



**FRANCE STRATÉGIE**  
ÉVALUER. ANTICIPER. DÉBATTRE. PROPOSER.

PROGRAM

# ULTRA-FAST BROADBAND IN EUROPE: State of play and trends

Online workshop only.

The French National Broadband Plan was launched in 2013. In 2019, the European Commission and the French government commissioned [France Stratégie to evaluate this policy](#), which aims to cover the entire territory with Ultra-fast broadband (UFB) by 2022.

This first seminary is organized as part of this evaluation scheme along with research projects to investigate on socio-economic impacts including new uses, on the governance of the plan and on the effects of public action and funds and the Impact of the European aid scheme. A dedicated study analyzing the building costs of fiber network by comparing several Public Initiative Networks (French public-funded local FttH networks) is handled too.

**In four consecutive workshops**, the seminar is designed to compare the different points of view and concepts related to the roll-out of UFB that of public players (European institutions, national regulatory bodies, local authorities ...) but also private players (industrialists, Internet service providers, civil engineering constructors, ...

It will also be an opportunity to discuss regulatory issues related not only to the rollout of optical fiber (including in less dense areas) but also to the new ECCE. We will be interested in what it involves and how it will be transposed.

In the future, other workshops will take place, within the framework of the evaluation mission of France Stratégie. They will deal with the new uses of the Internet for the public and the corporate market or the coverage of overseas territories, etc.



Pierre-Jean **BENGHOZI**,  
*Chairman*

Member of the Arcep's executive board, until 2019 and former student and professor at the École Polytechnique, he was Research Director at the CNRS, where he headed the research centre in economics and management until 2013 (UMR X – CNRS) and the "Innovation and Regulation of Digital Services" Chair founded, in partnership with Telecom ParisTech. He also holds a Doctorate in organizational Science from the University of Paris Dauphine and an Habilitation to Conduct Research (HDR) in Economics. He is one of the founders of the International Master of Reference (M2) on Network Industries and the Digital Economy (IREN).



Eric **BROUSSEAU**,  
*Professor of Economics and Management at the University Paris-Dauphine*

A founding member of PSL Research University. He is a member of Dauphine Research in Management (DRM), a joint Research Center between Dauphine and the CNRS. He is the Scientific Director of the Chair "**Governance and Regulation**" and of the "Club des Régulateurs". He is also involved with the European University Institute in Florence.

His research focuses on economic governance and market regulation. He is interested in how the strategies of actors influence the organization and evolution of institutions shaping economic activities; hence detailed researches on how regulatory frameworks emerge, evolve and perform in various contemporary or historical, national or transnational contexts; as well as on the interactions between self- and public regulations. He has published nearly a hundred scientific papers and has edited about fifteen books and symposia. He has been involved in researches funded by the French Government, the European Commission, the US National Science Foundation, the UN, and the OECD.



Patrice **DURAN**,  
*Public Policy Evaluation*

President of the INED, researcher, sociologist and teacher within prestigious institutions (ENA, Ponts et Chaussées, Sciences Po...), former chargé de mission in the PM office for territorial development issues, he published among others Genesis of Public Policy in Dictionary of Public Policy (PFNSP, 2014), and has worked on public policy evaluation.

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Carine **STAROPOLI**,  
*Public Policy Evaluation*

Carine Staropoli is Associate Professor at the Paris School of Economics and Senior Lecturer in Economics at the University of Paris I Panthéon-Sorbonne. She is Deputy Director of the Chair of Economics of Public-Private Partnerships at the IAE of Paris. She directs the MSc Economic Decision and Cost Benefit Analysis at ENPC ParisTech and PSE. Her research work focuses on the Economics of Regulation applied in particular to electricity markets and the Economics of Public-Private Contracts. Within the EPPP Chair of the IAE in Paris, she is conducting work on public procurement and the contractual practices of public actors in the energy field (electricity distribution concession contracts, energy performance contracts) and more recently on public-private relations in smart cities.

