



Physical event: 21 - 23 September 2021, Excel, London
Virtual event: 20 - 24 September 2021, online

Co-located with:
TechXLR8



Empowering the digital recovery with 5G

With more than a year under the effect of the Covid-19, governments and societies are eager to move on. Telecom operators have already proved their societal value by keeping the world connected. In 2021, CSPs still have an incremental role to play in empowering a digital recovery, while they search for and redefine their purpose to build and be part of a better connected and sustainable world.

With 5G expected to hit 550 million subscriptions worldwide in 2021, this is the year when 5G truly flexes its muscles. Join us at the 17th edition of 5G World to discover how advanced connectivity can empower communities and strengthen economies.

- **Be inspired** - the esteemed speaker panel will cover the latest global innovations around **RAN and Open Networks, 5G SA, cloud native, Edge, private networks, vertical applications, consumer pick up, security, telco AI, telecom sustainability, 6G**, and more!
 - **Make connections** – attendees include **CSPs, vertical markets, solution providers, public sector, industry bodies or academia**
 - **Discover new partners and providers** – you can find them exhibiting, speaking, and participating in the networking activities

5G World will be bringing the ecosystem **physically** back together to share insights, join discussions and network with leaders from across the industry. With a **digital version** of the show alongside the event, you will have more opportunities than ever before to connect and inspire 5G innovations, **in-person or online!**

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5G World features:

- **The industry's greatest speakers** – representing the most advanced, global, 5G markets and technologies – share their pioneering activities, learnings, and vision at the 5G World stage
- **15 Conference tracks** covering the latest in network evolution, 5G monetisation and beyond
- An **online conference taking place alongside the main physical event**, allowing everyone to get involved
- **5G World Awards**: Demonstrating the greatest breakthroughs of the year in 5G products and services
- **VIP Meetings Service**: Let us take the pressure off networking, giving you unparalleled access to the sought-after industry peers for some 1-to-1 time
- **Executive Roundtables**: Chatham House Rules, small group, and analyst-led interactive debates to ensure high-level networking
- **Partner Programmes**: Supported by leading industry organisations, 5G World's partners deliver additional, practical, unique content – maximising the value of your time at the event and minimising the need to travel for multiple events
- **Press Briefings**: Allowing for dedicated time to talk and answer questions on your launches, tests & trials, product launches and announcements, in front of an engaged media audience
- **Clash of the 5G Start-ups**: Source new, innovative partners at 5G World's start-up showcase and competition, bringing you the most inspiring young businesses in the 5G ecosystem
- **5G Workshops**: Focused sessions that cover topics from 5G security, to regulation, standards and spectrum.
- **Analyst meetings**: Unique access to the world's leading telecom analysts; Ask them your burning industry questions, and inform them of your latest breakthroughs
- **Analyst Led Exhibition Tours** allow you to discover state-of-the-art technologies and new providers
- **End-of-Day Networking Activities**: Grab a drink and meet like-minded peers at the most-missed physical event activity!

AVAILABLE ONLINE ONLY, TO BOTH PHYSICAL AND VIRTUAL ATTENDEES:

- **Intelligent Matchmaking Powered by AI**: Make connections, message, target clients and meet virtual and physically through the AI-powered matchmaking tool
- **Virtual Exhibition and Product Gallery**: Showcase your products and innovations to the 5G World digital audience
- **5G Tech Demos Track**: Share your quick-fire, technology demos with the attendees, while maximising your lead generation



5G World 2021 will be organised in accordance with Informa's AllSecure health and safety standard. As the world's leading events' organiser, Informa has developed a detailed set of enhance measures to provide the highest levels of hygiene and safety at its events, providing everyone with reassurance and confidence they are participating in a safe and controlled environment.

PHYSICAL EVENT - AGENDA AT A GLANCE

Day 0 – 21 September 2021 – Pre-conference workshop day

Workshop 1: Securing the Future Networks

Workshop 2: Spectrum, standards, and regulation

Day 1 – 22 September 2021

09.00 – 12.30: Keynotes

14.00 – 17.30 Conference Tracks

Track 1: RAN Evolution and Densification

Track 2: 5G Core & Cloud Native

Track 3: Private 5G Networks

Track 4: Killer Consumer 5G Applications

Exhibition Stage 1: Next-Generation 5G Technologies, Clash of the 5G Start Ups

Exhibition Stage 2: Global Carrier Billing

5G World Awards Ceremony & Event Party

Day 2 – 23 September 2021

09.00 – 12.30: Keynotes

14.00 – 17.30 Conference Tracks

Track 1: Open RAN

Track 2: Edge Computing in a 5G World

Track 3: Vertical 5G Applications

Track 4: Telco AI & Automation

Exhibition Stage 1: Sustainable 5G Networks & 5GIA Symposium

Exhibition Stage 2: Global Carrier Billing; The Road to 6G

VIRTUAL EVENT - AGENDA AT A GLANCE

| Monday 20 September | Tuesday 21 September | Wednesday 22 September | Thursday 23 September | Friday 24 September |
|--|---|--|---|--|
| <ul style="list-style-type: none"> Private 5G Networks 5G Core & Cloud Native RAN Evolution and Densification Global Carrier Billing | <ul style="list-style-type: none"> Edge Computing in a 5G World Open RAN Next-Generation 5G Technologies Global Carrier Billing | <ul style="list-style-type: none"> Live Streamed Keynotes Sustainable 5G Networks Telco AI & Automation | <ul style="list-style-type: none"> Live Streamed Keynotes Killer Consumer 5G Applications Securing the Future Networks | <ul style="list-style-type: none"> Vertical 5G Applications Standards, Regulation & Spectrum The road to 6G |

