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## Editorial

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**Biographical notes:** Frank Lasch is an Associate Professor at GSCM-Montpellier Business School, France (Groupe Sup de Co Montpellier). He completed a bi-national PhD in Economic Geography (2002: University of Regensburg, Germany and University of Montpellier III, France) and received a certificate for the supervision of doctoral research (*Habilitation*) in Management Science (2007: University of Montpellier I). His main topics of research are the relationship between entrepreneurship and the regional

environment, start-up survival and growth, and entrepreneurship in the ICT sector. He is currently Research Director of GSCM (GSCM research centre website: <http://www.cerom.org/>).

Frédéric Le Roy is a Full Professor at Montpellier I University and an Adjunct Professor at GSCM-Montpellier Business School, France. He is the author of more than 20 articles in the field of strategy and high-tech entrepreneurship. He is also the Director of the Management Research laboratory *Equipe de recherche sur la firme et l'industrie* (ERFI), hosted at Montpellier I University (<http://www.erfi-management.net/>).

Michael Dowling received his PhD in Business Administration from the University of Texas at Austin (USA) in 1988. Currently he is a Professor at the University of Regensburg (Germany) and holds the Chair of Innovation and Technology Management. Together with Jürgen Schmude, he founded the annual *Interdisciplinary European Conference on Entrepreneurship Research* (IECER) in 2003. He is the author of more than 20 peer-reviewed articles in the fields of technology management and entrepreneurship.

Jürgen Schmude is a Professor at the University of Munich, Germany. He holds a PhD in Geography (1987: University of Heidelberg, Germany). In 1993, he received his certificate for the supervision of doctoral research (*Habilitation*) (Entrepreneurship, University of Heidelberg) and became a tenured Professor in 1994. From 1998 to 2004 he was the coordinator of 'Interdisciplinary Entrepreneurship Research', a research programme funded by the German Research Association (DFG). Together with Michael Dowling, he established the annual *Interdisciplinary European Conference on Entrepreneurship Research* (IECER) in 2003. He is the author of more than 20 peer-reviewed articles in the field of entrepreneurship and economic geography.

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The issue of innovation and technology entrepreneurship is a strategic topic for the development of regions and nations in terms of economic growth and employment. Historically, the role of innovation for entrepreneurship figures amongst the first milestones set by scholars that marked the origins of entrepreneurship research, like Schumpeter, who discussed the entrepreneur in terms of innovation. Ever since, innovation and high-tech entrepreneurship are frequently explored issues in management and more recently, in entrepreneurship research. Since the mid-1990s, emerging and fast-growing industries like biotechnology or Information and Communication Technology (ICT) offer tremendous opportunities for entrepreneurs, especially in the service sector, but also raised the interest of scholars, practitioners, governments and public institutions considering their strategic (and growing) importance in terms of economic change, competition, growth and job generation.

Consequently, the issue of high-tech entrepreneurship (re)fuelled academic research and moved the scope from frequently explored issues like incubators, large industrial high-tech firms operating with economies of scale, *etc.*, and more towards small organisations and the entrepreneur competing in markets affected by globalisation and international competition. It used to be that firms expanded their scope by acquiring other firms, thereby increasing their own size, but acquisitions and mergers are complex,

time consuming and costly, as they involve ownership. New trends are especially visible when looking at high-tech industries, where innovation and technological changes require specific environments and strategies to adapt and to evolve into new products, services and market trends.

Against this background, this special issue collects papers that were presented at the 5th edition of the Interdisciplinary European Conference on Entrepreneurship Research (IECER) from 28 February to 2 March 2007 in Montpellier, France. One paper out of five at this conference dealt with high-tech entrepreneurship; the organisers seized this opportunity to propose a dedicated special issue about this topic to the *International Journal of Entrepreneurship and Small Business* (IJESB) as an important outlet for the research outcomes focused on international, cross-cultural and comparative academic research about entrepreneurs.

The papers included in this special issue of the journal were selected and reviewed by an international panel of reviewers. The first study deals with the high-tech entrepreneur (Robert *et al.*), the second paper explores the environments for high-tech firms (Voß and Müller), the third article focuses on the impact of the regional environment for entrepreneurship (Dornberger and Zeng), the following two articles are country comparisons (Germany and Portugal: Leitão and Ferreira; the UK, France and Germany: Gurău and Groh) and finally, Christensen *et al.* focus on financing issues and deal with the relationship between venture capitalists and entrepreneurs.

