What institutions, policies, rules, and regulations will maximize economic surplus generated in the fourth Industrial Revolution? How can institutions, policies, rules, and regulations be written and developed to provide incentives and to encourage trade to the benefit of multiple parties?
## AGENDA

### 8.00 Registration

### 8.30 **Welcome and Introduction**

**Nicolas Petit**, University of Liège and Hoover Institution  
**Bowman Heiden**, CIP and Hoover Institution

### 8.45 **Keynote address**

**Stephen Haber**, Stanford University and Hoover Institution

### 9.15 **Panel 1: IoT: Royalty Setting and Patent Policy**

*How should royalties be apportioned in FRAND-enabled standards? What role do regulatory agencies and the courts play in establishing royalty levels if markets or inter-firm negotiations fail? Will these determinations become more challenging with the massive growth of IoT and interconnectivity?*

**Moderator:** **Bowman Heiden**, CIP and Hoover Institution  
**Presenters:** **Gunther Friedl** and **Christoph Ann**, Technische Universität Munich  

“A Cost-Based Approach for Calculating Royalties for the Use of Standard-Essential Patents (SEPs)”  

**Alexander Galetovic**, Universidad de los Andes and Hoover Institution, and **Stephen Haber**, Stanford University and Hoover Institution  


**Discussant:** **Jonathan Barnett**, USC Gould School of Law

### 10.45 **Break**
11.00 **Panel 2: Autonomous Vehicles: Changing Markets, Business Models and Institutions?**

How will the advent of autonomous vehicle technology alter the structure of markets, open up new business opportunities, and challenge current institutional foundations? What types of rules and regulations are necessary and appropriate for AV technologies? How will these developments affect the role of patents, standards development, knowledge transfer (e.g., open source programming, patent pools, public domain), and government?

Moderator: **Keith Bergelt**, Open Invention Network
Panelists:  
- **Monica Magnusson**, Ericsson  
- **Yann Ménière**, European Patent Office  
- **Ruud Peters**, Peters IP Consultancy  
- **Matthias Schneider**, Audi

12.15 Lunch

13.30 **Panel 3: Digital Platforms: Antitrust and Regulation**

What is the role of antitrust agencies in regulating platform markets in the digital economy? Will the rise of the IoT pose new antitrust concerns? How should issues such as large multinational firms be approached? What is the threshold for “large”, “big,” or “dominant”?

Moderator: **Pieter Van Cleynenbreugel**, University of Liège
Presenters: **Nicolas Petit**, University of Liège and Hoover Institution  
  “FAANG Competition: That Which Is Seen and That Which Is Not Seen”  
  **Alexandre de Streel**, University of Namur, and Marc Bourreau, Telcom ParisTech  
  “Digital Conglomerates and EU Competition Policy”  
Discussant: **Luigi Zingales**, University of Chicago

15.00 Break
Panel 4: Globalization, Industrial Champions and 21\textsuperscript{st} Century Protectionism?

Is strict European competition policy limiting European firms from the scale necessary to compete on global markets with US and Chinese firms? Should the law require the definition of global markets in merger reviews to account for foreign competition? Should “industrial policy” standards be introduced into merger law? Should foreign State Owned Enterprises be limited in their ability to enter Western markets by way of strategic mergers with domestic firms?

Moderator: Richard Sousa, Hoover Institution
Panelists: Pascal Belmin, Airbus
Justus Haucap, Duesseldorf Institute for Competition Economics
Can Huang, Zhejiang University
Paul Seabright, Toulouse School of Economics
Jim Venit, Dentons

16.30 Closing remarks
17.00 Reception
INSTITUTIONS AND REGULATION FOR THE
FOURTH INDUSTRIAL REVOLUTION

PARTICIPANTS

Christoph Ann holds the chair of Corporate and Intellectual Property Law in TUM School of Management, Technical University of Munich and serves on the managing board of the Munich Intellectual Property Law Center (MIPLC). Prof. Ann’s academic foci are patents and trade secrets, including licensing and competition law and their respective business environments (IP strategy and IP management). Prof. Ann earned law degrees in both Germany and the U.S. (LL.M., Duke ’88). Before joining TUM, he practiced corporate law as an attorney in Munich and Erlangen, and from 2000-2003 taught IP law as a full Professor of Law at Freiburg University’s Faculty of Law, then Germany’s #1 law school. From 2001-2003, he also served as a judge on the Mannheim Regional Court’s renowned IP Infringement Panel with jurisdiction over the technologically eminent German state of Baden-Württemberg. In 2018, he was nominated as a candidate for a judgeship at the German Federal Court of Justice. Despite the great honor, he decided to have his name taken off the list in order to stay in academia.

