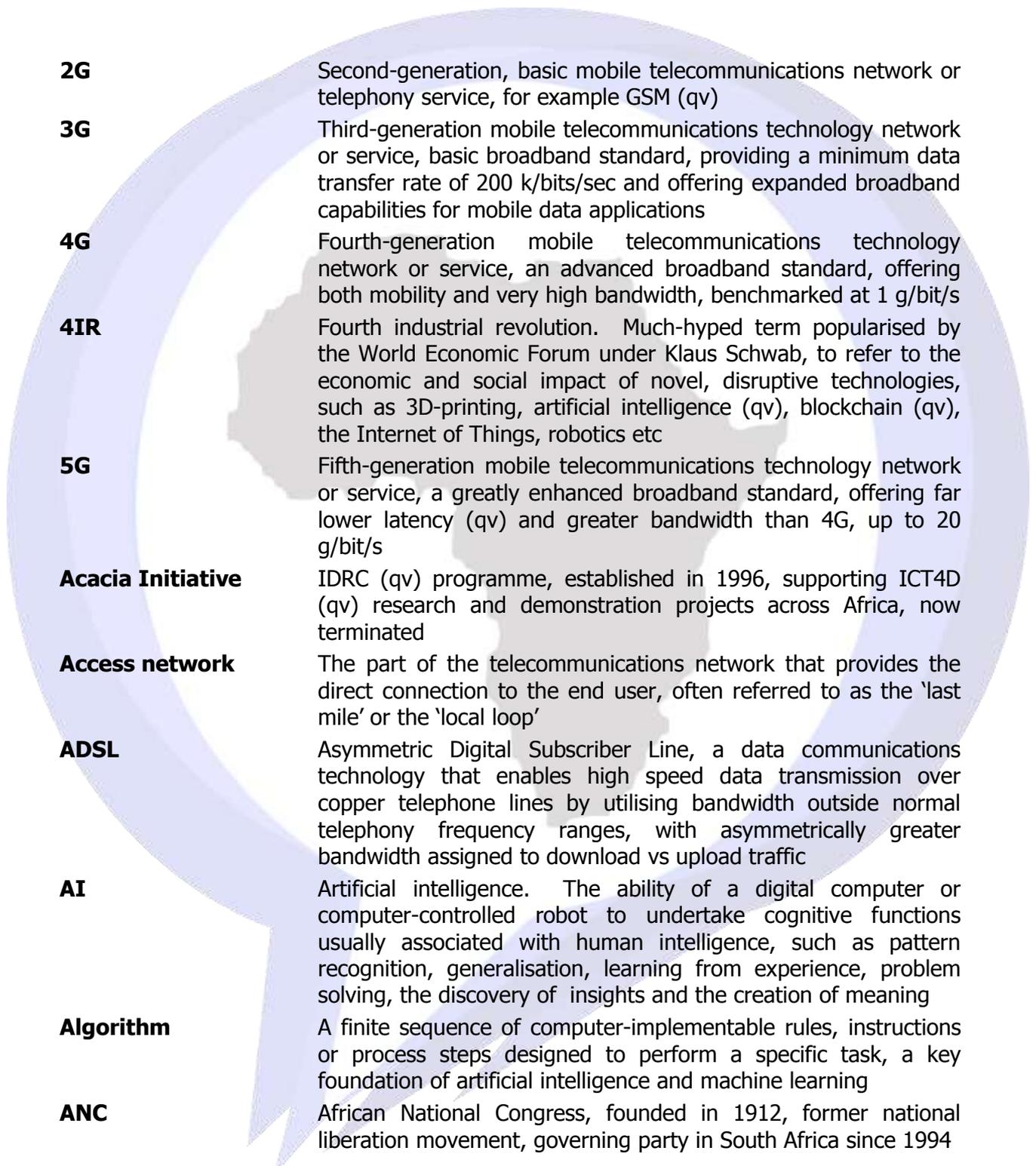


# ICT Glossary

## of Acronyms, Abbreviations and Terminology<sup>1</sup>



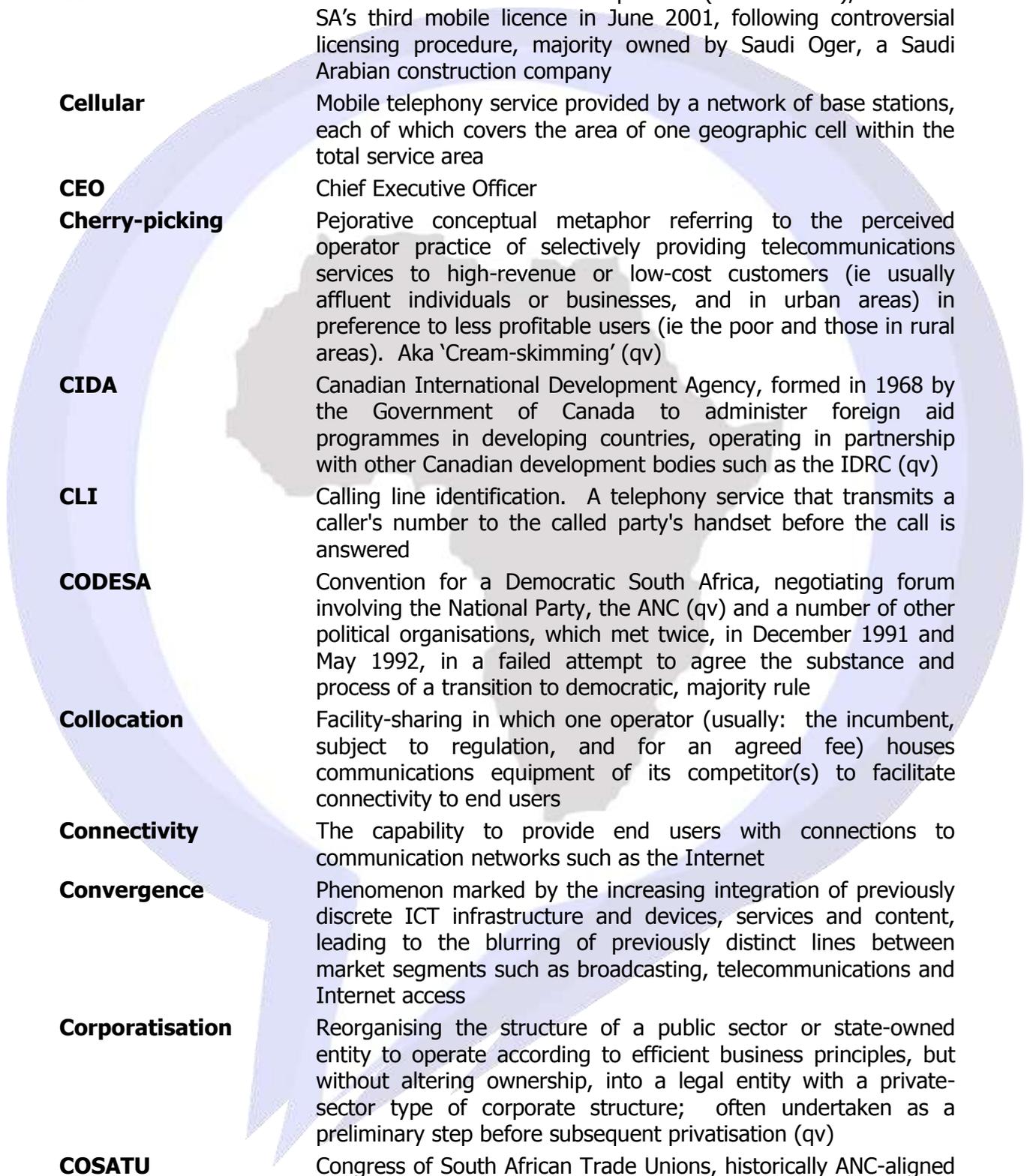
<b>2G</b>	Second-generation, basic mobile telecommunications network or telephony service, for example GSM (qv)
<b>3G</b>	Third-generation mobile telecommunications technology network or service, basic broadband standard, providing a minimum data transfer rate of 200 k/bits/sec and offering expanded broadband capabilities for mobile data applications
<b>4G</b>	Fourth-generation mobile telecommunications technology network or service, an advanced broadband standard, offering both mobility and very high bandwidth, benchmarked at 1 g/bit/s
<b>4IR</b>	Fourth industrial revolution. Much-hyped term popularised by the World Economic Forum under Klaus Schwab, to refer to the economic and social impact of novel, disruptive technologies, such as 3D-printing, artificial intelligence (qv), blockchain (qv), the Internet of Things, robotics etc
<b>5G</b>	Fifth-generation mobile telecommunications technology network or service, a greatly enhanced broadband standard, offering far lower latency (qv) and greater bandwidth than 4G, up to 20 g/bit/s
<b>Acacia Initiative</b>	IDRC (qv) programme, established in 1996, supporting ICT4D (qv) research and demonstration projects across Africa, now terminated
<b>Access network</b>	The part of the telecommunications network that provides the direct connection to the end user, often referred to as the 'last mile' or the 'local loop'
<b>ADSL</b>	Asymmetric Digital Subscriber Line, a data communications technology that enables high speed data transmission over copper telephone lines by utilising bandwidth outside normal telephony frequency ranges, with asymmetrically greater bandwidth assigned to download vs upload traffic
<b>AI</b>	Artificial intelligence. The ability of a digital computer or computer-controlled robot to undertake cognitive functions usually associated with human intelligence, such as pattern recognition, generalisation, learning from experience, problem solving, the discovery of insights and the creation of meaning
<b>Algorithm</b>	A finite sequence of computer-implementable rules, instructions or process steps designed to perform a specific task, a key foundation of artificial intelligence and machine learning
<b>ANC</b>	African National Congress, founded in 1912, former national liberation movement, governing party in South Africa since 1994

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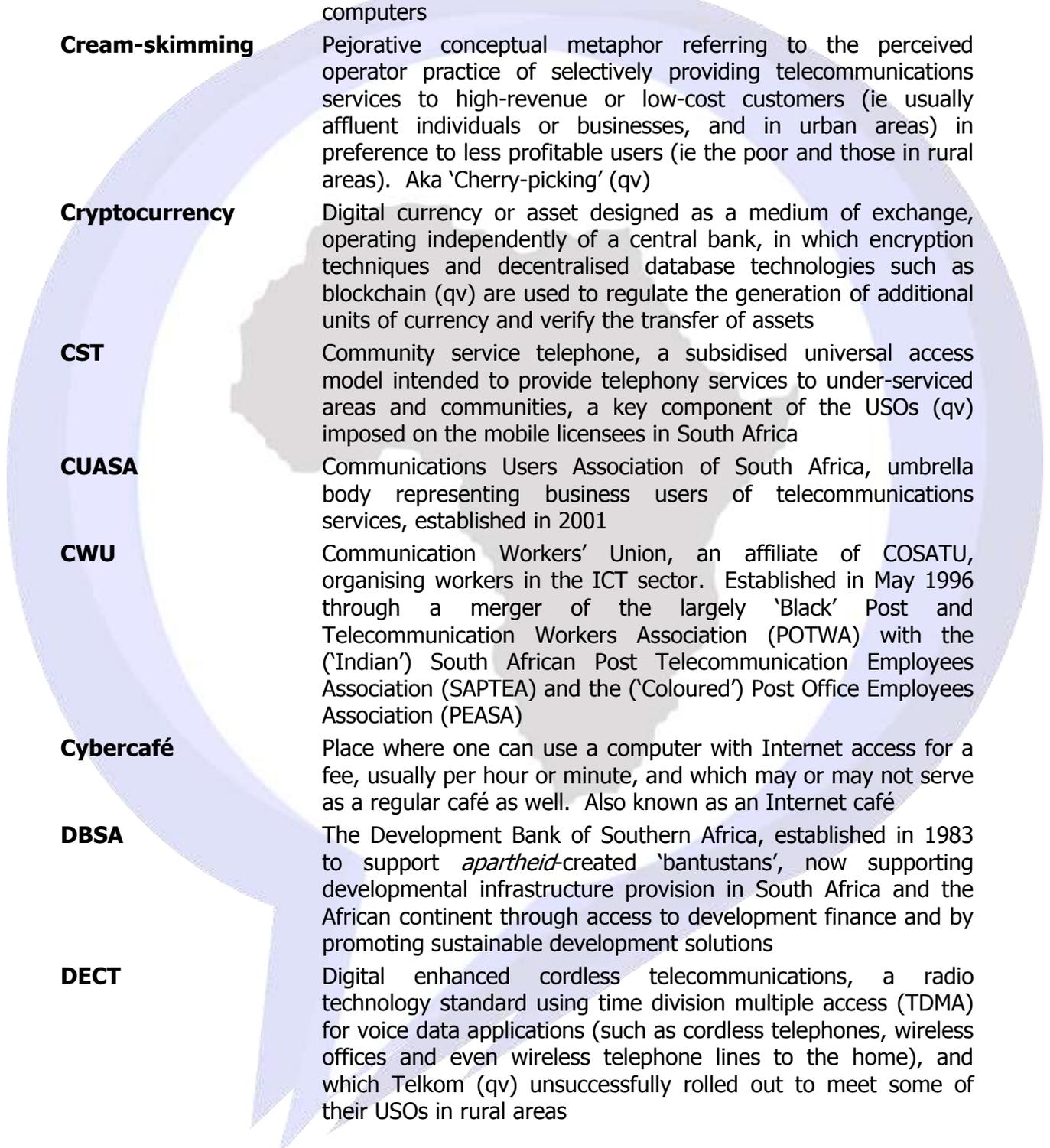
<sup>1</sup> This Glossary has been developed and compiled by the author during the course of an extensive academic teaching career. The definitions presented here are either original, or derive from multiple sources: considered, condensed, combined, reworked and rewritten. As such, citation of individual entries is impossible. In any event, many of the existing glossaries and dictionaries plagiarise each other. Readers looking for more in-depth information on any of the entries covered here, are referred to Wikipedia, which contains much useful additional information.