The study of Robert *et al.* deals with the entrepreneur in the French ICT sector and presents empirical findings for a better understanding of this particular type of entrepreneur. Analysing 469 entrepreneurs, the authors reveal a number of specificities of the entrepreneurs in this sector. Important subsector differences and regional disparities appear, female entrepreneurs are the exception rather than the rule and high qualifications seem to be a prerequisite for ICT venturing. Opposing expectations, ICT entrepreneurs invest little time in preparation activities, are rather reluctant to undergo entrepreneurship training and an unexpected high proportion of necessity entrepreneurship has been measured. Refining the analysis, the authors identify four groups of entrepreneurs at the subsector level: the experienced and well-educated *cadre* ('expert'), the young and inexperienced but highly motivated 'freshman', the careful entrepreneur with a more technical background who prepares the startup intensively ('provident') and the 'kamikaze'. The 'expert', who has industry experience, contrasts with the inexperienced 'freshman'. The careful preparer ('provident') displays a more technical profile and little management experience, but has the highest level of preparation amongst all four types. His opposition is the kamikaze, with few specific knowledge, a comparatively low education level and few investments in preparation activities. Implications for the stakeholders (entrepreneurship support, venture capital) are suggested to assess and adjust the measures for each type of entrepreneur.

Voß and Müller review the conditions for high-tech startups in Germany. The authors focus on the influence of Research and Development (R&D), the investment environment, the sociocultural awareness of entrepreneurship and the regulatory affairs and bureaucracy on German high-tech entrepreneurs. The results point out the strengths and weaknesses of the national innovation system: a lack of financing of the early development stage with venture capital and informal money, high administrative burdens and risk-averse behaviour in the way the new firm is managed. The positive features of the German system are a strong government support for entrepreneurship, excellent

networking and technology transfer. The authors provide a critical assessment of the environment for high-tech entrepreneurs in Germany, concluding with implications and suggested directions for future research.

The study of Dornberger and Zeng provides insight into entrepreneurial environments in the Asian context and examines location factors and the performance of high-tech startups in China. The authors discuss the influence of the regional environment on the performance of the new high-tech ventures in the Shenzhen region. Analysing 74 high-tech startups, the results indicate that industrial agglomeration, the availability of suppliers and the immigration culture were the major reasons that attracted entrepreneurs to locate their startup in this Chinese region. The empirical findings show that proximity to the suppliers and the customers was essential for the development of the high-tech startups. The implications for policymakers in the Asian context are indicated.

The article of Leitão and Ferreira aims to investigate the impact of the liberalisation of the European telecommunications markets on the business ownership rates, employment, the Gross Domestic Product (GDP) and the investment in ICT. This study is particularly interesting for assessing the impact of liberalisation, which caused the end of the institutional monopolies. Against this background, two European countries are examined: Germany and Portugal. This comparison is particularly interesting, as both countries were affected by exogenous 'shocks' that changed political, economic and regulatory governance (Portugal with the entry to EC in 1986 and Germany with the fall of the Berlin Wall in 1989). These drastic environmental changes offer the opportunity to assess the impact on economic growth and entrepreneurial dynamics. In the case of Germany, a surprising causality relationship is detected: the GDP precedes the decreasing business ownership rates. In Portugal, the business ownership rate pulls for additional investments in ICT. The authors conclude on a certain creative entrepreneurial destruction, since the business ownership rate impacts negatively on the level of employment.

The Gurău and Groh paper focuses on the biotechnology sector and studies the impact of regional development policies on firm creation, comparing three countries (France, Germany and the UK). The paper examines if the regional development policies initiated by the national governments enhance the entrepreneurial activity in specific sectors. As prior research is unclear on this question, the authors adopt a comparative approach and attempt to identify the governmental initiatives taken in the UK, France and Germany to foster the biotechnology sector. They describe how these initiatives have influenced the various regional determinants of biotechnology entrepreneurship.

Finally, Christensen *et al.* examine the motivations for venture capitalists and entrepreneurs to adopt mutual opportunistic behaviour. The results are based upon structured interviews with 14 employees and five investors in a venture capital-funded startup. The findings clarify that venture capitalists act opportunistically towards the entrepreneur and other venture partners during all stages of startup development. These findings have important implications for entrepreneurship research, most notably, the applicability of the agency theory as a theoretical perspective from which to view the complex relationship between venture capitalists and entrepreneurs.

At all levels of analysis used in the papers of this special issue (entrepreneur, stakeholder behaviour, firm, region, nation), the findings underline the importance of studying one sector at a time. New insights have been provided in focusing especially on the particular type of high-tech entrepreneurship (ICT, biotechnology, telecommunications, *etc.*). In this perspective, more research is necessary to provide new

insights and knowledge about high-tech entrepreneurship adopting specific sector approaches (splitting the high-tech sector into different subsectors: the high-tech industry, ICT services, biotechnology, *etc.*) and sector comparisons. The research design of future studies should focus on more interdisciplinary, international and multilevel perspectives to address the complexity and diversity of the concept of 'high-tech entrepreneurship'.

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