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Academic Approaches

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ASSESSING THE LEVEL OF CROSS-BORDER FUEL TOURISM

Reflections on the impact and outcomes of two case studies

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Abstract

Consistently cheaper fuel prices in one jurisdiction compared to a neighbouring jurisdiction should, holding other factors constant, lead to greater demand for fuel in the country with the lower price, due in part to legal fuel tourism. Fuel tourism, cross-border demand for fuel, represents an important source of tax revenues to the Exchequer but also contributes significantly to a country's national greenhouse gas (GHG) emissions. The econometric analysis in this paper aims to estimate the level and determinants of fuel demand from Northern Irish consumers in the Republic of Ireland taking account of market size, proximity to major roads, level of local competition and station characteristics. The analysis is based on an unbalanced panel dataset of retail sales among 543 border stations from April 2013 to March 2015. The results show that the set of stations close to the border have higher than expected average diesel and petrol sales by 54.4% and 14.6% respectively. Greater levels of fuel tourism for diesel may partly be attributable to heavy goods and other vehicles which avail of cheaper prices near the border before making long distance journeys on to the Continent. The combined Excise Duty, Carbon Tax and VAT contribution to the Irish Exchequer associated with fuel tourism is estimated at €202 million for diesel and €28 million for petrol based on 2015 levels. CO_2 emissions from these cross-border sales are about 1.17 million tonnes per annum, or 2% of Ireland's national GHG emissions.

1.   Introduction & Background

Retail price differences between countries provide an arbitrage opportunity for consumers, and thus lead to cross-border shopping or retail tourism. Price differences across countries are often due to differences in tax or excise rates, which may lead to tax competition whereby one country sets a lower tax to attract consumers from another jurisdiction and thus increase its tax revenue, thereby putting downward pressure on commodity taxes (see Nielsen, 2001). As cross-border shopping has tax revenue implications and also affects the demand on both sides of the border, the topic has been analysed in a number of studies. For example Asplund et al (2007) found that a cut in the Danish spirit tax resulted in a reduction of Swedish spirit tax revenue of 2%.

Fuels are a commodity that is subject to significant differences in taxation across countries. While the EU sets minimum excise duties under the Energy Taxation Directive, which avoids aggressive tax competition, there are no maximum rates. A comparison of excise rates across EU member states in July 2016 reveals that the highest excise rate rates for both petrol and diesel are just over twice as high as the lowest rates. The minimum diesel rate is 8.1% lower than that for petrol and the average rate across the EU is 19.5% lower than the average for petrol resulting in lower retail prices for diesel than petrol (European Commission, 2016).

Given these differences it is not surprising that cross-border fuel shopping, or fuel tourism, takes place across many borders. Banfi et al (2005) investigated fuel tourism between Switzerland, Germany, France and Italy. They found that a 10% decrease in Swiss fuel prices would lead to a 17.5% increase in fuel demand in Switzerland, and that fuel tourism accounted for 9% of petrol sales over the period 1985 to 1997. Where fuel taxation is subject to regional variation there is also scope for 'cross boundary' fuel shopping. In Spain, motor fuel taxation rates can be altered by Autonomous Communities since 2002, and the effect of resulting fuel price differences have been investigated by Leal et al (2009). While they found the price differences induced by local variations in fuel taxation to affect behaviour, they were unable to estimate the quantity of fuel purchased by fuel tourists. Subsequent analysis by Romero-Jordan et al (2013) shows that some of the higher tax rates are partially absorbed by service stations to lessen their effect on demand.

In Ireland the tax receipts associated with motor fuel consumption are an important source of tax receipts for the Exchequer. In 2015, receipts of over €2.7 billion were collected from petrol and diesel (the largest component of receipts arises from Excise Duty but VAT and Carbon Tax also apply), provisional data indicate this increased to €2.9 billion in 2016.1 [1] Road transportation also contributes a significant component of Ireland's emissions of greenhouse gases (GHGs): 11.3 million tonnes of CO_2 equivalent in 2015, representing almost 19% of Ireland's total emissions of GHGs (EPA, 2016). Interestingly, the impact of fuel tourism on GHG emissions has been largely ignored in the literature, even though it potentially transfers emissions from some countries to others.

Fuel excise rates differ significantly between the UK and the Republic of Ireland, with those in the UK being higher than those in the Republic of Ireland. For petrol the Excise rate in the Republic of Ireland was almost 13% lower in July 2016, and that for diesel was almost 30% lower. While Value Added Tax (VAT) is lower in the UK (20%) than the Republic of Ireland (23%) that still leaves a significant premium on UK fuel prices. This is particularly relevant for the consumers in Northern Ireland, who can drive to the Republic of Ireland to avail of cheaper fuel.

Due to consistently lower fuel prices in the Republic and the potential for cross-border fuel purchasing from Northern Ireland, we might expect to see increased demand for fuel at stations that are closer to the border, all other things being equal. This has positive revenue implications but negative implications in terms of Ireland's obligations on the reduction of GHGs, as the emissions from fuel sold in Ireland are assumed to arise in Ireland rather than the jurisdiction where the fuel is used. These markets thus interact in important ways with a range of policy domains, from design of taxes and tax compliance to environmental policy, and have a significant effect on consumer welfare.

Cross border shopping across the Irish border has received relatively little attention from researchers. The only comprehensive study known to us is that by FitzGerald et al. (1988), which was carried out at a time (the 1980s) when indirect taxes were lower in Northern Ireland than in the Republic of Ireland. The focus was thus on consumers from the Republic of Ireland shopping in Northern Ireland. That study finds that about one third of all petrol bought by residents in the border counties was purchased in Northern Ireland. A more recent report by the National Roads Authority (NRA, 2013) indicates that, given that fuel prices in the Republic of Ireland have been lower than those in Northern Ireland since the mid 1990's, there is substantial fuel tourism from Northern Irish consumers in the Republic of Ireland. They use aggregate data to estimate that in 2011 8.6% of petrol sold in the Republic of Ireland was bought by fuel tourists from Northern Ireland. For diesel the leakage north was estimated at 22.8%.

The analysis presented here follows a different approach to that used in the NRA report. In particular it aims to estimate the level of fuel tourism, by fuel (diesel and petrol), using data of fuel sold in individual filling stations collected via Revenue's Return of Oil Movements (known as the ROM1). Our approach makes use of the fact that the level of cross border fuel tourism is a function of the trade-off between price differences and transport costs, because consumers have to travel across the border to avail of lower fuel prices. With small price differences, the net benefit of crossing the border is likely to be negative except for consumers that reside close to the border.2 [2] Thus, one would expect filling stations that are located close to the border to sell more fuel than ones located further away from the border, holding all other

1   Hopkins and Walsh (2014) present a more detailed review of the contribution of oil to Excise receipts and overall tax revenues.

2 For some consumers the closest filling station might be across the border.

factors equal. Therefore the difference in fuel sales between filling stations provides a means to estimate the level of fuel tourism. Our methodology thus relies on the geography of filling stations for which we have administrative data on fuel sales.

In the remainder of this paper, we first describe the data employed and the specification used in our analysis. We then discuss our results and provide some observations on the findings and ideas for future research.

2. Data Employed

Before discussing the data and analysis, it is useful to assess developments in the oil market in Ireland. Figure 1 shows petrol and diesel warehouse clearances in kilolitres from 2000 to 2015. Since 2010, diesel consumption has increased by 21% while petrol consumption has fallen by 27%. This reflects a transition in the oil market with an ongoing shift from petrol to diesel in the car market. In addition, with the recovery in the economy over the period, the consumption of diesel for road haulage has increased markedly (nearly all heavy goods vehicles use diesel).

Figure 1: Fuel Clearances
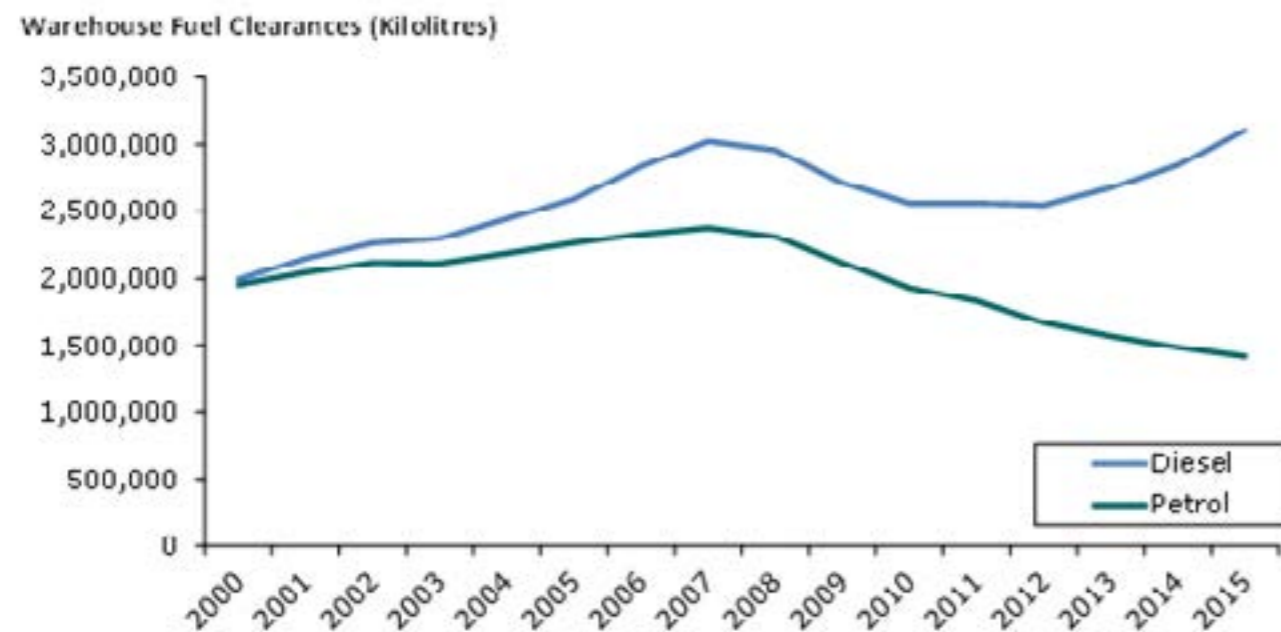
Source: Revenue data. Notes: Clearances are the duty paid amounts of oil removed from tax warehouses.

Given the potential for cross border purchases, it is useful to compare prices in both jurisdictions. The data show that fuel prices are consistently cheaper in the Republic and the differences have widened in recent years. In March 2016, the Irish price of petrol and diesel per litre were 129.1c and 109.5c. By comparison, UK prices (converted to euros) for the same period were significantly more expensive at 140.0c and 141.1c respectively. The Excise on petrol and diesel is 587.71 and 479.02 per 1,000 litres and VAT is applied at the standard rate (23%) on the Excise-inclusive price.

Figure 2: Fuel Prices
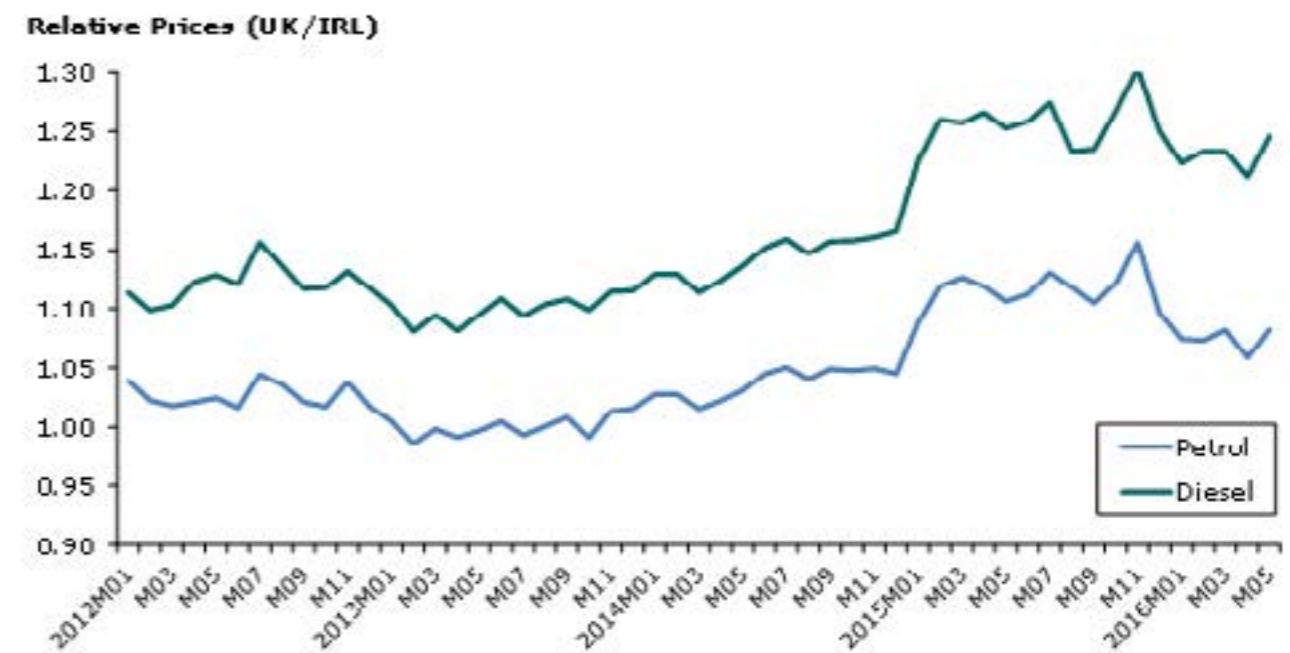
In recent years, Revenue has put in place a series of national initiatives to address diesel laundering and improve compliance in the oils area generally. As part of this programme, Revenue introduced a new monthly Return of Oil Movements (ROM1) in January 2013. While the purpose of this new reporting requirement is to provide data to assist Revenue in addressing diesel laundering in the fuel trade, it also represents new opportunities for microeconomic research.

This return is mandatory for authorised warehousekeepers, distributors and forecourt retailers. The oil information required in the return covers opening and closing balances, each inward and outward

movement of stock by product type in addition to information on date, quantity, invoice, customer and supplier. Using this information, a detailed supply chain analysis can be constructed of all major movements of oil within the state.

It should be borne in mind that the ROM1 return and data are designed for the purposes of assisting Revenue in ensuring tax compliance in the oil fuel sector, rather than for analysis of fuel tourism or other issues. A number of caveats to the data should be noted when considering the results later in this paper.

Definitional issues between traders may arise where it is unclear whether a trader is a forecourt, distributor or warehouse. While we have made every attempt to only include traders who are forecourts, or who have the characteristics of forecourts, there is sometimes an unclear distinction between these trader types which mean our data may include some warehouses or distributors.

Self-reporting issues arise where there are two counterparties to a trade (there are inward and outward trades along the supply chain and both traders make declarations for a trade) but the volumes delivered and received differ. Where there is a difference or a reported mismatch, this may become problematic if we cannot identify the same trades due to the mismatch in reporting, which can in effect lead to double-counting. In a best case scenario, we can identify it is the same trade and we then must choose (arbitrarily) one of these trades to use for analysis.

Complexities also arise where traders have multiple licenses and can receive fuel through one license and sell it through another. It can be challenging to identify intra-company trades. Multiple licences are most likely among larger traders and this can again lead to potential double-counting.

Notwithstanding the above, the ROM1 is a unique data source and forms the basis for analysis in this paper.

The ROM1 data is based on monthly oil movement trades at each link in the supply chain from

warehouse (215,000 trades) to distributor (1.3 million trades) to retail station level (675,000 trades). The current analysis is based on an unbalanced panel dataset of outward retail sales among the 543 stations close the border with Northern Ireland[3] over the 24 month period April 2013 to March 2015. Extensive data preparation was undertaken including matching X-Y coordinates of stations.

Figure 3: X-Y Coordinates of All 543 Border Stations

Source: Revenue data and authors' analysis.

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3. Specification

The econometric analysis in this section aims to estimate the extent and determinants of fuel sales by stations in the border counties taking account of market size, proximity to major roads, level of local competition and station characteristics.[4]

Random effects models are employed for both the petrol and diesel markets. All variables are transformed to natural logarithms with the exception of the number of stations within ten kilometers and also binary and categorical variables. Diagnostic testing indicates that the random effects model is preferable to OLS. Serial correlation was identified in the panel models using the Wooldridge test. As one might expect, there is a lot of persistence in behavior, i.e. fuel sales in the recent past influence future sales. To correct for this in the model, an autoregressive disturbance term is included. [5]

Ideally our models would control for the effects of changing absolute price levels and price relativities with Northern Ireland. Unfortunately, only data on average prices for each jurisdiction are available, not prices charged by each station. We tried estimating the models with monthly Irish and UK petrol and diesel prices, but the limited variation in prices changes meant that the estimated price effects lacked statistical significance. This means that we can only assess the average level of cross-border sales during the period, not the marginal effects that might be expected on cross-border sales if taxes or price components were to change.

The determinants of quantity of fuel sold are estimated first using a full model as follows:

$$(1) \quad Q \, Ln(Fuel)_{xyit} = \alpha 0 + \beta 1(DisttoBord)_{xyit} + \beta 2(Near\ Major)_{xyit} + \beta 2(No10k)_{xyit} +$$
$$\beta 2Ln(Comp)_{xyit} + \beta 2Ln(Pop)_{xyit} + \beta 2Ln(Cars)_{xyit} + \beta 2Ln(Comms)_{xyit} ++ \beta 2Ln(WniPop)_{xyit}$$
$$+ \beta 2Ln(WniCars)_{xyit} + \mu_i + \varepsilon_{it} \quad (I=1,...,N;\ t=1,...,T)$$

A preferred parsimonious model is then estimated after dropping insignificant regressors:

$$(2) \quad Q \, Ln(Fuel)_{xyit} = \alpha 0 + \beta 1(DisttoBord)_{xyit} + \beta 2(Near\ Major)_{xyit} + \beta 2(No10k)_{xyit} +$$
$$\beta 2Ln(Pop)_{xyit} + \mu_i + \varepsilon_{it} \quad (I=1,...,N;\ t=1,...,T)$$

Where:

- *$Fuel_i$ denotes the dependent variable in the models, which is the total amount of monthly diesel or petrol sold in litres at the retail station;*
- *$DisttoBord_i$ – a categorical variable of the shortest driving distance to the border in kilometres. The categories are less than or equal to one kilometre, one to three kilometres, three to five kilometres and greater than five kilometres.*
- *$NearMajor_i$ – a binary variable equalling one if the stations is within 0.5 kilometres of a major road;*
- *$No10k_i$ - number of stations within a 10km radius;*
- *$Comp_i$ - average distance to the stations within 10km radius*
- *Pop_i – the population and spatially weighted population in the Electoral Division (ED) in which the station is located in 2011 from the Census;*
- *$Cars_i$ - denotes the number of cars per household and the spatially weighted number of cars in the ED in which the station is located in 2011 from the Census;*
- *$WCars2011_i$ - spatially weighted cars. The spatial weights matrix is a distance matrix;*
- *$Comms_i$ – the number of commuters and the spatially weighted number of commuters based on Census 2011;*
- *$WniPop_i$ – spatially weighted population for Northern Ireland;*
- *$WniCars_i$ – spatially weighted cars for Northern Ireland;*
- *The term ε_i is the stochastic term of the model (capturing other possible influences on quantity of fuel sold not included in the model, for example the price of fuel);*
- *The terms α and β refer to the parameters of the model to be estimated.*

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4   While fuel tourism occurs in all parts of the country to some degree (and indeed by Irish residents abroad), the focus in this analysis is on Northern Ireland consumers and the border stations where such cross border purchasing is likely to be most significant.

5   Autocorrelation based on Durbin-Watson.

4.   Results

Petrol Market

Table 1 presents coefficients and standard errors (in parenthesis) for the quantity of petrol sold (in litres) on distance to the border, number of competitors and other market size variables.

The results show that stations closer to the border have higher petrol sales than would be expected given their other characteristics. Stations within 1 kilometre of the border, sell 1% more petrol compared to those 5 kilometres or more away. Stations within 0.5km of a major road have 0.2% higher petrol sales. Stations with greater numbers of competing stations within 10km have lower petrol sales. An increase in the population within the ED is associated with a large positive impact on petrol sales.

Table 1: Determinants of Petrol Demand

	Preferred Model	Full Model
3 – 5km	0.276	0.717**
	(0.23)	(0.256)
1 – 3km	0.801**	1.567***
	(0.281)	(0.308)
<= 1km	1.094***	1.858***
	(0.2)	(0.212)
Near Major Roads	0.223*	0.307*
	(0.107)	(0.125)
Log no. competing stations within 10km	-0.013*	-0.015
	(0.006)	(0.008)
Log distance to stations within 10km		-0.074
		(0.107)
Log pop & pop density	0.677***	0.819***
	(0.064)	(0.195)
Log cars & cars density	0.641	
	(0.36)	
Log commuters & commuters density		-0.094
		(0.165)
Log pop density northern Ireland		-29.624
		(35.161)
Log cars density northern Ireland		27.188
		(20.879)
Station-Year Observations	8,913	8,913
Stations	427	427
R-squared	0.30	0.30

Source: authors' analysis. Notes: All variables in logs. * for p<.05, ** for p<.01, and *** for p<.001.

Diesel Market

Table 2 presents the results for the diesel market. According to the modelling, stations within 1 kilometre of the border, sell 1.8% more diesel compared to those 5 kilometres or more away. Stations within 1 – 3 kilometres sell 1.5% more. Results also show expected signs on proximity to major roads, the density of local competitions as measured by the number of competing stations within 10km and population levels in the ED.

Table 2: Determinants of Diesel Demand

	Preferred Model	Full Model
3 – 5km	0.692**	0.319
	(0.256)	(0.231)

1 – 3km		1.479***	0.910**
		(0.304)	(0.285)
<= 1km		1.801***	1.172***
		(0.202)	(0.213)
Near Major Roads		0.390**	0.168
		(0.12)	(0.112)
Log no. competing stations within 10km		-0.018*	-0.017*
		(0.007)	(0.007)
Log distance to stations within 10km	0.189*		
		(0.09)	
Log pop & pop density		0.656***	1.000***
		(0.073)	(0.169)
Log cars & cars density			0.525
			(0.307)
Log commuters & commuters density			-0.193
			(0.144)
Log pop density northern Ireland			-4.306
			(31.919)
Log cars density northern Ireland			6.541
			(19.055)
Observations	8,127	8,127	
Stations		396	396
R-squared		0.31	0.30

*Source: authors' analysis. Notes: All variables in logs. * for p<.05, ** for p<.01, and *** for p<.001.*

Greater levels of fuel tourism for diesel may partly be attributable to heavy goods and other vehicles which avail of cheaper prices near the border before making long distance journeys on to the Continent. Descriptive analysis from the data shows that diesel sales are typically higher than petrol sales, again partly reflecting sales to large capacity heavy goods vehicles. Diesel also has much greater monthly within-station variation. This may be explained by diesel generally being used for more long distance journeys, for example by taxis.

