



**HHL** LEIPZIG  
GRADUATE SCHOOL  
OF MANAGEMENT

## Stiftungsfonds Deutsche Bank Chair of Innovation Management and Entrepreneurship

Chairholder : **Prof. Dr. Dr. Kelvin W. Willoughby**



**Chair Profile**

**December 2023**



## PREFACE

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“You never change things by fighting the existing reality. To change something, build a new model that makes the existing model obsolete.”

**Buckminster Fuller**

“Development does not start with goods; it starts with people and their education, organization, and discipline. Without these three, all resources remain latent, untapped, potential.”

**Ernst Friedrich Schumacher**

“The inventor is a man who looks around upon the world and is not contented with things as they are. He wants to improve whatever he sees, he wants to benefit the world; he is haunted by an idea. The spirit of invention possesses him, seeking materialization.”

**Alexander Graham Bell**

## CONTENTS

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<b>1. PHILOSOPHY</b>	<b>4</b>
<b>2. TEAM</b>	<b>5</b>
2.1. Chairholder	5
2.2. Affiliated Researchers	6
<b>3. RESEARCH</b>	<b>12</b>
3.1. The Strategic Intellectual Property Management of New Products in Complex Technological Organizations	13
3.2. Patent Strategy for Modular Products	13
3.3. Intellectual Property and International Pathways for Appropriating Value from Endogenous Technological Innovation	14
3.4. Patent Protection for Artificial Intelligence and Machine Learning Technologies: Implications for Innovation Management	14
3.5. Technological Innovation and the Quest for Sustainability: The Interplay of Internal and External Forces in the Development of Environment-friendly Products in the Plastics Industry	15
3.6. Women and Entrepreneurship	15
3.7. Global Innovation in Quantum Technology	17
3.8. Open Innovation and Intellectual Property	17
3.9. International Cultural Distance and Cross-border Co-inventing	17
3.10. Technological Innovation for an Aging Society	18
3.11. Tokenization of Intellectual Property Rights	18
3.12. Strategies for the Appropriation of Economic Value by the Creators of Artistic Works	19
3.13. Business and Industrial Context and the Optimal Configuration of IP-related Innovation Strategies	19
3.14. Innovation Strategies for the Energy Transition	20
3.15. Commercialization of Technology and Science from Academic Institutions	20
3.16. Intellectual Property Management and Startups	21
3.17. The Roles of Formal and Informal Mechanisms, and the Function of Middle Managers, in Managing Intellectual Property in Corporate Innovation Projects	21
<b>4. TEACHING</b>	<b>23</b>
4.1. Entrepreneurship	23
<i>(Full-time Master of Science Program, 5 ECTS)</i>	23
4.2. Innovation Management and Corporate Entrepreneurship	23
<i>(Full-time Master of Science Program, 5 ECTS)</i>	23
4.3. Disruptive Technologies and Business Models	24
<i>(Full-time Master of Science Program, 5 ECTS)</i>	24
4.4. Entrepreneurship	24
<i>(Part-time Master of Business Administration Program, 3 ECTS)</i>	24

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<b>4.5. Innovation Management</b>	<b>25</b>
<i>(Part-time Master of Business Administration Program, 5 ECTS)</i>	25
<b>4.6. Entrepreneurship</b>	<b>25</b>
<i>(Part-time Master of Science Program, Leipzig, 5 ECTS)</i>	25
<b>4.7. Innovation Management and Corporate Entrepreneurship</b>	<b>25</b>
<i>(Part-time Master of Science Program, Leipzig, 5 ECTS)</i>	25
<b>4.8. Innovation Management and Corporate Entrepreneurship</b>	<b>25</b>
<i>(Part-time Master of Science Program, Köln, 5 ECTS)</i>	25
<b>5. TRANSFER</b>	<b>26</b>
<b>5.1. HHL–Fraunhofer Center for Deep Tech Transfer</b>	<b>27</b>
<b>5.2. Otto Mønsted Fond</b>	<b>27</b>
<b>5.3. The Hong Kong Polytechnic University</b>	<b>27</b>
<b>5.4. HHL Student Consulting Project, the nu+ company</b>	<b>27</b>
<b>6. EXTERNALLY FUNDED PROJECTS</b>	<b>29</b>
<b>6.1. Cipher, Patent Analytics Platform</b>	<b>29</b>
<b>7. SPEECHES/CONFERENCES</b>	<b>30</b>
<b>8. RECENT PUBLICATIONS</b>	<b>31</b>
<b>9. ACKNOWLEDGEMENTS</b>	<b>32</b>

## 1. PHILOSOPHY

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“Innovation” has become the leitmotif of success for start-ups, established corporations and, increasingly, for policy makers in the public sector. Both established corporations and entrepreneurial companies are important vehicles for technological innovation, but belief in the power of innovation and entrepreneurship, and the quest for creativity and fulfillment in work, has inspired millions of people worldwide to pursue their dreams by creating a new venture rather than by following an orthodox corporate career. Progress in science and technology is lauded by leaders in government and industry as a key to solving economic, environmental and social problems, and technology venturing is now widely celebrated as the key to wealth generation and personal advancement. These trends evoke some important challenges that are the focus for research and teaching in this Chair:

- How can established corporations renew their competitive advantage through artfully managing the innovation process?
- What knowledge and skill do individuals need to overcome the obstacles to success when launching a technology start-up?
- How can local communities harness the potential of technological innovation to stimulate local economic development and employment generation?
- How can the direction of technological change be managed to maximize social benefit and minimize harmful human and environmental impact?
- What can we as individual human beings personally do to make the world a better place through leadership in the business of technology?
- How can the generation of value through the process of technological innovation be facilitated by the strategic management of intellectual property?
- What intellectual property strategies are especially appropriate for entrepreneurial ventures?

Our work addresses innovation management in both new ventures and established companies, as well as the transfer of created knowledge between academia and business. We are especially interested in strategy for enterprises and projects based on the development and commercialization of new technology, and in how intellectual property may be managed to support innovative enterprises, both locally and internationally.

Under the leadership of Prof. Willoughby, the driving philosophy of teaching in the Chair is reflected in the phrase “student-centered learning.” Student-centered learning is a dynamic approach to education based on the belief that, rather than just impart knowledge to students, the teacher has a responsibility to facilitate the acquisition and generation of knowledge by the students themselves. In his teaching Prof. Willoughby also emphasizes the interplay between theory and practice. Teaching should be informed by the analysis of practical problems and real-life management should be enlivened by theory.

Our Chair, the *Stiftungsfonds Deutsche Bank Chair of Innovation Management and Entrepreneurship*, aims to provide students with knowledge, analytical tools, ideas and inspiration to not only understand the nature of the technological innovation but to cultivate skills and leadership capacity to engage effectively in the practical art of innovation.

## 2. TEAM

### 2.1. Chairholder

#### Prof. Dr. Dr. Kelvin W. Willoughby

Professor Willoughby's expertise lies in the strategic management of intellectual property, technology-based entrepreneurship, innovation management and strategic planning for technology-based industry development. He has conducted a variety of studies, and produced numerous publications, in the above fields in North America, Europe, Asia, Australia and Russia. In addition to his academic work, Professor Willoughby has been active as an international consultant and advisor to industry and government, and a founding member of a digital media technology company in the United States.



#### Current Academic Affiliation

- Professor & Chairholder, Stiftungsfonds Deutsche Bank Chair of Innovation Management and Entrepreneurship, HHL Leipzig Graduate School of Management, Leipzig, Germany (since August 2021).

#### Previous Academic Affiliations

- Professor, Innovation and Intellectual Property, Skolkovo Institute of Science and Technology (Skoltech), Moscow, Russia. Also: Director, Innovation and Intellectual Property Laboratory & Associate Dean of Education, Skoltech.
- Professor of Entrepreneurship and Intellectual Property, Graduate School of Business and Faculty of Science and Engineering, Curtin University, Perth, Australia. Also: MBA Program Director.
- Gastprofessor & Wissenschaftlicher Mitarbeiter, Lehrstuhl für Wirtschaftsrecht und Geistiges Eigentum, Fakultät für Wirtschaftswissenschaften, Technische Universität München (TUM), Munich, Germany.
- Professor of Management, College of Management & Faculty of Science, Mahidol University, Bangkok, Thailand. Also: Director, Entrepreneurship Management Program.
- Professor and Honeywell / W. R. Sweatt Chair in the Management of Technology, The University of Minnesota, Minneapolis, Minnesota, United States. Also: Program Director, Master of Science in Management of Technology.
- Associate Professor, College of Engineering and Applied Sciences, State University of New York at Stony Brook, Long Island, New York, United States. Also: Program Director, Master of Science in Management of Technology.