Jonathan Barnett is the Torry H. Webb Professor of Law and director of the Media, Entertainment and Technology Law Program, at the University of Southern California Gould School of Law. He specializes in intellectual property, contracts, antitrust, and corporate law. Barnett has published in the Harvard Law Review, Yale Law Journal, Journal of Legal Studies, Review of Law & Economics, Journal of Corporation Law, and other scholarly journals. He joined USC Law in the fall 2006 and was a visiting professor at New York University School of Law in fall 2010. Prior to academia, Barnett practiced corporate law as a senior associate at Cleary Gottlieb Steen & Hamilton in New York, specializing in private equity and mergers and acquisitions transactions. He was also a visiting assistant professor at Fordham University School of Law. A magna cum laude graduate of the University of Pennsylvania, Barnett received a MPhil from Cambridge University and a JD from Yale Law School.

Pascal Belmin has headed EU Regulatory Affairs at Airbus Group since 2015 and addresses, in this function, the full array of EU regulatory matters. He previously created and led the Airbus Antitrust and Trade team. Before joining Airbus, he worked as a private practitioner in Paris and Brussels in antitrust and EU law matters. Belmin is a French qualified lawyer. He graduated from ESSEC Business School and holds a Masters Degree in EU Law from
University Panthéon Assas (Paris II). He is president of the legal committee of GIFAS (French professional association for aerospace and defense industry) and acts in the corresponding European association. Pascal teaches competition law in the ESSEC Business School.

Keith Bergelt is an American corporate executive and former US Diplomat. A pioneer in intellectual property consulting and finance, he is now CEO of Open Invention Network where he is responsible for coordinating the establishment and maintenance of a patent “no-fly” zone around Linux and open source software development. As such, he is responsible for safeguarding an open and competitive landscape in key technology markets such as back-office transaction processing, mission critical IT applications, automotive, energy, internet of things, blockchain, advanced network development/operation, cloud computing, mobile communications/smartphones, and desktop computing.

Alexandre de Streel is Professor of European law at the University of Namur (Belgium) where he is the Director of the Research Centre for Information, Law and Society (CRIDS) and Board member of the Namur Digital Institute (NADI). He is also a joint-academic director at the Centre on Regulation in Europe (CERRE) and assessor at the Belgian Competition Authority. His main areas of research are the regulation and the application of competition policy to the digital economy as well as the legal issues raised by the development of artificial intelligence. Previously, Alexandre worked for the Belgian Deputy Prime Minister, the Belgian Permanent Representation to the European Union and the European Commission (DG CONNECT). He holds a Ph.D. in Law from the European University Institute and a Master Degree in Economics from the University of Louvain.

Gunther Friedl is a professor of Business Administration at the Technical University of Munich (TUM), where he holds the Chair of Management Accounting and is Dean of the TUM School of Management. His research interests span the fields of corporate governance and executive remuneration, performance measurement, company valuation, and patent evaluation. He studied physics at TUM and business management at the Ludwig Maximilian University of Munich (LMU). He completed his doctoral studies at the LMU in 2000 and obtained his postdoctoral teaching qualification in 2004. He then moved to Johannes Gutenberg University Mainz, where he was Professor of Business Administration and held the chair of Management Accounting until 2007. Research and teaching assignments have taken him to Stanford University and the Warsaw School of Economics. Friedl has authored and co-authored several books on cost accounting and management accounting. His research has been published in the European Journal of Operation Research, OR Spectrum, Research Policy and the Schmalenbach Business Review, among others.
Alexander Galetovic is a professor of economics at the Universidad de los Andes (Santiago, Chile) and a visiting fellow at the Hoover Institution. He has written extensively on competition and regulation of infrastructure industries: electricity, telecommunications, water, and transport. His recent book, *The Economics of Public-Private Partnerships: A Basic Guide*, which he coauthored with Eduardo Engel and Ronald Fischer, is a standard reference of the economics and policy of infrastructure concessions. Together with Engel and Fischer, Galetovic invented the least-present-of-revenue auction, which is routinely used by governments in many countries to procure transport infrastructure through public-private partnerships. His current research is about the interplay of intellectual property and antitrust in high technology industries such as mobile phones, semiconductors, and autonomous vehicles. Galetovic has been a research scholar at the International Monetary Fund, a Tinker Visiting Professor at Stanford, and a National Fellow at the Hoover Institution. He is also listed among Who’s Who Legal Competition Economists. He has been advisor on public-private partnerships to the Chilean government and multilateral organizations such as the World Bank, the Inter-American Development Bank, and the OECD. He holds a bachelor’s degree from the Catholic University of Chile and a PhD in economics from Princeton University.

