

## *National borders and transport corridors in Europe: evidence of linkages in the Dublin-Belfast corridor*

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Europe's urban life focuses around a major network of cities, which exchange population, goods, and services of every kind both within regions and across borders. By their very nature, urban questions thus have a transnational dimension, and constitute a fruitful area of European cooperation. The growth of urban areas is associated with accessibility to transportation routes, and has become the most important factor in landscape and land use change throughout Europe. Apart from providing links between cities, transport corridors are also extensions of cities' functionality which allow the population to benefit from essential facilities offered by functional urbanised areas which can include other cities. But, they often exacerbate urban sprawl into new urban areas. Visible impacts of motorway based urban sprawl are apparent in countries or regions with rapid economic growth and in the New Member States (MS) where a new phase of urbanization is underway, dramatically changing land use patterns.

The aim of the present work is to reflect on the European perspective concerning spatial development strategies, particularly cross-border transport corridors; to assess the role of these strategies specifically on Dublin and Belfast metropolitan areas. It shows how tools such as scenario-analysis and modelling can assist policy makers in addressing the challenges facing cross-border transport corridors. The results have clear policy transfer relevance for integrated spatial planning-transport constructs across Europe and beyond. It contributes to the achievement of the Lisbon and Gothenburg Agendas as well as providing a policy benefit to decision makers and stakeholders at local, regional and national levels across Europe.

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## Introduction to European cross-border experience

The European urban-regional system is a major territorial structure within which the cities are key drivers in the development of regions and larger territories. The context of building new motorways and the impact/effect on the transformation of rural or natural landscapes is not fully understood throughout Europe. The European Commission (EC) has in recent decades placed considerable emphasis upon spatial planning as TEN-T for transport, energy, telecoms and programmes such as INTERREG which are clearly geared to cross-border development studies. Existing examples of European networks for cooperation across borders include the Euro Institute for Cross-Border Cooperation<sup>3</sup>. Additionally, in Ireland the Special European Union Programmes Body has funded on-going Peace Programmes and INTERREG programmes for border areas in Ireland which had experienced reduced investment in part due to the previous political conflicts (Yarwood, 2006).

In Europe, there are about 52 cross-border cooperation programmes that deal with issues such as supporting links between urban and rural areas, improving access to transport and communication networks, developing joint use of infrastructure and 13 transnational programmes which add extra European dimension to regional development. More recent initiatives at EU level include the ESPON 2013 Programme, the European Observation Network for Territorial Development and Cohesion which supports policy development related to EU Cohesion Policy.

The purpose of this paper is to reflect on the European perspective concerning spatial development strategies in relation to cross-border transport corridors; to assess the role of these strategies specifically on the metropolitan areas of Dublin and Belfast. For this, we used the development of four scenarios from previous work published (Petrov *et al.*, 2011) where we dealt with general use of scenarios, whereas this paper has a specific focus on transport corridors and presents an analysis of specific indicators such as urban sprawl and industrial, commercial and services activities. The structure of the paper is broadly in two parts: the first part deals with the development and planning policy issues of both areas. This is followed by an investigation of the Dublin-Belfast transport corridor and land use relationships within urban-regions so as to assist in development of solutions to real-world problems and formulation of territorial policy support.

<sup>3</sup> [www.euroinstitut.org](http://www.euroinstitut.org) (accessed April 18, 2012).

## Dublin-Dundalk-Newry-Belfast corridor

The Dublin-Belfast corridor is approximately 160 km in length and is defined by the M1-N1-A1 motorways connecting the two cities. Concerning public transport there is one train line connecting the two cities, the fastest connection takes 127 minutes with eight trains per day in each direction (Morgenroth, 2011). There are three major airports, Dublin airport (25 million passengers, 2008); Belfast International Airport (5 million passenger, 2007) and Belfast City Airport (2 million passengers, 2007) which deal with 32 million passengers each year. It is the most significant economic region on the island of Ireland with approximately 50% of the output of the island produced in the region. Over 2 million people live in the corridor, out of 6 million on the whole island.