Our 2021 experts include:

Service Providers:

- Vinod Kumar, Chief Executive Officer, **Vodafone Business**
- Dr Qi Bi, Chief Technology Officer, **China Telecom Research Institute**
- Ingeborg Ofsthus, Chief Technology Officer, **Telenor Norway**
- Antonietta Mastroianni, Chief Digital & IT Officer, **Proximus**
- Robbert Wigger, Chief Business Officer, **Sunrise Switzerland**
- Dr Kim Larsen, CTIO, **T-Mobile Netherlands**
- Marco Arioli, CTO, **Fastweb**
- Takehiro Nakamura, Senior Vice President & General Manager: 6G Laboratories, **NTT DoCoMo**
- Arnaud Vamparys, Senior Vice President: Radio Networks and 5G Group Champion, **Orange Group**
- Antje Williams, Senior Vice President: 5G Campus Networks, **Deutsche Telekom**
- Juan Carlos Garcia, Senior Vice President: Technology & Architecture, **Telefonica Group**
- Abdulaziz Alhaider, Vice President: Enterprise Accounts, **STC**
- Ute Zimmerman, Vice President: Strategic Initiatives and Spectrum, **Deutsche Telekom**
- Bernard Bureau, Vice President - Wireless Strategy & 5G Services, **Telus**

- Patrick Waldemar, Vice President: Research, **Telenor Group**
- Franz Seiser, Vice President: Access Disaggregation, **Deutsche Telekom**
- Friederike Hoffman, Executive Vice President: Head of Connected Business Solutions, **Swisscom**
- Raheel Khalid, Chief Engineer VR, **Verizon**
- Michael Reinartz, Director: Innovation & Consumer Services, **Vodafone Germany**
- Elif Yenihan Kaya, Access Network Capabilities Director, **Turkcell**
- Jukka-Pekka Salmenkaita, Director: AI/ML, **Elisa**
- Richard MacKenzie, Principal Researcher, **BT**
- Javier Serra, Head of Product & Partnership, **Grupo MasMovil**
- Dave Vasquez, Head of 5G Lab, **MTS**
- Jennifer Didoni, Head of Cloud Portfolio and Product Management, **Vodafone Business**
- HongYu Li, Head of AI R&D, **Telefonica UK**
- Alexander Harmand, Head Of Core & Service Platforms, **Telefonica**
- Javier Dominguez, Head of Spectrum Public Policy & Regulatory Intelligence, **Telefonica**
- Andrea Calvi, Head of Network Innovation, **TIM**
- Kurt Schlager, Head of Network Evolution, **A1 Group**
- Matias Quintanilla, Head of Customer Experience Monitoring, **Telefonica UK**

- Christian Kloch, 5G Innovation Architect, **TDC Net**
- Albert Jaskowski, Senior packer Core Development Engineer, **Telia Company**
- Remy Harel, Network Security Manager, **Orange Group**
- Senior Executive, **SK Telecom**

Enterprises:

- Mansoor Hanif, Executive Director: Emerging Technologies, Technology & Digital, **NEOM**
- Sergio Ramos Pinto, Deputy Director: Digital Platform Division, **EDP Distribuição**
- Laura O'Neill, Digital Transformation, **Belfast Harbour**
- Teppo Rantanen, Executive Director, **City of Tampere**
- Jani Lilliberg, Advisor, **Kymiring**

Analysts:

- Evan Kirchheimer, Research VP: Telco & Service Provider, **Omdia**
- Dario Talmesio, Research Director - Service Provider Strategy and Regulation, 5G Accelerator, **Omdia**
- Daryl Schoolar, Practice Leader: Fixed and Mobile Infrastructure, **Omdia**
- Stephanie Gibbons, Principal Analyst: Carrier Network Solutions, **Omdia**
- James Crawshaw, Principal Analyst: Telco IT & Operations, **Omdia**
- Pablo Tomasi, Principal Analyst: Private Networks, **Omdia**
- Gabriel Brown, Principal Analyst, **Heavy Reading**
- Tony Lavender, Partner & CEO, **Plumb Consulting**
- Karim Taga, Managing Director, **Arthur Little**
- Sarah McBride, Senior Analyst: Strategy & Regulation, **Omdia**
- Chris Silberberg, Research Analyst: Carrier Network Software, **Omdia**

Partners and Industry Associations:

- Adrian Scrase, CTO, **ETSI**
- Lise Fuhr, Director General, **ETNO**
- Nicolai Schaettgen, Chief Executive Officer, **MM Ventures GmbH**
- Ken Wee, Senior Vice President of Alliance Partnership and Innovation, **Bridge Alliance**
- Diane Rinaldo, Executive Director, **Open RAN Policy Coalition**
- Professor Dr Thomas Magedanz, Director: Business Unit NGNI, **Fraunhofer Fokus**
- Matti Latva-aho, 6G Flagship Director, **Oulu University**

