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Antitrust Implications of Technology Consortia

Economic reasoning, competition law and intellectual property law issues

Thesis (M.A.)

Examicus

Article 163 TEC

'1. The Community shall have the objective of strengthening the scientific and technological bases of Community industry and encouraging it to become more competitive at international level, while promoting all the research activities deemed necessary by virtue of other Chapters of this Treaty.

2. For this purpose the Community shall, throughout the Community, encourage undertakings, including small and medium-sized undertakings, research centres and universities in their research and technological development activities of high quality; ***it shall support their efforts to cooperate with one another, aiming, notably, at enabling undertakings to exploit the internal market potential to the full***, in particular through the opening-up of national public contracts, ***the definition of common standards and the removal of legal and fiscal obstacles to that cooperation.****

3. All Community activities under this Treaty in the area of research and technological development, including demonstration projects, shall be decided on and implemented in accordance with the provisions of this Title.'

**** [emphasis added]***

Preface

The Competitiveness Council (Erkki Liikanen from DG Enterprise and Information Society, Philippe Busquin from DG Research and Mario Monti from DG Competition meeting at Brussels on November 26, 2002) emphasized the need to create a European Research Area, which is to be understood as a true internal market for science and knowledge. It is particularly important to ensure consistency between the national and the EU Research and Development (R&D) policies in order to increase investment in research and enhance the innovation and technology transfer capacity. In boosting the potential of the European Research Area certain framework conditions need to be transposed into practice among which 'a competitive environment with research and innovation-friendly regulations and competition rules' is the most relevant to the present thesis.

Although technology consortia are rarely subject to antitrust scrutiny, guidance is needed for a number of reasons. The very peculiar nature of technology consortia can make it hard, if not impossible, to characterize a consortium into specific categories such as horizontal, vertical or conglomerate, which in turn makes it difficult to clearly delineate any antitrust concerns. Furthermore, the European competition law regime is in a crucial transformation process. With effect of 1 May 2004, the date of entering into force of Regulation 1/2003 the whole of Article 81 will be directly applicable in the member states. Thus any anti-competitive agreement is no longer to be notified to the Commission for a compatibility assessment under Article 81(3). Instead companies will have to assess the compatibility of their agreement with Article 81 on their own.

In seeking guidance, the Commission likes to refer to its forty year long decisional practice during which it has had the monopoly to handle notified cases in respect of Article 81(3). Not surprisingly, uncertainties still remain. This is not to say that the decisions are not helpful, but rather that law is subject to interpretational developments. It is particularly competition law that is rightfully influenced by economics and must be determined in the individual setting. The law can not therefore provide answers to all issues that have arisen due to commercial developments and changing technology, which is why guidance on specific industry aspects actually adds value.

Another effect of decentralization is the increasing need to preserve consistency. The EU will soon finalize its giant enlargement round by 2004 including ten new mostly central and eastern European countries. Given this massive extension of the common market, the Commission must ensure

consistency through monitoring and assistance in the implementation of EC competition law and the establishment of appropriate antitrust enforcement. This is a challenge of itself, but at the same time the Commission must be in a position to prevent the wide substantive conditions in Article 81(3) from being misapplied. Illegitimate interventions can threaten consistency if these are triggered by national industrial policy considerations distorting competition within the common market or by the lack of a sound economic reasoning. This is a risk to be minimized throughout the EU whether old or new member states, but an important one within the scope of Article 163 to further the role of technology consortia in exploiting economies of scale and disseminating innovative technology more rapidly.

It is also the essence of technology consortia that gives rise to doubts as to the limits of competition law. The intellectual property rights (IPR) influencing the work of a consortium can initiate a dilemma. Whilst interference with IPR on the basis that these constitute a restriction of competition may be justified in very limited circumstances, it must be carefully analyzed and clearly stated in what circumstances an intervention is warranted. This is because the very nature of IPR is to restrict competition. The law at the intersection between competition and intellectual property issues is not entirely clear and remains an analytical challenge for the application of Article 81 to technology consortia. Similarly, Article 82 and its application to IPR puzzle business and antitrust authorities. In this area, the essential facilities doctrine may arguably have played a role in granting compulsory licenses raising the same dilemma as under Article 81. The appropriateness of the essential facilities doctrine and a refinement of circumstances in which Article 82 applies to IPR remain issues to be resolved in the quest to introduce more legal certainty.