#### Academic Qualifications

- Master of Laws (LL.M.) in Intellectual Property, University of Augsburg, Germany. Munich Intellectual Property Law Center. 2008
- Doctor of Philosophy (Ph.D.) in Strategic Management and Technology Management, The University of Western Australia, Perth, Australia. 1999
- Fulbright Postdoctoral Fellowship, The University of California at Berkeley, Berkeley, California, United States. 1987-1990
- Doctor of Philosophy (Ph.D.) in Technology Studies, Murdoch University, Perth, Australia. 1987.

## 2.2. Affiliated Researchers

### Punyapat Saksupapchon

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*The Strategic Management of New Products in Complex Technological Organizations: Insights from Dynamic Capabilities Theory and Systems Theory.*

**Academic qualifications:**

- M.Sc. (Master of Science), Skolkovo Institute of Science and Technology, Russia: Space Science and Technology
- B.Eng. (Bachelor of Engineering), First Class Honours, Chulalongkorn University, Thailand: Information and Communication Engineering.
- Certificate of Completion, Program in Computer Science and Information Technology: Daejon University, Korea.
- Special Graduate Student in Department of Aeronautics and Astronautics, Massachusetts Institute of Technology (MIT), USA.

**Profile:** Registered patent agent, Thailand. Currently employed full-time as an Innovation and Intellectual Property (IP) Manager at Chanwanich Co., Ltd., a Thai private corporation with 3,500 employees and multiple businesses. Primary expertise in the field of strategic innovation and intellectual property management especially in innovation project management, patent search, patent data analysis, and negotiating IP terms, licensing agreements, and benefit sharing in research collaboration. Practical experience in engineering, technical marketing and project management in aerospace, materials, health care, software, energy and manufacturing; in Germany, UK, France, Russia, Thailand and the United States.



### Georgy Klushin

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Patent Strategy for Modular Products..*

**Academic qualifications:**

- M.Sc. (Master of Science), Skolkovo Institute of Science and Technology, Russia: Product Development and Advanced Manufacturing,
- B.Sc. (Bachelor of Science- Diplom / Specialist degree in Physics), Moscow State University, Russia: Laser Physics and Nonlinear Optics
- Visiting Graduate Student at MIT (USA) in Advanced Manufacturing.

**Profile:** Dedicated professional in technology transfer and venture capital, with practical experience in new product development, IP management, and tech start-up creation. Background in fundamental science, mechanical engineering, information technology and innovation management. Practical and academic experience in entrepreneurship education and mentoring start-up founders.





## Nadezhda Mullina

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Intellectual Property and International Pathways for Appropriating Value from Endogenous Technological Innovation.*

**Academic qualifications:**

- M.Eng. (Master of Engineering / Magister), Moscow State Technical University (Bauman University), Russia: High-technology Production and Logistics Systems
- B. Eng. (Bachelor of Engineering - Diplom / Specialist degree), Moscow State Technical University (Bauman University): Innovation Management.

**Profile:** Specialist in technology entrepreneurship, mostly in the information technology sphere; experience in market analysis, business modeling, financial modeling, and lean start-up methodology. University-level experience in pedagogy and mentoring.



## Aleksei Kalinichenko

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Patent Protection for Artificial Intelligence and Machine Learning Technologies: Implications for Innovation Management.*

**Academic qualifications:**

- LL.M. (Master of Law / Magister), Diplomatic Academy of the Ministry of Foreign Affairs of the Russian Federation: Private International Law
- B.Ec. (Bachelor of Economics - Diplom / Specialist degree), Perm State University, Russia: Economic theory / economics and law
- B. Eng. (Bachelor of Engineering - Diplom / Specialist degree), Perm State Technical University, Russia: Information Technology and Mining Engineering.

**Profile:** Patent and Intellectual Property Advisor with 15 years of experience in private practice; specializes in patent protection of information technology solutions.



## Philip Benedikt Cichy

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Technological innovation and the quest for sustainability: The interplay of internal and external forces in the development of environment-friendly products in the plastics industry.*

**Academic qualifications:**

- M.Eng. (Master of Engineering), Rheinische Fachhochschule Köln, Germany: Industrial Engineering, Management in technical sales.
- B. Eng. (Bachelor of Engineering), Rheinische Fachhochschule Köln, Germany: Industrial, Industrial Engineering, Engineering aeronautical materials and component testing, , Rheinische Fachhochschule Köln.
- Visiting student at Universität Siegen (Germany), Industrial Engineering.

**Profile:** Extensive business experience (approx. 8 years) as a manager in the plastics industry. Started as a sales manager in plastic/chemistry industry in Asia, later in North and South America. Worked in Chile and the US as a Board of Directors Member for two companies. Currently Head of Sales in the chemistry industry for polyurethane materials.



## Rossitza Ivanova

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Female Entrepreneurship: Hopes, needs, and fears of women entrepreneurs - How can startup initiatives address these? An analysis of the effectiveness of state-run initiatives for women entrepreneurs in Germany to develop a scientifically based guideline for action.*

**Academic qualifications:**

- M.A. (Master of Arts), University of Leipzig, Germany: Communication and Media Studies, Media Culture & Film.
- B.Sc. (Bachelor of Science) in Economics, University of Leipzig
- B.A. (Bachelor of Arts), Martin-Luther-University Halle-Wittenberg, Germany: Media and Communication Studies & Intercultural Linguistics
- Visiting student at Université de Bordeaux, France, Information and Communication.

**Profile:** Substantial practical experience in international relations, in Europe, Africa and Asia. Worked at the German Society for International Cooperation GIZ in Frankfurt am Main in the Department of "Cooperation with Businesses" in Africa and Asia with stopovers in Berlin, Bonn, Brussels, and Rome. Lived in Hanoi, working for the German Embassy of Vietnam in the Department for Communications, Culture, and Politics.



## David Waweru

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Strategies for the Appropriation of Economic Value by the Creators of Artistic Works: Cultivating Skill in Obtaining, Managing and Exploiting Intellectual Property Rights by Musicians in Africa.*

**Academic qualifications:**

- M.B.A. (Master of Business Administration), with Distinction, Curtin Graduate School of Business, Curtin University, Perth, Australia.
- Graduate Certificate of Business, with Distinction, Curtin Graduate School of Business, Curtin University, Perth, Australia.

**Profile:** Entrepreneur, based in Nairobi, Kenya, with a varied background in the publishing industry. Having founded and successfully managed his own publishing company for many years, David is an active trainer and consultant in the cultural and creative industries in Kenya and other African countries, and also works as a UNESCO-EU policy expert on copyright and other issues in the creative and cultural industries in Eastern Africa. He has an interest in the way that the digitalization of the music industry affects the livelihood of musicians.



## Dardan Mulaku

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*The Tokenization of Intellectual Property Rights and Assets in the Context of Digitalization of Business*

**Academic qualifications:**

- M.Sc. (Master of Science), King's College, University of London, London, UK: Finance
- B.A. (Bachelor of Arts in Business Administration), FOM University of Applied Sciences, Essen, Germany: Banking and Finance
- Apprenticeship (IHK), Rheinbraun Brennstoff GmbH (RWE Power AG), Cologne, Germany: Merchandizing and Foreign Trade.

**Profile:** Experienced investment banker and trader in equity and derivatives in banks and stock markets.



## Christopher Lohrey

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Innovation Success Factors: A performance-based view comparing innovation success configurations according to the operating context of firms*

**Academic qualifications:**

- M.B.A. (Master of Business Administration), Mannheim Business School, Germany; exchange program at Chinese University of Hong Kong.
- M.Eng. (Master of Engineering), University of Applied Sciences, Bremen, Germany: airline operations and strategic management
- B.Eng. (Bachelor of Engineering), University of Applied Sciences, Bremen, Germany: aerodynamics and aircraft design
- Lufthansa Flight Training GmbH (ATPL), Theoretical and practical training to graduate as First Officer at Lufthansa GmbH.

**Profile:** Based in Frankfurt, Germany, Christopher is founder and principal of his own innovation-management consulting company. He was originally trained in aerospace engineering, and also as a pilot, and was subsequently educated and trained in business administration. He has substantive international experience in airline operations and airline-facilities logistics, and is also an active and accomplished international airline pilot.