- Steven Moore, Head of Climate Action, **GSMA**
- Branimir Stantchev, Head of Spectrum, **European Commission**
- Saima Ansari, Project Co-lead: Future Green Networks, **NGMN**
- Ana Maria Galindo, Project Co-lead: Future Green Networks, **NGMN**
- Ildiko Vancsa, Senior Manager: Community & Ecosystem, **Open Infrastructure Foundation**
- Dr Rahim Tafazolli, Regius Professor & Head of ICS, 5GIC and 6GIC, **University of Surrey**
- Federico Ruiz, Programme Manager, **5G Observatory**
- Sebastian Robitzsch, Leading Designer Platform Architecture, **FUDGE-5G**

Regulators:

- Philip Marnick, Group Head of Spectrum, **Ofcom**
- Heidi Himmanen, Chief Advisor, **Traficom**
- Michel Van Bellinghen, Chair, **BEREC**
- Josch Luxa, Engineer, **Bundnetzagentur**
- Pavel Sistek, Senior Specialist, **Czech Telecommunications Office**
- Janja Varsek, Head of Spectrum Management, **AKOS**

Solution Providers:

- Gilad Garon, Chief Executive Officer, **ASOCS**
- Geetha Ram, Worldwide Head of Open RAN, **HPE**
- Richard Band, Worldwide Head of CORE, **HPE**
- Michal Majewski, Director; International Benchmarking, **Systematics**
- Rich Auty, Director: Communications & Media Solutions, **HPE**

Global Carrier Billing Summit:

- Aleksandra Radojevic, Chief Strategy Officer, **Mtel D.o.o**
- Martin Schurig, Head Of Financial & Enabling Services, **Telefonica Germany**
- Oscar Castro Cabrera, Global Strategic Partnerships Manager, **Telefonica Spain**
- Peter Garside, Head of Charge to Bill, **EE**
- Karl Jayasingha, Partner Products Manager, **Three**
- Bozena Wroblewska, Senior Brand Manager, **Orange Poland**
- Guillermo Escofe, Principal Analyst: Digital Consumer Platforms, **Omdia**
- Gaby Bosch, Chief Executive Officer, **Content For Mobile**
- Kieran Clare, Chief Business Development Officer, **Content for Mobile**
- Frederico Rosato, Pre-Sales and Payment Sales director, **Digital Virgo**
- Chris Purdie, Group CCO, **PM Connect**

- Clemens Leitner, Executive Vice President Carrier & Business Development, **DIMOCO Carrier Billing**

| DAY 1 - 22 September 2021 |
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| 5G WORLD KEYNOTES |
| <p>09.00 Chair's Opening Remarks Evan Kirchheimer, Research VP, Telco & Service Provider, Omdia</p> |
| <p>09.10 Analyst's Remarks - 5G State of Play Dario Talmesio, Research Director - Service Provider Strategy and Regulation, 5G Accelerator, Omdia</p> |
| <p>09.20 Service Provider Keynote: The future of 5G in the world's expected largest market</p> <ul style="list-style-type: none"> - How to achieve 50% 5G penetration - Building and operating the world's largest 5G SA network - Eliminating the boundaries between cloud and networks - Reviewing asset sharing agreements and results - The roadmap to 6G <p>Dr Qi Bi, CTO, China Telecom Research Institute and President, China Telecom Technology Innovation Centre</p> |
| <p>09.40 Diamond Sponsor Keynote: Unleashing your networks potential to drive commercial 5G success</p> <ul style="list-style-type: none"> - Combining 5G + AI + Cloud to develop ground-breaking industry 5G solutions - Using network slicing to offer differentiated services on the same network infrastructure - Ensuring end-to-end, sophisticated and automated security to ensure high-end business and customer protection |
| <p>10.00 CEO Panel Discussion: Growth opportunities in consumer 5G</p> <ul style="list-style-type: none"> - What have we learned from 5G launches across the world? - How are consumers responding to 5G services and drivers that will take us beyond 6% global population penetration? - Has 5G lived-up to its monetisation promises, and why? - Learnings from the first private network offerings; what are enterprises looking for and how are CSPs catering to their needs? - How are CSPs preparing to meet the vertical market 5G requirements? |

Moderator: Karim Taga, Managing Director, **Arthur D. Little**
Vinod Kumar, CEO, **Vodafone Business**

10.30 *Networking and refreshment break*

11.30 Service Provider Keynote: Powering the UK's connected revolution

- Launching a nationwide 5G service: scaling 5G
- Fastly moving towards open network systems: learnings, challenges, and next steps
- Transforming the network for the new digital customer in the post-COVID age

11.50 Platinum Sponsor Keynote: The future of telco networks is Open

- Reviewing global initiatives to Open the telecom networks
- Global learnings from Open RAN initiatives in terms of project complexity, cost, security
- From RAN and beyond: Should the end-to-end network be open and what are the realistic timelines for this being a mainstream practice?

12.10 Vertical Market Keynote: Accelerate the pace of innovation with private networks

- Learnings from real-life applications of private networks in a vertical market
- Increasing productivity levels and customer experience with tightly controlled networking
- Requirements from CSPs and vendors for private 5G networks
- What do enterprises really think of network slicing?