In pursuit of addressing these issues it is attempted to show the practical relevance of this study. To that end, case studies of real-life technology consortia have been carried out to better understand the incentives, competitive impact and contribution to technical progress of these inter-firm collaborations. The business press also features the practical relevance of technology consortia, whereas the empirical studies help to identify the crucial issues to be reconciled at the interface between competition and intellectual property law.

Competition law is to me the most exciting and fast-moving areas of the law. I have had the great benefit of excellent competition law courses at the University of Strathclyde, which have captured my interest since second year of university. In this context, I would like to thank Professor Barry Rodger for his topical and intellectually stimulating competition law sessions at undergraduate and Honours level as well as for his committed supervision of my Honours dissertation. It is a great pleasure to keep up the exchange of ideas through the *Competition Law Scholars Forum*.

I am also grateful to have had the opportunity to discuss competition law issues with fellows of the university especially, Anna Roubier and Massimo Coluzzi. I could not express the enthusiasm any better than in your words Massimo, 'it has always been just as much fun to talk about competition law as about football'. I would also like to express my gratitude to Stefanie for her endless love and support. A big thank you and appreciation also go to my parents Anne and Winfried, and my brother Stephan for their love and support making all this possible.

I would also like to thank Jens-Daniel Braun and Professor Dr. Koenig for being my thesis supervisors. Jens-Daniel has been very helpful in the supervision meetings in discussing the overall structure and some of the sources of the present thesis. Professor Dr. Koenig has made this Master year an outstanding experience through his representation of *Doc Morris* in the free movement of goods case before the ECJ. The discussion sessions with him on free movement as well as state aid have been a real experience.

I acknowledge with thanks the help of Mrs. Matintiz of the Bundeskartellamt library and the librarians of the law school at the University of Strathclyde for letting me use their resources in the preparation of this thesis.

I have been able to include developments up to 26 June 2003.

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CONTENTS

1 INTRODUCTION

This thesis is to provide guidance for the antitrust analysis of technology consortia which is challenged by virtue of the various forms the inter-firm collaboration may take, the pooling of intellectual property rights (IPR) and the ambivalent impact this may have on competition. The starting point to a meaningful antitrust analysis of technology consortia is an understanding of the underlying economics. The following chapter is to briefly discuss the incentives of firms to cooperate, the contrasting stability issues prevailing in an anti-competitive cartel as opposed to innovation driven consortia, and the resultant welfare implications in terms of the benefits and risks of cooperation.

This will allow an outline of the workable policy approach to be pursued in applying antitrust law. The third chapter focuses thereby on issues of antitrust analysis by distinguishing between two main types of technology consortia and their role in the innovation process. The assessment is to help the identification of the essential elements in antirust analysis ranging from relevant market definition to market power and intellectual property rights (IPR).

In the fourth chapter, EC competition law is specifically examined against the discussed policy approach. This includes a consideration of relevant anti-competitive conduct relating to technology consortia under Article 81, the relevance of block exemptions, and finally the self-assessment under Article 81(3). In addition to a discussion of the intersection between IPR and Article 81, this will continue to be relevant for the assessment of IPR under Article 82. This chapter will end with a recommendation as to how IPR policies of technology consortia should be formulated to alleviate some antitrust concerns.

The final chapter is to conclude that both intellectual property law and competition law work towards the promotion of innovation provided that all stakeholders including firms, competition authorities and courts respect the innovation economics and legal sensitive issues. In order to promote such an awareness the identified uncertainties are addressed in tests, which are to evaluate the competitive implications of technology consortia, whereas the IPR policy is to support the prevention of an antitrust challenge. The refined analysis is then provisionally translated in the format of a guidance notice in the appendix to this thesis.