Stephen Haber is the Peter and Helen Bing Senior Fellow at the Hoover Institution and the A.A. and Jeanne Welch Milligan Professor in the School of Humanities and Sciences at Stanford University, and is also professor of political science, history, and (by courtesy) economics at Stanford. He has been awarded every teaching prize at Stanford, including the Walter J. Gores Award for distinguished teaching. His research examines political institutions and economic policies that “hold up” innovation. His current research examines the creation of regulatory barriers to entry in finance, the economic and political consequences of hold up problems created by different systems of agricultural production, and the comparative development of patent systems. Haber’s most recent book, *Fragile by Design* (with Charles Calomiris), examines how governments and industry incumbents often craft banking regulatory policies in ways that stifle competition and increase systemic risk. He is director of the Hoover Institution Working Group on Intellectual Property, Innovation, and Prosperity (IP²).

Justus Haucap is the founding director of the Düsseldorf Institute for Competition Economics (DICE) at Heinrich-Heine-University of Düsseldorf. From 2006 to 2014 he served as a member of the German Monopolies Commission, which he also chaired for four years (2008–2012). He is also a member of both the German Academy of Technical Sciences (acatech) and the Northrhine-Westfalian Academy of Sciences and Arts, as well as acting vice chairman of the German Networks Agency’s council of scientific advisors. He has been
named one of Germany’s 30 leading economists for the last five years in a row by the *Frankfurter Allgemeine Zeitung*, Germany’s leading daily newspaper. After studying economics in Saarbrücken (Germany) and at the University of Michigan (USA) and pursuing doctoral studies at the University of Saarland, he held positions at the University of California, Berkeley (1996–97), the New Zealand Treasury (1997–1999), the University of the Federal Armed Forces in Hamburg, the Ruhr-University of Bochum (2003–2007), and the University of Erlangen-Nuremberg (2007–2009). His research focuses mainly on competition and antitrust issues as well as the regulation of network industries and digital markets. He regularly advises public institutions such as the European Parliament, the German Ministry of Economics and Energy, the German Ministry of Finance, as well as many private firms and associations.

**Bowman Heiden** is a visiting fellow at the Hoover Institution and the co-director of the Center for Intellectual Property (CIP), which is a joint center for knowledge-based business development between University of Gothenburg (Sweden), Chalmers University of Technology (Sweden), and the Norwegian University for Science and Technology. At CIP, Heiden co-founded and developed the Intellectual Capital Management (ICM) and Business Creation and Entrepreneurship in Biomedicine (BCEB) master’s level programs, CIP FORUM, the Business of Intellectual Property executive program, and the CIP Internship Program. He directs the Impact Accelerator at the Sahlgrenska School of Innovation and Entrepreneurship where he is also the program director of the interdisciplinary master’s program. Previously he was innovation director for the Qatar Science & Technology Park, where he was responsible for driving innovation strategy and intellectual property policy. Heiden holds degrees in engineering, technology management, and economics. Before turning his focus to the field of knowledge-based business, Heiden played professional basketball in a number of European countries.

**Can Huang** is professor and head of the Department of Innovation, Entrepreneurship and Strategy and co-director of the Institute for Intellectual Property Management at Zhejiang University in China, as well as executive deputy director of the National Institute for Innovation Management. He is a member of the Chinese expert group of the U.S.-China Innovation Dialogue under the U.S.-China Strategic and Economic Dialogue, a member of advisory board of Research Center for Technological Innovation, Tsinghua University; CIPRUN Intellectual Property Management Research Center, University of Electronic Science and Technology of China; and the Asia Pacific Innovation Conference. He is also a senior editor of *Management and Organization Review* and a member of the editorial boards of several academic journals. Prof. Can Huang’s research interests include innovation management, intellectual property rights, and science and technology policy.
Monica Magnusson is Vice President of IPR Policy within the Ericsson group, reporting to Ericsson’s Chief Intellectual Property Officer Christina Petersson. An engineer by training, she joined Ericsson in 1998 and has been part of Ericsson’s gradual build-up of its IPR & Licensing operations ever since.