12.30 Panel Discussion: Edge computing driving fundamental network, operational and ecosystem changes

- The merge of IT with network clouds
- What is the role of CSPs in providing and commercialising edge-based services?
- Best-practice in network re-architecting to host edge infrastructure
- What is the commercial model beyond 'specialised' connectivity?
- Hyperscale and telco partnerships: points of intersection of former foes

Moderator: Evan Kirchheimer, Research VP, Telco & Service Provider, **Omdia**

Panellists:

- Mansoor Hanif, Executive Director Emerging Technologies, **NEOM**

- Arnaud Vamparys, SVP, Radio Networks and 5G group champion, **Orange Group**

13.00 *Networking and refreshment break*

| TRACK 1 | TRACK 2 | TRACK 3 | TRACK 4 |
|---|--|--|--|
| RAN Evolution & Densification | 5G Core & Cloud Native Track | Private 5G Networks | Killer Consumer 5G Applications |
| <p>14.00 Chair's Opening Remarks Gabriel Brown, Principal Analyst, Heavy Reading</p> | <p>14.00 Chair's Opening Remarks Chris W Silberberg, Research Analyst, Carrier Network Software, Omdia</p> | <p>14.00 Chair's opening remarks Pablo Tomasi, Principal Analyst, Private Networks, Omdia</p> | <p>14.00 Chair's Opening Remarks – What are the biggest 5G opportunities in consumer?</p> |
| <p>14.10 Service Provider Address: 5G Evolution and 6G</p> <p>NTT DOCOMO's concept on 5G Evolution and 6G including:</p> <ul style="list-style-type: none"> - Use cases and requirements - Technology components <p>NTT DOCOMO's latest activities for 5G Evolution and 6G</p> <p>Takehiro Nakamura, VP and MD of 5G Laboratory, NTT DoCoMo</p> | <p>14.10 Service Provider Address: 5G for Vertical Industries Enabled by 5G SA Core</p> <ul style="list-style-type: none"> - The main 5G shift is solutions for industry verticals - 5G Core allows customizations requested by verticals - 5G Core is built using IT network principles and hence is ideally suited to leverage proven web scale technologies. This translates into operational efficiency, service agility and better network exposure through well-defined APIs for the operators - 5G Core, network slicing and use case examples | <p>14.10 Use Case: Private networks for industry 4.0</p> <ul style="list-style-type: none"> - Achieving maximum operational efficiency and security with guaranteed bandwidth - Choosing between connectivity technologies and spectrum options - Enabling reliability, monitoring and application control - Integrating private networks with existing technologies and solutions - When will we see URLLC at scale <p>Friederike Hoffmann, EVP - Head of Connected Business Solutions, Swisscom</p> | <p>14.10 Use Case: Gaming - 5G taking the \$151B industry by storm</p> <ul style="list-style-type: none"> - Changing how and where video games are played with 5G - Bringing new opportunities and capabilities to mobile gaming - Meeting developer requirements and expectations; how can telcos become an integral part of the new gaming era? - Bringing gameplay and game development to the (public?) cloud |

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| | Patrick Waldemar, VP, Head of NG Technology, Telenor Research | | Raheel Khalid, Chief Engineer XR Edge, Verizon |
| <p>14.30 Sponsor Address: Advances in RAN technologies & architectures</p> <ul style="list-style-type: none"> - Measurable network performance outcomes - Investigating multiband 4G/5G RAN architectures - Enabling new commercial opportunities and 5G use cases - Optimizing energy consumption via hardware design and AI software solutions <p>Senior Executive, Viavi Solutions</p> | <p>14.30 Sponsor Address: Embracing the benefits of the Converged Core</p> <ul style="list-style-type: none"> - Why a Converged Core? - What are the benefits of a Converged Core? - Do we finally have a Fixed Mobile Convergence? - Embracing 5G in a legacy network - The importance of a Cloud Native Converged Core for flexibility, agility and scalability of operations <p>Richard Band, Worldwide Head of CORE, HPE</p> | <p>14.30 Sponsor Address: Minimising risks in private network deployments</p> <ul style="list-style-type: none"> - The private network ideation process from consulting, co-creation and operation - The critical design phase: from design to deployment - Testing and blocking risks in the private network - Continuous monitoring for issue prevention or quick identification and reaction - Using real-life use cases to showcase possibilities <p>Senior Executive, Rohde & Schwartz</p> | <p>14.30 Sponsor Address: FWA – a game changer for 5G consumer services</p> <ul style="list-style-type: none"> - How can FWA become a tool to improve home broadband customer dissatisfaction? - How can FWA support new 5G use cases? - How has the pandemic changed industry views on FWA and what are the market expectations in 2022 and beyond for the technology? |
| <p>14.50 Panel Discussion: Strategies for multi band 4G/5G RAN</p> <ul style="list-style-type: none"> - Deploying and operating layered RAN architectures - Using Massive MIMO and beamforming and to achieve excellent cell edge performance - Examining the performance of DSS in the field - Reviewing AI-based RAN optimization technologies | <p>14.50 Panel Discussion: Open Core</p> <ul style="list-style-type: none"> - Is the future of the Core Network open? - Does 5G require an Open Core? - Does Open Core increase the security risk for networks? - What are the pillars on an Open Core network? - How to enable Core technologies across licensed, unlicensed and shared spectrum | <p>14.50 Panel Discussion: Showcasing ROI for your private network investments</p> <ul style="list-style-type: none"> - Do you really need 5G or is LTE good enough for current private network use cases? - Reviewing measurable outcomes from existing private network deployments; from cost-efficiencies to productivity gains and elevated customer experiences | <p>14.50 Panel Discussion: The role of 5G in reshaping fan experiences and entertainment</p> <ul style="list-style-type: none"> - Reviewing how advanced technologies like 5G, AI or VR can enhance fan experiences in various scenarios - What do CSPs need to provide to facilitate an easy, reliable and cost-effective deployment of 5G for entertainment? |

