidiary (e.g. joinery) activity.

vi The Annual Services Inquiry is an annual survey of enterprises in the retail, wholesale, transport, ICT, real estate, renting, business and selected personal services sectors. The results of the Inquiry serve as a basis for compilation of National Accounts and various economic indicators that are used to facilitate political decision making at national and European level.

vii Supply and use tables can be rectangular/asymmetrical (in theory may have a non-equal number of products & industries), however, a symmetric input-output matrix is required to obtain the Leontief inverse (only a square matrix may be inverted).

viii 8 NUTS 3 level regions in Ireland with the following notation: Border (B), Midland (M), West (W), Dublin (D), Mid-East (ME), Mid-West (MW), South-East (SE), South-West (SW).

ix \( A^r \) refers to the sub-matrices for each of the eight NUTS 3 regions in Ireland (Border, Midland, West, Dublin, Mid-East, Mid-West, South-East, South-West), so \( r = (B, \ldots, SW) \), \( n \) refers to the national equivalent and \( ij \) refers to the supplying and buying sectors.

References


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Flegg A., and Webber, C., (1997), On the Appropriate Use of Location Quotients in Generating Regional Input-Output Tables, Regional Studies, 31, 8, 795-805


Both local government systems on the island of Ireland are subject to considerable restructuring, with the associated change management seeing local public service playing a leadership role not previously acknowledged or accepted by other parts of both public services. A key aspect of this new leadership role is the capacity of both systems to demonstrate that they have the aptitude and capability to take-on such leadership roles and to be transparent and accountable to their own communities and stakeholders. The platform which shared service provision can make to enabling local government (successfully) have such leadership is well demonstrated across the Organisation for Economic Co-operation and Development (OECD) with much of the direction from output driven performance now being replaced by a more qualitative analysis of performance. This places an emphasis on achieving policy outcomes relevant to the local citizen and taxpayer. Such thinking is allowing for innovative forms of service delivery through shared institutional delivery models, drawing upon experience within and across public services but also drawing upon the capacity of multi-agency committees and the private sector to be co-producers of public services under the leadership of local government.

Acknowledging the experience of border communities in delivering shared service initiatives, this paper considers the potential of having a similar platform to progress development in both local government systems, particularly given the recent reforms of local government in both jurisdictions on the island of Ireland. Examples of shared services initiatives from the Irish border region provide both local and national policy-makers with potential templates on which to expand co-production and, thus further sustain reform efforts in Ireland and Northern Ireland.

Introduction
Public service change is an on-going feature of public management in both Ireland and Northern Ireland, reflecting a continuing trend in reform effort in jurisdictions across the OECD. In an era of public expenditure retrenchment the need for efficient and effective service delivery, which is accountable and measurable, seems to be a clarion call from Ireland to Australia. Central to such change is the consideration of service delivery based upon the sharing of services across public bodies. It makes sense, it would seem to the casual observer, not to mention hard pressed political leaders, that unifying services which are universal in nature should provide opportunities for efficiencies and cost saving whilst sustaining service delivery to both local and national populations. The question, of course, is whether this is actually based upon real evidence and critically, given the centrality of democracy to public services, whether such moves underpin or undermine elected governance at local, regional and national levels, and whether transparency in our public services can be sustained under processes that seek to enhance effectiveness.

This paper considers these aspects of public service change. The case for a re-configuration of local services specifically in the case of the island of Ireland is examined and whether this might be seen as sustaining a transparent local democracy as manifest — at least in the thinking on local government reform in the two local government systems on the island.

Local Government Reform in Northern Ireland
Over the past two years, local government in Northern Ireland has delivered a local government re-configuration...
programme after almost a decade of discussion, delay, and finally political agreement of sorts on a renewed local public administration. Some 26 out-going District Councils have been abolished/merged or extended (in the case of Belfast City Council), and replaced by an 11 council configuration as outlined in Table 1.

Table 1: The New Council Structure of Northern Ireland

| Antrim and Newtownabbey District | Fermanagh and Omagh District |
| Armagh, Banbridge and Craigavon District | Lisburn and Castlereagh District |
| Belfast District | Mid and East Antrim District |
| Causeway Coast and Glens District | Mid-Ulster District |
| Derry City and Strabane District | Newry, Mourne and Down District |
| Lisburn and Castlereagh District | North Down and Ards District |

The Councils, as a central feature of the implementation of the Review of Public Administration (RPA) in Northern Ireland, will have, over time, a wider range of responsibilities. This will bring them into a central role in local planning, notably community planning, as is the case in Scotland, while also having the opportunity to create platforms for local public service. Additional powers of scrutiny are envisaged, with the objective of enhancing the role of local elected members. This is underpinned by the decision to put in place greater executive supervision; with the scrutiny committees, for example, being supported by an independent scrutiny officer within each council and having the power to examine the affairs of their council.

Notwithstanding the largely successful transition to the new configuration of councils, it remains the case that local government in Northern Ireland is still largely constrained by having a relatively restricted range of functions and responsibilities. The capacity of local government is, therefore, influenced by the need to develop the role of the Northern Ireland Assembly. This might be a constraint on the potential of local government to be a genuine leader of socio-economic progress at one level but the recent history of the local government system in Northern Ireland does provide some cause for optimism. The capacity to look to the needs of the local community, and to set aside long-term disagreements over identity, is a hallmark of the system. There is much to learn from this capacity within councils to set aside long-standing differences in order to focus on the needs of their local communities.

Local Government Reform in Ireland

As in Northern Ireland, the local government system in Ireland has also been the focus for change. Outside of the major cities, municipal government has been subsumed under the existing county authorities, thus dealing with a long-standing need to address the inadequacy of unequal delivery of municipal services as well as unequal local representation in towns. The question might legitimately be posed as to whether such an approach fits easily with the need for enhanced democracy? Equally, the on-going consideration of service efficiencies has seen a continuing effort to create shared service platforms across many local services. This is being supervised by a local government-led shared services initiative within the Local Government Management Agency (LGMA), albeit the initial impetus came from the need to deliver immediate efficiencies as part of the general retrenchment of public service expenditure in Ireland due to the collapse of the Irish economy. A Performance Management Office (PMO) was established following publication of the Report of the Local Government Efficiency Group, under the chairmanship of Dr. Pat McLaughlin, in July 2010. This Office is now embedded into the LGMA.

The overall reform process in Ireland is clearly set out in the Action Plan for Effective Local Government- Putting People First (PPF), issued in October 2012. In this far-reaching policy statement, the Irish government set out, arguably for the first time in the history of the State, an understanding of the role and purpose of local government within the wider public service. It also set
out the criteria for the migration of new services to local government; most notably, economic development and a strengthened form of community planning. At the same time that this was occurring, re-configuration of water and water treatment services, once a core function of local government, into a national and controversial utility, Irish Water, was taking place. Such a move, some have argued, is counter to the arguments for sustaining vibrant local government in Ireland.

Whatever about the arguments surrounding the loss of water services from local government to a national utility, following adoption of the *Local Government Reform Act, 2014* Ireland now has a much streamlined structure with 3 City Councils, 2 City and County Councils and 27 County Councils. Municipal districts, the replacement platform of the town councils, within the county structures are not corporate entities but serve as a local feature of the relevant county or city and county council. Currently further proposals for re-configuration will address the relationship between Galway City Council and Galway County Council as well as between Cork City Council and Cork County Council. In the event of proposals to merge these councils the possible configuration of local government in Ireland would see a drop in councils from 114 to 28 councils with a fall of over 1500 elected members to a possible 900.

**Common features of reform**

In broad terms, both jurisdictions are seeing reforms that, in principle, seek to re-position the two local government systems so that the individual local authority is positioned to take on the public service leadership role at local level. In doing so, they would become the principal platform for public service reconfiguration generally, providing the space in which public service innovation and transition can be facilitated. This allows for, and requires, public service reconfiguration, and a significant change in culture and attitudes within local administration. Local government will have to become more transparent through their policy responsibilities. Such perspectives are underpinned by a considerable shift in thinking, from having a concentration of services within local boundaries to creating organisations with a focus on the needs of citizens. Therefore, a service restructuring will be required in both jurisdictions that moves the local, political and managerial perspective from retaining focus on the long-standing service organisation to one that, whilst respecting local political accountability and priorities, transitions to a citizen-centred service configuration, which can be organised on the grounds of effectiveness and efficiency. Such bodies, therefore, might be more regionally configured or, indeed, might be delivered contractually by arms length public bodies or, in the extreme, by contracting-out of responsibilities to other parts of the public service or to the private sector. Alternatively, this provides local government with the opportunity to become a shared services platform for other public services.

In the case of Ireland, the current focus in service re-configuration rests within the framework created by the LGMA through the shared services initiative. In Northern Ireland, the Authorities operate within an already highly centralised regime across most citizen-targeted services. The focus, therefore, may well be on releasing local authorities so that they can indeed have greater local freedom to determine ‘level’ and ‘range’ of service provision within their budgetary context.

How this relates to current thinking in local government internationally is worth reflecting upon.

**Current international developments**

There is no doubt, as acknowledged earlier, that local government systems across the globe have had to, in common with their Irish counterparts in both jurisdictions, address the outcome of the global financial crisis. Local government systems generally have tackled the need to address financial austerity through:

- Efficiency driven/investment led platforms;
- Shared service platforms, public and private;
- Silo disruption;
- De-layering decision making; and
- Sustainable Growth making.

Therefore, in many respects there are broad common themes confronting local government systems. What is different in some respects, from the reforms in Ireland
and Northern Ireland, however, is that on mainland Europe there seems to be a different political approach and dynamic to sustaining local government. While both jurisdictions on the island of Ireland seem content to reduce the number of local authorities, the emphasis on the Mainland tends to focus more on enabling local government to create diverse platforms to sustain and grow local economies. It is argued that this provides more scope for the use of alternative public service delivery options, such as joint service platforms under the direct leadership and initiative of local government through:

- Public-private joint ventures;
- Community-based service platforms;
- Third sector/social economy platforms;
- Public sector shared services (Thematic/national/regional); and
- Public sector shared services (geographic/regional/local).

The central role of local government in other European jurisdictions is to drive public service change in a manner relevant to the local socio-economic conditions, rather than the application of a universal approach – such as envisaged in the case of the two jurisdictions on the island of Ireland. This is providing scope for shared profit initiatives with the private sector, as well as opening new opportunities for efficiencies where services remain within the framework of the public sector but clearly within a local government context. As an example, water and waste water remains a feature of local government but equally, the opportunity exists whereby such services, among others, can be provided in a regional context but within a local government ownership environment and, thus, with appropriate local electoral accountability.

**Doing more with less - qualitative and quantitative assessment**

One of the on-going themes in public service reforms since the 1980’s has been that of trying to demonstrate service efficiency and effectiveness in services which, in many instances, do not lend themselves to normal quantification appraisal. Attempting to measure the rolling-back of high levels of disadvantage, social integration and even the evaluation of person-based services using largely private sector forms of measurement is clearly a major challenge. Successive reforms, particularly under New Public Management, sought to apply output-based assessment methodologies, but even these have had limited use given that much of what the public service provides is qualitative in nature and potential impact.

Recent thinking in public service performance now recognises that applying output-based quantitative assessment to public service provision is only partially useful when it comes to determining whether a public authority is both efficient and effective. The challenge is not so much about measuring simple data sets that indicate volumes of output; rather it is about determining what policy outcomes are being achieved. Is the policy, in other words, actually delivering what it was intended to deliver?

The over-riding thinking is to enhance service delivery while clearly demonstrating a commitment to quality and effective business delivery. This is not as strange as it might seem as, increasingly, governments are discovering the reality that much of their services are about meeting competing needs of citizens, and that placing service planning and the policies that underpin such planning at the heart of public service design is a perfectly rational and effective way to manage the public finances! Performance platforms, including those from best-case examples in Australia and mainland Europe, focus on:

- Governance and management;
- Service access;
- Responding to individual need;
- Safety, well-being and rights;
- Feedback, complaints and appeals; and
- Human resources.

Much of the thinking associated with understanding and evaluating performance seems to have come through the experience of governments trying to refocus services for people with disabilities, other disadvantaged communities and services, which have a long-term, multi-generational application. What is also evident is that there is clear political leadership underpinning the
process along with a rigorous re-configuration of service delivery. Both the RPA and PPF reflect this thinking. More recently, the Irish Government has restated its commitment to broader public service reform. Translating this, however, has proven difficult given that implementation of performance measurement and evaluation is by its nature, given the qualitative impact of public services, long-term. Nonetheless, the introduction of the scrutiny role in local government in Northern Ireland, alongside that of the Audit Committee/National Oversight and Audit Commission in Ireland may provide the necessary framework in which performance can be appraised.

However, there may be a difficulty in applying performance evaluation when it comes to shared services. Determining where accountability applies necessarily has to be factored into such services, particularly for those providing the resources, i.e. the citizen or the tax-payer.

There is now a necessity for service level agreements between public bodies, operating with a shared service environment, in order to provide a transparent environment where the citizen/tax-payer can understand the benefits of such platforms. Such agreements are applied across all aspects of the public services in both jurisdictions, but often with overly general performance criteria. This makes it difficult to understand where accountability rests, particularly if the services are thematically structured rather than spatially - or in line with local political organisation. In both jurisdictions, there is a need to be more specific if shared services are to be seen to demonstrate real efficiencies whilst meeting the needs for transparency and local political accountability.