<b>Apartheid</b>	System of racial segregation in South Africa, enforced through legislation by the ruling National Party (1948 – 1994), severely curtailing the freedoms, rights and movements of the majority 'blacks', 'coloureds' and 'Indians' in order to maintain 'white' minority rule
<b>ARPU</b>	Average revenue per user, revenue benchmark commonly used in mobile communication services, derived by dividing total revenue earned by the number of subscribers, typically per year or month
<b>ASGISA</b>	Accelerated and Shared Growth Initiative for South Africa, macro-economic policy adopted by ANC in 2006, replacing GEAR (qv)
<b>Asymmetric regulation</b>	Application of differential regulatory requirements to different regulated entities, usually based on their levels of market power or market share or differing USOs (qv)
<b>AT&amp;T</b>	American multinational telecommunications company, headquartered in Dallas, Texas, with roots in American Telephone & Telegraph Corporation (founded 1885), part of the Bell stable of companies
<b>ATF</b>	African Telecommunications Forum, established in 1993 as a 'black' economic empowerment consortium in the sector, succeeded by SACF (qv)
<b>ATU</b>	African Telecommunications Union, successor since 1999 to PATU (qv), specialised agency of the African Union focused on ICTs, with 46 member states, and 16 associate members (mostly operators)
<b>AU</b>	African Union. Established in 2002, as a continental union, successor to the OAU (qv), it aims to promote, <i>inter alia</i> , unity, solidarity, political and social-economic integration and development, human rights, peace and security
<b>Backbone</b>	The core part of a telecommunications network that handles the major voice and data traffic of a country
<b>Backhaul</b>	High-capacity fixed or wireless connectivity dedicated to the transport of aggregate communication signals from base stations to the core network
<b>Bandwidth</b>	The range of frequencies available to be occupied by signals, usually measured in bits per second (bit/s). The higher the bandwidth, the faster the data transfer rate and hence the greater amount of information that can be transmitted in a given time
<b>Bantustan</b>	Territory set aside under the policy of <i>apartheid</i> (qv) for 'black' South Africans on the basis of ethnic homogeneity, thus often non-contiguous, in an attempt to create 'autonomous' nation states in order to preserve 'white' minority rule in the rest of South Africa
<b>Base station</b>	A radio transmitter / receiver and antenna used in the mobile cellular network, which maintains communications with handsets etc within a given cell and which transmits traffic to other components of the network

<b>Basic service</b>	The provision and carriage of voice telephony service, although some definitions also include telex and telegraph services
<b>BBBEE / BEE</b>	Broad-based Black Economic Empowerment. SA government policy aimed at increasing wealth and participation in the economy by groups historically disadvantaged under <i>apartheid</i> (qv)