5. Fuel Tourism

Fuel tourism, in this analysis cross-border demand for fuel from Northern Irish consumers, represents an important source of tax revenues to the Exchequer. Consistently cheaper fuel prices in the Republic should, holding other factors constant, lead to greater demand for fuel in the border region due in part to legal fuel tourism.

Fuel tourism should be more substantial close to the border as the transport costs to locations further away from the border erode the price differential for fuel between Northern Ireland and Ireland. This implies that ceteris paribus stations close to the border would sell more fuel than those further away. The difference in fuel volume sold between two otherwise identical stations with one close to the border and one far away from the border should then be due to fuel tourism.

To estimate this marginal effect associated with proximity to the border, average petrol and diesel sales predictions are first obtained for the preferred models. Next, a simulation model is run where all of the border stations are assumed to be away from the border. The difference between models provides an estimate of the quantities associated with tourism which is shown for both petrol and diesel markets in Table 3.

The results show that the set of stations close to the border have higher average petrol and diesel sales by 14.6% and 54.4% respectively. The findings suggest significant levels of fuel tourism, particularly in the diesel market.

Table 3: Fuel Tourism Estimates (monthly average)

	Preferred Model Prediction with Proximity Effects Set to Zero	Preferred Model Prediction	*% Difference*
Petrol	48,844	55,957	14.6%
	(33,032)	(37,793)	
Diesel	34,183	52,796	54.5%
	(22,360)	(51,962)	

Tax contribution of fuel tourism

To estimate the tax contribution from fuel tourism, the analysis in the above section using the ROM1 data is extrapolated to Revenue's warehouse clearance data. The clearances data provide a complete picture of all petrol and diesel released for sale on the Irish market. Annual warehouse clearances also provide a proxy for annual station fuel sales because the majority of fuel cleared from warehouses will eventually be sold through forecourts.

As noted in the earlier section describing the ROM1 data, there are some issues around definitions and reporting that may lead to some potential double counting. While these are not expected to bias the econometric analysis, the clearances data present a preferable data source for the overall picture of petrol and diesel in the State.

In 2015, Revenue warehouse clearances data show clearances of 3.1 million kilolitres of auto diesel and 1.4 million kilolitres of petrol. The Excise (plus VAT and Carbon Tax) associated with the above diesel and petrol clearances were €1,308 million (€232 million) and €768 million (€426 million) respectively.

Based on an approximate estimate using Revenue's ROM1 data, the border stations comprise 24% and 16% of the diesel and petrol markets in the Republic. This implies diesel and petrol sales (in kilolitres) in

the border area of 749k and 231k.

Given that the set of stations near the border sell an average of 54% and 15% more diesel and petrol compared to stations far from the border, this suggests that the border stations as a whole sell an additional 408k in diesel and 34k in petrol, beyond what they might otherwise sell if they were not close to the border. Finally, assuming the same ratios of tax (Excise, Carbon and VAT) per kilolitre sold[6] , the overall annual tax contribution of fuel tourism is €28 million for petrol and €202 million for diesel – based on 2015 receipts levels.

Table 4: Estimates of Fuel Tourism

	Diesel	Petrol
Fuel Tourism (Kilolitres)	407,686	33,697
Excise (€)	171,646,999	18,282,530
Carbon (€)	20,759,647	1,482,604
VAT (€)	9,661,822	8,663,133
Total Tax (€)	**202,068,468**	**28,428,266**

Source: Revenue data and authors' analysis. Notes: 1. Clearances refer to the amounts of fuel cleared from tax warehouses. 2. Border station contribution estimated from ROM1 data with outlier stations removed. 3. VAT associated with clearances data is estimated, VAT is significantly lower for diesel because diesel is largely purchased by VAT registered businesses which claim a credit and get repayments (there is no such credit for petrol).

6.   GHG EMISSIONS ASSOCIATED WITH FUEL TOURISM

The estimated quantity of fuels sold to cross-border consumers leads to emissions of about 1.17 million tonnes of CO_2, based on emission and conversion factors published in SEAI (2016a, 2016b). To put this quantity of emissions in perspective, it corresponds to just under 2% of Ireland's total GHG emissions in

6   The official rates per 1,000 litres are on the Revenue website: http://www.revenue.ie/en/tax/excise/duties/excise-duty-rates.html

2015 or 10.4% of road transport emissions.

7.   Observations on the results and topics for future research

The extent of Ireland's "fuel tourism" estimated in this paper is lower than most previous estimates made using aggregate data from earlier periods. We estimate that 13% of diesel sales were to cross-border consumers during 2013-15, compared to 15-25% from studies surveyed in NRA (2013). Our estimated cross-border share of petrol sales is 2.4%, compared to their range of 5-18%. Nevertheless, the scale of cross-border activity is significant in terms of the tax revenue associated with it and the share of Ireland's national GHG emissions it represents.

From a policy perspective, it would also be interesting to know how much cross-border fuel sales would be affected by small changes to relative prices. We were unable to answer this question due to data limitations, in particular the absence of data on prices at the level of individual retail fuel stations. Although stations are required to make these data public, they are not captured in a comprehensive database. If price data could be linked to the quantity data provided by ROM1 forms, it should be possible to simulate the effects of hypothetical tax changes and also to model the retail petrol market in a more detailed way.

Acknowledgements

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Into the Deep: The Role of Paradigms in Understanding Engineering Education for Sustainable Development

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Abstract

This article presents summary findings of a mixed methods research project exploring the provision of education for sustainable development (SD) in seven Irish engineering degree programmes. Drawing on Sterling's (2004) iceberg metaphor and Critical Realism it seeks to identify the underlying socio-cultural barriers preventing a holistic integration of SD in engineering education. It argues that the current focus is predominantly on the environmental dimension of SD and that there are a set of reinforcing mechanisms facilitating the provision of disciplinary education aimed at producing technically proficient, employable graduates in which the social dimension of SD is marginalised. This is underwritten by a paradigm of engineering education located between science and market driven approaches as identified by Jamison and others (2014). It is argued that unless there is change in the underlying paradigm towards a more socially driven approach a full integration of SD is unlikely to occur or be sustained.

Keywords: engineering education, sustainable development, critical realism, engineering education paradigms.

Introduction

Our Sustainable Future – A Framework for Sustainable Development in Ireland sets out a key role for Education for Sustainable Development (ESD) in moving towards sustainability and argues that "education for sustainable development needs to be embedded at every level of the formal and informal education system" (Department of Environment, Community and Local Government 2012, 77).   Within engineering there is now a requirement that engineering programs provide graduates with "an understanding of the need for high ethical standards in the practice of engineering, including the responsibilities of the engineers towards people and the environment" (Engineers Ireland 2014, 16). The Code of Ethics of Engineers Ireland (EI), the professional body with responsibility for accreditation professional engineering programmes in higher education, requires engineers to "promote the principles and practices of sustainable development and the needs of present and future generations" (Engineers Ireland 2009). EI has endorsed Comhar's[1] Principles for Sustainable Development which deal with a wide range of issue from resource use and conservation to social inclusion and public participation in decision making (Comhar 2002). This aligns with the approach adopted by many engineering bodies which is to see SD as a broad concept. So, for example, the World Federations of Engineering Organisation (WFEO), in its Model Code of Practice for Sustainable Development and Environmental Stewardship, calls on engineers to "Seek innovations that recognise environmental, social and economic factors" (WFEO 2013).

Within engineering education there has been some debate about the integration of sustainable development (SD) into engineering programmes. In 2002 a biannual conference in Engineering Education for Sustainable Development (EESD) was initiated. The 2004 conference adopted what is now known as the Barcelona Declaration which sets out a comprehensive set of learning outcomes which should guide EESD and which embraces a broad approach to SD incorporating its environmental, social and economic dimensions (EESD 2004). In 2003 Engineers Ireland called for the "development of appropriate detailed sustainability curriculum material for use in third level education programmes …In this area, priority should be given to engineering programmes because of the significant responsibilities engineers carry in ensuring sustainable development." (Institute of Engineers in Ireland 2003)[2] . Despite this call there has been no research which attempts to evaluate the extent to which it has been met.

There is a considerable literature examining the integration of SD into engineering education which identifies appropriate competencies (knowledge, skill and values) for engineers; their pattern of integration and barriers and enablers for EESD (see for example Ashford 2004; Boyle 2004; Mulder, Segalas and Ferrer-Balas 2012; Svanstrom, Lozano-Garcia and Rowe 2008). The overriding message is that while some progress is being made there are significant barriers to a holistic integration of SD. One key issue is whether engineering education needs a paradigm shift in order to address what some have called "the overarching sustainability challenge" (Jamison, Kolmas and Holgaard 2014, 254).

Our approach to examining EESD in the Irish context was influenced by Sterling's (2004) argument for the requirement to see education as a complex system with a number of different layers. He analyses higher education using an iceberg metaphor and argues that "the deeper levels of paradigm and purpose guiding policy and practice...tend to be hidden from view and... most debate" (64). In light of this the project drew on critical realism (CR) (Collier 1994) to examine different dimensions of EESD in seven professional engineering programs in three higher education institutions. Data was collected through student surveys, analysis of programme modules and in-depth interviews with programme chairs. Some results of this work have been reported previously (Nicolaou and Conlon 2012, 2013, 2015, Nicolaou, Conlon and Bowe 2015) so are not repeated in detail here. The focus here is on integrating the findings and how they can help us identify underlying paradigms guiding practice and how they might need to change.

We proceed as follows. Firstly, some arguments in relation to a focus on paradigms and the usefulness of CR for examining such paradigms are provided. Then we set out what we actually did and provide

1   Comhar, The National Sustainable Development Partnership was set up in 1999 with "the aim of advancing the national agenda for sustainable development, and contributing to the formation of a national consensus regarding this very important process." (Comhar 2002, 2) Its function were absorbed into the National Economic and Social Council in 2011. In 2002, it published principles for sustainable development "to relate the concept in a practical way to the Irish situation." (2002,2).

2   In October 2005 the Institution of Engineers in Ireland adopted the operating name of Engineers Ireland.

summary results from the earlier phases of the project. We then turn our attention to the interviews and what they tell us about the mechanisms shaping EESD. Drawing on Jamison's work (Jamison, Kolmas and Holgaard 2014; Jamison 2013) we conclude there are a set of reinforcing mechanisms facilitating the provision of disciplinary education aimed at producing technically proficient, employable graduates in which the social dimension is marginalised. We conclude by considering the implications of this for engineering educators.

Into The Deep

There are interesting similarities between Sterling's call to investigate the deeper layers of education systems and the depth ontology offered by CR[3]. CR argues for the primacy of ontology and that the nature of what exists cannot be unrelated to how it is studied (Archer 1995). In seeking to explain phenomena, CR offers an in-depth ontology: a notion of a stratified reality which includes a distinction between the domain of the real (generative mechanisms), the actual (events) and the empirical (experiences). Structures of objects at the level of the real generate mechanisms that facilitate events. They are not observable but their effects are felt nonetheless. They can be inferred through empirical investigation and theory construction. Realist explanations consist of connecting experience in the empirical domain with structures and processes in the real domain. This is potentially emancipatory in that it forces us to consider "that certain states of affairs cannot be ameliorated within existing structures" (Collier 1994, 10). They must be changed.

Causal mechanisms must be studied as part of open systems where their effects may be blocked by the operation of other mechanisms. Thus, their impact is conditioned by the context in which they operate. Realists seek to show how it is that in the particular situation in which research is taking place, "there was a particular configuration involving a set of mechanisms that had the particular pattern of results achieved" (Robson 2011, 37). Further, as social structures are maintained through the activity of people, critical realists are committed to an explanatory model "in which the interplay between pre-existent structures, possessing causal powers…and people possessing causal powers…of their own results

in contingent yet explicable outcomes" (Carter and New 2004, 6). They argue that the tranformative potential inherent in human agency can only "begin to bite when structural contexts ...are generally supportive of those potentialities being actualised in some durable form." (Reed 2005, 302).

This approach encourages us to examine the deeper structures of education and the underlying socio-cultural barriers that can hinder educator's efforts to realise strategies for ESD (Guerra, Holgaard and Smink 2016). While there has been much debate about the need for change in engineering education, Jamison, Kolmos and Holgaard (2014) argue that a key issue is that different approaches to change are based on different perceptions of engineering and engineering education and therefore tend to pull attempts to change engineering education "into opposing, even contradictory, directions" (254). They highlight the need to clarify the underlying philosophy that will drive the development of holistic engineering education focused on the broader social role of engineers. They say that responses to the demand to integrate sustainability have been underwritten by either a science driven approach, which seeks to reconfigure established engineering fields into sub disciplines in new areas of specialisation with the aim of educating engineers who can serve as professional experts while upholding a traditional engineering identity, or a market driven approach, the dominant approach, focused on the cultivating of technological innovation and entrepreneurship. The latter envisages a social role for the engineer as that of entrepreneur or business manager with a focus on educating engineers who can take part in networks of innovation. There is also a strong emphasis on employability and the provision of transferable skills. They argue that these approaches have competed within engineering education "often at the expense of a more balanced or comprehensive approach to educational reform" (255). The result is that students "have not been given the opportunity to understand the broader social and cultural aspects of the challenges facing engineering" (Jamison 2013, 21). [4]

They identify a third approach which, although less prominent historically, focuses on public service

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4   Jamison's example from Denmark summaries the argument well: "While many engineers in Denmark have learned how to build wind energy plans and connect the electricity into the power grid, very few of them have learned how to make Denmark sustainable. Their education has, for the most part, been far too technical, and in recent years, far too market-driven, for them to be able to contribute to a transformation of Danish society into a more sustainable direction. While they have learned to solve problems with technical solutions, they have not learned much about the problems that need to be solved. More specifically, they have been given too few opportunities in their education to learn about social and cultural contexts in which their scientific knowledge and engineering skills are actually used" (2013, 39)

and the role of engineers as change agents. It requires significant engagement with the humanities given its emphasis on the requirement for social and cultural understanding to be added to the theoretical and practical components of engineering work. In this approach, the curriculum is focused on the development of a hybrid identity and the exercise of social responsibility and includes the "scientific, the technical, the social, and the environmental dimensions of engineering in one comprehensive form of education" (264).

Their analysis thus leads to the identification of three modes of engineering education, the Academic, Market-Driven and Integrative (or Social). These ideal types usefully link different perceptions of engineering identity with different approaches to engineering education and provide a "frame of reference for engineering educators as they reflect on their perceptions and practices of institutional reform and curricular improvement" (255). In the context of the work discussed here they provide a useful way to understand the underlying approach to engineering education which influenced the manner in which SD was integrated in the programmes in the study.

Research Methods

CR is not committed to any particular research methods but rather argues for the use of "critical methodological pluralism" (Danermark et al 2002). Given their rejection of the ontologies underpinning qualitative and quantitative methods critical realists prefer to talk about combining extensive and intensive methods given their different roles in identifying generative mechanisms and how they manifest themselves in different contexts. Mixed methods are necessary to reveal different features of the same layered reality and offer a robust option for uncovering generative mechanisms while also identifying which phenomena occur most frequently (Hurrell 2014). As reality is stratified data collected at the empirical level can shed light on the operation of mechanisms. Extensive methods need to be complemented by intensive methods focused on processes and how a mechanism works in a concrete situation.

In light of this, it was decided to focus on a small number of programmes (7)[5] in a small number of institutions (3) of different types. Four of the programmes were in one institution. The other three were in similar and different disciplines in the other two. Thus, three programmes in civil engineering were examined and one each in mechanical, chemical, building services and structural engineering. The institutions included an institute of technology, a traditional and long-standing university and a university of more recent standing. This allowed us to gather both extensive and intensive data on a small number of cases and also allow us to consider whether the disciplinary and institutional context was significant in shaping the pattern of integration of SD.

The data collected was based, firstly, on a student survey of 371 students with 193 (70% response rate) in their final year and 178 (85%) in their first year. In order to allow for comparison with international data the questionnaire built on Carew and Mitchell (2002) and Azapagic, Perdan and Shallcross (2005), but also included material relevant to the Irish context, and mainly asked students to rate their knowledge, on a scale of 1 to 4, of a variety of SD principles, tools, issues and policies. In all 70 items were included covering all dimensions of sustainability including the environmental, economic and social. In addition, students were also asked to describe SD in their own words. We also sought to establish their commitment to SD and their opinions on issue related to strong and weak sustainability.

Secondly, programme documents were analysed and all modules were examined (296 in all) to identify coverage of learning outcomes for SD as set out in the Barcelona Declaration (BD) and SD competencies as identified in the literature (e.g. Svanstrom, Lozano-Garcia and Rowe 2008; Wiek, Withycombe and Redman 2011). Finally, interviews with the seven programmes chairs/leaders were conducted. They were designed to explore issues that had arisen in earlier stages of the project, their views of SD and the integration of the concept in their programmes, as well as their views about the factors that impact programme design. An interview was also conducted with a representative of EI (REI from here).

5   Initially eight programmes were part of the study but response rates were so low for the student survey in one programme that it was decided to exclude it.

The first two provided considerable data which allowed us to extensively map the pattern of integration while the latter allowed us to intensively explore what shaped this pattern. When the project was initially conceived the plan was to conduct a survey of staff but this was abandoned, in favour of in-depth interviews with programme chairs, given the need to explore in greater depth what the underlying mechanisms might be. These were unlikely to be captured with predetermined response categories (Mc Evoy and Richards 2006). We needed to move from the empirical to the real and explore the mechanisms that explain the pattern of EESD.

What Do We Know?

As most of the data has been presented previously, what follows is a short summary of the data gathered using extensive methods followed by a discussion of the mechanisms identified from the interviews with programme chairs. The data from the earlier phases of the project are presented in Tables 1 and 2.

Table 1: Summary Results of Student Survey

Final year students rate their knowledge somewhere between "Heard but could not explain" and "Have some knowledge": 2.49 on a scale of 1 to 4. First year students average score was 2.24.

The score for final year students is comparable to that found internationally (see for example Azapagic, Perdan and Shallcross 2005).

Students rate their knowledge better in relation to environmental issues and tools with relatively high scores found for issues related to resources use and pollution. But their knowledge of key principles such as Polluter Pays (2.06) and the Precautionary Principle (1.66) was low.

They do not report the same degree of knowledge about social issues with consistently low scores for issues such as equity, social inclusion and public participation.

While relatively high scores were reported for some economic issues, particularly "innovation and entrepreneurship", "sustainable consumption" and "clean production" very low scores were recorded for issues such as "economic externalities", "triple bottom line" and "tradable permits".

Final year students' descriptions of SD are focused on the environmental dimension. Less than 10% mentioned the social dimension in their descriptions.

Final year students tend to focus on one dimension when describing SD. Those who see it as multidimensional describe it as an environmental and economic concept.

When final year students' self-reported data were compared with new entry students' data it was found that there are similarities regarding their perceptions of their knowledge Differences were identified on issues, such as energy, resource management and environmental protection, directly related with final year students' discipline.

There was evidence to suggest that students' knowledge of the social dimension did not differ significantly from new entry students' self-reported level of knowledge. For both sets of students, very low scores were reported for issue such an intra and inter-generational equity, social inclusion and public participation.

Students' self-reported knowledge is significantly related to their programme of study. There was a significant statistical correlation between the programme of study and 60% of the items examined. The Institution of study was only related to 14% of the items examined.

Two thirds of final year students agree that the environment should be protected but not at any cost. Two thirds also agree that natural resources "should be priced, bought and sold".

While almost half strongly agree that "global resources should be distributed in favour of poor people" only 7% strongly agree that "national resources should be distributed in favour of poor people".

They are more likely to see SD as a professional requirement rather than a personal commitment.

Whilst perhaps unsurprising, there is a clear alignment between both sets of data. The evidence would suggest a fragmented, rather than a holistic, approach to SD. While students say they have some knowledge of important components of SD their knowledge is focused on the environmental dimension including the use of resources and pollution prevention. The focus is on those aspects of SD close to the disciplinary core of the different programmes with, for example, a greater focus on resource use in mechanical engineering and pollution prevention in the civil programmes. While some modules can be seen to be addressing outcomes for SD, they do not specifically address SD in their learning outcomes or content descriptions. Others have content relevant for SD but no reference to SD in their outcomes. The focus tends to be on delivering engineering fundamentals though a consideration of issues such

as energy and environmental protection. When issues related to SD are addressed in modules they are often not linked to wider discourses related to SD. This is also the case for many of the modules which focus on skills development. They are not contextualised by the need, for example, to foster stakeholder engagement or public participation in decision making about technology. Rather the focus is mainly on improving the communication and teamwork skills of students in the context of improving their employability.

Table 2: Summary Results of Curriculum Investigation

Programmes' overall focus is on transferable skills (such as communication) development over knowledge and values for SD. While there is some evidence for the development of critical thinking, the higher domain (evaluation) of critical thinking is developed to a lesser extent.
Programmes from Institution 1 focus on skills while programmes from Institutions 2 and 3 focus more on knowledge for SD. This is related to the aims of the programmes in Institutions 2 and 3 which tend to have a greater focus on preparing students for careers in research as well as in industry.
Despite this difference overall there is a focus on a similar range of issues within all programmes. Modules that deliver content for SD focus on the environmental aspect of the concept
Regardless of the degree the programmes focus on elements from two BD outcomes which address engineers' social and environmental obligations and the need to keep abreast with SD technologies. In relation to the former, the emphasis is on their environmental obligations.
The social dimension of SD is not evident in the programmes. Only one module addressed the issue of stakeholder participation in its learning outcomes. Only four addressed the BD outcome focused on understanding their work in different cultural and political contexts.
It is not evident how commitment to SD values is generated in the programmes. Modules that focus on ethics focus on micro ethical issues and professional responsibilities as set out on the code of ethics
The knowledge that is delivered for SD is related to each discipline. Hence, based on the discipline different elements of knowledge about principles, legislation, tools and issues are covered
There is very little evidence of inter or multidisciplinarity in the programmes

This disciplinary focus, which is reinforced by students having very little exposure to teachers who are not engineers, especially in the later stages of their programmes, is creating an unbalanced approach to the integration of the three dimension of SD. Analysis using Arsat, Holgaard and de Graff's (2011) framework shows that only four modules across the institutions are consensual: they address all three dimensions of SD. They are all in the early stages of the programmes. In summary, it can be suggested that the focus is on "generating disciplinary knowledge and developing skills". The Barcelona Declaration specifically cautions against such an approach. The general approach, regardless of institute type and discipline, has the character of what Sterling (2004) calls a "bolt-on" approach "of sustainability ideas to existing systems, which itself remains largely unchanged". Optimistically he notes that this is "much better than nothing, and can open the door to deeper change" (59).

