

Public consultation re: White Paper on Enterprise

We welcome the opportunity to make a submission to this consultation on the future direction of Enterprise Policy in Ireland. The submission has been compiled by Prof. Helena Lenihan (Professor of Economics), Dr. Kevin Mulligan, and Dr. Mauricio Perez-Alaniz (Postdoctoral Researchers). We are based at the Department of Economics, Kemmy Business School, University of Limerick. We are all members of the ‘Economics of Innovation and Policy’ research cluster/group (see: <https://www.ul.ie/business/kbs-research/research-clusters/economics-of-innovation-and-policy>), and are currently working together on a Science Foundation Ireland (SFI) funded project, under SFI’s Science Policy Research Programme (Grant number 17/SPR/5328).

Of the eight bullet-points highlighted in the Public Consultation document, our submission focuses on two of them:

- The levers and mechanisms to deliver on enterprise policy objectives.
- Skills and talent availability to support enterprise development.

Our submission is evidence-based. We build primarily on our own research, which uses Ireland as a laboratory, and on other relevant international studies.

The Irish enterprise policy landscape has shifted from interventionism and market-fixing rationales, towards more systemic approaches. For Lenihan (2011, p. 323), this new approach to enterprise policy focuses on “promoting and shaping externalities and capabilities. At its core are R&D, innovation and education. It encapsulates a shift from direct intervention towards creating an enabling environment for small firms and entrepreneurship”. These issues should continue to be centre-stage in any future enterprise policy. Moreover, as noted by Ipinaiye et al. (2016) when analysing the drivers of SME growth in the Irish context, the above requires a holistic approach. Enterprise policy, when at its best, combines policy interventions aimed at shaping the environments in which firms locate, with targeted firm-level supports to enable them (regardless of their size) to prosper. Such a strategy is key to support firms’ productivity, internationalisation and employment; particularly as the enterprise base moves towards digitalisation and decarbonisation.

There is an ever-increasing demand on limited public resources. Therefore, the need to ensure that public resources used to support enterprise development result in value for money, coupled with continuous policy improvements, is urgent. To achieve this goal, enhancing the way in which current enterprise policy interventions are evaluated is paramount. The impact of enterprise policy instruments may take time to unfold, and snapshot evaluations are unlikely to provide insights into important policy impacts. There is little point in evaluating and reporting impacts if the evaluation methodologies are not sufficiently robust and sophisticated. There is also a need for more appropriate longitudinal datasets, which are maintained over time, and that permit the application of robust evaluation techniques.

Our work currently centres on understanding the processes of Research and Development (R&D) and innovation in firms, and how this relates to enterprise policy. A focus on firm-level R&D/innovation is imperative for a successful enterprise policy, as they are key drivers of firm performance, economic growth, productivity, and a thriving society (Lenihan 2011; Mulligan et al. 2022). In the Irish context, our research highlights that R&D policy instruments have been highly effective at building up the core elements which make firms in Ireland competitive. This past success suggests how future enterprise policy can achieve its goals by 2030. In what follows, we present key insights arising from our research based on Ireland, and other relevant international studies:

- (a) Firms may under-invest in research activities, which are essential for long-term competitiveness, and prioritise immediate financial returns through development (Arora et al. 2018). Such a strategy may maximise short-term gains, but makes firms vulnerable to future competition. Mulligan et al. (2022) demonstrated that collaborating with SFI-funded research centres increased firms' overall R&D, and re-orientated their R&D towards more research as opposed to development. This is particularly important, as firm-level research is a crucial source of radical innovation, which makes a major contribution to enterprise development.
- (b) R&D grants and R&D tax credits are the two largest policy instruments to support R&D/innovation in firms in Ireland (Lenihan et al. 2020). Lenihan et al. (2022) analysed the impact of these policy instruments on firm-level R&D and firm performance (i.e. employment, sales, exports, value added), both in domestically-owned Irish firms, and the subsidiaries of foreign-owned multinational firms based in Ireland. Findings demonstrate that both policy instruments play a crucial role in driving firm-level R&D, in both firm-ownership types. Moreover, this policy-driven R&D is associated with knock-on firm performance impacts in both Irish-owned and foreign-owned firms.
- (c) Ireland will receive €989 million in EU grants over 2021-2026, to support national recovery from the Covid-19 pandemic (European Commission 2022). The recovery plan which underpins this funding, includes a reduction in the use of R&D tax credits. However, Lenihan et al.'s (2022) findings suggest that this may be somewhat premature, given that R&D tax credits have significant firm-level impacts.
- (d) Irish enterprise policy focuses strongly on domestic firms, which are predominantly small-sized (<50 employees). Several international studies show that SMEs typically have limited financial resources for R&D/innovation (Czarnitzki & Hottenrott 2011; Ponikvar et al. 2018). Given that SMEs account for the vast majority of the enterprise base in most countries, focussing public financial support for R&D/innovation in this group of firms is important. However, as demonstrated by Perez-Alaniz et al. (2022a), non-financial issues such as lack of sufficient skills in SMEs' human capital bases, and unfavourable market dynamics for R&D/innovation, are also important obstacles. Studies by Lenihan et al. (2022), Perez-Alaniz et al. (2022a), indicate public financial support for R&D/innovation can enable such firms to develop R&D/innovation experience. Mulligan et al. (2022) also demonstrate that SFI research centre collaborations help firms build R&D capacity.
- (e) There is a need for more holistic policy interventions, to promote the development of R&D/innovation skills and experience in small-sized firms. Lenihan et al. (2019) and

McGuirk et al. (2015), have proposed a unique set of policy instruments, which can support the development of what they term ‘Innovative Human Capital’ in firms. These studies extend the standard measures of human capital, which focus on education and training. Moreover, they highlight the importance of firms (particularly small-sized firms) and policymakers being able to identify and evaluate the competitive advantage of employees’ transferable and innovative characteristics. The Lenihan et al. (2019) study proposes a novel policy instrument, targeted at enhancing elements of human capital (motivationally-relevant elements such as: Employees’ job satisfaction, organisational commitment, and willingness to change in the workplace), that have largely been ignored to date. The White Paper might usefully consider such an instrument, given its focus on enhancing skills and talent availability to support enterprise development.

- (f) As noted above, firms in Ireland benefit from numerous policy instruments for their R&D/innovation activities. However, there is a risk that firms may use public support to carry out R&D/innovation activities that would have taken place without support. In the context of enterprise policy instruments in Ireland, Lenihan and co-authors demonstrate that this may result in deadweight spending effects, which refer to public funding displacing private investments by firms (Lenihan 1999; 2004; Lenihan & Hart 2004; Hart & Lenihan 2006). Perez-Alaniz et al. (2022b) show that firms in Ireland, especially larger firms (≥ 50 employees), are likely to use internal finance for close-to-market, incremental R&D/innovation activities. However, public financial support for R&D/innovation may be needed for activities that are far-from-market, such as basic research, and more new-to-firm/new-to-market R&D/innovation activities. This is because such radical R&D/innovation activities carry higher risks than incremental R&D/innovation activities, and typically take considerable time to produce economic returns (Czarnitzki et al. 2011).
- (g) The climate challenge imperative, and the need to decarbonise production, represent key areas of concern for the White Paper. Firms face important knowledge obstacles when transitioning towards more environmentally-friendly production practices and business models (Horbach 2008; Hojnik & Ruzzier 2015; Stucki 2019). Many policy interventions targeted at achieving climate challenge goals focus on firms. However, enterprise policy should also focus on increasing the quality and volume of knowledge available to firms in the economy. As Garrido-Prada et al. (2021) demonstrate, public investments in environmental and energy R&D (which may target firms, and also research at universities and research centres), play a key role in driving the development and adoption of cleaner technologies and business models in firms. Public R&D spending on energy/environment can also alleviate the need for private investment, especially in smaller firms, which typically lack the necessary financial resources.

To conclude, firms typically interact with several enterprise policy instruments, as opposed to single policy instruments. This is known as the ‘policy instrument mix’ (Dumont 2017). Ongoing research from our research cluster/group will address this specific issue, focusing on a mix between R&D tax credits, R&D grants, and collaborative grants in Ireland. However, in addition to R&D/innovation supports, firms typically interact with other enterprise policy instruments. Analysing the mix between different instruments is paramount, given the holistic and systemic nature of enterprise policy. Effective enterprise policy can be guided by evidence-based evaluations. As such, access to high-quality government administrative datasets, that capture detailed information on the mix of policy instruments available to firms, is essential to enterprise policy development.

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