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| <ul style="list-style-type: none"> - Identifying lead applications for mmWave 5G access - Potential role for non-terrestrial networks (e.g. satellite) <p>Senior Executive, Viavi Solutions</p> | <p>Moderator: Chris W Silberberg, Research Analyst, Carrier Network Software, Omdia</p> <p>Senior Executive, Facebook Connectivity</p> | <p>Moderator: Pablo Tomasi, Principal Analyst, Private Networks, Omdia</p> | <ul style="list-style-type: none"> - Meeting various applications' demands with network slicing - How can CSPs drive the creation of an ecosystem of partners for the next-generation of entertainment? <p>Moderator: Nicolai Schaettgen, CEO, Matchmaker Ventures</p> <p>Panellists:</p> <ul style="list-style-type: none"> - Michael Reinartz, Director Innovation & Consumer Services, Vodafone Germany - Dave Vasquez, Head of 5G Lab, MTS |
| <p>15.20 <i>Networking and refreshment break</i></p> | <p>15.20 <i>Networking and refreshment break</i></p> | <p>15.20 <i>Networking and refreshment break</i></p> | <p>15.20 <i>Networking and refreshment break</i></p> |
| <p>16.10 Service Provider Address: RAN Evolution and Densification Use Cases</p> <p>Kurt Schlager, Head of Network Evolution, A1 Group</p> | <p>16.10 Service Provider Address: Bringing the Core to Edge – Best practice in deploying 5GC</p> <p>Albert Jaskowski, Senior Packet Core Development Engineer, Telia</p> | <p>16.10 Use Case: 5G Private Networks for Belfast Harbour</p> <p>Laura O'Neill, Digital Transformation, Belfast Harbour</p> | <p>16.10 Service Provider Address: Creating successful marketing 5G strategies</p> <ul style="list-style-type: none"> - Best practice in marketing and pricing consumer 5G - How has the launch of 5G supporting devices affected consumer pick up? - Are consumers willing to pay the premium for 5G, any why? - Current status and market expectations |

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| | | | <ul style="list-style-type: none"> - Which services are going to drive further 5G adoption? <p>Javier Serra de Paz, Head of Products and PARTnership, Grupo MasMovil</p> |
| <p>16.30 Sponsor Address: 5G RAN Deployment & Site Operations</p> <ul style="list-style-type: none"> - Site design and aesthetics in urban and rural environments - Integrating passive and active antenna systems - Efficient site integration and commissioning - Cell site gateways and backhaul - Cables and power supply | <p>16.30 Sponsor Address: Automating your way to Cloud Native with CI/CD</p> <ul style="list-style-type: none"> - Deploying AI and ML for Cloud Native orchestration - Best practice in dev and ops team collaboration - Using DevOps practices for automated testing and monitoring - Incorporating orchestration and operations automation from the get-go - Dealing with security concerns in containerised environments <p>Senior Executive, NetNumber</p> | <p>16.30 Sponsor Address: Aligning network slicing and private networks to serve new verticals</p> <ul style="list-style-type: none"> - Comparing enterprise demand for private networks and network slicing - What will the billing mechanisms and commercial arrangements around slicing be? - Will MNOs live up to expectations to deliver slices? From internal structures, to 24/7 support and more - How the maturity of network slicing will affect MNOs' ambitions and investment in private networks? - The role of systems integrators (SIs) in this developing ecosystem - Cost comparison for private networks and pricing models - A network slice per customer: Exploring the viability of the model | <p>16.30 Sponsor Address: Delivering the 5G promise - reality check in today's 5G networks</p> <ul style="list-style-type: none"> - Live network measurements to assess performance of mobile games, VR, automotive use cases - Which network KPIs are critical for smooth user experience. ensuring consistent network-wide performance - Latency experience in 5G stand alone and non-stand alone networks - Monitoring network performance and user experience for service continuity <p>Michal Majewski, Director: International Benchmarking, Systematics</p> |

