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THE FUTURE NETWORKS PROGRAMME'S EVENTS AT MWC BARCELONA 2019

Day	Event	Time
Sunday 24 February	• GSMA RCS Business 10:00 - 17:00 Messaging Awareness Lab	
Monday 25 February	 GSMA Beta Lab #2 RCS Business Messaging Seminar GSMA Beta Lab #2 Networking Drinks 	15:00 - 17:00 15:00 - 17:00 17:00 - 18:00
Tuesday 26 February	 Mobile Broadcast in the 5G Era Roundtable LTE Evolution Roundtable	09:30 - 11:30 15:00 - 17:00
Wednesday 27 February	5G Cloud XR Summit	16:00 - 18:00

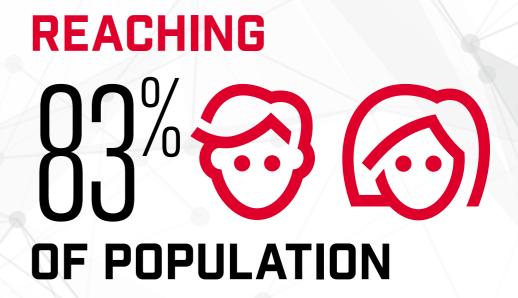


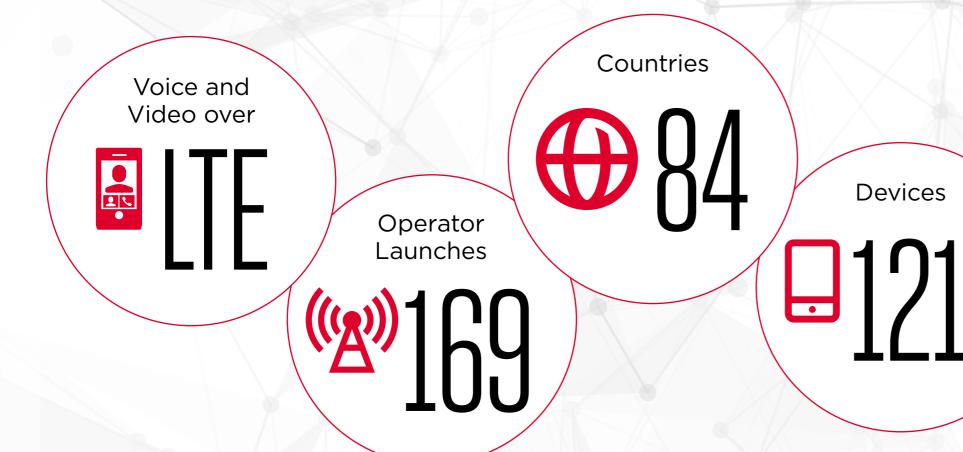
DELIVERING AN ALL-IP WORLD

LTE launched by









RCS	
Operator Launches	74
Countries	56
Devices	398
Hosted Solution Providers	19
VOICE OVER WIFI	
Operator Launches	74
Countries	43
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Countries	88

THE FUTURE NETWORKS PROGRAMME

Across the world, mobile operators are investing almost US\$200 billion a year in their networks. As they expand 4G connectivity and make decisions on 5G investment, operators are harnessing Internet-style technologies to provide compelling and innovative services in an efficient and productive way.

Directed by 16 leading operator's in collaboration, the GSMA's Future Networks Programme guides the mobile industry on how to use Internet Protocols (IP) to reduce the cost of transferring data, while meeting customers' expectations around reliability, security and interoperability. The GSMA's global specifications, such as the Universal Profile, will ensure that new IP-based services are reliable, cost-effective and will work across different devices and different networks, in any market.

The Future Networks Programme is making it easier for operators to deploy Rich Communications Services (RCS); an evolution in mobile messaging, and is working closely with operators, aggregators, brands and technology providers to ensure that RCS is the future of brand communications.

The GSMA's holistic approach to 5G will ensure that vertical markets and consumers benefit from the opportunities created within the 5G Era. To meet user data demand and vertical capabilities, Future Networks will encourage innovative ways to reduce the capital intensity of the next generational step.

FUTURE NETWORKS AT MOBILE WORLD CONGRESS

RCS and the Future of Messaging at MWC



Rich Communications Services (RCS) is an upgrade to SMS on a global scale, bringing the messaging services of the future to over 5 billion mobile phone users worldwide. RCS is an operator service that will work on any smart device or network, and will give customers the experience they've come to expect from OTTs, natively in their handset.

5G at MWC



5G could account for as many as 1.2 billion connections by 2025. By then, 5G networks are likely to cover one third of the world's population. The impact on the mobile industry and its customers will be profound. 5G will bring an evolution in VR and AR, an area where we have seen growth in devices and applications over the last two years. They have so far been seen as somewhat dispensable functions due to latency and/or low quality of virtual images, but trials such as these could very well showcase the improvements made with 5G.

