Full5G – Fulfilling the 5G Promise

The 5G PPP Stakeholders Glossary – April 2020 Version

<u>Introductory notes</u>

The purpose of this document is to classify and define the various stakeholder groups targeted by the 5G PPP projects.

The first part of this document (i.e. "General diagram") shows graphically the different categories of the priority 5G PPP targeted stakeholders further to the contributions collected from Phase 2 and Phase 3 projects from December to February 2020, and further analysis at 5G PPP level.

The second part of this document (i.e. "Glossary") includes the definitions of the different stakeholders identified in the General diagram, in alphabetical order for each Level 1 category.
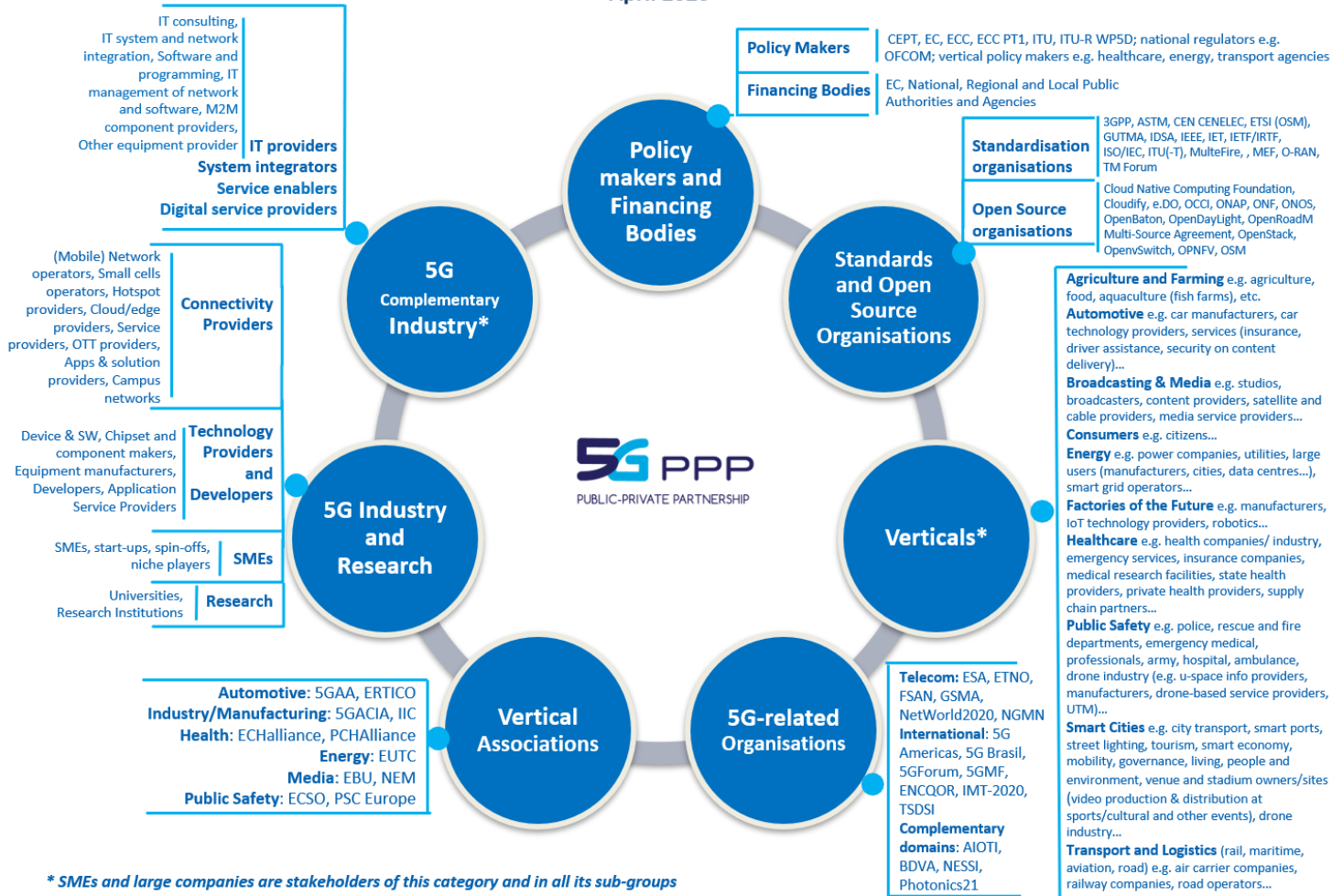
Please note that the asterisk (*) after a word in *italics* indicates a definition elsewhere in the document.

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GENERAL DIAGRAM - THE 5G PPP TARGET STAKEHOLDERS

The 5G PPP priority target stakeholders as of April 2020

GLOSSARY

Term	Definition	References
5G Complementary Industry		
IT providers	IT providers provide equipment, software, and IT Services.	European IT observatory. (2018). *ICT Market report 2018/19*. Berlin: European IT observatory.
System integrators	Systems integration can be defined as a process that includes the planning, design, implementation, and project management of a technical solution that addresses an organization's specific technical or business needs. When SI deals involve contracting for custom application development (CAD) related to the systems integration, then those activities are included in the definition of SI. SI projects typically involve different platforms and technologies. The solution may include hardware, software, and services and is consumed on premise, on demand, or in a cloud-based environment. An SI project is formalized by a contract that is constructed around solution specifications and often demands certain levels of performance against technical or business goals. The end result of an SI project is the delivery of a system that meets a stated objective and fulfills solution specifications.	*Ibid.*
Service enablers	Cf. *System integrators**	*Ibid.*
Digital service providers	In the context of digital in the Information Society, 'service' "is to say, any service normally provided for remuneration, at a distance, by electronic means and at the individual request of a recipient of services". The provider of such services are digital service providers.	Directive (EU) 2015/1535, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L1535
IT consulting	IT consulting is a professional services activity around information technology. It is the delivery of advice to customers aimed at managing their IT organization and at improving an organization's IT performance, infrastructure including IT security, and related processes. IT consulting includes two main areas: IT strategy and IT operations consulting.	European IT observatory. (2018). *ICT Market report 2018/19*. Berlin: European IT observatory.
IT system and network integration	Network consulting and integration services (NCIS) are defined as those activities associated with planning, designing, and building local and wide area data networks (commonly known as LANs and WANs), including multiservice, converged wireless, and wireline networks that allow voice, video, and data applications (such as VoIP and unified messaging) to be propagated across a single, common infrastructure. Specifically, the NCIS market includes services provided to telecommunications network access and transport providers for the planning and building of the public integrated voice, data, and video network infrastructures.	*Ibid.*
Software and programming	Software is a set of instructions that cause a computer to perform one or more tasks. The set of instructions is often called a program or, if the set is particularly large and complex, a system.	*Ibid.*

Term	Definition	References
	Computers cannot do any useful work without instructions from software; thus, a combination of software and hardware (the computer) is necessary to do any computerized work.	
IT management of network and software	Network management services are the activities, skills, facilities, and network infrastructure captured within a contract associated with outsourcing the operations of a specific segment or an entire network communication system of a company. The scope of work includes the installation and management of network tools that automatically monitor active nodes, traffic, revision management, and security. The service supplier also assists with fault isolation and resolution and enables the business to optimize the efficiency of the network and avoid any downtime. As part of the network management contract, the service supplier installs and configures the network management system and manages user moves, adds, or changes on the network, network software, and hardware upgrades.	*Ibid.*
M2M component providers	Machine to machine (M2M) component providers are companies providing components, e.g. sensors, RFID, a Wi-Fi or cellular communications link and autonomic computing software programmed to help a networked device interpret data and make decisions. Machine to machine (M2M) is a broad label that can be used to describe any technology that enables networked devices to exchange information and perform actions without the manual assistance of humans.	http://internetofthingsagenda.techtarget.com/definition/machine-to-machine-M2M
Other equipment providers	IT equipment is defined as technological hardware used in the processing of information in the form of data (input, process, output, communication, and storage). It includes computer systems (client and server devices), system peripherals (printers and MFPs), media tablets, storage hardware and other hardware.	European IT observatory. (2018). *ICT Market report 2018/19*. Berlin: European IT observatory.