Co-production—an alternative way to deliver public services and define shared services?

The on-going effort to move away from traditional centralised public service models is now a recognised feature of public service reform across the OECD. There is a clear political ideology underpinning the move towards allowing communities take responsibility for local services, even in the United Kingdom under a Conservative Government now wishing to hold the centre ground of politics. The thinking underpinning the reform agenda is creating, across the OECD, diverse platforms for a more localised approach to strategic planning and service delivery where partnership between the public sector and the private sector is clearly a driver in the design of local policies. A key principal is that of facilitating co-production of public services. In other words, the public service remains at the heart of the policy process but, increasingly, is using local communities or others to take ownership of some services within a democratically accountable framework. Alternatively, the private sector, in partnership with local government, is becoming a provider within the policy direction of either national or local government.

At face value, it might seem that this is something that has been around for many years and, to some extent, it has. It is a model of service delivery, which has been built on the lessons from on-going service reform since the advent of New Public Management; one lesson being that the further you remove service planning from the citizen, the more probable that it will become inefficient and ineffective. Electors voting for people who are responsible for things like local education, housing and social services are more likely to be critical when it comes to the levels of tax falling upon them. Equally, they are likely to be less tolerant of decisions taken which are regarded to be creating unnecessary barriers to community or economic development. Placing the voice of a community at the heart of decision-making is central to policy development but, equally, allowing the local voice to facilitate the level and type of services provided could possibly create the sort of flexibility in service design that best meets local expectations. In essence, this requires communities at a local level working under the patronage of the democratic process to deliver services though both public and private delivery vehicles. The key characteristics of public service co-production have been highlighted as:

- Recognising that local people are an asset to their community and not a burden;
- Building on people’s existing capabilities to underpin growth in their community;
- Promoting mutuality and reciprocity between...
community and the local/national democratic process;
• Developing peer support networks across the public service and the private sector and within communities;
• Breaking down barriers between professionals and recipients; and
• Facilitating through the public authority rather than delivering services directly where possible.

Of course, such thinking cannot happen in the absence of democratically accountable structures, which facilitate the enhanced voice of the community whilst also providing for more transparent accountability in service design. So what exactly does co-production mean? In many cases, co-production of public services across the OECD is a central feature of the change process. In many cases, such production is based upon a shared service model, albeit one that is spatially driven rather than thematic - as is the case in both jurisdictions on the island of Ireland. The lessons from international perspectives and experiences for the two jurisdictions suggests that there is much for both national and local policy-makers to learn from what is occurring over the other side of the Irish Sea but also on the European mainland.

Shared Service Initiatives in Ireland and Northern Ireland
As acknowledged earlier, there are examples of mainly thematic-based shared service initiatives found in Ireland. At local level, there is plenty of evidence of long-standing arrangements across local government in both jurisdictions where services have been configured on a cross-boundary basis. In the case of Northern Ireland, considerable development of shared services would have been a feature of the pre-RPA public service regime, but these would have had limited local government input and were, effectively, Northern Ireland-wide initiatives to address the impact of the then existing political environment following the implementation of, for example, the MacRory Report. In the case of Ireland, successive governments since independence have created state-sponsored bodies to deliver a range of services from electricity to health, reflecting the centralisation ideologies of successive governments and the highly siloed public service framework. At local government level, there was also much evidence of individual shared services initiatives in specific services such as fire fighting in Dublin, the creation of the Local Government Computer Services Board, the unified Tipperary Library Service among others. Nonetheless, it is really only with the advent of the RPA in Northern Ireland and the Programme for Government in Ireland that a unified policy perspective informing the development of co-produced services and shared services commenced. Under the reform efforts in both jurisdictions however, unlike in other OECD countries, such efforts have primarily been driven by a national policy framework rather than having local government take the lead (as is the case across the OECD), reflecting arguably the level of centralisation in both jurisdictions. Nonetheless, both systems seem to have acknowledged the merit of shared service configuration but it is too early to determine whether the orientation of shared service initiatives towards thematic-based delivery - rather than spatial or territorial determined shared platforms - is actually appropriate to the environment in both jurisdictions.

Potential for cross-border initiatives - building on existing experience
The current reform programmes bring with them the opportunity to explore the potential for greater cross-border initiatives through both local government systems. Doing so would build upon the already well-established experiences associated with EU supported programmes such as INTERREG and PEACE. Indeed, it would be fair to acknowledge the work of cross-border bodies with a clear, shared service remit; most notably the Local Authority-led Partnerships such as East Border Region Ltd. (EBR) and the Irish Central Border Area Network (ICBAN). Such bodies have been to the forefront in delivering shared services on a cross-border basis through a range of EU-supported programmes, including tourism, SME growth, transport projects to name but a few. More interestingly, from a local government perspective is that the partnerships have continued through the leadership of nominated local elected representatives rather than being the creatures of either
the local executives in both jurisdictions and/or their national colleagues in Belfast and Dublin. As such, these types of bodies complement the type of shared service structures now a common feature of cross-border local engagement across Europe. Their geographic focus along with their integrated development programmes provides a useful model to the thematic-based nationally driven models addressed earlier.

In addition, with the transition to community planning across the island comes the opportunity to begin to address arm’s length public service delivery within a cross-border institutional setting, again something that is a common feature of public service delivery across borders and other regions in the OECD. The capacity to explore opportunities for service co-production in meeting citizen-centred needs in areas such as primary health care, public safety as well as economic development, would seem to complement the thinking, in both reform programmes, as regards the local public service leadership role now seen as central to a vibrant and transparent local democracy.

**Conclusion**

A key challenge arises, however, in allowing both systems the freedom to undertake such initiatives without the need for constant direction from central authorities. While this is something that is intended by both reform programmes, it is ‘easier said than done’ given that both local government systems have developed within highly restrictive policy environments. Therefore, to achieve this goal, their organisational cultures will need considerable re-configuration. Nonetheless, given the capacity that comes with continued EU support, the existing experience in the border authorities for cross-border engagement and a more enlightened national perspective - even expectation - both local government systems could become a platform for genuine means of co-production and shared service provision, not just on a thematic basis but also, and critically, on a spatial basis. This, in turn, supported by a re-orientated island-wide policy framework in spatial planning for an island of potentially 8-10 million people by 2050, provides the institutions of both jurisdictions with exciting yet challenging times on which to build transparent public services at a local level whilst also allowing for a considerable expansion of local responsibilities as is the case generally throughout the OECD.

Dr. Seán O’Riordáin is one of the most experienced independent public policy consultants in Ireland having worked in the area for over 30 years. He has advised on both national and local policy development in Ireland, and also has considerable experience relating to local government reform across the globe, including contributions to EU policy development. He is Executive Chairman of the Brisbane-based Sorhill Advocates Pty Ltd and a Director of the Public Policy Advisers Network in Ireland. Seán is currently advising on a number of projects addressing public service reform in both Ireland and Queensland, Australia.

**Endnotes**

i  The Local Government Management Agency (LGMA) is a state agency of the Department of Environment, Community and Local Government (DoECLG) established in 2012 to provide a range of services to the Local Government Sector. The Agency was created through the merger of the Local Government Computer Services Board, Local Government Management Services Board and An Comhairle Leabharlanna. The LGMA provides a range of services within the context of its statutory remit; in support of co-ordinated and cost effective delivery of Local Government services and policy (see [www.lgma.ie](http://www.lgma.ie) for further information).

ii  The MacRory Report is the final publication coming out of the Review Body on Local Government in Northern Ireland 1970 – as chaired by Patrick A. Macrory, Esq. – and presented to the Governor of Northern Ireland in June 1970. For further information see [http://cain.ulst.ac.uk/hmso/macrory.htm](http://cain.ulst.ac.uk/hmso/macrory.htm)
References


THE INTERNATIONAL CENTRE FOR LOCAL AND REGIONAL DEVELOPMENT

The International Centre for Local and Regional Development (ICLRD) is a North-South-U.S. partnership established in 2006 to explore and expand the contribution that planning and the development of physical, social and economic infrastructures can make to improving the lives of people on the island of Ireland and elsewhere. The partner institutions are: the National Institute for Regional and Spatial Analysis (NIRSA) at the National University of Ireland, Maynooth; the School of the Built Environment at the University of Ulster; and the Institute for International Urban Development in Cambridge, Massachusetts. Each partner brings together complementary expertise and networks on both a North-South and East-West basis – creating a unique, all-island and international centre.

The ICLRD continues to expand its collaboration with other institutions and has built up close working relationships with individual faculty and researchers from universities and research institutions including Mary Immaculate College-University of Limerick, Harvard University, the National Center for Smart Growth Research and Education at the University of Maryland, Queens University Belfast and HafenCity University Hamburg. We also continue to expand our joint initiatives with other organisations involved in cross-border research and activities including: the Centre for Cross Border Studies (CCBS) and Cooperation Ireland with whom we have a long-standing working relationship, the Institute for British-Irish Studies (IBIS) at University College Dublin (UCD) and the Border Regional Authority (now subsumed into the Northern and Western Regional Assembly). The ICLRD is very open to involving other academics and research institutions in its activities.

The Acting Director of the ICLRD is Ms. Caroline Creamer of NIRSA at Maynooth University, ably supported by the members of the ICLRD Executive Board and the ICLRD Advisory Board.

During 2015, the ICLRD was supported by the EU’s Interreg IVA Programme through the Special EU Programmes Body, the Irish Government through the Department of Environment, Community and Local Government (DoECLG) and the Department of Foreign Affairs and Trade (DFAT), and the Northern Ireland Executive through the Department for Regional Development (DRD) and the Department for Social Development (DSD). In recent years, the ICLRD has also received funding from the International Fund for Ireland (IFI) and undertaken commissioned research from InterTradeIreland, the Strategic Investment Board (SIB) and the Irish Central Border Area Network (ICBAN).

The ICLRD provides independent, joined-up research and policy advice on cross-border and all-island spatial planning and local and regional development. The Centre plays a proactive role in peace and reconciliation on the island by bringing together policy-makers, practitioners and academics, North and South, to work on common goals in the areas of co-ordinated spatial planning and social and economic development at local, regional and national levels. It does this through research, policy advice and publications; professional education and capacity building programmes that assist local governments and communities to translate policy into ‘on the ground’ action; and active outreach and networking that includes conferences, workshops and international cooperation and exchanges to identify best practices.

Stimulating economic growth and improving the living conditions to alleviate and prevent social conflict is at the heart of the Centre’s mission. The ICLRD is focused on building the capacity of regional and local authorities, development agencies, border networks and community and voluntary organisations to identify strategic areas of cooperation.

Through its research and professional education programmes, the ICLRD works with policy-makers and local leaders to improve the environments in which people in Ireland, North and South, live and work, with particular emphasis on the needs of marginalised and divided communities. It combines the promotion of regional planning and development as a tool for competitiveness with local planning and development
as a way to remedy the continuing problems of social disadvantage.

CURRENT RESEARCH PROJECTS

Each year, the ICLRD undertakes action research that contributes to a better understanding of the complex all-island and cross-border dynamics and drivers of change in Irish towns and rural areas, including cross-border communities. Since its inception, the ICLRD has organised its work around three spatial scales: EU and all-island; sub-regional, which includes cross-border; and local. Through its activities, the ICLRD is facilitating forums to foster the exchange of experience and best practices. It is also supporting North-South / East-West inter-regional cooperation, including on a cross-border basis, along priorities encouraged by the European Union.

The emphasis of the ICLRD’s work programme in 2014 and 2015 was the completion of its research programme under the Cross-Border Spatial Planning Development and Training Network (CroSPlaN II), an EU INTERREG IVA-funded programme administered by the Special EU Programmes Body. Having commenced in February 2013, CroSPlaN II was a programme of research, training and workshops in Northern Ireland and the Southern border counties, which operated in association with the Centre for Cross Border Studies as part of the Ireland-Northern Ireland Cross-Border Cooperation Observatory (INICCO II).

There were three inter-linked components to CroSPlaN II that provided sustained support to territorial cooperation in the Irish border region. The three elements were:

- Shared Services – to identify opportunities, and operational frameworks, for joint initiatives that improved the delivery of public services; this occurred through action research and two pilot initiatives to demonstrate practical models for cooperation in delivering front-line and / or specialised services;
- Executive Training – building on the successful ICLRD model linking training and animation, to develop and deliver executive training for cross-border councils; and
- Evidence-Informed Planning – to map the compatible 2011 census data from the Republic of Ireland and Northern Ireland, and develop an updated all-island deprivation index in an on-line, user-friendly format to support collaboration among central government departments across the island.

Taken together, these three closely integrated activities filled an important gap in improving the effectiveness of public sector cooperation in the Irish border region by providing the necessary tools, models, training and data for mutual benefit. In addition, the ICLRD participated in the development of a draft Charter for the Border Development Corridor (BDC), an initiative led by the Centre for Cross Border Studies (see Completed Research Reports section below for further details).

ADVOCACY AND DEMONSTRATION: EVIDENCE-BASED PLANNING

In 2014-15, the ICLRD and its partners continued to provide external support to different cross-border activities in local and regional development. These included: the Irish Central Border Area Network’s (ICBAN) Spatial Planning Initiative and specifically its Data Capture Project and the development of its Regional Strategic Framework; the North West Partnership Board and its potential role in progressing the North West Gateway Initiative; and the data capture and indicators project implemented by the North West Region Cross-Border Group, the SPACEial data capture project.