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| <p>16.50 Panel Discussion: Indoor 5G RAN for venues and enterprises</p> <ul style="list-style-type: none"> - Debating indoor network architectures: DAS vs distributed small cells - The role of system integrators and neutral hosts for indoor 5G coverage - Is 5G the way to go indoors? How should operators and venue owners think about Wi-Fi6? - Aligning venue and indoor 5G systems with applications & services | <p>16.50 Panel Discussion: What embracing Cloud Native really means</p> <ul style="list-style-type: none"> - Reskilling and upskilling teams internally to work with a Cloud native mindset - The importance of cultural shift to succeed in cloud transformation - Winning strategies in implementing containers and edge environments - Choosing the right cloud for your workloads and applications <p>Moderator: Chris W Silberberg, Research Analyst, Carrier Network Software, Omdia</p> <p>Panellists:</p> <ul style="list-style-type: none"> - Alexandre Harmand, Head of Core and Service Platforms, Telefonica Spain - Ildiko Vancsa, Senior Manager: Community and Ecosystem, Open Infrastructure Foundation | <p>16.50 Panel Discussion: How to avoid private networks' past mistakes: choosing suppliers, deployment types, and technologies</p> <ul style="list-style-type: none"> - Enterprise perspectives: Would you work with an MNO for your private networks, and what are your requirements that an MNO wouldn't be able to meet? - How important is IoT leadership for an MNO in private networks? - MNOs, versus network vendor, versus SIs, versus industrial vendors – who is your best partner in the long run? - Is there an opportunity for private networks specialists? - What works best? Standalone, telco-led and hybrid models for private network connectivity - Edge computing models: private, hybrid or public scenarios for different network models <p>Moderator: Pablo Tomasi, Principal Analyst, Private Networks, Omdia</p> <p>Panellists:</p> <ul style="list-style-type: none"> - Senior Representative, ASOCS - Sebastian Robitzsch, Leading Designer Platform Architecture, FUDGE-5G | <p>16.50 Panel Discussion: Media and broadcasting in a 5G World</p> <ul style="list-style-type: none"> - How is media and broadcasting expected to change with 5G? - What is the SP's role in pushing new media to consumers and/or co-creating the next-gen media experience? - Building a partner ecosystem across the media landscape - Go-to-market strategies: customer audiences, positioning the product and reaching the target market |
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| | | <ul style="list-style-type: none"> - Antje Williams, Senior Vice President: Campus Networks, Deutsche Telekom - Session reserved for UK5G | |
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| DAY 2 – 23 September 2021 | |
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| 5G WORLD KEYNOTES | |
| 09.00 | Chair's Opening Remarks |
| 09.10 | Service Provider Keynote: The rise and future of network slicing <ul style="list-style-type: none"> - Transitioning from NSA to SA - Deployment of 5G Core - Which use cases will drive network slicing adoption, and when? What are the realistic timelines and monetisation expectations? <p>Senior executive, SK Telecom</p> |
| 09.30 | Platinum Sponsor Keynote: Harnessing the power of edge to deliver 5G private networks for industry 4.0 <ul style="list-style-type: none"> - What are the key drivers and challenges in the industrial use case? - Hyperscale cloud providers vs private clouds - Can cellular operators play a role in this market? - How does ASOCS unique technology fit the bill? - What can be learned from the first wave of installations as we move to the next inflection point? <p>Gilad Garon, Chief Executive Officer, ASOCS</p> |
| 09.50 | Panel Discussion: Finding purpose in a 5G World <ul style="list-style-type: none"> - What would the world lose if your company disappeared? |

- How are CSPs restoring trust, winning minds & hearts of citizens, government, and businesses?
- ESG and the sustainable way forward
- The importance of people and culture for a purposeful business
- Telcos enabling the transition to a zero-carbon economy; from greening their own activities to enabling global innovations
- How are global CSPs' going to meet their ambitious green networks commitments?
- Ethical AI and the existential risk

Moderator: Dario Talmesio, Research Director - Service Provider Strategy and Regulation, 5G Accelerator, **Omdia**
 Antonietta Mastroianni, Chief Digital and IT Officer, **Proximus**
 Dr Kim Larsen, CTIO, **T-Mobile: Netherlands**
 Marco Arioli, CTO, **Fastweb**

10.20 Vertical Market Keynote: Redefining the future of entertainment with 5G, AI and Edge

- How is consumer entertainment changing with the advancement of connectivity and computing?
- Rethinking how content is created, stored, and delivered to audiences
- Changes in network demands when future entertainment and content are real-time, interactive, and either curated or otherwise personalised?
- Reviewing partnerships: The role of CSPs, vendors and new entrants – and enterprise requirements

10.40 *Networking and refreshment break*

11.30 Service Provider Keynote: Innovate, modernize and decommission, - moving Norway from legacy technology to high speed broadband with 5G, FWA and fiber

Ingeborg Øfsthus, CTO, **Telenor Norway**

11.50 Platinum Sponsor Keynote: Interpreting the telco cloud with Edge and 5G

- Hyperscaler – CSP partnership models
- Delivering multi-cloud capabilities at the click of a button
- Opening telco capabilities to the developer community

12.10 Panel Discussion: 5G for vertical markets: From PowerPoint to reality

- Network slicing: Business drivers, expected new revenue opportunities and market appetite

- Have private 5G networks lived up to expectations? Challenges, opportunities, and learnings
- Experiences partnering with vertical markets
- How can telcos best cater to multiple industries with variable requirements

Moderator: Nicolai Schaeftgen, CEO, **Matchmaker Ventures**

Panellists:

- Abdulaziz Alhaider, VP, Enterprise Accounts (Group Chief Enterprise Officer), **STC Group**
- Robert Wigger, Chief Business Officer, **Sunrise**

12.40 **Clash of the 5G Start Ups Winners Presentations**

The Clash of the 5G Start Ups Competition took place on 22nd September at 5G World 2021. The esteemed judging panel selected the top 3 young businesses as the most innovative and with the most promising partnership proposition for CSPs. At this session, we will hear from the winners on their products and the importance of 5G for their development.

