

**POLICY ON BUSINESS NETWORKING IN IRELAND:
A REVIEW, AND PROSPECTS FOR EVALUATION**

HELENA LENIHAN AND ROGER SUGDEN

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Author contact details:

Helena Lenihan: Department of Economics, Kemmy Business School, University of Limerick, Ireland; Helena.Lenihan@ul.ie

Roger Sugden: Institute for Economic Development Policy, University of Birmingham, UK; and *DARE (Democratic Communities in Academic Research on Economic Development)*; R.Sugden@bham.ac.uk

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1. INTRODUCTION

In early 2006 the Irish Government announced a Pilot Initiative for Collaborative Projects from Industry-Led Networks, the latest in a series of policies on ‘business networking’ that date back to the mid-1980s. The purpose of this chapter is to describe and comment on those policies by reviewing the previous literature (both academic and policy documents). What we stress is that over the years and across different policies, the precise focus has varied, in terms of networking aims and objectives and networking forms.¹

We appreciate that there is considerable confusion in the wider discussions as to the meaning of ‘networks’ and ‘networking’ in a business context, and indeed this has been recognized before in analysis of Irish policy (for example, in Forfás (2004)). However, our approach is to avoid much of that confusion by simply centring discussion on those (inter-related and overlapping) areas of policy that the literature on Ireland consistently addresses when considering ‘business networking’, namely: ‘linkages’ between ‘local’ firms and transnational/multinational corporation (TNCs); training networks; research and development (R&D) networks; inter-firm cooperation processes more widely. These four topics are respectively the prime focus of successive Sections in this Chapter.

Our discussion culminates in a consideration of the prospects for the successful impact of the 2006 Pilot. We welcome the initiative as seeming to represent a welcome seed-change in policy, and offer preliminary insights into how it might be evaluated. In doing so we introduce the notion of ‘public interest evaluation’ (PIE), intended to assess the extent to which public interests are served by a particular policy. Part of the idea is that whilst the Pilot is focused on (to some extent) measurable benefits to participating enterprises from networking projects, it might also be desirable to consider other effects on wider publics.

2. LINKAGES

The first explicit policy in Ireland centred on some form of networking appears to have been the National Linkage Programme (NLP). Introduced in 1985 as a response to criticism about reliance on foreign controlled TNCs, its objectives were to increase “the purchase of local materials and services by overseas firms” and to develop “a strong indigenous sub-supply base” (Department of Enterprise, Trade and Employment, 2003, p.85). In its early years the NLP concentrated on “helping individual companies to meet the requirements of [TNCs] and thereby sub-contractors” (National Economic and Social Council (NESC), 1996, p. 32); the implication is that it had a focus on ‘hub-and-spoke’ networks (see, for example, Markusen, 1996).² However, we will see below that this precise networking form altered in the late 1990s.

According to Ruane (2001), the NLP carried two policy risks (p. 4): “a linkage marriage that ‘failed’ and damaged a TNC (say because the local company did not deliver) could undermine an industrial development strategy that was heavily based on promotion of foreign direct investment, and the inevitability of selectivity amongst local companies chosen to participate in the programme could give rise to complaints from companies that were not selected.” Consequently, to reduce “the appearance of selectivity” and “minimise” the risk, “a general database on sub-supply was established, to which all companies were given access.” Ruane concludes that “this twin approach of general support for linkages combined with particular support for certain companies ... mirrors the general approach to industrial policy pursued in Ireland over the past four decades.”

Indeed, we would argue that elements of the approach are present in the 2006 Pilot, as will be evidenced in Section 5.

Another characteristic revealed early in the NLP and that that we would argue permeates Irish policy more widely is an awareness of international dimensions: Ruane (2001) observes that during the first two years of the programme the approach was to engage TNCs by helping them to build their *European* sub-supply chains and, *in that context*, identify potential within Ireland. The objective was for TNCS to see the programme as enabling rather than constraining; the means was to avoid a parochially Irish perspective.

By 1997, Ruane (2001, p. 6) argues, “the linkage programme had contributed successfully to building up a local sub-supply industry” in electronics, its particular target.³ However, she also contends that by that time “the goal posts had completely shifted”, and again an awareness of the international dimension is revealed. The problem is that “the electronics industry had come to the fore as the most globalised industry in the world, leading policy-makers to question the meaning of *local linkages*.” As a result the programme was restructured – an *International Business Linkages Division* was established within Enterprise Ireland (EI) – and stress was placed on “the globalisation of the local supply industry.” This was to be achieved by assisting local companies in, for example, establishing cheaper sub-supply sources in Central and Eastern Europe.⁴

Ruane (2001, pp. 6-7) summarises Ireland’s linkage programme in the period 1998-2001 as “in marked contrast to what had been undertaken previously – and indeed ... a new interpretation of the concept of linkages ... From the Irish policy perspective, there are now no border distinctions in this international business context: the [TNCs] can be based anywhere; the local companies may not even be producing locally.” In short, Ruane observes a significant alteration in the networking form that the policy is designed to stimulate: “the approach is moving increasingly towards the building of supply networks and supply chains rather than direct [TNC]-local company linkages.”

Since 2001 there have been further alterations. The *International Business Linkages Division* within EI has been disbanded and linkages have been addressed through a wide-ranging set of initiatives designed to enable firms in Ireland – TNCs and indigenous – to meet and interact with each other and with firms from elsewhere, for example at Technology Roadmap Seminars, at conferences and on trade missions (see, for example, Enterprise Ireland, 2004). It is not that linkages have been abandoned as an issue. Rather, the trend identified by Ruane (2001) towards an emphasis on global supply networks seems to have been carried forward by their being fostered without the special focus of a National Linkages Programme *per se* (see, for example, Enterprise Ireland (2005)).

As for empirical data on policy outcomes, for the early years of the NLP, up to 1990, Ruane (2001) finds relatively sparse evidence of brokered linkages *per se*. Compare with this the perhaps more upbeat message from the then Minister for Industry and Commerce: it was estimated that, in 1986, Irish sub-suppliers undertook approximately £40 million worth of additional business because of the programme.⁵ See also NESF (1996), citing an alliance of electronic companies, Orbitech, as an apparently successful case of networking stimulated under the NLP. More generally, Forfás (2004) argues that the NLP failed to reach its full potential, but gives no explanation for this view. Jacobsen and Heanue (2003) suggest that the policy had some success, local sourcing increasing until the

early 1990s but then levelling off. Further, according to UNECE/EBRD (2001), during 1985-1987 the estimated 250 foreign affiliates involved in the programme increased their local purchases of raw materials fourfold. Over the same period, the sales and employment of local suppliers rose by 83% and 33%, respectively: “several have become successful international subcontractors; some of the larger domestic supplier companies involved in the NLP have subsequently been acquired by foreign TNCs” (*ibid*, p. 20). Ruane (2001) also considers the sales data, albeit recognising that it can severely overestimate linkages. Excluding electronics, she finds that in 1985 foreign TNCs in Ireland’s non-food manufacturing sectors purchased 17% of inputs locally, and by 2000 this had risen to 23%. By contrast, in electronics – the especial target – purchases increased from below 10% to over 30%.