Providing researchers, policy-makers and practitioners timely access to data and information to better understand the implications of development trends and patterns has been an important part of ICLRD’s work since 2007. Under the original CroSPlaN programme, the ICLRD, together with its sister organisation, the All-Island Research Observatory (AIRO), completed four applied research activities that provide both mapping tools and recommendations on how data and information can be used to monitor the implementation of spatial strategies. These highly interactive mapping
tools are available through both the ICLRD (http://iclrd.org/mapping-tools/) and AIRO (http://airo.maynoothuniversity.ie/) websites and include:

- **The All-Island Accessibility Mapping Tool** (2012) maps levels of access to key services across the island in areas such as education, health, transport and emergency services.

- **The All-Island Deprivation Index** (2012) facilitates, for the first time, a comparative analysis of deprivation at a regional level within areas such as the Irish border region. This Index is constructed along the same lines as the New Measures of Deprivation (Haase and Pratschke, 2005, 2008) and the Pobal HP Deprivation Index for Small Areas (Haase and Pratschke, 2010, 2012), all of which are based on the same set of hypotheses regarding the underlying dimensions of deprivation, and all of which use Confirmatory Factor Analysis (CFA). This Index can supplement the existing indices used within Ireland and Northern Ireland that are incompatible with each other and help researchers, communities and programmes to better understand the spatial distribution of deprivation. Both AIRO and ICLRD will further test this methodology with the 2011 Census data for Ireland and Northern Ireland.

- **The Island of Ireland Housing Monitoring Tool** (2011) provides an interactive mapping and querying tool for housing market indicators, combining for the first time data from both Ireland and Northern Ireland. The mapped outputs assist in understanding the spatial implications and outcomes of policy decisions and interventions over time.

The fourth element of this work programme, the research study *Towards a Spatial Monitoring Framework for the Island of Ireland: A Scoping Study* (see Completed Research Reports section below for further details) is available to download from the ICLRD website.

Under CroSPiAII, the core focus of the evidence-informed strand of the programme — developed in association with AIRO — was the development of the all-island deprivation index (building on the prototype created under CroSPiA I) and progressing the all-island atlas, both on-line and hard copy versions based on Census 2011.

- **New All-Island HP Deprivation Index** (2014) presents an area-based deprivation measure for the island of Ireland based on the 2011 Census. Conceptually, it builds on the study undertaken by Haase, Pratschke and Gleeson in 2012 (see above), which used small area (SA) data from Ireland and Northern Ireland to construct a prototype of an all-island deprivation index. The new index was made possible by recent developments in data availability and harmonisation, particularly the introduction of small areas (SA) in both jurisdictions for the publication of aggregate data from the census, providing a better alignment of geographical units. The new All-Island HP Deprivation Index builds on these developments and draws on a combined set of equivalent indicators to form a single deprivation index, providing a powerful tool for researchers and policy-makers who are interested in understanding and seeking to reduce the social gradient that characterises a multiplicity of different outcomes in the economic, social and political spheres. The index relies on ten variables, each of which expresses a distinct aspect of relative affluence and deprivation. The Index, launched on 24th November 2014 in Maynooth University, was also part-funded by the Department of Environment, Community and Local Government.

- **Atlas of the Island of Ireland** (2015) was developed in two phases: on-line initially followed by hard-copy with associated analysis. The on-line atlas is a key resource tool for policy-makers and practitioners alike, with new maps added as they were developed. This resource tool, which can be accessed at http://airo.maynoothuniversity.ie/external-content/all-island-atlas-0 was launched on 20th November 2013 to coincide with World GIS Day. Building on this, work then turned towards the development of a hard copy atlas — containing both maps and a written narrative explaining the trends and outlining their implications for future policy. Contributors to the atlas included Mr. Justin Gleeson.
In support of evidence-based policy and the development of analytic tools under CroSPiN II, a series of ‘Data for Decisions-Makers’ and Census Seminars were organised and delivered by AIRO:

- 30th January 2014: Census seminar on population and economy – held in Cavan Crystal Hotel, Cavan;
- 6th March 2014: Data for Decision-Makers Workshop with Border Regional Authority – held in Regional Authority Offices in Cavan;
- 8th April 2014: Census seminar on housing and transport – held in Maynooth University;
- 15th April 2014: Data for Decision-Makers Workshop with InterTradeIreland – held in ITI Offices, Newry;
- 12th May 2014: Data for Decision-Makers Workshop with Land and Property Services – held in Belfast;
- 23rd September 2014: Data for Decision-Makers Workshop – held in Dundalk Institute of Technology;
- 30th September 2014: Census Seminar on Health – held in M:TEK, Monaghan;
- 24th November 2014: Census Seminar on All-Island Deprivation Index – held in Maynooth University; and
- 29th January 2015: Mapping Census 2011: Key trends and implications for policy and practice on the island of Ireland & Atlas Launch (including an overview and reflection of the previous census seminars and other additional themes) – held in Killyhevlin Hotel, Enniskillen.

These events not only showcased the range of datasets available to policy-makers and practitioners alike but also demonstrated how this information can best be used by organisations in setting policies and making strategic decisions. Taken together, this suite of tools ensures we move away from the old adage of being ‘data rich but insight poor’.

In support of the shared services agenda strand of the CroSPiN II programme, an on-line resource has been developed by the ICLRD as a resource tool to local authorities where the shared services agenda is gaining momentum. This resource includes details of case studies, agreement prototypes, seminars/workshops/conferences and contact details for agencies with a remit in progressing this agenda. This resource can be accessed at: http://iclrd.org/sharedservices/

The shared services programme of work also involved the establishment of a Shared Services Learning Network - a soft space in which information was shared and networks established around shared services. Four briefing sessions were held in total:

- First Seminar: Inter-Municipal and Cross-Border Collaboration in Spain and Portugal: Rural tourism, greenways and enhanced emergency services – Held on 9th July 2014 in the Four Seasons Hotel, Monaghan Town with presentation by Dr. Brendan O’Keeffe, Mary Immaculate College and ICLRD. This event was preceded by a walk along a completed section of the Ulster Canal Greenway in Monaghan town, led by Ms. Carol Lambe of Monaghan County Council.
- Second Seminar: Shared Services on the Island of Ireland: Departmental perspectives on prospects for enhanced shared services across local government – Held on 16th October 2014 in the Armagh City Hotel with presentations by Mr. David O’Connor, Senior Responsible Officer, Local Government Efficiency Review, Programme Management Office and Mr. Lorcan O’Kane, deputising for Mr. Ian Maye, Deputy Secretary, Local Government, Road Safety & Corporate Services Group, Department of the Environment
- Third Seminar: Shared Services: Learning from Experiences in Integrated Working and the implementation of Community Planning in Scotland - Held on 25th November 2014 in Ballymacarnion Hotel, Dundalk with presentation by Prof. Deborah Peel, The Geddes Institute, University of Dundee and interventions by Professor Peter Roberts, Visiting Professor at the University of Ulster, and Vice Chairman of the Northern Ireland Housing Executive
and Dr. Brendan O’Keeffe, Mary Immaculate College, University of Limerick (and presenter to the first seminar in the series)

- Workshop: Shared Services – Making it Happen: Innovative service agreements facilitating collaboration between public bodies across jurisdictional boundaries - Held on 14th January 2015 in the Boardroom of the Utility Regulator, Belfast with presentations by Dr. Andrew McClelland of ICLRD and Mr. Barry Lowry, Director of IS Shared Services and Strategy, NICS Head of ICT Profession.

ICLRD JOURNAL

Borderlands: The Journal of Spatial Planning in Ireland is published on an annual basis and covers a range of topics of interest to academics, practitioners and policy-makers involved in spatial planning and local and regional development.

The fourth issue of Borderlands, published in April 2014, includes articles on such topical debates as place-based leadership and planning for a sustainable steady state to planning to live with difference and using functional based approaches to measure the socio-economic performance of Ireland’s gateways and hubs. The journal also included a reflection on fifty years of regional and national planning in Ireland – the first Planning Act in Ireland dating to 1963. And with no journal complete without a cross-border case study, this edition includes a short overview of cross-border collaboration in Hungary-Romania.

The January 2013 edition of the Journal, launched at the eighth annual ICLRD conference, includes articles on: cross-border health data, the work of the International Fund for Ireland from 1986-2011, the regeneration of Limerick, the planners’ toolkit and the importance of interdependence to overcome fragmentation of processes and actors, territorial cohesion and EU2020, transport policy and the role of scenario modelling in determining economic development patterns, spatial planners as managers of change, a transatlantic exploration of planning frameworks and strategies, and local government in transition.

The second issue of Borderlands: The Journal of Spatial Planning in Ireland was launched by Frank McDonald, Environment Editor of The Irish Times, in January 2012 at the seventh annual ICLRD conference. Articles included in this issue focused on: cross-border river basin management, pathways to managing regional growth, modelling infrastructure investments, the development of a cross-border deprivation index, marine spatial planning and its role in the management of ocean resources, reinstating ‘kids’ into planning policy and practice, and the key links between spatial planning, data and housing policies.

The inaugural issue of Borderlands: The Journal of Spatial Planning in Ireland was launched at the sixth annual ICLRD conference in Sligo on 20th January 2011. The first issue included articles on the challenges of planning and governance reform on both sides of the Irish border; planning for sustainable communities; balancing private sector interests with the “common good” in planning; cross-border planning in the greater Basel region between Switzerland, France and Germany; and how NGOs and academics in the Boston region have pioneered new methods of evidence-informed planning. Contributors to the inaugural issue included Professor Peter Roberts (Homes and Communities Agency), Professor Greg Lloyd (University of Ulster),...
Charlotte Kahn (Boston Indicators Project), Holly St Clair (Metropolitan Area Planning Council) and ICLRD partners. The journal was launched by Mary Bunting and Anne Barrington, Joint Secretaries of the North South Ministerial Council.

Copies of the articles are now available to download off the ICLRD website, www.iclrd.org

PROFESSIONAL EDUCATION

As part of CroSPlaN II, the ICLRD developed an executive training programme aimed at council officials, elected representatives and community workers from those councils that made up the three cross-border networks: namely the North West Region Cross-Border Group, the Irish Central Border Area Network and East Border Region. Strand 1 of the programme, involving the delivery of five modules between September and December 2013, consisted of a mix of seminars and working group discussions, with issues such as territorial cooperation, community planning, public sector reform, efficiency agendas and customer-centric governance lying at the heart of the programme. Meeting largely in plenary, the 80 plus delegates were afforded the opportunity to network, debate the ongoing local government agenda and its implications for intra- and cross-jurisdictional working, and emerging shared priority themes. At the end of Module 5, delegates had identified six key themes / projects that they wished to focus on during Strand 2 through a series of tailored focus groups.

Strand 2 involved participants working in smaller working groups that were thematically focused and representative of a priority issue for the participating councils. Modules 6-9 were delivered between February and June 2014 and involved the councils organising themselves into six working groups - (a) urban regeneration, (b) community planning, (c) tourism and recreation, (d) renewables, green economy and low carbon agenda, (e) SMEs, and (f) agri-food. The working groups initially met separately for a series of half-day sessions; with Modules 6-9 tailored to focus on their priority theme. However, as the programme developed, a number of common areas of interest emerged across the various working groups which led to them ‘joining forces’ (for example, tourism and agri-food). During this Strand, the councils were mentored in the strategic development of their project ideas / priority themes by the ICLRD, the Centre for Cross Border Studies (through the Impact Assessment Toolkit) and guest speakers and facilitators. The end goal for the Groups was the development of an action agenda; understanding the operational structures required to translate policy into practice.

The Executive Training Programme concluded on 10th July 2014 with a day-long seminar where the councils, through the various working groups, presented their work and action agendas in their chosen thematic areas to an invited audience consisting of key agencies / experts in their thematic area (Strand 3).

A short evaluation of the programme is currently being undertaken by the ICLRD; with an in-built review to determine if any of the proposals are suitable to be taken forward under the new round of EU funding programmes.

Under the original CroSPlaN initiative, the ICLRD held professional education programmes for council officials, elected representatives and the private sector for three areas in the Irish Border Region:

- Irish Central Border Area Network Region (ICBAN)
- The Northwest Region
- Newry/Dundalk Twin City Region.

Each programme was tailored to help local governments and the business community to engage with the spatial planning agenda and build an awareness of the benefits of regional cooperation among local governments and other key stakeholders in the border region. Each programme introduced carefully selected case studies of international good practices, external speakers and facilitated working groups to help participants to: assess their current level of cross-border cooperation; develop suggestions for improvement; and propose institutional mechanisms to promote future collaboration.
ICBAN Region Training Programme: October 2011 – December 2011

This six-module training programme, Harnessing diversity in a shared future, was developed in association with the ten councils that make up the Irish Central Border Area – five North and five South. As with the previous programmes, the modules were delivered through a mix of invited speakers – all with recognised expertise in their field, facilitated working group discussions and wider networking opportunities through additional seminars and workshops. Unlike the previous programmes, this training programme engaged with senior management only from the ten Councils in the region.

