

IRELAND 2040 OUR PLAN



National Planning Framework

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Submitted on behalf of

Drogheda City Status Group

INTRODUCTION

A City for the North East

This submission is presented by **Drogheda City Status Group** a body of concerned citizens who, six years ago, set about achieving recognition of Drogheda as a City and National Growth Centre.

Mission Statement of Drogheda City Status Group is as follows:

“To procure City Status for Drogheda to enable its unique history, location and potential to be appreciated and promoted in industry, business, tourism, education, health and quality of life to the benefit and advantage of its citizens and those of the South Louth and East Meath region.”



Drogheda City Status preliminary study came to the conclusion that Drogheda’s problems stemmed from the lack of understanding and appreciation by policy makers of the importance and potential of the town and region. It became clear to us that policy makers in Dublin shared this flawed view of the Drogheda region and its proper status.

Drogheda, Ireland's largest town, (formerly a county in its own right) has been a centre of importance for upwards of 800 years. It has been a Corporate Borough with its own Mayor, Alderman and Burgesses for all that time until recent local Government reform. Proudly situated on Ireland's most historic river and Gateway to the Boyne Valley, its port has been a life line with Europe and the rest of the world. Drogheda has a unique position in the North South Dublin - Belfast corridor with exceptional transport infrastructure, i.e. main railway line Dublin to Belfast, M1 Motorway and the proximity of Dublin airport and ready access to Dublin Port via the Port Tunnel.

The Drogheda hinterland contributes to its importance and attractiveness with the coastal communities of Mornington, Bettystown and Laytown south of the Boyne and Baltray, Termonfeckin and Clogherhead north of the river. It is surrounded by the great fertile lands of Counties Louth and Meath and the beautiful Boyne Valley to the West. It is also the major social, commercial and economic centre for a ring of growing towns and villages in its hinterland, ie Stamullen, Donore, Julianstown, Gormanstown, Donacarney, Duleek, Slane, Collon, Monasterboice, Tullyallen, Dunleer and Tinure.

The amazing history of Drogheda and the Boyne Valley, both pre and post Christian, sets it apart in its unique archaeological and historic treasures and with enormous tourist potential.

The town has a great long industrial tradition and led the country again in the growth of new industry in the 1930's, 1940's, 1950's, 1960's and 1970's. While some of the industries have closed there is a growing appreciation by industrialists of Drogheda's attractions and in recent times a number of new firms have commenced ie Eastcoast Bakehouse, Boann Distillery and Brewery and Statestreet.

The latest of these firms to set up is Mobile Technologies Inc (MTI) who is establishing a European Headquarters contact in Drogheda employing 150 workers. Speaking at the announcement Minister for Jobs, Enterprise and Innovation Mary Mitchell O'Connor TD said:

“This is a great announcement by Mobile Technologies Inc., bringing 150 high skilled jobs to Drogheda. Driving investment into Regional locations is a key focus for me. This investment will be of considerable benefit to Drogheda and the Border Region, providing a significant boost to employment and benefitting the economy of the town and region.”

CEO of IDA Ireland Martin Shanahan said:

“the high quality jobs created by the company will have a positive knock-on effect on the wider region and will promote Drogheda as an ideal location for conducting international business.”

As a further example we quote Michael Carey, Managing Director of Eastcoast Bakehouse as follows:-

“Drogheda was selected for this new business for a number of reasons:

- a. Drogheda has network of highly successful food and drink businesses. Such a network has provided real and meaningful support during the early stages of the establishment of the business, providing advice, introductions and other support.**
- b. The road network around Drogheda is unique. While many of the employees at Eastcoast Bakehouse are local, some travel from other towns. Travel to and from the Bakehouse is very easy. Similarly, transportation of ingredients and delivery of finished product to our Irish retail customers (or to the ports) is highly efficient.**
- c. Availability of skilled employees in Drogheda is excellent. When it was announced that the initial group of 25 Bakehouse production staff were to be selected, we received over 2,500 applications in just a couple of weeks. Many of the applicants were already in employment, but were interested in being part of this start-up given its location (avoiding a long commute).**

- d. **Availability of suitable premises. When considering locations, a key requirement was to find an industrial building of the right size and shape. A number of available suitable buildings were identified in Drogheda.”**

All of this has happened and population has grown despite Drogheda not being prioritized in the last National Spatial Strategy 2002.

Truly Drogheda is a place with a distinguished past with a **great growth future** if properly perceived, planned, managed and supported.

We have felt that in the **National** as well as local and regional interest it is important to change the perception of this great town by procuring city status as Ireland’s sixth city and recognition of its potential as a National Growth Centre.

We commissioned Dr Brian Hughes, PhD, MSc Hons. (Spatial Planning), Dip Envir.Econs., F.S.C.S.I., F.R.I.C.S., FeRSA, MSSISI, Chartered Planning & Development Surveyor, consulting in Urban Economics and Demography, (at Drogheda City Group’s own expense), and we have had the benefit of his extensive research and reports.

In March 2012 Drogheda Borough Council passed a resolution,

“That the members of Drogheda Borough Council from this day forward give their consent and approval to the people of Drogheda referring to Drogheda as the City of Drogheda”.

It is our understanding that “Ireland 2040 Plan” is in effect the Government’s implementation of its **“PUTTING THE PEOPLE FIRST”** document.

Ireland - 2040

The Minister, Simon Coveney has produced a Draft Plan inviting a new planning framework for Ireland for the next 25 years.

This Draft Plan acknowledges that “the extra population and homes will happen in the East Coast” and further that “this will present major challenges around lop-sided development, under-used potential, congestion and adverse impacts on people’s lives and the environment”.

If this population increase is foreseen for the Eastern Region (and by implication is undesirably to be located entirely in Dublin) we submit that a vibrant and flourishing City of Drogheda (by far the biggest town in the Country) at present should be an **obvious major contributor** to the solution of the undesirable challenges identified by the Minister’s plan. This is particularly the case as Drogheda town and hinterland is experiencing exponential growth which is mirrored in the growth explosion of the surrounding villages and towns.

Major growth has been shown to be focused on Cities and this strengthens Drogheda’s case for City Status and Growth Centre for a separate region from Dublin.

We submit that Drogheda has unique advantages for growth and in the National and Regional interest it should be identified in the new plan as a major growth centre with City Status. Substantial growth has been shown to be focused on regions having a city as there centre.

We set out here-under our vision and our reasons why this opportunity should be grasped and why scarce resources invested in Drogheda Region will prove to be money well spent and create a dynamic and attractive regional city focused on the Louth Meath region helping (inter alia) to solve Dublin’s problems and exploiting all Drogheda’s advantages in the **National Interest**.

Infrastructure and facilities



When considering areas suitable for the creation of sustainable communities consideration must be given to the level of infrastructure existing and that required to be provided from the public purse in the pursuit of that policy. In this respect, Drogheda and district would have a considerable advantage ahead of many other centers. The infrastructure provision in Drogheda has been ahead of its time, despite the lack of recognition provided by the previous plan. This level of existing provision provides an excellent basis to start with the infill infrastructure required for the development of a sustainable growth center which will not compete with Dublin but will run in parallel and in doing so reduce the pressure on the capital allowing both centers to develop to their full potential.

When considering Drogheda, and the elements which have proven a strong draw for residential communities in the past decade we have to be aware of both the natural occurring infrastructure and the infrastructure which has developed as a result of private or public investment.

The natural occurring infrastructure in the region exists in abundance and provides a backdrop to the quality of life afforded to residential communities in the area. These elements include the wealth of heritage afforded by Drogheda's position as gateway to the Boyne Valley including treasures such as Newgrange, Oldbridge and the Battle of the Boyne site all within walking distance for the town center. Within the town center we also have the Millmount complex, one of the worlds finest Martello Towers and Laurence's Gate, one of the best examples of a Barbican Gate embedded in remaining sections of the ancient town wall to mention but a few. We also have the majestic Boyne River and the associated flora & fauna, and the extensive beaches of Laytown, Bettystown, Mornington, Baltray and Cogherhead. It would be impossible to put a monetary value on these assets but you can be assured that the cost to replicate them in an alternative location would be prohibitive to the extent that it would be considered impossible. A further element of a naturally occurring asset is Drogheda's proximity to Ireland's Capital, Dublin. Located 40km North of Dublin City Centre, Drogheda is sufficiently close to the capital, with significant transportation links, to allow Drogheda residents enjoy the cultural and commercial activities within the capital without the cost and difficulties associated with living in the city.

The developed infrastructure in Drogheda and the region is no less impressive and breaks down into the spheres of, Transportation, Data Connectivity, Healthcare, Education and public utilities.

In the area of transportation Drogheda boasts it's own commercial sea port providing access to all international ports and handling in excess of 1 million tonnes of product annually. Drogheda's train station is on the Dublin-Belfast line and is a high speed rail line which currently provides 34 trains each way, each day between Dublin and Belfast with some journey times down to 32 Minutes. The capacity of this line is only limited by the capacity of the DART section between Howth Junction and Connolly Station, this DART limitation could be removed, if required, by an adjustment of headroom lengths to international norms.

Drogheda, like many other centers is well served by motorway infrastructure with considerable retained capacity due to recent expansions from Lissenhall to the M50 however unlike other centers our M1 motorway infrastructure not only links Drogheda to the M50 and Dublin within 25 minutes but also links Drogheda directly to Belfast, Irelands second largest city only 60 minutes away. Drogheda also benefits from having

5 dedicated intersections off the motorway (junction 7 to Junction 11) providing efficient access to the northeast, northwest, west, central and south Drogheda.

Probably the most appealing aspect of Drogheda's infrastructure is the availability of an international airport located just 25 minutes to the south, again many centers will indicate similar proximity to airports however for the consideration of the development of an international business it is not just the airport but the availability of direct flights to their parent city. Dublin Airport, on Drogheda's doorstep, boasts direct flights to 185 destinations in 41 Countries on 4 Continents and businesses located in Drogheda have easier access to those flights than any other comparable center. Even Dublin city due to its traffic congestion cannot boast such ease to international connectivity.

In the current modern business world, secure fast data connectivity is essential and in this respect, whilst other centers are catching up Drogheda is leading the field in relation to data connectivity with in excess of 100MB fiber connections currently available to the business and residential community and 1GB connectivity into some business centers. In addition to the necessary high speed connectivity Drogheda can also boast an additional benefit to companies where security of connection is essential, and that is the level of redundancy provided by providers operating on more than one network. In many centers even though there may be numerous providers they are sharing a single network with the potential that a network failure could result in a loss of service, a second network has been brought into Drogheda by Virgin media allowing security of continuity for critical data operations even with a catastrophic failure on one network.

In the area of healthcare, Drogheda's status in this area has been progressing over the past decades, with the Lourdes Hospital serving as the regional hospital for the North East providing acute, emergency, maternity, oncology, palliative and infective disease medical care among others. The hospital is affiliated to the Royal College of surgeons. In addition to the regional hospital Drogheda is served by numerous primary care facilities and nursing homes providing the required full range of care required.

The educational infrastructure in Drogheda and the region has benefited greatly by being classified as a high growth center by the Department of Education. This has resulted in a significant level of continuing investment in schools and facilities at all levels in the area and the development of state of the art Primary and Secondary school campuses. In addition to Drogheda's local college of further education the secondary

school leavers from the area have an array of college facilities available to them including DKIT, DCU, UCD, DIT and Trinity with direct train or bus services to these centers.