## Dr. Dmitry Smirnov

**Position:** Gastwissenschaftler.

**Research topic:**

*Technology Transfer and Technology Commercialization Strategy; Energy Transition Strategy.*

**Academic qualifications:**

- Ph.D. (Doctor of Philosophy), Skolkovo Institute of Science and Technology, Russia: Energy Systems and Systems Engineering; Technology Management
- M.Sc. (Master of Science), Skolkovo Institute of Science and Technology, Russia: Systems Engineering; Energy Science & Technology
- B.Sc. (Bachelor of Science - Diplom / Specialist degree), St. Petersburg State Polytechnic University, Russia: Industrial Power Systems Design
- Visiting Graduate Student at MIT (USA) and ETH Zurich (Switzerland).

**Profile:** Independent technology entrepreneur and academic. Start-up experience in engine technology, cryogenic cooling, cryogenic coffee grinding, gas technology, and digitization of legal services. Published academic researcher in innovation management and strategy.



## Manisha Mozumder

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*Intellectual Property Rights Practices in Startups.*

**Academic qualifications:**

- M.B.A. (Master of Business Administration), Offenburg University of Applied Sciences, Faculty of Business and Industrial Engineering, Germany: International Business
- B.B.A. (Bachelor of Business Administration), North South University, Dhaka, Bangladesh: Finance and Marketing.

**Profile:** Business consultant and startup advisor. Financial and operations management, Asia and Europe.



## Thorn-Ole Saup

**Position:** Ph.D. Candidate at HHL.

**Research topic:**

*The Roles of Formal and Informal Mechanisms and the Function of Middle Managers in Managing Intellectual Property in Corporate Innovation Projects.*

**Academic qualifications:**

- M.A. (Master of Arts), Karlshochschule International University, Karlsruhe, Germany: Brand; Creativity & Innovation
- B.A. (Bachelor of Arts), Karlshochschule International University, Karlsruhe, Germany: International Marketing Management.

**Profile:** Global Marketing Implementation Manager, IWC Schaffhausen, Switzerland.



## Siyang An

**Position:** Associated Researcher.

**Research topic:**

*Strategies for Improving the Adoption of Technology by Older Adults;  
The Role of Gamified Servitization in Gerontechnology Design.*

**Primary affiliation:**

- *Doctoral Researcher*  
Department of Industrial and Systems Engineering  
The Hong Kong Polytechnic University  
Hong Kong, China S.A.R.

**Academic qualifications:**

- M.Sc. (Master of Science), University College, London, U.K.:  
Technology Management.
- B.A. Hons 1<sup>st</sup> Class (Bachelor of Arts – First Class Honors), University of Liverpool, Liverpool, U.K. & XJTLU, Suzhou, China:  
Business Management.

**Profile:** Researcher, practitioner and teacher in management of technology and design strategy. Specialist in incorporating human factors into the design process. Expert in the design of mobile information technology services for older adults, especially through the gamification of IT-based services.



## Zeki Can Seskir

**Position:** Associated Researcher.

**Research topic:**

*Global innovation strategy in quantum technology.*

**Primary affiliation:**

- *Doktorand / Doctoral Researcher*  
Institute for Technology Assessment and Systems Analysis  
Karlsruhe Institute of Technology  
Karlsruhe, Germany

**Academic qualifications:**

- M.Sc. (Master of Science), Department of Science and Technology Policy Studies, Middle East Technical University, Ankara, Turkey
- M.Sc. (Master of Science), Department of Physics, Middle East Technical University, Ankara, Turkey
- B.Sc. (Bachelor of Science), Department of Physics, Middle East Technical University, Ankara, Turkey

**Profile:** A physicist by training, Zeki Can Seskir specializes in research about the emerging field of quantum technology, drawing upon scientific expertise in quantum physics as well as interdisciplinary analysis of technological innovation in the broader domain of quantum technology and the emerging quantum technology industry. He is active in the international *QTEdu Quantum Technology Education* program in Europe, and a member of *QWORLD*, the global organization for researchers and other professionals active in quantum technology.

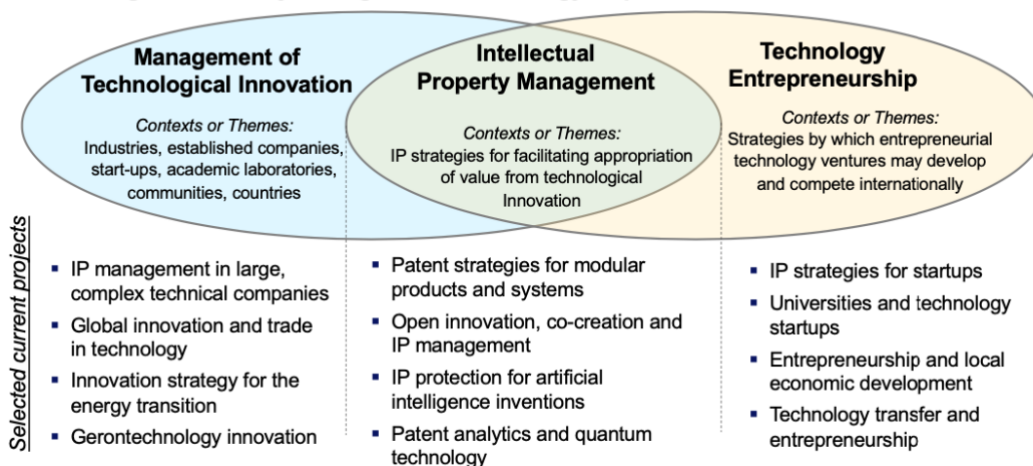




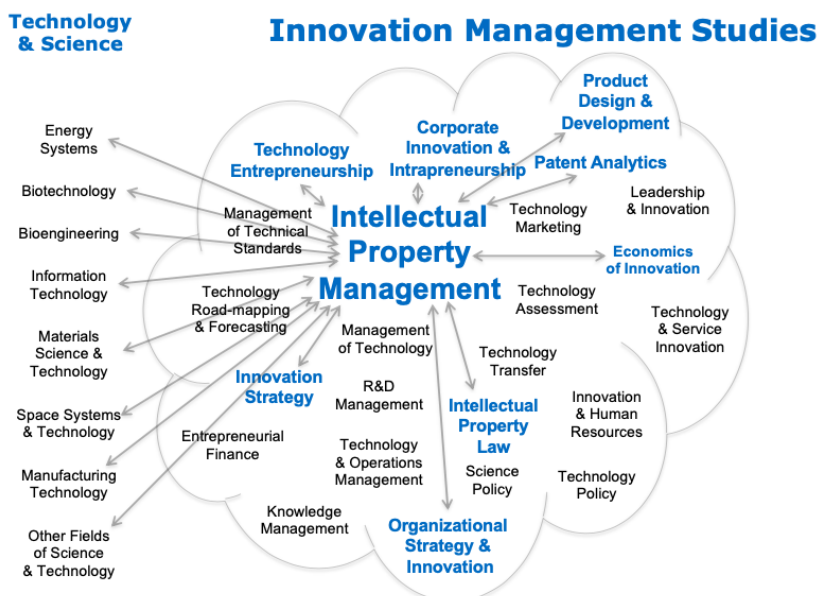
### 3. RESEARCH

The research of the Chair addresses the **strategic management of technological innovation** for both large established corporations and entrepreneurial technology ventures. Within both those contexts we focus especially on the management of intellectual property and the ways in which innovators may artfully employ “IP” (such as patents, trade secrets, copyright, design rights and trademarks) to boost their success in the international commercialization of new technology and innovative technology-intensive products and services. In addition to research focused on strategy for firms and industries, we also investigate the relationship between technological innovation and the economic welfare of countries and local communities. Finally, we also study special topics such as women in entrepreneurship and innovation, and technological design strategies for an aging population. We embrace both qualitative and quantitative research methodologies, employ a variety of sophisticated data analytic techniques where appropriate, and always aspire to link good theory with practical application.

**We examine technological innovation from three different academic perspectives, using sound theory and rigorous methodology, to produce novel and useful results**



The special research focus of the Chair on intellectual property is based on the recognition of the fact that technological innovation, including technology entrepreneurship and the commercialization of science and technology, requires sophistication and prowess in **managing intellectual property**.