We wanted to explore deeper issues in the interviews with programme chairs. We wanted to raise a number of issues which had arisen from the previous stages of the project. But we also wanted to explore these issues in light of key factors that arose in the literature which were deemed to have an effect on programme design. The data was analysed using thematic analysis with an iterative analysis leading to the identification of key latent themes which focused on the professional identity of the respondents and their philosophy of engineering education and, within that, their views about SD. Some key findings are:

- *All of them had an engineering focused education and significant industrial experience: SD was not a part of their engineering education;*
- *The majority of the programme chairs describe SD as a concept that relates economic*
- *development with environmental considerations that are mainly focused on energy, materials and resource issues. Only one described it as a three pillar concept;*
- *Their views about SD lead to a generally positive assessment of its integration in their programmes;*
- *There is a strong disciplinary focus on core engineering competencies in programme design; when asked to discuss any particular focus on content for SD, the majority of them identify elements directly related to the discipline of each programme;*
- *They agree, when prompted, that the social dimension is not well integrated: although ethics were identified as an important characteristic of engineers who want to contribute to SD, this was limited*

to engineers' professional conduct in relation to materials, safety and the environment while the broader social context of their practice was identified to a lesser extent;

- *SD is not an active consideration in programme design;*
- *Concern about professional accreditation was identified as the most significant influence on programme design;*
- *All of them value the autonomy they enjoy in designing their programmes and oppose the imposition of an institutional policy for EESD;*
- *The majority of the programme chairs argue strongly that the role of their programmes is to educate employable graduates that will have the competencies needed to work in industrial environments which include some elements related to SD.*

What emerges from this is the focus on core engineering competencies in programme design. As one respondent said, *"We take the top down approach from the science foundation, the mathematics, the technology and the design theory and I suppose the design practice but then everything else is added on to the core competencies"* (Participant 3, Institution 1). Even when efforts are being made to expand sustainability content the focus remains on core disciplinary competencies: *"The last accreditation included a proposed introduction of a new stream… that was titled Sustainable Energy Systems. Of course, that was talked about a little bit but the emphasis wasn't on sustainability, the emphasis was more meeting the requirements of the mechanical degree… So EI seemed to look at the criteria irrespective of the SD title of the stream and just focus whether or not the graduates coming from that stream would equally be applicable to a mechanical engineering award"* (Participant 3, Institution 1).

It is quite clear (and REI agrees) that SD is not a key driver in programme design. Indeed, he suggests that perhaps SD is not necessarily a concern for all engineers: *"If there was a programme that's in the sustainable area or the renewable resources we would get experts in that space and focus on that particular area during accreditation".* According to him *"discipline specifics"* are dealt with most and there would be a danger that *"sustainability is involved now but in five years' time it might be something else".*

Sterling's framework suggests that in considering the integration of SD there is a requirement to focus on the purpose of education. In terms of purpose the chairs support an emphasis on core engineering competences and provision for skills for employability, which is supported by accreditation processes which emphasise the development of employable graduates for industry. While their responses show that the integration does not follow a multi-disciplinary approach and a neglect of the social dimension, the programme chairs say that they do not see any weaknesses in the way their programmes deal with SD. Only one programme chair was critical about how SD is treated. Their descriptions of the concept suggest that the majority of them see SD as a guarding concept that is based on a sense of techno-optimism and traditional engineering practice focused on guarding exploitable resources, waste minimisation and environmental protection and supports a disciplinary emphasis in knowledge for SD (Carew and Mitchell, 2006). This allows them to claim that SD is adequately addressed. Seeing themselves as members of the industry which they serve, as well as of their professional body, leads to them espousing a set of values which endorses an employability agenda as a criterion of the effectiveness of their programmes. In the main they were satisfied that their programmes met the goals for which they were designed.

The structure of engineering education, based as it is on disciplinary based programmes and schools and their own experience of education reinforces their commitment to disciplinary education. This is reinforced by a strong commitment to academic autonomy. This has the effect of reinforcing their professional identities as engineers as they are resistant to the idea of an institutional policy to guide the integration of SD, but yet had no difficulty with a policy emanating from their professional body. It might be suggested that the autonomy they value is from non-engineers. This may be a block to institutional initiatives aimed at developing interdisciplinary engagement. At a deeper level the approach of the chairs is dominated by a commitment to a paradigm of engineering education located somewhere between the science and market driven approaches as identified by Jamison, Kolmas and Holgaard (2014). As part of this they see SD as mainly a technical issue focused on environmental and energy related issues, with little attention to the social dimension. In CR terms, there are a set of reinforcing mechanisms facilitating

the provision of disciplinary education aimed at producing technically proficient, employable graduates in which the social dimension is marginalized.

Conclusion

Given the findings presented here it must be a concern that the accreditation criteria do not explicitly mention SD. As a result, Irish EESD may lack a "bold legitimising catalyst for sustainability related curriculum development" (Jones et.al 2010). It seems particularly important that EI would promote such a learning outcome given the allegiance of the engineering academics to the professional body as a part of their professional identity. But this would not resolve all issues. The data presented here suggest that there are problems in the ways that SD is understood within engineering education arising from the underlying paradigm shaping engineering education. There is evidence to suggest that sustainability and engineering are decoupled discourses within engineering education (Guerra, Holgaard and Smink 2016) and that staff can find it difficult to link sustainability, in its broadest sense, to their discipline.

Jamison, Kolmas and Holgaard's (2014) typology of engineering education is useful in that it emanates from a concern to educate "green engineers" and links specific views about engineering education to different engineering identities and views about what it means to be an engineer and therefore what the goals of engineering education should be. In arguing for a socially driven model and the creation of hybrid identities for engineers they are pointing to the need to focus on "deeper things" in fostering educational change. The research reported helps us understand why approaches focused only on policy and practices (particularly those of individual lecturers) are likely to fail. While we can see that there is some engagement with SD and evidence that some issues are being addressed our use of CR has helped us to identify some of the locks (mechanisms) which are preventing the door being opened to deeper change.

This concern with professional identity in engineering education has been echoed in recent work on EESD (Minster et al 2013). For Minster and his colleagues, the challenge is the requirement, not just to add or include sustainability in the curriculum, but to redefine what it means to be an engineer so that the "the very concept of professional identity… (is) reformulated with sustainability at its root, stem and blossom" (Minster et al 2013, 115). From the United States they are restating what a review of "ten years of discussion" of EESD, mainly in Europe, concluded when it argued that we need to make SD the "leading principle for curricula" but at the same time we need to ask "what does it actually mean to be an engineer?" (Mulder, Segalas and Ferrer-Balas 2011, 216). It seems there is some consensus that engineering needs to be redefined, to include a broad social purpose, if engineers are to meet the challenge of sustainability. Without engagement with the culture and structures that maintain and support current practices and a challenge to market and science driven models of education deeper change is unlikely to occur and be sustained.

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IRELAND AND SOUTHERN EUROPE — A HOUSING ETHOS WITH COMMON VALUES

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Abstract

Ireland demonstrates similar housing issues to Southern European states particularly in terms of the asset-based approach to social welfare, a reliance on the family, a concentration on promoting home ownership, and the influence of the Catholic Church on housing policy. This exploratory paper looks at Southern European housing policy in six countries and as Ireland exhibits such a degree of similarity, highlights where Ireland differs, rather than where it is the same. The paper also identifies the problems that these peripheral states' housing policies are bringing, especially due to the traditional promotion of home ownership.

Keywords: housing, rental sector, peripheral states, policy, ownership

Introduction

Compared to home ownership, private rental markets in peripheral states[1] have been in decline for decades, until the recent economic crisis. This was not only due to the sustained promotion of home ownership but also to the concurrent neglect of private rental policy which had ultimately become incapable of offering either affordable or high-quality housing. A culture of home ownership reduced private rentals to an continually reducing proportion of the respective housing stocks in these peripheral states (see Figure 1, below). This is due to a much broader conception of housing within the welfare state in general, where the ownership of a residence was not only seen as a means of guaranteeing security of tenure but also as a private long-term route for financially preparation for post-retirement.[2] The practical advantage for the State was that a homeowner did not require as much financial support as private tenants (as home owners usually had their mortgages paid off by retirement and therefore had more disposible income); home ownership was therefore promoted intensely as part of each countries' process of economic development through policies, which encouraged access to land and subsequently facilitated by easy access to credit and favourable lending conditions created by increased competition between banking institutions (which lowered interest rates whilst relaxing the loan-to-value ratios) and often light touch regulation by central state financial institutions. One of the reasons for facilitating this asset-building process was that states could also count on a strong familial structure embedded in Christian social principles which (re)distributed this accumulated wealth amongst its family members, in accordance with their respective needs. [3]

The sustainability of this ownership/asset-based model has been weakened however by recent trends emerging both on an economic as well as on a societal level. Firstly, speculation driven by this strong asset-accumulating mentality has raised prices beyond reasonably affordable levels, whilst at the same time, the traditional family structure has been altered with a higher amount of marriage breakdowns and children born outside marriage.[4] Increased migratory flows have also altered the texture of these societies rendering them much less homogeneous than previously. These events have exposed the seeming inadequacy of this model in providing for the housing needs of all, particularly because it had no effective strategy towards the more vulnerable, which in the peripheral states context translates into those individuals who would not have an asset-strong family to sustain them.[5] The economic crisis, by which most of these countries have been struck, has only served to amplify the effect of these increasing difficulties. New mortgage-restrictions (in Ireland, only since February 1st, 2015 and already altered in 2016) as well as a historic shortage of social housing (due to the state's principal encouragement of self-provision of dwellings) have therefore forced governments to turn their attention back to the private rental sector as an alternative for people seeking accommodation. The challenge therefore now lies not only in devising a viable framework for private leases capable of balancing the interests of landlords and tenants but also of fitting it in the wider context of the welfare state model.

A culture of home ownership

Attributing high home ownership rates to a mere cultural leaning might hide the true underlying reasons that explain this common trend within the seven countries that form the object of this study.[6] The peripheral states are not the only places where the promotion of home ownership is strong; other European countries also value this kind of tenure for the social and economic advantages ('economic' in terms of ownership giving eventual access to unmortgaged housing equity in addition to building individual assets) that it brings with it.[7] The implications in the Southern European region might, however, be different since the model presents certain peculiarities that are specific to this region, particularly the way in which housing is set within the wider societal context.[8] It is this specificity and its

1   This is taken to mean Portugal, Spain, Italy, Malta, Greece, Cyprus and Ireland.

2   F.G. Castles & M. Ferrera, 'Home Ownership and the Welfare State: Is Southern Europe Different?', South European Society and Politics, 1996:1(2), 164-165.

3   S. Arbaci, "(Re)Viewing Ethnic Residential Segregation in Southern European Cities: Housing and Urban Regimes as Mechanisms of Marginalisation", Housing Studies, 2008:23(4), 592.

4   Eurostat, Being young in Europe today (2015 edition), Eurostat statistical books, (Luxembourg: Publications Office of the European Union, 2015), 35.

5   The Southern European experience may be said to have confirmed Kemeny's prediction that where ideology and government policies aim to direct the housing market towards the purchase of dwellings, adverse consequences for the more vulnerable are likely to result (J. Kemeny, "The Political Economy of Housing", in E.L. Wheelwright and K. Buckley (eds.), Essays in The Political Economy of Australian Capitalism, (Sydney: Australia and New Zealand Book Company, 1980), Vol. 4, 184-185).

6   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 20.

7   W. Van Gent, "Housing Policy as a Lever for Change? The Politics of Welfare, Assets and Tenure", Housing Studies, 2010:25(5), 741.

8   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 94.

potential similarity with the Irish context that has given rise to this comparison. Ownership rates across the seven countries[9] are contained in Figure 1 below.
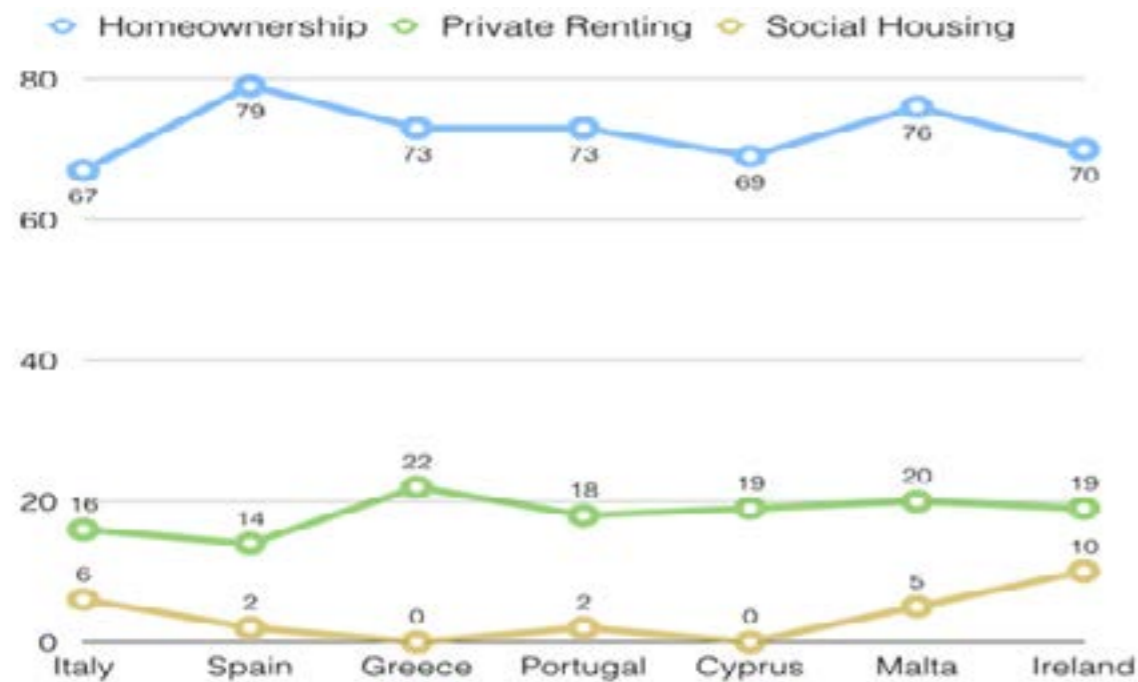

Figure 1. Percentages of home ownership and rental tenures in S-Eu (2011)

Housing policy was effectively leading welfare state provision during the respective countries' period of growth and in so doing, turning social welfare into asset welfare.[10] The welfare state took distinct trajectories in various regions and these were eventually categorised into three main types of modern welfare state: the liberal (e.g. Britain), social democratic (e.g. Sweden, Denmark, Finland) and corporatist

models (e.g. France, Germany, Netherlands).[11] Ireland remained an outlier though, superficially probably closest to the British model. Initially, Southern European welfare states were seen as mere under-developed versions of the northern and central European frameworks; statistics prove that there is less reliance on the state in terms of social protection. Recent scholarly works have, however, delved deeper into the characteristics of these systems of protection and argued in favour of their categorisation into a distinct model.[12]

The first distinctive feature about the peripheral states is the way in which they managed to meet housing need without developing strong social or private rented sectors. [13] Strategies adopted to solve housing crises essentially involved the outright facilitation of home ownership through popular access to land and support for self-build. The second characteristic of this welfare state model has been the responsibility allocated to the family and other charitable institutions in safeguarding individuals against social exclusion.[14] [15]Assets from the family are a major source in filling the gaps of the welfare system (as is incerasngly seen in the provision of childcare through family members as both parents are required to work).

These two elements are crucial [16]in understanding the structure of these peripheral states' housing policy since the promotion of property ownership enabled the accumulation of the 'patrimony' which the family conserves (often improves) and then redistributes amongst family members through intergenerational

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9   With regard to Malta, although authors such as Camilleri (D. Camilleri, "Maltese housing characteristics in an EU perspective", The Sunday Times (Malta), 22 August 1999) and Vakili-Zad & Hoekstra (C. Vakili-Zad & J. Hoekstra, "High dwelling vacancy rate and high prices of housing in Malta a mediterranean phenomenon", Journal on Housing and the Built Environment, 2011:26, 442) have categorised the Maltese welfare model, or at least part of it, within the liberal welfare model due to to its colonial past under the British crown (1800-1964), the housing model remains very closely moulded on that of the neighbouring Mediterranean States. In fact, although a Labour administration during the 70s had made a strong effort in increasing social housing units, the number of such dwellings nowadays totals up to only 5% out of the whole housing stock. This figure is much closer to the low Southern European average than to the remarkably higher 18% displayed by the United Kingdom (Housing Europe, The State of Housing in the EU 2015: A Housing Europe Review, 2015. Retrieved on 23 June on: http://www.housingeurope.eu/resource-468/the-state-of-housing-in-the-eu-2015).

10   In Italy, Greece and Malta housing policies were devised following the destruction and the demographic changes caused by the Second World War. In Spain the housing shortage was provoked by the Civil War (1936-1939) whilst the most serious housing problems in Portugal and Cyprus occurred following a popular revolt and a military invasion respectively, both of which took place in 1974 (R. Bianchi, E. Molina Roig, T. Konistis, D. Correia & N. Santos and K. Xerri, TENLAW: Tenancy Law and Housing Policy in Multi-level Europe: Reports of Italy, Spain, Greece, Portugal, Cyprus and Malta, Universität Bremen - ZERP, 2014. Retrieved on 26 May 2015 on: http://www.tenlaw.uni-bremen.de/reports.html).

11   G. Esping-Andersen, Three Worlds of Welfare Capitalism (Cambridge, UK: Polity Press, 1990).

12   Flaquer for instance questions whether the Southern European welfare state is to be understood in terms of "delayed modernization" or in terms of a "different path to modernity" (L. Flaquer, Family Policy and Welfare State in Southern Europe, Universitat Autónoma de Barcelona, Institut de Ciències Polítieques i Socials, WP no. 185, 2000, 3).

13   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 2.

14   L. Flaquer, Family Policy and Welfare State in Southern Europe, Universitat Autónoma de Barcelona, Institut de Ciències Polítiques i Socials, WP no. 185, 2000, 2.

15   It may be said that, like the corporatist model, the southern European model lies mid-way between the liberal and social democratic models. The element of self-building and self-promotion inherent in it make it similar to the liberal structure, although the support of the extended family in improving accessibility towards home ownership would seem to draw it closer towards the social democratic one. The State's reluctance to take any active role in equalising living conditions, nevertheless, renders it ultimately more similar to the liberal welfare regimes (K. Kurz & H.P. Blossfeld, "Introduction: Social Stratification, Welfare Regimes and Access to Home Ownership" in K. Kurz & H.P. Blossfeld (eds.), Homeownership and Inequality in a Comparative Perspective, (Stanford: Stanford University Press, 2004), 13).

16   W. Van Gent, "Housing Policy as a Lever for Change? The Politics of Welfare, Assets and Tenure", Housing Studies, 2010:25(5), 746.

sharing and assistance to young households.[17] A considerable number of households, therefore, accessed housing without the need of state intervention since 'the family took the initiative in devising solutions'.[18] The accumulated wealth of the respective families was augmented by the rapid escalation of property prices due to the high demand for residential units, as well as the reputation for property as a safe means of investment, and the unrelenting process of urbanisation.[19]

The dominance of owner occupation along with the increase in the market prices would prima facie seem to make housing access difficult for new households. This is in part true, although this strain is substantially eased by the strong element of family solidarity. The material ways in which older members of the family helped the younger ones was often through the acquisition or the allocation of a site on which to build the home and actual help in the construction of the house. More recent means include the donation of cash towards the payment of the home loan or the requested deposit and the gratuitous allocation of family property.[20] [21] The dwelling may also be transferred through inheritance (although with longer life expectancy this also means that nowadays transfers might go from grandparents to grandchildren rather than from parents to children).[22] The family may also be said to facilitate ownership through allowing young people to remain in the family home until they would have acquired their own; young people from Southern European countries are amongst the last ones to leave the parental home (Figure 2) and they display a clear dependency on the parents until deep into the middle age.[23] This is

also facilitated by the fact that the parental homes are owned, spacious and well-maintained.[24] In this respect, Ireland displays a slightly different trend with younger people leaving the home earlier, but this is mitigated by the fact that this is often to emigrate. In the year April 2012 to April 2013, 89,000 people emigrated from Ireland: the majority of these emigrants were in the 25-44 age group, e.g. typical household formation age.[25]
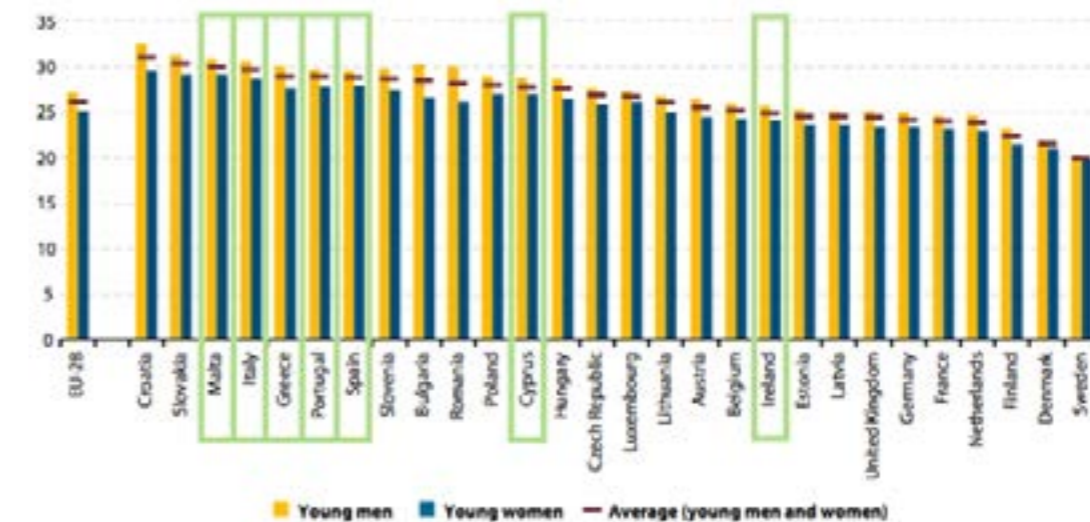

Figure 2. Estimated mean age of leaving the parental household (2013)[26]

The resilience of the family net is crucial to the peripheral states' welfare models since it acts as 'a clearing-house' for the pooling of resources for their redistribution among its members according to their respective needs;[27] this support system in the form of real assets and funds is the source for the reproduction of home ownership within the younger generations.[28] The need to secure ownership for the younger members, therefore, goes beyond ensuring their mere housing needs – by enabling them to

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17   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 2. Allen et al. explain this familial solidarity by suggesting that property that is formally owned by any member of the family would, in some ways and some circumstances, available to other members (p. 5).