Ruane also reports that in 1996 there was a major review of the linkage programme in the context of European Union funding. This indicated the need for data that would enable both “general evaluation purposes” (*ibid*, p. 8) and the management of linkages by the policy agencies.⁶ We would see such comments as a more general warning that all policies – including other policies on business networking – be accompanied by measures for data collection so as to permit appropriate evaluation.

Overall, Ruane (2001, p. 12) concludes that “it is hard to either totally prove or disprove” whether linkage policies have been successful, and she sees Irish policy as entering a new era. This is one in which “the role of traditional linkage programmes has changed and they are now seen as just one part of a development strategy which integrates [TNCs] further into the Irish economy and develops the capacity of local companies. The former is now focused strongly on building relationships between [TNCs] and universities, and the latter is concentrating on building up skills and R&D in local companies in a networking context.” It is to these policies that we now turn.

3. TRAINING

NESC (1996) and Forfás (2004) identify the Plato Programme as another early networking initiative. Locally focused, the underlying ideas originated in a project to spur regional economic development in Belgium, and the first Irish Plato initiative was in 1993 in Dublin. According to NESC (*ibid*, p 32), the focus is on business training networks, “in which local owner/managers are encouraged to learn from one another and from the advice of local large enterprises who act as facilitators of small working groups.” In the mid 1990s the programme involved “60 small companies and 10 larger ‘parent’ firms”, and apparently “achieved considerable success” (*ibid*, p. 32).

The number of Plato networks has since risen; Forfás (2004) reports 8. Nowadays “it is primarily supported by Chambers of Commerce and County Enterprise Boards. It is the largest private-sector led network initiative involving over 1000 companies around Ireland” (*ibid*, pp. 35-36).⁷ According to Forfás (p. 36), “the aim of the Plato initiative is to establish a broadly based business support structure which provides opportunities for SME [small and medium sized enterprise] owner managers to develop their management skills”, but “it also creates opportunities for commercial development through local and international networking.” In short, it appears to go beyond a training concern, incorporating additional networking objectives.

Over more recent years there has also been a further, distinct training programme involving a relatively wide set of economic actors: the ongoing

Skillnets initiative, introduced in 1999. According to Department of Enterprise, Trade and Employment (2003, p. 138), the objective is “to improve workforce training at enterprise level, particularly among SMEs.” The initiative “is administered by Skillnets, an independent company whose board includes employer, union and state representatives” (*ibid*, p. 138). Forfás (2004, p. 36) explains that “the key difference between Skillnets and other training schemes which provide support for individual firms is the Skillnets’ focus on mobilising groups or networks of companies to develop strategic answers tailor-made to their own specific needs.”

Further and current information on Skillnets can be found at www.skillnets.com. One point of particular interest is that the website views networks as “flexible and non-hierarchical with members sharing in decision-making and the design and implementation of strategies”.⁸ In contrast, the international academic literature reveals major differences across network types in practice, as clearly shown in the review by Powell and Smith-Doerr (1993). For example, in their typology of subcontracting networks Sacchetti and Sugden (2003) suggest the extremes of a spectrum. On the one hand there are ‘networks of direction’, in which core participants exert their power, pursuing their own aims and other strategies despite the preferences and resistance of others. Indeed, we would suggest that this form might well characterise networks realised under the NLP; networks of direction include ‘hub-and-spoke’ networks, as well as some of the apparently more complex arrangements in modern supply networks. On the other hand there are ‘networks of mutual dependence’, featuring symmetrical shaping of strategic direction amongst network participants based upon shared responsibilities. Further, these network types have significantly different implications for performance. For example, whilst networks of direction imply the achievement of the objectives of core firms, those objectives may or may not coincide with the ultimate goals of directed firms. Consequently, “the expansion of actors’ productive potential through networking may or may not correspond to an increase in the opportunities of all the participants in the network” (Sacchetti and Sugden, 2003, p. 684) The Skillnets website might seem to imply that there is no room for such tensions in strategic interests within a Skillnets initiative. However, and notwithstanding the information made available within Skillnets about network formation and operation, it is not clear to us precisely which aspects of the programme *ensure* that there are no such outcomes.

According to the Department of Enterprise, Trade and Employment (2003, p.138), an “evaluation” in 2001 found that projects supported by Skillnets had encompassed over 2,300 companies and 12,800 employees. Nearly 75% of those companies had under fifty employees, and “a sizable proportion of them had not previously engaged in formal workforce training.” We would observe that Storey (2000) would see such concerns not as ‘evaluation’ but as Step 1 monitoring; this is the least sophisticated form of evaluation, albeit a building block for evaluation.

Skillnets own website provides more up-to-date information. It reports that over 5000 firms have participated in 90 training networks. There were 55 networks over 2002-2005, in excess of 83% of participating companies being SMEs. The website also comments on apparent motivations and outcomes. Firms are said to have found that Skillnets training is: “more cost efficient as they have better buying power as well as Skillnets funding”; “more relevant”, “flexible”, “accessible” and “useful”; “more informed as companies learn from and support

one another in the process”; “better facilitated as companies have full time management staff to organise network training and other activities on their behalf”; “more suited to enterprise needs as companies themselves decide all aspects of the networks strategy, plans and activities; “more beneficial as companies in the network receive new information, share ideas, develop new relationships with their peers in other companies and tap into a wide range of business opportunities that arise from being part of an inter-firm network.”⁹ Similarly to the point we made in relation to the Plato programme, this last comment seems to indicate that the networking focused on training has beneficial spillovers to influences and objectives more widely.

4. R&D

A third focal-point in Ireland’s policies involving business networking is R&D. Again, this reveals a focus on networking forms that go beyond the relatively simple linkages envisaged in the early years of the NLP. Moreover, there is recognition that networks impacting on businesses need to span more than the businesses themselves

Specifically, Department of Enterprise, Trade and Employment (2003, p. 12) argues that Irish policy agencies are actively fostering “strong links and networks ... between the research community and the enterprise sector.” It seems to view the objectives of networking in terms of innovation and entrepreneurship, the approach being “to foster Irish counterparts of the kind of strong research-industry networks found in Silicon Valley and the ‘Miracle Mile’ which links Harvard, MIT, and Boston University. These have generated numerous high-tech start-ups as well as major global companies such as Microsoft and Sun Microsystems” (p. 124). This might imply measuring policy success in terms of high-tech start ups and, in the long run, growth into global companies.