Expertise in the management of intellectual property matters not just for lawyers, but also for a wide range of people involved in innovation, including: technology entrepreneurs, managers of established technology-intensive corporations, product designers, investors, technology-transfer professionals, R&D managers, innovation-oriented academic researchers, regional innovation infrastructure professionals, IP traders and specialized IP intermediaries, technology marketing professionals, software and IT service providers, and also public policy leaders. Thus, our Chair follows an interdisciplinary approach to linking various domains of technology, on one hand, with key innovation-related fields of management, on the other hand, by focusing on the emerging professional field of intellectual property management as the nexus point of innovation research and practice.

### 3.1. The Strategic Intellectual Property Management of New Products in Complex Technological Organizations

To create and capture wealth in the long term, firms operating in environments of fast-changing technologies such as those in the commercial aircraft industry need dynamic capabilities, which are the abilities to build, combine, and reconfigure internal and external competences. Teece's 2018 proto-synthesis of dynamic capabilities theory and systems theory portrays both theories as adopting a holistic view requiring elements of an organization (as a system) to be in alignment with each other and the external situations. In this research, we aim to test, elaborate and clarify this proto-synthesis; and to further explain the coevolutionary behavior of the dynamic capabilities of the IP function and those of the technology function of a complex technological organization by conducting an empirical case study of Airbus.

Punyapat Saksupapchon, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Analysis of the long-term competitive dynamics of Airbus and Boeing, viewed through the lens of patenting strategy.
- Approaches to patent licensing agreements in collaborative R&D projects.
- Methodology for mapping the development of corporate intellectual property capabilities.
- Analysis of the co-evolution of IP capabilities and technology development capabilities in Airbus.

### 3.2. Patent Strategy for Modular Products

The value of individual patents for modular products may be increased by claiming the architectural features of the modular product (i.e., module, architecture, interface, and their combinations) as a subject matter for the patent value. This research aims to identify which architectural features of modular products or combinations of architectural features should be selected for patent applications to maximize the value of a patent portfolio.

Georgy Klushin, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Theoretical overview of the way that the relationship between IP rights and modular design is portrayed in the academic literature.
- Comparative empirical study of the manner in which a selection of companies in one innovative technology-intensive industry patent the architectural features of modular products and systems; development of a robust classification system for architectural features of modular products and systems.
- Empirical study of the interplay between patent value and the architectural status of patents.
- Large-scale empirical study of the variations between companies and industries in the interplay between patent value and architectural features of products and systems. Analysis of the co-evolution of IP capabilities and technology development capabilities in Airbus.

### 3.3. Intellectual Property and International Pathways for Appropriating Value from Endogenous Technological Innovation

A stream of research has emerged in the literature supporting the theory that variations in outward-bound patenting activity influence the relative levels of economic development of countries. Our research contributes to that literature by empirically identifying and elaborating the mechanisms by which outward-bound patenting activity is translated into national economic benefit. The focus is on the protection from imitation of knowledge-intensive exports of physical products on the territory of an importer.

Nadezhda Mullina, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Interconnection between outward-bound patenting activity and national economies; reverse Innovation; the middle-income trap.
- International technological specialization of countries; the complexity of patent portfolio, national competitiveness.
- International trade as a key factor influencing international patenting activity.

### 3.4. Patent Protection for Artificial Intelligence & Machine Learning Technologies: Implications for Innovation Management

As the technologies of machine learning (ML) and artificial intelligence (AI) have become ubiquitous in recent years, the demand by companies active in the field for intellectual property protection for their inventions has risen dramatically. However, the terms under which such protection may be provided, under national laws and international agreements, are highly contentious. This creates challenges for entrepreneurs and established corporations investing in the development of AI. Our research relates to the patent protection of technical solutions related to artificial intelligence and machine learning (ML & AI) technologies. The research, we strive to systematize existing approaches to the examination of inventions and the development of a patent protection strategy and offer an effective methodology for researching patent information in the field of AI & ML.

Aleksei Kalinichenko, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Defining artificial intelligence for the purpose of patent analysis.
- Systematizing and critiquing current legal approaches to examining AI and ML inventions for patenting.
- Development of patenting strategies for AI and ML inventions, taking into account both national and international jurisprudence.
- Identification of patent-informed innovation strategies for companies involved in developing AI and ML technologies.



### 3.5. Technological Innovation and the Quest for Sustainability: The Interplay of Internal and External Forces in the Development of Environment-friendly Products in the Plastics Industry

This project investigates the drivers of product development in technology intensive industries by studying the processes by which companies in the plastics industry pursue the development of new “sustainable” plastics, either recycled materials or sustainable alternatives. It considers the interplay between factors internal to innovative suppliers in the plastics industry (such as in-house scientific and technical dynamics, established organizational cultures and systems, or endogenous corporate aspirations) and external factors (such as the requirements of intermediate of industrial customers, the expectations and needs of end-users, the influence of social forces and civil society organizations, and regulations emanating from public authorities) in the setting of de facto corporate innovation strategies.

Philip Cichy, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Study of the morphology and competitive dynamics of the plastics industry as a whole, paying attention to the emergence of the “sustainable” plastics segment within the broader plastics industry.
- Comparative analysis of how different product categories or segments in the plastics industry, as well as distinctive features of the plastics industry as a whole, affect the ability of managers within plastics firms to engage successfully in innovation in the field of ecologically benign plastics.
- Development of strategy concepts to assist managers to reconcile business (profitability) imperatives and ecological imperatives in the development of new plastics, recycled materials or sustainable alternatives.

### 3.6. Women and Entrepreneurship

In recent years a variety of female entrepreneurship initiatives have emerged internationally aimed at supporting women to starting their own businesses by, for example, providing them with material resources (e.g., working space), immaterial resources (e.g., advice, network contacts), and access to funding. Although the number of such women-specific programs is growing, including those specializing on entrepreneurship education, there is a research gap related to the actual effects of such initiatives on women founders and their startup ventures. While the literature on female entrepreneurship points to challenges women face in starting and running a business—focusing on access to information, funding, and networks—at this juncture the literature lacks impact measurement on the effectiveness of women-specific startup support, especially government-sponsored initiatives with public funding. The primary question underlying our research, which will focus on Germany, is therefore: How can government-funded startup initiatives for women be designed to better address the needs of their participants and to increase the programs’ impact?

Rossitza Ivanova, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Identifying and profiling the needs (e.g., motivations, hopes, and fears) of female founders in Germany in the initial startup phase.
- Analyzing to what extent the features of women's startup initiatives in Germany (e.g., inputs, outputs, outcomes, and impacts) effectively address these needs.
- Identifying how government support for women's startup initiatives in Germany might be enhanced to better address salient issues. Theoretical implication of the results will be developed, with the goal of making clear how female talent can be better supported and how specific requirements may be met for female founders to be successful in their entrepreneurial careers.



**Prof. Dr. Dr. Kelvin W. Willoughby**  
Professor and Chair Holder



**Punyapat Saksupapchon**  
Doctoral Researcher



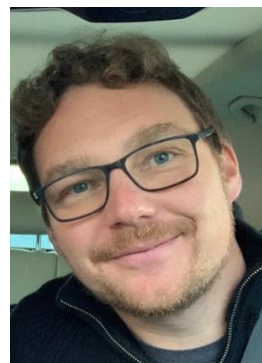
**Nadezhda Mullina**  
Doctoral Researcher



**Philip Cichy**  
Doctoral Researcher



**Rossitza Ivanova**  
Doctoral Researcher



**Christopher Lohrey**  
Doctoral Researcher



**David Waweru**  
Doctoral Researcher



**Dardan Mulaku**  
Doctoral Researcher



**Aleksei Kalinichenko**  
Doctoral Researcher



**Georgy Klushin**  
Doctoral Researcher



**Manisha Mozumder**  
Doctoral Researcher



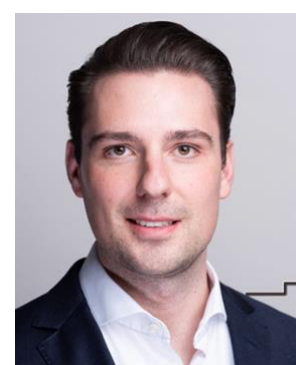
**Siyang An**  
Associated Researcher



**Dr. Dmitry Smirnov**  
Postdoctoral Researcher



**Zeki Can Seskir**  
Associated Researcher



**Thorn-Ole Saup**  
Doctoral Researcher

### 3.7. Global Innovation in Quantum Technology

Quantum technology (QT) is a field of innovation attracting global attention in recent years and it is becoming a locus for international competition between many countries, especially the United States and China, and also in Europe and elsewhere, with the equivalent of tens of billions of Euro of public funds being allocated to develop the technology. However, what exactly is quantum technology? Concepts derived from quantum physics—such as superposition (in which a particle may be in two states, or places, simultaneously), quantum entanglement (whereby classically not-possible correlations can be shared between distant locations), quantum tunneling (whereby a wave may pass through an ostensibly—according to classical mechanics—impenetrable barrier), or the replacement of absolute truth with probabilistic estimates—make quantum technology not only difficult for people not deeply educated in quantum theory to understand, but also rather difficult to define for strategic industry development. This in turn creates challenges for leaders in either the public sector or the domain of private investment wishing to channel resources productively to develop new technology in the field. In this project we address this challenge in two ways: using artificial intelligence to reliably define quantum technology, and its constituent fields; and, to profile international competitive dynamics in the industry.