5G Industry and Research

Term	Definition	References
Connectivity providers	Connectivity providers perform day-to-day operational activities to provide network connection via wired/wireless networks.	
(Mobile) network operators	(Mobile) network providers are companies that provide customers with access to a (mobile) telecommunications network or to the Internet.	http://www.collinsdictionary.com/dictionary/english/network-provider
Small cells operators	Small cell is a growing technology that enables Mobile Network Operators (MNOs) to deploy sites in strategic locations offering smaller coverage with higher capacities, using licensed and unlicensed wireless spectrum.	https://en.wikipedia.org/wiki/Small_cell
Hotspot providers	Hotspot providers arrange the Internet access, typically using Wi-Fi technology, via a wireless local area network (WLAN) using a router connected to an internet service provider. Coffee shops, airports and hotels are typical examples of the hotspot providers.	https://en.wikipedia.org/wiki/Hotspot_(Wi-Fi)
Cloud/edge providers	Edge computing primarily refers to bringing processing and storage capabilities closer to where it is	https://stlpartners.com/edge-

Term	Definition	References
	needed.	computing/edge-computing-companies-2020/
Service providers	Service providers in telecommunications sector are companies that provide their subscribers with access to the Internet and/or other value-added services, e.g. cloud computing, storage and e-learning.	https://en.wikipedia.org/wiki/Service_provider
OTT providers	An over-the-top (OTT) media service is a streaming media service offered directly to viewers via the Internet. OTT bypasses cable, broadcast, and satellite television platforms, the companies that traditionally act as a controller or distributor of such content.	https://en.wikipedia.org/wiki/Over-the-top_media_service
Apps & solution providers	An application/solution service provider is a business providing computer-based solutions/services to customers over a network, such as access to a software solution/application (e.g. customer relationship management) using a standard protocol (e.g. HTTP).	https://en.wikipedia.org/wiki/Application_service_provider
Campus networks	A campus network, campus area network, corporate area network or CAN is a computer network made up of an interconnection of local area networks (LANs) within a limited geographical area.	https://en.wikipedia.org/wiki/Campus_network
Technology providers and developers	A technology provider is a provider that develops and provides technology solution(s) which can be used by the 5G PPP projects, *SMEs**, *start-ups**, etc. *For developers*, see below.*	
Device & SW	A device is an object or machine - a piece of mechanical or electronic equipment - that has been invented to fulfil a particular purpose. A device typically includes a HardWare (HW) and SoftWare (SW) parts to make it independently functioning.	http://dictionary.cambridge.org/us/dictionary/english/device
Chipset and component makers	A chipset/component maker buys raw materials from its suppliers, assembles these into chipsets/components and gives the results to other manufacturers	
Equipment manufacturers	A manufacturer is a company that produces goods in large numbers. Telecommunications equipment is a hardware which is used for the purposes of telecommunications. Since the 1990s the boundary between telecoms equipment and IT hardware has become blurred as a result of the growth of the internet and its increasing role in the transfer of telecoms data. An original equipment manufacturer (OEM) is a company that produces parts and equipment that may be marketed by another manufacturer.	https://dictionary.cambridge.org/dictionary/english/manufacturer; https://en.wikipedia.org/wiki/Telecommunications_equipment; https://en.wikipedia.org/wiki/Original_equipment_manufacturer
Developers	A developer is an IT organization, software developer company, or individual (e.g. web entrepreneur) that develops Future Internet applications, products, solutions, systems, etc. A developer will use the 5G PPP projects' services and Infrastructures to make its own test and develop its product, solution, system…	
Application service providers	An application service provider (ASP) is a company that offers individuals or enterprises access over the Internet to applications and related services that would otherwise be in their own personal or	http://searchsoa.techtarget.com/definition/application-service-provider

Term	Definition	References
	enterprise computers.	
SMEs	a) SME stands for Small and Medium enterprises, as defined in EU law. The main factors determining whether a company is an SME are number of employees and either turnover or balance sheet total. An SME could use some services and Infrastructures provided by the 5G PPP projects, make these services available to the *developers** and may also be part of *verticals**. b) An SME is a *developer** which can make its own test using the 5G PPP projects' services and infrastructures to develop its product, solution, system, etc.	http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm
Start-ups	a) A start-up is a company, a partnership or temporary organization designed to search for a repeatable and scalable business model. These companies, generally newly created, are in phase of development and research for markets. A start-up could use some services and infrastructures provided by the 5G PPP projects, make these services available to the *developers** and may also be part of *verticals**. b) A start-up is a *developer** which can make its own test using the 5G PPP projects' services and infrastructures in order to develop its product, solution, system, etc.	Steve Blank and Bob Dorf "The Startup owner's manual: the step-by-step Guide for Building a great company, cf. http://steveblank.com/2010/01/25/whats-a-startup-first-principles/
Spin-offs	When a company creates a new independent company by selling or distributing new shares of its existing business, this is called a spin-off. A spin-off is also known as a spin-out or starbust.	https://www.investopedia.com/terms/s/spinoff.asp
Niche players	A niche in the market is a specific area of marketing which has its own particular requirements, customers, and products. Niche players are (small) companies that are looking at doing well if they can fill a specific market niche.	https://www.collinsdictionary.com/dictionary/english/niche
Research	Research is creative and systematic work undertaken to increase the stock of knowledge, including knowledge of humans, culture and society, and the use of this stock of knowledge to devise new applications.	OECD (2015). *Frascati Manual. The Measurement of Scientific, Technological and Innovation Activities.* doi:10.1787/9789264239012-en.
Universities	A university is an institution of higher (or tertiary) education and research, which awards academic degrees in various academic disciplines. Universities typically provide undergraduate education and postgraduate education.	https://en.wikipedia.org/wiki/University
Research institutions	A research institute (research organization) is an establishment endowed for doing research. Research institutes may specialize in basic research or may be oriented to applied research.	https://en.wikipedia.org/wiki/Research_institute
Vertical Associations		