<b>BEREC</b>	Body of European Regulators for Electronic Communications, established by the European Parliament in 2009, replacing ERG (qv)
<b>Best effort</b>	Traffic delivery standard in which the network exerts its best effort to ensure that the traffic is delivered, but provides no guarantee that all traffic will be delivered
<b>Blockchain</b>	A decentralized digital ledger, public or private, distributed across many computers, that is used to record transactions so that any individual record cannot be altered retroactively, without the alteration of all subsequent blocks, usually in respect of cryptocurrency (qv)
<b>BMI-T</b>	BMI TechKnowledge, prominent ICT research and consultancy firm (South Africa)
<b>Broadband</b>	High capacity Internet access, usually 1 M/bit/s in one or both directions, or as defined by the regulatory authorities from time to time, using a range of technologies such as 3G (qv), 4G (qv), ADSL (qv), CDMA (qv), FTTH (qv), HSPA (qv), LTE (qv), WiMax (qv) etc
<b>BS</b>	Broadcasting Service, a category of electronic communications service and licence as defined in the ECA (qv)
<b>BSS</b>	Business Support Systems. IT systems used by telecommunications operators to manage customer-facing business operations, including product and customer management, orders and billing
<b>BT</b>	British Telecom (United Kingdom), incumbent fixed-line operator, privatised in 1984
<b>Bypass</b>	Telephony calling arrangement whereby a customer can access long-distance, international, or other services without using the local (monopoly or incumbent) operator's switched network, in order to take advantage of cheaper traffic routing
<b>Callback</b>	Telephony calling arrangement where the originator of a telephone call is immediately called back via a second responding call, usually to take advantage of cheaper traffic routing
<b>Carrier Pre-select</b>	Process whereby a telephony subscriber whose line is maintained by one company, usually a former monopoly incumbent provider, can choose to have some of their calls automatically routed across a different telephone company's network
<b>CDMA</b>	Code division multiple access, a technology for digital transmission of radio signals, based on spread spectrum techniques where each voice or data call uses the whole radio band but is assigned a unique code



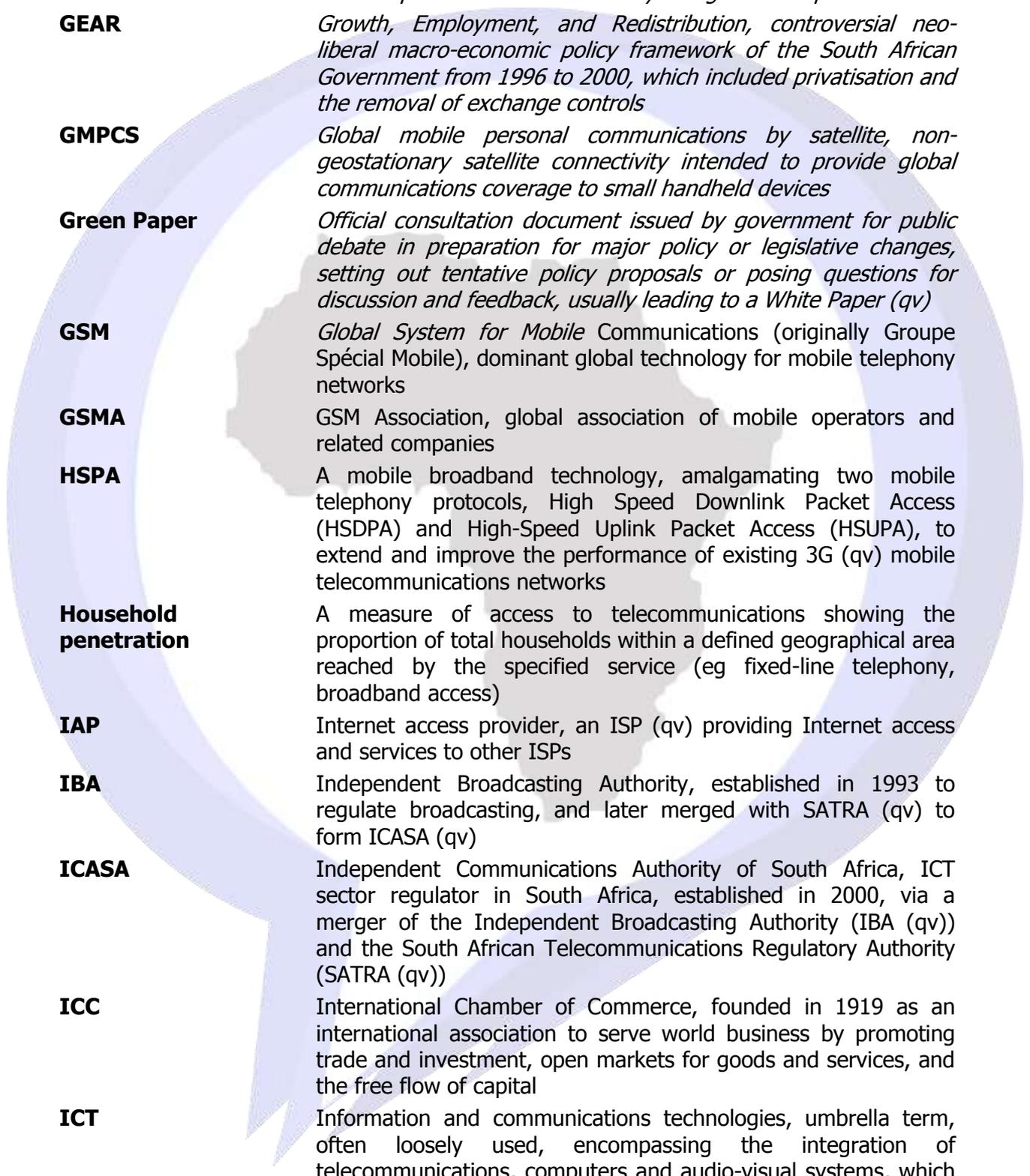
<b>CDITP</b>	Centre for the Development of Information Technology Policy, ANC think tank established in 1991, focusing on ICT sector reform
<b>Cell-C</b>	Mobile telecommunications operator (South Africa), awarded SA's third mobile licence in June 2001, following controversial licensing procedure, majority owned by Saudi Oger, a Saudi Arabian construction company
<b>Cellular</b>	Mobile telephony service provided by a network of base stations, each of which covers the area of one geographic cell within the total service area
<b>CEO</b>	Chief Executive Officer