18   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 63.

19   In addition, mortgagors could also profit from the inflation of salaries which made their mortgage repayments less onerous. In Malta, within the 1980 to 2004 timeframe inflation went up by a steady 81% whilst property prices grew by a staggering 390%. The high demand for property is also owed to the population's consideration of property as an infallible means of investment for both clean and black money (National Statistic Office (Malta), Index of Inflation; J. Falzon, W. Zammit & D.H. Camilleri, "House Prices in Malta - An Economic Analysis", in Central Bank of Malta Quarterly Review, 2005:1, 64. Retrieved on 22 May 2015 on https://www.centralbankmalta.org/files/publications/quarterly/QR2005-1.pdf.

20   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 149.

21   D. Emmanuel, "The Greek System of Home Ownership and the Post-2008 Crisis in Athens", Région et Développement, no. 39-2014, 173. Emmanuel estimates that in the Athens region nearly 40% of owners that had the benefit of some family property.

22   L. Flaquer, Family Policy and Welfare State in Southern Europe, Universitat Autónoma de Barcelona, Institut de Ciències Polítieques i Socials, WP no. 185, 2000, 10.

23   J. Kemeny, "The Really Big Trade-Off" between Home Ownership and Welfare: Castles' Evaluation of the 1980 Thesis, and a Reformulation 25 Years on", Housing, Theory and Society, 2005:22(2), 61.

24   C. Mulder, "Family dynamics and housing: Conceptual issues and empirical findings", Demographic Research, 2013:29(14), 357.

25   Central Statistics Office (2013) Population and Migration Estimates, CSO: Dublin

26   Eurostat, Being young in Europe today (2015 edition), Eurostat statistical books, (Luxembourg: Publications Office of the European Union, 2015), 46.

27   F.G. Castles & M. Ferrera, "Home Ownership and the Welfare State: Is Southern Europe Different?", South European Society and Politics, 1996:1(2), 181. The wealth is, in fact, shared out according to a particularistic rather than a universalistic logic (J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 115).

28   D. Emmanuel, "The Greek System of Home Ownership and the Post-2008 Crisis in Athens", Région et Développement, no. 39-2014, 168-169.

own their home the family would is insuring them against potential social risks.[29] This brings out the real significance of ownership within these countries' context.

It is also evident that a third factor in the peripheral states' welfare model is the strong religious presence that forced the combination of church values (i.e. family values) with housing policy, as this helped promote social conservatism as well as provide a bulwark against any potential communist or socialist leanings, especially in times of social unrest.[30] But according to Vakili-Zad (2007: 124) :[31]

The Church's concern regarding housing was related more to the moral aspects of family

living rather than the form or choice of tenure. The Church preferred larger homes, for

small and overcrowded dwellings may facilitate the possibility of incest.

There was also the concern that newly-weds living with their parents too long in

overcrowded environments may provide opportunities for parents to interfere in their

personal relationship and result in break ups.

The strong conservative influence of the Church may not have been negligible in stunting the development of the welfare state since it viewed it as a potential competitor against its own welfare institutions. [32] It is difficult to argue against the idea that the Christian teachings of solidarity and subsidiarity have provided the ideological foundation for reliance on the family. [33]

The private rented sector

The ramifications of this particular welfare state framework have also affected the course of tenancy law in all of the study countries. Their respective private rented markets may be described as inefficient and dysfunctional, particularly when compared with northern European countries such as Germany and Switzerland Tenancy ratios are certainly much inferior to those present in the latter two ranging from 13.5% in Spain to 21.7% in Greece (compared to 52.1% and 57% for Germany and Switzerland respectively [34]). This emphasis on home ownership has served to relegate rental policy down the housing agenda although the course of rental legislation in these counties must also be understood in the light of the weak welfare structures present within these countries, partly due to a reliance on the church to supplement absent welfare provision.

The decline of rentals in Southern European countries (but not Ireland as rent control was abolished in 1982) until the economic crisis is not due solely to the extensive facilitation of ownership but also to the rigid rent control measures that were used in emergency situations, and despite being introduced as temporary measures these controlled dwellings were forgotten by the state for years. [35] These rent controls served to substitute a social rented sector and a string of fairly recent European Court of Human Rights judgments (inter alia against Malta) have also asserted the landlords' right to returns that are commensurate with market rent levels.[36] Recent changes to rental legislation in Ireland have managed to control rent increases (to 4% per annum increases in designated areas) whilst still allowing a market-acceptable profit to be made.[37]

In all peripheral countries, the need to concentrate on the rental market was only felt when home ownership prices crossed the threshold of affordablility for many people. The obvious choice for the

29   L. Flaquer, Family Policy and Welfare State in Southern Europe, Universitat Autónoma de Barcelona, Institut de Ciències Polítieques i Socials, WP no. 185, 2000, 10.

30   See Sirr, L (2014) 'An Ideology of Renting', in Sirr, L (ed) Renting in Ireland: the social, private and voluntary sectors, IPA: Dublin

31   Vakili-Zad, C (2007) Housing Policy in Malta, YMCA Homeless/University of Malta: Valetta

32   L. Flaquer, Family Policy and Welfare State in Southern Europe, Universitat Autónoma de Barcelona, Institut de Ciències Polítieques i Socials, WP no. 185, 2000, 11.

33   K. Kurz & H.P. Blossfeld, "Introduction: Social Stratification, Welfare Regimes and Access to Home Ownership" in K. Kurz & H.P. Blossfeld (eds.), Homeownership and Inequality in a Comparative Perspective, (Stanford: Stanford University Press, 2004), 8.

34   J. Cornelius & J. Rzeznik and A. Wehrmüller, TENLAW: Tenancy Law and Housing Policy in Multi-level Europe: Reports of Germany and Switzerland, Universität Bremen - ZERP, 2014. Retrieved on 26 May 2015 on: http://www.tenlaw.uni-bremen.de/reports.html).

35   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 168.

36   The landmark decision was that of Hutten-Czapska v. Poland (App no. 35014/97). This reasoning was confirmed and elaborated in: Fleri Soler and Camilleri v. Malta (App no. 35349/05), Ghigo v. Malta (App no. 31122/05), Edwards v. Malta (App. no. 17647/04), Amato Gauci v. Malta (App no. 47045/06), Bittó and Others v. Slovakia (App. no. 30255/09) and Anthony Aquilina v. Malta (App. no. 3851/12).

37   Planning and Development (Housing) and Residential Tenancies Act 2016, available here: http://www.irishstatutebook.ie/eli/2016/act/17/section/36/enacted/en/html

respective policymakers was to use the sector to house those who couldn´t mange to be a home owner. The lack of affordable accommdation therefore meant that renting become a forced[38] rather than an active choice. [39] This also resulted in increasing disparities between those who make it to the home ownership threshold and those who are left behind.[40]

Advantages and disadvantages of the system

The model adopted by the peripheral states has its strengths and limitations in dealing with the various housing issues. Most of the advantages may seem evident from the very fact that the promotion of home ownership has been successful in ensuring adequate housing conditions for generations. Moreover, the family's support of the younger members may be seen as a useful strategy in enabling the latter to enter adult life under favourable conditions. [41] Another significant advantage is that personal traumas such as unemployment or marriage breakdown did not automatically entail poverty or homelessness since those individuals would be rescued by the family safety net.

However, certain new realities are bringing out the defects of a system that is very reliant on home ownership and the strength of the family structure. It is, first of all evident, that the situation is causing a certain strain on the younger generation that is resulting in late family formation, low birth rates etc.[42] Since house purchase and marriage are usually two combined events (particularly in Southern Europe), the decreasing accessibility is delaying the age at which young people get married, and the postponement

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38   A recent survey has revealed that 84.3% of Spanish tenants would prefer to be the owners of their dwellings (Fotocasa.es, Los españoles y su relación con la vivienda, 2011, 9). Moreover, Spanish people view paying rent as a waste of money unless they constrained to lease their property (J. Hoekstra & I. Heras, Recent changes in Spanish housing policies: subsidised owner-occupancy dwellings as a new tenure sector? Paper presented at the ENHR International conference, Rotterdam, 25-28 June 2007 as quoted in W. Van Gent (op. cit.), 747).

39   J. Kemeny, "The Really Big Trade-Off" between Home Ownership and Welfare: Castles' Evaluation of the 1980 Thesis, and a Reformulation 25 Years on", Housing, Theory and Society, 2005:22(2), 61.

40   F.G. Castles & M. Ferrera, "Home Ownership and the Welfare State: Is Southern Europe Different?", South European Society and Politics, 1996:1(2), 173.

41   L. Moreno, The Spanish development of Southern welfare, Instituto de Estudios Sociales Avanzados (CSIC), Working Paper 97-04, 6.

42   In 2012, all six S-Eu countries scored a lower fertility rate (per live births per woman) than the average of 1.58 of the 28 EU Member States: Italy (1.43), Spain (1.32), Greece (1.34), Portugal (1.28), Cyprus (1.39) and Malta (1.43) [Highest: Ireland, France (2.01), lowest: Portugal] Source: Eurostat, Total fertility rate, 1960–2012 (retrieved on 28 May on:
http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Total_fertility_rate,_1960%E2%80%932012_%28live_births_per_woman%29_YB14.png).

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of parenthood may also be preventing some couples from having a child. [43] Figures 3 and 4 show that Southern European countries not only display the lowest fertility rates but also (with the exception of Cyprus) amongst the lowest proportions of young people who are tied together in marriage or in any consensual union below the age of 30.
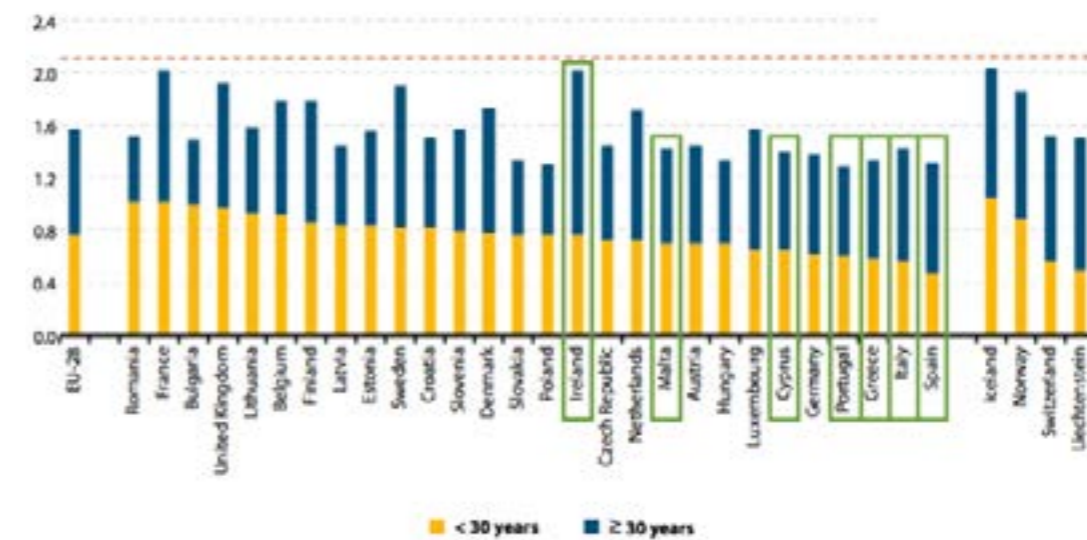

Figure 3. Fertility rates by age of mother (2012)[44]

Here it is immediately evident that in this regard Ireland differs from Southern European countries. However, it is likely that the following issues have had an impact on fertily rates in Ireland[45]:

- Fiscally, Ireland's generous 'Children's Allowance' weekly payment is a factor (as likewise are the tax incentives encouraging larger families in France);
- The lack of abortion, not even for fatal foetal abnormality cases; and
- The work of Catholic charitable agencies in helping unexpected pregnancy cases and in discouraging abortion.

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43   C. Mulder, "Family dynamics and housing: Conceptual issues and empirical findings", Demographic Research, 2013:29(14), 366.

44   Eurostat, Being young in Europe today (2015 edition), Eurostat statistical books, (Luxembourg: Publications Office of the European Union, 2015), 35.

45   Publications Office of the European Union, 2015), 35.
 Personal communication with Dr Brian Hughes, member of Irish government expert group on demography, June 2015.
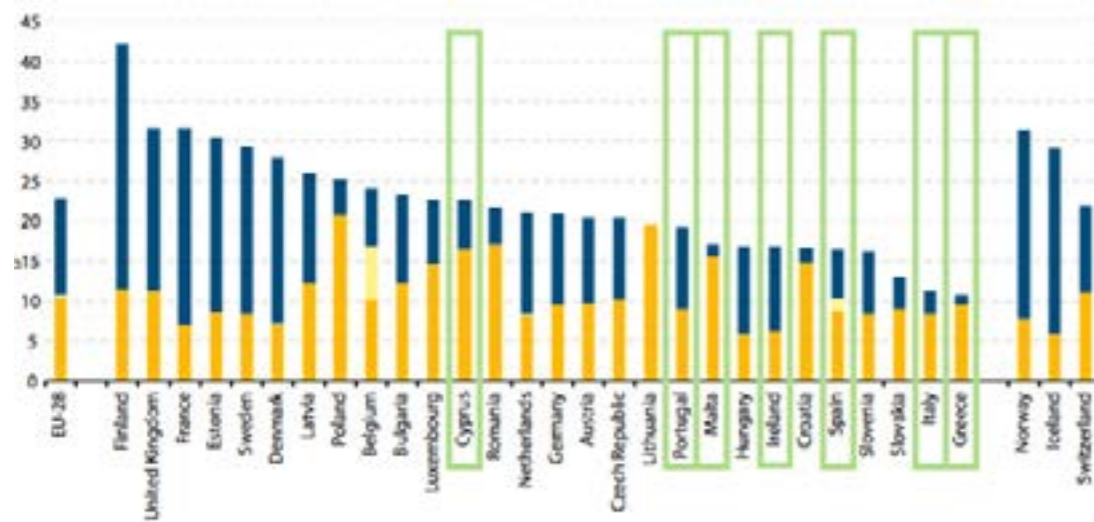
Figure 4. Young people (aged 16-29) who are married or in a consensual union
(with or without legal basis) (2013)[46]

Other than those cost increasing burdens, this model is also contributing to the strengthening of the division between advantaged and disadvantaged classes within society. The family becomes the key factor in determining the potential capabilities and actual means individual in achieving social stability. For instance, it is those with more individual and parental resources (including parental home ownership) who are more likely to start their housing careers as home owners.[47] On the other hand, those who are outside of a family network face a high probability of slipping through the safety net of social solidarity and remaining 'trapped' within the private rental market.[48]

It is therefore evident that whilst representing an effective substitute for a comprehensive welfare system, reliance on family solidarity also reinforces class divisions and reproduces social hierarchies [49] since the possibilities of accessing ownership are directly proportional to the family's financial capabilities. This not only widens the distributional gap within the local population but raises the barrier for members

46   Eurostat, Being young in Europe today (2015 edition), Eurostat statistical books, (Luxembourg: Publications Office of the European Union, 2015), 49.

47   C. Mulder, "Family dynamics and housing: Conceptual issues and empirical findings", Demographic Research, 2013:29(14), 359.

48   M. Rhodes, "Southern european Welfare States: Identity, Problems and Prospects for Reform", South European Society and Politics, 1996:1(3), 11.

49   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 143.

of immigrant communities. It is, in fact, unsurprising that the peripheral states' housing markets are particularly 'inhospitable' to new entrants. [50] The question now is whether new trends emerging within the peripheral states are destabilising this model and whether respective states should devise new strategies which lead to less 'socially selective' outcomes.[51]

New realities within the peripheral states

The recent economic downturn has certainly tested this model and magnified the difficulties which had been slowly emerging (rental rates had been slowly rising before the precipice of the crash). Affordability, for instance, had been long decreasing in the Southern European countries up to the point that homeownership did not automatically imply well-being. [52] The crisis aggravated the situation first and foremost through the wave of unemployment that it provoked. Figure 5, below, shows the difficulties of the Southern European region when compared with other EU Member States.[53] These high rates of joblessness have not only affected mortgage repayments but also the ability to keep up with rents, which were in turn being raised by the increasing demand for rental caused by the tightening credit restrictions. Ireland had unemployment rates as high as Cyprus, but through the imposition of the Troika [54] and its attendant financial strictures, it managed to reduce unemployment to 7.1% by January 2017. [55]

50   A. Aassve, F.C. Billari, S. Mazzuco & F. Ongaro, "Leaving home: A comparative analysis of ECHP data", Journal of European Social Policy, 2002:12(4), 263. The authors justify this assertion both due to due to the difficult credit accessibility as well as the minimal public housing provision.

51   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 154.

52   M. Filandri & M. Olagnero, "Housing Inequality and Social Class in Europe", Housing Studies, 2014:29(7), 978.

53   Malta stands out from the other five countries; quick diversification was considerably easier to do in a smaller economy. Malta could, in fact, rely on the booming sectors of financial services and remote gaming besides the growth registered in its tourism industry due to the political disturbances in the North African region.

54   Group of International Monetary Fund, European Union and European Central bank sent to Ireland to ensure it followed strict policy requirements in return for loans to ensure the state avoided bankruptcy.

55   Central Statistics Office (2017) Unemployment rates, CSO: Dublin

Figure 4. Unemployment rates in Europe (April, 2015)[56]

A second crucial result of the crisis was the drying up of housing finance which followed a period of strong expansion for consumer credit. (In Greece, housing finance was halted abruptly due to a restricted monetary policy imposed by the European Central Bank.[57]) Credit was also limited in Spain, Portugal and Ireland where, after years of growth the volume of mortgage loans started registering negative figures. [58] The application of stricter criteria in the approval of loans (and particularly higher loan-to-value ratios) is precluding access to ownership for a wider category of individuals particularly in view of the rates of unemployment, a decrease in overall family income and the increased tax burden. Ireland's main problem in this respect was the imposition of a 20% deposit requirement for property purchases[59] (something that had quite often been much more familiar in Southern Europe). Although these mortgage

restrictions caused a drop in property prices, it has so far not been sufficient in rendering purchase prices proportionate to incomes.

It is in only the light of the meaning of home ownership in terms of social security within the peripheral states context that one may truly understand the magnitude of the tremor that the crisis has brought, not only in terms of housing but moreover in terms of the whole system of social protection. Reduced access to ownership in an asset-based welfare state might spell the exposure of certain categories to new difficulties[60] ; and a decrease in the proportion of homeowners may, in fact, not only represent reduced security of tenure for a larger segment of the population but also an increased expenditure on the part of the state on certain welfare services such as pensions.

The reduced possibilities of becoming a home owner may also contribute to widening social divisions between both the indigenous population and immigrants as well as within the indigenous population itself.[61] To an extent, it may also be said that the crisis has merely accelerated the process of this deepening class inequality since the likelihood of home ownership had already started declining for younger cohorts [62] (young people and lower-income buyers were buying their properties at the peak of the housing price cycle with the highest loan-to-value ratios[63]). In the words of Emmanuel (2014) the crisis will ultimately produce 'an impoverished and more unequal pattern' [64] within the same Southern European regime since without patrimonial inheritance, the property ladder will be accessed with increasing difficulty. This equally applies to Ireland. In this respect, it may be said that the social norm which prescribes high-quality housing before partnership and family formation might lag behind the reality of the difficult housing and mortgage markets and the failure to ameliorate the housing conditions could also have important demographic implications.[65]

56   Eurostat. Retrieved on 3 June on: http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Unemployment_rates,_seasonally_adjusted,_April_2015.png.

57   D. Emmanuel, "The Greek System of Home Ownership and the Post-2008 Crisis in Athens", Région et Développement, no. 39-2014, 176.

58   Statistical Bullettin, 1, (Lisboa, BdP, 2013), 36.

59   See Sirr, L (2015) House prices should drop to meet new Central Bank rules, in Irish Independent, Jan 31st, available here: http://www.independent.ie/opinion/comment/house-prices-should-drop-to-match-new-lending-rules-30952490.html

60   W. Van Gent, "Housing Policy as a Lever for Change? The Politics of Welfare, Assets and Tenure", Housing Studies, 2010:25(5), 748.

61   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 64.

62   Kurz et. op. cit., "Summary and Conclusions", 370.

63   R. Ronald & M. Elsinga, "Beyond home ownership: an overview", in R. Ronald & M. Elsinga (eds), Beyond Home Ownership: Housing, welfare and society, (Oxon, New York: Routledge, 2012), 7.

64   D. Emmanuel, "The Greek System of Home Ownership and the Post-2008 Crisis in Athens", Région et Développement, no. 39-2014, 180.

65   C. Mulder, "Family dynamics and housing: Conceptual issues and empirical findings", Demographic Research, 2013:29(14), 369.