The final area of infrastructure available to Drogheda is public utilities including Electricity, Water and Wastewater, and waste disposal. The development of these utilities has allowed for significant capacity to accommodate a population in excess of 100,000 people without a requirement for expansion. The municipal wastewater treatment plant in Drogheda was developed in 2004 and upgraded in 2007 to provide primary, secondary and tertiary treatment for a population equivalent of 100,000 persons. The water supply and treatment facilities in Drogheda are similarly operating at significantly less than capacity to the extent that it is capable of facilitating large areas of Meath also with high quality potable water. Drogheda is also fortunate to have the Indavar incineration plant located on our doorstep providing a facility to sustainably dispose of all refuse arising which cannot be recycled and to feed the extracted energy back into the national grid.

In the consideration of the development of growth centers in Ireland it is essential that Drogheda, which already has the required infrastructure in place and is a desired location for residential and commercial development, be considered ahead of other centers where additional financial resources need to be expended and excessive encouragements are required to force development.

Transport

Drogheda has **unique accessibility** by reason of its situation on the M1 motorway and on the main North South railway line together with its Port and proximity to Dublin airport and easy access through the Port Tunnel to Dublin Port. There are also plans for a new railway station on the North side of the town and the possibility of a Dart extension to Drogheda.



Education

Drogheda serves as the headquarters for the Louth Meath Education Board and also serves as the centre of education for the residents of the town and hinterland areas we seek to include in the Boundary Extension, namely, Drogheda Grammar School, St Oliver's Community College, Our Lady's College, Greenhills, St Joseph's Secondary School, Sacred Heart Secondary School, Ballymakenny College, St Mary's Diocesan School, Colaiste Na hinse, Laytown, Scoil Ui Mhuire, Dunleer, Ardee Community College and Gormanstown College, Co Meath, with student populations of 7,364 made up of residents of both Louth, Drogheda and Meath and currently provides cohesion within the greater Drogheda community.

The number of Leaving Certificate sittings in 2016 in County Louth was 1791.

Drogheda is favourably situated for attendance by third level students at universities at Dublin and the Regional College in Dundalk. It is anticipated that out-reach courses from the Universities will be provided in Drogheda in the near future.

Tourism



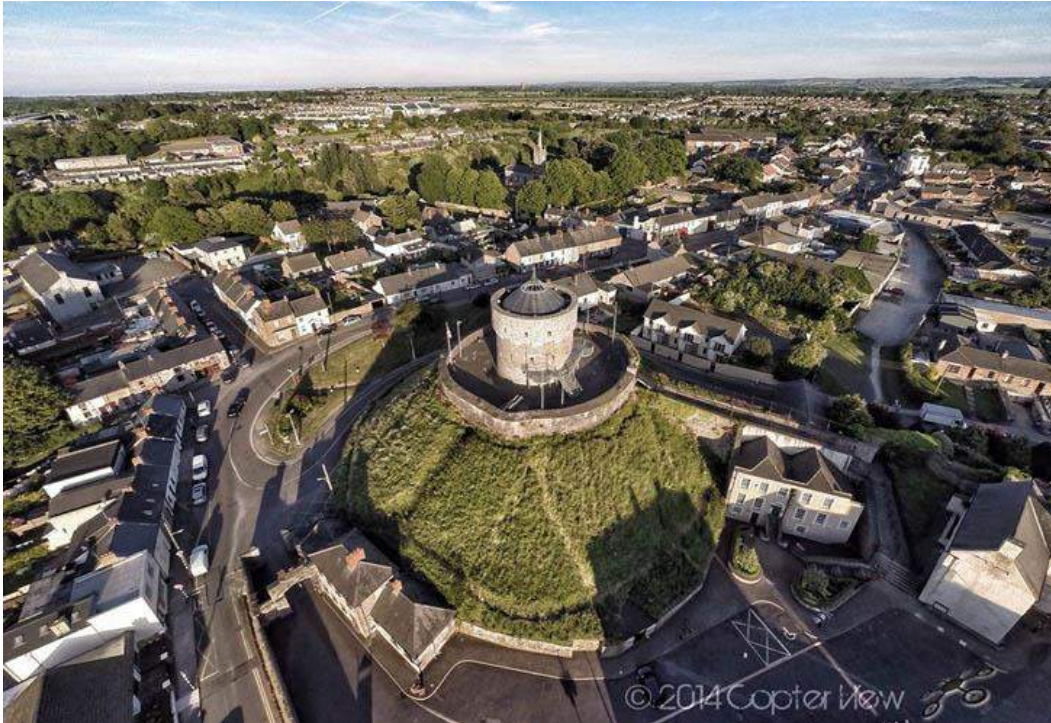
A city in the region would be a focus for the tourist development of the Boyne Valley as yet not nearly realised but with huge potential. Drogheda is the centre of Ireland's most historic and archaeological area situated as it is astride the Boyne and Gateway to the Boyne Valley described by the late TK Whitaker as a "magical area".

The Treasure Trove of attractions of Drogheda and the Boyne Valley include

Monasterboice

with its round tower and the finest three Celtic High Crosses in the country, **Mellifont Abbey** with its impressive remains of the first **Cistercian Abbey** in Ireland, the **Newgrange Tumulus a World Heritage Site**, the tumulus at **Knowth** and the cairn at

Dowth, the site of the **Battle of the Boyne** and the **Interpretative Centre at Oldbridge**, the **Ledwidge Museum at Slane**, the **Hill of Slane** where St Patrick lit the Pascal Fire, **Slane Castle**, the **Round Tower at Donoughmore** and all the way to Trim with **DeLacy's famous castle**.



The town of Drogheda is of great historical interest. Besieged twice and stormed by Cromwell in 1649. Several Parliaments were held here, Poyning's Law being passed. Many storied ruins include the famous **Laurence's Gate, Magdalen Steeple, Millmount**, etc.

The site of the **Battle of the Boyne** is of great tourist potential with the stone base of the **Oblisk** erected after the Battle still existing. The site is of great interest to the **Orange Order** whose supporters have acquired a site of 40 acres on which the Oblisk was erected. They have met with local interests (including the City Status Committee) with a view to re-erecting the Oblisk to commemorate the **Peace Process**.

Sporting and Recreational Facilities



Because of its wonderful situation close to the coast Drogheda enjoys the amenities of the coastal resorts of Mornington, Bettystown, Laytown, Baltray, Termonfeckin and Clogherhead with their lovely sandy beaches. There are **three championship golf links** who often host important National and International competitions.

Water Sports: proximity to the coast and the availability of the River Boyne provides ideal locations and facilities for all kinds of boating and water sports as well as fishing.

Sporting enthusiasts are well catered for with the fine GAA ground being upgraded to the County Ground, Drogheda United is a premier League of Ireland club with plans for a new modern stadium and the Rugby Club have their own ground.

Boyne Trail: Plans are advanced for the delivery of the **Boyne Trail** a 16.5k cycle and walkway from the Boyne Estuary at Mornington to the World Heritage Site at New Grange passing through beautiful scenery and along the towpath of the old Drogheda to Navan canal which hopefully will be re-opened for navigation in due course.

Arts and Heritage and Entertainment

Drogheda is an attractive place to enjoy an excellent quality of life. It has all the usual places of entertainment such as a multiplex cinema, three theatres, a very important award winning art gallery, a number of Drama Groups, a fine Arts Centre, an abundance of restaurants, cafes, hotels and licensed premises. The fine St Peter's parish church contains the famous Shrine of St Oliver Plunkett.

Shopping

The old attractive centre of the town with its ancient streets and welcoming shops serving the town residents, hinterland inhabitants and visitors alike. There are also a number of shopping centres on the town periphery.

Housing

Drogheda and its hinterland is an attractive place to live which explains its ever growing population.

Plans are already in existence to erect a new Bridge over the River Boyne to improve access to the Drogheda Port and Harbour and to open up access to substantial lands for the erection of up to 10,000 new dwellings on what is called "The Northern Cross Route".

Many people of necessity commute daily from the region to Dublin to work. This adds to Dublin's congestion problems. Undoubtedly these people would prefer to live and work in the Drogheda region if and when employment is provided.

Conference Centre

Drogheda is an ideal location for Conferences because of its accessibility and the provision of a Conference Centre is being actively considered.

Health

Drogheda is particularly fortunate in having Our Lady of Lourdes Hospital, one of the largest hospitals in the East of the country, serving a catchment population of 350,000 people. It is the Regional Trauma Unit and Level 3 Paediatric and Obstetric Unit for the North East. It has one of the busiest Emergency Departments in the Country with in excess of 60,000 presentations annually.

Our Lady of Lourdes Hospital (LOL) is a **recognised teaching and training hospital** for medical and nursing staff and accredited for such purposes by many of the affiliated bodies such as the RCPI, RCSI etc. It is the largest hospital in the North East Region and is the centre for Trauma, Obstetrics, Paediatrics and Neonatal Medicine.

The current structures were mainly built in the 1950's, but include elements from the 1990's, and most recently from the last decade, when the current Phase 1 block was completed. This recent structure houses the Emergency Department and three floors of Ward accommodation.

The Phase 2 development currently in progress on the campus will consist of:

- Ground Floor, accommodating an extension to the existing Emergency Department which will incorporate an extension to the Paediatric treatment area, an increased space for treating Minor Injuries, Rapid Access and Treatment and enhanced treatment facilities for complex care including Resuscitation.
- Three Ward Floors configured as single room accommodation to comply fully with SARI guidelines. (Funding approval is awaited for one level).
- A Theatre Suite comprising five fully compliant operating rooms. (Funding approval is also awaited for these).

The block will extend to approximately 9,000 single metres and will be linked to the existing Phase 1 block and the main tower block of the older part of the Hospital. The construction of shell only units at present for one of the Ward Floors and the Theatre Suit is due to central funding constraints, however completion is anticipated once funding becomes available.

The expected cost of the whole development is expected to be in excess of £30 million. The anticipated completion date is expected to be 3rd Quarter 2017.

At present Our Lady of Lourdes hospital employs a staff of 2088 and is a 307 bed Acute General Hospital incorporating a Regional Trauma Orthopaedic service and Louth Meath Neonatal Intensive Care and Paediatric services. Surgical Services include general Surgery, Orthopaedics, Urology and Gynae including early pregnancy assessment unit. ENT. Medical services include General Medicine, including sub specialities of Cardiology, Endocrinology, Diabetes, Gastroenterology Oncology, Dermatology, Elderly Medicine, Respiratory Medicine, Microbiology, Pathology and Palliative Care. Regional Trauma Orthopaedic service including fracture clinics. Joint Department of Anaesthetics between Our Lady of Lourdes Hospital Drogheda and Louth County Hospital. Emergency Medicine services; Emergency Department (ED); The ICU/HDU/CCU; Acute Medical assessment Unit. Maternity Services, Paediatric; Neonatal Intensive Care; Oncology Day Services Unit.

Nursing Homes

There are a number of Nursing Homes in the Drogheda area and two substantial new Nursing Homes are already planned to meet the anticipated requirements to 2020.

The growing Drogheda region with its population explosion clearly calls for proper local Government administration and governance centred on the City of Drogheda. Drogheda City as it expands will assist in the orderly growth (which is already happening) of its large hinterland containing many expanding growing towns and villages and rural areas and provide support for the residents.

We envisage a Drogheda Region as a Sub-Region of the Eastern Region to ensure more effective planning in this highly populated and important region.

The growth of tourism in Drogheda and the Boyne Valley will encourage the creation of small service businesses to service the tourist requirements.

There is such a cultural heritage, natural habits and beautiful countryside in this region that enlightened and sensitive planning is required and **best provided** by a strong and visionary **Local Government** centred in Drogheda.

