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Workshop Proposal

Proposer's Name	Theodoros Rokkas, Ioannis Neokosmidis, George Agapiou, Carmen Mas Machuca, Simon Fletcher, Valerio Frascolla
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Proposer's CV (text up to 300 words)	Dr. **Theodoros ROKKAS** (M) is the CTO of INCITES CONSULTING SARL. He has been working in the telecom sector for more than ten years with operators, vendors, regulators, public and government authorities. He was a member of the Optical Communications and Broadband Access laboratory in the department of Informatics and Telecommunications at University of Athens since 2000. He has participated in several European projects in the range of techno-economic analysis, business developing, cost reduction, government policy development, next-generation fixed and wireless access networks, network planning and regulatory. Theodoros Rokkas holds a B.Sc. degree in Physics, a M.Sc. degree in Electronics and Radio-Communications and a Ph.D. degree on "Techno-Economic evaluation of Next Generation Networks" all from the University of Athens (Greece). He has more than 15 publications in Journals, conferences and 2 book chapters. Dr. **Ioannis NEOKOSMIDIS** (M) is the CEO of INCITES CONSULTING SARL. He holds a Physics degree, a M.Sc. in Radioelectrology and Electronics and Ph.D diploma in optical nonlinear networks from the University of Athens. He has more than 10 years of experience working with operators, regulators and enterprises across Europe. His primary areas of specialisation include consulting on investment and strategy decision making in the telecoms sector. He has considerable expertise in the areas of next-generation access networks (NGAN). Dr. Neokosmidis has also worked on business planning and market assessment projects. Before joining INCITES CONSULTING SARL, Dr. Neokosmidis was a senior member of the OCBA laboratory of the University of Athens where he participated in numerous European R&D projects. His other previous experience includes lecturing as Adjunct Lecturer at the University of Athens, the Harokopio University of Athens and the University of Hertfordshire (IST College). He has more than 35 publications with two best paper awards and more than 180 citations. **Dr. George Agapiou** (M) received the Diploma in Electrical Engineering from the University of Louisville, Kentucky, in 1985, and the M.S. and Ph.D. degrees in Electrical Engineering from the Georgia Institute of Technology, in 1987 and 1991, respectively in the area of micro-optics engineering. From 1984 to 1985, he worked in Philip Morris at Louisville, Kentucky as maintenance Engineer. From 1992 to 1993 he worked in ANCO S.A., Greece as Telecomm Engineer. From 1993 to 1996 he worked as a Research Engineer at the University of Athens and Technical University of Athens. From 1996 to today he was a telecomm engineer at OTE S.A. and COSMOTE S.A. where he worked in various European projects in the area of Mobile and optical Communications and now holds the position of the Head of Wireless & satellite Communications. He has participated in various IST, STREP, e-ten, Eurescom, FP6, FP7, ESA, H2020, and 5GPPP projects and has published more than 100 papers in scientific journals,

Project (indicate the project, if the proposal is associate to one)	CHARISMA (http://www.charisma5g.eu/) SESAME (http://www.sesame-h2020-5g-ppp.eu/) COHERENT (http://www.ict-coherent.eu/) VirtuWind (http://www.virtuwind.eu/) NORMA (https://5gnorma.5g-ppp.eu/) 5GEx (http://www.5gex.eu/) SPEED-5G (https://speed-5g.eu/) SELFNET (https://selfnet-5g.eu/)
Workshop Title	Business models and techno-economic analysis for 5G networks
Motivation and Background (describe the motivation and background for the Workshop, up to 300 words)	This workshop will focus on relevant business- and techno-economic-aspects of future 5G networks. It will provide insight on the business impacts and opportunities from the deployment of 5G networks for all actors in the telecommunications ecosystem such as verticals, incumbent and new operators, service providers, application developers, content providers, regulators, equipment manufacturers etc. The potential for new roles such as brokers, aggregators and marketplaces, will also be discussed. The workshop will consider contributions coming from collaborative research funded projects under the H2020 umbrella, which include both the European funded projects, e.g. the 5GPPP Phase I set, but also the EU-Japan, EU-Korea and EU-Brazil co-funded schemes, so to offer the broadest possible technical as well as geographical coverage of business models and analysis of 5G networks worldwide. 5G networks promise to address most of the existing limitations of current networks as well as improve several aspects and introduce new functionalities and business models. Network softwarization, virtualization and multi-tenancy are some of the improvements associated with 5G that can create new business opportunities for traditional telecom operators and new actors such as service providers, software developers, brokers, startups and SMEs. The session will address these new business opportunities and will present and debate new business models. The workshop will also address aspects related to the techno-economic analysis of future 5G deployments such as CAPEX and OPEX modeling, demand models for new services, pricing strategies and charging schemes, including new methodologies and modeling. It will also identify major challenges of business and service coordination in the multi-actor 5G services value chain and will depict the correlation of 5G wholesale services as fundamental building blocks and enablers for retail markets and verticals. The workshop will bring together representatives from the most important H2020 projects and other interested parties which have a common interest in the development and progression of the identified topics.