Term	Definition	References
5GAA	The 5G Automotive Association (5GAA) is a global, cross-industry organisation of companies from the automotive, technology, and telecommunications industries (ICT), working together to develop end-to-end solutions for future mobility and transportation services.	https://5gaa.org/
ERTICO	ERTICO – ITS (Intelligent Transport Systems and Services) Europe is a public-private partnership of 120 companies and organisations representing service providers, suppliers, traffic and transport industry, research, public authorities, user organisations, mobile network operators, and vehicle manufacturers. ERTICO's work focuses on Connected & Automated Driving, Urban Mobility, Clean Mobility, and Transport & Logistics.	https://ertico.com/
5GACIA	5G-ACIA is a global forum for shaping 5G in the industrial domain. The paramount objective of 5G-ACIA is to ensure the best possible applicability of 5G technology for connected industries, in particular the manufacturing and process industries.	https://www.5g-acia.org/
IIC	The Industrial Internet Consortium (IIC) is a not-for-profit partnership of industry, government and academia. It was founded in March 2014 to bring together the organizations and technologies necessary to accelerate the growth of the industrial internet by identifying, assembling, testing and promoting best practices. Members work collaboratively to speed the commercial use of advanced technologies. Membership includes small and large technology innovators, vertical market leaders, researchers, universities and government organizations. The resources of the IIC give organizations the guidance needed to strategically apply digital technologies and achieve digital transformation.	https://www.iiconsortium.org/
ECHAlliance	The European Connected Health Alliance (ECHAlliance) facilitates multi-stakeholder connections around ecosystems, driving sustainable change and disruption in the delivery of health and social care. The global network of Digital Health Alliances connects 78 countries and 4.4 billion people (Europe, USA, Canada, China, Africa, Asia, the Caribbean and Americas and the Pacific), and involves a community of over 16,500 experts. The Digital Health Observatory (DHO) and The Digital Health Society (DHS) movement facilitate and promote the transfer of knowledge, experiences and best practices creating a community of knowledge in Digital Health globally.	https://echalliance.com/
EUTC	Technology is rapidly changing the role of telecom in Europe's electric, gas and water utilities, energy companies and other critical infrastructure companies. Many are using their vast experience in building and managing sophisticated telecommunications networks to enter Europe's new competitive telecoms markets. Many are also facing issues introducing new wireless communications systems and managing internal telecoms businesses in a shared services environment. To meet this need, The European Utilities Telecom Council (EUTC) has developed a uniquely European program that will build on the Utilities Technologies Council (UTC)'s 60 years of experience, existing strengths and services.	https://eutc.org/, https://utc.org/

Term	Definition	References
EBU	The European Broadcasting Union (EBU) is the world's leading alliance of public service media (PSM), with 116 member organizations in 56 countries and have an additional 34 Associates in Asia, Africa, Australasia and the Americas. EBU's Members operate nearly 2,000 television, radio and online channels and services, and offer a wealth of content across other platforms. Together they reach an audience of more than one billion people around the world, broadcasting in more than 160 languages. The EBU strives to secure a sustainable future for public service media.	https://www.ebu.ch/home
NEM	The NEM Initiative (New European Media Initiative) was established as one of the European Technology Platform under the Seventh Framework Programme, aiming at fostering the convergence between consumer electronics, broadcasting and telecoms in order to develop the emerging business sector of networked and electronic media. In order to respond to new need and requirements of the Horizon 2020 programme, the NEM initiative enlarged its focus towards creative industries and changed its name from Networked an Electronic Media Initiative to New European Media, dealing with Connected, Converging and Interactive Media & Creative Industries, driving the future of digital experience. The NEM constituency includes all major European organisations working in the networked and electronic media area, including content providers, creative industries, broadcasters, network equipment manufacturers, network operators and service providers, academia, standardisation bodies and government institutions. The NEM Initiative is supporting Europe's activities on the Future Internet and is actively contributing to the definition of the related research and innovation areas.	https://nem-initiative.org/
ECSO	The European Cyber Security Organisation (ECSO) is the private counterpart to the European Commission in implementing the contractual Public-Private Partnership (cPPP) on cybersecurity. They unite a variety of European cybersecurity stakeholders across the EU Member States, the European Free Trade Association (EFTA) and H2020 Programme associated countries. ECSO's main goal is to develop a competitive European cybersecurity ecosystem, to support the protection of the European Digital Single Market with trusted cybersecurity solutions, and to contribute to the advancement of the European digital autonomy.	https://www.ecs-org.eu/
PSC Europe	The Public Safety Communications Europe Forum (PSCE) is a permanent autonomous organisation, working to foster excellence in the development and use of public safety communication and information management systems by consensus building. It was established as a result of a European Commission funded project in 2008. Since then, PSCE has evolved into an independent forum, where representatives of public safety user organisations, industry and research institutes can meet to discuss and exchange ideas and best practices, develop roadmaps and improve the future of public safety communications. PSCE ensures the continual improvement and evolution of public safety information and communication systems for the safety and security of the citizens.	https://www.psc-europe.eu/

Term	Definition	References
5G-related Organisations		
ESA	The European Space Agency (ESA) is Europe's gateway to space. Its mission is to shape the development of Europe's space capability and ensure that investment in space continues to deliver benefits to the citizens of Europe and the world. Established in 1975, ESA works together with its 22 Member States to push the frontiers of science and technology, and promote economic growth in Europe.	http://www.esa.int/
ETNO	ETNO has been the voice of Europe's telecommunication network operators since 1992 and has become the principal policy group for European electronic communications network operators.	https://etno.eu/
FSAN	The Full-Service Access Network (FSAN) Group is a forum for the world's leading telecommunications services providers, independent test labs, and equipment suppliers to work towards a common goal of truly broadband fibre access networks. FSAN has more than 70 member organisations, including more than 20 Network Operators, that represent the leading experts in Broadband Passive Optical Network (BPON), Gigabit Passive Optical Network (GPON), 10 Gigabit Passive Optical Network (XG-PON), 10 Gigabit Symmetrical Passive Optical Network (XGS-PON) and Next Generation Passive Optical Network 2 (NG-PON2) technologies.	https://www.fsan.org
GSMA	The Global System for Mobile communications Alliance (GSMA) represents the interests of mobile operators worldwide, uniting more than 750 operators with almost 400 companies in the broader mobile ecosystem, including handset and device makers, software companies, equipment providers and internet companies, as well as organisations in adjacent industry sectors.	https://www.gsma.com/
NetWorld2020	NetWorld2020 is the European Technology Platform (ETP) for communications networks and services. Communications networks enable interaction between users of various types of equipment, either mobile or fixed. NetWorld2020 gathers players of the communications networks sector: industry leaders, innovative SMEs, and leading academic institutions. It was founded on 29 October 2013 by the former Net!Works and ISI ETPs. NetWorld2020 has more than 1,000 members coming from Industry, Research, and SMEs, as well as "Cooperation" members for external cooperation.	https://www.networld2020.eu/
NGMN	The Next Generation Mobile Networks (NGMN) Alliance is a mobile telecommunications association of mobile operators, vendors, manufacturers and research institutes. It was founded by major mobile operators in 2006 as an open forum to evaluate candidate technologies to develop a common view of solutions for the next evolution of wireless networks. Its objective is to ensure the successful commercial launch of future mobile broadband networks through a roadmap for technology and friendly user trials.	https://www.ngmn.org
5G Americas	5G Americas (Americas) is a wireless industry trade association representing the 3GPP family of	http://www.5gamericas.org