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Frederic **MARTY**,  
*Law and legal economics*

Researcher at the CNRS (Research Group in Law, Economics and Management, GREDEG) at the University Côte d'Azur, he is a member of the board of the French Association of Legal Economics. He works on competition law and the regulation of contract markets.



Thierry **MAYER**,  
*Geography and geographical economics*

Professor of Economics at Sciences-Po Paris, Thierry Mayer is also a scientific advisor at CEPPI and a fellow at CEPR. His teaching focuses mainly on international trade, European economic integration, the new geographical economy. He is the author of the handbook "Economie Géographique" published by Economica in 2006.

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Francis **JUTAND**,  
*Technologies*

Former member of the National Digital Council, Scientific Director of the IMT, he has been, since the 1<sup>st</sup> June 2018, the deputy general Director of the IMT, a major public player in France and Europe in the field of higher education, research and innovation in engineering and digital technology, gathering the Grandes Écoles Mines and Telecom.

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Christel **COLIN**,  
*Macro and microeconomics, econometrics*

Former student of the École polytechnique and Ensaë, Director of Business Statistics at INSEE.



Joëlle **TOLEDANO**,  
*Macro and microeconomics, econometrics*

Professor Emeritus in Economics, holding a Ph.D. in mathematics and in Economics, former member of the Arcep's executive board, she has held management positions in large private and public sector companies (La Poste) and has published numerous scientific papers in the fields of macroeconomics, industrial economics and the regulation of electronic communications and postal services.



Fatima **BARROS**,  
*Macro and microeconomics, econometrics*

Fatima Barros holds a doctorate in economics from the University of Leuven. She has led a career at the university where she coordinated various research programs in the field of regulation and competition economics, she led the CATÓLICA-LISBON's Research Center for the Automotive Sector. Between 2012 and 2017, she chaired ANACOM on the Portuguese postal and electronic communications regulator. She currently teaches at the Lisbon School of Business & Economics. Her research focuses on competition policy, regulation and public-private contracting.



Jacques **CRÉMER**,  
*Macro and microeconomics, econometrics*

An alumnus of École Polytechnique, Jacques Crémer obtained a Master's degree in Management and a PhD in Economics from MIT respectively in 1973 and 1978. He began his career in the United States, where he was a professor at the University of Pennsylvania and Virginia Polytechnic Institute. Since 1991, he has been a researcher at the Toulouse School of Economics where he was Director of the Doctoral School, Director of the Institute of Industrial Economics (IDEI) and Scientific Director and is currently Scientific Advisor to the Chair Jean-Jacques Laffont for the Digital Economy.

He has been Professor at École Polytechnique and Visiting Professor at Southampton University, Northwestern University (Evanston) and at the University of Maryland as well as Visiting Research Professor at the University of Hong Kong. He is a Fellow of the Econometrics Society and the European Economic Association and has served on their Boards. From February 2016 to December 2017, he was a member of the National Digital Council and from April 2018 to March 2019, he was a special advisor to the European Commissioner for Competition, Margrethe Vestager, working on competition policy in the digital age. Jacques Crémer's work has focused on planning theory, incentive theory and auctions, organization theory and corporate culture, the oil market, political federalism, the economics of the Internet and software, and market dynamics.



**14<sup>th</sup> september 2020**  
**12.30 - 13.45 pm**

## **1** - Policies development and regulatory frameworks

Facilitator:

Jacques CRÉMER

- **Dan SJÖBLOM**,  
BEREC, PTS. BEREC and ultrafast broadband
- **David CLARKSON**,  
OFCOM. Broadband Regulation and State Aid in the UK
- **Guillaume MELLIER**,  
ARCEP. Transposition of the EECC/ Fiber networks and regulatory developments in France
- **Vesa TERÄVÄ**,  
European Commission, Connectivity as a building block of the digital transformation: towards Gigabit connectivity





Dan **SJÖBLOM**,  
*the Swedish National Post and Telecom Authority,*  
*Director General, Chair BEREC 2020*

Appointed by the Swedish Government, Dan Sjöblom is the Director-General of the Swedish Post and Telecom Authority (PTS) since February 1, 2017. He is the Chair of the Body of European Regulators for Electronic Communications (BEREC) for 2020. Prior to taking up his position, Mr. Sjöblom was the Director General of the Swedish Competition Authority from 2009 to 2017. He is also board member of the Swedish Broadband Council. Mr. Sjöblom performed various functions as a civil servant at the European Commission between 1996-2009. He holds a Master of Laws from Stockholm University.