Zeki Can Seskir, Institute for Technology Assessment and Systems Analysis, Karlsruhe Institute of Technology;  
Kelvin Willoughby, HHL

### 3.8. Open Innovation and Intellectual Property

The “open innovation” trend in industry has led many companies to recognize the value of collaborative innovation not only with their partner companies, universities or startups, but also with individual external contributors—such as consumers, innovation enthusiasts, students, researchers or independent experts—through a variety of innovation-focused co-creation practices, such as crowdsourcing contests, community-based innovation, and lead user or expert workshops. By requiring the contribution of knowledge from both the company’s and the contributors’ sides, such co-creation practices generate new intellectual assets that may accrue intellectual property (IP) rights, i.e., patents, trade secrets, copyright, design rights or trademarks, the ownership of which may be contentious. Co-creation is thus seen to be inevitably accompanied by complex challenges of IP management. In this project, by drawing upon ideas from both contingency theory and configurational theory, we contribute to the emerging literature in this field by exploring the complex relationships between co-creation contexts, configurations of IP management strategies and co-creation project performance through an empirical study of over 100 co-creation projects from a variety of countries and industries.

Anja Tekic, Graduate School of Business, HSE University, Moscow; Kelvin Willoughby, HHL; Johann Füller, Department of Innovation & Entrepreneurship, Universität Innsbruck

### 3.9. International Cultural Distance and Cross-border Co-inventing

As international collaboration in research and development (R&D) has burgeoned during recent decades, both intra-organizationally within multinational corporations, and inter-organizationally between both public and private organizations across national borders, the issue of the cultural mix of R&D teams has become salient. In particular, the impact of the national culture of the home country of participants of multi-national R&D teams on the dynamics of collaborative projects has attracted much attention. In this research project—using data from large-scale multi-year data set of co-patenting dyads, involving over 60 countries spread over two decades, we investigate empirically the impact of cultural distance between the countries of collaborators on co-inventing performance. The research has implications for planning the composition of multi-national R&D teams.

Ralf Mischkowski, School of Management, University of St. Gallen; Maximilian von Zedtwitz, Department of International Economics, Government and Business, Copenhagen Business School; Kelvin Willoughby, HHL

### 3.10. Technological Innovation for an Aging Society

The demographic transition to an aging society has afflicted many countries, especially wealthy countries in Europe, North America, Japan and elsewhere, but also China and other countries where birth rates have slowed in recent decades. Apart from the challenges generated by this transition related to financing the retirement costs of elderly people, another issue has recently captured attention in the literature: older people typically have different technology-related needs and different experiences of technology than do younger people, and hence alternative designs may be required to address the growing market for technological devices and services for the elderly. This has led to the recent emergence of a new field of practice and research, namely, “gerontechnology.” We are investigating the emergence of this field internationally, and also studying empirically the application of sophisticated gerontechnological innovation strategies in the domain of information and communication technology for elderly people in China.

Siyang An, Chi Fai Cheung and Mei Na Chang, Department of Industrial and Systems Engineering, The Hong Kong Polytechnic University; Kelvin Willoughby, HHL

#### Subtopics:

- Roadmapping the emergence of gerontechnology, in the domain of information and communication technology.
- Theory-driven approaches to gamification of instructional systems for promoting technology learning by older adults.

### 3.11. Tokenization of Intellectual Property Rights

Alongside many other forces, contemporary corporations are subject to two related phenomena of special interest, namely: the digitalization of transactions, operations and other business functions; and, a growth in the importance of intangible assets as the source of the real value of enterprises. In this context, technical systems and tools such as Distributed Ledger Technology (DLT), including Blockchain, as well as “non fungible tokens” (NFTs), are rapidly emerging as vehicles and platforms to facilitate secure financial transactions and international trade in various types of securities and other intangible assets. In this context, one particular type of intangible assets, namely, intellectual property rights (e.g., patents, copyright, design rights, trademarks, trade secrets, etc.) is gaining attention as the source of both corporate and national competitive advantage. In this project we are investigating the potential for tools such as digital tokens and distributed ledger systems to facilitate efficient management and transparent or verifiable trading of intellectual property rights.

Dardan Mulaku, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Approaches of tokenization and transfer of intellectual property rights within a digitalized environment.
- Application and implementation of a blockchain-based custody facility for illiquid and liquid assets and property rights.
- Analysis of blockchain technology as a clearing and settlement alternative to avoid price inefficiency on stock exchanges caused by settlement restrictions
- Design of a blockchain-based trading venue for cross-border trading of tokenized assets and intellectual property rights.

### 3.12. Strategies for the Appropriation of Economic Value by the Creators of Artistic Works

Cultural and creative industries (e.g., the music industry, graphical arts, literature, drama and choreography) have great potential to generate wealth for their creators and to contribute to the GDP, exports, and employment, and development outcomes, of their respective communities and countries. In recent decades such industries have been substantially transformed by the digitalization of the production, storage and distribution of creative works, and this has created both opportunities and challenges for the creators of those works to generate and appropriate wealth from their activities. Legal instruments in the domain of intellectual property, such as copyright, are critically important for allowing fair remuneration for creative artists and other stakeholders in the creative-arts industries. However, such benefits do not accrue automatically, and prowess in obtaining, managing, and exploiting intellectual property rights is required for success. In this project we study the effect of digitalization on the music industry in one particular region, Africa, and we explore how cultivating skill in obtaining, managing and exploiting intellectual property rights by musicians in Africa may play a role in enhancing their capacity to generate a livelihood for themselves and their communities.

David Waweru, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Copyright in sound recording and composition in the digital age.
- The influence of artistic works on income generation, job creation, and export earnings in Africa.
- Investigating the digital roadmaps in Africa and what impact infrastructure in the digital economy bears on music copyright and revenue
- New business models for creative businesses in the digital age.

### 3.13. Entrepreneurship, Industrial Context and the Configuration of IP-related Innovation Strategies

Innovation is important for sustainable profitability, company growth, and long-term firm survival, especially in an increasingly competitive business environment. However, innovative ventures typically carry a high risk of failure and thus present a financial burden for their stakeholders. Firms thus need to identify critical success factors (CSFs) that make innovation less risky, more likely to succeed, and financially more efficient. Factors of highest interest are arguably the ones that can be influenced directly by corporate managers themselves. Accordingly, innovation and its relationship to an organization's commercial performance, with acceptable risk, has become an important topic in the academic literature, leading to a lively debate about innovation-specific subsets of CSFs and the innovation related success factors (ISFs), including intellectual property strategy. However, there is a tension in the literature between those scholars who presume the general applicability of their findings across all companies and contexts and those who assert that the impact of particular ISFs on firm performance is context specific or firm specific. This is the issue that we aim to resolve in this research. Are the factors that determine corporate success, especially IP-related factors, universally applicable or context dependent?

Christopher Lohrey, HHL; Kelvin Willoughby, HHL



## 3.14. Innovation Strategies for the Energy Transition

As countries and companies struggle with the challenges of transitioning from fossil-fuel dependent energy systems to sustainable renewable-energy systems, they are faced with complex investment decisions, involving enormous resource allocations, related to the development of new energy technologies. The policy and strategy questions evoked by these challenges are not easy to resolve. In particular, deciding on the balance between private sector investments and public sector investments, on one hand, and between basic science and targeted technology investments, on the other hand, can be problematic. We address these issues through systematic empirical research on the innovation process in one field of energy conversion technology, and through exploratory research on institutional factors related to technology transfer and technology commercialization from academic institutions.