To quote Dr Hughes “Drogheda, Ireland’s largest freestanding town, is and will continue to grow dynamically because it is an attractive place to live in, is strategically placed in the Dublin-Belfast Corridor and not least, because of its proximity and accessibility to Dublin, to the airport and the M50 employment zone. Its **own size** will also contribute to further organic population growth where its demographics are very positive and promising for the Greater Drogheda Area. It is vital that such growth is complemented with employment growth, which is the most important issue for Drogheda’s people.’

We have seen examples of how Drogheda was ignored, e.g. in the Spatial Strategy where Ireland’s largest town was not even given Gateway Status. Another example was the recent allocation of €150 million Enterprise Fund where towns such as Carlow, Sligo, Clonmel, Waterford and Dundalk were beneficiaries and Drogheda again was overlooked. It should be noted that Drogheda is the only town in Ireland to which a toll applies for motorists entering and exiting the town. A most discriminatory position. Drogheda is bursting at the seams and has expanded far beyond its existing boundary. To all intensive purposes Drogheda is a City and in Plan 2040 it should be treated as a City with all the Regional and National benefits that will flow therefrom.

Agglomeration

We are convinced that the medium to long term objective is to have an extended administrative area south of the River Boyne to mirror the current administrative Drogheda areas on the north of the Boyne which includes: Termonfeckin, Tullyallen, Baltray and Tinure which if mirrored would incorporate Mornington, Bettystown, Donacarney and Donore into the greater Drogheda area. This increase in population would provide endless possibilities in respect of status, funding and provision of services with need for proper local government and planning which would also position Drogheda as a valid recipient of City Status as per European requirements. This would make Drogheda Ireland’s newest city as advocated by Dr Brian Hughes.

In the north south corridor the British Government have recognised the importance of Newry and Lisburn by giving them City Status – why not Drogheda which is much larger than either of these.

We would stress that Drogheda is the only stand alone settlement that adjoins another large town of 10,000 plus population, ie, Laytown, Bettystown and Mornington. It is unique because it is now physically linked to this other large town which itself is bigger than Enniscorthy, Wicklow, Tramore or Cavan.

We attach report from Dr Brian Hughes which makes a cogent case for the agglomeration of Drogheda with Laytown, Bettystown and Mornington and for the granting of City Status for Drogheda.

We would respectfully suggest that the “Ireland – 2040 Our Plan” National Planning Framework, in the National interest would support our ongoing case for the granting of City Status for this growing and important area.

The advantages of having a city in the North East region will be beneficial to Counties Meath and Louth but will also give support to the economies of Counties Cavan and Monaghan.

Drogheda is the right place and this is the right time for its potential for sustained development to be recognised and planned. It will give a great return and a healthy and vibrant lifestyle for its citizens and those of the Region and help to alleviate Dublin's problems in the National Interest.

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24th October 2017

This Research Study accompanies the Formal Petition for Drogheda-Laytown-Bettystown-Mornington (including Donacarney) to be made Ireland's sixth city.

Assessing the Demographic Growth Momentum in Identifying the Emerging City of Drogheda with Laytown-Bettystown-Mornington (LBM).

This evidence-based research study presents the application of population density grid analysis in applying the 2015-published Harmonised European Union (HEU) methodology to this emerging east-coast city. In addition to this methodology, this research also describes the current housing developments, photographs of new housing and construction, relevant demographic tables, the map of the new city area and bibliography. It highlights the following research evidence and conclusions:

- **The population grid densities confirm the physical agglomeration of Drogheda with LBM, reflecting their population size and 20-year growth momentum.**
- **This research study confirms that the new, 2015 Harmonised, OECD and EU Measurement test of what constitutes a 'city', applies successfully to Drogheda-LBM. This relates to population per square kilometre densities.**
- **In the eighteen months since the 2016 census, hundreds of newly-constructed houses have been occupied by upwards of two thousand people, adding to the combined settlement population, which stood at 52,828 in April 2016.**
- **Hundreds of additional completed houses have yet to be occupied and further construction is underway in dozens of new construction sites, most notably in Bettystown and Donacarney and throughout Drogheda. Accordingly, Drogheda-LBM now has a larger population than Waterford City.**

Abstract:

In earlier research literature this author deployed both population size and daytime working population data as measures of potential settlements, for selection as comparable growth centres for the National Spatial Framework, vide Hughes (2013). An identified problem, encountered in defining urban settlements and that of their spatial extent, is the dilemma of opposites; of being able to distinguish between the physical 'separation' and the agglomerating 'contiguity' of discrete settlements.

Focusing on linear distance as its principal 'separation' measure, the United Nations provides a limiting description, for separation, in the task of quantifying singular urban fields of agglomeration and thus in identifying processes of city formation. In contrast, The World Bank advocates three 'D's which, in addition to Distance and Division, includes Density (2009). Particularly for Ireland as a sparsely-populated country, this latter measure assumes particular importance, especially given its scarce number of large settlements and their linear distances from each other.

The Central Statistics Office (CSO) now has the facility for grid-enabled data, which can be used in distinguishing between examples of scattered morphology of sparsely-populated ribbon development in contrast to that which can identify densifying urbanisation cores.

Using the 2016 census area population results, this paper now investigates and applies population grid data measures based on the CSO grid-based demographic data, applied at the square kilometre level. Applied to a real-life example, this technique facilitates the further research objective of identifying Ireland's emerging city, the east coast agglomeration of Drogheda with Laytown-Bettystown-Mornington (LBM).

In its census of 2011, the CSO adopted the United Nations updated convention for Settlement distancing in its application of the '100 Metre' rule for settlement separation. This is applied to habitable buildings, including both residential and non-residential structures. Prior to 2011 the linear distance was 200 metres.

The rationale for its use is ...to avoid the agglomerating of adjacent towns caused by the inclusion of low density one off dwellings on the approach routes to town. CSO 2011 Census, Area Volume, Appendix 1. The GDA together with County Louth – which has two of Ireland's three largest towns, Drogheda and Dundalk – this area comprises the Republic's two million-plus population share of the dynamic Dublin-Belfast economic corridor area; in all, this corridor comprises just over 50% of the island's 6.65 million people.

Analysing the agglomeration of LBM with Drogheda and in comparing this with that of Blackrock (Louth) with Dundalk, on the basis of the EU Grid criteria, this Paper concludes by noting the need to distinguish between physical separation and that of physical agglomeration and proximity densification under the new Harmonised European Union (The Graz methodology), especially for governance and local administration purposes in this new Putting People First era of local governance rationalisation. Post 2016 growth of Residential Developments based on a 17th October 2017 survey, undertaken by the author and by Peter Monahan of the City Status Group Committee.

1. Census Geography - Applied Measures:

The CSO's evaluation of settlement size is set out in their *Population Classified by Area* Volumes of recent census results *vide* Appendix 1, *Census Geographic Definitions*, PP. 151-155, CSO (2012). It applies the linear distance rule for confirming settlement separation, applied so as to distinguish between a densely-populated urban field and an adjoining elongated ribbon of mainly housing development that often occurs on access routes to a defined city or town settlement. The objective is to provide definitive and regular-shaped settlements, thereby defining their footprints from their surrounding rural morphology.

Such measures for 'division' are effective in statistically isolating discrete new urban areas such as Bearna from Galway and the Balrothery separation from Balbriggan, resulted in creating these new town settlements in 2011. However, the application of such tests on their own, for cases of emerging urban agglomeration are inadequate, especially where two settlements are expanding towards each other and wherein, the provision of shared, linking infrastructure, the momentum of development is designed for and is resulting in emergence of a densified agglomeration, thereby producing a much larger unified settlement, albeit as one that may have more than one central core.

The opposite effect from an inappropriate application of the '100 Metre' rule can serve to ignore or overlook cases such as the emergence of bi-centric, adjacent settlements that are in a process of agglomerating and which are thus forming a larger settlement. One conspicuous example of an Irish failure to 'see the wood from the trees' is that of Drogheda's progress in its agglomeration with nearby Laytown-Bettystown-Mornington (LBM) where a Local Government boundary proposal of late-2015, confined to Drogheda, with the objective of facilitating its local government administration was rejected. Yet, there has been no recognition of the bigger, emerging picture, of Drogheda's agglomeration with LBM: one that straddles the Elizabethan and adjusted county boundary.

2. Quest for Urban Boundary Changes and Local Governance Issues:

Notwithstanding Ireland's unusually low level of urbanisation – with a 2016 share of just 62.70% of its population living in settlements of 1,500 and over – its urban development 'catch up' process is resulting in both population growth and a spreading of its urban settlements. Accordingly, many of its cities and towns are experiencing outward growth wherein its towns and environs are spreading beyond former administrative or county boundaries. Thus existing settlement boundary lines are being breached with successive waves of outward development.

Whereas in the census of 1996 the CSO listed twenty settlements whose population overlapped into another county, by 2011 that number had extended to twenty-eight settlements, *i.e.* *Populations of Towns or Environs/Suburbs which are located in more than one county*. For modern-day local government administration, such geographic expansion presents particular difficulty driven by an over-riding objective to manage single-settlement administration within a one county authority. See Irish Times letter, P. 21, October 20th: "*Local Authorities – time to move on from medieval constraints?*"

The frequency of such county-boundary ‘straddling’ now requires a more inclusive treatment for local governance purposes than this existing, blunt, solution of adjusting county boundaries. In implementing local governance reform since the 2011 census the first-phase in the current processes of local government has focused on the rationalisation and merging of county and city units, sometimes with considerable, unresolved, controversy and opposition, as in the case of Cork City and its county.

A second phase in this process of Local Government rationalisation, addresses the dilemma of governance adjustments for some larger and expanding settlements. It is noted that the foresighted provisions of *Putting People First* proposes flexible arrangements for cases of straddling settlements. However, such aspiration is likely to require updated, matching legislation that has not yet found its way onto the State’s statute books.

Recent boundary revisions were undertaken under outdated 1991 Local Government legislation for Waterford City, Drogheda, Carlow and Athlone towns, in descending order of population size. Their objective was to contain such settlements within a single county for administrative purposes and to so do by redrawing county boundaries where considered expedient. Such administrative ‘juggling’ had been intended to be implemented regardless of the evident extent of local business, resident and sporting opposition. However all four proposals were firmly rejected and there that matter rests.

However, Drogheda’s urbanisation is unique in Ireland – outside of the Dublin conurbation, as it is the only large town that is physically agglomerating with another large one, LBM.

3. Drogheda – the grid-based evidence for a City Recognition:

Despite the publication in 2013 of the Government’s visionary *Putting People First*, Action Programme for Local Government, the Department of Housing, Planning and Local Government (DoHCLG), had intended to review Drogheda’s former Borough boundary under Section 28 of the now dated Local Government Act 1991 Act, rather than implementing the principles contained in the *Putting People First* initiative, in pursuance of the administrative objective to retain larger single settlements within a single county council area.

It is therefore necessary to distinguish the important and unique case of adjoining and merging high-density agglomeration for the immediate proximity of Drogheda and LBM, in contrast to low-density and/or geographically separated low-density ribbon development, elsewhere in Ireland.

Drogheda-LBM provides a unique situation in Ireland, where two adjoining plus-10,000 settlements are physically merging. The population growth evidence points to Drogheda continuing its demographic growth of up to three times that of the State population growth rate since 1996. Since then it became and continues to be Ireland’s largest town. This ongoing agglomeration momentum is supported by the recent provision and commissioning of a 100,000 population capacity waste-water tertiary treatment plant at Marsh Road, Drogheda with its linking sewer networks of investment and likewise with the completion of the District-level Shopping Centre at Southgate together with the re-commencement of a

number of residential development that are consolidating the merger of Drogheda with LBM.