12.55 *Networking and refreshment break*

| TRACK 1 | TRACK 2 | TRACK 3 | TRACK 4 |
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| Open RAN | Edge Computing in a 5G World | 5G Vertical Applications | Telco AI & Automation |
| 13.50 Chair's opening remarks Daryl Schoolar, Practice Leader, Fixed and Mobile Infrastructure, Omdia | 13.50 Chair's Opening Remarks | 13.50 Chair's opening remark | 13.50 Chair's Opening Remarks Adaora Okeleke, Principal Analyst, Service Provider Operations and IT, Omdia |

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| <p>14.00 Service Provider Address: Open RAN today, Open RAN tomorrow, and how CSPs will get there</p> <ul style="list-style-type: none"> - Experiences with initial open RAN trials and deployments - Prospects for open RAN in rural and urban areas - Essentials in developing the industry ecosystem - From trials to nationwide, what are the steps, timelines, challenges and way forward? - Beyond fronthaul, what other RAN interfaces need opening and why? | <p>14.00 Service Provider Address: Building and monetising a telco edge infrastructure</p> <ul style="list-style-type: none"> - Who is the telco partnering with and why? - Use cases expected to drive edge adoption: from gaming and entertainment, to smart factories and public safety | <p>14.00 Boston Dynamic's Spot gets 5G upgrade for fence inspection and opens up new macro network based opportunities</p> <ul style="list-style-type: none"> - 5G enables SPOT to perform remote inspections - QoS becomes a key factor for new services with 5G - 5G releases new market potential in the macro network <p>Christian Kloch, 5G Innovation Architect, TDC Net</p> | <p>14.00 Service Provider Address: Best practices when using AI for network transformation</p> <ul style="list-style-type: none"> - Measuring success: Presenting real-life achievements of AI-based network transformation - Where to start and how to measure success - How to build an AI-augmented workforce - Transforming operations to accommodate AI requirements <p>Jukka-Pekka Salmenkaita, Director: AI/ML, Elisa</p> |
| <p>14.20 Sponsor Address: Achieving unprecedented levels of agility and efficiencies</p> <ul style="list-style-type: none"> - Can network slicing be done in a multi-vendor open network environment? - What do operators need to do to move into a DevOps environment that will require continuous software integration and deployment to support RAN virtualisation <p>Senior Executive, Xilinx</p> | <p>14.20 Sponsor Address: Engaging the enterprise in the operator edge</p> <ul style="list-style-type: none"> - How can CSPs engage enterprises in edge computing in the first place? - How should CSPs leverage each of their partners' ecosystem strengths? - Partnering with infrastructure providers and gaining access to their extensive enterprise channels - Industry bodies and initiatives for CSPs to get involved in and build a | <p>14.20 Sponsor Address: Adapting 5G into vertical industries</p> <ul style="list-style-type: none"> - 5G's potential to unlock new capabilities for vertical industries - Vertical cases that need full connection flexibility both on the site floor and on the road - How 5G makes room for a new role in the range of modern enterprise network options - Impact on the supplier landscape: the need for portfolio selling, smarter partnering approaches and superior professional services skills | <p>14.20 Sponsor Address: The role of AI in the RAN Intelligent Controller: Is RIC the new SON?</p> <ul style="list-style-type: none"> - Use cases to be addressed using AI in RIC including securing and assuring service experience - How to strengthen the industry's effort for and intelligent, disaggregated and truly open RAN |

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| | <p>targeted vertical edge go-to-market strategy</p> <ul style="list-style-type: none"> - Informing your infrastructure, platform, and vertical and ecosystem building strategy | <p>Senior Executive, ASOCS</p> | |
| <p>14.40 Panel Discussion: Taking Open RAN deployments to the next level</p> <ul style="list-style-type: none"> - Deployment best practice in multi-vendor network integration - What are the realistic timelines for the technology to become mainstream? - When can service providers expect to see the ROI from open RAN? - What role, if any, should governments take in encouraging the growth of Open RAN? - How should the industry work together to optimise and accelerate open networks deployment? - Who is responsible for resolving issues in a multi-vendor environment? <p>Moderator: Daryl Schoolar, Practice Leader, Fixed and Mobile Infrastructure, Omdia</p> | <p>14.40 Panel Discussion: Telco edge cloud – From selling connectivity to selling capabilities</p> <ul style="list-style-type: none"> - How is enterprise edge changing and which business models will allow telcos to realise commercially viable edge use cases? - Should telcos own a direct relationship with enterprises? Reviewing the model options. - How are service providers looking to position themselves and monetise the edge? - Will edge really bring new revenues to telcos, and when? - What are the right edge business models and for which telco? <p>Panellists:</p> <ul style="list-style-type: none"> - Andrea Calvi, Head of Network Innovation, TIM - Juan Carlos Garcia, SVP Technology and Architecture, Telefonica Group | <p>14.40 Panel Discussion: Reimagining customer/consumer experiences with 5G and real-time data</p> <ul style="list-style-type: none"> - How does high bandwidth and low latency translate to improve customer experiences? - The rise of hyper-personalised experiences - Simplifying products, offers and processes to fully exploit the 5G-enabled flexibility - Cross-industry applications, expectations, and results - Identifying the innovation bottlenecks that need to be overcome <p>Panellists:</p> <ul style="list-style-type: none"> - Jani Lillberg, Advisor, KymiRing - Sergio Ramos Pinto, Deputy Director of Digital Platform, EDP Distribu - Session reserved for UK5G | <p>14.40 Panel Discussion: The future of autonomous networks: Technologies and processes</p> <ul style="list-style-type: none"> - When, if ever, will AI take complete control of network management? - Are CSPs ready for the process change that is coming with AI, and how can they prepare for it? - Moving AI to the public cloud: From building apps on public cloud to leveraging AI on the cloud to run them <p>Panellists:</p> <ul style="list-style-type: none"> - Matias Quintanilla, Head of Customer Experience Monitoring, O2 (Telefonica UK) |