Predictably, the structure of the peripheral states' welfare system based on assets (and their resultant value) has also proven to be hostile towards migrants. Immigration represents one of the most important factors that have marked the peripheral states' contemporary history. Immigrants already faced difficulties in accessing adequate housing conditions before the crisis [66] and they remain amongst the most vulnerable categories in society. A welfare strategy that is firmly based on kinship and the transfer of patrimonial assets may, in fact, be of little relief to aliens and the experience of this specific category may be said to have highlighted the lack of social concern in this method of housing policy. [67] The housing residualism and exclusion experienced by migrants have now been progressively extending onto the indigenous population and these are likely to remain their permanent conditions. [68]

Conclusion

The economic situation in the peripheral states calls for a serious rethinking of the housing and welfare strategies that have been used to date. With mortgage credit becoming increasingly difficult to access for certain categories and the paucity of social housing, peripheral states must look at the private rented sector as the means through which to ensure adequate living conditions for those who are caught in the middle, as the emphasis on home ownership has proven to be ineffective in solving the housing problems of the more vulnerable, ultimately leading to their social marginalisation and permanent instability.

In devising new housing strategies, these states might also have to reconsider certain aspects of the welfare model since certain trends in family demography (increased rates of separation and divorce), employment (rise in temporary work contracts) and migration (strong influx of third country nationals) is leading to a growing number of people within society who do not have an immediate family to sustain

them in case of difficulties. [69] The asset-based welfare system is no longer sufficient for the changing realities of the 21st century in these countries.[70]

Intermediate tenures could be effective in solving issues of affordability whilst giving households the necessary stability within the weak peripheral states' system of state protection. Intermediate tenures include shared and temporal ownership that could enable families or individuals to either purchase a share of the dwelling (and then progressively advancing towards its total acquisition) or else acquire it for a specific period of time.[71] [72] Whilst making ownership (although not in its traditional meaning) more accessible for an important segment of households, mostly through lowering the amounts that are necessary to access the ownership market, these intermediate tenures would be able to guarantee security and possibly render these households less dependent on the state. In this respect, intermediate tenures represent a potential solution through which parts of the population would be able to access housing through ownership and thereby remain entirely compatible with current asset-based welfare models.

Housing policy has potential to either foster greater equality in society or else to even contribute to the continuation of an unequal distribution of economic resources. [73] Peripheral states need to move towards more inclusive processes that would steer it away from the course that is leading it to a society of poor tenants and rich homeowners.

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66   S. Arbaci, "(Re)Viewing Ethnic Residential Segregation in Southern European Cities: Housing and Urban Regimes as Mechanisms of Marginalisation", Housing Studies, 2008:23(4), 590. A market dominated by home ownership did not suit either their often unstable working conditions nor their limited resources (J. Allen et al., Housing & Welfare [op cit.], 2004, 64-65).

67   A. Tosi, The Integration of Immigrants: Housing and Cities. Retrieved on 24 May 2015 on: www.planum.net/download/tosi_interview-rtf, 4.

68   S. Arbaci, "(Re)Viewing Ethnic Residential Segregation in Southern European Cities: Housing and Urban Regimes as Mechanisms of Marginalisation", Housing Studies, 2008:23(4), 610.

69   J. Allen, J. Barlow, J. Leal, T. Maloutas & L. Padovani, Housing & Welfare in Southern Europe, Real Estate Issues (Oxford: Blackwell, 2004), 30.

70   S. Arbaci, "(Re)Viewing Ethnic Residential Segregation in Southern European Cities: Housing and Urban Regimes as Mechanisms of Marginalisation", Housing Studies, 2008:23(4), 610.

71   These two proposals are currently being discussed in front of the Parliament of the autonomous region of Catalunya (Spain).

72   See Sirr, L (2015) 'Is temporal ownership a viable option for the Irish housing market?', ENHR 2015

73   I. Anderson, "Re-focusing on inequality", in I. Anderson & D. Sim (eds), Housing and Inequality, (Coventry: Chartered Institute of Housing, 2011), 34.

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Perspectives from practice

A LUAS loop for North Dublin's Economic Core instead of Metro North

By Dónal Ó Brolcháin

Abstract

Metro North is the largest single project in the Government's capital investment programme. This project emerged from a National Transport Authority Fingal/North Dublin Transport study in which options were assessed with the fundamental aim of serving the City Centre, Dublin Airport and Swords, while being technically feasible. This gave no weight to the travel patterns and transport needs of those living in the north part of Dublin City. Investing in Dublin's transport should be founded on a clear sense of priorities, based on (i) travel patterns and population, (ii) the optimum use of resources available eg.streetspace, land use, finance, (iii) sustainability, particularly air quality. This paper proposes an alternative LUAS loop in North Dublin. This is based on (a) maps of Dublin's Core Economic Area and population density (b) travel patterns revealed in reports/studies (c) a review of the relative importance fast access public transport access to Dublin Airport and Swords.

The Government has committed to building Optimised Metro North to serve the transport needs of the Swords/Airport/City-Centre Corridor. (DeptPER 2015 p. 22-24). The largest single project in the infrastructure and capital investment programme is based on the outcome of a Fingal/North Dublin Transport study (NTA/AECOM Fingal/North Dublin 2014 2015). It is estimated to cost €2.4bn.

To understand how Metro North fits with employment and population in the Greater Dublin Area, in late 2014 I commissioned two maps from the All-Island Regional Observatory (AIRO). Maynooth University based on the 2011 Census. I asked AIRO to superimpose the existing and proposed rail-based transport on maps showing (a) Dublin's Core Economic Area (Figure 1 Dublin's Core Economic Area with existing/proposed rail lines superimposed) and (b) Population Density (Figure 2 Greater Dublin Area Population

Density (2011 Census with existing/proposed rail lines superimposed).

These rail lines include

- the heavy rail commuter lines including DART shown as broken dotted lines;
- LUAS (Green and Red lines) including LUAS CrossCity (purple line) under construction and due to be operational by the end of 2017;
- the Phoenix Park Tunnel (light orange line) which links the heavy rail lines between Inchicore and Connolly. This opened for passenger services in 2016;
- Metro North – (blue line);
- DART Underground (yellow line) which is planned over the longer term.

Dublin's core economic area is defined as those areas having more than 700 jobs per square kilometre. (see Appendix 1) It is clear that the routing of Metro North is to the west of the main part of the Core Economic Area in the north city. It does not serve some major trip attractors/generators in the North City eg. Beaumont or Cappagh Hospitals. Metro North provides an underground service on the same route as LUAS CrossCity from Stephen's Green to Parnell Square.

Figure 1 Dublin's Core Economic Area with existing/proposed rail lines superimposed

Figure 3 Dublin Light Rail Network 1995

Source: Dublin Transportation Initiative. 1995.

Background to Light Rail/LUAS and Metro in Dublin (now LUAS)

The Dublin Transportation Initiative (DTI) proposed a light rail system for Dublin as one of a series of mutually reinforcing measures to make it easier for people to move around the Greater Dublin area. (DTI 1995). This was to be an integrated 3-line system from the City Centre to Ballymun, Cabinteely, Tallaght with extensions to Finglas and Airport/Swords.(see Figure 3 Dublin Light Rail Network 1995) The EU funded DTI was major review of Dublin transport under the Technical Assistance Programme of the Operational Programme on Peripherality 1989-1993.

In 1996, an EU prompted study found that a Light Rail line along a route from the City Centre through Drumcondra to Ballymun had a higher density of trip attractors/generators per route kilometre than either of the Dundrum or Tallaght lines. (see Table 1 Intensity of use indicators for the original three LUAS lines from City Centre to Ballymun, Dundrum, Tallaght). However, the Government ignored that finding and in 1998, the Government decided to build two non-interlinked lines (Red, Green) which primarily serve the south city. Both these lines have been extended since starting operations in 2004. Luas CrossCity extends the Green line to Broombridge to the west of North Dublin's Core Economic Area (see Figure 1) and is due to open in late 2017.

Table 1 Intensity of use indicators for the original three LUAS lines from City Centre to Ballymun, Dundrum, Tallaght

Section	Density of Major Attractors/Generators number per route km	Frontage Density metres per route metre
Tallaght Sq. - Treepark	1.44	0.09
Treepark - Fox & Geese	.44	0.01
Fox & Geese - Davitt	7.96	1.26
Davitt - Inchicore	2.60	1.72
Inchicore - Kilmainham	3.31	2.09
Kilmainham - Heuston	20.00	1.88
Heuston - Chancery St.	18.32	1.42
Chancery St. - O'Connell St.	21.56	2.73
Tallaght Route	7.79	1.91
O'Connell St. - Trinity College	3.33	2.02
Trinity College - Harcourt	21.33	1.96
Harcourt - Charlemont	20.00	1.85
Charlemont - Dundrum	0.00	0.00
Dundrum Route	7.81	0.68
O'Connell St. - Parnell	30.36	1.42
Parnell - Gardiner	15.7	1.91
Gardiner - St. Alphonsus	7.27	1.81
St. Alphonsus - St. Patrick's	3.90	2.49
St. Patrick's - Griffith	4.92	2.16
Griffith - Collins	15.12	1.55
Collins - DCU	2.86	1.89
DCU - Glasnevin	1.59	2.22
Glasnevin - Ballymun	9.68	2.59
Ballymun Route	9.61	2.00

Source: Department of Transport, Energy & Communications.1996

In 1998, the Environmental Impact Statement for the Dublin Port Tunnel assumed that the maximum benefits would accrue to the north city when on-street light rail line was built to link the City Centre to Drumcondra, Ballymun and the Airport. This LRT was to be an integrated three lines serving Tallaght and Cabinteely. (DC/GA 1998 Table 4.1 p.52)

Dublin Transportation Initiative

In 1995, the Dublin Transportation Office (DTO) was set up to implement the integrated transportation strategy recommended in the Final Report of the Dublin Transportation Initiative (DTI). Late in 2001, DTO set out an integrated strategy covering the Greater Dublin Area for the period 2000-2016. (DTO 2001). This included two new rail-based projects for North Dublin, as part of an integrated rail-based

network for the Greater Dublin Area. (see Figure 4 Greater Dublin Area Rail Network Schematic. A Platform for Change). This rail network was part of a public transport system, with redesigned bus services including many Quality Bus Corridors.

There was to be an on-street LUAS line through Drumcondra which then split into two lines one going to the Airport via Ballymun and the other to Howth Junction. There was also to be a Metro Network. This included an southwestern LUAS line starting at Tallaght, going underground in the Kimmage area to the city centre (including under Tara Street Station) to a disused rail line at Broadstone, onto Finglas and onto the Airport and Swords. LUAS CrossCity is now being built on that railway line at Broadstone and on to Broombridge where it terminates.

Figure 4 Greater Dublin Area Rail Network Schematic. A Platform for Change

*Source: Dublin Transportation Office. 2001.*

National Transport Authority

In December 2009, the National Transport Authority (NTA) was established and took over the responsibilities of the Dublin Transportation Office, in addition to certain functions of the then Department of Transport.

Metro North

Metro North was one of the projects in Transport 21, an infrastructure investment programme announced in November 2005 and abandoned in May 2011.1 Comparing the DTO Rail Network Schematic in Figure 4 with the Transport 21 Greater Dublin Area Rail Network in Figure 5 shows clearly that Metro North did not correspond in any way whatsoever with DTO strategy.

Figure 5 Transport 21 Greater Dublin Area Rail Network
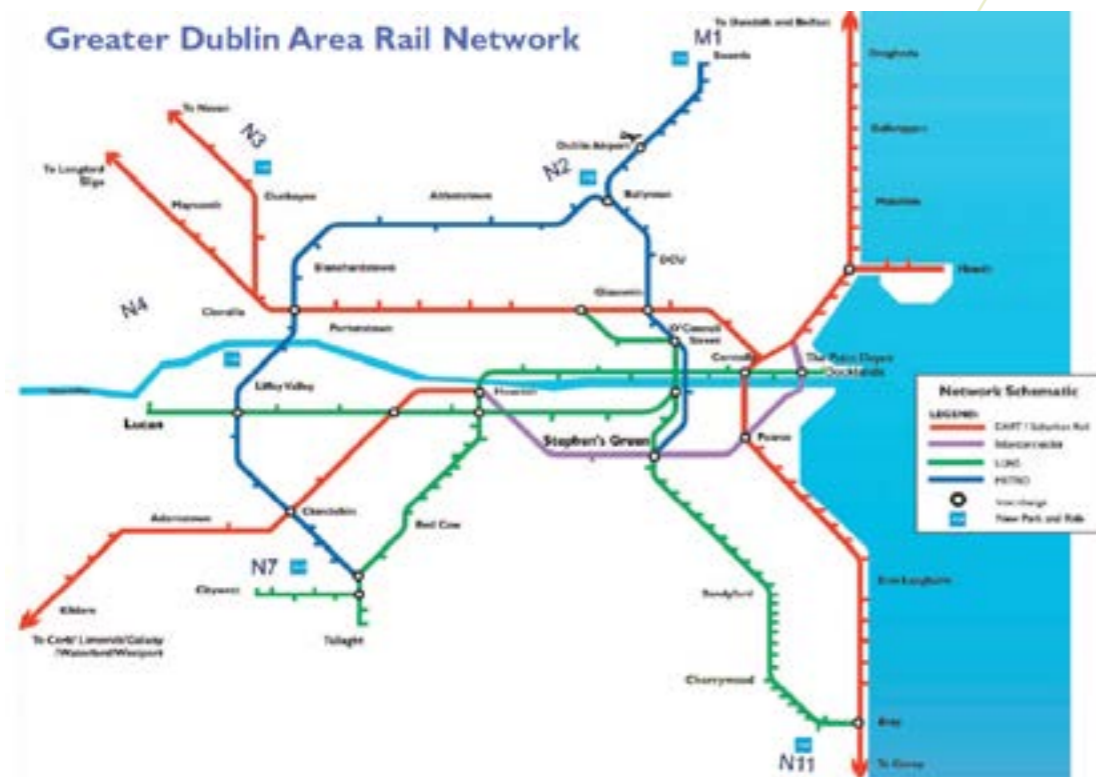
Source: Transport 21. 2005

Given that Transport 21 was decided before the economic crisis, it is difficult to find any justification for the change in strategy set out only four years previously. This is particularly true of investment aimed at enhancing public transport in the Greater Dublin area and thereby making more intensive use of existing streetspace.

Apart from the schematic in Figure 5, there was no other documentation or evidence of any analysis to support this change. No explanation was offered for setting aside of the extensive work done during the Dublin Transportation Initiative summarised in A Platform for Change (DTO 2001). It was bizarre that the following statement appeared in a 2011 National Transport Authority document "*Transport 21 included major investment in greater Dublin area public transport (largely based on the proposals contained in 'A Platform for Change)'*. (NTA February 2011 Vison2030 par. 2.3 Chap 2. p.1)

In 2008, the Railway Procurement Agency (RPA) (functions now in Transport Infrastructure Ireland) applied for Planning Permission and a Railway Order for Metro North. In October 2010, An Bord Pleanála(ABP) gave permission for a cut back Metro North. This meant that RPA had to make a new application for the depot for Metro North. In Table 2, these two projects are compared with what the National Transport Authority calls new Metro North.

ABP's reasons for cutting back RPA's proposed 2008 Metro North are worth noting;

1. the absence of a statutory framework for unserviced lands north of Swords which were remote from development lands or populations centres. This would lead to an unsustainable use of land unlikely to be supported by future travel demand in the short or medium term. (ABP 2010 p.3)

2. the proposed depot lands at Belinstown were prone to flooding which the RPA had not clearly identified. Nor had RPA justified the extensive land filling need in terms of sustainable development. ABP was not satisfied that the depot works would not exacerbate local flooding. (ABP p.3). ABP refused permission for the depot. RPA had to reapply for permission, which ABP granted in 2011.

3. as regards Swords Metro stops, ABP "..considered there was overlap between stations

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1   Martin Cullen TD, then Minister for Transport, announced Transport 21 on 1 November 2005 at a Press Conference. Apart from the texts of the Ministerial speeches, documentation on Transport 21 consisted of one page of statistics, three maps and one page of project completion dates for various projects.

and the number of stops proposed was not justified by current or foreseeable population catchments, bearing in mind the need to preserve the operational efficiency of the overall metro service."(ABP 2010 par 19. p. 13)

Table 2 Metro North projects compared RPA (2008), RPA(2010-11), NTA(2015)

	RPA Proposal 2008	An Bord Pleanala Decision on RPA proposal 2010-11	NTA New Metro North 2015
Route			
Between	Stephen's Green	Stephen's Green	Stephen's Green
and	Belinstown	Estuary	Estuary
Distance	18km	15.7	16.5km
Tunnel	10km		8.5km
Surface(At Grade)	8km		8km
Stations	17	14	14
Underground	9	9	6
On surface	8	5	8
Platform Length	94m	No change	60m
Vehicles	45-90m	No change	60m
Frequency of service	4 minutes	No change	2 minutes
			30 trams per hour in each direction
Passengers			
On opening	80,000 per day	No change	
Over time	40,000 per hour	No change	
		No change	9,900ppdph
	20,000 in each direction		
Opening Year			2033

Given the work done for RPA 2008 Proposal and ABP's extensive involvement in considering that application, a lot of preparatory work has been done for NTA's new Metro North.

Travel Patterns in Greater Dublin Area

Early in 2015, NTA published Greater Dublin Area Transport Strategy 2011-2030 2030 Vision, dated April 2012. This included figures showing travel patterns in the Greater Dublin Area (see Figures 6 and 7) To try to understand these patterns, this data is summarised in Table 3 Travel Patterns in the Greater Dublin Area 2006 and 2030. This suggests that travel demand is greatest inside the M50. These areas are the destinations for over two-thirds of people in both 2006 and 2030. These areas were also the origins of 45% of trips in 2006 and will reduce to 39% in 2030.

Table 3 Travel Patterns in the Greater Dublin Area 2006 and 2030

Destination	City Centre *(inside Canals)*	Inner suburbs *(within M50)*	Inside M50	Outer Suburbs *(outside M50)*	Hinterland	**All Destinations**
Origin						
City Centre *(inside canals)* 2006	5%	13%	18%	5%	2%	25%
2030	6%	15%	21%	8%	4%	33%
Inner suburbs *(within M50)* 2006		27%	27%	12%	3%	42%
2030		18%	18%	12%	3%	33%
Inside M50 2006			45%	17%	5%	67%
2030			39%	20%	7%	66%
Outer Suburbs *(outside M50)* 2006				15%	4%	19%
2030				14%	6%	20%
Hinterland 2006					14%	14%
2030					14%	14%
All Origins 2006	5%	40%	45%	32%	23%	100%
2030	6%	33%	39%	34%	27%	100%

Source: from National Transport Authority. 2012. (NTA April 2012 Vision). Fig 4.6 Chap 4 p.9

Figure 6 Travel patterns (morning peak period 07.00-10.00) Greater Dublin Area 2006 and 2030
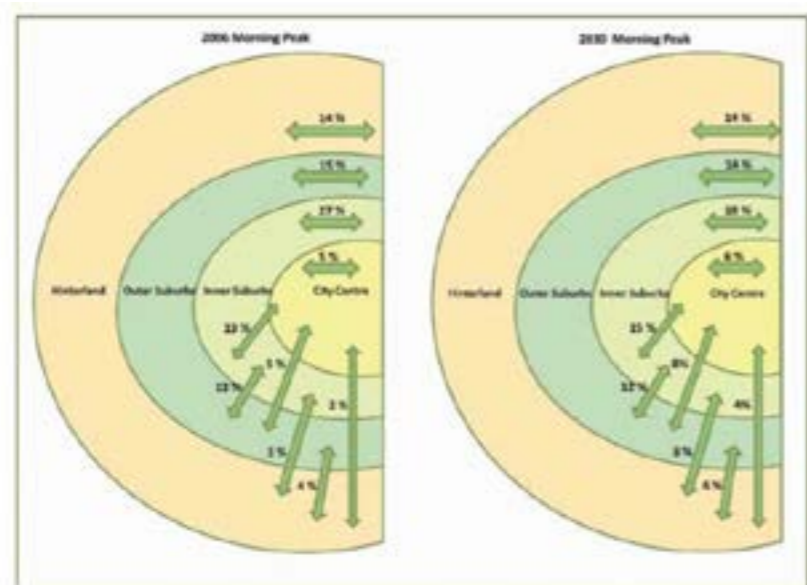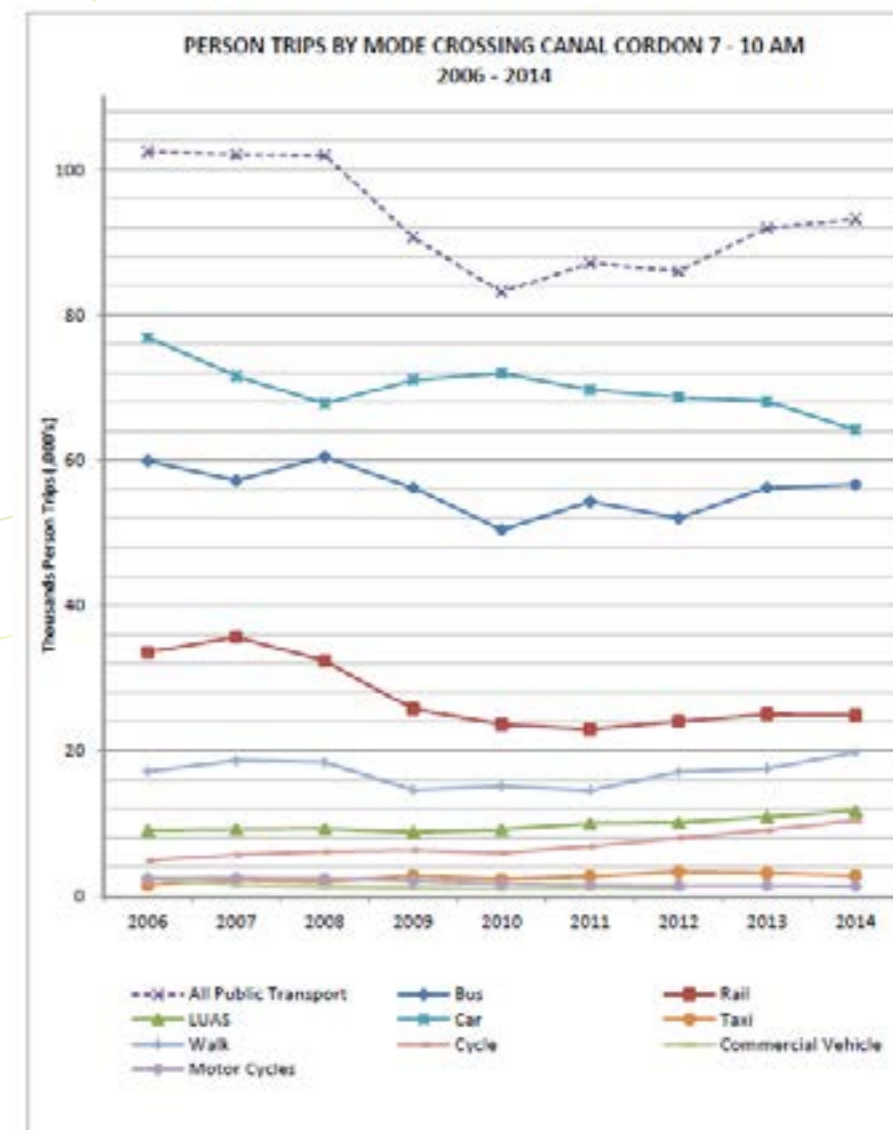
Source: National Transport Authority. 2012. (NTA April 2012 Vision) Figure 4.6 Chap 4. p.9
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The spatial extent of these areas is shown in Figure 7 Greater Dublin Travel Area

Figure 7 Greater Dublin Travel Area



Source: National Transport Authority. 2012. (NTA April 2012 Vision) Figure 4.1 Chap 4. p.3

## How do people travel?

Most people travel by car, but this has decreased by 16% since 2006. The next largest group travel by bus. Walking has increased such that in 2014 it was at the highest level since 1997 when canal cordon counts started. Both the number of cyclists and the number of people using taxis have more than doubled, even if the share of taxis is small in overall terms. see Figure 8 People crossing the canal cordon during the morning peak by travel mode 2006-2014

Figure 8 People crossing the canal cordon during the morning peak by travel mode 2006-2014



Source: Dublin City Council National Transport Authority. 2014 p.16

Increasing the use of cars as the main mode of travel to work in urban areas is not sustainable given the fixed nature of most streets and roads coupled with the human health and climate effects from emissions of fossil fuelled engines. To indicate these spatial constraints, it is useful to compare the streetspace occupied by cars, buses, the proposed Bus Rapid Transit (BRT) and LUAS. The street space taken by a 53m tram (to be used on the Green Line/LUAS CrossCity) carrying 75% of maximum passenger capacity (ie. 379), accommodates, at most

- 12 cars (assuming each car is 4.36m long), each of which carries 1.21 people during the morning peak 07.00-10.00 (see Appendix 2)
- 5 of the latest Dublin buses (each 10m long) each of which has a maximum passenger capacity of 93 people;
- 3 BRT vehicles (18m long) of the type proposed for Bus Rapid Transit (BRT), each of which has a maximum passenger capacity of 120 people;

Figure 9 Passengers on one 53m LUAS tram compared with capacity of buses, BRT vehicles and cars using the same streetspace.