In the current local government rationalisation programme, demographic scale is one of two principal issues in question of scale-size, that distinguishes the failed Boundary Review that from all previous Drogheda revisions. This would have resulted in additional 7,000 people who reside south of the Boyne being 'placed' in County Louth; resulting in over 14,000 as per the 2016 census results, south-river. This would also have involved a transfer to Louth of several additional square kilometres of what is now part of County Meath. In Drogheda's case, previous county boundary 'adjustments' on a smaller scale have already resulted in the cumulative 'transfer' of a similar sized area south of the Boyne, from County Meath to County Louth.

The second issue remains unresolved: that of identifying the emergence of a new city on a demographic scale of Waterford City. Unlike Waterford, Carlow and Athlone, what differentiates Drogheda is the zero 'Distance' separation *cum* urban proximity of another large *i.e.* plus-10,000 town that presents the most significant factor for the future administration of Ireland's emerging city. All three other settlements are 'stand-alone' and unlike Drogheda, they do not adjoin another such settlement.

Of itself LBM in 2016 is Ireland's thirty-fourth largest town and is on a par with Ashbourne as one of Meath's largest towns. The boundary review documentation shows Drogheda's proposed indicative and blue-hatched boundary line to the south of the current Borough area of Drogheda which would have resulted in the town's new boundary extending to the western edge of LBM. To accommodate Drogheda's expansion it would also have been necessary to adjust its existing northern boundary line within County Louth, which will affect a further 2,000-plus of the town's population.

The logical administrative rationalisations under the *Putting People First* initiative should result in a Louth-Meath administrative unification, with Drogheda-LBM becoming Ireland's fifth largest city and that sub-region's logical administrative centre with a current population that is greater than that of Waterford City. With the emergence of Drogheda+LBM as a city, the boundary transferral of further Meath territory into Louth becomes an administrative irrelevancy. Drogheda + LBM's confirmation as Ireland's next city will complement south of the border, the North's earlier initiative to grant city status to both Lisburn and Newry, within the Dublin-Belfast Corridor.

4. Drogheda-LBM's Population Urban Field Grid Matrix

The Urban Field of the Drogheda-LBM Population Density Grid on a One Sq. Km. basis is applicable to the OSI Discovery Series Map 43 (Fourth Edition, 1:50,000 scale) for the 2011 census population is set out in a population grid format, kindly provided by the CSO to this author in December 2015. The complete matrix for the twin settlement of Drogheda and LBM confirms a grid formation in a north-south depth of ten kilometre rows. The respective 2011 core populations are set out in an 'all-border' format, comprising fourteen medium-

density central grids totalling 11,297 in population for LBM, located east of and next to the twenty grids totalling 37,669 for Drogheda. In all, these adjoining 34 sq. km. grids comprise a **core** agglomeration population of 48,996 with an average density of 1,440 people per sq. km., set out as follows:

Drogheda-LBM 2011 census Population Spread – OSI Map Grid References:

Grid cells	<u>6/7</u>	<u>7/8</u>	<u>8/9</u>	<u>9/10</u>	<u>10/11</u>	<u>11/12</u>	<u>12/13</u>	<u>13/14</u>	<u>14/15</u>	<u>15/16</u>	<u>16/17</u>	<u>Totals</u>
79/80	131	54	86	9	28	107	58	97	40	37	-	647
78/79	26	6	27	59	58	84	52	83	5	-	-	400
77/78	20	17	61	16	449	153	79	65	99	-	-	959
76/77	74	219	2,643	3,308	2,423	10	5	80	489	306	-	9,557
75/76	1,212	1,534	3,226	3,553	823	5	46	112	275	1,059	-	11,845
74/75	1,028	3,631	3,183	2,727	2,411	2,470	673	752	748	691	-	18,314
73/74	73	553	494	705	435	861	56	13	1,224	2,162	185	6,761
72/73	42	20	80	62	45	13	106	11	90	705	392	1,566
71/72	5	25	87	-	85	5	15	20	35	443	1,378	2,098
70/71	51	25	5	61	76	43	52	253	223	21	8	818
Total	2,662	6,084	9,892	10,500	6,833	3,751	1,142	1,486	3,228	5,424	1,963	52,505

Footnote:

So as to maintain local anonymity, the CSO records a count of '5' where grids have recorded census populations of between 1 and 5. Zero-populated grids are as shown. So as to make the interpretation of the grid more manageable, it limits the matrix size to eleven kilometres in width and ten kilometres in depth. It is however recognised that this surface area is therefore somewhat smaller than that of the Drogheda and District area (population 60,646 in 2011) and somewhat smaller again than the Louth and Meath Rural Areas plus Drogheda Borough (CSO population 78,594 in 2011 and 83,317 in the Census data of 2016). It is of a size that captures the adjoining Drogheda and LBM towns and their contiguous environs.

Based on the 2011 census demographic outcome, augmented by the 2011-2016 growth in population and the more recent physical evidence of real estate development, there is today, little physical or demographic separation between the settlements of Drogheda and LBM. This is confirmed in the Ordnance Survey of Ireland Map 'spine', of an unbroken high-density 'band' of population in adjoining grids. This central 'spine' extends east-west for ten square kilometres, identified in an axis along the grid 74/75 (including from references 6/7 to 15/16), as shown in the **one-kilometre cells** of this Discovery Series, map No. 43.

This is used as the grid-base for the CSO's grid matrix of populations based on the 2011 census, The west-to-east populations along this 'spine' grid line 74/75, comprises an aggregate population of 18,314, identified in their respective one sq. km. populations which is set out in the following Greater Drogheda's Urban Field Grid Matrix, showing this consolidated 'spine' cells extract, thus:-

	<u>6/7</u>	<u>7/8</u>	<u>8/9</u>	<u>9/10</u>	<u>10/11</u>	<u>11/12</u>	<u>12/13</u>	<u>13/14</u>	<u>14/15</u>	<u>15/16</u>	<u>Total</u>
74/75	1,028	3,631	3,183	2,727	2,411	2,470	673	752	748	691	18,314

Source: Part of the CSO population grid one-kilometre square matrix dimension, as requested and kindly provided by the CSO to Brian Hughes, December 2015.

The six left-hand side Drogheda grids, east to include grid 11/12, are immediately followed by the four right-hand LBM ones from 12/13 eastwards. This agglomeration 'spine' for Drogheda-LBM conclusively presents an interfacing and uninterrupted population density for these adjoined settlements. Furthermore, these 'spine' data represent just one row of a ten-row deep matrix. Their spatial argument, confirming this twin-settlement merger for Drogheda-LBM, is based on this east-west spine of the 110 adjacent population grids as laid out in the full matrix grid. These identified ten adjoining 'spine' square kilometre cells have an average population density of 1,831.4 which is higher than the density of any of the four provincial cities in Ireland in that census.

A significant distinguishing feature between 'ribbon development' morphology and a dense, continuous 'urban field' is the extent and depth of development. This author avers the selection of one-kilometre-square grids which is a spatially significant one; a measure in linear terms which is ten-times that of the 100 metre UN distance. However, in evaluating the process of urbanisation for evolving large settlements and in allowing for pockets of undeveloped land or of large underdeveloped sites, it is also desirable to balance 'space' area with density, discussed as follows, in using the example of the linking of Dundalk with its adjoining seaside suburb of Blackrock, Co. Louth

5. Dundalk and Blackrock – a Grid Comparison with Drogheda-LBM:

For Ireland third largest town - Louth's County Town, Dundalk and its seaside suburb of Blackrock is centred to its south at some three to four kilometres remove. All together they comprise a 2011 census settlement population of 37,816, where the Blackrock area comprises 6,500 of its total population. Blackrock is adjudged to conform to the U.N. distance rule and thus to be included as the southern part of a single Dundalk settlement.

However, the one-kilometre square grid populations, when compared with the above Drogheda-LBM grid, reveals that its **linking cells** are less dense than those comparable ones for Drogheda-LBM, the latter settlement's identified linking cell density being diluted to 328, 482, 117 and 853 persons per square kilometre because of the presence of an 18-Hole golf course at Haggardstown. They are set out in a similar OSI Grid-map Discovery Series No. 36 (2007) format including the specified grid-cell references, as follows:

Dundalk-Blackrock 2011 Census

Population Grid – OSI Map References:

Cells	02/03	03/04	04/05	05/06	06/07	07/08	08/09	Totals
09/10	158	676	380	276	-	50	88	1,628
08/09	236	2,650	1,799	120	362	-	54	5,221
07/08	35	2,232	2,314	1,807	1,854	753	272	9,267
06/07	90	1,024	1,304	4,360	2,872	50	19	9,719
05/06	97	85	637	2,802	2,105	-	-	5,726
04/05	52	69	29	378	328	117	-	973
03/04	66	39	67	255	482	853	-	1,762
02/03	109	83	159	471	2,028	599	-	3,449
01/02	6	27	21	31	331	-	-	416

Total 849 6,885 6,710 10,500 10,362 2,422 433 38,161

Source: CSO Population 2011

Census

Note: The boxed grids delineate the Dundalk-Blackrock 'spine', which runs in a north north-west south south-east axis.

The distorted result of applying the aforementioned 100 metre U.N. distance criterion on its own, instead of utilising density-proximity measurements is that it masks Ireland's few emerging cases of urban agglomeration. **Such density research is vital to the task of settlement selection in the forthcoming National Spatial Framework.** From a side-by-side comparing of the two sets of grid population data, the Drogheda-LBM scale and size of urban agglomeration is far superior to that of Dundalk-Blackrock. Hence, the following comparisons are instructive:

- One Km. Grid Size: Drogheda-LBM = 110 sq. km; Dundalk-Blackrock = 63 sq.km.
- Total Grid Populations: Drogheda-LBM = 52,965; Dundalk-Blackrock = 38,161.
- Linking 2-grid Populations: Drogheda-LBM = 1,425; Dundalk-Blackrock = 810
- 2011 Populations: Drogheda = 38,578; Dundalk (excluding Blackrock) = 31,316
- 2011 LBM and Blackrock Populations: LBM = 10,889; Blackrock = 6,500 (*vide* Grid).
- Densest LBM cell = 2,162; densest Blackrock cell = 2,028 population.
- Void cells: Drogheda-LBM = 9 cells; Dundalk-Blackrock = 9 cells.

From a governance standpoint given these brief empiric 2011 comparisons and their resultant evidence bases, the NSS description of Drogheda’s status and presumed ‘function’, which is officially described as a ‘support’ town to the Dundalk Gateway, reflects a “tail wagging dog” assessment, focused on a misguided focus of retention of the current ‘county-town’ *status quo* arrangement.

It also reflects a rigid local governance mind-set of one that refuses to address the density and scale-size evidence of Drogheda’s agglomeration with LBM. This is buttressed in selectively using the U.N. Distance Rule for settlement separation whilst choosing to ignore the fact that Dundalk inclusive of Blackrock’s 2011 population is less than that of stand-alone Drogheda, without LBM.

6. Grid Spine Test: comparing Drogheda with Dundalk’s contiguity:

In analysing the population densities of the central spine cells that attach the respective adjoining settlements, it is possible to clarify the respective levels of agglomeration of Drogheda+LBM compared with Dundalk including Blackrock Co Louth, in 2011.