In terms of particular initiatives, Department of Enterprise, Trade and Employment (2003) highlights the Science Foundation Ireland (SFI) programme for Centres in Science, Engineering and Technology (CSET). This “is designed to create centres formed by clusters of internationally recognised researchers from the third level sector¹⁰ and industry. These centres will ... address crucial research questions, foster the development of new and existing Irish based technology companies, attract industry that could make an important contribution to Ireland and its economy, and expand educational and career opportunities in Ireland in science and engineering” (p. 124). Forfás (2004, p. 44) mentions that there is a CSET focus on “high-end research programmes in biotechnology and ICT.”

Forfás (2004) also lists various other initiatives in this area: EI supports cooperation between industry and academia through its Innovation Partnership, its Programmes for Advanced Technology and its Technology Transfer Initiative, designed to enable local SMEs in the Western seaboard area access to the locality’s universities. More marginally concerned with networking, Forfás (p. 40) also indicates that “applications to [EI’s] Research Technology and Innovation (RTI) competitive grants scheme that involve a company in collaboration with a partner (another company, third level or research body) receive a higher assessment rating than applications that are submitted by a company on its own.” Having recognised this, however, Forfás goes on to comment that the quantity of such funding is small. This is perhaps not surprising, given that it is not the main focus of RTI.

In its most recent strategy document, EI has stressed the significance of R&D collaboration: “we will be particularly concerned with building R&D and commercialisation interaction between firms (regardless of size and ownership) and third level institutions and research bodies” (Enterprise Ireland, 2005, p 15). Most especially, for example, the Industry-Led Research Programmes refer to a pilot initiative for the Irish wireless sensor network industry (see www.enterpriseireland.com for further details). The characteristics of networking that is industry-led without concern for firm size or ownership are also seen in the 2006 Pilot on Industry-Led Networks, discussed in the next Section.

Furthermore, Department of Enterprise, Trade and Employment (2003) points to regional initiatives that impact on R&D. In particular, it refers to active engagement of “the enterprise agencies ... in an enabling role at regional level with local authorities, higher educational bodies, and others aimed at strengthening regional environments for enterprise. This involves fostering stronger links between new and established industry in the regions and the universities and institutes of technology, adopting a pro-active approach to infrastructural development particularly in the area of telecommunications, and sourcing incubator space for new technology start-ups” (p. 202). Included in this, the Shannon Development Knowledge Network “seeks to bring business, education and innovation together in a number of locations in the region — the National Technology Park Limerick; Kerry Technology Park; Tipperary Technology Park; and the Information Age Park Ennis. Each of these centres contains an Innovations Works incubator facility designed to support emerging knowledge based enterprise” (p. 204).

There have been various studies examining the impacts of ‘networking’ on aspects of R&D in Ireland. Included in these, the discussion of the specific case of the dairy industry by O’Connell *et al* (1997) is relevant. As regards R&D, they recognise (amongst other things) the presence of “informal co-operation, mostly linked to problem solving. Managers regularly consult each other on issues regarding production processes, equipment, engineering and assist each other in times of inventory shortages” (p. 59). They argue that such “co-operation is often based on personal relationships, involving a high level of trust and integrity. The Irish dairy industry is a small industry where all the players know each other. Managers gave evidence of strong social and commercial interaction between competitors” (p. 59). We would also suggest that these comments are a reminder of the potential importance – perhaps most especially in the context of the sort of economic and social culture that characterises Ireland – of the prospects for a form of networking that is informal yet influential (albeit in the particular case of the dairy industry at that time, O’Connell *et al* conclude (p. 60) that “co-operation in technical problem-solving, although helpful, is not likely to have a significant impact on innovation”).¹¹

5. COOPERATION MORE WIDELY

In discussing the Plato Programme and Skillnets in Section 3, we indicated that they both seem to have cooperation impacts more widely, beyond training. We now turn to a consideration of policies that appear to focus explicitly on the broader effects of cooperation (albeit also overlapping with the concerns we have already addressed).

As far back as the mid-1990s, NESC called for a new initiative, and in doing so explicitly distinguished what it had in mind from the NLP. The aim would be to stimulate clusters, and the programme would stress sets of

cooperating firms. The idea was to “encourage the formation of networks of companies. Such networks could use their combined resources to strengthen their capabilities as sub-contactors, but the programme would not be limited to the field of sub-contracting. It would be applicable to companies regardless of who their final customers were, in both domestic and export markets” (NESC, 1996, p. 32).

Indeed, a Pilot Network Programme (PNP) was introduced in 1996. It appears that this was a mix of ‘top-down’ and ‘bottom-up’ approaches, enabling networks that were to some extent state as well as industry-led, but with a specific focus on neither. It required at least three firms in each network, and (unlike the 2006 Pilot) entailed a concern with *networking potential*, not exclusively *collaborative projects*.¹² “The PNP – involving 17 networks and a total of 31 SMEs ... – aimed to encourage small firms to co-operate in activities they were unable to undertake individually due to their small scale. The objective of the PNP was to put in place some of the resources needed to facilitate and establish formal networks ..., to help the networks devise joint solutions to common problems and to evaluate the results” (Heanue and Jacobsen, 2003, p.15). For NESC (1999), the “principle” of the policy “is that companies have access to the kind of resources which, operating alone, they do not have at their disposal. It enables SMEs to co-operate in a significant way in strategic activities such as marketing and product/process development” (p. 344).

The PNP ran for six months (Forfás, 2004). According to Jacobsen and Heanue (2003) there was no publication of its final assessment, although in earlier work they did find evidence of success amongst a network of furniture producers that developed under its influence (Heanue and Jacobson, 2002). Forfás (2004) asserts that the “main benefit” of networks resulting from the PNP was that they “enabled the companies involved to work together as a team in strategic development of new business opportunities” (p. 35). It also comments that an “internal evaluation” concluded that the PNP “had succeeded in all its objectives. The view was strongly expressed that a longer term national programme would nurture a strong networking culture in Ireland, leading to a more internationally competitive and innovative SME base.” Notwithstanding our interest in this conclusion, we would query the appropriateness of an ‘evaluation’ being solely undertaken internally, given the potential ‘internal bias’ that might exist in such an approach.