This programme helped local governments in this cross-border region to identify opportunities for potential cooperation in the identified priority areas of shared services; tourism, culture, diaspora and creative industries; and energy and renewables. It provided an intense space (the modules were held at two-week intervals) in which the councils worked together to research and refine local and regional development issues for the area, as well as activities linked to the ongoing ICBAN-led, INTERREG-funded Spatial Planning Initiative. For example, the councils - with the support of both the ICLRD and ICBAN - fed their conclusions and recommendations into the regional spatial vision plan, Regional Strategic Framework 2013-2027, that was commissioned by IBCAN and funded under the INTERREG IVA Spatial Planning Initiative.

Newry/Dundalk Twin City Region Training Programme: November 2009 – May 2010

Building on a previous ICLRD initiative, The Newry-Dundalk Twin City Region: Supporting the Implementation of Cross-Border Collaborative Frameworks (January 2009), the ICLRD organised a training programme, Shaping and Managing Cross-Border Development, for council officials, councillors and private sector representatives from Newry and Mourne District Council, Down District Council and Louth Local Authorities. The training raised awareness of the challenges and opportunities that the region faced, as well as the need for collaborative action, including the creation of stronger links between the communities in the wider Newry-Dundalk Twin-City region, such as Drogheda and Banbridge.

As a follow-up, the two Councils requested ICLRD’s assistance to develop a cooperation agreement that built on their existing areas of cooperation, and opened up further opportunities for the sharing of services and joint management of key resources. The ICLRD outlined different types of instruments and institutional structures that could be used to facilitate cross-border cooperation and worked with the councils to draft the Memorandum of Understanding that identifies the initial areas of cooperation. These included: emergency planning; renewable energy and green technology; tourism and recreation; and sustainable economic growth and job creation. Cooperative structures are also outlined and include: a joint Committee of Elected Members; a joint...
Senior Management Group; an Advisory Forum; and Project Teams for implementation.

The agreement was approved by the respective councils in November 2010 and launched in Brussels in March 2011.

**COMPLETED RESEARCH REPORTS**


The Atlas of the Island of Ireland – developed using 2011 Census data – provides a comprehensive insight into various trends on the island of Ireland – from population to industry to religion to health. This will be an important tool for policy- and decision-makers across the public sector as they develop their next tranche of plans and strategies – and plan for a more sustainable future. All data was developed at the Small Area scale across the island – in total there are 23,025 geographical areas with comparable census information now available. The project team developed comparable datasets for the following themes: Population; Religion; Place of Birth; Ethnic Group; Housing Type; Tenure; Number of Rooms; Stock & Occupancy; Labour Force; Industry of Occupation; Mode of Transport; and General Health.

**Cross-Border Greenways and Cycle Routes on the Island of Ireland (2014)**

This report entitled Cross-Border Greenways and Cycle Routes on the Island of Ireland: A review of policies and future opportunities in the development of a regional network, reviews national, regional and local policies and potential opportunities relating to greenways and cycle routes on the island of Ireland so as to support local authorities and others in the development of a region-wide greenway and cycle route network on a cross-border basis. Developed as part of the greenways/ tourism pilot under the CroSPIaN II programme, the report contains a series of recommendations as to policy gaps in both jurisdictions.

Prof. Robin Hambleton, University of West of England (Bristol) presenting to executive training programme delegates on place-based leadership, Glencarn Hotel, Castleblayney, October 2013.
and identifies future opportunities (policy-, funding- and cycle route-related).

**Community and Spatial Planning in the Irish Border Region (2014)**

Under the auspices of the CroSPiAN II Programme, Ulster University were commissioned to undertake a piece of action research to consider the interfaces between land-use planning (reforms) and community planning (innovation) in Northern Ireland and the Republic of Ireland – with a specific focus on the Irish border region. The need for such research stemmed from the work of the Community Planning / Regeneration Working Group - as part of the CroSPiAN II Professional Education programme (Strand 2) - and the identified potential for tension between both types of planning. Published in January 2015, Community Planning and Spatial Planning in the Irish Border Region: Shaping the relationship between people and place recognises that there are vertical, horizontal and lateral dimensions to this potential interface between land-use and community planning. In response, the report written by Prof. Greg Lloyd and Mr. Gavan Rafferty addresses a number of the emerging questions around culture, capacity and competence in executing the new governance arrangements on an integrated basis.

**Cross-Border Emergency Planning on the Island of Ireland (2014)**

The existing arrangements and policies pertaining to emergency planning in both jurisdictions on the island of Ireland are considered within this report. Cross-Border Emergency Planning on the Island of Ireland: Existing Arrangements, Critical Issues and Learning from International Experience, with a particular emphasis on their orientation towards cross-border cooperation in the event of a major emergency. The review sought to raise critical issues pertinent to the progression of cross-border cooperation on emergency planning on the island of Ireland. With this objective in mind, certain issues are identified that require further attention. A review of the academic and practice-based literature has assisted in the identification of critical themes that should be addressed by proponents of closer cooperation, with lessons emanating from local and international examples usefully underlined.

**Charter for the Border Development Corridor (2014)**

A joint initiative with the Centre for Cross Border Studies, as part of the INICCO Programme, the ICLRD took a lead-role in preparing the Draft Solidarity Charter for the Economic Revitalisation of the Irish Border Development Corridor. The drafting was supported by a small working group chaired by Mr. Padraic White. The Charter will be used as a reference document to advocate for the prioritisation of investment and public policies around a number of key themes. A copy of the charter is available from both the ICLRD and the Centre for Cross Border Studies.

**Shared Services: Working Together for the Common Good (2013)**

This action research report outlines the attributes of shared services and documents current shared service initiatives as it is being pursued across the Republic of Ireland and Northern Ireland. It identifies the common areas where local government in both jurisdictions on the island of Ireland can adapt a shared services agenda, particularly around those functions and responsibilities which can be classified as frontline and/or specialised services and which are citizen-focused. This report further maps the strengths and responsibilities of local government, North and South, and includes an overview of the existing functions of local government as well as future functions as a result of the emerging reform agendas in both jurisdictions.


This research focuses on the timely issue of shared services and discusses the emerging shared services agenda for both jurisdictions on the island of Ireland. The briefing paper, a companion paper to international
cases on shared services noted below, synthesises ICLRD’s research to date on this topic as well as presentations by experts on the topic delivered during the ICLRD executive training programmes; there is a particular focus placed on the Irish border region. The paper reflects on potential directions and approaches that could be incorporated into current programmes for providing services in a very constrained economic context.

This report explores international experiences in shared services and local government reform in four locations: Glasgow and the Clyde Valley in Scotland; Mancomunidades in the Asturias Region of Spain; New York’s Shared Services Programme; and Local Government Restructuring and Realignment in Ontario, Canada. The cases illustrate the rethinking of cooperation in the delivery of public services within geographical areas that may include more than one local authority, and how both structured and voluntary associations can be used to provide a range of services. The cases also highlight the associated challenges of multi-level governance in the provision of services, and the importance of leadership and trust in paving the way for future cooperation. This research will be of interest to senior management in local government and regional authorities, regional development agencies, cross-border networks and agencies, and national policy-makers.

Towards a Spatial Monitoring Framework for the Island of Ireland: A Scoping Study (2012)
This report focuses on the application of data for the purpose of informing policy decisions, in particular with respect to the policy objectives and strategic ambitions of the National Spatial Strategy for the Republic of Ireland (NSS) and the Regional Development Strategy for Northern Ireland (RDS). It draws on international experience at the European level and elsewhere in the UK. The report responds to the need for a joined-up approach to evidence-based planning given the emergence of multiple spatial planning initiatives within the Irish cross-border region. International studies and experience indicate the importance of evidence-informed approaches to decision making, but also the dangers of relying on statistical or quantitative information without taking due account of the underlying processes the data represents. This is often represented as “data rich but insight poor.” The study provides a valuable source of expert advice for policy-makers and practitioners at national and regional government levels.

This detailed case study focuses on the States of Berlin and Brandenburg in Germany and the Elbe International River Basin District (IRBD). It demonstrates how one catchment area applied both regulatory and non-regulatory measures to integrate water quality improvements with regional land-use plans. This document presents many insights of relevance to International River Basin Districts, and Water Framework Directive implementation on the island of Ireland more broadly.

This U.S. case study demonstrates how one watershed applied both regulatory and non-regulatory measures to integrate water quality improvements with regional land-use plans. It describes how regional partnerships and,
in particular collaboration with civic society, is instrumental to managing river basins that span multiple jurisdictions. It notes that while Directives and legislation are important in setting the regulatory parameters, individual river basins need champions to drive regional partnerships that bring together officials, politicians, civil society, recreational users, environmental organisations, land owners and the private sector to improve water quality and enhance opportunities for (re)connecting with the river through recreational uses.


This study examines the key role that spatial planning should play in the implementation of River Basin Management Plans (RBMP) under the EU Water Framework Directive (WFD). The study takes an all-island and cross-border perspective and draws key insights through ‘good practice’ case studies from Germany and the United States.

The study sets out strategic options regarding the governance of RBMP and WFD implementation in both Ireland and Northern Ireland. These options, drawing on research and interviews with key stakeholders, can inform discussions among government departments, environmental agencies and other public sector bodies on both sides of the Irish border. The case studies pay particular attention to the benefits of joint management of International River Basin Districts. The study raises important questions regarding the role of spatial planning in environmental management and sets out seven key requirements for effective coordination between river basin management and spatial planning. These requirements include recommendations in relation to communication, development of expertise, leadership capacity, allocation of resources and inter-jurisdictional cooperation.

**Governance and Planning: An International Perspective (2010)**

The ICLRD published a series of international case studies in inter-jurisdictional and cross-boundary governance and planning to complement the recently concluded study *All Change But Any Alignment?* (see below). This research presents examples of innovative practice in collaboration in the following areas:

- **Basel Metropolitan Area** – spanning Germany, France and Switzerland, this case study highlights emerging cross-border cooperation in spatial planning at the sub-regional level;
- **Mancomunidades in Spain** – focuses on provision of services through inter-municipal collaboration at the level of the micro-region; and
- **Boston Metropolitan Area** – provides examples of how to promote regional development through cooperation among local governments, metropolitan planning organisations, the business community and research organisations.

Together, the three case studies provide practical examples of how cooperation in local and regional development can be shaped by collaborative efforts. They highlight how territorial cooperation, particularly in the EU, is moving towards ‘placed-based strategies’ as promoted in the EU 2020 Strategy.

**All Change But Any Alignment? The Impact of the Proposed Governance and Planning Reforms Across the Island of Ireland on Inter-Jurisdictional Planning (2010)**

Completed in June 2010, this report focuses on inter-
jurisdictional planning and multi-level governance and was published on the ICLRD website. The study considers:

- The various iterations of, and processes involved in, the Review of Public Administration (RPA), specifically as it relates to the reform of local government;
- If and/or how inter-jurisdictional spatial planning policies and operations will be more closely aligned following the various reforms to governance and planning on the island of Ireland; and
- Whether, in the context of the current economic downturn, there is greater political and community support for the alignment of spatial planning policies.

Developing a Strategic Alliance between Newry and Mourne District Council and the Louth Local Authorities: Background Report (2010)

Louth Local Authorities and Newry and Mourne District Council took a major step in the promotion of cross-border partnership in the Irish border region with the signing of a Memorandum of Understanding in March 2011 to cooperate in a number of thematic areas, including: emergency planning, renewable energy and green technology, tourism and recreation, sustainable economic growth and job creation.

In support of this development, the ICLRD report considers a variety of legal instruments to facilitate cross-border cooperation including: Euro-regions, European Groupings for Territorial Cooperation, European Economic Interest Groupings and ad-hoc agreements. It recommends that the cross-border local authorities adopt a legally non-binding Memorandum of Understanding as the basis for cooperation; the agreement can be expanded to include other regional stakeholders in the future.

Following the signing of the Memorandum of Understanding, a new Louth/Newry and Mourne Joint Council Committee was established to progress joint initiatives, and the two Councils are now sharing council officers and staff in a shared office to implement the MOU.

Delineating Functional Territories Across the Island of Ireland: An Initial Scoping (2010)

Published in October 2010, this report considers the various options for mapping functional territories across the island of Ireland. In undertaking a preliminary analysis of Functional Urban Areas (FUAs) of the Irish/Northern Irish urban systems, this study includes maps of natural catchments, travel-to-work catchments, origin-destination data, gravity models and urban functional specialisations. The focus of Phase I was to explore the various possibilities of mapping functional territories to produce a set of outputs based on datasets that were available to the research team. The resulting report illustrates the contribution that dynamic spatial analysis of urban functions can make in the profiling of the relational status, performance and potential of urban centres across the island. The research has been carried out by a multi-disciplinary team within ICLRD and funded by the Higher Education Authority (HEA).

Living Together – An Investigation of Case Studies and Strategies for Promoting Safe, Integrated and Sustainable Communities (2009)

This research project investigates initiatives and policies in both Northern Ireland and Ireland to improve and build subsidised housing in mixed communities through the lens of six case studies, namely Springfarm (Antrim), the Irish Street and Gobnascale interface (Londonderry/Derry) and Carran Crescent (Enniskillen) in Northern Ireland, and Cranmore (Sligo), Mahon (Cork) and Adamstown (Dublin) in Ireland. Together, they provide a cross-section of the challenges faced by communities...
working to promote or provide mixed housing, the strategies that have helped address these challenges and opportunities to create and maintain housing that is safe, prosperous and open to all. The six case studies were published in association with the Northern Ireland Housing Executive (NIHE) in Belfast and the Housing Agency in Dublin.