<b>Cherry-picking</b>	Pejorative conceptual metaphor referring to the perceived operator practice of selectively providing telecommunications services to high-revenue or low-cost customers (ie usually affluent individuals or businesses, and in urban areas) in preference to less profitable users (ie the poor and those in rural areas). Aka 'Cream-skimming' (qv)
<b>CIDA</b>	Canadian International Development Agency, formed in 1968 by the Government of Canada to administer foreign aid programmes in developing countries, operating in partnership with other Canadian development bodies such as the IDRC (qv)
<b>CLI</b>	Calling line identification. A telephony service that transmits a caller's number to the called party's handset before the call is answered
<b>CODESA</b>	Convention for a Democratic South Africa, negotiating forum involving the National Party, the ANC (qv) and a number of other political organisations, which met twice, in December 1991 and May 1992, in a failed attempt to agree the substance and process of a transition to democratic, majority rule
<b>Collocation</b>	Facility-sharing in which one operator (usually: the incumbent, subject to regulation, and for an agreed fee) houses communications equipment of its competitor(s) to facilitate connectivity to end users
<b>Connectivity</b>	The capability to provide end users with connections to communication networks such as the Internet
<b>Convergence</b>	Phenomenon marked by the increasing integration of previously discrete ICT infrastructure and devices, services and content, leading to the blurring of previously distinct lines between market segments such as broadcasting, telecommunications and Internet access
<b>Corporatisation</b>	Reorganising the structure of a public sector or state-owned entity to operate according to efficient business principles, but without altering ownership, into a legal entity with a private-sector type of corporate structure; often undertaken as a preliminary step before subsequent privatisation (qv)
<b>COSATU</b>	Congress of South African Trade Unions, historically ANC-aligned trade union federation, founded in 1985



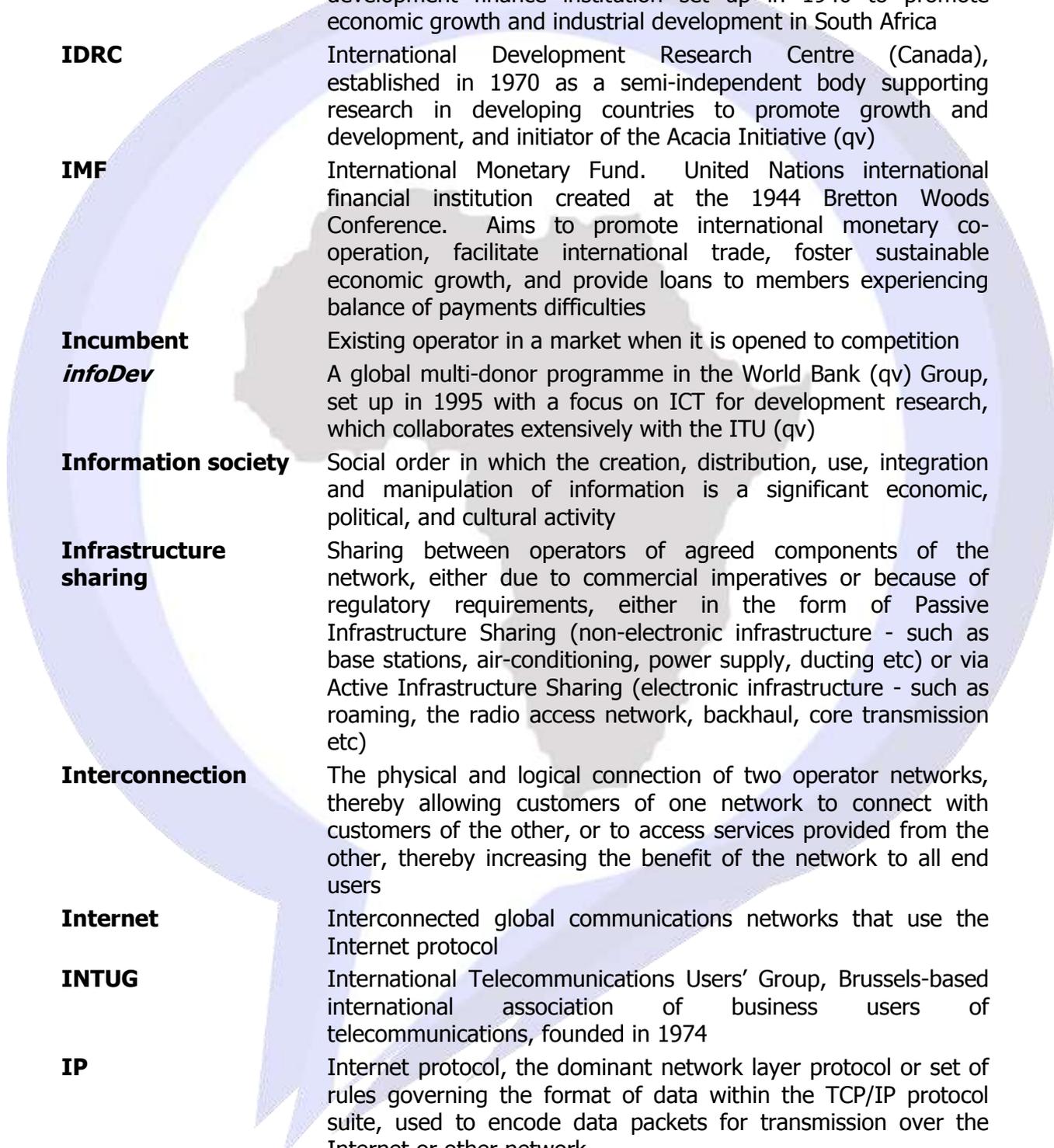
<b>Coverage</b>	The extent of a mobile or wireless network, usually measured in terms of geographic (territorial area) or population coverage, often expressed as a percentage
<b>CPE</b>	Customer premises equipment, end user devices connected to the telecommunications network, such as telephones, handsets, computers
<b>Cream-skimming</b>	Pejorative conceptual metaphor referring to the perceived operator practice of selectively providing telecommunications services to high-revenue or low-cost customers (ie usually affluent individuals or businesses, and in urban areas) in preference to less profitable users (ie the poor and those in rural areas). Aka 'Cherry-picking' (qv)
<b>Cryptocurrency</b>	Digital currency or asset designed as a medium of exchange, operating independently of a central bank, in which encryption techniques and decentralised database technologies such as blockchain (qv) are used to regulate the generation of additional units of currency and verify the transfer of assets