Structure (describe the format for the Workshop, identifying the existence of keynote speakers, panel, invited papers, technical sessions, and so on; if available, the key people speaking at the Workshop should be identified)	The workshop will be structured around the current progress and research activities of the H2020 projects in the areas of business modelling and techno-economic analysis. The workshop will include: • at least one invited key note speaker coming from the industry, academia or within the supported projects. • invited papers from H2020 projects and • a panel at that will conclude the workshop. The final format will be decided after the acceptance of the proposal. An indicative structure based on the current feedback is the following: **Key note speaker:** The key note speaker will be Håkon Lønsethagen who is a Senior Research Scientist at Telenor Research. He received a B.Sc in 1987 in electrical engineering and computer science from University of Colorado, Boulder, USA. He was granted a M.Sc. from the Norwegian Institute of Technology in 1988 (Siv.ing). Since 1990 he has been working with telecom network and service management and control, including distributed systems frameworks, architectures and middleware. Since 2000 his research activities have been related to network control and management of packet-based networks and intelligent optical networks, including techno-economic analysis. Over the last years focus has been on inter-NSP network services and business models, lately including SDN, NFV and 5G ecosystem analysis. He has participated in several EU projects, often as WP or task leader. He has several contributions to TM Forum, and is advisory board member of EU project NEAT and has been for SmartenIT. He served as editorial team lead for the NetWorld2020 whitepaper on principles of an evolved Internet ecosystem. **Presentations/Papers:** There will be presentations and invited papers (at least short) from several H2020 projects that have already expressed their interest to participate and support the workshop: • CHARISMA (Theodoros Rokkas): “Business modelling under the view of CHARISMA” • SESAME (Ioannis Neokosmidis): “Critical factors for 5G deployment and market adoption” • COHERENT (George Agapiou): “Techno-economics on spectrum and RAN tecniques for 5G networks” • 5GEX (Manos Dramitinos, Hakon Lonsethagen): “5G Multi-Operator Services and Exchange Solutions” • VIrtuWind (Carmen Mas Machuca): “Techno-economic framework for SDN/NFV industrial based networks: A Wind Park case stud” • SPEED 5G (Valerio Frascolla, Michael Fitch): “SPEED-5G project: Dynamic spectrum management and related new business opportunities”

Duration	☐ Half-day
TPC (identify the key people in the Workshop's Technical Programme Committee)	Theodoros Rokkas (INCITES Consulting) Ioannis Neokosmidis (INCITES Consulting) Eduard Escalona (i2CAT) Mike Parker (University of Essex) Shuaib Siddiqui (i2CAT) Charles Chambers (Real Wireless) Simon Fletcher (Real Wireless) Sergio Barbarossa (Sapienza university of Rome) Valerio Frascolla (Intel) Michael Fitch (BT) Klaus Moessner (Surrey University) Panagiotis Demestichas (WINGS) Emilio Calvanese Strinati (CEA-Leti) Luiz DaSilva (Trinity College Dublin) Karri Aho (VTT) Yue Wang (Samsung) Miurel Tercero (Ericsson)
Previous Editions (in case it's not the first edition, give information on previous ones, e.g., people involved, number of participants, number of submitted and accepted papers)	
Specific Promotion (provide any specific plans that you may be considering for announcing the Workshop)	The workshop will be promoted through notification to working groups and associations such as 5GPPP, Vision and Societal challenges WG, Networld2020. It will be also promoted through the supporting projects (CHARISMA, 5G-Croasshaul, 5G NORMA, SESAME, 5GEX, VirtuWind, SPEED-5G, COHERENT, mmMAGIC, SELFNET, FUTEBOL, 5GCHAMPION, 5G-MiEdge) web sites and social media accounts. A specific page will be created on the website of each the projects that will offer all the relative details. Promotional posts will be created on LinkedIn and Facebook while the event will be tweeted in a regular basis both from project official accounts as well as from user's accounts.