Rural Restructuring: Local Sustainable Solutions to the Rural Challenge (2009)

On the 19th June 2009, this report was launched by Minister Michelle Gildernew, Department of Agriculture and Rural Development (DARD) and Andy Pollak, Centre for Cross Border Studies (CCBS). The culmination of a 12-month research project, the research considers the role of rural restructuring and economic diversification, together with the growing importance of the urban-rural interface, in the achievement of balanced spatial development. The programme of research focused on three rural areas, namely Draperstown, Magherafelt District, Emyvale-Truagh-Aughnacloy on the Monaghan-Tyrone border and Duhallow spanning the Cork-Kerry border.

Both Draperstown and Duhallow have been engaged in the process of rural restructuring for the past 25 years and have built up a wealth of experience over this time. For Emyvale-Truagh-Aughnacloy, the challenges facing this rural community have been further exacerbated by its cross-border location and the impact of decades of back-to-back policy development across both administrations (North and South). Building on over 80 interviews, as well as a wealth of secondary data, the research team also developed a series of working papers on each area and held a one-day conference on the issue of rural restructuring in May 2009 (see p.88).

Newry-Dundalk Twin City Region: Supporting the Implementation of Cross-Border Collaborative Frameworks (2009)

The ICLRD undertook this research initiative in cooperation with Louth County Council, Newry Mourne District Council, Dundalk Town Council and InterTradeIreland. Its objective was to identify (a) potential projects that can bring long-term benefits to the ‘Twin-City’ Region of Newry-Dundalk and (b) models of cooperation to assist in their implementation.

The resulting report was launched on 27th February 2009 by Conor Murphy, MP MLA, Minister for Regional Development in Northern Ireland, and John Gormley, TD, Minister for the Environment, Heritage and Local Government in Ireland, at a special event at the Carrickdale Hotel, Ravensdale, Dundalk, County Louth. The report brings together recent and current research on how to realise the benefits of cross-border collaboration in the Newry-Dundalk Sub Region through integrated planning and development strategies.

Fostering Mutual Benefits in Cross-Border Areas: The Challenges and Opportunities in Connecting Irish Border Towns and Villages (2008)

This 18-month research programme focussed on the inter-relationships between cross-border towns and villages in the Irish border region. The final report was launched in Blacklion, County Cavan on the 21st November 2008 by renowned journalist and author, Colm Toibin. The research considers the relationship and connectivity that exist between five cross-border settlement groupings and identifies and examines the challenges facing and opportunities within these micro-regions. The border towns and villages included in the study were:

- Lifford-Strabane
- Kiltyclogher-Cashel/Scribbagh-Garrison-Rossinver
- Blacklion-Belcoo-Glenfarne
- Clones-Rosslea-Newtownbutler-Lisnaskea
- Castleblayney-Crossmaglen.
The key objective of this study was to identify good practices in joined-up planning and regeneration for inter-connected, cross-border areas with a particular emphasis on collaborative efforts that have supported local economic development, social cohesion and mutual benefits. In addition, the study sought to identify factors associated with successful collaboration through review of projects with a history of successful interaction and outcomes, including institutional frameworks for collaboration.


On the occasion of the ICLRD’s third annual conference on 17th January 2008, the ICLRD and AIRO launched *The Atlas of the Island of Ireland*, a set of detailed full colour maps and cartograms of varied socio-economic indicators across the island. The Atlas, co-authored by Justin Gleeson, Rob Kitchin, Brendan Bartley, John Driscoll, Ronan Foley, Stewart Fotheringham and Chris Lloyd, was launched by Tommie Gorman, Northern Editor of Radio Telefís Eireann (RTE).


This report was prepared by the ICLRD and commissioned by InterTradeIreland on behalf of the Department of the Environment, Heritage and Local Government in Ireland and the Department for Regional Development in Northern Ireland. The report outlines measures to better align spatial planning, infrastructure and cross-border projects to support long-term economic competitiveness, and has been endorsed by the Joint Communiqué of the British-Irish Intergovernmental Conference. Both Governments became committed to developing a framework for collaborative action between the two existing spatial strategies on the Island.

**CONFERENCES**

**The Housing Debate: (Re) Building our Communities through Integrated Working with Local Government (10 September 2015, Maynooth University)**

In conjunction with Co-operation Ireland, the ICLRD held a one-day conference on Thursday 10th September 2015 on the theme of *The Housing Debate: (Re) Building our Communities through Integrated Working with Local Government*. This event, organised as part of Co-operation Ireland’s All-Island Local Authorities Forum, took place on the campus of Maynooth University. And like previous events between both agencies, it was jointly funded by the Department of Environment, Northern Ireland and Department of Environment, Community and Local Government, Republic of Ireland. Key issues addressed during the course of the day included:

- Changing housing needs – what the evidence tells us;
- The evolving roles of central government, local government and housing providers in delivering housing and in place-making;
- The role of local government in housing and local regeneration;
- What role for planning in housing provision and the housing crisis?
- The current housing crisis – cause, effect, solutions?

**ICLRD Tenth Annual Conference: Shared Services, Shared Opportunities: New Models of Public Sector Collaboration and Partnership (29-30 January 2015, Killyhevlin hotel, Enniskillen)**

A joint ICLRD/CCBS event, the theme of this two-day conference was *Shared Services, Shared Opportunities: New Models of Public Sector Collaboration and*
Partnership, particularly topical in light of recent and imminent changes to the structure of local government in both jurisdictions. The conference considered the opportunities presented by local government reform — specifically in terms of developing new ways of cooperating across jurisdictional boundaries. Conference sessions included:

- **Shared Services, Shared Opportunities** - Considering the increasing focus being placed on the shared services agenda in both Ireland and Northern Ireland - and the role of various sectors in driving and/or delivering on this agenda;

- **Shared Services — A Local Government Perspective** - providing an overview of the shared services agenda from the practitioners perspective - the who, the why, the what, and the how;

- **Shared Services in Practice — Emerging Agendas for Local Government** — taking the themes of climate change, emergency management and sustainable development considering the inter-relationship between each in terms of both policy and practice, the scope for a shared services agenda and the role of such an agenda in building resilient communities; and

- **Progressing Shared Services — Cooperation, Innovation and Civic Leadership** — debating the role of shared services across local government and, where relevant, the sectors in which such an agenda can be most effectively pursued; with a particular focus being placed on the low carbon agenda, sustainable transport and emergency management.

### The Role of Development and Area Plans in Economic Growth and Regeneration

**26 June 2014, Armagh City Hotel**

Organised in conjunction with Co-operation Ireland, this one-day conference considered *The Role of Development and Area Plans in Economic Growth and Regeneration*. Held in the Armagh City Hotel, the conference was held as part of Co-operation Ireland’s

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**ICLRD Ninth Annual Conference: Cross Border Economic Development and the Border Development Zone Concept**

**30-31 January 2014, Cavan Crystal Hotel, Cavan**

A joint ICLRD/CCBS event, the theme of this two-day conference was Cross Border Economic Development and the Border Development Zone Concept and considered the type of cooperative models we should be pursuing in the context of: ongoing local government reform across the island of Ireland; continued austerity; the increasing availability of data; and the unceasing need for strategic development. The conference addressed these very topical issues over four themed sessions:

- An overview of the current Local Government Reform Processes, North and South, with a particular emphasis being placed on spatial planning and visioning for the future;
- The need for greater alignment between economic development, regeneration and spatial planning;
- Developing effective Development Plans / Area Plans, and considering their linkages to Community Planning;
- Nurturing a professional working relationship between council officials, elected representatives and other key stakeholders; and
- The practicalities of operating within the spatial planning system, with an emphasis on the development plan process.
• Local Government as Drivers of Territorial Cohesion - considering the application of Territorial Cohesion, and its core objectives, in the Irish border region, particularly over the period 2014-2020; and the role of cross-border cooperation, whether driven by local or regional government, in driving forward an economic agenda;

• Introduction to the Border Development Zone (BDZ) Concept - providing an overview of the BDZ in terms of strategy and structure with the discussion centring on its spatial, sectoral & institutional make-up;

• Local Government Working Across Borders: Learning from Scotland – drawing from the Scottish experience, a cross-border, inter-regional debate focusing on dynamic local economic development; and

• Progressing the Border Development Zone – debating how to further the development of the BDZ and, where relevant, who will now take a ‘lead’ in driving this objective forward.

Planning Reform on the Island of Ireland: From Policy to Practice
2 May 2013, Canal Court Hotel, Newry, County Down

In conjunction with Co-operation Ireland, this one-day conference Planning Reform on the Island of Ireland: From Policy to Practice considered the significant changes being made to the planning system in both jurisdictions on the island of Ireland as part of the ongoing local government reform programmes. Held as part of Co-operation Ireland’s All-Island Local Authorities Forum, the conference was jointly funded by the Department of Environment, Northern Ireland and Department of Environment, Community and Local Government, Republic of Ireland. Issues addressed by delegates and speakers included: the shaping of planning policy and practice in both jurisdictions on the island of Ireland; the role of planning in the promotion of economic development at a local and regional level; the importance of local knowledge and public inputs in informing policy and decision-making; the challenges of infrastructure – development alignment; the (growing) significance of renewable energies in sustainable – and economic – development; and the role of data and an evidence-base in informing policy and decision-making.

Eighth Annual Conference: Cooperating Across Boundaries: Resilience, Imagination, Vision and Information
7 February 2013, Canal Court Hotel, Newry, County Down

This one-day event considered what type of cooperative models we should be pursuing in the context of ongoing local government reform across the island of Ireland, continued austerity, the increasing availability of data, and the unceasing need for strategic development. The conference addressed these issues through three themed sessions:

• New Thinking and Ongoing Challenges in Planning for Places and Communities – exploring the role of planning and regeneration in creating resilient places and connected communities;

• The Shared Services Agenda: Cooperating Across Boundaries – considering how to encourage and support shared opportunities in providing services and strategic cooperation; and

• Open Forum: Advocating Strategic Agendas and Pathways to Decision-Making – debating the extent to which inter-municipal and cross-jurisdictional cooperation is an important factor in contributing to innovation and sustainable development.

Speakers included Ms. Jenny Pyper, Department for Social Development (Northern Ireland); Prof. Frank Gaffikin, Queens University Belfast; John Fitzgerald, Limerick Regeneration Agencies; Prof. Deborah Peel, University of Ulster; Niall Cussen, Department of Environment, Community and Local Government; Siobhan Coughlan, Department of Environment, Community and Local Government; Siobhan Coughlan, Local Government Improvement and Development (formerly IDEa); Dr. Brendan O’Keeffe, Mary Immaculate College & University of Limerick; Aidan Gough, InterTradeIreland; Prof Rob Kitchin, NUI
Maynooth; Seamus Neely, Donegal County Council; Ciaran Cuffe, Planner, Lecturer and Former Government Minister; and Mary Bunting, Former Northern Joint Secretary, North South Ministerial Council.

Seventh Annual Conference: Planning for a New Future: Can Planning and Cross-Border Cooperation Deliver Change in Ireland and Europe?
19-20 January 2012, Crowne Plaza Hotel, Dundalk, Co. Louth

Attended by 135 delegates and speakers, the conference was organised as part of our CroSPtAN Initiative funded by the Special EU Programmes Body under the INTERREG IVA Programme. The conference was organised around three main sessions:

- The Collaborative Framework: Cross-Border Regionalism in Action — the role of new regionalism in enhancing cooperation within functional regions
- Leadership through Planning: Demonstrating Leadership in Achieving the ‘Common Good’ — debating the role of communities, the private sector, and planners in learning from the past and planning a new future.
- Planning the Future: Rethinking the Role of Planning, Governance and Community — bringing together delegates and speakers to consider the role and future of planning and local and regional development, and the opportunities and implications of emerging EU agendas on policy and practice.

The island of Ireland and its European neighbours face similar challenges in terms of the global economic downturn, stagnant development and the legacy of over a decade of sometimes ill-planned development. These challenges have knock-on implications for cross-border cooperation, sustainable development and engaging local authorities, businesses and residents in shaping their communities. The Seventh Annual ICLRD Conference considered models of collaboration across borders, and between local government and other key local agencies. Both presenters and delegates alike were asked to identify workable new approaches to planning and the delivery of services.

Speakers and session chairs included: Caroline Creamer and Tim O'Connor, ICLRD; Jenny Pyper, Department for Social Development, Northern Ireland; Justin Gleeson, All-Island Research Observatory (AIRO); Maria-Jose Doval-Tedin, DG Regional Policy, European Commission; Allan Wallis, University of Colorado, Denver; Ciarán M. Tracey, Leitrim County Council; Anne Garvey, Department of Environment, Northern Ireland; John Driscoll, ICLRD; Colin Stutt, Colin Stutt Consulting; Deborah Peel, University of Ulster; Karina Pallagst, University of Technology, Germany; Alice Charles, Alice Charles Planning; Mary Corcoran, NUI Maynooth; Caitriona Mullan, ICLRD Advisory Board; Vincent Goodstadt, Independent Consultant and University of Manchester; and the Honourable Kelley O’Brien, Chicagoland Tri-State Metropolitan OECD Review.

