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REGULATION
COMMUNICATIONS
& MEDIA

A STUDY FOR THE DTT AUCTION IN GREECE: NUMBER OF LICENSES AND RESERVE PRICE



The FSR Communications and Media

The Florence School of Regulation - Communications and Media (FSR C&M) is an initiative of the European University Institute (EUI), which is specifically located at the Robert Schuman Centre for Advanced Studies (RSCAS). As part of the EUI, the FSR C&M works closely with the European Commission and with the body of European Regulators of Electronic Communications (BEREC). In addition, it has established institutional partnerships with the Independent Regulators Group (IRG).

The FSR C&M is an independent forum for discussion among interested stakeholders, including companies, policy makers, regulators and academics. Its core activities include (i) policy discussions, (ii) training, and (iii) research activities. It is directed by Pier Luigi Parcu with the support of a high level Scientific Committee and a team of Research Associates and Project Assistants.

The FSR Communications and Media Research Team for this Study

Pier Luigi Parcu – Professor, Director of the FSR C&M Area, EUI, Florence

Pier Luigi Parcu is a part-time Professor at the European University Institute, where he directs the Communications and Media Area at the Florence School of Regulation and the Centre for Media Pluralism and Media Freedom. Since 2004 he has been the Chairman of a consultancy company which specialises in anti-trust and regulatory issues relating to the network industries. Previously, he was CEO of the Independent System Operator running the Italian Electricity Grid (GRTN), and Director of Investigation at the Italian Competition Authority (AGCM) in charge of several regulated sectors. He also served as Chief Economist at the Italian Security and Exchange Commission (CONSOB) and as an Economist at the International Monetary Fund (IMF). He holds a Ph.D. in Economics from the University of California, Los Angeles (UCLA). His research interests are focused on industrial organisation, law and economics, especially on themes concerning the interaction between regulation and anti-trust in shaping firms' behaviour in the network industries.

Erik Bohlin – Professor, Chalmers University, Stockholm

Erik Bohlin is Professor in Technology Assessment at the Department of Technology Management & Economics at Chalmers University of Technology. He has published in a number of areas relating to the information society - policy, strategy, and management. He is Chair of the International Telecommunications Society and Chief Editor of *Telecommunications Policy*. He obtained his Graduate Degree in Business Administration and Economics at the Stockholm School of Economics (1987), and his Ph.D. at Chalmers University of Technology (1995).

Antonio Sassano – Professor, La Sapienza University, Rome

Antonio Sassano is currently Full Professor of Operations Research at the Faculty of Engineering of the University of Rome "La Sapienza". His scientific and professional activity has been focused on two complementary areas: the study of the Mathematical Structure of Hard Optimisation Problems, and the Use of this Knowledge to Model and Solve Challenging "Real Life Instances". His research activity has been mainly devoted to the study of the polyhedral structure of combinatorial problems and to the design and testing of optimisation algorithms. His consulting experience includes the design of the Italian Frequency Plan for Terrestrial Analogue Television, in 1998; the study of the Frequency Plan for FM-Radio, and, more recently, the design of the DAB Frequency Plan, of the 3-SFN DVB-T Frequency Plan, and the SFN DVB-T Frequency Plan. He was one of the advisors to the Italian Government (as a consultant of Crediop-Nera) in the auction procedures for the UMTS licenses (2001) and the WLL licenses (2002).

Maria Luisa Stasi – Research Associate, FSR C&M Area, EUI, Florence

Maria Luisa Stasi joined the Florence School of Regulation in May 2013. Her research interests cover a wide range of European law issues, with particular expertise in competition law and electronic communications law. From 2008, she worked as an associate lawyer in the competition law department of the Bonelli Erede law firm, Milan. In 2012, she joined the Academy of European Law (ERA) as a course director, and organised training, seminars and conferences in competition, State aid, public procurement and electronic communications law. She is the author of several publications in various fields of law. At the EUI, she is also Co-ordinator of ENTrANCE - European Networking and Training for National Competition Enforcers. Maria Luisa holds an LLM in European Legal Studies (College of Europe, Bruges) and a Master's degree in International Relations and Diplomatic Studies (LUMSA University, Rome). She graduated in law (J.D) with honours from the University of Perugia in 2004. She has been a member of the Italian Bar Association since 2008.

Finally, as the financial data available for the period 2013-2015 are incomplete and present inconsistencies, we are unable to apply any of the standard benchmarking scenarios to define the number of licenses to be granted on financial viability grounds. Yet, as the overall financial obligations of the sector exceed the amount of 700 million Euros and the advertising revenues of the nationwide content providers have been falling in the last years²⁰, it is arguable that a contained number of licences, as derived above on technical grounds, could facilitate the economic viability of the winning operators.

d. Conclusions

From the initial analysis, above, a few conclusions can be drawn:

- i. Before auctioning the new TV licenses, the Greek Administration should adopt a New Frequency Plan.
- ii. To be future-proof, and to guarantee the best use of resources and the healthy development of the TV market, the New Frequency Plan should only use the frequencies assigned to Greece by the GE06 agreement.
- iii. The 700 MHz frequency band could be dedicated to (and auctioned for) mobile communications, and the New Plan should use only GE06 frequencies in the sub-700 MHz band (Channels 21 – 48).
- iv. The maximum number of multiplexes assigned to Greece in the sub-700 MHz band, by GE06 agreement, is 4. 2 of them are reserved for public TV broadcasting, while the other 2 could be used for private TV broadcasting. Since a multiplex using the current technology and a robust coding scheme can carry 20 Mbit/s, and hence a maximum of 2 HD channels, the total number of nationwide private channels that can be transmitted in Greece is 4. Considering that each license will be issued for a slot relating to one nationwide channel only, the number of licenses that should currently be auctioned by the Greek Administration cannot therefore exceed the 4.
- v. This should not exclude the possibility that, in the future, when new technologies will allow any multiplex to carry more than 2 HD channels, more licenses could be issued. In fact, the object of the license that will be granted through auction is not the frequency, but only a single programme that can be transmitted over it.

²⁰ Direction Business, (2014). Annual Report – Communications and Media Market in Greece 2014: Facts and Figures.