Dmitry Smirnov, HHL; Kelvin Willoughby, HHL

### Subtopics:

- Understanding the Dynamics of Innovation, Science, and Technology.
- The role of universities and business schools in facilitating the commercialization of new energy technology.

## 3.15. Commercialization of Technology and Science from Academic Institutions

Discussion in the scholarly literature about partnerships between entrepreneurs and universities for the creation of technological spinouts, and for helping universities to extract more value from their technology-related intellectual property, is lively. However, there is a gap in the literature in understanding how business schools may participate in the process of technology commercialization by facilitating the creation of intellectual property (IP) rights. In this research we seek to fill this gap in three ways. First, we study relationships between technical universities and entrepreneurs using a multi-level approach, through the lenses of several established theoretical perspectives from the domains of economics, social science, and management. Second, we investigate the phenomenon of learning reinforcement through multiple organizational levels to understand how business schools may play a prominent role in technology commercialization, together with the theoretical conditions under which they may do so. Third, we are developing an IP management model under which business schools, as such, may create and appropriate financial value by generating innovation-related IP that may be transferred to enterprises.

Our research to date has revealed a misalignment between promising approaches to university-based technological innovation suggested by normative theory and commonly adopted practices; and has highlighted a strategic issue, which is that the performance of most universities in the domain of technology transfer is disappointing. We explore ways to address this misalignment, and this strategic issue, through the establishment of what we label as “Technology Innovation Laboratories” in business schools—analogue to technical laboratories usually associated with technical universities—that could generate various types of product- or service-related IP. This type of intellectual property—typically different from invention IP, and which we label here as “business IP”—could be exchanged for equity in spinouts or royalties from licensing, similar to the manner in which the invention IP of technical universities is usually commercialized.

Dmitry Smirnov, HHL; Kelvin Willoughby, HHL

### 3.16. Intellectual Property Management and Startups

Entrepreneurial technology ventures are frequently seen as facing a difficult tension at the interface of intellectual property (IP) rights and business: on one hand, their ability to obtain access to necessary financing and other resources, or to form collaborations with business partners, depends upon their prowess at obtaining and enforcing appropriate IP rights; yet, on the other hand, their lack of capital and in-house IP expertise, puts them at a disadvantage compared with large incumbents and better financed competitors in IP-related competition. At the same time, there is evidence that mastering the art of intellectual property management is even more critical for the survival of startups than it is for other types of enterprises. In this project we investigate the IP strategies that technology startups may employ to create value and sustain activity in a competitive international environment.

Manisha Mozumder, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- Current intellectual property rights practices of technology startups in Europe.
- IP-based commercialization strategies of technology startups.

### 3.17. The Roles of Formal and Informal Mechanisms, and the Function of Middle Managers, in Managing Intellectual Property in Corporate Innovation Projects

The management of intellectual property (IP) is an essential function in a wide variety of industries, and in a wide variety of enterprise types, not only for well-known iconic “deep tech” and “big tech” firms. Companies involved in businesses such as luxury consumer products (e.g., watches or jewellery) are typically heavily dependent upon sophisticated technology for both the design and manufacturing of products, as well as associated logistics and services. These activities typically require a significant repertoire of internal technological capabilities, and appropriate organizational strategies to harness those capabilities, so as to build sustainable global competitive advantage. Intellectual property is critically important for both technological functions (e.g., patents, trade secrets, copyright for software) and for marketing, design, distribution and branding activities (e.g., design rights, trademarks and copyright). Integrating the management of intellectual property rights into the overall innovation strategies of such companies — internationally — requires sophisticated organizational strategies and managerial prowess. In this project we investigate the special contributions of middle managers in addressing this challenge, and the importance of informal organizational mechanisms in facilitating the fruitful integration of IP strategy and innovation strategy in the luxury consumer products industry.

Thorn-Ole Saup, HHL; Kelvin Willoughby, HHL

#### Subtopics:

- The relative or complementary roles of informal and formal mechanisms in the management of intellectual property in corporate innovation projects
- The function of middle managers in the management of intellectual property in corporate innovation projects
- Case study on the role of intellectual property rights and intellectual property management in corporate innovation projects at an international luxury-goods design, production and retailing company
- Case study on the role of informal mechanisms and the function of middle managers in managing intellectual property in corporate innovation projects at an international luxury-goods design, production and retailing company



**HHL Academic House**



**Prof. Dr. Kelvin W. Willoughby** (B.A. Hons.1, Ph.D., Ph.D., LL.M. I.P.)

Professor & Chairholder, *Stiftungsfonds Deutsche Bank Chair of Innovation Management and Entrepreneurship*  
HHL Leipzig Graduate School of Management



## 4. TEACHING

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The heart of Prof. Willoughby's teaching philosophy is reflected in the phrase "student-centered learning." Student-centered learning is a dynamic approach to education based on the belief that the teacher has a responsibility to facilitate the acquisition and generation of knowledge by the students themselves. In his teaching Prof. Willoughby also emphasizes the interplay between theory and practice. Teaching should be informed by the analysis of practical problems and real-life management should be enlivened by theory.

### 4.1. Entrepreneurship

*(Full-time Master of Science Program, 5 ECTS)*

The course explores the distinctive challenges of strategic management associated with entrepreneurship by examining eight complementary topics and their interplay in the entrepreneurial process:

- new product development for new ventures;
- new product development for new ventures;
- technological innovation and entrepreneurship;
- identifying and cultivating, or creating, a market;
- building and managing an entrepreneurial team;
- organizing the enterprise;
- designing an appropriate business model;
- managing intellectual property in new ventures; and,
- obtaining finance and other resources for the venture.

The course focuses special attention on two especially important dimensions of managing entrepreneurial ventures: the constant challenge of assembling the resources—financial, human, material and organizational resources, among others—that are required to operate the business; and the art of iteratively and concurrently managing the processes of technology design, product and/or service design, and marketing. It also adopts an international perspective, on the understanding that, in the contemporary world, for an entrepreneurial venture to flourish it is almost always necessary for it to engage in business internationally.

### 4.2. Innovation Management and Corporate Entrepreneurship

*(Full-time Master of Science Program, 5 ECTS)*

This course explores the innovation space of organizations, paying attention to the different dimensions and contexts in which organizations innovate. Commencing with a general overview of what innovation is and why it matters, the course then addresses six complementary themes:

- the strategic management of technological innovation;
- organizing for innovation;
- sources of innovation;
- intellectual property and innovation;
- appropriating value from innovation; and,
- elaborating and sustaining innovation.

The course focuses on the challenges faced by managers in established organizations, but attention is also be placed on the relationship between entrepreneurial behavior and corporate innovation strategy.

The teaching approach of this course is inspired by the concept of "education for judgement" that lies behind the case-discussion methodology typically associated with the Harvard Business School. The idea is that rather than be taught facts, theories and techniques in a traditional didactic manner, students cultivate the art of forming managerial judgements by grappling with the complexities of "real world" issues and circumstances contained in business cases. Accordingly, this course relies heavily on the so-called "Harvard style" case discussion methodology.

## 4.3. Disruptive Technologies and Business Models

*(Full-time Master of Science Program, 5 ECTS)*

This course aims to provide students with a fundamental understanding of major technological developments affecting industries and societies in the era of digital transformation. Thus, technological developments—e.g., from the fields of artificial intelligence (AI), blockchain, robotics, quantum computing, molecular biology, virtual reality or other fields—are introduced and discussed. The focus lies on the discussion of potential business models based on the introduced technologies, and the disruptive impact of new technology on incumbents.

Students will gain deep and applicable competencies in understanding and applying these new technologies in business settings. Guest presentations from practice partners are integrated to complement the discussions with concrete practical examples of technology application.

## 4.4. Entrepreneurship

*(Part-time Master of Business Administration Program, 3 ECTS)*

Entrepreneurship is the pursuit of business goals through the creation of new ventures, without having control or ownership of the necessary resources.