A broader perspective on the impacts of networking is also suggested by certain activities of EI. These include its helping to create and develop the Irish Photonics Association. Apparently, EI “has sought to bring the major companies in the sector together” (Forfás, 2004, p. 66); it has facilitated the network by arranging meetings and providing venues. The Irish Photonics Association was established in 2002 with aims that include creating an environment “where we know each other and can help each other to develop the Irish Photonics sector” (p. 67). It is argued by Forfás (p. 42) that EI has “played a similar role ... in other sectors.”

Moreover, a broader perspective is certainly seen in yet another currently ongoing policy initiative: Department of Enterprise, Trade and Employment (2003, p. 185) reports support by InterTradeIreland for “networks designed to help businesses North and South to build strategic relationships and exchange market information so as to optimise the potential for all-island trade expansion and business co-operation.”¹³

Furthermore, a wider-ranging concern with the effects of networking is seen in the efforts of regional development agencies, notably Shannon Development. Forfás (2004) reports on Supply Network Shannon (SNS), whose formation in the late 1990s was stimulated by Shannon Development, which continues to play an active supporting role, alongside EI. SNS “is an open, sectoral network of engineering and electronics sub-supply companies located in the Shannon region” (*ibid*, p. 41). Reportedly it initially focused on “training and promotion” but it then moved on to a concern with “business issues such as supply chain management, technical issues relevant to engineering and electrical manufacturers and ICT usage.” Shannon Development has also initiated the European Digital Media Network and supported the Atlantic Technology Corridor, a network “initially started by a group of [TNCs] in the western seaboard area who were concerned with inadequacies in the region’s economic and physical infrastructure” (*ibid*, p.40). The Atlantic Technology Corridor now also encompasses linkages with the University of Limerick, National University of Ireland Galway and other higher education institutions.

Nevertheless, in terms of national policy support for networking with wide-ranging effects, putting North-South issues to one side and focusing on initiatives that are squarely concentrated on the Republic, we conclude that the PNP is notable for its apparent success, brief lifespan and lack of successors. At least, that is, until 2006.

6. THE 2006 PILOT INITIATIVE

In its 2004 report to Ireland’s Minister for Enterprise, Trade and Employment, the influential Enterprise Strategy Group (2004, p. xiii) envisaged “a growing role for the private sector in driving initiatives through networks of companies with common interests. Strong enterprise-led networks are required that will establish the strategic agenda for their areas of activity... Increasing focus must be placed on supporting the emergence of such networks to inform the effective orientation and delivery of state supports.” It argues that this would amount to a radical shift from the previous dominance of individual firm-oriented industrial policy, and appears to be motivated at least in part by perceived European Union restrictions.

In the press release accompanying publication of the report, the then Minister for Enterprise, Trade and Employment asserted: “coherent networks have not been a sufficiently strong feature of our enterprise landscape to date, despite the advantages that collaboration and co-operation offer. Making more supports available through business networks is likely to bring new strategic benefits and more efficient use of resources.” As a consequence the government committed itself to a new pilot programme, which was duly launched in February 2006: the Pilot Initiative for Collaborative Projects from Industry-Led Networks. The key points of the Pilot can be summarised as follows:

- (1) The aim is “to support ... groups of companies who wish to undertake a time limited collaborative project that has the potential to result in measurable benefits to the companies involved and to the wider economy.”¹⁴ The maximum project duration is 24 months.¹⁵
- (2) Specifically, the Pilot will support through grant aid up to 10 *network projects*, and in its early stage will provide *facilitation funding* so that “potential networks” might “identify suitable projects for collaboration.”
- (3) It is necessary for a project to “involve activities that are additional to what is currently being carried out by the network and the individual companies.”

- (4) Further, “only projects that are not suitable for existing supports will be considered”; most especially, projects for training or R&D are covered by other policies and are ineligible.¹⁶
- (5) Support is to be allocated through a competitive bidding process:
 - Successful submissions for *facilitation* are eligible for 100% funding (of up to €20,000).
 - Successful submissions for a *project* are eligible for up to 50% of networking costs (of up to €200,000); this support will only be for the project, not for administration of the network itself; the network’s own contribution to project costs may be up to one half in cash, the remainder in kind.
- (6) Network projects “must include at least five companies who are clients of the development agencies.”¹⁷ Firm size and ownership is not an explicit concern; projects may encompass TNCs, SMEs, micro-firms, indigenous and foreign firms.
- (7) There is no particular concern with network form; an all-encompassing approach is adopted - networks can be virtual, vertical or any other form.
- (8) The Pilot focuses on networks that spread into the North of Ireland and that span “the extended value chain”, for example encompassing academics and venture capitalists.
- (9) The aim is “to support collaborative projects that have been identified by companies as potential contributors to development and growth.” Companies (and industry) are seen as the driver; this is seen as a ‘bottom-up’ and not a ‘top-down’, state driven approach (in contrast to PNP). The focus on collaboration is distinct from that of ‘participation’, with the latter seen to imply meetings at conferences, seminars, and other such events, without their leading to *projects*.
- (10) Specifically, projects might be supported under two categories:
 - (a) Category 1: support is because projects contribute to “achieving national economic development objectives”, namely: “regional development”; “rural development”; “entrepreneurship”; “all island or cross border company/network initiatives”; “women in enterprise”
 - (b) Category 2: support is because projects contribute to “achieving joint company development objectives”. In particular, this refers to “measurable business performance improvements for the network members” that might include: “sectoral/sub-sectoral development initiatives”; “supply-chain optimisation”; “developing scale of operations/realising economies of scale”; “exploring export market opportunities”; “virtual networks”; “projects that are not listed but will lead to increased economic performance (i.e. sales, exports, employment, productivity, competitiveness) in participating companies.”
- (11) The scheme is to be operated, for state aid purposes, as aid under the *de minimis* rule.

It is worth noting that the aims and objectives reflected in point (10) clearly reflect the sorts of issues that underlay policy on linkages, training and R&D, but they also embrace wider ranging concerns. With respect to point (5), the 50% co-funding requirement for network projects is interesting. It is not clear to us why 50% rather than another amount – the partners’ contribution under Skillnets is only 25% - and we would question if the effect might be to prevent some perhaps worthy enterprises or sectors from participating in the programme, because they

cannot raise their half of the funding. The risk is what Wren (2005) refers to as Type I error.