Technology consortia play a crucial role in the competitiveness of firms operating in innovation markets. This is evidenced by the fact that often a single firm is a member to a great many different consortia. The welfare implications and therefore the justification for antitrust intervention may vary according to the different stages they operate in the innovation process. For the purposes of the present thesis, technology consortia have to be distinguished from joint ventures since consortia can already operate at the earliest stage of idea generation up to the development of a prototype. Although partly overlapping, a joint venture usually just starts its operation at the point of prototype development up to the full commercialization of the product.

The discussion on Article 81 and Article 82 will be conducted on the basis of selective anti-competitive and abusive practices that may affect technology consortia either directly or indirectly. The focus will thereby be placed on the future practice once Regulation 1/2003 enters into force. In identifying crucial uncertainties that could limit the effectiveness of the antitrust enforcement regime, an assessment of the relevant decisional practice by the Commission and by the European Court of Justice (ECJ) cases is necessary.

2 THE ECONOMIC REASONING OF TECH CONSORTIA

Technology consortia are a mechanism of technology trading that needs to be distinguished from the unilateral licensing of proprietary technology, which can precede the collaboration in a technology consortium. Technology trading within technology consortia involves firms trading a right to use one another's technology, rather than the unilateral sale of such a right via licenses.[1] There is a multitude of arrangements possible that come within the scope of a technology consortium. The exchange of technology could thus be organized within a trade association that maintains a research facility and is financed by its members who also benefit from its findings.

Similarly, two or more firms may decide to set up a complementary facility engaging in R&D and use its findings for the participating undertakings' purposes.[2] In addition, the exchange itself can take various forms including explicit communication of research findings on the companies' initiatives, or answering questions on request of another participating firm, and plant visits by engineers and technical training of staff.[3] The table below illustrates the variety of possible collaborations that usually distinguish technology consortia from other types of inter-

[1] Baumol, W.J. *The Free-Market Innovation Machine – Analyzing the Growth Miracle of Capitalism* (Princeton, New Jersey: Princeton University Press, 2002), at p. 93. For a concise treatment of economic choices open to firm, which is to determine whether to licence or not and the implications thereof see Beard, R.T. and Kaserman, D.L. *'Patent Thickets, Cross-Licensing, and Antitrust'* 2002 Antitrust Bulletin, 345, at pp. 347 – 350.
[2] Consortia are usually much larger than joint ventures in terms of membership see further Rigatuso, C., Tachi, T., Sylvester, D. and Soper, M. 'Collaboration between Firms in Information Technology' EE 290X Group G, at p.2, available at http://www-inst.eecs.berkely.edu/~eecsbal/s97/reports/eecsbalg/report/report.html , downloaded 2 January 2003.
[3] See also Immenga, U. and Mestmäcker, E.J. (Eds.) *EG-Wettbewerbsrecht: Kommentar, Band I* (Munich, Germany: C.H. Beck, 1997), at p. 1418.

organizational cooperation and the role these organizations play in the different steps of the innovation process.[4]

Box 2.1.: Technological Innovation Process

	Idea Gene-ration	Feasibility Study	Product Development	Prototype and Pilot Plant Construction	Interim Manufacturing	Full Commercialization
Industry/ University. Cooperative Research Centers (IUCRC)	yes	yes				
R&D Ltd. Partnerships (RDLP)			yes	yes	yes	yes
Joint Ventures				yes	yes	yes
Consortium	yes	yes	yes	yes		

Whatever the arrangement and nature of the exchange chosen for the respective technology consortium, there are a variety of reasons for firms to engage in the sharing of their proprietary technology and know-how.[5] The work of a technology consortium is usually complementary to the firms' own R&D. Without relinquishing a firm's own R&D, it can benefit from the

[4] Table source: Rigatuso, C. et al. (2003), at pp. 6 and 7.
[5] For comprehensive discussion of reasons underlying technology consortia see further Katz, M.L. and Ordover, J.A. *'R&D Coopaeration and Competition'* in *Brookings Papers on Microeconomics* (Washington, D.C., Washington: Brookings Institutions, 1990), at pp. 137 – 203.