Entrepreneurial business therefore requires artfulness and sophisticated strategy, together with agility in solving problems, in gaining access to resources controlled by others, and in pivoting wisely when necessary. It presents the entrepreneur with special managerial challenges related to planning, managing people, assessing market opportunities, accumulating resources and capabilities, organizing and structuring the enterprise, building relationships with external partners and stakeholders, responding dynamically to external forces, and developing incrementally. It also requires appreciation of the needs and interests of potential investors, and of the nuances of “boot strapping.” In the world of contemporary business these challenges are amplified by the impact of new technology and global competition in innovation. Success in entrepreneurship typically requires a great deal of “learning by doing” combined with high managerial prowess, but, in contrast with the management of established corporations, managing entrepreneurial ventures requires the additional skill of coping creatively with the constraint of scarce organizational resources.

This course is therefore designed so that students will:

- Understand the key differences between entrepreneurial business and other types of business, and be familiar with contemporary theories of entrepreneurship; Understand the most important managerial challenges and leadership skills associated with creating and leading new ventures;
- Understand the key differences between working in an entrepreneurial venture versus being an employee of an established corporation;
- Appreciate the distinctive approach to business planning associated with creating and sustaining new ventures;
- Understand how the various functions and elements of an entrepreneurial venture need to be co-developed and integrated dynamically over time;
- Be able to identify key decisions facing entrepreneurial teams during the early development of a new venture, as well as the appropriate timing of those decisions;
- Develop skill in working within a team to plan the creation and ongoing development of a new venture;
- Gain experience in articulating cogently, and pitching succinctly, the concept and practicalities of an entrepreneurial venture to various stakeholders and potential stakeholders;
- Develop basic awareness of their suitability for, and interest in, either becoming an entrepreneur or working within an entrepreneurial firm.

## 4.5. Innovation Management

*(Part-time Master of Business Administration Program, 5 ECTS)*

Most firms recognize the need for innovation. However, succeeding in innovation, especially technological innovation, is not easy. Furthermore, innovation is not only a matter of R&D and technological capabilities. It relies on the learning ability of the firm, on its capacity to identify and create new ideas, to transform those ideas into new products or services, and to successfully introduce them into the market. It also relies on a firm's ability to identify different innovation opportunities. Most importantly, it requires the organization to develop and maintain its capability to dynamically renew the skills, processes, routines, organizational structures and disciplines that enable it to build, employ and orchestrate both intangible assets and tangible assets to support superior long-run business performance.

At the end of this course, participants should be able to:

- demonstrate an understanding of the different concepts, comparable terms and associated processes of a successful and sustainable innovation management process;
- apply different techniques to detect, analyze and solve innovation-related problems in firms;
- analyze the current innovative situation of a firm and identify what are the specific areas of the organization and its strategy that need to be redesigned or improved to enhance its innovative performance;
- think not only of successful innovation management strategies, but also the associated managerial challenges and organizational choices.

The pedagogical design of this course is similar to that of the IM&CE course from the full-time M.Sc. program, placing heavy emphasis on learning through case interactive discussion..

## 4.6. Entrepreneurship

*(Part-time Master of Science Program, Leipzig, 5 ECTS)*

Similar to the design of the course by the same name in the MBA, except more substantial in content and in expectations placed on students. Heavy emphasis on "hands on" entrepreneurial strategy development through a two-part team project, involving an entrepreneurial-concept presentation and entrepreneurial-concept report.

## 4.7. Innovation Management and Corporate Entrepreneurship

*(Part-time Master of Science Program, Leipzig, 5 ECTS)*

Similar to the full-time M.Sc. course by the same name, but delivered in an intensive mode.

## 4.8. Innovation Management and Corporate Entrepreneurship

*(Part-time Master of Science Program, Köln, 5 ECTS)*

Similar to the full-time M.Sc. course by the same name, but delivered in an intensive mode.





## 5.1. HHL–Fraunhofer Center for Deep Tech Transfer

The HHL-Fraunhofer *Center for Deep Tech Transfer* addresses a pressing gap in the innovation process: developing business know-how and successful commercialization strategies from academic research, from initiation to scaling. The Center supports established companies and startups looking to build business at the intersection of management and deep tech, and also helps academic organizations to commercialize existing intellectual property through the development of viable business models.



## 5.2. Otto Mønsted Fond

Otto Mønsted Gæsteprofessorat, awarded by the Otto Mønsted Foundation for a Visiting Professorship at the Copenhagen Business School. April-July 2022, Copenhagen, Denmark.



## 5.3. The Hong Kong Polytechnic University

The Hong Kong Polytechnic University, Department of Industrial and Systems Engineering, Kowloon, Hong Kong. Guest teaching and research collaboration in the areas of technology transfer and commercialization, and technology management.



## 5.4. Chitralada Technology Institute

Chitralada Technology Institute, Bangkok, Thailand. Partnership on the development of entrepreneurship curricula and pedagogy, and executive education for South East Asia.



## 5.5. HHL Student Consulting Project, the nu+ company

Topic: Strategy for moving the **nu+ company** customer experience from physical to digital. Academic year 2022.

MBA Student Team: Azfar Nawaz | Daniela Pecho | Harshita Srivastava | Kashyap Shubham | Nupur Gupta | Tsz Pui Chan

Supervisor: Professor Kelvin Willoughby.



## 5.6. Global Urban Competitiveness Project (GUCP)

The GUCP is a group of scholars and researchers who study a variety of important issues that confront residents of urban areas and the policy leaders who seek to enhance the vitality and competitiveness of the world's cities, towns and urban regions. The GUCP represents urban areas that are situated in: Australia, China, Canada, India, Italy, Kenya, Korea, Mexico, the Netherlands, Portugal, Spain, and The United States, and hence offers a truly global perspective on these policy issues. GUCP meets annually and publishes a book on contemporary topics related to urban innovation and competitiveness.



The *2023 GUCP Annual Research Conference* was hosted in Leipzig, Germany, by HHL and the City of Leipzig. The general conference theme was "The Transformed Central City: Surviving or Thriving after COVID" and included a seminar on "Cities as Innovation Spaces" at the *HHL SpinLab*.

## 5.7. The University of Nairobi, Institute for Development Studies

Our Chair has commenced collaboration with the Institute for Development Studies of University of Nairobi, in Kenya, for a project titled "Innovation in the Cultural and Creative Industries: Towards a New Paradigm for Social Development." Our research examines the nexus between cultural and creative industries (CCIs), digital technologies, innovation, and intellectual property rights in Africa, and will assess the potential for new digital technologies to provide opportunities for both innovation and growth in African CCIs.