It could be argued that the 50% requirement also indicates some form of targeting, in which case the success of the policy will be determined in part by the strategic decision-making process for choosing targets (on which see the discussion of various approaches to targeting in Cowling *et al* (1999)).¹⁸ Consistent with the likes of Dewey (1927), we would simply query if that choice process is in fact in the public interest in Ireland; it is not clear to us that this issue has been in any sense ‘independently’ addressed and answered in the industrial policy context.¹⁹

A targeting query is also raised by point (6), the requirement that at least 5 companies in a project be development agency clients. Apparently, the selectivity approach described by Ruane (2001) for the NLP is alive and kicking. Whilst this approach might be practical and efficient, we would offer the reminder that it might yield closed environments, where the risk is stagnation. Indeed, in a different context, Lenihan *et al* (2005) argue that a “poor culture of evaluating industrial policy interventions” has tended to span policy-making and academic arenas in Ireland. Contemplating why this has been the case, one set of reasons is drawn from Ruane (2004), and they include; a “political tradition of ‘client-focus’ which may bias against economic rationality” (Lenihan *et al*, 2005, p. 78). We suggest that evaluation of the Pilot would need to assess any bias from this favoured client tactic, which permeates the heart of the policy.

Furthermore, we would query the lack of discrimination as to network form, point (7). We argued earlier, in our discussion of Skillnets, that the existence of a spectrum of different network forms raises substantive issues for economic impact. In particular, the Pilot focuses on specific project outcomes, and it might be argued that if all that matters is those outcomes, network form is an irrelevant detail. However, and as we will explore in Section 6.2, there might also be wider public interest implications as a result of the networking that it is appropriate to evaluate. In that event, network form might be significant.

6.1 Project Evaluation

Consistent with accepted good practice by development agencies, all projects deemed eligible for consideration for Pilot funding go through an internal evaluation process led by EI,²⁰ which has specified the project ‘evaluation’ criteria. These include, amongst others (www.enterprise-ireland.com/networks):

- (A) “The business/economic case for carrying out the project including justification of the network's need for financial assistance to support the project.
- (B) The expected impact of the proposed project on the participant companies' competitive position.
- (C) The ability of the project to achieve measurable economic improvements/benefits to the participant companies in terms of regional/social/sectoral development, sales, exports, employment, productivity, competitiveness.
- (D) How these benefits are additional to what is achievable through existing enterprise supports currently funded by the State.
- (E) Evidence that the project is additional to the existing activities of the network and its members.”

Publishing these criteria is a refreshing and significant step forward, supporting the view of Lenihan *et al* (2005) that the evaluation culture in Ireland

is improving. More specifically, we welcome the fact that (A) addresses a key element of the ‘market failure’ argument: only projects needing financial assistance are considered for support (an approach that also aims to minimize deadweight spending). In a similar vein, we applaud that (D) and (E) encapsulate the concept of project ‘additionality’.

However, having recognized these points and appreciating that the initiative is a *pilot*, we would observe that some of the criteria are vague and perhaps problematic for ‘evaluation’. For example, it is unclear exactly what is meant by achieving “regional development” or “competitiveness”. This makes their measurement (and therefore measurement of policy impact) extremely challenging, if not impossible. Consider also the focus on employment. Storey (2000) makes the point that “increasing employment” is less clear than providing a specific target, “such as increasing employment by 5 per cent over a 5 year period” (p. 177). We also note from point (10) of our policy summary that projects might be supported on the basis of their contribution to, for example, entrepreneurship and/or rural development, but these are omitted from EI’s specified ‘evaluation’ criteria.

Further, (B) and (C) seem to require that claimed impacts on national economic development objectives must be viewed in terms of measurable effects on participant companies. We would respond to this apparent fusion of participant company effects and national development objectives with another note of caution. In their analysis of policy deadweight in Ireland, Lenihan and Hart (2004) draw on Stiglitz (1988) in considering a market failure rationale for industrial policy. They argue, for example, that policy is needed because of positive externalities in training and R&D, a market failure that implies social benefits exceed private benefits. This is the classic argument that an individual firm will undertake a sub-optimal amount of training and R&D because it will ignore the wider social benefits. The point of policy is thus to increase training and R&D beyond the private benefit. The Lenihan and Hart argument can be generalised to policy on business networking: it might be that the advantages (or indeed disadvantages) of networking for training, R&D, linkages and other performance concerns are felt beyond the companies participating in the network. Put another way, there are wider and in particular public interests. On this basis it might seem that the Pilot is restrictive, denying the rationale for policy provided by the market failure analysis of externalities. Perhaps there will be a failure to satisfy public interests.²¹

6.2 Prospects for the Way Forward: Policy Evaluation Issues

It of course remains to be seen what the 2006 Pilot will bring in practice, but it does seem to represent a welcome seed-change in industrial policy: it promotes support for networking with wide-ranging effects to a centre-piece of national policy; it embodies the clear development of Ireland’s evaluation culture. It might also represent an important step along a development path that places especial stress on indigenous capability without dependence on external centres of strategic economic power.

It appears to us that Ireland’s linkage programmes have been very much based on the strategic agenda and choices of TNCs, initially designed to link into those firms investing in Ireland and then more recently switching so as to link into global supply networks wherever core firms are located. Whilst it is in some sense reasonable to argue that the goal posts of linkage policy moved because of globalisation, necessitating this switch, at a fundamental level all that really

happened is that, as the strategic choices of the TNCs altered, so too did the form of networking which they required. Fundamentally, nothing altered. Moreover, as has been suggested elsewhere, whilst playing to the economic development agenda of TNCs might bring some benefits, it is advisable to see such an approach as part of a dual economic strategy that also encompasses indigenous firms. Most especially, it might be appropriate to embrace the identification and pursuit of an economic agenda that is democratically determined by all of those with an interest in the economy (Cowling and Sugden, 1998; Sugden and Wilson, 2002). This would likely point towards a special stress on indigenous development potential regardless of inward investors. Arguably, such a purpose has underlain (at least some aspects of the) policy initiatives focused on training and R&D networks. Even so, the 2006 Pilot might suggest a coherent and significant move further down a development path focused on indigenous capability without dependence on large foreign corporations or indeed any other external centre of strategic economic power. Given the Pilot's seeming disregard for firm size and ownership, however, that is unclear; whether or not it turns out to be the case might be determined by rigorous evaluation of the policy, not only in its Pilot phase but also subsequently.

Over the last few years awareness of the necessity for appropriate policy evaluation has increased in Ireland, and it might seem that the Pilot's stress on measurable, additional impacts from networking projects is consistent with that need. However, we would urge that it is not sufficient to 'evaluate' at the individual project level; the actual scheme also needs to be evaluated. Indeed, it would appear that some such evaluation is being contemplated, although we have no way of knowing in exactly what form. Despite that, and even if there has been serious consideration of 'how' to evaluate the Pilot, we feel that the following comments might still prove informative.