Sixth Annual Conference: The Changing Business, Community and Spatial Planning Landscape: Doing More with Less
20-21 January 2011, Radisson BLU Hotel, Ballincar, Sligo

Attended by 110 people representing central, regional and local government, elected representatives, policy-makers, cross-border networks, community activists, academics and representatives of the business community, this two-day conference was sponsored by the Special EU Programmes Body. The conference was organised around four sessions:

- Planning for Economic Recovery and Sustainable Growth
- Planning for Homes and People: New Challenges, New Agendas
- Planning for Shared Innovation: Infrastructure to Support Innovation-Led Recovery
- A Changing Landscape: Networking, Collaborating and Achieving Greater Efficiencies
Recognising that the past twelve months had represented a time of significant change for the island of Ireland, the conference focused on the changing budgetary, legislative and policy landscape, and the practical realities of reduced budgets. It debated the need for implementing a period of austerity, and the opportunities this can create for renaissance and resurgence.

Speakers and session chairs included: Nicholas Retsinas, Harvard Business School; Shaun Henry, Special EU Programmes Body; Greg Lloyd, University of Ulster; David Walsh, Department of Environment, Heritage and Local Government; Jenny Pyper, Department for Regional Development; Eddy Curtis, Newry and Mourne District Council; Pádraig Maguire, Border Regional Authority; Brian Rowntree, Northern Ireland Housing Executive; Justin Gleeson, All-Island Research Observatory; Joe Frey, Northern Ireland Housing Executive; Rob Kitchin, National Institute for Regional and Spatial Analysis; Grainia Long, Chartered Institute of Housing Northern Ireland; Aidan Gough, InterTradeIreland; Dermot Byrne, Eirgrid; Frank McDonald, The Irish Times; Gary McDarby, University College Dublin; Tracy Meharg, Invest Northern Ireland; Feargal McCormack, FPM Accountants; Patricia O'Hara, National Statistics Board; James Cunningham, Centre for Innovation and Structural Change; and Tim O'Connor, former Secretary-General to President McAleese’s Office.

Fifth Annual Conference: Preparing for Economic Recovery: Planning Ireland, North and South, out of Recession
21-22 January 2010, Killyhevlin Hotel, Enniskillen, Co. Fermanagh

Over 130 people attended this two-day event, which was sponsored by the Special EU Programmes Body under CroSPlaN. Pat Colgan, the Chief Executive of the Special EU Programmes Body, opened the conference; Professor John FitzGerald of the Economic and Social Research Institute gave the opening keynote address; and Declan Kelly, the U.S. Economic Envoy to Northern Ireland gave the closing. The conference was organised around four sessions:

- Health Check on Economic Development, Planning and Infrastructure
- Planning and Economic Recovery – The Social and Community Dimension
- Building the Platform for Economic Recovery
- Recovery through Collaborative Spatial Planning.

The conference addressed questions on how spatial planning can contribute to the process of economic recovery across the island of Ireland in a balanced and sustainable manner. The presentations and discussions over the two days considered: who we should be planning for; how to ensure that the right places receive the right investment and therefore jobs; why we need to ensure that residential development takes place in places where people will want to live; and the role of infrastructure in improving accessibility and, in the case of broadband, employment opportunities and quality of life.

Keynote speakers from overseas included Charlotte Kahn, Director of the Boston Indicators Project at the Boston Foundation, and Holly St. Clair, Director of Data Services at the Boston-Region Metropolitan Area Planning Council. Other speakers and commentators who provided insights into the role of spatial planning in the process of economic recovery included Pat McArdle, Economist and Irish Times correspondent; Conor Skehan, Head Environment and Planning Department, Dublin Institute of Technology; Wesley Shannon, Director Local Government Policy Division, Department of Environment; Hubert Kearns, Manager, Sligo County Council; Patricia Potter, Director of the Dublin Regional Authority; Dr. Celine McHugh, Senior Policy Advisor with Forfás; and Brian Murray, Chief Executive of The Workspace Group.
Rural Restructuring: Local Sustainable Solutions to the Rural Challenge
8 May 2009, Blackwater Learning Centre, Knockconan, Emyvale, Co. Monaghan

A one-day conference on rural restructuring and development organised by the ICLRD, this event was attended by over 110 delegates from community and local development agencies, local government officials, businesses and business networks, practitioners, policymakers and academics. Speakers of note included Roger Turner of the Commission for Rural Communities; Geoff Brown of the Carnegie UK Trust; Dr. Kevin Heanue of Teagasc; and Maura Walsh of IRD Duhallow. The event, chaired by Michael Kenny of NUI Maynooth, was an opportunity to present emerging findings from the rural study, and participants addressed and debated a wide range of rural development issues.

22-23 January 2009, Radisson Hotel, Letterkenny, Co. Donegal

The conference focused on issues of strategic territorial planning and balanced regional development. This was achieved through a focus on specific EU territorial policies and a number of the designated gateways on the island of Ireland, including those that cross borders and jurisdictions: namely the Northwest Gateway, the Newry-Dundalk ‘Twin-City’ Region, the Atlantic Gateway and the Cork Gateway. Furthermore, presentations from the Department for Regional Development, Northern Ireland and the Department of the Environment, Heritage and Local Government, Ireland discussed the opportunities that are emerging for inter-jurisdictional cooperation, and the role of gateways and regions within and between the respective spatial strategies. The conference was attended by over 130 delegates, speakers and chairs from Ireland, Northern Ireland, Wales, Scotland, England, Hungary, Germany, the Skane Region in Sweden, and the States of Massachusetts, Maryland and Virginia in the United States.

Keynote speakers from overseas included Steve Quartermain, Chief Planning Officer in the Department for Communities and Local Government in London; Jim MacKinnon, Director for the Built Environment in the Scottish Government; Grant Duncan, Head of the Sustainable Futures Division in the Welsh Assembly Government; Dr. Gabor Novotny, from the European Commission’s DG Regio (Urban Development and Territorial Cohesion); Dr. Rupert Kawka from the German Federal Office for Building and Regional Planning; and Professor Gerrit Knapp, Director, National Center for Smart Growth Research and Education, University of Maryland.

Third Annual Conference: Fostering Cooperation for Local and Regional Development through Cross-Border Spatial Planning
17 January 2008, Armagh City Hotel

Held in collaboration with Inter TradeIreland, the ICLRD Third Annual Conference focused on how long-term economic success, coupled with high quality of life on the island of Ireland, can be achieved by harnessing the potential of sustainable communities which transcend the Border. Opened jointly by Batt O’Keeffe TD, Minister for Housing, Urban Renewal and Developing Areas, and Conor Murphy MP MLA, Minister for Regional Development, the conference was attended by 143 delegates representing local and central government, cross-border agencies, the private sector and community organisations.

Among the key issues and research papers presented at the all-day conference were how to implement and finance a collaborative spatial framework, proposals and project areas that can deliver on a cross-border sub-regional strategy for Newry-Dundalk, research and recommendations on how cross-border towns can be
reconnected and revitalised; and the role of housing in building sustainable communities.

**Supporting Evidence-Informed Spatial Planning and Analysis: Towards the Development of All-Island Spatial Databases**

15 November 2007, Crowne Plaza Hotel, Dundalk

Organised jointly by the ICLRD, the Regional Studies Association, the National Institute for Regional and Spatial Analysis, the National Centre for Geocomputation and AIRO, this one-day event was attended by over a 100 delegates. The conference presented the findings of two earlier seminars on the kind of spatial indicators needed to assist in high quality analysis for evidence-based planning and policy. The seminars were held in the National University of Ireland, Maynooth and the University of Ulster.

Presentations by leading academics and researchers were made on all-island indicators, data applications, maps and key issues around the type, scale and form of potential all-island datasets. Senior policy-makers offered comments on how these initiatives can support both policies and specific projects to foster cross-border cooperation in the areas of spatial planning, service delivery, economic competitiveness and investment strategies.

**Second Annual Conference: Implementing a Framework for Collaborative Action: Spatial Strategies on the Island of Ireland**

9 November 2006, The Canal Court Hotel, Newry, Co. Down

A key focus of the conference was an examination of (a) the range of regional and local spatial planning initiatives for key development areas identified in the existing spatial strategies and (b) the role of the business community and private sector in inter-jurisdictional development.

The opening speakers were Mr. Dick Roche TD, Irish Minister for the Environment, Heritage and Local Government, and Mr. Gerry McGinn, Permanent Secretary of the Northern Ireland Department for Regional Development. Other speakers included the prominent Dublin architect Mr. Sean O’Laoire, the property developer Mr. Gerard O’Hare, and senior planning officials from both Irish jurisdictions and from the European Commission.

**First Annual Conference: Regional and Local Development Strategies on the Island of Ireland – Addressing Key Issues and Building Capacity**

27 May 2004, Radisson Hotel, Athlone, Co. Westmeath

This one-day event was opened by the Irish Minister for Education and Science, Mr. Noel Dempsey TD, and was attended by 160 senior figures from central and local government, higher education institutions and the private sector in both jurisdictions. As well as investigating if there was a role for a research centre such as the ICLRD on the island of Ireland, the conference debated whether the many planning and development issues, North and South, were similar in nature. As to the establishment of the ICLRD, there was overall feedback from participants that the Centre should be established.

As well as organising its own conferences, the ICLRD has been invited to present its work at a number of events hosted by other agencies. These have included:

- **Bordering, Border, People and Place: Leadership, Local Government and the Border**, Presentation to Conference of Irish Geographers, Belfast, 21st May 2015 (Caroline Creamer)
- **Shared Services – Working for the Common Good**, Presentation to the Joint ICLRD/CCBS Conference, Killyhevlin Hotel, Enniskillen, 29th January 2015 (Caroline Creamer)
- **Agreements Facilitating Cooperation Across Jurisdictional Boundaries**, Presentation to The Shared Services Learning Network Workshop, Belfast, 14th January 2015 (Andrew McClelland)
- **Working Together for the Future of the Cross Border Regions**, Presentation to the NWRCBG Cross-Border
Connections Conference, Buncrana, 2nd October 2014 (Prof. Greg Lloyd)
• An Action Plan for the NWPB, Presentation to the North West Partnership Board, Derry, 1st July 2014 (John Driscoll)
• Emergency Planning, the Fire Service and the Shared Services Agenda: A Different Model for a New Future?, Presentation to Annual Conference of the Chief Fire Officers Association, Naas, 8th May 2014 (Caroline Creamer)
• Potential Roles, Functions and Partnerships for the NWPB, Presentation to North West Partnership Board, Derry, 19th November 2013 (John Driscoll)
• Developing a New Way of Thinking about People and Places, Presentation to Connect 4 Conference, Dublin, 19th November 2013 (Caroline Creamer)
• Cross-border Observation between Northern Ireland and the Republic of Ireland: Building Mutual Understanding, MOT’s First European Seminar on Observation of Cross-Border Territories, City Hall, Nancy, France, 10 December 2012 (Caroline Creamer)
• Data Capture: Information Rich, Insight Poor?, ICBAN Spatial Planning Conference, Hotel Kilmore, Cavan, 1 December 2011 (Prof. Rob Kitchin and Justin Gleeson)
• The International Centre for Local and Regional Development: Purpose, Principles and Process, Presentation on the ICLRD to a South African Delegation from Cacadu Municipality, Armagh City Hotel, 22 November 2011 (Caroline Creamer and Neale Blair)
• Cross-Border Local Authority Training Across the Island of Ireland, INICCO International Conference on Cross-Border Training and Impact Assessment, Radisson Blu Hotel, Cavan, 27 October 2011 (Caroline Creamer)
• Indicator Development and Monitoring for the National Spatial Strategy and Regional Planning Guidelines, ESPON Ireland Dublin, 28th September 2011 (Jim Hetherington)
• What is Spatial Planning? Irish Central Border Area Network Conference on Spatial Planning, Manor House Hotel, Killadeas, 15 September 2011 (Neale Blair)
• Fixing ‘Broken’ Government: Functional Territories as an Impetus for Reform, Regional Studies Association Conference, University of Manchester, 2 November 2010 (Caroline Creamer, Neale Blair and Justin Gleeson)
• Combating Rural Poverty and Social Exclusion, Pobal Conference, Drogheda, 21 October 2010 (Karen Keaveney)
• Community Building through Growing Leadership: the Challenge of the Border, Presentation to Eisenhower-Loeb Fellows, The Newman Building, Dublin, 5 May 2010 (Caroline Creamer and Karen Keaveney)
• Inter-Municipal collaboration across borders: Overcoming Legal and Institutional Differences in the Irish Border Region, American Association of Geographers Annual (AAG) Conference, 14 April 2010 (John Driscoll)
• Challenges and Opportunities for Rural Regeneration on the Island of Ireland, UK-Ireland Planning Research Conference, Anglia Ruskin University, Chelmsford, 7-9 April 2010 (Karen Keaveney)
• Rural Interfaces: Reconciling Perception with Reality, Sharing Our Space Event Killyhevlin Hotel, Enniskillen, 4 March 2010 (Caroline Creamer)
• Divergence in Policy and Practice: Government and Community Perspectives on Rural Development, National University of Ireland, Galway, 2 December 2009 (Brendan O’Keeffe and Caroline Creamer)
• Rural Restructuring: Local Sustainable Solutions to the Rural Challenge, NSMC Sectoral Meeting on Agriculture and Rural Development, Greenmount College of Agriculture and Horticulture, Antrim, 21 July 2009 (Caroline Creamer, Neale Blair, Karen Keaveney and Brendan O’Keeffe)
• The Color of Money: The (Changing) Role of Funding in Cross-Border Collaboration, MOPAN Conference, NUI Maynooth, 18 June 2009 (Caroline Creamer and Neale Blair)
• Rural Restructuring: an Opportunity within a Challenge, Conference of Irish Geographers, University College Cork, 16 May 2009 (Caroline Creamer and Brendan O’Keeffe)
• Understanding and Shaping Regions: Spatial, Social and Economic Futures Leuven, Belgium in April 2009 (Brendan O’Keeffe)
• Shaping our Future: Reviewing Northern Ireland’s
Regional Development Strategy at the Stormont Hotel in Belfast, 5 November 2008 (Brendan Bartley)

- Stuck Behind a Tractor! The Celtic Tiger and its Slow Chug towards the Border, First Irish Social Sciences Platform (ISSP) Conference, Dublin City University, 11 September 2008 (Caroline Creamer and Brendan O’Keeffe)
- Border Effective: The Economic Competitiveness Challenge Facing Towns and Villages in the Irish Border Region, ERSA Congress 2008, University of Liverpool, 28 August 2008 (Caroline Creamer)
- Shared Future – Shaping the Fabric of our Communities, Cork, 24-25 April 2008 (John Driscoll)
- Drivers of Connectivity: Understanding the Nature, Challenges and Potentials, Presentation on ICLRD to Croatian Delegation, Armagh City Hotel, 2 April 2008 (Caroline Creamer)
- Northern Europe, Planning Together for a Sustainable Future in Inverness, Scotland, 11-15 November 2007 (Brendan Bartley)
- Cooperation in the Twin-City Region, Ballymascanlon House, Dundalk, 1 November 2007 Dundalk Chamber’s Annual Conference Border Vision Gateway, (John Driscoll)

SEMINARS AND WORKSHOPS

During 2014-15, the ICLRD continued to hold seminars on topical cross-border issues; with a strong emphasis being placed on evidence-informed policy and planning.