Network Economics at MWC



Mobile operators account for between 1-2% of total global energy consumption. To quickly bring the 5G network into reality, mobile network operators will need to devise mechanisms to improve the capital intensity at which they operate. The long-term goal of the Future Networks Programme is to boost population coverage of high-speed broadband while optimising capital intensity by unlocking additional value from networks in a cost-efficient manner. Through GSMA Beta Labs, we will bring together the 'best of the best' innovators in the areas of Energy, Infrastructure, Backhaul and Automation with our Operator Members to facilitate this network optimisation.

GSMA RCS BUSINESS **AWARENESS LAB #22 BARCELONA**

Sponsored by: MAVENIR





Venue: Pullman Barcelona Skipper Hotel

The Future Networks Programme and our sponsor Mavenir look forward to welcoming you to the twenty-second GSMA RCS Business Messaging Lab. The event will take place at the Pullman Barcelona Skipper Hotel on Sunday 24 February 2019 at 10:00-17:00.

Attending a GSMA RCS Business Messaging Lab will allow you to contribute to the future of business messaging. From designing customer experience to informing the GSMA standards, your contribution will ensure an open ecosystem that works together to realise the value estimated by 2020 of \$74 billion. Networking is a major part of the Lab series, and individuals have made important connections at the Labs they have gone on to work with.

The RCS Business Messaging Lab enables individuals to contribute to the future of messaging and to ensure RCS becomes an industry-leading business messaging platform by sharing, identifying and resolving issues.

About Our Sponsor: Mavenir

Mavenir is the industry's only 100% software-based, end-toend, Cloud Native Network Software Provider, purpose-built to redefine network economics for Communication Service Providers (CSPs). Learn more at mavenir.com.

Hear from:







































RCS BUSINESS **MESSAGING SEMINAR:** INTELLIGENTLY TRANSFORMING **CONSUMER EXPERIENCES**

Sponsored by:







Venue: CC1 Seminar Theatre, Fira Gran Via

Consumers are driving digital transformation as they seek to enhance and simplify their lives, connecting with brands that deliver what they want at exactly the moment they need it.

RCS Business Messaging enables consumers to interact with all of their brands in one place, their native Operator messaging app. Fully branded interactive rich experiences are personalised and trusted resulting in the highest levels of customer satisfaction and increased sales.

The GSMA's Future Networks Programme and our sponsor, Interop Technologies, are pleased to invite you to the RCS Business Messaging Seminar at MWC Barcelona 2019. Hear from key players in the industry who will discuss the current state of play of RCS and the Business Messaging market; the incredible results of live RCS campaigns; the commercial opportunities and market potential of this platform; the strategic vision for RCS, and much more.

About Our Sponsor: Interop Technologies

Interop Technologies is a leading provider of virtualised communication networks and cloudbased managed solutions for mobile messaging, voice and connectivity. Founded in 2002, Interop Technologies' is dedicated to providing mobile network operators with services and solutions that reduce the complexity of deploying and managing next generation communication technologies. Learn more at www.interoptechnologies.com.

Hear from:











GSMA BETA LAB #2: INNOVATION AND COST REDUCTION IN THE 5G ERA





Monday 25 February 2019 15:00-17:00

Venue: Room 3.12, Fira Gran Via

5G is expected to revolutionise the mobile broadband experience, transforming the role of telecommunications in everyday life, as well as delivering seemingly unlimited speed and real-time responsiveness. But in order to roll out the new technology and infrastructure needed to power this next generation of mobile, significant cost implications will need to be considered.

The GSMA Future Networks team is scouring the globe for case studies from leading innovators. These products and services will directly impact mobile operators' OpEx and CapEx, reducing cost intensity in the 5G Era.

We've gathered some of the best innovators we've found so far to showcase their ideas at the next GSMA Beta Lab, bringing to life the services that, through validation by our Network Economics model, will have a positive impact for operators.

Hear from:

















MOBILE BROADCAST IN THE 5G ERA ROUNDTABLE



Tuesday 26 February 2019 09:30-11:30

Venue: Room 3.14c, Fira Gran Via

With growing support in devices and the launch of commercial services, LTE-Broadcast is on the cusp of mass market adoption. However, there is still need for stronger cooperation and coordination across the full ecosystem comprising mobile operators, infrastructure vendors, device and chipset vendors, as well as content owners.

The GSMA, in cooperation with the LTE-Broadcast Alliance, is convening an exclusive roundtable during MWC Barcelona 2019 to discuss how to accelerate the adoption of the enhanced Multimedia Broadcast and Multicast Service.