Before considering *ex-post* concerns we refer to some aspects of *ex-ante* evaluation (Roper *et al*, 2004). At the time of writing, we have no way of knowing with certainty whether or not an *ex-ante* evaluation of the Pilot scheme has taken place. Our distinct impression, however, is that it has not: it appears that a recommendation for business networking came from the Enterprise Strategy Group (2004), it was accepted by the then Minister and EI were tasked with the administration and implementation of the Pilot, with input from the Department of Enterprise Trade and Employment.²² If this impression is correct, and as with all such industrial policy interventions, we would suggest that it would have been more appropriate to have invested greater effort in an *ex-ante* evaluation ever before any public funding was committed; after all and as highlighted by ESRI (1997, p. xv), "the opportunity cost of public funds is high."

In the case of the Pilot it might be argued that opportunity still exists to delve more deeply into *ex-ante* evaluation issues before more funding is committed, precisely because it is a *pilot*, and if that were to happen we would recommend a more clear specification not only of the objectives for actual projects, but also for the overall scheme. We would point again to the work of Storey (2000), who argues that "a fundamental principle of evaluation is that it must first specify the objectives of policy" (p. 177).

More widely, if evaluation means rigorous assessment of policy against aims and objectives, then we would urge that it must take place continuously, throughout the policy process, from design through implementation to final outcome and *ex post* reflection.

There appears to be a genuine concern amongst Irish policymakers to engage in policy evaluation. The challenge, as always, is ‘how to evaluate’ (choice of method). As Lenihan and Hart (2004) argue, “carrying out a full-scale longitudinal set of case studies, control group analysis, selection and assistance modelling, and predictive modelling are methodological *minimum standards* now becoming embedded within much of the evaluation work on industrial policy in Ireland and the rest of the European Union” (our emphasis, p. 836). We would also advocate, however, the importance of embracing and looking to *best-practice international studies* as regards appropriate evaluation methodologies, including *ex-post* evaluation methodologies. As outlined by Lenihan *et al* (2005) “increasingly, best practice in evaluation research is pointing towards the use of econometric treatment models ... which account for ‘selection’ and ‘assistance’ effects” (p. 80). Further, Lenihan *et al* allude to the fact that a combination of quantitative and qualitative perspectives is perhaps optimal in an evaluation methodology. Finally, their study points to the work of, amongst others, Georghiou (2004a), who focuses on the notion of “behavioural additionality”. According to Lenihan *et al* (*ibid*, p. 81), “the idea here is that upon receipt of financial assistance ... firms may employ a different strategy and hence firm’s behaviour may be affected *vis-à-vis* what was the case prior to government intervention.” One can only begin to imagine the significant changes in individual firm behaviour that might result from a network of firms coming together to work on a project brought about because of government support. We would recommend that serious consideration be given by policymakers to including measures of behavioural additionality in any proposed *ex-post* evaluation framework of the 2006 Pilot.

Furthermore, a feature of our comments has been a concern with the public interest, and in line with that we would advocate as *one* of the dimensions of an evaluation process a focus on what we term ‘public interest evaluation’ (PIE), the general purpose of which would be to assess the extent to which public interests are served by a particular policy. Part of the idea is that whilst the Pilot is focused on (to some extent) measurable benefits to participating enterprises from networking projects, it might nevertheless also be deemed desirable not to ignore other effects on wider publics, for example: on consumers who might face firms with increased market power as a result of the cooperation fostered and facilitated by the network; on consumers who might gain from lower prices associated with economies of scale resulting from networking activities; on citizens who experience congestion or other environmental impacts (positive or negative) as a result of the increased ‘success’ of network participants.²³ Whilst there would appear to be clear indications that the design of the Pilot was cognisant of certain market power concerns, our impression is that, overall, explicit and systematic consideration of public interests in any policy evaluation to date has not yet been concentrated upon.²⁴ Rather, the essential concern with the Pilot appears to be to measure economic deliverables as defined by the network participants in line with project objectives.

Precisely what PIE would necessitate is something that must await further research into suitable methodologies. For now we would note that it entails a dynamic evaluation according to the public interest criteria throughout the policy process, from design through implementation to final outcome and *ex post* reflection. The challenge is fourfold: to identify relevant publics²⁵; to determine the interests of those publics; to translate those public interests into measurable

effects; to elucidate methodologies for evaluating the degree to which those public interests are impacted by a particular networking policy.

Our general appeal to a notion of public interest is in line with Branston *et al* (2006). They propose a search for policies that highlight outcomes which reflect public and not merely private interests. In doing so they draw on Long (1990), who views the public interest as a standard, agreed upon by a public and against which actions can be reasonably assessed. According to him, “by arriving at some consensus, a moving one, we agree on what is important both for policy and research and the latter becomes a more purposive, disciplined, cooperative endeavour as opposed to a matter of fad, fashion, and funding. For public administration and political science, the appropriate standard of evaluation would appear to be the public interest” (pp. 170-171). Because Branston *et al* (2006) are concerned with inclusive rather than exclusive economic processes, they endorse the public interest as “also an appropriate standard for much of economics.”

On the issue of identifying publics with an interest in business networking, two categories can be specified: first, public interests ‘within’ the network, amongst its participants; second, public interests ‘outside’ the network, amongst those not its participants. Consider, for example, a network of direction in which core firms determine overall strategy and other firms play periphery roles: as we reported in Section 3, this is the sort of organisation sometimes seen in global supply networks. The periphery firms have an interest in the strategic choices of the core; they are a public. Further, consumers or citizens outside the network are also publics, with corresponding interests. We would see the challenge of identifying publics outside the network as especially problematic.

As for the determination of the precise interests of a public, we recognise that, ideally, what is in issue is democratic interests. Again this is in line with Branston *et al* (2006). In endorsing a public interest criteria, they add to Long by considering the determination of the public interest. In particular, they “argue for the agreed upon, evolving concerns that are the public interest ... to be determined democratically.” The essential reason is that the identification of a public interest is a strategic concern for that public; the identification needs to be made by a democratic process encompassing all interested parties, otherwise exclusive interests might impose their own preferences, despite the wishes of others. Following Bailey *et al* (2006), this would seem to suggest that the PIE necessitates evaluation according to the degree to which policies serve the *democratically* determined public interest (although in reality, when analysing a particular circumstance the precise specification of the democratically determined public interest is likely to be unknown, and it will need to be in some way approximated as part of the evaluation process).