<b>CST</b>	Community service telephone, a subsidised universal access model intended to provide telephony services to under-served areas and communities, a key component of the USOs (qv) imposed on the mobile licensees in South Africa
<b>CUASA</b>	Communications Users Association of South Africa, umbrella body representing business users of telecommunications services, established in 2001
<b>CWU</b>	Communication Workers' Union, an affiliate of COSATU, organising workers in the ICT sector. Established in May 1996 through a merger of the largely 'Black' Post and Telecommunication Workers Association (POTWA) with the ('Indian') South African Post Telecommunication Employees Association (SAPTEA) and the ('Coloured') Post Office Employees Association (PEASA)
<b>Cybercafé</b>	Place where one can use a computer with Internet access for a fee, usually per hour or minute, and which may or may not serve as a regular café as well. Also known as an Internet café
<b>DBSA</b>	The Development Bank of Southern Africa, established in 1983 to support <i>apartheid</i> -created 'bantustans', now supporting developmental infrastructure provision in South Africa and the African continent through access to development finance and by promoting sustainable development solutions
<b>DECT</b>	Digital enhanced cordless telecommunications, a radio technology standard using time division multiple access (TDMA) for voice data applications (such as cordless telephones, wireless offices and even wireless telephone lines to the home), and which Telkom (qv) unsuccessfully rolled out to meet some of their USOs in rural areas

<b>Digital divide</b>	Economic and social inequality between categories of persons in respect of access to, use of, or knowledge of ICTs (qv), usually highlighting disparities according to demographic categories such as wealth, geographic location, race, gender, education etc. The divide between differing countries or regions of the world is referred to as the global digital divide
<b>Digital identity</b>	Digital representation of information held on computer systems about a specific external entity (eg individual, group, organisation, application or device) allowing for authentication and interaction
<b>DoC</b>	Department of Communications, formerly the Department of Posts and Telecommunications, later split into Department of Telecommunications and Postal Services (DTPS) and Department of Communications (DoC) in May 2014
<b>Dominance</b>	Regulatory classification of an operator that has the largest market share in a given market segment or that is otherwise able to exercise significant market power in the same or other market segments
<b>dti</b>	Department of Trade and Industry (South Africa), government department responsible commercial and industrial policy, and its implementation
<b>DTPS</b>	See DoC (qv)
<b>e-rate</b>	The provision of discounted rates to eligible educational institutions to fund access to telecommunications, the Internet and related services