**UNIVERSITY OF NAIROBI**

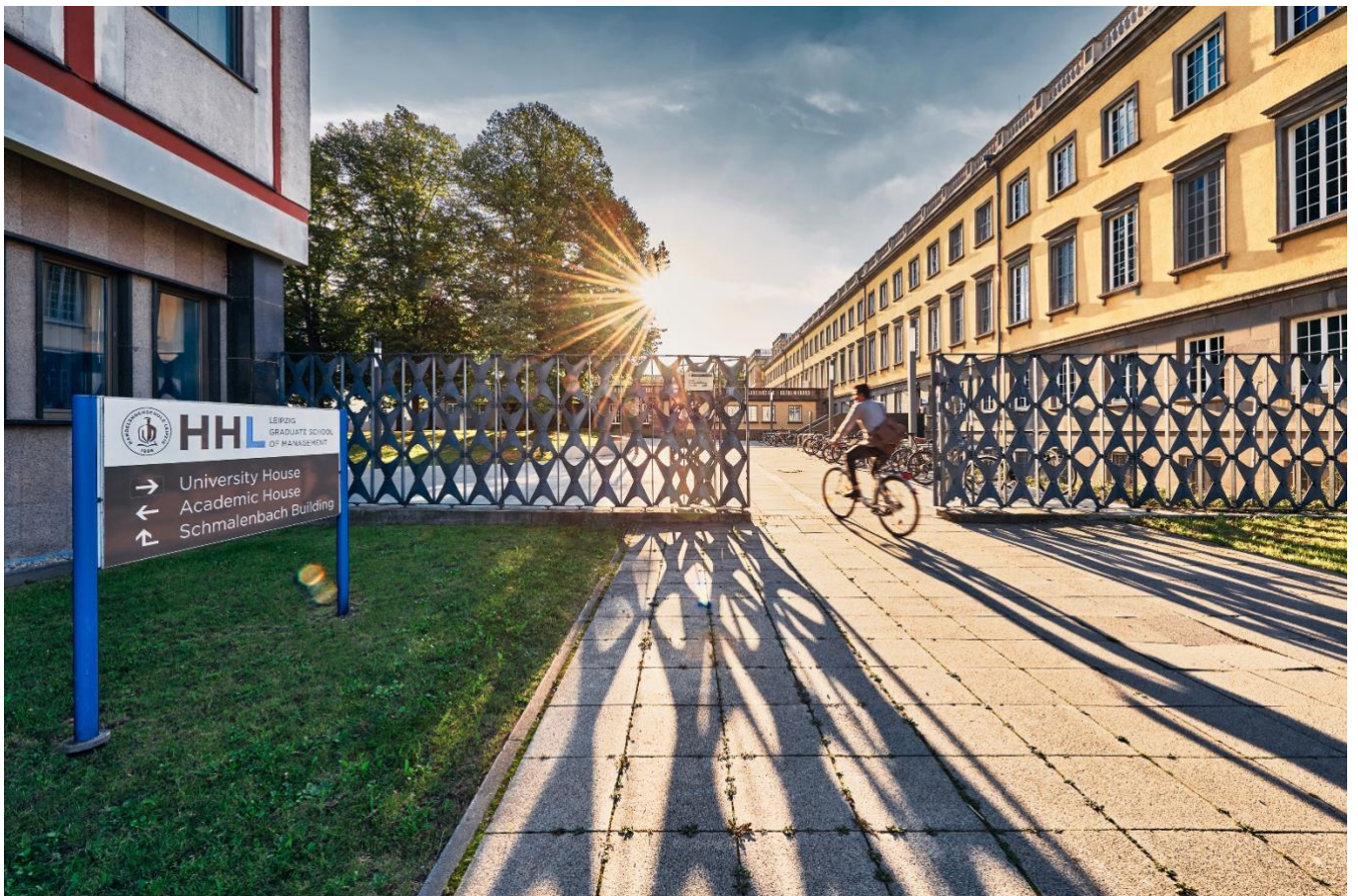
## 6. EXTERNALLY FUNDED PROJECTS

### 6.1. Cipher, Patent Analytics Platform

The Chair is honored to have been granted access to the leading AI-based patent analytics platform, Cipher, by the London based firm Aistemos Ltd. See <https://cipher.ai>



Access to the proprietary service has been made available as an academic service by Aistemos to support research by members of the Chair.



## 7. SPEECHES/CONFERENCES

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- Best Paper Award, Challenging Conventional Wisdom in Entrepreneurship, RENT XXXVII Conference (Research in Entrepreneurship and Small Business), Gdansk, 14-18 November 2023:  
Topic: "Do Women Really Need This? Impact Measurement of Gender-Specific Founder Initiatives."
- Invited Keynote Lecture, 2nd Thailand Entrepreneurship Education Forum, Bangkok, Thailand, 7 September 2023  
Topic: "Entrepreneurship Education and the Art of Teaching."
- Invited Keynote Lecture, 2nd Thailand Entrepreneurship Education Forum, Bangkok, Thailand, 8 September 2023  
Topic: "Intellectual Property (IP) Management for Entrepreneurial Ventures."
- Invited Seminar Presentation: Suranaree University of Technology, Nakhon Ratchasima, Thailand, 11 September 2023  
Topic: "The Relevance of IP for Research Utilization under Thailand's TRIUP Act"
- HHL Expert Talk, HHL Leipzig Graduate School of Management, 6 April 2022.  
Topic: "Local Entrepreneurship, Global Innovation and Intellectual Property Strategy."
- Inaugural Professorial Lecture, Stiftungsfonds Deutsche Bank Chair of Innovation Management and Entrepreneurship, HHL Leipzig Graduate School of Management, 15 September 2021.  
Topic: "Managing Technological Innovation and Entrepreneurship: Challenges for Practice and Research, Viewed Through the Lens of Intellectual Property."
- HHL Alumni Lecture, Refresh at HHL, HHL Leipzig Graduate School of Management, 26 August 2021.  
Topic: "Innovation and Intellectual Property: Leadership and Management Challenges."
- Otto Mønsted Professorship, Guest Lecture: Copenhagen Business School, International Business Program, 25 April 2022.  
Topic: "Global Intellectual Property Management."
- Otto Mønsted Professorship, Guest Lecture: Copenhagen Business School, International Business Program, 26 April 2022.  
Topic: "International Technology Transfer."
- Otto Mønsted Professorship, Faculty Research Presentation: Copenhagen Business School, Department of International Economics, Government and Business, 25 May 2022.  
Topic: "Global Innovation, Outward-bound International Patenting and National Economic Development."
- 81st Annual Meeting of the Academy of Management, virtual meeting, 1-3 August 2021.  
Three papers presented by members of the Chair.
- European Policy for Intellectual Property (EPIP 2022) Conference, The University of Cambridge, 14-16 September 2022, Cambridge, UK.  
Three papers presented by members of the Chair.
- Technology Transfer and Commercialization (Guest teaching at the Hong Kong Polytechnic University, Master of Science in Technology Management), October 2021.
- Chitralada Technology Institute, Bangkok, Thailand. Academic guest, January 2022.
- Munich International Patent Law Conference, 24 June 2022.  
Theme: Claiming exhaustion in patent infringement cases. Participant.
- 2022 IEEE International Conference on Industrial Engineering & Engineering Management (IEEM2002), Kuala Lumpur, Malaysia, 7-10 December 2022. One paper presented by members of the Chair.
- Member of Scientific Review Committee, 10th ICAT Conference (International Conference on Appropriate Technology), 22-25 November 2022, Khartoum, Sudan. Sponsored by International Network on Appropriate University. Hosted by University of Khartoum and co-hosted by Sudan University of Science & Technology.



## 8. RECENT PUBLICATIONS

- “How Can Business Schools Generate and Appropriate Value in University-based Technological Innovation?”  
*International Journal of Innovation and Technology Management*, 2350052 (58 pages), 28 July 2023.  
Dmitry S. Smirnov & Kelvin W. Willoughby.  
<https://doi.org/10.1142/S0219877023500529>
- “Different Settings, Different Terms and Conditions: The Impact of Intellectual Property Arrangements on Co-creation Project Performance,”  
*The Journal of Product Innovation Management*, 13 March (2023), 1-26.  
Anja Tekic, Kelvin W. Willoughby & Johann Füller.  
<https://doi.org/10.1111/jpim.12668>
- “Global Innovation and Competition in Quantum Technology, Viewed Through the Lens of Patents and Artificial Intelligence,”  
*International Journal of Intellectual Property Management*, 13, 1 (2023), 40-61.  
Zeki Can Seskir & Kelvin W. Willoughby.  
<https://doi.org/10.1504/IJIPM.2021.10044326>
- “Reverse Innovation, International Patenting and Economic Inertia: Constraints to Appropriating the Benefits of Technological Innovation,”  
*Technology in Society*, Volume 67, November 2021, 101712.  
Kelvin W. Willoughby & Nadezhda Mullina.  
<https://doi.org/10.1016/j.techsoc.2021.101712>
- “Rethinking the Dynamics of Innovation, Science, and Technology: The Curious Case of Stirling Engines and Stirling Refrigerators,”  
*Energy Research & Social Science*, Volume 79, September 2021, 102159.  
Dmitry S. Smirnov & Kelvin W. Willoughby.  
<https://doi.org/10.1016/j.erss.2021.102159>
- “Contextual Factors Affecting Patent Licensing Provisions in Collaboration Agreements of Complex Technological Organizations,”  
*International Journal of Intellectual Property Management*, 11, 3 (2021), 280-315.  
Punyapat Saksupapchon & Kelvin W. Willoughby.  
<https://doi.org/10.1504/IJIPM.2020.10032645>
- “Intellectual Property Management, Dynamic Capabilities and Competitive Innovation in the Commercial Aircraft Industry,”  
*International Journal of Intellectual Property Management*, 11, 3 (2021), 236-262.  
Punyapat Saksupapchon & Kelvin W. Willoughby.  
<https://doi.org/10.1504/IJIPM.2020.10032446>
- “A Roadmap of Information and Communication Technology-Oriented Product-Service Systems for Older Adults in Hong Kong,”  
*IEEE 2021 9th International Conference on Information and Education Technology (ICIET 2021)*, Okayama, Japan, March 27-29, 2021. Paper ID C068. Published in IEEE Explore on 10 February 2021.  
Si Yang An, Chi Fai Cheung, Mei Na Cheng and Kelvin W. Willoughby.

## 9. ACKNOWLEDGEMENTS

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## IMPRINT

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HHL, Daniel Reiche

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GRADUATE SCHOOL  
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