The elucidation of methodologies for evaluating the degree to which public interests are impacted by a particular networking policy would draw heavily on current international best practice in the mainstream evaluation literature. We have discussed some aspects of this at various points in this chapter, and will not repeat those discussions here. Suffice to note that we would again stress the significance of additionality. Indeed, drawing on Georghiou’s (2004b) discussion, we define ‘public interest additionality’ as a specific form of output additionality, namely: the sum of public interests that would not have been achieved without the support of the policy. Moreover, in general this would include an aspect of behavioural additionality, because there is a public interest in certain forms of behaviour; most notably and in line with our comments on the determination of

public interests, there is a public interest in democratic behaviour. Furthermore, we would emphasise that there are important lessons to be learned from evaluations in regional and urban policy that go beyond economic issues narrowly conceived, encompassing social and political impacts. This is shown, for example, by the discussion of community economic development initiatives in Armstrong *et al* (2002) and Armstrong and Wells (2006). Evaluation of such policies has included a concern with clear and precise quantitative and qualitative measures of the interests of wide-ranging groups. This encompasses the identification of interests and democratic processes, issues that we consider pertinent to an evaluation of policies on business networking in general, and to Ireland's Pilot Initiative for Collaborative Projects from Industry-Led Networks in particular.

ENDNOTES

¹ For more detail and further comment on Irish policy on business networking, see Lenihan and Sugden (2006).

² The inward investor is the 'hub', which has bilateral relations with each of several sub-contractors, linked to the hub via a 'spoke'.

³ UNECE/EBRD (2001) reports that there was also a focus on engineering and, over more recent years, healthcare.

⁴ Consider also the Regional Markets/International Partnerships Programme. According to NESC (1996), it was focused on increasing exports to selected European regions through creating international production and trade relations between firms from Ireland and those regions, although NESC also argues that it resulted in "linkages ... in relation to other aspects of development." Examples are said to include: Italian design input to Irish knitwear companies; Italian technology being used in the Irish textile industry.

⁵ *Dáil Éireann*, Volume 372 - 05 May, 1987: Written Answers. - National Linkage Programme, Minister for Industry and Commerce (Mr. Reynolds).

⁶ This experience is consistent with the more general case for Irish industrial policy evaluation (Lenihan *et al*, 2005).

⁷ It appears that Chambers have more recently withdrawn their involvement, at least in some instances.

⁸ www.skillnets.com, accessed on 10th March 2006.

⁹ *Ibid.*

¹⁰ The term 'third level sector' refers to higher education institutions, including Universities.

¹¹ See also Callanan's (2000) assessment of personal networks - including international networks - as an apparently crucial positive influence on the activities and success of the Shannon Free Airport Development Company.

¹² There are recent informal indications that when a group of firms is requested to specify a collaborative project, as opposed to merely forming or maintaining a network, then they tend to encounter problems.

¹³ This is a policy that needs to be understood in the context of political changes on the island of Ireland, but our concern in this paper is restricted to more narrowly economic issues. For discussion of business linkages on the island of Ireland, including evidence, see InterTradeIreland (2004, 2005).

¹⁴ The quotes in this description are all from www.enterpriseireland.com/networks, accessed on 17th April 2004.

¹⁵ It appears that networks are seen as coming together to carry out a project, dissolving, and then perhaps coming together subsequently for another project.

¹⁶ To police any duplication with other policy initiatives, it appears that an informal approach is used (for example, telephone calls to other development agencies).

¹⁷ In the two approved projects made from the first call for proposals (deadline 3rd March 2006), it would seem that all firms are agency clients.

¹⁸ Cowling *et al* (1999) question the suitability of targeting processes that are not open and democratic, which is to say that, following the analysis of Branston *et al* (2006), they advocate targeting that is in the public interest.

¹⁹ For Dewey (1927), if the consequences of an act are essentially confined to the persons directly engaged in it, the act is private. However, if the consequences are felt more widely then "the act acquires a public capacity" (p. 244), the public being those who are "indirectly and seriously affected for good or for evil" by the

act (p. 257). Drawing on Dewey, Long (1990) sees a public's shared concern with consequences of private parties' actions as a public interest.

²⁰ The process includes an independent assessor from the private sector 'evaluating' and ranking each project; we welcome this feature as it is likely to introduce additional objectivity.

²¹ This is not to say that the public interest is reducible to merely market forces.

²² The policy design does not appear to have been based on substantial international evidence/experience (albeit there are indications that some evidence may have been drawn from Denmark and, to a lesser extent, Canada and Australia).

²³ Again we would emphasise: despite these examples, the Deweyan framework we are following does not reduce the public interest to simply market externalities.

²⁴ There are indications of awareness that some public interests might effectively be considered through other policy agencies; for example, that if successful networks increase their economic activity and thereby require expanded premises, certain environmental externalities will be addressed in planning processes.

²⁵ The scale of the challenge is suggested by Dewey's (1927) discussion of publics not being aware of their own existence.

REFERENCES

- Armstrong, H W, Kehrer, B, Wells, P and Wood, A M (2002) "The Evaluation of Community Economic Development Initiatives", *Urban Studies*, 39(3), 457-481.
- Armstrong, H W and Wells, P (2006) "Structural Funds and the Evaluation of Community Economic Development Initiatives in the UK: A Critical Perspective", *Regional Studies*, 40(2), 259-272.
- Bailey, D, De Propriis, L, Sugden R and Wilson, J R (2006, forthcoming) "Public Policy for Economic Competitiveness: An Analytical Framework and a Research Agenda", *International Review of Applied Economics*.
- Branston, J. R., Cowling, K. and Sugden, R. (2006, forthcoming) "Corporate Governance and the Public Interest", *International Review of Applied Economics*.
- Callanan, B (2000) *Ireland's Shannon Story. Leaders, Visions and Networks – A Case Study of Local and Regional Development*, Dublin: Irish Academic Press.
- Cowling, K, Oughton, C and Sugden, R (1999) "A Reorientation of Industrial Policy? Horizontal Policies and Targeting", in: Cowling, K (Ed) *Industrial Policy in Europe: Theoretical Perspectives and Practical Proposals*, London: Routledge.
- Cowling, K and Sugden, R (1999) "The Wealth of Localities, Regions and Nations; Developing Multinational Economies", *New Political Economy*, 4 (3), 361-378.
- Department of Enterprise, Trade and Employment (2003), *Review of Industrial Performance and Policy 2003*, Dublin: Stationery Office.
- Dewey, J (1927) *The Public and Its Problems*, Denver, CO: Holt.
- ESRI (1997) *EU Structural Funds in Ireland, A Mid-Term Evaluation of the CSF 1994-1999*, Policy Research Series, Number 31, July, Dublin: The Economic and Social research Institute.
- Enterprise Ireland (2004) *Enterprise Ireland Calendar of Events 2004*, Dublin: Enterprise Ireland.
- Enterprise Strategy Group (2004) *Ahead of the Curve: Ireland's Place in the Global Economy*, Dublin: Forfás, available at: www.forfas.ie
- Enterprise Ireland (2005) *Transforming Irish Industry. Enterprise Ireland Strategy 2005-2007*, Dublin: Enterprise Ireland.
- Forfás (2002,) *Entrepreneurship in Ireland: Goodbody Economic Consultants*. Forfás.
http://www.forfas.ie/ncc/pdfs/09_Entrepreneurship_In_Ireland_FINAL.pdf
- Forfás (2004) *Innovation Networks*, Dublin: Forfás
- Georghiou L (2004a) "Evaluation of Behavioural Additionality. Concept Paper", in: *Proceedings of Conference on Research and the Knowledge Based Society – Measuring the Link, European Conference on Good Practice in Evaluation and Indicators*, NUI Galway, May.
- Georghiou L (2004b) "Evaluation of Behavioural Additionality. Concept Paper", in: Georghiou L, Clarysse, B, Steurs, G, Bilsen, V and Larosse, J (Eds) "Making the Difference". The Evaluation of 'Behavioural Additionality of R&D Subsidies", IWT Studies Number 48, Brussels: IWT-Observatory.
- Heanue, K., and Jacobson, D (2002) "Organizational Proximity and Institutional Learning: The Evolution of a Spatially Dispersed Network in the Irish