By definition, the Dundalk-Blackrock infill typifies a ribbon infill morphology which is essentially fixed because of the aforementioned presence and hollowing-out effect of its 18-hole golf course. Along the west side of the golf course, another ‘ribbon’ development links Dundalk southward to Blackrock represented by the cell grids of 378 and 255 populations. In contrast, Drogheda’s higher density link-cells already exhibit much superior densities, despite still having further infill-land development potential. First are shown the data of Dundalk’s spine cells:

Dundalk’s (2011) spine cells:-

<u>03/04</u>	<u>03/04</u>	<u>04/05</u>	<u>05/06</u>	<u>05/06</u>	<u>05/06</u>	<u>06/07</u>	<u>06/07</u>	<u>06/07</u>	
<u>@09/10</u>	<u>@08/09</u>	<u>@07/08</u>	<u>@06/07</u>	<u>@05/06</u>	<u>@04/05</u>	<u>@03/04</u>	<u>@02/03</u>	<u>@01/02</u>	Total
676	2,650	2,314	4,360	2,802	378	482	2,028	331	16,021

Source: OSI Grid-map Discovery Series No. 36 (2007): west-east first, followed by their north-south coordinates for these nine one-kilometre square populations.

For the convenience of easy comparison, the corresponding Drogheda spine cells are shown alongside, as follows:

Greater Drogheda's 2011 consolidated 'spine' cells:-

	<u>6/7</u>	<u>7/8</u>	<u>8/9</u>	<u>9/10</u>	<u>10/11</u>	<u>11/12</u>	<u>12/13</u>	<u>13/14</u>	<u>14/15</u>	<u>15/16</u>	<u>Total</u>
@74/75	1,028	3,631	3,183	2,727	2,411	2,470	673	752	748	691	18,314

Source: Part of the CSO population grid one-kilometre square matrix dimension, as kindly provided to Brian Hughes, December 2015.

Thus Drogheda's interface with LBM is at the point shown as where cell (population) 2,470 meets 673; the corresponding Dundalk interface with Blackrock is at the point where population cell 2,802 meets 378. The next respective cells show respective populations of 482 for Dundalk's Blackrock and 752 for Drogheda's LBM.

Accordingly, the Drogheda link-cells are noted as being significantly denser in populations than those of Dundalk's. The lower densities for Dundalk's link cells are explained primarily by the positioning and location of the aforementioned golf course. Yet, the contrasting case of Drogheda's potential is noted as one where these specific cells contain residentially zoned lands which remain to be developed and thus become denser.

Contrasting these two sets of adjoining settlements, it is noted that the NSS 2002 strategy had obviously ignored Drogheda's agglomeration with LBM as being one that then suggests linear dis-contiguity and would not have had the parallel evidence of density and proximity as adduced above. In contrast, the NSS had sought to rely solely on the formulation of far-fetched 'Linked Gateway' and 'Linked Hub' concept, where average distances are some 19 miles (30 km.) separating individual settlement populations in the 19,000 to 100,000 range (for Letterkerenny with Derry), but typically for settlements of about 14,000 to 20,000 (e.g. Athlone, Tullamore and Mullingar) with distances of up to 59 km. It is as if the urban economics impediment of 'distance decay' did not exist.

Therefore, it is apposite to address the demographic data supporting the Drogheda-LBM agglomeration as Ireland's next city: one that matches the demographics of fifth-city Waterford, based on comparative evidence of selected growth centres, including that of Dundalk.

7. Recent Demographics and the Drogheda-LBM Growth Momentum:

The Greater Drogheda Area and of its sphere-of-influence components include the Louth and Meath Rural Areas including the Drogheda Borough, all comprising a population of 83,317 in 2016, (see Table 3A) – *i.e.* more than twice the population of County Longford. Having been 46,451 in 1996, this increase of 36,866 represents a growth of 79.37% over that 20-year period. Due to the much faster rates of growth since the 1996 census, this Appendix confirms that population total in 2016 is almost evenly split for the north and south banks of the Boyne. The impressive additional growth in the intervening eighteen months since the 2016 census, is augmented by the occupation of hundreds of new houses, as detailed below.

Given the locational advantages of the south bank area, including the south suburbs of Drogheda and LBM, especially given its accessibility to Dublin, the Airport and the M50, it is unsurprising that the two towns are consolidating their agglomeration with one-another, boosted by the rate of population growth: one that is an historic multiple times that of Waterford city.

As already noted, this unique case of Drogheda-LBM is not repeated in the three other proposed boundary review cases of Waterford, Carlow or Athlone, all of which are stand-alone settlements and are not remotely adjoined to another large town. It is also observed that in the 2016 census, LBM itself was larger in population than Enniscorthy, Tramore, Skerries and Longford or the county towns of Wicklow or Cavan.

Accordingly, the nature of the failed Boundary Review and its Terms of Reference misrepresented what has been happening on the ground and would have been both short-term in effect and unfit for purpose in addressing the wider demographic picture, vide Appendix 3:

8. The Greater Drogheda Population Urban Field:

These data sets provide incontrovertible evidence of the Drogheda-LBM progress in their agglomeration with each other, based on recent censuses and the disposition of Greater Drogheda Area's population growth. In the twenty years 1996-2016 the former Municipal Borough of Drogheda together with the adjoining Louth and Meath Rural Areas have increased by a massive 79.37% (46,451 to 83,317) at a time when Ireland itself has grown by 31.32%.

The *Preliminary Report* on the CSO 2016 Census provided the earliest direct comparison at the Rural and Borough Electoral Districts with the populations of the 2011 Census. Given the young age profile and family formation propensity of the more recently established population growth south of river, the argument in favour of amalgamating the Greater Drogheda Area population, but especially that of Drogheda with LBM with their intrinsic growth momentum, is both a persuasive and reasonable one.

As it has been found possible for the CSO to recognise Dundalk with Blackrock (Co Louth) as being a single settlement, it is consistent to argue similarly for Drogheda and LBM's agglomeration as a single urban field, based on the grid density evidence of this Paper. Next is examined the relevant, internationally-applied methodology.

9. Harmonised European Union (HEU) Definition of 'City'

This area of this Paper's research focuses on the EU's new set of rules for defining cities, kindly brought to one's attention by the CSO. Until 2015, there was no harmonized definition of 'a city' for European and other countries member of the Organization for Economic Co-operation and Development (OECD). This undermined the task of comparability, and also the credibility, of cross-country analysis of cities. To resolve this problem, the [OECD](#) and the European Commission has developed a new definition in 2015, of a city and its commuting zone.

This new definition works in four basic steps and is based on the presence of an ‘urban centre’ a new spatial concept based on high-density population grid cells. Source: Dijkstra, L. and Poelman, L. (2015), *European Cities – Functional Urban Area Definition*, European Commission, DG Regio

- Step 1: All grid cells with a density of more than 1 500 inhabitants per km² are selected (Map 1.1).
- Step 2: The contiguous^[1] high-density cells are then clustered, gaps^[2] are filled and only the clusters with a minimum population of 50 000 inhabitants (Map 1.2) are kept as an ‘urban center’.
- Step 3: All the municipalities (local administrative units level 2 (or LAU2) with at least half their population inside the urban center are selected as candidates to become part of the city (Map 1.3).
- Step 4: The city is defined ensuring that 1) there is a link to the political level, 2) that at least 50 % of the city population lives in an urban center and 3) that at least 75 % of the population of the urban center lives in a city (Map 1.4)^[3]

In most cases, as for example in Graz, the last step is not necessary as the city consists of a single municipality that covers an entire urban center and the majority of the city residents live in that urban center. This is not currently the governance circumstance in Drogheda+LBM.

10. A Drogheda-LBM Interpretation of the Harmonised EU Measures:

In the 2011 census Drogheda+LBM had twelve grids with densities of 1,500 and over, together with a further five with 1,000-plus populations. Dundalk+Blackrock’s respective count is eleven and two. In the census of 2016 Dundalk was replaced by Swords as Ireland’s second largest town.

Applying the above 4-step test and in comparing Drogheda+LBM with Dundalk+Blackrock the following observations are noted. Dundalk+Blackrock fails on the application of the Step 2 minimum population requirement of 50,000 whereas Drogheda+LBM exceeds that minimum population criterion, but as in the anomalous case of Waterford City, only so when the matrix of all adjoining grids are included.

When the these kilometer-square grid cells of at least 1,500 population are identified, the test for ‘contiguity’ requires each of its surrounding eight cell cluster, in turn, to abut the adjoining cluster whose central cell has a population of at least 1,500 people. In this context of ‘compactness’ this ‘test’ would be satisfied for the following grid cell disposition in the following extract for **Dundalk+Blackrock**, thus:

4,360	2,872	50
2,802	2,105	-
378	328	117
255	482	853
471	2,028	599
31	331	-

In identifying particular 'central' cells with their respective populations and their aforementioned 8-cell clusters, is noted that 'clusters' 2,105 and 2,028 are contiguous with one another at the point (line) where cells 328 and 482 abut (all 2011 census).

Where Drogheda adjoins LBM the same test for comparable cell clusters are shown, thus:

823	5	46	112	275	1,059
2,411	2,470	673	752	748	691
435	861	56	13	1,224	2,162
45	13	106	11	90	705

In this case, the core cell clusters of 2,270 and 2,162 are at one-remove from each other with respect to their surrounding 8-cell positioning. On that basis, Drogheda+LBM would appear to fail the second-step requirement for contiguity. However, should its specific cell, of 1,224 population of 2011, grow to equal or exceed 1,500 in a future (e.g. in the 2016 census), then the EU 50,000 minimum population criterion would appear to be satisfied, even omitting the low-density rows of cells from the top and bottom of the matrix.

Application of the HEU Rule would therefore require the 18.40% shortfall to be eliminated in that 1,224-populated cell's 2011 population. In this regard, it is noted that this cell is fully positioned within the St Mary's Electoral District, which achieved an overall 11.12% growth (2011-2016) as per the 2016 Preliminary Census results. In the 2016 census, that cell's population has increased to 1,402, a shortfall of less than 7% from the Graz Rule requirement.

Importantly however, since that census, the CSO has confirmed that they are now able to finesse their grid measures to 250 metre squares as per the census data. On this same basis and based on the population densities of adjoining squares, by applying a 'grid shuffle' adjustment of 250 metres, either westward or eastward, the remainder of the 1,402-populated square increases to more than the required 1,500 due to the 'spillover' effect from denser cells, whilst at the same time maintaining the minimum 1,500 core-cell population on the Drogheda side.

Accordingly, it is posited that the Graz measure applied to Drogheda-LBM confirms that the four step criterion for City Measurement is achieved.

This is by way of noting that in the 18-month period that has elapsed since the 2016 census, the aggregate population of Drogheda-LBM continues to grow with added momentum and given their differentiated growth rate with that of Waterford during 2011-2016, at this point it has most likely exceeded that of Waterford City and Environs.

It is understood that Waterford’s comparable cell structure for its 2011 census grid outcome likewise presents some similar dis-continuous anomalies. However, it is understood that there is provision for individual EU State to be able to apply for derogation where a ‘city’ status already exists. Some six States have already availed of this Appeals’ provision.

In addition to these demographic criteria, the evidence of recent Drogheda-LBM growth and agglomeration is reinforced by the recommencement of residential development since the 2016 census. There are a number of such developments, some of which have been completed, resulting in further boosting living in the Drogheda-LBM agglomeration.

Grid-Test Application: Examining the adjoining nine-grid Drogheda-section grid centred on cell 2,470 as it meets the nine-grid LBM-section grid centred on cell-population 1,224, the 2011 CSO Census confirms the LBM cell to be short of the 1,500 criterion by 276 or by 18.4%. The nine Drogheda cells aggregate to 7,780, averaging 872 per cell. The nine LBM cells aggregate to 6,396, averaging 710 per cell.