Term	Definition	References
	technologies. The organization was established in January 2002 under the name 3G Americas. On September 28, 2010, 3G Americas announced the organization's name change to 4G Americas and a realignment of its mission and objectives. 4G Americas works throughout the Western hemisphere to inform government agencies, other businesses and the public about the 3GPP wireless technologies. The 4G Americas association changed its name to 5G Americas in February 2016.	
5G Brasil	The main objective of the 5G Brasil project is to foster the development of the 5G ecosystem in Brazil and contribute to the global definition of this technology. The 5G Brasil Project has 22 associates (including operators, manufacturers, research institutes, universities, and companies associations) involving more than 120 professionals. The activities of 5G Brasil are performed by a Steering Committee and by five thematic commissions: Research and Use Cases, Pre-Standards, Backhaul Infrastructure, Future Frequencies Bands, Verticals Regulatory Actions and Market Actions. The 5G Brasil Project advocates the inclusion of a fourth scenario for 5G networks: 5G for remote areas.	https://5g-ia.eu/single_post/?slug=12302-2; http://www.telebrasil.org.br/5gbrasil/
5GForum	5G Forum (Korea) aims to become the leading force in the development of next-generation communications technology and contribute to the momentum of economic growth through the development of ICT industry in efforts to actualize the new administration's agenda of creative economy. 5G Forum seeks innovation through mutual collaboration among all interested parties of the new mobile communications infrastructure, including those in the IoT/Cloud/Big Data/Mobile fields, industry-academic-research institutions, as well as the manufacturers and service providers.	http://www.5gforum.org/
5GMF	The Fifth Generation Mobile Communications Promotion Forum (5GMF, Japan) was created to conduct research & development concerning the fifth Generation Mobile Communications Systems and research and study pertaining to standardization thereof, along with liaison and coordination with related organizations, the collection of information, and dissemination and enlightenment activities aimed at the early realization of the Fifth Generation Mobile Communications Systems, all with the aim of thereby contributing to the sound development of the use of telecommunications.	http://5gmf.jp/en/
ENCQOR	ENCQOR 5G (*Evolution of Networked Services through a Corridor in Québec and Ontario for Research and Innovation*) is a transformational Canada-Québec-Ontario partnership focused on research and innovation in the field of 5G disruptive technologies, on adoption initiatives and system uses. ENCQOR 5G established the first Canadian pre-commercial corridor of 5G digital infrastructure. ENCQOR 5G focuses on giving SMEs, researchers and academia access to 5G networks. The initiative is designed to both unlock the technological promise of 5G in the near term and drive long-term economic growth in Ontario and Québec and in the broader Canadian innovation ecosystem. The project brings together industry, small- and medium-sized enterprises (SMEs), the public sector, centres for innovation, and universities.	https://www.encqor.ca/

Term	Definition	References
IMT-2020	IMT-2020 (5G, China) is a promotion association that was jointly established by three ministries of China (including MIIT, NDRC and MOST) based on the original IMT-Advanced promotion group in February 2013. The members include the main operators, vendors, universities and research institutes in China. The promotion association is the major platform to promote 5G technology research in China and to facilitate international communication and cooperation.	http://www.imt-2020.cn/en
TSDSI	The Telecommunications Standards Development Society, India (TSDSI) is an autonomous, membership based, Standards Development Organization (SDO) for Telecom/ICT products and services in India. We develop standards for access, back-haul, and infrastructure systems, solutions and services that best meet India specific Telecom/ICT needs, based on research and innovation in India. The Indian Telecom Industry, comprising operators and manufacturers, Academia and R&D organizations came together to form TSDSI on 7 January 2014, as an embodiment of the Govt.'s resolve to create an Indian Telecom Standards Development Organization (TSDO), for contributing to next generation telecom standards and drive the eco-system of IP creation in India, formally recognised by the Government.	https://tsdsi.in/
AIOTI	The Alliance for Internet of Things Innovation (AIOTI) was initiated by the European Commission in order to develop and support the dialogue and interaction among the Internet of Things (IoT) various players in Europe. The overall goal of the AlOTI is the creation of a dynamic European IoT ecosystem to unleash the potentials of the IoT. This ecosystem is going to build on the work of the IoT Research Cluster (IERC) and spill over innovation across industries and business sectors of IoT transforming ideas into solutions and business models. The Alliance will also assist the European Commission in the preparation of future IoT research as well as innovation and standardisation policies.	http://www.aioti.eu
BDVA	The Big Data Value Association (BDVA) is a fully self-financed non–for-profit organisation under Belgian law. Currently there are 24 founding members from large and SME industry and research. The BDVA shall present an industry-led contractual counterpart to the European Commission for the implementation of the Big Data Value PPP cPPP. A basic principle is openness, transparency and inclusiveness.	http://www.bdva.eu/
NESSI	The Networked European Software and Services Initiative (NESSI) is the European Technology Platform (ETP) dedicated to Software, Services and Data. NESSI provides input to the EU Institutions on research actions and technology matters of particular importance to the software domain, and the overall aim is to enable the software and services sector help vitalize the great potential of the European economy and society. NESSI gathers partners and members from all over Europe, both from industry and academia, and engages in close dialogue with the European Commission and other stakeholders on several topics of specific relevance to NESSI - such as Big Data Value, Cloud	http://www.nessi-europe.com/

Term	Definition	References
	Computing and Software Engineering.	
Photonics21	The Photonics21 is a European Technology Platform as described in the Report EUR 21265 by the Commission Inter-Service Group on Technology Platforms of the European Commission. It is a voluntary informal association of stakeholders in the field of photonics in Europe, primarily industrial enterprises and research institutions working at the industrial-scientific interface.	http://www.photonics21.org

Policy Makers and Financing Bodies

Term	Definition	References
Policy makers	A policy maker is a member of a government department, legislature, or other organization who is responsible for making new rules, laws, etc.	http://dictionary.cambridge.org/us/dictionary/english/policymaker
CEPT	CEPT is the European Conference of Postal and Telecommunications Administrations. Its activities include co-operation on commercial, operational, regulatory and technical standardisation issues. The CEPT was established in 1959 by 19 countries, which expanded to 26 during its first ten years. Original members were the monopoly-holding postal and telecommunications administrations. Today 48 countries are members of the CEPT.	http://www.cept.org
EC (European Commission)	The European Commission (EC) is the European Union's executive body. It represents the interests of the European Union as a whole (not the interests of individual countries). The EC is responsible for policies in the areas that it covers e.g. trade.	http://ec.europa.eu/about/index_en.htm, https://ec.europa.eu/trade/policy/policy-making/
ECC (PT1)	The Electronic Communications Committee (ECC) is a body of national regulators operating at the European level to identify and realise the benefits of harmonised approaches to spectrum management across the *CEPT** countries The ECC Project Team 1 (PT1) is responsible for implementing the Wireless Access Policy for Electronic Communications Services (WAPECS) concept (the new European flexible approach based on technology and service neutral regulation) for mobile and fixed communications networks (MFCN).	http://www.cept.org/ecc/who-we-are/participation-in-ecc-work/, http://www.cept.org/ecc/groups/ecc-pt1/client/introduction/
ITU	The International Telecommunication Union (ITU) is the United Nations (UN) specialized agency for information and communication (ICT) technologies. ITU allocates global radio spectrum and satellite orbits, develop the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide.	http://www.itu.int
National regulators e.g. OFCOM	National regulators are organisations e.g. agencies that regulate telecommunications services in each country / Member State. One example is OFCOM that is the communications regulator in the UK to regulate the TV, radio and video on demand sectors, fixed line telecoms, mobiles, postal services, plus the airwaves over which wireless devices operate.	http://www.ofcom.org.uk/about/what-is-ofcom/

