

G. Bender/ D. Jacobson/ P. L. Robertson (eds.)

Non-Research-Intensive Industries in the Knowledge Economy

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This special issue of “Perspectives on Economic Political and Social Integration”, a journal published at the Catholic University of Lublin, Poland, comprises revised versions of papers presented at the PILOT conference “Low-Tech as Misnomer”.

The issue starts with two introductory articles. **Heiko Prange Gstöhl** of the Commission services discusses the relevance of “PILOT issues” within the EU policy agenda. And **Hartmut Hirsch-Kreinsen** contributes a survey of major project findings.

The paper by **Aris Kaloudis, Tore Sandven and Keith Smith** examines the argument that high-tech industries are the drivers of economic development and *the* relevant sources of growth in output, employment and productivity in the knowledge based economy. Drawing on the OECD’s STAN data base the authors’ analysis does not provide evidence that the high-tech economies are also the high growth economies. They conclude that different economies can follow different paths of economic growth. Countries play different roles in the differentiated international

economic system with clear patterns of division of labour among the highly developed economies.

Staffan Laestadius and Trond Einar Pedersen intent to contribute to a new start of measuring innovativeness and creativity within the business sector and thus to widen perspectives in analysing and promoting capabilities and processes that contribute to profitable firms and growth. The core section of their paper is devoted to a discussion of an alternative to the system of innovation indicators used within the OECD and the EU The authors introduce a family of five indicators, not a composite indicator, which they test on Norwegian data.

Starting point of the paper by **Gerd Bender and Staffan Laestadius** is the assumption that the ability to generate and market innovations is one major precondition to maintain competitiveness of European based units. The authors argue that R&D is only one important asset for an organisation’s innovativeness and not necessarily the most important one. Drawing on literature on dynamic capabilities the concept of “innovation enabling capabilities” is introduced which is composed of two dimensions: transformative and configurational capabilities. The different dimensions are illustrated drawing on examples from a selection of company case studies conducted during the PILOT project.

The paper by **Klaus Schmierl and Holm-Detlev Köhler** analyses characteristics of knowledge generation, use and management and of different patterns of personnel policy in successful LMT companies. The authors state that such firms are

characterised by a predominance of incremental knowledge accumulation and informal training on the job. Their conclusion is that though this does strengthen the firms' capabilities it may in the long run be an obstacle to the creative reproduction of capabilities.

James Wickham takes the paper by Schmierl & Köhler as starting point but adds some critical remarks on the PILOT project's research design in general. Going a step further he argues that innovation in LMT enterprises often depends on precisely those features of European economic organisation which have recently been challenged by reforms of labour market policy and corporate governance. He concludes that such reforms may destroy structures that are fundamental for European economic advantage.

Francesco Garibaldo and David Jacobson examine regional embeddedness of firms and the importance of the social context for innovation and competitiveness in LMT industries. They argue that appropriate policies in support of building the innovative capacity of LMT firms should focus on strengthening the firms' social environments through the creation of strong intermediate institutions and institutional infrastructure for the provision of regional and local collective goods.

In their paper **Paul Robertson and Parimal Patel** first develop a theoretical model to demonstrate the reciprocal connections between "high-technology" and "non-high-tech" industries. Through the use of patent data, they then show that the latter often employ cutting-edge knowledge in their own R&D and other

activities. Finally, they use sectoral case studies to show how so-called high-tech knowledge is used in specific mature industries. The authors conclude that relationships between high-tech and non-high-tech sectors are highly symbiotic and that the health of high-tech firms and industries depends heavily on their ability to sell their outputs to other, less high-tech sectors in developed economies.

Tadeusz Borkowski and Aleksander Marcinkowski highlight the specific situation of LMT firms in transforming countries. They argue that differences in performance of the economy in general and of LMT sectors in particular between old and many of the newer members of the EU cannot be grasped without taking into account historical conditions, and especially without understanding the trauma of war destruction and the nearly 50-year reign of communist policy, economy, culture and morality.

David Jacobson and Kevin Heanue summarise, from a policy perspective, the findings of the PILOT project collated in a variety of ways, in terms of: governance level; type of policy; whether seen by firms as positive or negative; and proposals by companies. Furthermore the paper presents some considerations of recent literature. Finally, the authors specify requirements for efficient innovation policies. A key recommendation is that a specialist unit be set up in the European Research Council, the function of which is to focus on non-research-based innovation.

The paper by **Zbigniew Zaleski and Krzysztof Markowski** discusses determinants of development of SMEs in a border district of the European Union. Based on a case study in the food

sector in the Lublin region, Eastern Poland, the focus is on possibilities for the expansion of SMEs. As the region is relatively poor, its future economic and social progress will depend more on a rise of small and medium enterprises than on an expansion of large firms. The paper also argues that a change in mentality from state to private ownership can be a stimulating factor for economic development.

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