In this context, the Dublin-Dundalk-Newry-Belfast corridor is identified as a core axis on the East Coast of Ireland with the potential to attract inward investment flows from the economies of Europe and the USA. Reports undertaken by business organizations, both North and South such as the Confederation of British Industry (NI) and the Confederation of Irish Industry have identified the potential spin-off in terms of economic growth, revenue generated and employment created from enhanced business and commercial links on an all-island basis. Research undertaken on the integration of spatial planning strategies in the all-island context indicates the mutual benefits of collaborative actions on the key transport corridors in core areas such as inward investment, energy, accessibility, accelerated growth, and economic competitiveness through the joined up delivery of public services and infrastructure networks (InterTradeIreland, 2006).

The Regional Development Strategy for Northern Ireland, 2025 (DRD, 2009) identifies the importance of the corridor in the context of the Belfast Metropolitan Area and the designation of growth towns such as Banbridge and Newry. Similarly, the Strategic Planning Guidelines for the Dublin Area and the statutory development plans for North Dublin (Fingal) also place an emphasis on the importance of the corridor particularly for future development planning of the Newry-Dundalk Twin City Region. The practical benefits of cooperation between the two administrative systems are being reflected in the efficiencies in providing economic infrastructure and the pooling of expertise. It can also allow the sharing of good practice and improved efficiencies in enterprise development and sustainable management of the twin city's unique natural heritage (ICLRD, 2009).

### ***Cross-border spatial policy and administrative frameworks***

The spatial planning implications of the East Coast Corridor development trends are that an increased need for cross-border co-operation in land use planning and development control has emerged. This co-operation is made complex by the differing local government administrative systems North and South of the border. Both systems administer subdivisions of their respective jurisdictions, have elected political bodies with a degree of control over specified local affairs and can raise local taxes. However, their respective functions in relation to planning, development and infrastructure issues differ. In the Republic of Ireland, since 1963 the local planning authority (e.g. Louth County Council) has a critical statutory function in terms of all planning and development plans and decisions, the provision of public services and housing. Existing regional authorities assist in co-ordination of plans and are not statutorily empowered to make strategic decisions for their region. In Northern Ireland, the local government system functions have fewer powers since 1972 reforms. It is more concerned with local provision of services and has a consultation and scrutiny role reporting to controlling province-level agencies and departments such as the Planning Services Agency, which acts as an agency within the Strategic Planning of Department of Environment (NI DOE). Therefore, co-operation in terms of cross-border spatial planning and development, whilst inclusive of the local authorities involved, must also include the central government departments and agencies which have a critical input in the major decisions on infrastructure, planning and development issues and general spatial planning policy.

### ***Policy context***

The European Spatial Development Perspective (ESDP) adopted in May 1999<sup>4</sup> established a number of common strategic objectives for community policies and development initiatives relevant to the Dublin-Belfast corridor. The approaches contained in the ESDP document for the UK (DETR, 2000) and the National Spatial Strategy (NSS) for Ireland (DoELG, 2002) embodies the concept of polycentric spatial development based on economic and transport linkages and enhanced cross-border co-operation.

<sup>4</sup> [http://ec.europa.eu/regional\\_policy/sources/docoffic/official/reports/som\\_en.htm](http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/som_en.htm) (accessed April 18, 2012).

Within the context of regional systems, sustainable regional development and diversified development strategies both NSS for Ireland and Regional Development Strategies (RDS) for Northern Ireland provided a hub, corridor and gateway framework for regional development. A priority objective of the two regions programmes for the period 2007-13 is to focus investment in the designed gateways and hubs in order to strengthen their attractiveness, accessibility and competitiveness. The three gateways, Sligo, Letterkenny and Dundalk, are located in the Border region and have a significant cross-border dimension.