Term	Definition	References
ITU-R WP5D	ITU-R (International Telecommunication Union – Radiocommunication Sector) is an organisation of United Nations. The mission of the ITU Radiocommunication Sector is, inter alia, to ensure rational, equitable, efficient and economical use of the radio-frequency spectrum by all radiocommunication services, including those using satellite orbits, and to carry out studies and adopt recommendations on radiocommunication matters. Working Party 5D (WP 5D) - IMT Systems is responsible for the overall radio system aspects of International Mobile Telecommunications (IMT) systems, comprising the IMT-2000, IMT-Advanced and IMT for 2020 and beyond.	https://www.itu.int/en/ITU-R/Pages/default.aspx; https://www.itu.int/en/ITU-R/study-groups/rsg5/rwp5d/Pages/default.aspx
Vertical policy makers	Vertical policy makers are *policy makers** that are acting in a specific vertical sector e.g. automotive, energy, health, media…	
Financing bodies		
EC (European Commission)	The European Commission (EC) is the European Union's executive body. It represents the interests of the European Union as a whole (not the interests of individual countries). The EC is funding various programmes and initiatives, including but not limited to the EU Framework Programme for Research and Innovation.	http://ec.europa.eu/about/index_en.htm; https://ec.europa.eu/programmes/horizon2020/en
National, regional and local public authorities and agencies	National, regional and local public authorities and agencies are administrative bodies responsible for a geographic area, such as a country (national), a region or a state (regional), or a city, town, or county (local). Those authorities or related agencies are often in charge of funding innovation at the level of the geographical area they are responsible for.	http://www.businessdictionary.com/definition/local-government.html
Standards and Open Source Organisations		
Standardisation organisations	A Standardization organization (or standards body, Standards Developing Organization (SDO), or Standards Setting Organization (SSO)) is an organization whose primary activities are developing, coordinating, promulgating, revising, amending, reissuing, interpreting, or otherwise producing technical standards that are intended to address the needs of some relatively wide base of affected adopters.	https://en.wikipedia.org/wiki/Standards_organization
3GPP	The 3rd Generation Partnership Project (3GPP) unites seven telecommunications Standard Development Organizations (ARIB, ATIS, CCSA, ETSI, TSDSI, TTA, TTC), known as "Organizational Partners" and provides their members with a stable environment to produce the Reports and Specifications that define 3GPP technologies.	http://www.3gpp.org/
ASTM	ASTM International, formerly known as American Society for Testing and Materials, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services. Some 12,575 ASTM	https://www.astm.org/

Term	Definition	References
	voluntary consensus standards operate globally.	
CEN CENELEC	CEN (Comité Européen de Normalisation; European Committee for Standardization) and CENELEC (Comité Européen de Normalisation Électrotechnique; European Committee for Electrotechnical Standardization) are business catalysts in Europe, removing trade barriers for European industry and consumers. Their mission is to foster the European economy in global trading, the welfare of European citizens and the environment. Through their services they provide platforms for the development of European Standards and other technical specs.	https://www.cencenelec.eu/Pages/default.aspx
ETSI (OSM)	The European Telecommunications Standards Institute (ETSI), a non-profit organization, produces globally applicable standards for Information and Communications Technologies (ICT), including fixed, mobile, radio, converged, broadcast and Internet technologies. The standards enable the technologies on which business and society rely. For example, standards for GSM™, DECT™, Smart Cards and electronic signatures have helped to revolutionize modern life all over the world. More than 800 member organizations worldwide, drawn from 66 countries and five continents. Members include the world's leading companies and innovative R&D organizations. Open Source MANO (OSM) is delivering an open source Management and Orchestration (MANO) stack aligned with ETSI NFV Information Models. As an community-led community, OSM offers a production-quality MANO stack that meets operators' requirements for commercial NFV deployments.	http://www.etsi.org, https://osm.etsi.org/
GUTMA	The Global UTM Association (GUTMA) is a non-profit consortium of worldwide Unmanned Aircraft Systems Traffic Management (UTM) stakeholders. Its purpose is to foster the safe, secure and efficient integration of drones in national airspace systems. Its mission is to support and accelerate the transparent implementation of globally interoperable UTM systems. GUTMA members collaborate remotely.	https://gutma.org/
IDSA	International Data Space Association: Digital transformation is a key factor for the success of companies worldwide. IDSA ensure that the special economic interests of business are specifically integrated into the research work of International Data Space. Companies can access the results of the research project on International Data Spaces on the website so they can implement these results in their own way.	https://www.internationaldataspaces.org/
IEEE	Institute of Electrical and Electronics Engineers (IEEE), is the world's largest professional association dedicated to advancing technological innovation and excellence for the benefit of humanity. The IEEE covers technology areas ranging from aerospace systems, computers and telecommunications to biomedical engineering, electric power and consumer electronics.	https://www.ieee.org

Term	Definition	References
IET	The Institution of Engineering and Technology (IET) is a multidisciplinary professional engineering institution. The IET was formed in 2006 from two separate institutions: the Institution of Electrical Engineers (IEE), dating back to 1871, and the Institution of Incorporated Engineers (IIE) dating back to 1884. Its worldwide membership is currently in excess of 168,000. The mission of IET is: "We are the IET and we inspire, inform and influence the global engineering community to engineer a better world. As a diverse home across engineering and technology, we share knowledge that helps make better sense of the world in order to solve the challenges that matter. It's why we are uniquely placed to champion engineering."	https://www.theiet.org/
IETF/IRTF	The Internet Engineering Task Force (IETF) is a large open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet. It is open to any interested individual with no formal membership or membership requirements. All participants and managers are volunteers, though their work is usually funded by their employers or sponsors. The Internet Research Task Force (IRTF) focuses on longer term research issues related to the Internet while the parallel organization, the Internet Engineering Task Force (IETF), focuses on the shorter-term issues of engineering and standards making. The IRTF promotes research of importance to the evolution of the Internet by creating focused, long-term Research Groups working on topics related to Internet protocols, applications, architecture and technology.	https://www.ietf.org/
ISO/IEC	The International Organization for Standardization (ISO) is an international standard-setting body composed of representatives from various national standards organizations. Founded on 23 February 1947, the organization promotes worldwide proprietary, industrial, and commercial standards. It is headquartered in Geneva, Switzerland, and works in 164 countries. It was one of the first organizations granted general consultative status with the United Nations Economic and Social Council. ISO has formed two joint committees with the International Electrotechnical Commission (IEC) to develop standards and terminology in the areas of electrical and electronic related technologies: ISO/IEC Joint Technical Committee 1 (JTC 1) was created in 1987 to "develop, maintain, promote and facilitate IT standards", where IT refers to information technology; and ISO/IEC Joint Technical Committee 2 (JTC 2), created in 2009 for the purpose of "standardization in the field of energy efficiency and renewable energy sources".	https://www.iso.org/; https://www.iec.ch/
ITU(-T)	ITU-T is one of the three sectors of *ITU**. It formulates recommendations for standardizing telecommunication operations worldwide.	https://www.itu.int/en/ITU-T/
MulteFire	The MulteFire Alliance is an independent, diverse, and international member-driven consortium defining and promoting MulteFire – a cellular-based technology for operating in unlicensed and shared spectrum. The purpose is to support the common interests of members, developers and users in	https://www.multefire.org/