David **CLARKSON**,  
*Ofcom, Competition Policy Director*

David works as a Competition Policy Director at Ofcom. He has been central to developing and implementing regulatory policies for broadband since 1999. David's background is electronics and communications engineering. Before joining Ofcom he worked in research and development for the UK's Ministry of Defense.



Guillaume **MELLIER**,  
*Arcep, Director for Fiber, Infrastructure and Territories*

Guillaume Mellier is Director for Fiber, Infrastructure and Territories at ARCEP, the French regulatory authority for electronic communications. His current duties include copper (DSL) and fiber (FttH) local loop regulation. Guillaume started his career in the French Ministry of sustainable development and spatial planning, as head of a national team on electronic communications networks and regional digital development. He joined ARCEP in 2010 and successively led the Business Connectivity Markets and Mobile Markets units. He was then appointed Deputy Director for Mobile Access and Equipment Manufacturer Relationships. He has been Director for Fiber, Infrastructure and Territories since 2016.



Vesa **TERÄVÄ**,  
*European Commission, Acting Director*

Mr Terävä joined the European Commission and Directorate-General for Communications Networks, Content and Technology in 2002. Mr Terävä is currently acting Director of Electronic Communications Networks and Services in DG CONNECT. Before joining the current team in January 2020, he was Head of Research Strategy and Programme Co-ordination preceded by 16 years in various roles in DG CONNECT in the area of electronic communications, most recently as Head of Electronic Communications Policy in DG CONNECT. Prior to joining the Commission, Mr Terävä worked at the Permanent Representation of Finland to the EU and at the Ministry of Transport and Communications in Finland.

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**21<sup>th</sup> september 2020**  
**12.30 - 13.45 pm**

## **2** - Ultra fast broadband (UFB) and Fttx roll-out: an overview of EU28 and European Digital Agenda achievement

Coverage in EU28; Comparative analysis of NPBs (goals, share of public / private intervention, nature of public intervention - rurality); Technological choices

- Niklas FOURBERG,  
**Düsseldorf Institute for Competition Economics (DICE)** - Wissenschaftliches Institut für Infrastruktur und Kommunikationsdienste (WIK). Fiber vs. Vectoring : limiting technology choices in broadband expansion
- Steffen HOERNIG,  
**Nova School of Business & Economics** (Lisbon, Portugal). Demand-Side policies to accelerate the transition to Ultrafast Broadband

### **DISCUSSION:**

Facilitator: Frédéric MARTY

- Carl JEDING, Director of Government and Industry Relations, Ericsson
- Laurent ROJEY, Digital affairs general director, National agency for territorial development





Steffen **HOERNIG**,  
*Nova School of Business & Economics, Professor*

Steffen Hoernig is Associate Professor at Nova School of Business & Economics, Lisbon, Portugal. He obtained a degree in Management at the Universität Bielefeld in Germany; a Master in Applied Mathematical Sciences at the University of Georgia, Athens, USA; and a PhD degree in Economics at the European University Institute in Florence, Italy. His research and publication area is Industrial Organization and Game Theory, with particular emphasis on electronic communications markets and the digital economy. He has published in the RAND Journal of Economics, Economic Theory, Journal of Industrial Economics and the International Journal of Industrial Organization. He is co-editor of the Portuguese Economic Journal, and associate editor of Information Economics & Policy and Review of Economics, and a consultant for regulators, companies and the European Commission.