<b>EC</b>	European Commission, executive body of the EU (qv), responsible for proposing legislation, implementing decisions, upholding EU treaties and managing the day-to-day business of the EU
<b>ECA</b>	Electronic Communications Act, No 36 of 2005, as amended in 2007 & 2014
<b>ECS</b>	Electronic Communications Service, a category of communications service licence, as defined in the ECA (qv)
<b>ECNS</b>	Electronic Communications Network Service, a category of communications infrastructure licence, as defined in the ECA (qv)
<b>End user</b>	The individual or organisation that originates or is the final recipient of information carried over a communications network (ie the consumer)
<b>EPG</b>	Eminent Persons Group, five-person task team appointed at the end of the 1995 Mount Grace Colloquium to advise and oversee the drafting of the 1996 White Paper and Telecommunications Act to ensure policy consistency with outcomes of the Colloquium
<b>ERG</b>	European Regulators Group, established in 2002 by the European Commission as an umbrella body for regulators of electronic communications networks and services

<b>Essential facilities</b>	Critical network facilities that may act as bottlenecks to national or international connectivity and hence act as a barrier to the provision of telecommunication services
<b>EU</b>	European Union, politico-economic union established in 1993, currently with 28-member states located primarily in Europe
<b>Ex-ante regulation</b>	Regulation which involves setting specific rules or restrictions to prevent anti-competitive or otherwise undesirable market activity by operators before it occurs, or to promote effective function of the network (eg interconnection (qv)), or to achieve socially desirable goals (eg UAS (qv))
<b>Ex-post regulation</b>	Regulation which deals with anti-competitive or undesirable market conduct after transgressions occur, by applying sanctions or corrective measures
<b>Exclusivity</b>	Temporary period of monopoly granted, usually to the incumbent licensee, either to entice investors or in return for achieving rollout targets
<b>FABCOS</b>	Foundation for African Business and Consumer Services, a national association of rural and township small businesses
<b>FCC</b>	Federal Communications Commission (United States of America), independent US regulatory agency for interstate communications, created in 1934
<b>FTTH</b>	Fibre-to-the-home, provision of a high-speed, fibre-optic, Internet connection to provide a broadband (qv) service at household level
<b>Functional separation</b>	Requiring an operator (usually a vertically-integrated dominant operator, such as the incumbent) to establish independently operated business divisions (usually by separating wholesale and retail operations) and to apply non-discriminatory terms of sale (eg timescales, terms and conditions, pricing, QoS (qv)) to all undertakings, including those within the parent company
<b>FWA</b>	Fixed wireless access, a wireless broadband data connection between two fixed locations by means of radio transmission using wireless devices