- Furniture Industry”, *International Studies of Management & Organization*, 31(4), 56-72.
- Heanue, K., and Jacobsen, D (2003) “Low-tech Policy”, *PILOT-Newsletter* 1, May, Dublin: DCU Business School, Dublin City University, 9-18.
- InterTradeIreland (2004) *Annual Review of Activities*, Dublin: InterTrade Ireland, <http://www.intertradeireland.com/index.cfm/area/information/page/AnnualReport>
- InterTradeIreland (2005) *Entrepreneurship on the Island of Ireland in 2004*, Dublin: InterTrade Ireland, <http://www.intertradeireland.com/module.cfm/opt/29/area/Publications/page/Publications/>
- InterTradeIreland (2005) *Survey of Business Links on the Island of Ireland*, Dublin: InterTrade Ireland, <http://www.intertradeireland.com/module.cfm/opt/29/area/Publications/page/Publications/>
- Kennedy, K A (1991) “Linkages and Overseas Industry”, in: Foley, A and McAleese, D (Eds) *Overseas Industries in Ireland*, Dublin: Gill and Macmillan, 82-105.
- Lenihan, H and Hart, M (2004) “The Use of Counterfactual Scenarios as a Means to Assess Policy Deadweight: An Irish Case Study”, *Environment and Planning C: Government and Policy*, 22, 817-839
- Lenihan, H, Hart, M and Roper, S (2005) “Developing an Evaluative Framework for Industrial Policy in Ireland: Fulfilling the Audit Trail or an Aid to Policy Development?”, *Quarterly Economic Commentary*, Dublin: The Economic and Social research Institute, Summer, 69-85.
- Lenihan, H and Sugden, R (2006) “Public Policy on Business Networking in Ireland: A Review, and Comment on the Way Forward”, paper presented as background to the Plenary Session on “Local & Regional Economic Development” at the EUNIP International Conference, University of Limerick, <http://www.ul.ie/eunip>.
- Long, N E (1990) “Conceptual Notes on the Public Interest for Public Administration and Policy Analysts”, *Administration and Society*, 22 (2), 170-181.
- Markusen, A (1996) “Sticky Places in Slippery Space: A Typology of Industrial Districts”, *Economic Geography*, 72 (3), 293-313.
- McAleese, D and McDonald, D (1978) “Employment Growth and the Development of Linkages in Foreign-Owned and Domestic Manufacturing Enterprises”, *Oxford Bulletin of Economics and Statistics*, 40(4), 321-339.
- NESC (1996) *Networking for Competitive Advantage*, Dublin: Government Publications.
- NESC (1999) *Opportunities, Challenges and Capacities for Choice*, Dublin: Government Publications.
- O’Connell, L, van Egeraat, C and Enright, P (1997) *Clusters in Ireland. The Irish Dairy Processing Industry: An Application of Porter’s Cluster Analysis*, National Economic and Social Council Research Series Paper Number 1, Dublin: Government Publications.
- O’Donnellan, N (1994) “The Presence of Porter’s Sectoral Clustering in Irish Manufacturing”, *The Economic and Social Review*, 25(3), 221-232.
- Powell, W W and Smith-Doerr, L (1993) “Networks and Economic Life”, in: Smelser, N and Swedberg, R (Eds) *The Handbook of Economic Sociology*, Princeton NJ: Princeton University Press.

- Roper, S, Hewitt-Dundas, N and Love, J (2004) “An Ex Ante Evaluation Framework for the Regional Benefits of Publicly Supported R&D Projects”, *Research Policy*, 23, 487-509.
- Ruane, F (2001) “Reflections on Linkage Policy in Irish Manufacturing – Policy Chasing a Moving Target”, paper presented at the UNECE/EBRD Expert Meeting – Financing for Development, Geneva.
http://www.unece.org/ead/ffd2001papers_new.htm
- Ruane, F, (2004) “Creating a Culture of Evaluation – Getting from Rhetoric to Possibility”, paper presented at the Irish evaluation Network, Inaugural Annual Conference 2004, A Culture of Evaluation – Exploring the Irish experience of evaluation, Dublin City University, 24th September.
- Sabel, C.F (1996), Ireland: Local Partnerships and Social Innovation. Paris, OECD (1996)
- Sacchetti S and Sugden R (2003) “The Governance of Networks and Economic Power: The Nature and Impact of Subcontracting Relationships”, *Journal of Economic Surveys*, 17, 669-691.
- Storey, D (2000) “Six Steps to heaven: Evaluating the Impact of Public policies to Support Small Businesses in Developed Economies”, in: Sexton, O 1 and Landstrom, H (Eds) *The Blackwell Handbook of Entrepreneurship*, Oxford: Blackwell.
- Sugden, R and Wilson, J R (2002) “Development in the Shadow of the Consensus: A Strategic Decision-Making Approach”, *Contributions to Political Economy*, 21, 111-134.
- Stiglitz, J E (1988) *Economics of the Public Sector*, New York: Norton.
- UNECE/EBRD (2001) Promoting Linkages Between Foreign Affiliates and Domestic Firms”, paper presented at the UNECE/EBRD Expert Meeting – Financing for Development, Geneva.
- Wren, C (2005) “Regional Grants: Are They Worth It?”, *Fiscal Studies*, 26(2), 245-275.