Mapping Census 2011: Key trends and implications for policy and practice on the island of Ireland
29 January 2016, Enniskillen

This annual ICLRD technical workshop, organised in association with the All-Island Research Observatory (AIRO) and the Centre for Cross Border Studies, was held on 29th January 2015 at Killyhevlin Hotel. This event marked the end of a one-year programme of census seminars — each addressing a different theme — considering the policy implications of the trends emerging from Census 2011. As part of this morning event, the Atlas of the Island of Ireland: Mapping Social and Economic Patterns was previewed.

Mapping Census 2011: Key trends and implications for policy and practice on the island of Ireland
30 January 2014, Cavan

This annual ICLRD technical workshop, organised in association with the All-Island Research Observatory (AIRO), was held on 30th January 2014 at Cavan Crystal Hotel. This was the first in a series of census seminars jointly hosted by the ICLRD and AIRO over 2014 on the findings and trends emerging from an analysis of the respective 2011 Censuses for Ireland and Northern Ireland. This workshop focused on:

- Demography on the Island of Ireland: Population, Nationality & Ethnicity
- Economy: Employment, Industries, Where People Work, Unemployment

Framework for Co-operation: Spatial Strategies for Northern Ireland and the Republic of Ireland
15 October 2013, Castleblayney

This afternoon event celebrated the long awaited launch of the Framework for Co-operation: Spatial Strategies for Northern Ireland and the Republic of Ireland, a joint publication by the Department for Regional Development (Northern Ireland) and Department of Environment, Community and Local Government (Ireland). This innovative approach to strategic development is the first such spatial planning framework on the island of Ireland, and seeks to influence strategic issues of economic competitiveness, place making, environmental quality, and evidence-based decision making. The Framework, first mooted by the ICLRD in a 2006 study sponsored by InterTradeIreland, will be particularly helpful in light of new local government reform policies and the bringing together of local authorities, cross-border bodies and the regional networks in the Irish border region who share common challenges and opportunities.

The Framework was launched by Tom Reid of DRD and Niall Cussen of DoECLG as part of Module 3 of the
ICLRD’s Executive Training and Animation Programme (delivered as part of the INTERREG-funded CroSPiAN II programme).

**BORDERLANDS**
**The Journal of Spatial Planning in Ireland**

**Shared Services in the Irish Border Region**
**22 March 2013, Cavan**

This afternoon seminar with representatives from local government in the Irish border region considered what is meant by shared services and the range of activities under which a shared services agenda is currently being pursued across the island of Ireland. Drawing on previous research carried out by the ICLRD, the key focus of the event was to debate the potential for local government to be a driver of the shared services agenda, and to consider in what sectors there was the most potential to pursue such a programme.

**Informing the Present – Imagining the Future**
**6 February 2013, Newry**

Developed in cooperation with Newry and Mourne District Council and Louth Local Authorities, this technical workshop was held on 6th February 2013 at InterTradeIreland. The focus of the workshop was the progress of the Memorandum of Understanding (MOU) between Newry and Mourne and Louth Local Authorities – developed by the Councils with the support of the ICLRD. The workshop included a presentation by AIRO on *Mapping the 2011 Census: What it tells us about the Newry/Mourne-Louth Corridor* and a discussion among key stakeholders in the region on the importance of addressing both economic opportunities and common social and educational challenges.

**Local Governance in the UK and Ireland: So Far, So Near.....**
**23-24 November 2012, Valenciennes**

As part of the Europe-wide, OLA (Observatory on Local Autonomy) Network, the ICLRD together with the University of Valenciennes, France organised a two-day European symposium on local and regional governance. This event brought together high-level speakers and delegates from Britain, Ireland, Northern Ireland, France and other parts of Europe – including representatives from ICBAN (Irish Central Border Area Network). The Valenciennes Conference was the first major OLA event to focus on these islands, and the ICBAN intervention served to document and analyse from a practical perspective the now embedded interfaces between the respective governance and planning systems on the island of Ireland specifically, and the evolving collaborations between the Irish and U.K. systems more generally. Other speakers focusing on Ireland included representatives from the Border Regional Authority, Western Development Commission, Institute of Public Administration, and Seán O’Riordáin and Associates.

OLA is a Europe-wide network, with representatives in thirty countries studying and advocating for local autonomy, decentralisation and better local governance. The ICLRD has been affiliated to OLA since 2009, with Caroline Creamer (Maynooth University) and Dr. Brendan O’Keeffe (Mary Immaculate College, University of Limerick) representing Ireland on the Network.

**River Basin Management Plans: Cross-Border Cooperation and the Role of Spatial Planning**
**17 October 2012, Monaghan**

Building on a series of reports, including documentation of good practices in cross-border river management by the ICLRD in 2011, the Centre and the Border Regional Authority jointly hosted a half-day seminar on river basin management on the island of Ireland. Attendees included senior planners and representatives from local government in the Irish border region, the Northern Ireland Environmental Agency and the Department of Environment, Community and Local Government. As well as considering international good practice for cross-border collaboration in river basin management, discussions and debate also centred on the structural changes being undertaken to improve the implementation of River Basin Management Plans in Ireland, and implementation issues and opportunities in Northern Ireland. The importance of small-scale approaches to water resource management was one of the key issues highlighted. Consideration was also given to local perspectives on the challenges and opportunities for river basin management, with an emphasis placed firmly on the need for a robust evidence-base, as
well as effective cross-sectoral and inter-jurisdictional communication.

Should Ambulances Stop at the Border? North-South Cooperation in Health
13 June 2012, Dublin

This evening seminar, held in association with the Institute for British-Irish Studies (IBIS), University College Dublin and the Centre for Cross Border Studies, was attended by over 60 healthcare policy-makers, academics and professionals from across the island of Ireland. Chaired by Dr Maurice Hayes, the seminar addressed questions around an all-island strategy on health, and the desirability of deepening cross-border healthcare cooperation to increase access to specialist services and facilities.

The presentations and subsequent discussion noted the good relations that already exist in terms of cross-border collaboration in the coordination and delivery of healthcare services. In this context, the debate focused on local provision of services, the maintenance of services and issues around funding. In addition, the importance of an up-to-date evidence-base for ensuring coherent and equitable provision of services was emphasised.

Models of Cross-Border and Inter-Jurisdictional Cooperation: Learning from the Experiences of Others
19 January 2012, Crowne Plaza Hotel, Dundalk

Organised under the auspices of the CroSPaN initiative, this half-day technical workshop was attended by over 30 delegates from central government, local authorities and academics interested in the application of models of cooperation to address common opportunities in cross-border cooperation. Three senior practitioners from local agencies and authorities in Massachusetts, Spain and the Irish border region presented cases that illustrated how inter-jurisdictional cooperation agreements can be applied to different issues including: river-basin management in Massachusetts and securing cooperation and consensus across forty-three communities; how bilateral and multi-lateral associations of local authorities in Spain – known as mancomunidades – cooperate to deliver services within functional territories; and the Memorandum of Understanding (MOU) between neighbouring councils in the Irish border region that commits them to collaborating in areas such as emergency planning, tourism and recreation, and sustainable economic growth.

Planning and Local Government on the Island of Ireland
30 September 2011, Dundalk

Organised in association with Cooperation Ireland and Queen’s University Belfast, this well-attended seminar drew over 100 delegates from Ireland and Northern Ireland. The emphasis of this event was threefold: looking at the growing territorial agenda and the opportunities this creates for enhanced cross-border cooperation across the island of Ireland as demonstrated by the experiences of others in Europe; focusing on the potential role of elected members in the planning and governance processes of each jurisdiction on the island of Ireland; and considering the role of planners and councillors in decision-making and the extent to which evidence should lie at the heart of decision-making. Delegates commented on the importance of sharing experiences, which was further noted in the contributions from both jurisdictions regarding the impact of new planning legislation and the reform of public administration in Northern Ireland.

Land Banking and Housing Development: The (New) Role of the Planning System
28 April 2011, NUI Maynooth

A jointly hosted NIRSA-ICLRD-Border Regional Authority event, this one-day roundtable discussion focused on Land Banking and Housing Development: The (New) Role of the Planning System. Speakers and contributors considered the state of housing development and the potential of land banking across the island of Ireland with respect to housing need, unfinished estates, the property market, the planning system and emerging programmes of both the Housing and Sustainable Communities Agency (HSCA) and the National Asset Management Agency (NAMA). It examined international experiences
of asset disposal and public land development, and explored possibilities and opportunities in the island of Ireland context. Delegates debated the role of local authorities, HSCA, NAMA, housing associations, private developers and other actors in addressing present issues and creating a more sustainable system of development that serves public and private interests. Attended by over 30 people, this event created a space in which key stakeholder agencies were provided with the opportunity to share and learn from each other.

**Developing Core Strategies: Adopting a Bottom-up Approach**

9 March 2011, Hodson Bay Hotel, Athlone

Jointly hosted by NIRSA-ICLRD-Border Regional Authority, this one-day event brought together over 120 local authority planners, elected representatives, private sector delegates and policy-makers to exchange experiences and lessons in adopting core strategies as required by new planning legislation in Ireland. The case of how Aberdeen City and Shire produced the Aberdeen Strategic Plan with the support of elected representatives highlighted the key role that elected councillors have in adopting longer-term planning policies. Other key issues considered during the day included data and evidenced-based decision-making, annual monitoring, density and appropriate scale development, and the need for integrated planning policy and practice.

**The Functionality of Place: Determining and Mapping Functional Territories**

16 June 2010, Armagh City Hotel

Funded by the Higher Education Authority, the ICLRD hosted a half-day workshop on the topic of functional territories. This workshop was organised as part of the ICLRD’s ongoing commitment to presenting cutting-edge research into issues of all-island spatial planning and regional development, and AIRO’s long-term objective of providing data-users in both policy and practice with an open source ‘hub’ for spatial data analysis and mapping. Together with ICLRD colleagues, the 50 participants from central and local government departments and cross-border organisations discussed how the functional territories research can be used by planners and policy-makers in their own work. The workshop also considered the issue of data availability and the need for more accessible and relevant datasets to support evidence-informed planning and the identification of functional territories that can, for example, lead to maintaining or improving the delivery of services.

**Evidence-Informed Planning: Making Information Accessible to Build Inter-Jurisdictional Cooperation**

21 January 2010, Killyhevlin Hotel, Enniskillen, Co. Fermanagh

Organised under the auspices of the CroSPiN initiative, this half-day technical workshop was attended by 40 people from both the public and private sectors with an interest in evidence-based policy and practice. Best practices from Boston were presented to demonstrate how the Boston Foundation and the Metropolitan Area Planning Council use data and outreach events to shape regional change. The presentations from Boston highlighted the role of various technologies (3D visualisations, highly interactive web visualisations and scenario modelling) in helping stakeholders involved in spatial planning processes better understand the impacts and tradeoffs of development decisions. The discussions concluded that a challenge in the Irish context, both North and South, is to make data and evidence on spatial planning available in a format that is accessible to a wide range of users.

**An Introduction to Smart Growth**

22 January 2009, Radisson Hotel, Letterkenny, Co. Donegal

This half-day event kick-started a debate on the inter-relationship between spatial planning, economic development and the ‘common good’, both at a regional and local level. Attended by over 30 delegates including central government representatives from the island of Ireland and the U.K., local government officials, academics and community activists, this seminar considered the experience of ‘Smart Growth’ in the State of Maryland and catalytic urban development initiatives.
Supporting Evidence-Based Spatial Planning and Analysis in Ireland: Towards the Development of All-Island Spatial Databases

15 February 2007 in NUI Maynooth; and 20 June 2007 in University of Ulster

The Regional Studies Association (RSA) together with the National Institute for Regional and Spatial Analysis, the National Centre for Geocomputation, and the ICLRD hosted two workshops during 2007 on the importance of all-island datasets on key thematic issues in spatial development. The workshops addressed a number of key issues, namely:

- Identifying existing common datasets for the island of Ireland;
- Building on what already exists and considering the type, scale and form of future key all-island datasets; and
- Agreeing on a list of indicators to assist in good quality analysis of evidence-based planning and policy, and the roll-out of a planning research programme.