### **Recent development patterns in Dublin region**

The major increase in development activity in the Eastern region of Ireland including the Greater Dublin Area (GDA)<sup>5</sup> is directly linked to economic performance over the decade 1996 to 2006. Sprawl development patterns became evident by 2000 as cited by Williams examining the results of the emerging development trends and their particular impact on transportation and congestion in the GDA (Williams and Shiels, 2000). In particular, the region experienced major employment growth of 39% between 1994 and 1999 compared with 29% growth for the rest of the state (CSO, 2000). The preference for large-scale multinational employers to locate in this region was linked to the size and quality of its catchment area, labour pool, and infrastructure facilities including port and airport connections. The GDA in turn accounted for 50% of the country's growth in the population over 15 years of age, 49% of the national increase in numbers at work. This disproportionate share of growth in economic activity is well in excess of its 2002 population share at 39.2%. After a decade of strong growth, Gross Domestic Production (GDP) in Ireland stalled in 2007, fell by over 7% in 2009 and then collapsed by over 30%<sup>6</sup>. Current challenges include failure of private and public sector policy leading to unsustainable property development, tax fiscal policy and failure of bank regulation. In effect an economic boom has been followed by a major banking and economic crash.

The importance of the infrastructure developed such as the M50 motorway ring around the city is reflected in the locational pattern of the major

<sup>5</sup> The GDA, comprising the Mid-East region and the Dublin region, is of similar, though not identical extent to the MOLAND study area named Greater Dublin Region (GDR). The GDA does not include County Louth.

<sup>6</sup> <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/> (accessed April 18, 2012).

IT employers locating in Dublin since the 1990s. This clustering of business activity is similar to that experienced in many other cities and is a major influence on the residential and transportation pattern of the new Dublin workforce. A major wave of new office development has occurred in suburban Dublin as the Central Business District vacancy levels and supply of development land declined. Developments including office parks, technology parks and the airport have become large generators of traffic in the GDA with 150,000 car journeys in the M50 on a daily basis (NRA, 1999).

As a result, between 1980s and 1990s the commuter belt has expanded from a concentrated area of 25 km around the urban core to reach a maximum extent of 100 km from the central area. Further, the peripheral expansion and the urban spread in Dublin now extends northwards with a catchment area spreading across the border into Northern Ireland, reinforcing the corridor effect. Many business and development interests such as companies in the food sector already operate on a cross-border basis with working and commuter patterns evident in the Dundalk and Newry areas.

Economic analyses reveal that the counties adjacent to the border (Down and Louth) benefit significantly from spill overs from the Dublin and Belfast metropolitan poles. Whilst, the region overall has benefited from significant investment in road infrastructure with the completion of the M1 from Dublin to Belfast, both Louth and Down are dominated by manufacturing activity in high technology areas with many plants owned by foreign companies or indigenous plants serving international markets<sup>7</sup>.

### **The impact of Dublin-Belfast transport corridor on Greater Dublin Region land use change between 2006 and 2026**

Spatial models together with scenarios are now tools for the assessment of land use changes in a large number of studies (Hopkins and Zapata, 2007) as well they are used within the EC for policy development and improving the “quality” and transparency of European policies (European Commission, 2005).

The MOLAND model, used in this study, has been specifically designed for regional development assessment (White and Engelen, 1997). It can simulate various urban development scenarios based on land use change, population growth, socio-economic factors and trends as well as spatial

<sup>7</sup> <http://www.crossborder.ie/research/normal-business-restored> (accessed April 18, 2012).

planning policies. It is directly relevant to several environmental topics at the EU level and addresses specifically the issues mentioned in the ESDP.



Fig. 1 – The GDR and Dublin-Belfast transport corridor highlighted in the map of Ireland.

Scaling MOLAND to a cross-border area provides a new insight into the dynamic processes involved in land use change, and also an understanding of where and with what intensity land-take for the purpose of transport corridors occurs and how spatial growth patterns change over time. Further, it shows how the infrastructure system has changed and what correlations exist between transport corridors, urban sprawl and economic aspects.