In practice, cars/buses/BRT vehicles take more street space as they cannot travel without some assured clear distance ahead between them for accident prevention... Thus this figure overstates the passenger capacity of these vehicles. Those analysing urban rail capacity only allow 75% of maximum vehicle capacity in assessing how many passengers can be carried per direction per hour (ppdph). (NTA /AECOM Fingal/North Dublin 2015 p.61). However driverless technology may it possible for non-rail based vehicles to travel very close together. If so, they would resemble a long rail-based vehicle.

In considering the allocation of streetspace, air quality is important for pedestrian, cyclists and those who live/work on those streets. The current government consultation paper on clean air points out that "Vehicle emissions are a key source of health impacts from a range of air pollutant including NOx, particulate matter, black carbon and VOCs particularly in urban areas. (DeptCCAE 2017 p.34) Electrically powered transport pollutes less at point of use. Electricity can be generated in many different ways. It is easier to monitor, control and mitigate the emissions from generation sources than it from the 2.5m vehicles registered here, 80% of which are private cars.

## Enhancing Public Transport in North Dublin, without/pending Metro North

In 2011, it seemed that Metro North was deferred indefinitely. NTA started to work on enhancing transport the Northern Corridor ie. Swords –Airport-City Centre by commissioning a series of studies.

## Fingal Corridors Study

NTA has not published this study which was completed in April 2012 (NTA Fingal Corridors 2012) which was obtained it using Access to Information on the Environment regulations. A senior NTA official has assured the author that the April 2012 Draft is the final version of the report of that work. (for further details, see Appendix 3)

This study focused on patterns of travel from each of eight sectors to the other seven sectors and of particular importance, the relationship to the City Centre. (NTA Fingal Corridors 2012). Footnote, Appendix) (see Figure 10 Main Fingal corridors in advance of Metro North). Two of sectors chosen (Ballymun, Finglas) are within the Dublin City Council area. Note that other sectors within the Dublin City area (Coolock, Santry, Drumcondra) on these corridors were not chosen for analysis. For each sector chosen, this study looked at travel demand during the morning peak, based on 2006 Census data

supplemented by the preliminary results of the 2011 Census.

The report focuses on Swords, but notes that Blanchardstown will be the subject of a separate study later.

Figure 10 Main Fingal corridors in advance of Metro North



*Source: National Transport Authority. April 2012 par. 2.1 p.6 (NTA Fingal Corridors 2012)*

The data in this study is presented in Table 4 Trip destinations from each Fingal sector to the other sectors studied during the morning peak (07.00-10.00. The column Other refers to trips from the sectors named to other parts of the Greater Dublin Area which are not included in those shown in Figure 8.

It is striking that Swords and Balbriggan have the lowest percentage of trips to the City Centre. Both also have a very high level of internal trips, as do Blanchardstown and the City Centre. Only 22% of the trips (about 1,600 people) from the Airport during the morning peak were to the City Centre while there were about 2,500 trips in the opposite direction. More than two-thirds of trips from the Airport are to areas outside the sectors studied. During the morning peak, Blanchardstown has over twice as many trips (55,719) as Swords (26,039). Of these trips, almost three times more people from Blanchardstown has City Centre destinations (10,586) than those going from Swords to the City Centre (3,645). It is also striking that there are more trips from Swords to Malahide (2,083) than there are to the Airport (1,562).

Table 4 Trip destinations from each Fingal sector to the other sectors studied during the morning peak (07.00-10.00

| Origins | Howth | Mala-hide | Balbrig-gan | Swords | Airport | Ballymun | Finglas | Blanchards-town | City Centre |
|---|---|---|---|---|---|---|---|---|---|
| No of Trips | 10,633 | 25,594 | 25,232 | 26,039 | 7,218 | 12,937 | 14,419 | 55,719 | 81,824 |
| Destinations | | | | | | | | | |
| Internal | 36% | 34% | 48% | 44% | 1% | 35% | 31% | 46% | 61% |
| City Centre | 26% | 20% | 15% | 14% | 22% | 19% | 20% | 19% | |
| Howth | | 9% | 1% | 1% | 1% | 1% | 1% | 0% | 0% |
| Malahide | 2% | | 3% | 8% | 2% | 1% | 0% | 0% | 0% |
| Balbriggan | 0% | 1% | | 1% | 1% | 0% | 0% | 0% | 0% |
| Swords | 1% | 6% | 5% | | 2% | 1% | 1% | 1% | 1% |
| Airport | 2% | 3% | 3% | 6% | | 3% | 2% | 1% | 3% |
| Ballymun | 1% | 1% | 1% | 1% | 1% | | 7% | 1% | 1% |
| Finglas | 1% | 1% | 1% | 1% | 1% | 5% | | 2% | 0% |
| Blanchards-town | 1% | 1% | 1% | 2% | 2% | 2% | 4% | | 1% |
| Other | 30% | 24% | 22% | 22% | 67% | 33% | 34% | 30% | 33% |
| | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

*Source: National Transport Authority. April 2012 (NTA Fingal Corridors 2012)*

Note This Table was compiled from the data given in each pie-chart for the different sectors. In five sectors (Malahide, Swords, Finglas, Blanchardstown, City Centre) there was a discrepancy between data in the table and the data in pie chart printed with the table. In all sectors, the pie-chart numbers added to 100%. The differences between the data in the tables and pie-charts do not appear to be significant.

## Bus Rapid Transit

In October 2012, NTA published a study on a Core Dublin Network for Bus Rapid Transit(BRT).(NTA BRT 2012) This compared Bus Rapid Transit systems with LUAS type system and Metro/Heavy Rail see Figure 11 Public Transport Passenger Capacities per mode passengers per direction per hour (ppdph). The report pointed out that higher capacity Bus Rapid Transit was not appropriate for Dublin. The report looked at three cross city corridors routes ie.Blanchardstown to UCD, Clongriffin to Tallaght, Swords to Tallaght through Santry and Drumcondra. The analysis found that there was a peak line flow demand at St. Patrick's College of 5,900 ppdph. This greatly exceeds the 3,600 ppdph capacity for BRT. The report noted that "The Swords to City BRT section has not been brought forward to the later costing and appraisal sections of this feasibility study report" NTA BRT 2012 par 4.7 p54

Figure 11 Public Transport Passenger Capacities per mode passengers per direction per hour (ppdph)



*Source: National Transport Authority. 2012. (NTA BRT 2012 Figure 3 p.4).*

## Swiftway Bus Rapid Transit

Despite the earlier statement about the lack of capacity using BRT to meet passenger demand on the Swords -City Centre corridor, NTA published a major study in October 2014 on this corridor. (NTA Swiftway) No equivalent work appears to have been done on the two BRT routes which the NTA BRT report of 2012 recommended for further study.

This NTA Swiftway report confirmed the findings of the NTA BRT 2012 report on the lack of capacity of BRT to cater for the passengers forecast on the Swords-Dublin Airport-Drumcondra-City Centre corridor. The report notes "It is anticipated that demand will increase following a reorganisation of Dublin Bus Routes"

With one exception, passengers forecast exceed the proposed BRT capacity even with the existing bus network still in place. These forecasts assumed that the existing Dublin Bus network remained place, not just on the North Dublin roads, but also in the City Centre.2

In 2015, BRT was not brought forward for economic appraisal on the grounds that it did not provide sufficient capacity to meet the long terms needs of an area studied for Metro North. (NTA /AECOM Fingal/North Dublin 2015 par. 9.7 p.147). It is not clear that this assessment spells the end of BRT on the Swords-Airport-Drumcondra-City Centre Corridor, as the Greater Dublin Area Transport Strategy maintains the necessity for greater public transport capacity in advance of Metro North. (NTA 2016 par 4.2.1 p.53).

## Does Fingal deserve so much attention?

The resources which NTA committed to Fingal and Swords deserves scrutiny, when compared to those committed to the north part of Dublin City or Blanchardstown both of which have much bigger populations.

2        This report assumed two separate BRT services south of the Airport, with maximum capacity of 2,700 ppdph. This implied 22.5 BRT vehicles/hour on the existing roads from Dublin Airport through Drumcondra to the City Centre ie. one BRT vehicle every 2.7 minutes. This is 50% higher than the 15 vehicles/hour cited for BRT. With one exception, these options lack adequate capacity for the passengers forecast ie.
1,800 .ppdph (4 minute frequency) is exceeded by  (a) 40% in 2018 - the opening year for this proposed BRT; (b) 80% in 2033 -the forecast year;
2,700 ppdph (2.7 minute frequency) exceeded by 22% in 2033, the forecast year
while being at 95% capacity in 2018, the opening year for the proposed BRT.
NTA Swiftway Volume 1.Summary tables 10.5 and 10.6 p. 187

## North City has a bigger population than Fingal

More people live in the north part of Dublin City (325,002 in Census 2016) than in either the South City (228,163), Dun Laoghaire/Rathdown (217,274), South Dublin (278,749) or Fingal (296,214). This has been so for the last 25 years, as is clear from Figure 12 Population in the major areas the Greater Dublin Area 1996-2016(preliminary results)

Figure 12 Population in the major areas the Greater Dublin Area 1996-2016(preliminary results)



## Fingal – two distinct areas

Fingal is the fastest growing county in Ireland. Asserting that alone hides the fact that Fingal is actually two distinct areas, ie Fingal West and Fingal East, using the Ashbourne Road (M2/N2) as the border. (see Appendix 4) This division is clear in the very few trips between Blanchardstown and the other sectors studied in (NTA Fingal Corridors 2012) .see Table 3 above. The NTA report which recommended new Metro North was focused on some of the eastern part of Fingal, with a cut-off just north of the Malahide estuary.  As in the Fingal Corridors report, North Dublin included that part of the Centre City inside the canals and other parts east of Finglas. (North Dublin 2014. par 1.1 p.1)

West Fingal (around Blanchardstown) has doubled in population in the last 20 years. In contrast, East

Fingal (Balbriggan, Skerries, Malahide, Portmarnock, Swords) has increased by less than 70% see  Figure 13 Population of Dublin City North, East Fingal and West Fingal 1991-2016. Both Blanchardstown and Swords are designated Metropolitan Consolidation Towns in the Regional Planning Guidelines for the Greater Dublin Area 2010-2022.(RPG 2010 par. 4.6 p.93) .3.In 2016, Blanchardstown had about 75,000 people whereas Swords had about 43, 000 people. Both have doubled in population over the past 25 years.

Figure 13 Population of Dublin City North, East Fingal and West Fingal 1991-2016



Based on population and travel patterns during the morning peak, It is clear that Blanchardstown merits more attention from those responsible for transport planning and investment in the Greater Dublin Area than does Swords.

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3         These are to be strong active urban places within metropolitan areas with strong transport links.  In addition to Blanchardstown and Swords, Lucan, Clondalkin, Tallaght, Dundrum, Dun Laoghaire and Bray are also in this category.

## Why does Swords get so much attention?

Most people making trips during the morning peak stay in Swords (44% of 26,039).

It is also clear from the data in Table 3 that there are about 3,700 people (14% of the 26,039 trips) going from Swords to the City Centre during the morning peak, with another 1,600 going to the Airport from Swords. This compares with 10,500 travelling to the City Centre from Blanchardstown, the population of which is over 70% bigger than Swords.

Swords may get what seems like undue attention from transport planners because it is near the Airport.

## Dublin Airport

Dublin Airport is a major employment centre with about 15,000 servicing the 28m passengers who travelled through the Airport in 2016. An NTA survey of Dublin Airport passengers revealed data that is critical in assessing transport links to/from the Airport. (NTA Airport Survey 2011).

This survey found that

1.

    a) Less than one seventh of trips (14%) were business related (see Figure 14 Dublin Airport Why did people travel?);

    b) Three quarters of all trips were either for holiday/leisure (nearly half) or visiting friends/relatives (over one-quarter).  This has scarcely changed since a similar study was done during the late 1990s (CIE/Aer Rianta 1998). Figure 14 Dublin Airport Why did people travel?

2.

    Less than one third of the trips originated in City Centre/South part of Dublin City see Figure 15 Dublin Airport Where is Ireland do the passengers come from?

3.

    Three quarters (75%) had a journey time of less than one hour to the Airport, with almost half (46%) having a journey time of less than 30 minutes (see Figure 16 Dublin Airport. How long did passengers originating in Ireland take to get there?)



Source: National Transport Authority. 2012. (NTA Airport Survey 2011) Figure 3.6 p.15

Figure 14 Dublin Airport Why did people travel?



*Source:  National Transport Authority. 2012. (NTA Airport Survey 2011).Fig.3.11 p.22*

Figure 16 Dublin Airport. How long did passengers originating in Ireland take to get there?



*Source: National Transport Authority. 2012. (NTA Airport Survey 2011) Figure 3.5 p.13*

Data from this suggests that the vast majority of passengers using Dublin Airport are not very time-constrained in how they access the Airport, given the purpose of their trips. Most passengers do not come from Dublin's Central Business District (CBD), as 42% start their trips in Dublin City Centre/North/South. Those passengers who are time-constrained have the option of taxis (which can use bus lanes) and/or using the Dublin Port Tunnel to access Dublin Airport from Dublin's CBD. The Dublin Port Tunnel is currently operating below its unconstrained capacity, although there are capacity issues with the current road layout at the interface between the Port and the City. The data in Table 3 shows that there were just under 2,500 going from the City Centre to the Airport during the morning peak, with just under 1,600 travelling the opposite direction.

The NTA survey found that 20% of passenger arrive at the Airport before 08.00. (NTA Airport Survey 2011 p.13). This percentage is very similar to the 22% who make trips from the Airport to the City Centre during the morning peak as shown in Table 4 Trip destinations from each Fingal sector to the other sectors studied during the morning peak (07.00-10.00). Two thirds of departing passengers leave after midday. The busiest time for arrivals is between 08.00 and midday.

## The National Transport Authority/AECOM Fingal North Dublin Transport Study

The Capital Investment Programme cites this study as the basis on which NTA recommended that a revised metro be selected as the appropriate public transport project to address the transport needs of the Swords/Airport/City-Centre Corridor (NTA/ AECOM Fingal/North Dublin 2014, 2015)

In assessing options, the key criteria were City Centre-Airport journey times and capacity in terms of people per hour per direction (pphpd). No basis is set out for this assumption by reference to other studies that the NTA has done eg the NTA survey of Airport passengers or the Fingal Corridors study. Little or no account was taken of the travel patterns revealed in Table 3 Travel Patterns in the Greater Dublin Area 2006 and 2030 or Table 4 Trip destinations from each Fingal sector to the other sectors studied during the morning peak (07.00-10.00)

There was relatively no emphasis on integrating with the existing LUAS services (eg. LUAS CrossCity at Broombridge) or developing options which linked to Howth Junction, served by both DART and north-bound commuter services.

The public transport needs of those living and working in the north city part of Dublin's Core Economic area have not been studied

## Why Swords?

Why should Swords which is outside the M50 have a much higher priority than any other area in the North City given that

1. data from National Transport Authority report suggests that the largest increases in travel will take place inside the M50 see Table 2 above;

2. Swords has the lowest percentage (14% 3,645) city-centered oriented trips of any the sectors studied in the Fingal Corridors study see Table 4 Trip destinations from each Fingal sector to the other sectors studied during the morning peak (07.00-10.00)

3. The north city has more people than Fingal see Figure 13 Population of Dublin City North, East Fingal and West Fingal 1991-2016;

4. In the 10 years from 2006, the population of the North City grew by just over 30,000 people, compared with an increase in Swords population of just over 5,000 people;

5. The north city forms an organic whole with Dublin's Economic Core Area, while the Airport means that Swords is at some distance from the economic core. Figure 1 Dublin's Core Economic Area with existing/proposed rail lines superimposed.

In 2006, Swords had a population of 37,762 while Blanchardstown had a population of 63,120. In the last 10 years, Swords has increased by 13% (to 42,776 in 2016) while Blanchardstown has increased by 18% (to 74,478 in 2016). As has already been pointed out, in 2010, ABP rejected the number of stations proposed for Metro North in Swords on the basis that these were not justified by population trends. (ABP 2010 par 19. p.13)

## How critical is journey time between the City Centre and the Airport?

Is it really worth spending €2.4.bn (excluding VAT) to get a 19 minute journey time from O'Connell Street to the Airport, given that

    i.     the journey time to the Airport

- is less than 30 minutes for nearly half the passengers;
- is less than an hour for 75% of passengers;

    ii..   less than half the Airport passengers start their trips in areas (ie. Dublin City Centre/North/. South) directly served by the route of this project;

    iii..   75% of all Airport passengers are travelling for leisure or visiting family/friends;

    iv..   Metro North

- will not be integrated with the existing LUAS system until another tunnelled link is built from Stephen's Green to link with the Green LUAS line ;
- has very limited connectivity to other rail-based services in the Greater Dublin Area, thus limiting options for promoting modal shift throughout the Great Dublin Area.

## North City LUAS loop instead of Metro North

Instead of one single channel to the Airport, extending LUAS CrossCity to create a north Dublin LUAS loop would be more in keeping the data emerging from NTA studies on population and travel patterns.

Figure 17 A LUAS loop serving the North City part of Dublin's Core Economic Area with spurs to the Airport, Howth Junction and Swords

## This loop

- serves the northern part of Dublin's Core Economic Area and the populated areas comprehensively, taking in
  - Northwood, Santry, Drumcondra, North East Inner City;
  - Kilmore, Beaumont Hospital, Coolock, Edenmore, Donaghmede, Kilbarrack;
  - Ballymun, Poppintree, Charlestown, Finglas, Cappagh Hospital
- is Integrated with Dublin 's existing light rail system LUAS, as it extends LUAS CrossCity and could link with LUAS in the Docklands (North and South) using the Samuel Becket Bridge (which is designed to carry LUAS);
- offers two rail-based links between the Central Business District and Dublin Airport
  - directly on LUAS via either Drumcondra or LUAS CrossCity;
  - indirectly using LUAS to get to Howth Junction to connect with
    - DART services to Connolly, Tara and Pearse Stations;
- links with heavy rail services
  - at Howth Junction; which has DART and Commuter services;
  - he Maynooth line at both Drumcondra and Broombridge;



Figure 18 LUAS route option through Drumcondra, Whitehall, Beaumont, Kilmore, Clonshaugh

*Source: Roughan & O'Donovan 2006*

Two parts of the proposed the LUAS loop have already been studied. These are

1. a route from the City Centre through Drumcondra, Whitehall. Beaumont, Kilmore, Clonshaugh to the Airport (Roughan & O'Donovan 2006) see Figure 18.
This report was presented to the NTA/AECOM study team. However, the NTA/AECOM reports do not refer to the study explicitly or mention the authors. The NTA/AECOM study misrepresented this report by including it as part of another proposal. This other proposal was dismissed on the grounds that "Very little information is available on this proposal. Its primary purpose is to improve transport links in north Dublin City, rather than to provide a link to the Airport or Swords. As a result, journey times from the City Centre to Dublin Airport and Swords are relatively high." (NTA.AECOM 2014 par 74. p.90)

2. a 4.5km extension of LUAS CrossCity from Broombridge through Finglas to a terminus close to the N2/M50 near Charlestown. see In addition to these two studies, some of the more recent work done on SwiftwayBRT may be very useful in considering an on-street LUAS line from the City Centre to Drumcondra and northwards. ((NTA Swiftway)

3. Figure 19 LUAS CrossCity extension to Finglas and Charlestown.

In addition to these two studies, some of the more recent work done on SwiftwayBRT may be very useful in considering an on-street LUAS line from the City Centre to Drumcondra and northwards. ((NTA Swiftway)

Figure 19 LUAS CrossCity extension to Finglas and Charlestown.