2011 Census – The Interface of Drogheda-LBM Agglomeration Grid Area Population:

823	5	46			
2,411	2,470	673	752	748	691
435	861	56	13	1,224	2,162
			11	90	705

Part of Drogheda side.....>|<.....Part of LBM side

These 2011 cell populations are next compared with the similar cell data for the 2016 cell populations, as follows:

2016 Census – The Interface of Drogheda-LBM Agglomeration Grid Area Population:

844	5	45			
2,463	2,619	815	824	866	746
496	1,182	61	16	1,402	2,463
			20	94	795

Part of Drogheda side.....>|<.....Party of LBM side

In 2016, the pivotal LBM core cell has increased to 1,402, just 98 persons or 6.3% short of the required 1,500 population (before any grid shuffling). The nine agglomerating Drogheda cells aggregate to 8,530, averaging 950 per cell, representing an increase of 9.64% above the 2011 outturn. Likewise the nine LBM cells aggregate to 7,226, averaging 803 per cell; an increase of 12.98%.

It is posited, that by applying the grid-shuffle technique, in either direction east-west, the respective core-grids will exceed the 1,500 population threshold, on the LBM side by virtue of the (portion) of grid 2,463 spill-over. This is not to be confused with the similar-populated 2016 grid population on the Drogheda side.

11. Current Momentum of Residential Development and Population Growth in Drogheda-LBM

On 17th October 2017, Brian Hughes together with Peter Monahan from the City Status Committee visited many building sites, including completed and occupied phases in the area. The primary purpose of this Survey was to gauge the extent and momentum of development and specifically to assess the likely effect on population growth since the 2016 census, the extent of overall development and consequently on the progress of consolidating the agglomeration between Drogheda and LBM. Extensive follow-up 'phone calls were made to officials and local authority councillors to corroborate and clarify our survey observations.

The original intention was to obtain data from each of the 30-40 development sites. However, the sheer volume and extent of current development activity has resulted in a decision to provide the following collective picture rather than schedules of individual-site data. As an overview, the level of development and its progress is more marked for LBM than for Drogheda as at mid-October 2017.

In the case of LBM, the major focus of development is geographically widespread, but particularly so to the north side of Bettystown and south of Donacarney Village. In aggregate terms, upward of 500 houses, completed since the April 2016 census, are now occupied and apart from the 18-months of growth to the existing settlement population since then, we estimate that upward of 2,000 additional new residents are therefore living in LBM. Clearly, this level of newly-occupied reflects evidence of affordability – an issue that is vital to both resolving the housing crisis and to the continuance of Ireland’s economic recovery and of its competitiveness. Furthermore, a similar number of LBM estates of mainly detached and semi-detached houses are completed but are not yet occupied. Most such completions appear to comprise private–sector units.

Phased construction is the conventional modus for ongoing work, at various stages of construction, on upwards of twenty sites. In addition, there was evidence of a number of other sites, as in the process of being opened up, with ongoing pipework connection and other utility instillation and road building. Clearly, the extent of such development reflects the availability of the major waste-water plant at Stagrennan with its extensive pipe network to these areas and, likewise, the completed District Shopping Centre at Southgate, built in anticipation of the scale of the residential development that is now underway.

Accordingly, the population of LBM should be expected to increase to 15,000-20,000 by Census 2021, to include the population of this new housing. The demographic impact of such large-scale residential developments is being reflected in the increasing population density of the above-described grid squares, which are at and close to the above-referred interface between south-east Drogheda and the north and western sections of LBM.

In regard to Drogheda, residential development has commenced at sites for up to 2,000 units, mainly on the outskirts of the town with some smaller ones comprising infill housing and some mixed ones. A number of sites were inspected during the course of the day. The major focus for Drogheda town’s future expansion comprises the public sector land-bank to the north of the town, which has the potential to provide up to 5,000 housing units and an overall potential to accommodate a population increase of 20,000. Additional developments have already commenced or are about to so do, on both north and south sides of the town, encouraged by assessments of financial viability, coupled with the ‘use it or lose it’ lifespans of current planning permissions. These include:

- 1,000 units in Ballymakenny West and the Twenties Lane

- 400 units north of Drogheda Institute of Further Education

- 300 units on the Termonfeckin Road continuation of Aston Village

- 200 units in between Ballymakenny Road, East.

- 17 units at Bealieu Manor, Termonfeckin Road, in addition to building activity on the southside, including developments on the Donore Road, infill projects adjoining the Navan Railway Line and a recently completed and occupied development at Colp West in south-east Drogheda.

In addition to servicing the existing, fast-developing population, the sequential nature of providing such a large series of developments will require careful phasing for all the support

services, schools, shopping and utilities, particularly the Northern Cross Road (PANCR), including enhanced port access and the proposed northern Drogheda railway station. Other developments are expected to see the recommencement of projects, as were noted during our survey, particularly on the south side of the town. Some of them had stopped abruptly, at the start of the Troika crisis.

Opportunities to provide for wide socio-economic types of housing, are reflected in medium density developments; ones providing for layouts including terrace and semi-detached formats. However, apartment-type construction was not much in evidence, as of now – which reflects the October 2017 test for profitability for this format of development, which may be only marginally viable, see Irish Times, P. 14, of today's date.

The likely scale of future development throughout Drogheda-LBM should be jointly monitored and administered by the two county councils, Louth and Meath, under the *Putting People First* initiative, using the Drogheda Borough Authority as the base for this new city. The need for this type of administrative co-operation was articulated in the recent Boundary Report for Drogheda.

12. Research Conclusions:

Significantly, the application of evidence-based population density grid data technique, at the standardised one square kilometre level as published in Dijkstra, L. and Poelman, L. (2015), *European Cities – Functional Urban Area Definition*, European Commission, DG Regio, now provides an internationally-recognised way of avoiding the urban classification problem for identification of emerging cities. It represents the accepted internationally recognised methodology for obtaining such insights that utilise such CSO data, that has been available only as recent as 2013. It should therefore be adopted and utilised in the process of growth settlement selection in future national and regional-level spatial strategy plan formulation for Ireland.

The evidence adduced in this research, with its application of the Harmonised EU grid test informs the emergence of Ireland's next stand-alone city, Drogheda+LBM; one that is on a scale-size with Waterford City but which is now growing at nearly three-times as fast. It was noted that the Preliminary 2016 population of 83,317 for the Greater Drogheda Area (GDRA) in 2016 represents a 79.37% growth since 1996. Together Drogheda+LBM have a 30%+ larger and denser agglomerating population than that of Dundalk+Blackrock, Co Louth.

Over 2011-2016 Waterford City and environs population increased by 1,985 to 53,504 or 3.85%, just ahead of the national growth average of 3.78%: the comparative growth for Drogheda+LBM is above twice that level, thereby eliminating the former size difference, as of the Petition date for their confirmation as Ireland's newest city.

Significant built environment/ infrastructure projects and the demographic and growth-momentum data, as presented herein, articulates the progress made by Drogheda-LBM to 2011 and then to 2016 – thrice the rate of the State's population growth. The intervening five years to 2016 has seen the 'retirement' of the defective National Spatial Strategy including its notorious failure to recognise this most significant example of an Irish urban agglomeration outside of Dublin.

There is also the underlying Regional-level data from the Planning Regional East-West split, as per Appendix 4 hereunder, which contrasts the demographic growth as between the two halves of the State, and which at the NPF-level, justifies the confirmation of another east-coast city, given the reality of Ireland's population centroid, now as far east as Maynooth. The east-west Planning Region split of the State's population growth 2011-2016 was 135,705 versus 37,908 for the West-Planning Regions or 4.78% versus 2.17% growth (in the North-South line down to Youghal) and in dividing the Border Region into its three eastern and three western counties).

The perverse 2002 NSS classification of Drogheda, where it was neither considered to merit a 'Gateway' nor a 'Hub' designation, but which was assigned a demeaning role as a 'support town' to Dundalk in the Border Region, was deeply flawed, both on urban economic and demographic grounds. The comparative research evidence presented in this Paper confirms that such spatial classification is unwarranted and is perhaps explained as one that was adversely, politically driven. That classification also ignored the Appendix 2 definitions of Balanced Regional Development.

The fact that Drogheda-LBM is not mentioned in the latest Draft of the National Planning Framework reflects poorly on the content of that production, or an absence of an awareness of the compelling demographics as adduced herein, and hence, questions the professionalism or, at worst, is a political decision to again deliberately ignore or suppress the emergence of Ireland's next city. The previous use and application of Small Area Population Statistics (SAPS) has the drawback of their wide surface-area variations for comparing the populations of small areas such as Electoral Districts which were of varying sizes and populations.

As was confirmed by the then Minister for the Environment, Simon Coveney at the Maynooth University launch of the National Planning Framework on 2nd February 2017, it is heralded as a process that will use evidenced-based data in its construction. Then, Minister Coveney, in response to Dr Brian Hughes' question from the audience, confirmed that he and his Department would examine and comment on this evidence base for Drogheda-LBM, when formally presented. Junior Minister, Damien English was also present and likewise gave his full endorsement to this (awaited) evidenced-based Petition.

Accordingly, this Report's emerging demographic evidence of urban agglomeration, for matrix field densification purposes, in settlement size classification places Drogheda-LBM in the vanguard of Ireland's major fast-growth centres.

The background theory and application of grid-based measurement has been pioneered in Ireland by CSO's Dermot Corcoran, in his DIT Masters Dissertation (2011) *Disseminating Irish Census data using grids: An example of combining spatial and statistical information*. One is grateful to Dermot for providing the Drogheda and Dundalk 2011 grid data in excel format consistent with the respective specified OSI maps, as referenced hereinabove.

Pending Brussels' approval of Ireland's three NUTS 2 Super Regions, as provided for in the *Putting People First* Action Programme, this research will assist the County Louth's integration into the East Region (Map at Page 191, *ibid*). The agglomeration of Drogheda-LBM opens the path for this Government to undertake the process for

the grant of city status, triggered by the formal Petition that this Research Study accompanies.

It will consolidate the growth of the Dublin-Belfast Economic Corridor, commensurate with Lisburn and Lurgan's recent acquisition of city status north of the Border. This research paper presentation has tracked the 1996-2016 censuses demographic progress of Drogheda and Laytown-Bettystown-Mornington as the subsequent real estate development that represents the physical and demographic engine of growth within the fast-growing Greater Drogheda agglomeration and is size significance in the post-Brexit context.

The Appendix 5 of this research points to the relationship between local employment in the form of Daytime Working Population as a proportion of a town's population, and the need for large and expanding urban centres to match population growth with employment growth and the location of central place functions. In Drogheda's case both the IDA and Enterprise Ireland can point to the employment potential of a large and fast-increasing workforce, located within 30-40 minutes of Ireland's largest port and airport and strategically located within the Dublin-Belfast Economic Corridor.

These Appendix 5 data, for the Daytime Working Populations of Drogheda and LBM, at 30.18% and 6.49% respectively, as the percentages of their total residential populations, provide at both the national and regional levels, significant local employment potential. Specifically, to be able to rectify what in 2016 is a skewed land-use planning-transportation interface for this deep labour-pool of skilled employment, both for local new enterprise and corporate activity and for third-level and higher educational activity. In turn, in fulfilling these central-place objectives, the current generating of intensive medium and long-distance commuting patterns will be greatly reduced.

The Appendix content includes photographic evidence of completed and occupied houses, other completed or near-finished housing not yet occupied, a variety of building sites under construction and other sites where utilities and roads are under construction.

Likewise, the proposed described mapped-boundaries, comprising an area of 72 square kilometres for the new city of Drogheda-LBM, is also included in the Appendix content. For ease of reference this map also includes the same grid references in layout, prepared by Edward Phelan and Co., VCL Consultants, Drogheda.

The research study concludes that the agglomeration of Drogheda-LBM now provides a most significant opportunity for this Government, in the national interest, to confirm this location as Ireland's next city and this evidence-based Research Study underwrites the formal submission of the accompanying Petition for City Status.

