

# MANUFACTURING IN THE NEW URBAN ECONOMY



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BY WILLEM VAN WINDEN, LEO VAN DEN BERG,  
LUIS CARVALHO, ERWIN VAN TUIJL

# Manufacturing in the New Urban Economy

In large cities in developed countries, the share of manufacturing has declined drastically in recent decades, whilst the share of services has grown. Many manufacturing plants have closed or moved to lower-cost locations. Manufacturing is pushed out of cities because of space constraints, rising costs of land and real estate, and increasing environmental awareness; at the same time it is attracted to other regions because of cost advantages, availability of space and better transportation possibilities. The ongoing process of globalisation speeds up the shift of manufacturing employment to lower-cost locations. ‘Routinised’ activities tend to disappear more rapidly than complex manufacturing.

This book discusses the new role of manufacturing in the emerging knowledge-based economies of cities. A central issue addressed in the book is how manufacturing activity relates to typically urban ‘knowledge-based’ activities, such as design and R&D. Is a manufacturing base a necessary condition to develop and expand R&D and other high-level services? How important is the link between manufacturing on the one hand, and R&D, design and command/control functions on the other, and to what extent do these functions benefit from co-location? What strategic options are open to urban and regional policymakers?

Taking a comparative approach to answering these questions, the book unravels the complex interaction between manufacturing and knowledge-based activity in cities and identifies some typical patterns. It shows how manufacturing industries have undergone a process of fundamental changes, with far-reaching consequences for regions. Combining insights from economic geography, industrial organisation and urban studies, this book contains extensive practical examples, cases and illustrations. It will prove a valuable source of information and analysis for both researchers and policymakers alike.

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# **Manufacturing in the New Urban Economy**

**Willem van Winden, Leo van den Berg,  
Luis Carvalho and Erwin van Tuijl**

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Four years, thousands of air miles, and countless interviews with CEOs, policymakers, and other experts later, we are proud to present an analysis of the dynamics of manufacturing industries in ten cities: Dortmund, Eindhoven, Munich, Ostrava, Paris, Porto, Rotterdam, São Paulo, Shanghai and Turku.

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# 1 Cities and manufacturing

## Setting the scene

### 1.1 Introduction

In large cities in developed countries, the share of manufacturing has declined drastically in the last decades, and the share of services has grown. Many manufacturing plants have closed or moved to lower-cost locations. Manufacturing is pushed out of cities because of space constraints, rising costs of land and real estate, and an increasing environmental awareness; at the same time it is pulled to other regions because of cost advantages, availability of space, and/or better transportation possibilities. The ongoing process of globalisation seems to speed up the shift of manufacturing employment to lower-cost locations. ‘Routinised’ activities tend to disappear more rapidly than complex manufacturing.

Adam Smith and Karl Marx believed that wealth is created by producing real things, using capital and labour as inputs. They considered services as non-productive. This idea corresponds to the popular belief that service providers such as traders, bureaucrats and financial experts are parasites (Illeris, 1996), and that the manufacturing of tangible products is the source of ‘real’ wealth. In this view, the service sector is considered as a laggard that follows the growth of manufacturing. Indeed, productivity increases in manufacturing are high while in service industries they are hardly observable.

There are strong arguments against the idea that manufacturing is the only ultimate source of growth, however. The main one is that services help to create productivity improvements and thus make the economic system more productive. Thus, the border between manufacturing and services is blurred. Illeris (1996) argues that some business service activities (for instance R&D activity and marketing) may show slow productivity growth in itself, but the effect of it may translate into high increases in productivity, for instance when a new, more efficient production process is invented. This explains why countries in which the service sector is best developed and takes the highest share are relatively rich (Noyelle, 1994). A second point is that not only manufacturing but also services may be independent motors of economic growth. If, through rising incomes, new services are demanded that satisfy a need (for instance gardeners, butlers or kindergartens), this creates new economic sectors and circuits (Bell, 1973). Knowledge-intensive business services (KIBS) have been growth engines in many large metropolitan areas (Wood, 2009).

## 2 *Manufacturing in the New Urban Economy*

Many commentators see the process of deindustrialisation as part of the inevitable shift towards a 'knowledge-based economy'. In this new economy, not the production of tangible, physical goods but rather the creation of abstractions such as knowledge and information would form the economic 'raison d'être' of modern metropolitan areas. Urban economies come to rely on research and development, headquarters functions, financial and other business services, and tourism. Recently, the 'creative industries' have been added to the list as sources of growth.

Is the decline of manufacturing a natural process and should the market be allowed to do its job, or is it a potentially dangerous or threatening tendency that should be addressed by specific urban policy? The latter point seems to be gaining some weight among policymakers in recent years. The argument is that manufacturing cannot and should not be de-linked from typically urban 'knowledge-based' activities such as design and R&D. Or, to put it more strongly, a manufacturing base is a necessary condition to develop and expand R&D and other high-level services. Production facilities are needed to produce small batches of innovations and new products, and test whether the concepts work in practice, and researchers need to stay in touch with the production process. Unfortunately, there has been hardly any research into the relation between manufacturing and other urban activities. This leads to another key question: how important is the link between manufacturing on the one hand, and R&D, design and command/control functions on the other, and to what extent do these functions benefit from co-location?

In some cities, policy makers are worried about the decline of the urban manufacturing base and develop explicit strategies to keep these activities in the city. In some thriving and successful cities (Munich and New York are prime examples), interventions are designed to promote manufacturing in the city and counter the strong market pressure to reconvert urban sites into commercially viable offices, housing estates or retail. For other cities, the employment aspect is more important. This is especially the case in cities that have tried in recent years to create new jobs in R&D and knowledge-based industries to compensate for the heavy loss in traditional manufacturing and/or mining. Many of these cities now realise that although new jobs have been created, it is not enough to replace the lost jobs, and there is a big skills mismatch. Another issue is how policy could contribute to a better link between manufacturing on the one hand, and R&D, design and services on the other. To which extent can urban managers facilitate regional clusters? What is the place of local manufacturing plants in (inter)national, regional and local value chains? How to engage in strategic partnerships with other regions in order to exploit possible complementarities in the knowledge-based economy?

This book contains the results of an international comparative study that focuses on the issues raised above. To get a deeper understanding of the new role of manufacturing in the 'urban knowledge economy', we have conducted case studies in the following cities: Dortmund, Eindhoven, Munich, Paris, Porto, Rotterdam, São Paulo, Shanghai and Turku.

This book is organised as follows. Chapter 2 presents an overview of existing views and visions on the changing role of manufacturing in urban economies. It is based on a review of existing academic literature from the fields of organisational studies (focusing on new organisational forms, notably inter-firm networking) and from the regional economic literature. By the end of the chapter, we unfold our own approach, and present a framework of analysis that is applied in the case-study work. Chapters 3–12 contain the results of our case studies. In Chapter 13, the case studies are put into perspective: here, we compare and ‘synthesise’ the case material and draw conclusions.

## **Bibliography**

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