Yann Ménière joined the European Patent Office (EPO) as chief economist in February 2016. He is a professor of economics on leave from MINES ParisTech, where was the chair of IP and markets for technology until joining the EPO. His research and expertise relate to the economics of innovation, competition, and intellectual property. In recent years, he has been focusing more specifically on IP and standards, markets for technology, and IP issues in climate negotiations. Besides his academic publications, he has also written a number of policy studies for the European Commission, French government and other public organizations. Outside MINES ParisTech, he has taught the economics of IT standards at Imperial College Business School and the economics of IP law at the Law School of Université Catholique de Louvain.

Ruud Peters is the CEO of Peters IP Consultancy B.V. He has a background in physics (Technical University Delft, The Netherlands) and joined Royal Philips in 1977. He was appointed Chief Intellectual Property Officer (CIPO) in 1999 and was responsible for managing the worldwide IP portfolio and all standardization activities at Philips. Ruud retired from his role as CIPO at the end of 2013 and continued to work for the company as a part-time adviser on strategy and IP matters until the end of 2017. In his role as CIPO, Ruud turned Philips’ IP department from a cost center into a successful profit and loss operation, while at the same time integrating the different IP activities within the company into one centralized IP organization. He further introduced a new concept for handling all the different forms of IP in an integrated manner and introduced advanced methods used for determining the total return on IP investment by measuring direct and indirect profits from IP. Ruud is a board member of a number of technology and IP licensing companies. He was inducted into the IP Hall of Fame in 2010 and in 2014 he received an Outstanding Achievement Award for his lifetime contributions to the field of IP from Managing Intellectual Property magazine.

Nicolas Petit is full professor of law at the University of Liege (Belgium), research professor at the University of South Australia, and visiting fellow at the Hoover Institution, Stanford University. In 2013, he was awarded the prize for the best law book at the French Supreme Court. Petit belongs to the top 50 law authors on the research repository ssrn.com. His current research focuses on three areas: antitrust and digital economy firms, patent protection as an engine of innovation, and law creation in a context of technological evolution. His recent written works deal with the limits of antitrust economics in relation to
technology giants and the legal frictions created by the introduction of artificial intelligence in society. He practiced law with a leading US law firm in Brussels and he also served as a clerk at the Commercial Chamber of the French Supreme Court.

**Matthias Schneider** is the Chief Licensing Officer at Audi AG. He has been active in the area of IP management and licensing for many years. Matthias is a member of the European Commission’s expert group on SEP licensing. He was Vice President for IPR at Siemens Communication Devices and BenQ Mobile, and Global Head of Defensive Licensing at Nokia Corp. Schneider has played an important role in the development of the Siemens 2G and 3G patent licensing program and was the lead negotiator of numerous high-value licensing deals (offensive and defensive) for various companies. He has been an advisor of major telecom manufacturing companies and patent licensing entities. He is also the inventor of more than twenty granted patents related to user interface and communication technology. Schneider teaches courses on user interface design and human factors at the Technical University of Munich.

**Paul Seabright** teaches at the Toulouse School of Economics and has lived in the centre of the city of Toulouse in France since 2000. He is director (since September 2012) of the Institute for Advanced Study in Toulouse (IAST), and a member of the Institut d'Economie Industrielle. He did undergraduate and doctoral studies at the University of Oxford, where he was a Fellow of All Souls College, then taught at the University of Cambridge where he was a Fellow of Churchill College. He has also held part-time teaching positions at the College of Europe in Bruges and at the Ecole Polytechnique in Paris. His current research lies in three areas of microeconomics: industrial organization and competition policy, the economics of networks and the digital society, and behavioral economics (especially the integration of evolutionary biology and anthropology with an understanding of the development of economic institutions in the very long run). He is a fellow of the Centre for Economic Policy Research, London, a council member of the European Economic Association, and a member of the Scientific Council of the think-tank BRUEGEL. He was formerly a member of the Economic Advisory Group on Competition Policy at DG-Competition of the European Commission.