Term	Definition	References
	the application of LTE and next generation mobile cellular technology—such as 5G New Radio—in configurations that use only unlicensed or shared radio spectrum. The MulteFire Alliance has grown to more than 40 members. The organization is open to any company with an interest in advancing LTE and cellular technology in unlicensed and shared spectrum.	
MEF	MEF, founded in 2001 as the Metro Ethernet Forum is a non-profit international industry consortium, dedicated to adoption of assured services orchestrated across a global ecosystem of automated networks. MEF was originally dedicated to Carrier Ethernet networks and services, but is no longer referred to as the "Metro Ethernet Forum" because the work of MEF is now much broader in scope, and includes Optical, Carrier Ethernet, IP, SD-WAN Services and Cloud Services, as well as orchestration of the service lifecycle. However, it retains the name "MEF" and "MEF Forum". The forum is composed of service providers, incumbent local exchange carriers, network equipment vendors, and other networking companies that share an interest in connectivity services. There are over 200 MEF members currently. Membership varies for many reasons including mergers and acquisitions of member companies.	https://www.o-ran.org/
O-RAN	The O-RAN Alliance was founded by operators to clearly define requirements and help build a supply chain eco-system to realize its objectives. O-RAN Alliance members and contributors have committed to evolving radio access networks around the world.	https://www.o-ran.org/
TM Forum	TM Forum is a global industry association for service providers and their suppliers in the telecommunications industry. Members include communications and digital service providers, telephone companies, cable operators, network operators, cloud providers, digital infrastructure providers, software suppliers, equipment suppliers, systems integrators and management consultancies. The Forum has over 850 member companies, including ten of the top ten world's largest telecommunications service providers, that collectively generate US$2 trillion in revenue and serve five billion customers across 180 countries.	www.tmforum.org
Open source organisations	Open source products include permission to use the source code, design documents, or content of the product.	https://en.wikipedia.org/wiki/Open_source#Organisations
Cloud Native Computing Foundation	The Cloud Native Computing Foundation (CNCF) hosts critical components of the global technology infrastructure. CNCF brings together the world's top developers, end users, and vendors and runs the largest open source developer conferences. CNCF is part of the non-profit Linux Foundation.	https://www.cncf.io/#
Cloudify	Cloudify is an open source application and network orchestration framework based on TOSCA, delivering award winning edge networking.	https://cloudify.co/
e.DO	e.DO is a flexible, interactive open-source robot designed to stimulate creativity and participation	https://edo.cloud/github/

Term	Definition	References
	inside and outside a classroom setting.	
OCCI	The Open Cloud Computing Interface (OCCI) comprises a set of open community-lead specifications delivered through the Open Grid Forum. OCCI is a Protocol and API for all kinds of Management tasks. OCCI was originally initiated to create a remote management API for IaaS model-based Services, allowing for the development of interoperable tools for common tasks including deployment, autonomic scaling and monitoring. It has since evolved into a flexible API with a strong focus on integration, portability, interoperability and innovation while still offering a high degree of extensibility.	http://occi-wg.org/
ONAP	The Open Network Automation Platform (ONAP) provides a comprehensive platform for real-time, policy-driven orchestration and automation of physical and virtual network functions that will enable software, network, IT and cloud providers and developers to rapidly automate new services and support complete lifecycle management.	https://www.onap.org/
ONF	The Open Networking Foundation (ONF) is a user-driven organization dedicated to the promotion and adoption of Software-Defined Networking (SDN) through open standards development. The ONF aims at improving networking through software-defined networking (SDN) and standardizing the OpenFlow protocol and related technologies. The standards-setting and SDN-promotion group was formed out of recognition that cloud computing will blur the distinctions between computers and networks. The initiative is meant to speed innovation through simple software changes in telecommunications networks, wireless networks, data centres and other networking areas.	https://www.opennetworking.org
ONOS	The Open Network Operating System (ONOS) project is an open source community hosted by The Linux Foundation. The goal of the project is to create a Software-Defined Networking (SDN) operating system for communications service providers that is designed for scalability, high performance and high availability.	http://onosproject.org
OpenBaton	Open Baton is the result of an agile design process having as major objective the development of an extensible and customizable framework capable of orchestrating network services across heterogeneous NFV Infrastructures.	https://openbaton.github.io/
OpenDayLight	The OpenDaylight foundation promotes and advances the global development, distribution and adoption of the OpenDaylight (ODL) open source SDN platform. Founded in 2013, the OpenDaylight foundation maintains an independent governance and infrastructure to help ensure ODL's development can occur in a neutral environment. The aim is to facilitate the growth of a strong OpenDaylight and Open SDN ecosystem by collaborating with developers, end users and ODL's members to produce the most relevant programs, events, and resources.	https://www.opendaylight.org/

Term	Definition	References
OpenRoadM Multi Source Agreement	The Open ROADM Multi-Source Agreement (MSA) defines interoperability specifications for Reconfigurable Optical Add/Drop Multiplexers (ROADM).	http://openroadm.org/
OpenStack	The OpenStack project is a global collaboration of developers and cloud computing technologists producing the open standard cloud computing platform for both public and private clouds.	https://www.openstack.org/
OpenvSwitch	Open vSwitch is a production quality, multilayer virtual switch licensed under the open source Apache 2.0 license. It is designed to enable massive network automation through programmatic extension, while still supporting standard management interfaces and protocols (e.g. NetFlow, sFlow, IPFIX, RSPAN, CLI, LACP, 802.1ag).	http://www.openvswitch.org/
OPNFV	Open Platform for NFV (OPNFV) is a project and community that facilitates a common NFVI, continuous integration (CI) with upstream projects, stand-alone testing toolsets, and a compliance and verification program for industry-wide testing and integration to accelerate the transformation of enterprise and service provider networks	https://www.opnfv.org/
OSM	Open Source MANO is an ETSI-hosted project to develop an Open Source NFV Management and Orchestration (MANO) software stack aligned with ETSI NFV.	https://osm.etsi.org/
Verticals		
Automotive	The automotive industry comprises a wide range of companies and organizations involved in the design, development, manufacturing, marketing, and selling of motor vehicles.	https://en.wikipedia.org/wiki/Automotive_industry
Car manufacturers	Commonly known as Original Equipment Manufacturers (OEMs), their strength is in designing cars, marketing cars, ordering the parts from suppliers, and assembling the final product.	https://medium.com/self-driving-cars/the-automotive-supply-chain-explained-d4e74250106f
Car technology providers	Companies that supply parts or systems directly to OEMs are called Tier 1 suppliers. Tier 2 suppliers supply parts that are integrated into cars, but do not sell directly to OEMs (e.g. computer chip manufacturers). 5G technology suppliers may be either Tier 1 or Tier 2 suppliers, and may include CAM service and HD map providers.	https://medium.com/self-driving-cars/the-automotive-supply-chain-explained-d4e74250106f
Automotive services	Any type of services provided in relation with the automotive sector e.g. insurance, driver assistance, security on content delivery, etc.	
Broadcasting & Media	Broadcasting is the distribution of audio or video content to a dispersed audience via any electronic mass communications medium, but typically one using the electromagnetic spectrum (radio waves), in a one-to-many model.	https://en.wikipedia.org/wiki/Broadcasting