*Source: National Transport Authority Jacobs Systra. 2015.*

## Cost

The indicative costs for this 35km North City LUAS Loop ranges from €1.575bn to €2.2bn to using costings given in an NTA study on extending LUAS CrossCity to Finglas((NTA/Jacobs Systra 2015) and those of LUAS CrossCity

1. Luas CrossCity extension to Finglas.

This was estimated to cost €201m for a 4.5km route. (NTA/Jacobs Systra 2015 par 7.3 p.41). This includes€5m for feeder buses. This works out at just under €45m per killometer. On this basis, the 35km North City LUAS Loop would cost €1.575bn – This is nearly one-third cheaper than the estimated cost of new Metro North

2. LUAS CrossCity

LUAS CrossCity is estimated to cost of €61m per kilometre including vehicles and stations.

On this basis the 35km LUAS loop would cost just under €2.2bn. This is about the same as the estimated cost of new Metro North (see below). However, building the LUAS North City loop in unlikely to be as costly as LUAS CrossCity which was incurred considerable costs of diverting utilities and securing existing buildings particularly in the City Centre.

## Metro North

This is estimated to cost €2.3bn (including VAT at 13.5% with a degree of estimating uncertainty set at +/- 30% of our estimate value (NTA/AECOM 2015 par 8.4.5 p. 134).

## Conclusion

new Metro North emerged from an assessment process that had one fundamental project objective of serving the City Centre, Dublin airport and Swords (NTA/AECOM 2015 par 4.2.4 p. 37). In doing so, the public authorities gave far less weight to the patterns of travel that emerged from their own studies, the existing population and where Dublin's Economic Core actually is. The LUAS Loop proposed here can be phased in, with sections opening as they are completed. In this way, the long overdue enhancement of public transport in the north city part of Dublin's Economic Core Area will not be subject to an all or nothing approach needed for new Metro North.

To promote competitiveness and social cohesion, Dublin needs integrated and sustainable public transport. Achieving this needs quiet, consistent competence to bring working and living conditions to the levels of well-run European cities. It would be a start if our public authorities drew the appropriate conclusions from their own reports and invested accordingly.

Figure 20 A LUAS loop serving the north city population

## Appendix 1

### Dublin's Economic Core Area

The map showing Dublin's Economic Core is based on the 2011 Census using the same methodology described in Cormac Walsh, Brendan Williams and Ian Boyle Mapping the true extent of Dublin's functional urban region – What the best available evidence tells us.  Posted 21 December 2010 on irelandafternama

 https://irelandafternama.wordpress.com/2010/12/21/mapping-the-true-extent-of-dublins-functional-urban-region-what-the-best-available-evidence-tells-us/

## Appendix 2

### Car lengths

I have taken 4.36m as the average length of the top 10 selling passenger car models in Ireland during 2016.The top selling 10 cars account for 76% of total new registrations including imports.

Hyundai TUCSON 4.475m, Volkswagen GOLF 4.255m, Ford FOCUS 4.36m,

Skoda OCTAVIA 4.659m , Nissan QASHQAI  4.379m, Ford FIESTA  3.969m,

Toyota COROLLA4.385m, Toyota YARIS 3.95m, Volkswagen PASSAT SALOON 4.767m

Kia SPORTAGE 4.44 m

Sources:

1)	Society of the Irish Motor Industry (SIMI) Motorstats

http:www.beepbeep.ie/

stats?sYear%5B%5D=2016&sYear%5B%5D=&RegType+1&sMonth%5B%5D+12&x+48&y=10

2)	Data on each model – from motor manufacturer's websites.

3)	DCC/NTA 2014 p.16

## Appendix 3

### Fingal corridors

National Transport Authority. April 2012 Study of Transport Options for Fingal Corridors in advance of Metro North.  April 2012. (NTA Fingal Corridors 2012)  Unpublished.  Obtained using Access to Information on the Environment Regulations

This study aimed to undertake an analysis of three key transport indicators as follows

•	overall travel demand and the patterns of travel;

•	Public transport versus car mode shares (for trips to the city centre)

•	Public transport versus car mode times (for trips to the city centre)

The City Centre is defined as the area inside the canals, the docklands and two Ballsbridge zones (just south of the canals) that include significant office based employment.

Balbriggan includes Skerries. Malahide includes Clongriffin, Portmarnock and Donabate.

Swords includes the town centre, the residential and industrial parts. Ballymun includes Sillogue Park and Santry Demesne, both of which are in Fingal.

Using preliminary data from the 2011 Census and the latest CSO data on employment levels in the Greater Dublin Area, an estimate was made of the changes n travel demand for each of identified sectors.

## Appendix 4

### Fingal East and West

Using an Ordnance Survey map of Dublin Administrative Counties, District Electoral Divisions (DED) were allocated as follows (Number preceding each DED is that given the Census tables)

### East Fingal

001 Airport, 002 Balbriggan Rural, 3 Balbriggan Urban, 004 Baldoyle, 005 Balgriffin,

006 Ballyboghil, 007 Balscadden, 018 Clonmethan, 019 Donabate, 020 Dubber,

021 Garristown, 022 Hollywood, 023 Holmpatrick, 024 Howth, 025 Kilsallaghan,

026 Kinsaley, 028 Lusk, 029 Malahide East, East Fingal (continued), 030 Malahide West,

031 Portmarnock North, 032 Portmarnock South, 033 Rush, 034 Skerries, 035 Sutton,

036 Swords-Forrest, 037 Swords-Glasmore, 038 Swords-Lissenhall, 039 Swords-Seatown, 040 Swords Village, 042 Turnapin.

### West Fingal

008 Blanchardstown-Abbotstown, 009 Blanchardstown-Blakestown,

010 Blanchardstown-Coolmine, 011 Blanchardstown-Corduff, 012 Blanchardstown-Delwood

013 Blanchardstown-Mulhuddart, 014 Blanchardstown-Roselawn,

015 Blanchardstown-Tyrrelstown, 016 Castleknock-Knockmaroon, 017 Castleknock-Park

027 Lucan North, 041 The Ward

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Transport 21. 2005 The then Minister for Transport, Martin Cullen TD announced Transport 21 on 1 November 2005 at a Press Conference.

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# Contested Concepts and Spaces

# The Impact of the Social Inclusion Community Activation Programme in Dublin's Inner City

By Carina O'Brien

## Introduction

Since 1991 community organisations have successfully delivered, on behalf of the State, social inclusion programmes on a not-for-profit basis. Contracts for such programmes were awarded to organisations on a rolling year by year grant basis without the need for a public tendering or commissioning process. The Local Community Development Programme (LCDP) which ran from 2010 until 2014, with an extension for three months until March 2015, was one of the largest national social inclusion programmes and was funded by the grant system. In 2014, the Attorney General issued advice following a question in relation to EU procurement Directive 2004/18/EC which stated that it:

*requires member states to (article 76) comply with the principles of transparency and equal treatment of economic operators. Member states shall ensure that contracting authorities may take into account the need to ensure quality, continuity, accessibility, affordability, availability and comprehensiveness of the services, the specific needs of different categories of users, including disadvantaged and vulnerable groups, the involvement and empowerment of users and innovations (McCarthy and Muldowney, 2015:6).*

The LCDP successor programme, the Social Inclusion Community Activation Programme (SICAP), was announced and was subject to a competitive tendering process on the basis of this advice. This was the first time that a social inclusion programme was subject to a procurement and public tender process rather than the traditional grant-based approach. The implications of this process meant that any organisation, or for profit company from Ireland, the EU or further beyond could bid for the delivery of SICAP.

## Implications for Dublin's Inner City

The LCDP already had a number of cuts imposed on the programme and by 2014 the funding for this programme had almost been halved nationally. In the inner city of Dublin, the situation was even more precarious. The Dublin Inner City Partnership (DICP) had been closed in 2010 taking with it additional resources including funding, skills, expertise and the capacity to apply for EU or other large scale funding. Resulting from this the inner city was left in the atypical position of being the only region in Ireland to have no Local Development Company, meaning there was no one body to provide overall strategic direction in the inner city.

During the competitive tendering process for SICAP in late 2014/early 2015 a number of community-led organisations had to compete in a public tender process in the absence of a Local Development Company. Fifteen groups previously funded under the LCDP, attempting to fill this structural void, came together to form the Dublin Inner City Community Cooperative, now the Dublin City Community Co-op, a membership-based organisation. The Co-op was the only non-Local Development Company in Ireland to win the tender for an area.

## Local development in Ireland

In 1991, against a backdrop of fiscal entrenchment and high unemployment the second national partnership agreement saw the emergence of local development in the provisions for the establishment of local partnership companies. (Motherway, 2006:12). Their remit was to "co-ordinate local responses to the crisis of long-term unemployment" (Meade, 2005:357).

Initially twelve partnerships were set up in areas of high socio-economic disadvantage and by 2004 this

had grown to sixty. Each area partnership was established as a company limited by guarantee and were governed by a voluntary board of management which was made up of representatives from various different stakeholders, i.e. community, employers group, trade union and representatives from the statutory agencies, education, employment and training.

The specific objectives of the programme of local development were:

- 'To work with people who are long-term unemployed and those in danger of becoming long-term unemployed in order to improve their skills and self-confidence, their involvement in the community and to increase their opportunities of getting a job or starting their own business;

- To promote the type of fundamental attitudinal change needed to enable individuals to generate enterprise through creating additional employment and to encourage a more positive attitude towards the recruitment of people who are long-term unemployed;

- To work at a local level to generate more jobs through sustainable enterprises and through the promotion of local economic projects which will stimulate confidence and investment' (Rourke, 1994:13).

In the period from 2005 to 2008 the Government began a process of cohesion trying to integrate service delivery at a local level aligned to local government structures. The aim of this was to ensure "improved democratic legitimacy, public accountability, governance, statutory agency participation, social partnership and local involvement" (DoEC&LG, 2015:7).

The new LCDP was rolled out following the merging of a number of Partnership and LEADER companies into 52 Integrated Local Development Companies (LDCs). Under this programme 140 groups that had been funded under the separate Community Development Programme (CDP) were also integrated into an LDC in their own area (DoEC&LG, 2015).

From 2008 to 2014, government spending fell by 7.1%, the benchmark figure against which all other programmes may be measured. Voluntary and community spending fell between 35% and 45% (Harvey, 2013).

| Funding Stream | Funding Cut |
|---|---|
| Community Development | 43% |
| Youth Organisations | 44% |
| Sports Grants | 60% |
| Drugs Prevention | 37% |
| Family Support Agency | 32% |
| Rural Disadvantage | 100% |
| Urban Disadvantage (RAPID) | 80% |
| Voluntary and Community Organisations National Funding | 41% |
| Probation services | 35% |
| Migrant organisations | 65% |

Table 1 % cut in funding (Harvey, 2013)

The impact was severe. Many projects reduced their services, staff were made redundant or had their hours cut and consequently front line services suffered. Total employment in the voluntary and community sector in Ireland has fallen from 53,000 at the benchmark year of austerity, 2008, to 36,000 by end 2015, down about 31%. There is no example from anywhere else in Europe of such a decline in voluntary sector staffing (Harvey, 2013).

In the inner city of Dublin, the DICP was closed in 2010 along with a number of community development projects, leaving the remaining groups that had been previously funded under the DICP and CDP with no local development company with which to merge. These groups were managed and funded directly by Pobal until the end of the programme in 2015.

In 2014 SICAP was made subject to competitive tender. This was the first time a social inclusion

programme in Ireland was subject to a public procurement process rather than the traditional grant approach. This meant that any organisation, or for-profit company, from Ireland, the EU and beyond could bid to deliver SICAP. Following the tender process the contracts for SICAP were awarded to LDCs which had previously delivered the LCDP with the exception of the inner city of Dublin where the Dublin City Community Co-op won the contract. However, the funding available to the inner city Lot1 was a reduction of 38% on the previous year under the Local Community Development Programme.

The nature of SICAP a definitive shift of funding from grant-giving, the model that has been used for decades to support community development and social inclusion initiatives, to a model based on payment for contracted services determined centrally. This is one of the most significant changes to local development and community development interventions in recent history.

The history and practice of funding for local and community development programmes in Ireland has always been one based on a grant system of rolling contracts for programmes to one off grants for specific pieces of work. This system has been in place until 2014 when for the first time a public tender contest was used for the awarding of contracts under SICAP. It was the first time this approach was taken towards social inclusion and marks a political and ideological turning point in the heretofore shared understanding of social inclusion.

In 2015 the Department of Public Expenditure and Reform undertook a public consultation on commissioning. It is understood that 'commissioning' is to be the future mechanism for the awarding of funding. Commissioning is commonly understood "as a strategic process to link resource allocation with meeting assessed needs, achieving better outcomes for service users, value for money and high quality services" (CES, 2015: 4).

## Types of Funding Mechanisms

The following section outlines the various mechanisms of funding that have been or could be applied to

the funding of community development and social inclusion programmes. It briefly describes the rationale and discusses the merits of each method.

## Grant Based

A grant based or rolling contract model has been applied for a number of decades to the funding of community development and local development. Grants are considered funds that are allocated by governments and statutory bodies to "support an activity of the grantee or to progress towards achieving goals that are mutually desirable between the grantor and the grantee" (Community Work Ireland, 2015:9). There are strict conditions and restrictions applied to the funding but the grantee has control over the programme design, the intended outputs and even the targets to be achieved and target group. The grantee submits the intended plan for the grant and if the grantor accepts this then the grant is awarded.

As has been stated this was the historical way in which programmes have been funded in Ireland. This was the preferred method of funding by the community and voluntary sector as it allowed for flexibility in responding quickly to both national and local crisis but at a local level.

The arguments against this method are both an ideological and political one. Some literature states that in order to ensure good governance, funding should be awarded in a more transparent way. By opening up programmes to public tender it ensures funding for a number of years as opposed to annual rolling funding, which allows organisations to be better able to plan.

## Procurement and Competitive Tendering

A competitive tender or public tender is an open bidding process whereby qualified applicants are invited to bid for a piece of work whereby successful bids are chosen on the basis of price and quality. Within this process responses are invited to tender for pre-determined services for a set price. Those who tender for this work are required to show their capacity to deliver the services on budget. The result of a tender competition is a legally binding contract between the contract holders. Contracts for services are "specifically tied to the delivery of services or goods on behalf of the contracting body" (Community

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1      SICAP is delivered on the ground by 'Programme Implementers' in 51 contract areas (Lots).

Work Ireland, 2015:9).

Public procurement, as defined by the Department of Environment, Community and Local Government, is the acquisition of work, supplies and services by public bodies. (DoEC&LG, 2013) This ranges from the awarding of small contracts to large infrastructural projects. All contracts issued by the State are subject to interpretation of EU Directives on public procurement.

Under the Government's Public Service Reform Plan 2014 procurement was seen as a vehicle for delivering increased efficiencies in service delivery. A particular emphasis was put on improving outcomes for service users. In the plan it states that funding public services, which the government views community and local development as, must "begin to transition away from the traditional system of block grants' and move instead 'to a new approach based on releasing funds in return for delivering specified outcomes" (DPER, 2014: 15).

## Commissioning of Services

Commissioning is not yet in use in the community sector there have been calls for submissions, opening the debate around it as an alternative to public tendering. The department has announced that this approach will be used for the SICAP successor programme. There is no universally wide definition of commissioning but it is commonly understood to be "a broad strategic process to link resource allocation with meeting assessed needs, achieving better outcomes for services users, value for money and high quality services" (CES, 2015: 2).

This is the broadest level of the understanding of commissioning. When applying a robust assessment of needs, commissioning bodies can apply different approaches to funding those needs, from grant based to procurement through competitive tendering. Commissioning therefore does not necessarily mean public tendering. It leaves space for the state to return to the funding of Community Development Programmes in the more traditional block grant system (Mullen, 2016).

The state's recent interventions in social inclusion policy has re-opened the debate about which is the most appropriate mechanism for funding social inclusion programmes when applying the guiding principles and definitions of community development:

> *The decision to pursue the tendering of the programme implementation raises the real prospect of the privatisation of delivery of social inclusion targets, potentially introducing a profit motivation into this work. To date social inclusion has been delivered by community led non-profit companies, it may now be led by profit seeking, market led companies (McCarthy and Muldowney, 2015: 3).*

## Grant Based Model –v- Public Procurement

One of the most significant changes to local development and community development interventions is the change in its funding mechanism away from a grant based model to public procurement. This has had ramifications not only for the government departments and state agencies, who fund and manage the programmes, but for the organisations who deliver community development and social inclusion initiatives.

There is considerable evidence there is a mismatch between applying the principles underpinning community development and putting social inclusion programmes out to public tender as these are services for the public benefit and not for private profit. As can be seen with the establishment of the Dublin City Community Co-op, public tendering would have excluded many smaller community development organisations who had previously delivered the state's community development and local development programmes, based on the size their cash flow. Public tenders tend to benefit larger organisations and have the potential to advantage private sector operators due to their complexities. It can be argued that community development organisations with the skills for developing and delivering social inclusion programmes may not be best placed for writing complex tenders, while companies with the skills and specialties for winning tenders may not be appropriate for delivering social inclusion programmes.

Moving from a grant-based model to public procurement also changes the way in which programmes are developed. With tendering needs of communities are assessed centrally and programmes are developed in the absence of that communities input. Programmes are designed with pre-defined interventions and desired outcomes to be rolled out nationally which does not consider the complexities of a city like Dublin. The legalities of contracts awarded after a public tender competition does not allow for flexibility or responding to emerging needs or crisis.

## Commissioning

Following a public consultation on commissioning by the Department of Public Expenditure and Reform, for a period from late 2015-2016 it was understood by the majority of stakeholders that commissioning was to be the future funding mechanism of social inclusion programmes. This did not transpire and tendering remained the sole mechanism and was utilised in the awarding of the 2018-2022 SICAP.

One of the key findings from much of the research carried out in the 2013-2016 period is that in moving from the grant-based model to public tendering the various processes happened too quickly and if it were to happen again, more time would be needed to fully work out the implications for all involved. In addition the experience of practitioners is that programmes addressing poverty and social exclusion should be exempt from competitive tendering based on the premise that they are providing social services of general interest. While the impetus for the change in funding model came from an EU Procurement Directive, more up to date Directives which override previous ones, now allow for national governments:

> *... to reserve participation in certain competitions to non-profit organisation/structures who are delivering a public service mission and are organised on the basis of participation. They also allow the use of social clauses in tender specifications and procurement contracts, which can specify (as a technical specification or as an award criterion) specific requirements, such as ensuring involvement of disadvantaged people in the delivery of the services (McCarthy and Muldowney, 2015: 3).*

Community development by its nature is complex and ever changing as it responds to the needs of society. Therefore, one single methodology for evaluation and analysis of programmes, such as the IRIS employed by Pobal, does not capture the holistic nature and intense levels of support that some communities need. Qualitative measuring tools are time consuming but crucial if measuring the impact if any programme is to truly capture the real value of the work. Using only quantifiable outcomes to track an individual does not reflect the reality of their journey. Measuring the effectiveness of a social inclusion programme from an economic perspective is inappropriate. Quantifying individuals of a social inclusion programme solely within working age bands, 15-65 years, essentially socially excludes large parts of already disadvantaged communities.

Practitioners highlight the principles of community development, such as person-centredness, empowerment and collaboration, are lacking in the evaluation of the LCDP and SICAP. Programmes need to be designed with those who they are intended for and not simply for them. Measuring the impact of a programme is problematic when only quantitative outcomes are classed as being a successful result. Qualitative measuring instruments need to be designed and used to capture the real impact of any programme. The difficulty lies in the fact that social inclusion programmes such as the LCDP and even more so SICAP are not designed and driven by a community development ethos and this ultimately impacts on how and what is measured within a programme.

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# Housing First and the City'
# How has delivery of the Housing First model in Dublin impacted and inversely been impacted by existing practice and policy in the Ireland?

By Adrian Quinn

## Background

As of September 2017, Ireland has 8,374 adults and children registered as homeless and accessing some form of emergency accommodation, the most up to date official statistics on rough sleeping comes from the Spring Rough Sleeper Count 2017 with 184 individuals confirmed as sleeping rough on the night of the 7th of November, this is the minimum number visible on that night (DRHE 2017). Importantly these numbers do not reflect the suspected numbers of individuals accessing informal arrangements with family and friends or 'couch surfing' and sleeping rough in areas that are not accessed during the rough sleep count, such as squats and vacant sites. These official figures are approximately a 20% increase in the number of adults and children recorded as accessing emergency accommodation in September 2016 and a 25% increase in the number of individuals rough sleeper from the previous Local Authority coordinated count in spring 2017. This occurs at a time and is indeed exacerbated by a housing market characterised by a severe shortage of affordable housing, insufficient social housing stock and a highly competitive private rental market.

## Irish Homeless policy framework

The strategic and policy framework for addressing homelessness has developed to the point of adopting an overall Housing Led (HL) ethos beginning with 'The Way Home' strategy in 2008. This ethos was somewhat implicit initially, becoming more coherent with subsequent reviews. It places an "emphasis on the provision of timely exits from homelessness through reducing the duration of residence in temporary accommodation and prioritising move-on to independent living with support as required and within a time limited period (of up to six months)" (DRHE, 2009 p.8). This move towards recognising the critical role of housing in addressing homelessness is manifest succinctly and clearly in the roll out of a dedicated 'Housing First' initiative. This innovative shift in paradigm though has arguably not been matched by similar ideological shifts in the area of housing policy, whose strategy remains fixed on a series of policy shifts and corrections that continue to promote the over-reliance on a speculative profit driven development model as it attempts to address imbalances.

## Housing First: *Changing Paradigms*

Traditional homeless response models and housing pathways have tended to follow a treatment-first model whereby the individual must demonstrate clinical stability in addiction, and be deemed to be in good health and mental health. This status is sometimes referred to as demonstrating 'housing readiness', and must be achieved or 'proven' to some degree before access to stable housing is permitted. These requirements are also known as staircase, linear, housing readiness or continuum of care models (Johnsen and Teixeira, 2010; Pleace, 2015). This model is highly problematic for individuals with co-existing issues such as addiction and a mental health diagnosis, who find themselves unable to address them while experiencing the chaos that comes with homelessness and without the ontological security1 of a stable home (Padgett, 2007). An additional common feature of homeless service structuring based around this model is an over reliance and abundance of less effective and expensive services on the lower 'rungs', with inadequate pathways towards long term housing, i.e.; emergency shelter style accommodation. (Padgett, Tsemberis and Henwood, 2016).