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APPENDIX 1

The following 2016 Preliminary Electoral District Populations are compared herein together with the 2011 Census out-turn for the Greater Drogheda Area, thus:

Louth Rural Area:

Electoral District	2011 Population	2016 Population	Population Growth	Percentage Growth
Clogher	3,031	3,237	206	6.8
Dysart	918	924	6	0.7
Monasterboice	1,342	1,373	31	2.3
Mellory	1,723	1,757	34	2.0
St. Peter's (pt)	5,173	9,721	570	6.2
Termonfeckin	<u>3,294</u>	<u>3,545</u>	<u>251</u>	<u>7.6</u>
Total	15,481	20,557	1,098	5.6

Meath Rural Area:

Electoral District	2011 Population	2016 Population	Population Growth	Percentage Growth
Ardcath	1,911	1,949	38	2.0
Duleek	5,177	5,565	388	7.5
Julianstown	9,606	10,176	570	5.9
Mellifont	561	541	-20	-3.6
St. Mary's (part)	10,769	11,864	1,095	10.2
Stamullen	<u>4,696</u>	<u>5,009</u>	<u>313</u>	<u>6.7</u>
Total	32,720	35,104	2,384	7.3

Drogheda Borough Area:

Electoral District	2011 Population	2016 Population	Population Growth	Percentage Growth
Fair Gate	9,806	10,424	511	6.3
St. Laurence's Gate	4,004	4,068	71	1.6
West Gate	6,042	6,305	242	4.4
St. Peter's (part)	3,978	2,099	-62	-2.9
St. Mary's (part)	<u>6,563</u>	<u>6,859</u>	<u>296</u>	<u>4.5</u>
Total	30,393	27,656	1,241	4.7

Greater Drogheda Area: 78,594 83,317 4,723 6.0

Note 1: Caution is required in above comparisons because the 2016 Census data are 'preliminary', pending publication of definitive census figures, in mid-2017. Preliminary State growth 2011-2016 was 3.7%.

Note 2: Drogheda Borough's population was recorded as 30,393 in the 2011 census, some 1,817 above the ascribed figure listed in the 2016 Preliminary census. Thus the Louth Rural area is shown above as 17,298 compared with 15,481 in the 2011 Census, in the CSO Area Volume, Table 6.

The 2016 census, usually at Table 7 of the Area Volume published, confirmed the combined settlement population of Drogheda+LBM to be 52,828. This brings into play the Harmonised European Union's four-stage density and agglomeration criteria as per nine-cell cluster measure for Graz, Austria, as set out in P. 12 of this Paper. As in previous inter-censal periods, for the Meath Rural Area this again is shown as the fastest growing part of the Greater Drogheda Area, and particularly so for the double-digit percentage growth of that part of the St. Mary's Electoral District south-east of Drogheda Borough. The confirmed growth of the specific cell – population, having 1,224 in 2011, vide P. 13 *super* – then became the decisive factor in confirming the Drogheda+LBM urban agglomeration. Furthermore, and having regard to infrastructural provision, the housing crisis combined with implementation of the sequential spatial planning model for timely new and extensive mixed residential development for this already-serviced part of Drogheda will future-proof the realisation of such agglomeration. The extensive developments now underway also reinforce this fact.

APPENDIX 2

The eight Key Concepts of Balanced Regional Development in the 2002-2020 NSS

- The key concepts (of the NSS) are potential, critical mass, gateways, hubs, complementary roles and linkages.
- Potential is the capacity that an area possesses, or could in future possess, for development, arising from its endowment of natural resources, population, labour, its economic and social capital, infrastructure and its location relative to markets.
- Critical mass relates to size and concentration of population that enables a range of services and facilities to be supported. This in turn can attract and support higher levels of economic activity and improved quality of life.
- Gateways have a strategic location, nationally and relative to their surrounding areas, and provide national scale social, economic infrastructure and support services. Further development of the five existing gateways at Dublin, Cork, Limerick/ Shannon, Galway and Waterford is a key component of the NSS.
- **In addition, a small number of other large towns, which have the potential capacity to become gateways and lead development in their regions, will play a key role in achieving a more balanced role in regional development.**
- Hubs: A number of towns will act as hubs, supporting the national and international role of the gateways and in turn energising smaller towns and rural areas within their sphere of influence.
- Complementary roles for other towns, villages and rural areas; various medium-sized towns in each region will act as 'local capitals' providing a range of services and opportunities for employment. Within the spatial framework provided by the NSS, rural potential will draw upon local economic strengths, supported by a stronger structure of smaller towns and villages as a focus for economic and social activity and residential development.
- Linkages in terms of good transport, communications and energy networks are vitally important to enable places and areas to play to their strengths.

Source: The National Spatial Strategy (2002-2020: 12)

APPENDIX 3

Greater Drogheda:- Demographic Growth Evidence from 1996-2011 Censuses

Analysis of Greater Drogheda in 2011:

SUMMARY:	Greater Drogheda: Urban and Rural North and South of Boyne							Share of
	Borough	Add non-Borough	Town+envs. [Table 7]	L-B-M	Dr.+LBM	Rural (net)	TOTAL	Total pop.
North of River	23,830	2,202	26,032	0	26,032	13,279	39,311	50.02%
South of River	<u>6,563</u>	<u>5,983</u>	<u>12,546</u>	<u>10,889</u>	<u>23,435</u>	<u>15,848</u>	<u>39,283</u>	<u>49.98%</u>
Total	30,393	8,185	38,578	10,889	49,467	29,127	78,594	100.00%
Share:	=78.78%	=21.22%	=100.00%					

Analysis of Greater Drogheda in 1996:

SUMMARY:	Greater Drogheda: Urban and Rural Growth North and South of Boyne							Share of
	Borough	Add non-Bor.	Town+envs	LBM	Dr.+LBM	Rural (net)	TOTAL	Total pop.
North of River	21,501	36	21,537	0	21,537	7,659	29,196	62.85%
South of River	<u>2,959</u>	<u>786</u>	<u>3,745</u>	<u>3,678</u>	<u>7,423</u>	<u>9,832</u>	<u>17,255</u>	<u>37.15%</u>
Total	24,460	822	25,282	3,678	28,960	17,491	46,451	100.00%

Growth in populations over the 15 years to 2011:

	Borough	Add non-Bor.	Town+envs.	LBM	Dr.+LBM	Rural (net)	TOTAL	Share of Growth
North of River	2,329	2,166	4,495	0	4,495	5,620	10,115	31.47%
South of River	<u>3,604</u>	<u>5,197</u>	<u>8,801</u>	<u>7,211</u>	<u>16,012</u>	<u>6,016</u>	<u>22,028</u>	<u>68.53%</u>
Total	5,933	7,363	13,296	7,211	20,507	11,636	32,143	100.00%

GDrA: % Growth: 15 years to 2011:

	Borough	Add non-Bor.	Town	LBM	Dr.+LBM	Rural (net)	TOTAL
North of River	10.83%	6016.67%	20.87%	0.00%	20.87%	73.38%	34.65%
South of River	<u>121.80%</u>	<u>661.20%</u>	<u>235.01%</u>	<u>196.06%</u>	<u>215.71%</u>	<u>61.19%</u>	<u>127.66%</u>
Total	24.26%	895.74%	52.59%	196.06%	70.81%	66.53%	69.20%

Source: Analysis of CSO censuses of 1996 and 2011, by Brian Hughes, extracted from the Area Volumes, 1.

Note: In the CSO Preliminary 2016 Census Results the 2011 figure for St Peter's Electoral District was reduced by 1,817 from that recorded in the Area Volume for the earlier census (from 30,393 to 28,576. The CSO advise that this difference reflects a population and land area issue at the Preliminary census stage, which will be rectified in the final figures for the 2016 census, when released in the spring of 2017. Accordingly, the Drogheda Borough area has appeared to 'reduced' in population, by that 1,817 figure. Accordingly, in the population growth figures in Appendix 3, below the 2016 census changes have been omitted. The relevant north Boyne EDs are: Clogher, Dysart, Monasterboice, Mullary, St. Peter's and Termonfeckin. South river the relevant EDs are: St. Mary's, Ardcath, Duleek, Julianstown, Mellifont and Stamullin. It is noted that the St. Peter and St. Mary EDs are split into their respective Borough and rural contents reflecting the pre-boundary review position.

APPENDIX 3A

Greater Drogheda:– Demographic Growth Evidence from 1996-2016 Censuses

Analysis of Greater Drogheda in 2016:

SUMMARY: Greater Drogheda: Urban and Rural North and South of Boyne

2016 Census	Borough	Add non- Borough	Town+envs. [Table 7]	L-B-M	Dr.+LBM	Residual (including settlements)	TOTAL	Share of Total pop.
North of River	24,999	3,115	28,114	0	28,114	13,240	41,354	49.63%
South of River	<u>6,859</u>	<u>5,983</u>	<u>12,842</u>	<u>11,872</u>	<u>24,714</u>	<u>17,249</u>	<u>41,963</u>	<u>50.37%</u>
Total	31,858	9,098	40,956	10,889	52,828	30,489	83,317	100.00%
Share:	=77.79%	=22.21%	=100.00%					

Analysis of Greater Drogheda in 1996:

1996 Census	Greater Drogheda: Urban and Rural Growth North and South of Boyne							Share of Total pop.
	Borough	Add non- Bor.	Town+envs. [Table 7]	L-B-M	Dr.+LBM	(including settlements)	TOTAL	
North of River	21,501	36	21,537	0	21,537	7,659	29,196	62.85%
South of River	<u>2,959</u>	<u>786</u>	<u>3,745</u>	<u>3,678</u>	<u>7,423</u>	<u>9,832</u>	<u>17,255</u>	<u>37.15%</u>
Total	24,460	822	25,282	3,678	28,960	17,491	46,451	100.00%
Share	96.75%	3.25%	100.00%					

Greater Drogheda: Growth in populations over the 20 years to 2016:

	Borough	Add: Outside Borough	'Table 7' Town+envs.	LBM	Dr.+LBM	[Including settlements]	TOTAL	Share of Growth
North of River	3,498	3,079	6,577	0	6,577	5,581	12,158	32.98%
South of River	<u>3,900</u>	<u>5,197</u>	<u>9,097</u>	<u>8,194</u>	<u>17,291</u>	<u>7,417</u>	<u>24,708</u>	<u>67.02%</u>
Total	7,398	5,197	9,097	8194	23,868	12,998	36,866	100.00%

**GDrA:
Total
Growth: 20
years to
2011:**

	Borough	Add non- Bor.	Town	LBM	Dr.+LBM	Rural (net)	TOTAL
North of River	10.83%	6016.67%	20.87%	0.00%	20.87%	73.38%	34.65%
South of River	<u>121.80%</u>	<u>661.20%</u>	<u>235.01%</u>	<u>196.06%</u>	<u>215.71%</u>	<u>61.19%</u>	<u>127.66%</u>
Total	24.26%	895.74%	52.59%	196.06%	70.81%	66.53%	69.20%

Source: Analysis of CSO censuses of 1996 and 2011, by Brian Hughes, extracted from the Area Volumes, 1.

Note: In the CSO Preliminary 2016 Census Results the 2011 figure for St Peter's Electoral District was reduced by 1,817 from that recorded in the Area Volume for the earlier census (from 30,393 to 28,576. The CSO advise that this difference reflects a population and land area issue at the Preliminary census stage, which will be rectified in the final figures for the 2016 census, when released in the spring of 2017. Accordingly, the Drogheda Borough area has appeared to 'reduced' in population, by that 1,817 figure. Accordingly, in the population growth figures in Appendix 3, below the 2016 census changes have been omitted. The relevant

north Boyne EDs are: Clogher, Dysart, Monasterboice, Mullary, St. Peter's and Termonfeckin. South river the relevant EDs are: St. Mary's, Ardcath, Duleek, Julianstown, Mellifont and Stamullin. It is noted that the St. Peter and St. Mary EDs are split into their respective Borough and rural contents reflecting the pre-boundary review position.