Term	Definition	References
Studios	A studio is an artist or worker's workroom. This can be for the purpose of acting, architecture, painting, pottery (ceramics), sculpture, origami, woodworking, scrapbooking, photography, graphic design, filmmaking, animation, industrial design, radio or television production broadcasting or the making of music.	https://en.wikipedia.org/wiki/Studio
Broadcasters	A broadcasting organization, one responsible for audio and video content and/or their transmission. The European Broadcasting Union (EBU; French: Union européenne de radio-télévision, UER; German: Europäische Rundfunkunion, ERU) is an alliance of public service media organisations, established on 12 February 1950. The organisation is made up of 116 member organisations in 56 countries,[2] and 34 associate members from a further 21 countries.	https://en.wikipedia.org/wiki/European_Broadcasting_Union
Content providers	A service provider (SP) provides organizations with consulting, legal, real estate, communications, storage, processing. Although a service provider can be an organizational sub-unit, it is usually a third party or outsourced supplier, including telecommunications service providers (TSPs), application service providers (ASPs), storage service providers (SSPs), and internet service providers (ISPs).	https://en.wikipedia.org/wiki/Service_provider
Satellite and cable providers	Cable television is a system of delivering television programming to consumers via radio frequency (RF) signals transmitted through coaxial cables, or in more recent systems, light pulses through fiber-optic cables.	https://en.wikipedia.org/wiki/Cable_television
Media service providers	Satellite television is a service that delivers television programming to viewers by relaying it from a communications satellite orbiting the Earth directly to the viewer's location.	https://en.wikipedia.org/wiki/Satellite_television
Consumers	Streaming media is multimedia that is constantly received by and presented to an end-user while being delivered by a provider. The verb "to stream" refers to the process of delivering or obtaining media in this manner;[clarification needed] the term refers to the delivery method of the medium, rather than the medium itself, and is an alternative to file downloading, a process in which the end-user obtains the entire file for the content before watching or listening to it.	https://en.wikipedia.org/wiki/Streaming_media
Citizens	A consumer is one that buys good for consumption and not for resale or commercial purpose. The consumer is an individual who pays some amount of money for the thing required to consume goods and services.	https://en.wikipedia.org/wiki/Consumer
Energy	The electric power industry covers the generation, transmission, distribution and sale of electric power to the general public and industry.	https://en.wikipedia.org/wiki/Electric_power_industry
Power companies	Electric power companies own the whole infrastructure from generating stations to transmission and distribution infrastructure.	https://en.wikipedia.org/wiki/Electric_power_industry
Utilities	An electric utility is a company in the electric power industry (often a public utility) that engages in	https://en.wikipedia.org/wiki/Electric_utilit

Term	Definition	References
	electricity generation and distribution of electricity for sale generally in a regulated market. The electrical utility industry is a major provider of energy in most countries.	y
Large users (manufacturers, cities, data centres…)	Large electric power users are roughly divided into three categories. The residential sector includes single-family homes and multi-family housing and generally accounts for as much as a third of overall consumption, although the individual users are not classified as large users. The commercial sector includes government facilities, service-providing facilities and equipment, and other public and private organizations including cities. It also accounts for a third of overall consumption and includes large users. Industrial customers' facilities and equipment use electricity for processing, producing, or assembling goods, including such diverse industries as manufacturing, mining, agriculture, and construction. Generally, more than half of the electricity used in manufacturing goes to powering various motors (machine drive). Data centres are large users and often site their facilities near sources of energy such as hydroelectric facilities or wind-powered generation facilities.	https://www.epa.gov/energy/electricity-customers
Smart grid operators	Smart grid technology provides the means for grid operators to match up supply and demand at a local level. With the development of decentralised generation from wind and solar this flexible approach can reduce the need for network infrastructure to move power around the system and for backup generation capacity.	https://www.regen.co.uk/smart-grids-and-the-role-of-the-dso/
Factories of the future	The Factory of the Future has an evolving definition, including different names such as Smart Manufacturing, Industry 4.0 or the Digital Enterprise. While the terms vary, some elements are always in common: it is the product of fast-changing disruptive technologies, whereby information technology and operational technology are both introducing drastic innovations.	https://www.industryweek.com/technology-and-iiot/emerging-technologies/article/21972483/preparing-for-the-factory-of-the-future
Manufacturers	Manufacturing is the production of products for use or sale using labor and machines, tools, chemical or biological processing or formulation and is the essence of secondary industry. The term may refer to a range of human activity from handicraft to high tech but is most commonly applied to industrial design, in which raw materials from primary industry are transformed into finished goods on a large scale.	https://en.wikipedia.org/wiki/Manufacturing
IoT technology providers	The definition of the Internet of Things has evolved due to the convergence of multiple technologies, real-time analytics, machine learning, commodity sensors, and embedded systems. IoT technology providers operate in the traditional fields of embedded systems, wireless sensor networks, control systems, automation (including home and building automation), and a growing list of other fields.	https://en.wikipedia.org/wiki/Internet_of_things
Robotics	Robotics is an interdisciplinary branch of engineering and science that includes mechanical engineering, electronic engineering, information engineering, computer science, and others. Robotics involves design, construction, operation, and use of robots, as well as computer systems for their	https://en.wikipedia.org/wiki/Robotics

Term	Definition	References
	perception, control, sensory feedback, and information processing.	
Healthcare	The maintenance or improvement of health via the prevention, diagnosis, treatment, recovery, or cure of disease, illness, injury, and other physical and mental impairments in people.	https://en.wikipedia.org/wiki/Health_care
Health companies/industry	Businesses that provide medical services, manufacture medical equipment or drugs, provide medical insurance, or otherwise facilitate the provision of healthcare to patients.	https://www.investopedia.com/terms/h/health_care_sector.asp
Emergency services	Primary emergency services are police, fire and emergency medical services (EMS). Core services are provided by a government department (e.g. law enforcement agency, Ministry of Interior) or private body. Also referred to as First Responders.	https://en.wikipedia.org/wiki/Emergency_service
Insurance companies	A company that provides and sells insurance as a form of risk management. The entity providing insurance is known as an insurer, insurance company, insurance carrier or underwriter. A person or entity who buys insurance is known as an insured or as a policyholder.	https://en.wikipedia.org/wiki/Insurance
Medical research facilities	A designated medical facility, also known as a clinical research centre or general clinical research centre (GCRC) conducting clinical research and performing clinical trials of medical procedures, including a hospital.	https://en.wikipedia.org/wiki/Clinical_research_center
State health providers	Publicly funded healthcare system, e.g. hospitals, doctors' surgeries. Services are funded through taxation typically based on the principles that services should be comprehensive, universal and free at the point of delivery.	https://en.wikipedia.org/wiki/National_Health_Service
Private health providers	Any entity providing a health service against private payments or long-term care policy, not limited by insurance restrictions or requirements. Services can be provided in a patient's home, skilled nursing or rehab facility or hospital.	https://en.wikipedia.org/wiki/Private_health_services_plan
Supply chain partners	Companies that manufacture or provide medical goods, devices, and services to public or private healthcare providers.	
Public safety	A function of governments that ensures the protection of citizens, persons in their territory, organizations, and institutions against threats to their well-being and to the prosperity of their communities.	https://en.wikipedia.org/wiki/Public_security
Police	A constituted body of persons empowered by a state to enforce the law, to ensure the safety, health and possessions of citizens, and to prevent crime and civil disorder.	https://en.wikipedia.org/wiki/Police
Rescue and fire departments	A fire and rescue authority is a statutory body made up of a committee of local councillors which oversees the policy and service delivery of a fire and rescue service.	https://en.wikipedia.org/wiki/Fire_authority