These workshops were open to those with an interest in spatial analysis and planning data, in particular policy-makers, representatives from regional and local government, state agencies, planning consultancies, and academics.
Exploring the Economic and Social Implications of the National Spatial Strategy
15 April 2005, Athlone, Co. Westmeath

The seminar was organised jointly by the Athlone Institute of Technology and the National University of Ireland, Maynooth. The objective of this event was to present and discuss spatial strategies from European, national, regional and local perspectives; with particular reference to economic and social aspects.

OUTREACH

Irish Central Border Region (2011-2015)
The ICLRD has been closely involved in providing guidance to the Irish Central Border Area Network’s (ICBAN’s) cross-border spatial planning activities. The Central Border Region Spatial Planning Initiative, which has been partly financed by the EU’s INTERREG IVA Programme and is worth over £1.5 million, is a drive by ICBAN to give the region distinctiveness, translating key national plans into local and regional actions. Through a suite of projects, the Spatial Planning Initiative is developing the necessary skills and capacity of its constituent Councils to enable them to engage positively and progressively with central government, North and South. The ICLRD provided technical assistance during the setup period on how the work programme should be shaped and managed to achieve the aims and objectives of the Initiative while also promoting collaborative activity and skill transfer amongst council and community groupings. The ICLRD has been an active member of the project’s Spatial Planning Action Steering Group and, in late 2012, the ICLRD was commissioned by ICBAN to continue in its role as an external advisor to support the programme.

In January 2015, in support of the Spatial Planning Initiative, ICBAN contracted the ICLRD to provide external engagement support in the form of a study, specifically focusing on revitalising border towns and villages in the central border area. Recognising the increasing economic pressures facing the region as a whole following the economic downturn, this study was delivered as follows:

• The preparation of a interim briefing paper, which based on interviews with key stakeholder agencies in the region, would consider the challenges facing the region as a whole, the initiatives that have worked well in the past to address economic and social challenges and the need for a new partnership approach; and
• The preparation of a final position paper, incl. recommendations on next steps for both ICBAN and its constituent councils.

Finalised in November 2015, the Position Paper highlights a number of key areas where action is required to support rural revitalisation in the region. These include actions relating to business growth and development, access to services, connectivity, redressing community deficits, and meeting the needs of an ageing population.

Following the ICLRD 2011 training programme in the North West, the Centre continued to provide assistance in 2012 to local councils and the North West Partnership Board (NWPB) to consolidate initiatives supporting strategic cooperation in the NW Gateway. Activities included:

• Undertaking reviews of respective local policy documents such as the Donegal County Development Plan and the One Plan for Derry-Londonderry to identify common areas and strategic projects/initiatives for future cooperation;
• Supporting the NWPB in their preparations for meeting with, and presenting to, the NSMC and senior officials from those government departments involved in the NW Gateway Initiative in April 2012; and
• Engaging with key stakeholders in the North West and central government departments in both jurisdictions leading to a recommendation to develop an Action Plan to strengthen the linkages between the North West Gateway Initiatives, and the priorities and programmes for government (including the revised RDS & NSS, and the forthcoming Cooperative Framework for Spatial Planning).
The ICLRD’s sister organisation, AIRO, also provides advice to the region regarding evidence-based planning; including sitting on the steering committee for the Northwest Region Cross-Border Group SPACEial data capture project.

In support of the work of the North West Partnership Forum (previously known as the North West Partnership Board), the ICLRD secured funding from the Department of Foreign Affairs and Trade ‘Reconciliation Fund’ to develop an action plan to progress the development of the region. Using a multi-disciplinary collaborative model, the Action plan focuses on the key growth areas of tourism, renewables and the green economy, health innovation and well-being, and culture and the creative industries. The Reconciliation Fund grant, totalling €25,000, covered the period June 2013 to May 2014. The resulting Action Plan, Building a Cross-Border, Cross-Sectoral Agenda: The North West Partnership Forum Action Plan considers the value added to be gained by linking strategic local priorities with central government programmes and spatial strategies (including the North West Gateway Initiative).

The period February to September 2015 saw the ICLRD working with both Councils in the North West – Derry City and Strabane District Council and Donegal County Council – to review and consolidate a new partnership mechanism, and associated working arrangements. These new arrangements facilitate the region (the Councils) to respond in a coordinated and flexible way to both internal and external opportunities for development and investment. A key output, the Regional Prospectus, is being circulated to all relevant Government Ministers and their Special Advisors / General Secretaries for their perusal and ratification. New operational structures have been co-designed by the ICLRD, the Councils and senior representatives from central Government in both jurisdictions; with these structures responsible for delivering on the prospectus.

The ICLRD continues to work with the Councils to support the initiation and operationalisation of the new structures identified in the Regional Prospectus; and in building and sustaining the momentum required for the regional process to take effect.

The cross-border councils of Monaghan County Council and Armagh City and District Council contracted the ICLRD to aid them in developing an enabling agreement, such as a Memorandum of Understanding (MOU), to strengthen cooperation between these two councils. In April 2014, it was agreed that this programme of work would be carried out in three phases:

- **Phase 1:** The identification and assessment of both past and current areas of cooperation so as to help identify potential areas of focus/interest for an enabling agreement; and a review and assessment of other cross-border dynamics that could identify areas of functional cooperation and shared assets; for example landscapes, tourism or cultural products, economic cooperation, community linkages and infrastructure that is / could shape interaction among the Councils.

- **Phase 2:** The identification of one or more scenarios for cooperation in the future whilst, in parallel, reviewing current models of cooperation (such as an MOU), and offer suggestions as to their potential application as an enabling agreement.

- **Phase 3:** Drafting the enabling agreement and any accompanying documents. Together, these will identify and outline the focus of key activities based on preferred scenario(s) for cooperation; with a particular focus being placed on the first year of activities.

This work programme was completed in March 2015.

The ICLRD actively advocated for, and supported the development and publication of, this important framework for cooperation in spatial strategies that was approved by the Northern Ireland Executive in June 2013. Indeed, it was at an ICLRD Executive Training Programme in October 2013 that the Framework was officially launched. This innovative approach to strategic development is the first such spatial planning framework on the island of Ireland, and seeks to
influence strategic issues of economic competitiveness, place making, environmental quality, and evidence-based decision making. The Framework for Co-operation, first introduced by ICLRD in a 2006 study sponsored by InterTradeIreland, will be particularly helpful in light of new local government reform policies and the bringing together of local authorities, cross-border bodies and the regional networks in the Irish border region who share common challenges and opportunities.

**Truagh-Aughnacloy Community Planning (2010-2012)**

Between 2010-2012, the ICLRD provided technical assistance to a number of community development associations along the North Monaghan / South Tyrone border. The development associations from Truagh, Aughnacloy, Aghaloo, the Dawn, Loughans, Clara and Carrickroe are working together on a community business and social economy plan. This was the first time that these neighbouring associations formally worked together.

The groups worked with a consultant on social enterprise development. Initial activities included a household perceptions study of 150 households, a survey of 63 businesses, community-based meetings with civil society and public sector bodies on both sides of the Border and focus groups with younger and older residents. Taking a longer-term perspective, the consultation process has led to the development of a North Monaghan Development Framework study based on a vision of the sub-region as an economically sustainable and outward looking Border catchment area where people and communities are empowered to achieve their best.

The next phase of the groups’ work was to examine the feasibility of:

- A Blackwater Valley branded Business Development and Marketing Initiative;
- An Independent Living Project providing support services to lone dwellers and older people, in addition to community-based employment opportunities, especially for women; and
- The Implementation of a Youth Employment, Entrepreneurship and Leadership Programme.

In order to consult with residents on both sides of the border and to gain insights into the types of social economy and community development activities that would be favoured locally, young people from Truagh and the surrounding communities came together in 2012 and undertook a household survey. The ICLRD provided technical support to enable them to formulate a survey questionnaire, and to process the results. The response rate throughout the area was very positive and a wealth of suggestions were advanced, which now need to be progressed. In the meantime, the youth have assumed leadership roles within their own communities, and are bringing a fresh vitality and energy to local development and cross-border cooperation.

**Harvard Joint Centre for Housing (2009)**

Within the housing sector on the island of Ireland, there was no systematic process or structure in 2009/2010 for examining and understanding the inter-jurisdictional implications of housing policies and markets. To explore potential means of building cooperation around housing indicators, the ICLRD facilitated academic exchanges for Justin Gleeson, Manager of AIRO, and Karen Keaveney, Lecturer at Queens University Belfast to the Harvard Joint Center for Housing and the Institute for International Urban Development in Cambridge, Massachusetts. Their meetings and research in Boston, and subsequent meetings with senior officials in the Northern Ireland Housing Executive and the Department of Environment, Heritage and Local Government in Dublin, has led to increased cooperation on the identification of common data which can be incorporated into an accessible web-based data base available on the AIRO website. A key recommendation from these exchange visits was the need to publish an annual report on key housing trends, issues and markets for the island of Ireland.

**Reconstruction and Resettlement Council, Cyprus (2008)**

In October 2008, John Driscoll joined a delegation from the island of Ireland that presented at a conference on ‘Integrating Transport in a Reunified Cyprus’ in Nicosia, Cyprus, the ‘last divided capital in Europe’. The conference was organised by the Reconstruction and Resettlement Council (RRC) of Cyprus and Kate Burns (formerly of ICBAN) who was working with the RRC.
at the time on the lessons that could be learned from cross-border development on the island of Ireland to promote peace and reconciliation in Cyprus between the Turkish and Greek Cypriot communities. This event was the beginning of an ongoing discussion between the ICLRD and RRC. In July 2009, for example, a two-person delegation from the RRC met with John and Andy Pollak to discuss if there are potential areas where ICLRD and the Centre for Cross Border Studies could assist the Council in Cyprus.

BRIEFING PAPER SERIES

In November 2009, the ICLRD launched its Briefing Paper Series. This involves the publication of short, timely articles that explore how various forms of planning, enacted at different spatial scales, can contribute to better collaboration on the pressing issues facing both Ireland and Northern Ireland. By considering both jurisdictions on the island and the potential synergies and efficiencies that can be realised through cooperation, the series aims to provide a more rounded view than considering each jurisdiction in isolation. Articles available to date include:

- Small Island: Big Marine Challenges Ahead for the Blue Economy by Dr. Heather Ritchie, University of Ulster (December 2013).
- Implementation of River Basin Management Plans: Current Issues and Future Needs by Dr. Ainhoa González Del Campo, Researcher, NIRSA, NUI Maynooth, John Driscoll, Director, International Centre for Local and Regional Development, and Pádraig Maguire, Regional Planner, Border Regional Authority (December 2012).
- Biomass Resources in the Island of Ireland by Michael Doran, Executive Director of Action Renewables (September 2012);
- Reflections on the Boom: A Time for Reform by Dr. Patricia O’Hara, Chairperson of the National Statistics
Board and Adjunct Professor at the National Institute for Regional and Spatial Analysis (NIRSA), NUI Maynooth (August 2011);

- **Innovation: The Challenge of Building an Adaptive and Innovative Society** by Dr. James Cunningham, Director of the Centre for Innovation and Structural Change (CISC) and Senior Lecturer at the J.E. Cairnes School of Business & Economics, NUI Galway (May 2011);

- **Doing More with Less: A Business Perspective** by Feargal McCormack, FPM Chartered Accountants (January 2011);

- **Recovery Scenarios for the Two Irish Economies** by Prof. John FitzGerald, The Economic and Social Research Institute (July 2010);

- **Evidence-Informed Spatial Planning: A Metro Boston Perspective** by Holly St Clair, Metropolitan Area Planning Council (MAPC), Boston (May 2010);

- **ESPON – A New Practical European Research Agenda for Territorial Development** by Cliff Hague, ESPON Contact Point UK and Brendan Bartley, ESPON Contact Point Republic of Ireland (Feb. 2010);

- **The Conditions Necessary for Gateway Development and The Role of Smaller Gateways in Economic Development** by Prof. Jim Walsh, NUI Maynooth and Cormac Walsh, Urban Institute, University College Dublin (Jan. 2010);

- **Linking Spatial Planning with Public Investment: Perspectives from the island of Ireland** by David Counsell, Planner & Prof. Greg Lloyd, University of Ulster (Dec. 2009);

- **Good Planning Key to Future Success** by Prof Rob Kitchin, NUI Maynooth & Prof. Alastair Adair, University of Ulster (Nov. 2009).

Further articles will be added on a regular basis.
INTERNATIONAL CENTRE FOR LOCAL AND REGIONAL DEVELOPMENT (ICLRD)

Head Office
C/o School of the Built Environment
Ulster University Shore Road
Newtownabbey BT37 0QB
Northern Ireland

Email: office@iclrd.org

Director: Caroline Creamer (caroline.creamer@nuim.ie)
Chair: Caithriona Mullan (caithriona@iclrd.org)

WEBSITE
The International Centre for Local and Regional Development's website is at
www.iclrd.org