Hear from:













LTE EVOLUTION ROUNDTABLE

Tuesday 26 February 2019 15:00-17:00

Venue: 3.14c, Fira Gran Via

Evolution of LTE has continued unabated in the standards and new exciting features enhancing the system performance as well as preparing it to coexist with 5G are ready to be deployed in the network. GSMA is gathering industry experts to discuss the future of LTE. The themes of the roundtable will be: balancing LTE evolution and 5G investments, key LTE evolution features and preparation for the continuity of IP communication services between 4G and 5G.

Hear from:









5G CLOUD XR SUMMIT

Sponsored by:







Venue: CC1 Seminar Theatre, Fira Gran Via

Extended Reality (XR) refers to the spectrum of technologies that combine computer generated Virtual elements into the real environment.

XR encompasses Augmented Reality (AR), Virtual Reality (VR), Mixed Reality (MR), and Simulated Reality (SR) as well as other variations.

Cloud XR brings together Cloud-based technologies and XR to deliver superior experiences that revolutionise the consumption of content in both the consumer and the enterprise sectors.

Telecom operators play an important role in delivering the capabilities required by XR such as edge computing, high data transfer, low latency all of which will be delivered through the deployment of 5G.

Furthermore; the big storage and massive computing capabilities needs of XR are met by the deployment of Cloud technologies within operator 5G networks.

You're invited to join the Future Networks Programme, and our sponsors Huawei, at the 5G Cloud XR Summit where industry experts will discuss the following topics and more:

- · Identify the key use cases in Cloud XR
- Investigate the value chain, stakeholders and business models
- Share case studies and best practices.

Hear from:





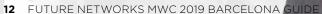












Venue: Hall 4, Fira, Gran Via, Barcelona

Join Future Networks in one of the most visited exhibition spaces at MWC, Innovation City. We have partnered with Google, Deutsche Telekom, Telefonica, Huawei, China Mobile, China Unicom and more to showcase cutting-edge innovations demonstrating how Rich Communications Services (RCS) and 5G are creating a better future through mobile.

5G Intelligent Connectivity

5G is more than just a generational change from 4G, and will change the way we view mobile and transform our use of mobile technology, combined with AI, XR and Cloud Computing, it's quality and latency will prove pivotal in the realisation of services which will impact every aspect of our lives in the future.

See below for a list of Future Networks 5G demonstrations in the GSMA Innovation City:

Demo	Partners	Description
5G AI Services	China Unicom, Huawei & UBTECH	Interact with a 5G AI services robot to make video calls, get weather and news.
		See how 5G latency and quality will enable real-time Al interaction across a 5G network.
5G Virtualisation Al	Telefonica	Telefonica will demonstrate how operators will interconnect their virtualized networks to provide network slice continuity highlighting the relevance of interoperability, interconnection and federation of orchestrators across different operator domains.
AR / VR combined with Edge computing	Deutsche Telekom (MobileEdgeX), Huawei, Skyworth	This showcase brings to life the benefits that vertical industries can realise through 5G and Cloudbased XR. Deutsche Telekom will show how the 'MobileEdgeX' platform enables VR. Visitors can experience a car showroom of the future through a truly immersive interactive demo.
		Huawei and Skyworth will show how 5G and Mixed Reality technology, combined with Cloud computing is envisaged to transform learning, training and collaboration.
AutoAir Project	DenseAir, 5GIC, McLaren Technologies,	Will show how 5G will transform connectivity through the deployment of 5G across high-speed transit routes.
	BlueWireless	Visitors will hear how the project is creating a Business Model for Innovation with Neutral Hosting and sharing solutions, Scaling and Network Economics: Lowering the barriers to Network Deployment.

INNOVATION CITY - RCS



RCS Business Messaging

At MWC Barcelona 2019, see how RCS the future of operator messaging is intelligently transforming consumer experiences with demonstrations from leading brands, showing how the exciting potential of RCS Business Messaging is becoming a reality.

This year RCS has seen the launch of many live campaigns. 74 Operators have launched RCS in 55 countries, with 215 million Monthly Active Users. With RCS Business Messaging, consumers can now interact with all of their brands in one place - they can deal with airlines, railways, taxis, restaurants, banks and many, many other businesses at their convenience.

Google, the GSMA, and global operators will showcase how we're working together to bring better messaging to every user including:

- International brands and messaging partners sharing the latest RCS campaigns and results, including how consumers are having richer conversations with businesses
- Operators showing the experiences they're creating to reach their own customers with RCS
- The latest highlights in the Messages app and what's coming soon.

With no need to download multiple apps, RCS is a single, common platform based on the biggest messaging app in the world - SMS.

