

Uncovering hidden innovators: insights through linked data

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OVERVIEW

This research demonstrates that by linking survey, administrative and alternative data sources, it is possible to identify between 35,000 and 140,000 "hidden innovators" that fall outside traditional measures of innovation.

- ✓ Many innovative UK businesses are not captured by official innovation statistics
- ✓ Findings suggest innovation activity in the UK is far broader than currently recognised, particularly among smaller, younger and emerging businesses, creating opportunities for more targeted and effective innovation policy

PURPOSE

Knowledge Gap

Innovation policy and funding decisions often rely on official measures such as the Office for National Statistics' Business Enterprise Research and Development (BERD) survey

Why it matters?

While existing measures provide consistency and international comparability, they may miss businesses that innovate in ways not captured by traditional definitions of R&D

To address this gap, the project linked BERD survey data with eight additional firm-level datasets covering innovation-related activity between 2015 and 2022.

APPROACH

Datasets included HMRC R&D tax credit data, UKRI and Innovate UK funding records, intellectual property registrations, regional innovation support programmes and alternative data generated through machine learning analysis of company websites



FINDINGS

- » More than 75% of innovative firms identified through the linked dataset would not have been captured using traditional survey measures alone
- » Administrative datasets, particularly HMRC R&D tax credit records, accounted for the largest share of these additional innovators
- » Depending on the definition applied, the study estimates between 39,000 and 141,000 hidden innovators across the UK, compared with around 14,000 firms identified through BERD alone
- » This suggests that the population of innovative firms may be many times larger than currently represented in official statistics. Hidden innovators are more likely to be small firms, young businesses less than ten years old, and companies operating in service sectors, creative industries, fintech and other emerging fields
- » Many are located in economically dynamic regions where existing survey approaches appear to underrepresent innovation activity
- » Including hidden innovators increases estimates of employment within innovative firms by around 20%, particularly in high-technology sectors and knowledge-intensive services. Administrative data often identifies significantly larger concentrations of innovation-related employment than survey data alone

DISCUSSION/IMPLICATIONS

- » Integrating administrative and alternative datasets into the innovation evidence base would provide policymakers with a more complete understanding of innovation across sectors, regions and firm types. This could support more effective targeting of innovation funding, place-based policy interventions and support programmes for growing businesses with future innovation potential
- » Greater collaboration between statistical agencies, government departments and data providers could generate richer evidence at relatively low cost, helping policymakers better understand and support the full diversity of innovative businesses
- » Relying solely on traditional survey-based indicators risks overlooking substantial innovation activity and may lead to interventions that fail to reach important groups of innovative firms.

The research provides a practical blueprint for strengthening innovation intelligence in the UK and internationally.

The findings highlight the need to modernise how business innovation is measured in the UK.