The HF model originally emerged in New York in the 1980s and was delivered via the Pathways Housing First organisation (PHF). It is a model underpinned by two core convictions which were seen as integral to addressing underlying deficiencies within existing systems; firstly, that housing is a fundamental right and secondly, that once an individual has access to a home of their own, they can achieve a level of ontological security which will promote recovery and wellness in areas such as addiction, mental health, trauma and physical wellbeing (Tsemberis, 2010). Coherent delivery of Housing First methodology across differing global localities has demonstrated through the use of longitudinal and comparative research methodologies that individuals with the high levels of support needs and chronic histories of homelessness could be housed and achieve housing sustainment outcomes in excess of 80%2 (Tsemberis 2010; Padgett, et al 216; Gaetz, 2013; Greenwood, 2015; Geertsema, 2014; Pleace, 2015).

## Europeanisation of Housing First

From the year 2000 the European Union made the decision to use the 3Open Method of Coordination (OMC) as the primary method for progressing homelessness as an agenda at a European policy level. The growing urgency and importance of homelessness as a policy area across Europe was fuelled in no part by an ever escalating need for better responses. This escalation was driven primarily by the economic crisis of 2008 which saw increasing numbers across Europe fall into and become at risk of homelessness (Aldanas et al., 2017). Several EU stakeholders including Danish, Belgian, French and Irish representatives on the Social OMC were key in promoting the need for improved policy responses to homelessness across Europe (Gosme, 2013; France, 2012; Culhane and Randall, 2013; European Consensus Conference, 2010). While holding the EU presidency in 2012, the French government called for "a strategy based on five principles: Housing First; Importance of supply; Importance of supports to maintain housing; Prevention; and Choice" (Culhane and Randall, 2013 p.147). The specific emergence and dissemination of HF models across Europe was further supported by key regional actors and events.

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2    This focus on individuals with complex needs also addressed one of the previously held rationales for low success within continuum of care models. It was argued that because of the complexity of individuals needs and the chaos of homelessness that while continuum of care models showed rates of success below 50% in some instances, in relevance to the target group this should be seen as a high level of success (Pleace 2008; Padgett et al., 2016).

3    "The Open Method of Coordination (OMC) is an EU policy-making process, or regulatory instrument, formally initiated by the Lisbon European Council in 2000. The OMC does not result in EU legislation, but is a method of soft governance which aims to spread best practice and achieve convergence towards EU goals in those policy areas which fall under the partial or full competence of Member States" (Prpic, 2014).

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1    Padgett, D (2007) cites Giddens (1990) and Laing (1965) in describing ontological security as "the feeling of well-being that arises from a sense of constancy in one's social and material environment which, in turn, provides a secure platform for identity development and self actualization".

Beginning with FEANTSA4 (the European Federation of Organisations Working with the Homeless), In partnership with the Danish National Board of Social Services, they accessed funding via the EU commission PROGESS5 programme, a funding mechanism running between 2007 and 2013 via the commission and Social-OMC framework (Busch-Geertsema, 2014).

From this, a multi-site Housing First Europe (HFE6) study of emerging HF projects was coordinated by FEANTSA. The primary findings for these confirmed that the model was indeed applicable across differing localities and achieved greater than 'normal' outcomes in areas of housing sustainment. They also highlighted a degree of programme drift from the prime North-American model or contextualised service design, with aspects of specific initiatives being influenced by a number of factors such as culture, welfare regime, housing market and presenting needs (Johnson, 2014; Pleace, 2015; Busch-Geertsema, 2014). These ranged from stand-alone project deliveries such in Dublin, to far the wider and more systemic reorientation of resources and strategies as seen in Finland's PAVO I and II strategies, where the majority of homeless service responses were reoriented and developed towards long-term housing pathways under a HF methodology, with a blend of scattered and single-site housing unit provision (Busch-Geertsema, 2010, Pleace et al, 2016).

## Housing First: in Dublin

As part of the HFE process a 'Housing First' demonstration project was coordinated in Dublin by the Dublin Regional Homeless Executive7 in partnership with several NGOs. The outcomes of this were evaluated by the University of Limerick and found results in line with international evidence. The 27 participants demonstrating higher levels of wellbeing and housing stability than those accessing existing

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4       FEANTSA have worked since 1989 to enhance collaboration, advocacy and research amongst Non Governmental organisations across Europe working specifically in the area of homelessness. Their aims include promoting dialogue, best practice and support research amongst European institutions, national and regional governments to promote the development and implementation of effective measures to end homelessness.

5        The purpose of PROGRESS was to promote and strengthen the EU contribution to member states efforts to build more cohesive societies through targeted funding for initiatives that addressed areas such as employment and social inclusion.

6        HFE aims were to evaluate the impact and learning in delivering HF initiatives in ten European cities. These constituted five test sites: Budapest, Copenhagen, Glasgow, Lisbon and five 'peer' review sites; Dublin, Gent, Gothenburg, Helsinki and Vienna (Busch-Geertsema, 2014).

7        The Dublin Regional Homeless Executive formed in 2011, its primary aim being to promote a more cohesive response to the issue of homelessness through funding and centralised coordination of the various social partners

continuum of care and housing led pathways (Greenwood, 2015 and Busch-Geertsema, 2014). Following this, a mainstream statutory funded iteration of HF was launched. This Dublin Housing First (DHF) service is delivered in partnership by Focus Ireland and the Peter McVerry Trust and commenced on October 2014.



The original target for the DHF service was to support 100 individuals into long term independent housing, alongside intensive multi-disciplinary visiting support and would specifically prioritise those with long term histories of rough sleeping and co-existing needs such as a mental health diagnosis and addiction. This current iteration of HF is resourced more extensively than its predecessor with separate specialisms in Intake, Intensive Case Management, property management and a fully resourced multi-disciplinary team, as the earlier demonstration project was felt by some stakeholders to have been hampered by a lack of financial support and as result utilised existing resources from an array of statutory and NGO actors (Quinn, 2017).

In addition to its primary HF targets, the Intake stream is also tasked with delivering a statutory funded street outreach service for the greater Dublin area and provides a harm reduction response through assertive street outreach, promoting access to emergency shelter beds and primary care services (Quinn, 2017). With this wider remit beyond facilitating pathways to HF tenancies, the Intake team supported over 1,700 individuals through a range of interventions in 2015, providing access to an emergency harm reduction beds for someone sleeping rough on average 1,000 times per month (Fitzgerald, 2017).

At the time of writing the Dublin Housing First Service has achieved its original target of 100 sustained exits out of long-term homelessness and has been granted further funding to expand towards housing 300 individuals under the 'Rebuilding Ireland' strategy. The initiative has to date created 134 new tenancies (PMVT, 2017). Stakeholders and practitioners report a strong fidelity to the core model early on, with a priority given to engaging and housing those experiencing long-term homelessness, with co-occurring support needs and excluded from mainstream housing solutions. Demonstrating a clear indicator of the ongoing impact of delivering coherent HF methodology, the initiatives housing sustainment outcomes are inline with international HF programmes.

## Systems planning

Coherent delivery can offer the chance for Housing First to act as a "Trojan Horse", as Turner (2014) puts it; due to its person-centred and harm-reduction approach it allows policy makers the opportunity to see the benefits of pursuing a more systemic and intersecting approach to social inequity and homelessness. HF in this way can and should move the discourse on housing to the centre of the issue of homelessness while at the same time demonstrating the need for specialised support services. In this space it allows a redefining of the role of home and housing, in terms of the critical need for equitable access and the role of good housing and social policy to prevent homelessness in the first instance. In reflecting on the role of housing in delivering HF in Dublin, stakeholders, both front line and senior management, found that different sources of housing brought differing challenges and opportunities. The most problematic of these is security of tenure. This is weakest in the Irish private rented market. There continues to be an emphasis on securing units from the private rented market. This appears to be a result of both the need

to secure any and all housing while supply is short but also there are specific targets within the service and on a macro level within the current Rebuilding Ireland strategy (Department of Housing, Planning, Community and Local Government, 2016a). Competing agendas and target setting can potentially increase the risk of inconsistent application and 'loosening' of criteria for inclusion in the programme in an effort to build confidence and ensure results as it expands. This relates to the wider debate around programme drift and how it affects the sustainability of HF approaches, particularly where it carries the additional function of challenging inefficient policy direction. In this regard the model's potential to act as the aforementioned 'Trojan horse' and instigator of change within social and housing policy, could lose a degree of potency should it be diluted to meet differing agendas.

Ireland has made the HF model one of its key responses to long term homelessness, at present is implemented primarily as a singular service intervention with less influence on complimentary systems and policy, as such there are key tensions that impede its full potential. These tensions hold lessons for the overall implementation of a cohesive homeless strategy and sustainable upscaling. At the same time, due to the multi-agency support from both Government and the professional charitable sector, these impediments offer opportunities and pathways to influence and move towards a more cohesive strategy that incorporates key HF convictions and principles. As early adopters of the model, the role of the Dublin Regional Homeless Executive (DRHE) was critical in the delivery and introduction of HF, fostering and supporting an innovative policy that challenged prevailing paradigms. This required key individuals building consensus within the social partnership structure already existing in Dublin, with broader civil society and its constituent professional NGO sector being both open and crucially holding the expertise needed to deliver the model. Of note in the Irish context, this process is somewhat contrary to the normative 'bottom up' approach that social innovation initiatives are often seen to take (Quinn, 2017).

The concept of programme drift remains a factor to be considered going forward as the initiative scales upwards, with the model potentially vulnerable to a more diverse interpretation in a politically charged environment, one that is underpinned by a social housing shortage and the highly politicised nature of homelessness in Ireland. This calls to question the role of HF as an instigator of paradigm change. Should

the model be diluted to much, too early, it may lose its potency to reduce long-term homelessness in a sustainable fashion and also the important opportunity to challenge attitudinal resistance, policy and stigma as it relates to housing and homelessness on a broader scale.

## Summary

The experience of HF in Dublin is that while it has been funded beyond a small-scale evidence building phase, it remains in a transitional space with many important stakeholders to be convinced. Political instability was named as a factor by stakeholders in delivering HF in Dublin, one that leaves the wider homeless strategy vulnerable to change and in the context of HF in Dublin, whether any change reorients and reinforces a real move towards a housing- led approach or becomes further entrenched in the primacy of temporary and emergency sheltered accommodation which has occurred over the last number of years. This is a clear step in the opposite direction of the aims of 'the way home' and a housing-led approach. These were hard won strategic battles towards recognising the need for housing and decreasing the reliance on emergency shelters which is an integral step in addressing homelessness in a cohesive and sustainable manner. As such, Ireland's homeless strategy remains one of several competing state projects and the current unstable political climate reinforces the hybrid nature within Irish public policy, which continues to provide opportunity for contradictory policy and key tensions to emerge (O'Sullivan, 2008).

A Housing First model should be promoted as a coherent system with clear parameters, ensuring the inclusion of all stakeholders and resources required as active participants, cognisant of differing areas of governance and seek opportunity for change. The experience of delivering a HF model is that despite environmental challenges, when the correct service structure, accessible housing with strong security of tenure, innovative practice and principles are held, fidelity to the original prime model can be maintained on a case-by-case basis with sustained and positive outcomes for individuals. To scale up in a coherent and sustainable manner then, the question for Ireland is whether it can bridge the divide between a strong HF service and the opportunity of a stronger systemic approach to delivering a HF strategy, one that takes the key lessons of PHF philosophy and applies them to the wider range of policy areas it inevitably interacts with and is affected by.

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# Book Reviews

# Adapting to Climate Change: Governance Challenges

Edited by Deiric Ó Broin and Peadar Kirby

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This volume is essential reading for those who wish to understand Ireland's response to the challenge of a warming world. In his introduction Professor Brian MacCraith, President of Dublin City University, highlights the role of knowledge creators in aiding public policy formulation, and stresses the role of collaboration in facing Climate Change. Kirby and Ó Broin ask how institutions and systems can be reformed to tackle the Climate Change 'Elephant in the room'. While several contributors outline the history of international negotiations and agreements, the importance of this book is in each writer's attempt to grapple with the enormity of the climate problem. A key conclusion is that our institutions must undergo significant transformation if they are to adequately address the task.

Kirby asks whether Irish local authorities are fit for this purpose, and believes they are found wanting. He suggests that change will not come from a top-down approach, but may emerge from the 'rich reservoir of social capital' that exist in Ireland. Ó Broin writes that both political culture and institutions of governance conspire against engagement with the issue, and states that social conservatism and passivity militate against efforts to address the issue. However on a more upbeat note, he sees the energy of water charge protestors as a cause for optimism if it can be focussed on Climate Change. He discusses the attachment Irish people have to place, and suggests that this could assist in inspiring the public to develop adaptation processes. This theme is also taken up by Conor Murphy's contribution in which he shows how an individual's identity is shaped by place. Using the example of proposed flood wall defences in the Dublin suburb of Clontarf he discusses how the local community objected to adaptation measures as

they perceived a lack of engagement from the local authority. The lesson here is that careful engagement is a crucial element in proposing adaptation measures. Paul Price's contribution explains in stark detail how carbon emission reductions must be fast and continuous in the developed world to limit global temperature increases to under 2°C, and calls for a whole-economy Mitigation Plan rather than piecemeal or contradictory policies. At a local level he praises the work of fireman Neil McCabe in achieving radical emission reductions in a fire station.

Several contributors discuss initiatives that local authorities are taking in response to the climate threat. Research from County Cork suggests that higher population settlements achieve greater sustainability scores, and concludes that greater ambition is required in smaller more isolated settlements. This could mean schemes such as promoting local renewable energy. Patricia Mackey highlights work undertaken in North Down Borough Council. She says that the language used in communicating Climate Change is crucial, and references a seminar that used the phrase "severe weather events" rather than Climate Change to attract a crowd. She also believes that positive messages such as jobs or lower energy prices can be useful in encouraging behavioural change. Her work in an environment in which a previous Northern Ireland Environment Minister had denied the science of Climate Change appears daunting, but may have relevance to current debates in the United States.

Mark Bennett states that stronger policies to tackle Climate Change are inevitable, and suggest that open data and green financing can deliver tangible results. Diarmuid Torney emphasises that the process leading to the 2015 Paris Agreement on climate generated a momentum in which local government played an important part in discussions.

An area that may have been overlooked in this volume is the Irish response to the affects of Climate Change on the developing world. As our development aid focuses more on climate adaptation, the Irish Naval Service saves lives in the Mediterranean, and refugees from areas of conflict are resettled in Irish towns and villages. All of this is connected. In years to come Climate Change will more strongly influence policy responses in these and other areas. Acknowledging this at an early stage may assist in

better formulating a joined-up Government response. As Irish consumption and carbon emissions rise after the recession, it may be incumbent on the Irish State to show economic, social and moral leadership on these issues.

A constant theme in the book is the significance of bottom-up activity where local initiatives are empowered and encouraged. While institutional change is challenging, the seeds of change are emerging from collaborative engagement with citizens in communities all over Ireland. There is no silver bullet that can halt Climate Change, but this book bears testimony to the myriad of approaches that may assist in tackling the threat of runaway warming of the planet.

# 'The Econocracy, The perils of leaving economics to the experts'.

Joe Earle, Cahal Moran and Zach Ward-Perkins
Manchester University Press (2017).

The introduction describes the origins of this book as being in the campaign to reform the economics syllabus at the University of Manchester. The authors, of a generation that witnessed the economic crash of 2008, were frustrated that their education was providing them with no understanding of current world events. They describe themselves as learning and regurgitating complex economic models with no ability to relate these to the economic events at the time. The authors were are not alone and found company in 'Rethinking Economics' described as 'an international network of students, academics and professionals building a better economics in society and the classroom'. The authors boldly state that the knowledge and skills that they have acquired during the course of their studies does not justify any authority that they may now be given as economists.

A definition of econocracy is provided in chapter one; 'A society in which political goals are defined in terms of their effect on the economy, which is believed to be a distinctive system with its own logic that requires experts to manage it'. The authors trace the roots of econocracy and the increasing use of the term 'the economy' as an entity in itself, disjointed from wider society and outside the realms of democratic debate. They describe how political decisions are increasingly made on the basis of value to the economy and contribution to GDP alone. Political decisions are made under a mask of technical calculations and institutions, and the 'citizen' is absent in the discussion as society concedes to the 'experts'.

The book focuses on the structure and content of economics programmes in higher education institutions and refers to 'economics as indoctrination', describing the monopoly of neoclassical economics teachings. Following a review of the economics curriculum across seven universities, the authors demonstrate an overwhelming emphasis on operating models and memorising text, and a shocking absence in the

requirement to evaluate critically or to question assumptions, with ethical considerations being reduced to whether or not something is 'desirable'. Different economic perspectives are briefly described and the limits of neoclassical economics are outlined, somewhat repetitively. The discussion on the absence of consideration of the environment, and issues of inequality in neoclassical economic models, while brief, is alarming. The authors describe how a neoclassical 'mainstream' has developed in economics departments through the institutional system for evaluating research quality. The judges of same are said to lack intellectual diversity, meaning economic research which does not fall within the narrow confines of the mainstream could be considered 'bad research'.

The authors put forward the case for a return to a 'liberal education' approach in the pursuit of economics reform whereby students are taught to engage critically with theories, rather than accepting them unquestioningly and merely being 'trained for work'. The authors accept that the achievement of a liberal education is difficult and idealistic, however, the extent to which it is achieved, is a measure of the quality of education. The authors describe a disconnect between the skills and knowledge that graduates are being equipped with and the competencies demanded by economic roles, particularly in government departments. This disconnect is attributed to the higher education system more generally, which has witnessed significant increases in student numbers, a political strategy based on the assumption that increasing participation rates in higher education will increase productivity of individuals and the economy as a whole. The authors argue that this assumption is made without adequate consideration or acknowledgement of how the system is resourced, funded, and how society measures the quality of education provided.

The authors put forward a number of key features of a pluralist, liberal education model; greater use of peer to peer learning, experimentation, problem based learning, and critical thinking and evaluation. At the core of these features is the student as an active learner and the authors acknowledge that motivating students in this regard will be difficult in the absence of official recognition and credit for same. The book concludes with a call for a new relationship between society and economics which will allow for more inclusive economic dialogue amongst all, not just the 'experts' with a formal economics

education. The authors also call for a 'new kind of expert' and 'Public Interest Economics' to rebuild public trust, engage rather than inform, and address the knowledge inequality between society and the 'experts'.

This book raises important questions with regard to how society equips our future policy and decision makers. It also raises questions as to the role and responsibilities of the individual (either as an 'active learner' or 'citizen economist'), and of the media and political parties (to be clearer in presenting the assumptions and judgements behind their economic arguments). This book is an excellent start in an area requiring more discussion and debate by a wider audience, beyond the discipline of economics.

# Transdisciplinary Perspectivces on Transitions to Sustainability (1st and 2nd Edit)

The three editors of the book are academic staff of University College Cork. Dr. Edmond Byrne is Senior Lecturer in the Department of Process and Chemical Engineering, Dr. Gerard Mullaly is Lecturer in the Department of Sociology and Dr. Colin Sage is Senior Lecturer in Sociology.

The book has two aims. One is to highlight how several departments of a third level institution can collaborate to deepen understanding of sustainability. The other is to examine how actions to promote sustainability within universities, and within society as a whole, can be implemented.

At the outset, the Father Ted episode, 'Passion of St. Tibulus', is used to illustrate the challenges academics encounter when they wish to collaborate in undertaking research.

Chapters two and three provide an overview of the core concepts underpinning the book's content. Byrne effectively uses the analogy of feminism to illustrate how sustainability has been moulded to form an ideology that is limited to altering individual behaviour. Therefore, the dominant ideology regarding sustainability does not challenge the modus operandi of capitalist business entities. Byrne proceeds to detail Ulanowicz's model of sustainability, which he asserts is a far superior theoretical framework for explaining the ecosystem than the conventional linear three-dimensional framework. Moreover, Byrne argues that sustainability urgently needs to be considered as a complex dialectic process as opposed to a model predicated on 'a one-way path of initiatives'. The author asserts that a transdisciplinary approach to knowledge integration needs to replace the dominant paradigm of reductionism and separation of scientific knowledge. Finally, Bryne argues that failure to rebut the belief that humanity should master nature and the earth's ecosystem will pave the way for imminent ecological, economic, social and ethical crisis.

Dr Gerard Mullaly's article explores the role that narratives play in relation to climate change. In particular, he asserts that although religious leaders perform a relatively peripheral role in drawing attention to climate change, the use of religious symbolism by politicians, media pundits and scientists is significant. However, the reviewer would argue that is not consistent with the prominent focus that the current pope has placed on humanity's urgent need to address its failure to co-exist with nature. His more substantive argument, that the media and those in power place their faith in the international conferences on climate change to solve the problem of anthropocentric climate change, is insightful. This leads to those in power adhering to a belief that it is not within their domain to do anything to address climate change and inertia is the order of the day [I'm commenting on this point below]. The author argues that writers have a role to play in illustrating the dangers of climate change. It could be argued that he underestimates the fact that ownership of satellite television and print media is concentrated in the hands of tycoons who demand that consumerism and the neo-liberal agenda are not challenged in their papers or TV channels. Consequently, as the author suggests, the media functionaries do not have much autonomy to utilise the short story to highlight the challenge of climate change as this goes against the interests of the media-owners and their stakeholders, including advertisers.

Dr John Barry argues in his essay that, although socio-technical innovation has an important role to perform in combatting climate change, it is not the panacea in this regard. Instead, social innovation needs to be complemented by transdisciplinary approaches which harness the creativity of communities, civil society and academia from a range of disciplines. Barry draws attention to the paucity of investment in research in the social sciences and as they relate to sustainability.

Adopting a position similar to Barry's, Ó Gallachóir and Deane argue that a reliance on socio-technical innovation is a fundamentally incomplete response to climate change. Moreover, this flawed analysis absolves the need for behavioural change leading to a reduction in energy consumption. Dr Mary O'Shaughnessey and Dr Colin Sage critique Ireland's agricultural policy for prioritising market

productivism. The authors argue that this policy agenda undermines farmers' capacity to promote an environmentally-benign model of agriculture.

The book has a number of shortcomings. Firstly, social innovation could have been explored in more detail. In particular, the role that civil society and the social economy could perform in the transition to the realisation of more sustainable societies only received superficial examination. Secondly, Chapters one and two are a bit too long, and their language could have been simpler. Finally, a small number of chapters are not a good fit with the book's central thesis. Overall, the book makes an important contribution to how sustainability is conceptualised and to the case for transdisciplinary approaches to sustainability.