<b>G-7</b>	Grouping of seven major advanced economies (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States) which meets to discuss primarily economic issues
<b>Gateway</b>	Network node or switch for providing access to another network (which may or may not include protocol conversion). An international gateway interconnects a national telephone network with one or more other international networks, thus providing cross-border connectivity
<b>GATS</b>	General Agreement on Trade in Services, founding treaty of the WTO, extending the multilateral trading system to the service sector, which entered into force in 1995 following the Uruguay Round negotiations
<b>GATT</b>	General Agreement on Tariffs and Trade, a multilateral agreement regulating international trade with effect from January 1948, in lieu of the failure of negotiating governments to create an International Trade Organization (ITO)



<b>GCIS</b>	<i>Government Communication and Information System, government propaganda agency established in 1998</i>
<b>GDP</b>	<i>Gross domestic product, the market value of all final goods and services produced within a country in a given time period</i>
<b>GEAR</b>	<i>Growth, Employment, and Redistribution, controversial neo-liberal macro-economic policy framework of the South African Government from 1996 to 2000, which included privatisation and the removal of exchange controls</i>
<b>GMPCS</b>	<i>Global mobile personal communications by satellite, non-geostationary satellite connectivity intended to provide global communications coverage to small handheld devices</i>
<b>Green Paper</b>	<i>Official consultation document issued by government for public debate in preparation for major policy or legislative changes, setting out tentative policy proposals or posing questions for discussion and feedback, usually leading to a White Paper (qv)</i>
<b>GSM</b>	<i>Global System for Mobile Communications (originally Groupe Spécial Mobile), dominant global technology for mobile telephony networks</i>
<b>GSMA</b>	GSM Association, global association of mobile operators and related companies
<b>HSPA</b>	A mobile broadband technology, amalgamating two mobile telephony protocols, High Speed Downlink Packet Access (HSDPA) and High-Speed Uplink Packet Access (HSUPA), to extend and improve the performance of existing 3G (qv) mobile telecommunications networks
<b>Household penetration</b>	A measure of access to telecommunications showing the proportion of total households within a defined geographical area reached by the specified service (eg fixed-line telephony, broadband access)
<b>IAP</b>	Internet access provider, an ISP (qv) providing Internet access and services to other ISPs
<b>IBA</b>	Independent Broadcasting Authority, established in 1993 to regulate broadcasting, and later merged with SATRA (qv) to form ICASA (qv)
<b>ICASA</b>	Independent Communications Authority of South Africa, ICT sector regulator in South Africa, established in 2000, via a merger of the Independent Broadcasting Authority (IBA (qv)) and the South African Telecommunications Regulatory Authority (SATRA (qv))