Appendix 4

The East-West Planning Region Demographic Growth Contrast:

1. Overall Planning Regions:

2016 Census Planning Regions Populations

TABLE 4.1:

Total Region	2011	2016	Growth	Total % Growth
Border	514,891	523,217	8,326	1.62%
Dublin	1,273,069	1,347,359	74,290	5.84%
Mid East	531,087	559,973	28,886	5.44%
Midlands	282,410	292,301	9,891	3.50%
Mid-West	379,327	384,998	5,671	1.50%
South-East	497,578	510,333	12,755	2.56%
South-West	664,534	690,575	26,041	3.92%
West	<u>445,356</u>	<u>453,109</u>	<u>7,753</u>	<u>1.74%</u>
Total-State	4,588,252	4,761,865	173,613	3.78%

4.2: Ireland's East-West Divide:

In the consideration of Ireland's growth contrasts this next Table focuses on the eight Planning Regions so as to assess the east-west population size and growth in a north-south divide line; from Youghal northward to approximately Clones. This separates the Border Region into its three eastern and three western counties (but all of Cavan county included in the East Border area).

Table 4.2: East and West Planning Regional Population Growth - 2011-2016

	2011	2016	Growth
Dublin	1,273,069	1,347,359	74,290
Mid East	531,087	559,973	28,886
Midlands	282,410	292,301	9,891
South East	497,578	510,333	12,755
East Border area	<u>256,563</u>	<u>266,446</u>	<u>9,883</u>
East of State	2,840,707	2,976,412	135,705
South West	664,534	690,575	26,041
Mid-West	379,327	384,998	5,671
West	445,356	453,109	7,753
West Border area	<u>258,328</u>	<u>256,771</u>	<u>-1,557</u>
West of State	1,747,545	1,785,453	37,908
State	4,588,252	4,761,865	173,613

Source: Brian Hughes analysis of CSO 2011 Census and 2016 CSO Preliminary Data.

NOTE: The full Border Region's corresponding population totals during 2011 and 2016 are: 514,891 in 2011 and 523,217 in 2016, resulting in an 8,326 growth which is 1.62% uplift for that region's population growth. It is observed that all of Louth accounted for 71.9% of that region's growth.

During 2011-2016 the Greater Dublin Area alone, comprising the Dublin and Mid East regions, contributed 59.30% of the total State growth. Of note in the above data, is the contrasting east-west performance to State population growth; 78.27% versus 21.73%. The 2016 census also confirms a return to net in-migration and thus previous intercensal growth rates can be expected to resume. For instance, in 2002-2006 the State population grew by 322,645 (+8.26%) and during 2006-2011 it was up by a further 348,404 (+8.22%). Thus, in the nine years to April 2011, the State population grew by 671,049 (+17.13%) above the 2002 level, as confirmed in these twenty-first century censuses.

This analysis of the State's 2011-2016 population growth of its eight planning regions underlines the marked difference between the east and west planning regions. In summary, the east portion of State had 2.203 times the rate of growth compared with the western portion. Of the absolute State growth of 173,613, 78.17% occurred in the east with just 21.83% in the west. This pattern of population distribution is replicated in an all-island context wherein Maynooth town now marks approximately the geographic centroid for the island of Ireland.

This focus on Ireland's east-west demographic growth differential performance analysis in this Appendix is detailed so as to cast attention on the need to complement the State's existing East Planning Regional cities, Dublin and Waterford, by the inclusion of Drogheda-LBM in the north-east area, complementing the Northern Ireland initiative for strengthening the Dublin-Belfast Corridor, where Lisburn and Newry as their two new cities, north of the Border. Effectively, the Rest of Leinster needs to consolidate along this Corridor and Drogheda-LBM is the principal, logical settlement focus in doing this.

Appendix 5

The excessive mono-centricity of Dublin, with comparative cities of North-western Europe, is noted in Hall and Pain (2006), when related to its sphere-of-influence towns. As a consequence, Dublin-related towns generally exhibit low levels of central place activity, Per Christaller (1933). The following listing of Ireland's +10,000 populated towns also shows their respective Daytime Working Populations (DWP) and the percentage that their DWP represents to the matching populations, thus:

Table A5: Daytime Working Population as % of Resident Population of city or town and environs:

Where Dublin City and suburbs 512,449 out of 1,173,179 = 43.68%

And Ireland's DWP = 2,006,641 ex 4,761,865 = 42.14%.

Cork City and suburbs 102,139 out of 208,869 = 48.90%

Limerick City and suburbs 44,624 out of 94,192 = 47.38%

Galway City and suburbs 44,376 out of 79,934 = 55.52%

Waterford City and suburbs 24,375 out of 53,504 = 45.56%

Drogheda 12,361 out of 40,956 = 30.18%

Swords 15,338 out of 39,248 = 39.08%

Dundalk 14,164 out of 39,004 = 36.31%

Bray 8,763 out of 32,600 = 26.88%

Navan (An Uaimh) 8,970 out of 30,173 = 29.73%

Kilkenny 13,738 out of 26,562 = 51.72%

Ennis 10,171 out of 25,276 = 40.24%

Carlow 7,868 out of 24,272 = 32.42%

Tralee 12,517 out of 23,691 = 52.83%

Droichead Nua 6,526 out of 22,472 = 29.04%

Portlaoise 8,410 out of 22,050 = 38.14%

Balbriggan 3,436 out of 21,722 = 15.78%

Naas 10,999 out of 21,393 = 51.41%

Athlone 13,108 out of 21,349 = 61.40%

Mullingar 8,633 out of 20,928 = 41.25%

Celbridge 2,339 out of 20,288 = 11.53%

Wexford 11,961 out of 20,188 = 59.25%

Letterkenny 11,395 out of 19,274 = 59.12%

Sligo 13,024 out of 19,199 = 67.84%

Greystones 2,514 out of 18,140 = 13.86%

Clonmel 7,036 out of 17,140 = 41.05%

Malahide 2,259 out of 16,550 = 13.65%

Carrigaline 1,849 out of 15,770 = 11.72%

Leixlip 5,825 out of 15,504 = 37.57%

Tullamore 8,259 out of 14,607 = 56.54%

Maynooth 5,201 out of 14,585 = 35.66%

Killarney 7,109 out of 14,504 = 49.01%

Arklow 3,040 out of 13,163 = 23.10%

Cobh 1,432 out of 12,800 = 11.19%

Ashbourne 1,963 out of 12,679 = 15.48%

Midleton 3,871 out of 12,496 = 30.98%

Mallow 3,775 out of 12,459 = 30.30%

Castlebar 9,045 out of 12,068 = 74.95%

Laytown-Bettystown-Mornington 771 out of 11,872 = 6.49%

Enniscorthy 4,140 out of 11,381 = 36.38%

Cavan 5,432 out of 10,914 = 49.77%

Wicklow 2,637 out of 10,584 = 24.91%

Tramore 1,628 out of 10,381 = 15.68%

Ballina 4,810 out of 10,171 = 47.29%

Skerries 1,433 out of 10,043 = 14.27%

Longford 5,050 out of 10,008 = 50.46%

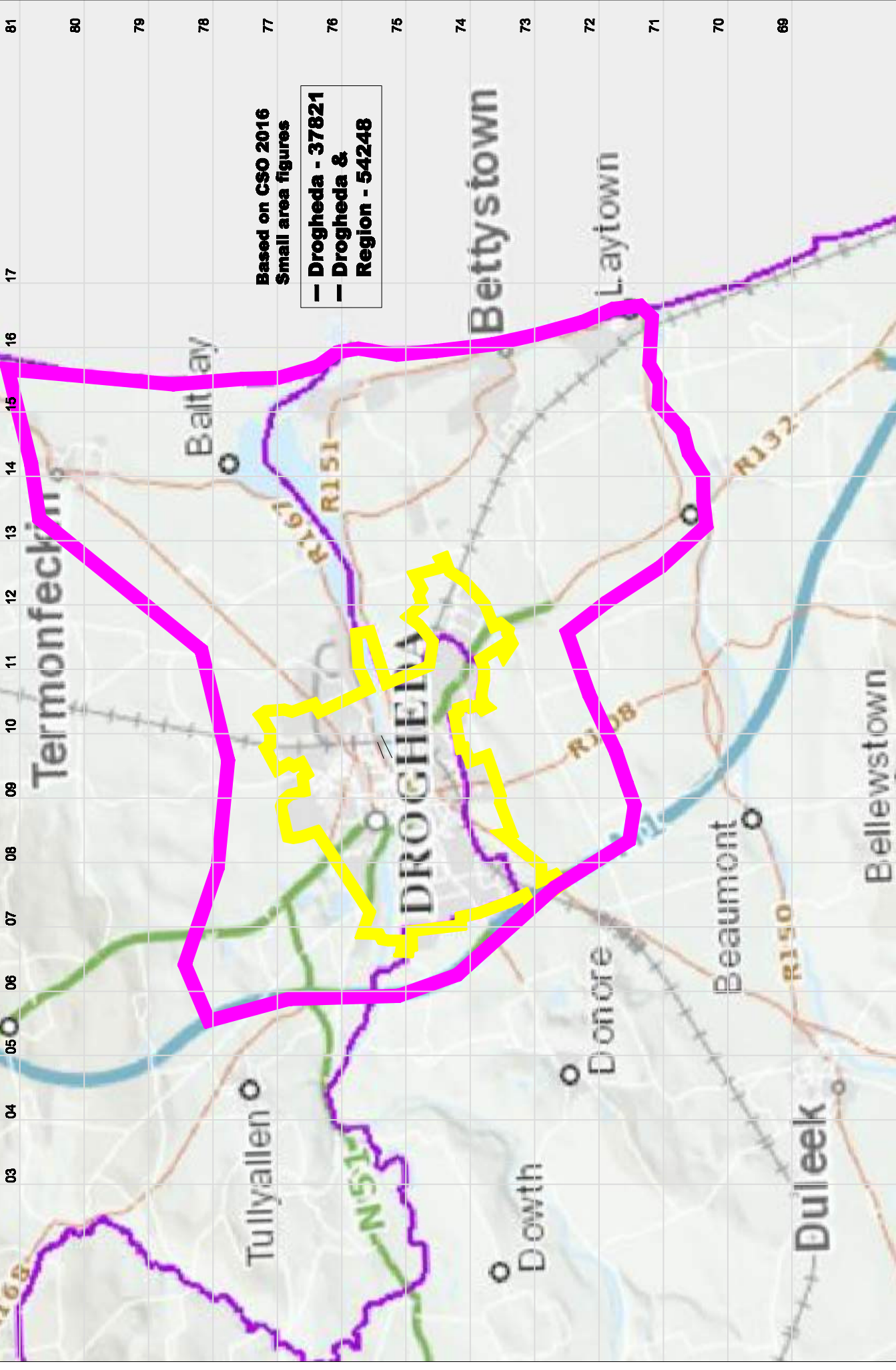
Accordingly, Drogheda-LBM provides the focus for the optimum demographic labour pool where their aggregate Daytime Working Population is just 13,132 out of a population total of 52,828, being just 24.86%. This is by far the lowest percentage for any 20,000-plus settlement in Ireland, with the exception of Celbridge. The potential for labour-pool source and for higher education is unique.











**Based on CSO 2016
Small area figures**

- Drogheda - 37821**
- Drogheda & Region - 54248**