**Richard Sousa**, research fellow at the Hoover Institution, is an economist who specializes in human capital, K–12 education, discrimination, and labor market issues. Sousa coauthored *School Figures: The Data behind the Debate* and coedited *What Lies Ahead for America’s Children and Their Schools* and *Reacting to the Spending Spree: Policy Changes We Can Afford*; his op-eds have appeared in leading newspapers around the country. He was senior associate director of the Hoover Institution and served as director of the Hoover Institution Library and Archives from 2007 to 2012. He was responsible for major archives...
acquisitions, including the William Rehnquist papers; the Georgia, Estonia, and Lithuanian KGB files; and the Iraqi B’ath Party collection and he oversaw the opening of the Chiang Kai-shek diaries for public use. He is a member of the Hoover IP² steering committee.

**Pieter Van Cleynenbreugel** teaches EU substantive law at the Faculté de Droit, de Science Politique et de Criminologie, University of Liège. Prior to joining the University of Liège in January 2016, Pieter worked as a pre-doctoral fellow (aspirant) of the Research Foundation-Flanders at the Faculty of Law, KU Leuven-University of Leuven (2010-2013) and as ‘universitair docent’ at Leiden Law School, the Netherlands (2013-2016). He obtained a PhD in law at the KU Leuven-University of Leuven (Belgium), where he also graduated as a Bachelor and Master of Laws, both summa cum laude. A Belgian American Education Foundation (BAEF) fellow and Fulbright grantee, he was awarded an additional Master of Laws degree from Harvard Law School. He is the author of numerous publications on European Union law.

**James Venit** has practiced competition law in Brussels since 1980. He has extensive international antitrust and European competition law experience and has represented multinational companies in proceedings under the EU Merger Regulation and Articles 101 and 102 involving a wide range of industries and economic sectors. He has handled major mergers such as Volvo/Scania, GE/Honeywell, Arcelor/Mittal, and Outokumpu/Inoxum. He has been involved in major Commission investigations, including Intel, and has been involved in landmark cases, including Lufthansa/United Alliance, GSK/Spanish Pricing, Intel, and Yamaha. He also has extensive experience counseling companies on compliance matters and on the implementation of compliance programs. Venit has written extensively on various aspects of EU competition law and was named one of the “Top 10 antitrust lawyers” from around the world by Global Counsel. He has been selected repeatedly for inclusion in Chambers Global: The World’s Leading Lawyers for Business. In addition, he was named a leading practitioner in his field by Who’s Who Legal: Competition Lawyers & Economists and Who’s Who Legal: Competition. He received his JD from New York University School of Law and has been a partner at Dentons since 2017.

**Luigi Zingales** is the Robert C. McCormack Distinguished Service Professor of Entrepreneurship and Finance at the University of Chicago Booth School of Business. Zingales received a bachelor's degree in economics from Università Bocconi in Italy and a Ph.D. in economics from the Massachusetts Institute of Technology. He joined Chicago Booth in 1992. From 2005 to 2006 and 2014 to 2015, Zingales was Taussig Research Professor at Harvard University. In 2014, Zingales also served as the president of the American Finance Association. While his research spans from political economy to the economic effects of culture, Zingales’ main research interest is corporate governance and
the governance of capitalist systems, more broadly. He has written two widely-acclaimed books on this topic: *Saving Capitalism from the Capitalists* (2003) with Raghu Rajan and *A Capitalism for the People* (2012). Zingales has also created a new undergraduate course titled Crony Capitalism and recently launched a podcast, *Capitalism*’t, with Katherine Waldock from Georgetown University. Zingales also frequently contributes to *The New York Times* and the *Financial Times* regarding issues in corporate governance. In 2015, Zingales became the director of Chicago Booth’s Stigler Center for the Study of the Economy and the State, where he promotes research on the various distortions that special interest groups impose on capitalism. He is a fellow of the American Finance Association and of the American Academy of Arts and Sciences.

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FURTHER INQUIRIES

Date and venue
Friday 3rd May 2019, from 8:30 a.m. to 5:00 p.m.
Sofitel Brussels Le Louise
Salon Métamorphose
40 Avenue de la Toison d’Or, 1050 BRUSSELS – BELGIUM
https://sofitel.accorhotels.com
Access map: map

Participation Fee
Standard fee: 200 €, excluding VAT (21 %);
Reduced fee (for academics and public officials): 50 €, excluding VAT (21 %).

Working Language
English

Registration
Please register by completing the online form by 25 April 2019.

For more information on registration and cancellation
Liege Competition and Innovation Institute (LCII)
University of Liege (ULg)
Quartier Agora
Place des Orateurs, 1, Bât. B 33
BE-4000 Liege, Belgium

Phone: +32 4 366.31.30
E-Mail: lcii@ulg.ac.be