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| <p>Panellists:</p> <ul style="list-style-type: none"> - Geetha Ram, Worldwide Head of Open RAN, HPE - Franz Sieser, Vice President Core Networks & Services, Deutsche Telekom - Elif Yenihan Kaya, Access Network Capabilities Director, Turkcell | | | |
| <p>15.10 <i>Networking and refreshment break</i></p> | <p>15.10 <i>Networking and refreshment break</i></p> | <p>15.10 <i>Networking and refreshment break</i></p> | <p>15.10 <i>Networking and refreshment break</i></p> |
| <p>16.10 Service Provider Address: Brownfield service provider experiences trialling open RAN</p> <ul style="list-style-type: none"> - Ensuring the level of customer experience stays unaffected by technology evolution - Evolving existing network technologies - Keeping process and people challenges in mind when building the implementation path <p>Bernard Bureau, Vice President: Wireless Strategy and 5G Services, Telus</p> | <p>16.10 Service Provider Address: Building the telco edge cloud</p> <ul style="list-style-type: none"> - How operators are planning to build and scale out their edge cloud platforms - Innovating and moving up the value chain in partnership with hyperscalers - Reviewing and analysing telco-hyperscaler partnerships; From competition to cooperation - Unleashing innovation with next-generation IoT for enterprise | <p>16.10 Use Case: 5G improving the citizen's life</p> <ul style="list-style-type: none"> - Which industries can best use 5G to enhance people's lives? Healthcare, transportation, public sector, education and more - To what degree should governments allow network deployments and give local communities ownership for new masts? - How can system integrators best support improving the digital lives of the citizens? <p>Teppo Rantanen, Executive Director, City of Tampere</p> | <p>16.10 Service Provider Address: Using AI to advance MEC innovations</p> <ul style="list-style-type: none"> - AI supporting MEC functions at the edge of the network - AI driving the 5G enterprise opportunity: which edge use cases are expected to drive adoption of edge AI use cases? - How to construct the edge to maximise the potential of AI in enabling new 5G-enabled vertical applications |

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| <p>16.30 Sponsor Address: Service management and orchestration for open RAN</p> <ul style="list-style-type: none"> - Programmatic control of open RAN systems - RIC support for xApps and rApps and open APIs - RAN performance optimisation using AI/ML - Using Open Source in RIC development <p>Senior Executive, Mavenir</p> | <p>16.30 Sponsor Address: Architecting the scalable and adaptive edge platform</p> <ul style="list-style-type: none"> - The components of a scalable and adaptive edge platform – open compute, open source and cloud - Supporting high performance edge workloads like AI/ML - Importance of open & REST APIs for the developer eco-system - Delivering exceptional customer experience and delivery times - Automating the edge environment | <p>16.30 Sponsor Address: Unique new value from 5G performance on the road</p> <ul style="list-style-type: none"> - Mobility as a network node for transactions to advertising and information services - Real-time processing to streamline operations efficiency and improve customer outcomes - How will verticals tap wireless to build optimised, high-availability enterprise networks? | <p>16.30 Sponsor Address: Evolving data management practices to support AI at the edge</p> <ul style="list-style-type: none"> - Why an effective data management strategy is critical to enabling AI workloads at the edge - How to develop an enterprise-wide data management strategy with edge computing in mind - What obstacles should CSPs expect when developing an effective data management strategy for the edge? |
| <p>16.50 Panel Discussion: Open RAN + Cloud Native</p> <ul style="list-style-type: none"> - The rise of DevOps in telecoms - Applying Cloud Native practices in a resource-heavy Tier 1 SP, down to a Tier 3 - Security concerns in open and cloudified networks - Integrating open networks with edge infrastructure - Using cloud native continuous testing models | <p>16.50 Panel Discussion: Nurturing an edge ecosystem</p> <ul style="list-style-type: none"> - Hyperscalers: Friends or enemies? - Initiative to attract developers in the telco edge ecosystem and getting them to make the most of 5G and AI - How are edge workloads balanced, deployed, and orchestrated? - The edge architecture from a service provider's point of view - Reviewing platform and API models that have proven to work and telcos are looking to adopt - The role of neutral hosts in MEC | <p>16.50 Panel Discussion: Defining the new productivity standards in the era of 5G</p> <ul style="list-style-type: none"> - What does 'business high performance' mean in 5G use cases and how does it differ from previous productivity standards from the analogue era? - Beyond networks – how 5G will impact digital service contracts, how is value proven and paid for from enterprises? - Real-life cross-industry applications, expectations, and measurable | <p>16.50 Panel Discussion: Leveraging AI at the edge to improve customer experience and drive new value propositions</p> <ul style="list-style-type: none"> - Advancements in correlating customer and network data at the edge to drive better service experience - Using customer insights to drive 5G network construction from edge to the core - How to break the silos between customer and |

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| <p>Moderator: Daryl Schoolar, Practice Leader, Fixed and Mobile Infrastructure, Omdia</p> <p>Richard MacKenzie, Principal Researcher, BT</p> | <ul style="list-style-type: none"> - Building marketplaces for edge applications <p>Panellists:</p> <ul style="list-style-type: none"> - Jennifer Didoni, Head of Cloud Portfolio Manager, Vodafone Business - Lise Fuhr, Director General, ETNO | <p>productivity gains and cost efficiencies</p> <ul style="list-style-type: none"> - Benefits of tailored connectivity options to meet your specific speed, capacity, security and cost needs <ul style="list-style-type: none"> - session reserved for UK5G | <p>network teams to drive customer experience</p> <p>HongYu Li, Head of AI R&D, Telefonica UK</p> |
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