Niklas **FOURBERG**,  
*Düsseldorf Institute for Competition Economics (DICE) ,  
Research Fellow - Wissenschaftliches Institut für Infrastruk-  
tur und Kommunikationsdienste (WIK), Economist*

Niklas Fourberg is an Economist at the WIK Institute for Infrastructure and Telecommunications. He holds a Ph.D. in Economics from the University of Dusseldorf and a research fellowship from the Dusseldorf Institute for Competition Economics (DICE). His work focuses on digital markets, telecommunications infrastructure and the geographical challenges in its deployment process.



Carl **JEDING**,  
*Ericsson, Director of Government and Industry Relations*

Dr Carl Jeding has previously spent 25 years studying and practicing the regulation of IT and telecommunications in Academia and the Swedish Government services respectively.

**28<sup>th</sup> september 2020**  
**12.30 - 13.45 pm**

### **3** - How much does it cost? How to assess FttH roll-out costs: ex-post costs, cost modeling, costs drivers

- Jussi HÄTÖNEN,  
*LionArch Capital Partners, Turku University - Turku School of Economics*, The economic impact  
of fixed and mobile high-speed networks
- Stephen PENTLAND,  
*Vodafone*, Head of Market structure and Network Policy

#### **DISCUSSION:**

Facilitator: Fatima BARROS

- Annegret GROEBEL, Bundesnetzagentur. The German case
- Alejandra DE ITURRIAGA GANDINI, Comisión Nacional de los Mercados y la Competencia. The Spanish  
Case





Jussi **HÄTÖNEN**,  
*LionArch Capital Partners, Managing Partner - Turku University - Turku School of Economics, Professor*

Jussi Hätönen is currently the managing partner of LionArch Capital Partners, an investment company aimed at funding growth technology companies across Europe. In addition, he is a professor at Turku School of Economics and an executive board member at Granenfelt Finance in Finland. Previously he was the head of the growth capital unit at the European Investment Bank, where he worked for close to 10-years and was closely involved in the EIB financings of telecommunications infrastructures in Europe as well as outside Europe. He was also one of the key responsible persons in launching the Connecting Europe Broadband Fund and has contributed to the structuring of multiple national broadband funding programs across Europe. Jussi holds a D.Sc. in international business from Turku School of Economics.



Stephen **PENTLAND**,  
*Vodafone, Head of Market structure and Network Policy*

Stephen is member of Vodafone's Group Policy & Public Affairs team and has global responsibility for telecom network policy. He is working with regional and national policymakers and regulators. He studied Engineering at Cambridge and worked previously in the Japanese technology sector and internationally as a strategy consultant in the telecom and media sector.



Annegret **GROEBEL**,  
*BNetzA, Director International Relations/Postal Regulation*

Promoted Head of Department International Relations/Postal Regulation in 2009, Dr. Groebel has held the post of Head of Section "International Co-ordination" in the German Regulatory Authority for Telecommunications and Post since 2001 and works for this administration since 1997. In March 2012, she was appointed Vice-President of CEER and became the alternate member of the ACER Board of Regulators representing BNetzA at the BoR Plenary meetings. In January 2019, she was elected as President of CEER. Since August 2013, she is co-chairing the Market Integrity and Transparency Working Groups of ACER and CEER. She is also representing BNetzA in the ERG Post. In November 2013 she was appointed for the first time to be a member of the NER Bureau (the Network of Economic Regulators is a Working Group of the OECD looking at cross-sectoral governance issues of economic regulators) supporting the NER Chairs. Her term was renewed several time, the last time in 2019. She holds a doctorate in economics at the University of Mannheim in 1996.



Alejandra **PAZ DE ITURRIAGA GANDINI**,  
*COMISIÓN NACIONAL DE LOS MERCADOS Y LA COMPETENCIA (CNMC), Director of Telecommunications and Audiovisual Sector*

Alejandra de Iturriaga Gandini is currently Director of Telecommunications and Audiovisual Sector at the Spanish National Authority for Markets and Competition (CNMC). At the present, she is Member of the Board in the European Regulator Group for Audiovisual Media services (ERGA). Ms. de Iturriaga is responsible for managing, supervising and coordinating the CNMC activity on electronic and audiovisual communications. Her functions in the electronic communications sector involve the analysis of electronic communications markets, reference offers, conflict resolution between operators and sanctioning procedures, and consultancy activity. In the audiovisual sector, she is responsible for the enforcement of the obligations imposed on the different actors related to advertising, protection of minors, and financing of European works, amongst others. During 2017, Ms de Iturriaga was responsible for one of the Vice-presidencies of BEREC.