Operators, OEMs and technology providers are working together to expand the availability and use of RCS based on the GSMA's Universal Profile standard, guaranteeing interoperability across devices, networks and operating systems.

OTHER RELATED EVENTS

See below some of the 'Future Networks' related events happening during MWC19

Find all MWC events here

1. Interop Technologies, Stand: 1C121

RCS on Stand: RCS transforms the mobile experience for subscribers and delivers new revenue opportunities for operators. Visit the Interop Technologies booth to see the new on-device experiences Rich Communications offers and to explore the subscriber engagement tools that are being developed for operators.

2. WIT Software, Hall 6, Stand E11

RCS on stand: Showcasing RCS Business Messaging, Chatbots and Al

RCS Business Messaging:

- Demos of WIT end-to-end RCS platform (MaaP, RCS AS, Apps)
- Interworking with native Apps and Downloadable Apps
- RCS Demos with Brands and real use-cases
- · Bot directory and bot discovery

Chatbots and Al:

- Demo of WIT Conversation Platform
- Graphical design of RCS Chatbots
- Demo of AI targeted for Telecom Customer Service

3. CM.com, Stand: 8.1 E41

RCS cases:

- · Booking.com
- Takeaway

4. Mavenir, Stand: 6D40

RCS on stand: A2P/P2A business communications over RCS with chatbots and Ad Sponsored Messaging, and including both the user experience and the MaaP administration portal.

GSMA[™] Innovation **City** 2019

Turkcell / Lifecell Digital

- NB-IoT and 5G networks supporting the autonomous control or 'platooning' of trucks across the Turkish/Greek
- Digital operator capabilities from connectivity to data analytics-based prediction systems transforming public
- See how connected drones can help with search and rescue efforts in emergencies

KT Corporation

- 5G SKYSHIP Platform, the next-generation platform for disaster and safety management
- Autonomous driving in K-City
- Al powered robots for the hospitality industries



Google

- International brands and messaging partners sharing the latest RCS campaigns
- Operators showing the experiences they're creating to reach their own customers with RCS
- The latest highlights in the Messages app and what's coming soon

Google

INTELLIGENT CONNECTIVITY

Visit Us in Hall 4

#gsmainnovationcity

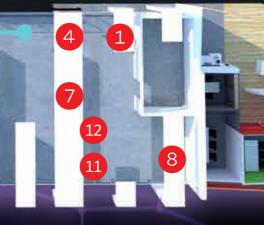


Membership team and exclusive events in the upstairs VIP Members



- Sophia, a humanoid robot Explains how the combination of high-speed 5G networks and AI is making intelligently connected robotics a reality
- Generate power on an intelligent rowing machine See how live Mobile IoT LPWA sensors monitor and manage water supplies in Toronto for a sustainable future everywhere
- Liberate data silos Experience Singtel's intelligent network that listens, showing the future of smart manufacturing and the industrial IoT
- The Live Hive Connected bees See how Orange's LTE-M network monitors the health of a live honeybee hive supporting sustainable agriculture
- 5G robotics & 5G networks, mixed reality technology and cloud computing transforming gaming

- 6 Try out Deutsche Telekom's MobileEdgeX VR platform to see a car showroom of the future Huawei & Skyworth mixed reality combined with cloud technologies
- Manage your data in connected cars with Mobile Connect
- Mobile Connect: Identity verification when opening a bank account & secure authentication while using RCS chatbots in a VR experience when online shopping
- 5G across high-speed transit routes supported by Telefonica and McLaren
- Connected rural village, how digital technology is transforming the lives of underserved communities in emerging markets
- SDGs, #caseforchange and connecting everyone and everything to a better future
- Mobile Authentication Taskforce: operator-identity services in the US



Sierra Wireless

- A data-driven solution that enables businesses to transform how they manage their assets
- Personal safety smart ring that lets people call for help without a mobile phone
- Presentations by experts in IoT security, 5G and LPWA technologies





- Immersive Cloud VR gaming experience
- Robot Rubik's Cube contest demonstrating 5G-based factory robotics
- Experience 3D TV without glasses or helmet
- · Powerful hand-held 4k cloud gaming



INTERESTING RESOURCES



RCS - Demos and Case Studies

Check out the latest RCS Demos and case studies here:

www.gsma.com/futurenetworks/rcs/ demos-case-studies



5G - Network Slicing and Cloud XR

See the latest updates on 5G and Cloud XR here:

www.gsma.com/futurenetworks/ technology/understanding-5g/5gresources



Network Economics - Case Studies

Don't miss out on reading the most recent case studies for **Network Economics:**

www.gsma.com/futurenetworks/ case-studies/

KEY PROGRAMME CONTACTS



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