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INNODRIVE

Intangible Capital and Innovations: Drivers of Growth and Location in the EU

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Why intangibles matter?

It is widely recognised that intellectual assets are major determinants of the generation of innovation and thus in the enhancement of growth, employment and competitiveness. However, our knowledge of the contribution of intangibles to economic performance is still incomplete.

While firms undoubtedly are at the centre of innovation and productivity growth, their activities are hard to analyse empirically. Furthermore, at the macro-level the national accounts data on capital formation focus primarily on fixed investment and have only recently attempted to measure investment in intangibles such as software, human capital, artistic creations and the value of intellectual property rights.

What is INNODRIVE?

The INNODRIVE project aims at reducing our ignorance by providing new data on intangibles and new estimates of the capacity of intangible capital to generate growth.

INNODRIVE methodology

As an essential feature of our project, we envisage doing the analysis both at firm-level and at national level. At the micro-level the present project will improve our insight into the contributions of intangibles to the growth of firms by exploiting the potential of recently established linked employer-employee datasets and implementing a performance-based methodology to analyse how firms use knowledge and human capital to increase their productivity and how mobile workers react to these processes. At the national-economy level we will expand the traditional growth accounting framework by including, in capital formation, estimates of the investment in intangibles which, hitherto, have been counted as current expenditure in the conventional national accounts.

The research will thus resolutely innovate in two main areas:

1) Introduction of new methodologies to explore intangible investment and its engagement in innovation activity.

2) Evaluation of innovative growth at the firm level in a selection of old and new EU member states using the linked employer-employee data and, at the national level, by compiling new innovative estimates of the

level of intangible capital and its contribution to the growth process and, for purposes of comparison, in the United States.

The INNODRIVE project examines innovative growth (as distinct from imitation) and account for intangible capital in networks and spatial spillovers. This will also allow elucidation of the varying role that intangible capital plays in industrial sectors such as manufacturing, technology-intensive sectors, IT sector and services. New methods will be produced for analysing how intellectual assets should be integrated first at the firm level and subsequently in the national accounts. The second axis of the programme will extend the basic research on adjusting national accounts data, to undertake a cross-section analysis of the contribution of intangibles and human capital (including education) to economic growth among OECD countries.

New data for public use

We evaluate intangible capital for the whole EU27 from the middle of 1990's until the present. We use the data in growth accounting framework to explain the contribution of various components of intangible capital to growth. All data produced at macro-approach will be made public available in project web pages. Public data consists of private expenditure (investment) on

intangible on a comparable basis for EU area. These separate especially expenditure on software, scientific R&D, non-scientific R&D (design, product development etc.), branding, training and organizational capital. To this is added comparable private expenditure (investment) on intangibles using micro-data for six countries.

Important policy implications

The results will provide important insights for the current debate in many EU countries

to exert greater share of public resources to innovation policy and to encourage innovative sector in general. The research will explore hitherto uncharted territories in EU socio-economic research. The multi-country approach offers opportunities for policy makers to contrast the diverging industry structure against the use of intangible capital for more prosperous growth.

Examples of current research topics in the INNODRIVE project:

- ◆ Intangible capital in the whole EU27 area including the regional disparities within the countries
- ◆ How intangible capital is divided at national and firm-levels into organisation capital, R&D assets and computer and software, and how these relate to the relative performance and market value of the firms.
- ◆ How organisation capital embedded in the firm and relating to management, marketing and selling activities generate growth
- ◆ Why some countries may be relatively poor in R&D intensity, while performs well in many other measures of innovativeness including patent applications.
- ◆ How intangible capital varies by industrial structure and especially by the role played by business services.
- ◆ How countries in EU27 have to redesign their economy order to use intangible capital more efficiently and to meet the Lisbon targets?