Term	Definition	References
Emergency medical	Ambulance services or paramedic services, are emergency services which treat illnesses and injuries that require an urgent medical response, providing out-of-hospital treatment and transport to definitive care. Services involve professionals and equipment (ambulances, medical equipment, network devices).	https://en.wikipedia.org/wiki/Emergency_medical_services
Professionals	Typically, paramedics and other professionals known as emergency squad, rescue squad, ambulance squad.	https://en.wikipedia.org/wiki/Emergency_medical_services
Army	A fighting force that fights primarily on land. In the broadest sense, it is the land-based military branch, service branch or armed service of a nation or state. It may also include aviation an army aviation component.	https://en.wikipedia.org/wiki/Army
Hospital	A health care institution providing patient treatment with specialized medical and nursing staff and medical equipment. The best-known type of hospital is the general hospital, which typically has an emergency department to treat urgent health problems ranging from fire and accident victims to a sudden illness.	https://en.wikipedia.org/wiki/Hospital
Ambulance	A medically equipped vehicle which transports patients to treatment facilities, such as hospitals. In some instances, out-of-hospital medical care is provided to the patient.	https://en.wikipedia.org/wiki/Ambulance
Drone industry e.g. u-space information providers, manufacturers, drone-based service providers, UTM)	Emerging markets for drone technologies include agriculture, oil/gas, real estate, government, transportation, entertainment and media, telecommunications, and mining. Strong global investment, new business use cases, and potential regulatory changes are increasing the revenue and profit opportunities for manufacturers, solution providers, distributors, operators, and other drone-related professionals.	https://www.comptia.org/content/research/drone-industry-trends-analysis
Smart cities	A smart city is a city performing well in 6 characteristics, built on the "smart" combination of endowments and activities of self-decisive, independent and aware citizens. The 6 characteristics are the following: Smart Economy; Smart Mobility; Smart Governance; Smart Living; Smart People; Smart Environment. A Smart city could use some services and Infrastructures provided by the 5G PPP projects, make these services available to the *developers**.	Giffinger, et.al, 2007
City transport	City transport (also known as public transportation, public transit, or mass transit) is a system of transport, in contrast to private transport, for passengers by group travel systems available for use by the general public, typically managed on a schedule, operated on established routes, and that charge a posted fee for each trip. Examples of city / public transport include city buses, trolleybuses, trams (or light rail) and rapid transit (metro/subway/underground, etc.).	https://en.wikipedia.org/wiki/Public_transport
Smart ports	An automated port that uses nascent technologies such as big data, Internet of Things (IoT), blockchain solutions and other smart technology based methods to improve performance and	https://en.wikipedia.org/wiki/Smart_port

Term	Definition	References
	economic competitiveness. With these technologies, smart ports can also improve environmental sustainability.	
Street lighting	A street light, light pole, lamppost, street lamp, light standard or lamp standard is a raised source of light on the edge of a road or path.	https://en.wikipedia.org/wiki/Street_light
Tourism	People traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure and not less than 24 hours, business and other purposes.	https://en.wikipedia.org/wiki/Tourism
Smart economy	Policies that stimulate innovation and creativity combined with scientific research, superior technology and care for the environment, through the concept of sustainability.	http://www.ipe.ro/RePEc/WorkingPapers/wpconf141113.pdf
Mobility	The movement of humans, animals and goods from one location to another. To be understood within the general concept of transport.	https://en.wikipedia.org/wiki/Transport
Governance	Governance comprises all of the processes of governing – whether undertaken by the government of a state, by a market or by a network, and whether through the laws, norms, power or language of an organized society.	https://en.wikipedia.org/wiki/Governance
Living	Smart Living refers in the context of 5G to connected home environments and associated services such as IoT, virtual personal assistance, smart door locks, smart energy controls, and the like.	https://www.gartner.com/smarterwithgartner/will-5g-boost-the-adoption-of-smart-living/
People and environment	Also known as "intelligent environments". Spaces with embedded systems and information and communication technologies creating interactive spaces that bring computation into the physical world and enhance human experiences with the surroundings in which they live, work and travel.	https://en.wikipedia.org/wiki/Intelligent_environment
Venue and stadium owners/sites	A place or venue for (mostly) outdoor sports, concerts, or other events, consisting of a field, large square or other open space. IT and network technologies are turning these spaces into smart environments to give fans a more captivating experience, gain higher returns on the complex/space used. Smart stadiums use a large number of sensors, cameras and digital signs that connect to wired and wireless networks.	https://enterpriseiotinsights.com/20160822/5g/smart-stadium-tag31-tag99
Drone industry	A nascent market until 2016, this sector is becoming a fully-fledged industry regulated by the FAA. It has a broad range of commercial drone applications, such as agriculture, delivery services, fire and rescue, construction. Drones are also referred to as unmanned aerial vehicles (UAV) or uncrewed vehicles, that is, aircrafts without a human pilot on board, a ground-based controller, and a system of communications between the two.	https://www.businessinsider.com/drone-industry-analysis-market-trends-growth-forecasts?IR=T
Transport and logistics	The movement of humans, animals and goods from one location to another air, land (rail and road),	https://en.wikipedia.org/wiki/Transport

Term	Definition	References
	water, cable, pipeline and space requiring infrastructure, vehicles and operation. Logistics is the management of the flow of things between the point of origin and consumption, including asset tracking across diverse transport modes.	https://en.wikipedia.org/wiki/Logistics
Rail	A means of transferring passengers and goods on wheeled vehicles running on rails. Examples include passenger and commuter trains (e.g. suburban and airport shuttle services), freight trains (goods). Future rail use cases enabled by 5G include connected devices, operations, passengers and interventions.	https://en.wikipedia.org/wiki/Rail_transport https://cdn.networkrail.co.uk/wp-content/uploads/2019/05/Enabling-5G-for-the-rail.pdf
Maritime	A means of transport for people (passengers) and goods (cargo) by sea, lakes, canals and rivers across any distance for commercial, recreational or military purposes. 5G-enabled applications include the introduction of smart drones for real-time monitoring, ship-shore communication for vessel traffic management and just-in-time operations, as well as the adoption of autonomous vessels with low latency connectivity for remote operation.	https://en.wikipedia.org/wiki/Maritime_transport https://global5g.org/online-tool-standards-tracker/maritime-technical-viewpoints-5g
Aviation	Aviation or air transport are the activities surrounding mechanical flight and the aircraft industry. Aircraft includes fixed-wing and rotary-wing types, morphable wings, wing-less lifting bodies, as well as lighter-than-air craft such as hot-air balloons and airships. 5G is expected to bring or enhance Connected Ground Support Equipment, Endpoint Data Capture, Outdoor Distributed Antenna Systems.	https://en.wikipedia.org/wiki/Aviation https://www.forbes.com/sites/tmobile/2020/03/05/aviation-in-the-5g-era-seamless-connections-from-ground-crews-to-aircraft/#37445123be6e
Road	Transport mode using roads, such as two-lane local roads with at-grade intersections to controlled-access highways with all cross-traffic grade-separated. Transportation of goods and people takes various forms: automobiles, trucks, vans, coaches/buses, scooters and motorbikes. Common features of modern roads include defined lanes and signage. Stakeholders for 5G include: manufacturers (vehicles), tier-1 suppliers, chipset/communication system providers, mobile operators, infrastructure owners and operators.	https://en.wikipedia.org/wiki/Road_transport https://5gaa.org/
Air carrier companies	A company that provides air transport services for travelling passengers and freight. Airlines use aircraft to supply these services and may form partnerships or alliances with other airlines for codeshare agreements, in which they both offer and operate the same flight.	https://en.wikipedia.org/wiki/Airline
Railway companies	An entity that operates a railroad track or trains. Such a company can either be private or public. Some railway companies operate both the trains and the track, while particularly in European Union, ownership of track and train operation is separated in different companies.	https://en.wikipedia.org/wiki/Railway_company
Road operators	Road Infrastructure Operators: national or regional entities in charge of the deployment operation and maintenance of physical road infrastructure. In some cases, they also have the responsibility of managing road traffic operations, own or operate the toll system, etc. Each European country has its	5G PPP Automotive Working Group White Paper, February 2019, https://bscw.5g-ppp.eu/pub/bscw.cgi/d293672/5G%20PPP%20Automotive%20WG_White%20Paper_

Term	Definition	References
	own regulation about road infrastructures. Some of them are operated by public entities, while others are operated by private companies, which may be partially owned by local governments.	Feb2019.pdf