**5<sup>th</sup> october 2020**  
**12.30 - 13.45 pm**

## **4** - Who pays what? Public and private investment, state aids regime in Europe

Private / public investments; overview of notifications of state aid, incentive for incumbers and operators to invest

- Marc BOURREAU,  
*CERRE*, State Aid for Broadband Infrastructure in Europe : Assessment & Policy Recommendations
- Harald GRUBER,  
*EIB*, EIB financing for digital infrastructures, an overview

### **DISCUSSION:**

Facilitator: Patrice DURAN

- Francesco NONNO, Open Fiber. The experience of Open Fiber and the Italian case
- Marie LAMOUREUX , Infranum. The French Case





Marc **BOURREAU**,  
*Telecom Paris, Professor*

Professor at Telecom Paris, Polytechnique and Sciences Po, Marc Bourreau is affiliated with the interdisciplinary institute for innovation (i3) (CNRS (UMR 9217)) for his research. His research interests are industrial organization, competition policy and regulation, digital economics, and telecommunications. His current research projects concern the economics of digital platforms, the impact of competition and regulation on entry and investment in network industries, and licensing and trading of standard essential patents. He is also Co-Editor-in-Chief of the journal *Information Economics and Policy*.



Harald **GRUBER**,  
*European Investment Bank, Head of Digital Infrastructure division*

Harald Gruber is head of the Digital Infrastructure Division at the Projects Directorate of the European Investment Bank based in Luxembourg. He oversees a team of experts involved in project appraisal. He also works on the Bank's business strategy with respect to financing of broadband infrastructure, innovation policy and the digital economy in general. He has also contributed in defining new financial instruments for digital infrastructure jointly with European Commission, national promotional banks and private sector. Harald has also a considerable record of accomplishment in scientific publication. Recent work is on formulating [proposals for a digital industrial policy](#). More in general, he has published articles in refereed journals as well as books. He is on the editorial board of academic journals. He has been also professor at Bocconi University (Milan) for telecommunications economics. Harald Gruber holds a Ph.D. in Economics from the London School of Economics.



Francesco **NONNO**,  
*Open Fiber S.p.A., Director Regulatory Affairs*

Francesco Nonno is Director of Regulatory Affairs of Open Fiber since July 2017. After a degree in Economic and Social Sciences at Università Commerciale Luigi Bocconi di Milano in 1989, he has been working for almost 30 years in the electronic communication Industry, mainly on regulatory and competition issues. In the first ten years following his degree, he worked in consultancies specialized in telecommunications, in Italy and France, acting as responsible of projects of strategic analysis and of market positioning of products and services. Beginning in 1998 and for about 6 years he took part to the setup of the Autorità per le Garanzie per le Comunicazioni (the Italian National Regulatory Authority), where he became responsible for the enforcement of the telecommunications regulation within the Department in charge of enforcing the regulatory framework in all industries controlled by the NRA. Since 2004 to July 2017, he worked for Telecom Italia, where he acted in different roles within the Regulatory Department, including the responsibility of the relations with the National Regulatory Authority, the National Competition Authority, the National Energy Authority and the Privacy Authority.



Marie **LAMOUREUX**,  
*Infranum Director Regulatory and Public Affairs, Altitude Infrastructure*

Marie Lamoureux has 15 years of experience in telecom regulation. She joined Altitude Infrastructure, the first independent FttH operator focused on rural networks in France one year ago as Director for regulation and public affairs. Altitude Infrastructure is one of the founding members of the Infranum federation, which represents the interests of fiber optic players in the territories. Marie Lamoureux is a member of Infranum's Infrastructure Operators Commission. She was previously head of regulation in the French ISP Free and participated to the launch of its operation in Italy.