<b>ICC</b>	International Chamber of Commerce, founded in 1919 as an international association to serve world business by promoting trade and investment, open markets for goods and services, and the free flow of capital
<b>ICT</b>	Information and communications technologies, umbrella term, often loosely used, encompassing the integration of telecommunications, computers and audio-visual systems, which together enable users to access, store, transmit, and manipulate information

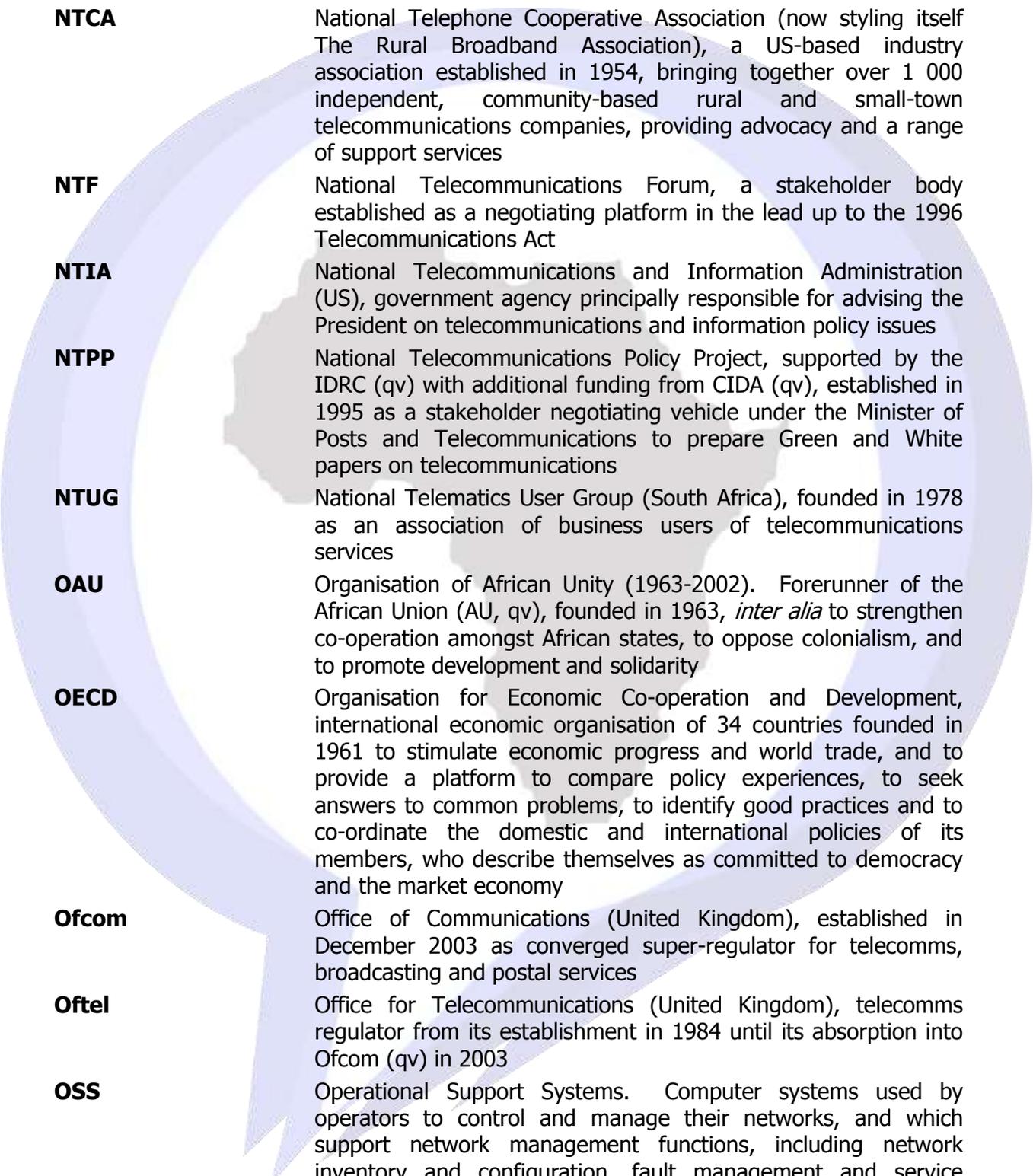


<b>ICT4D</b>	The uses of Information and Communications Technologies as used for Development, including in the fields of socio-economic development (such as community projects, poverty alleviation, agriculture, healthcare, education) and human rights
<b>IDC</b>	Industrial Development Corporation, government-owned national development finance institution set up in 1940 to promote economic growth and industrial development in South Africa
<b>IDRC</b>	International Development Research Centre (Canada), established in 1970 as a semi-independent body supporting research in developing countries to promote growth and development, and initiator of the Acacia Initiative (qv)
<b>IMF</b>	International Monetary Fund. United Nations international financial institution created at the 1944 Bretton Woods Conference. Aims to promote international monetary co-operation, facilitate international trade, foster sustainable economic growth, and provide loans to members experiencing balance of payments difficulties
<b>Incumbent <i>infoDev</i></b>	Existing operator in a market when it is opened to competition A global multi-donor programme in the World Bank (qv) Group, set up in 1995 with a focus on ICT for development research, which collaborates extensively with the ITU (qv)
<b>Information society</b>	Social order in which the creation, distribution, use, integration and manipulation of information is a significant economic, political, and cultural activity
<b>Infrastructure sharing</b>	Sharing between operators of agreed components of the network, either due to commercial imperatives or because of regulatory requirements, either in the form of Passive Infrastructure Sharing (non-electronic infrastructure - such as base stations, air-conditioning, power supply, ducting etc) or via Active Infrastructure Sharing (electronic infrastructure - such as roaming, the radio access network, backhaul, core transmission etc)
<b>Interconnection</b>	The physical and logical connection of two operator networks, thereby allowing customers of one network to connect with customers of the other, or to access services provided from the other, thereby increasing the benefit of the network to all end users
<b>Internet</b>	Interconnected global communications networks that use the Internet protocol
<b>INTUG</b>	International Telecommunications Users' Group, Brussels-based international association of business users of telecommunications, founded in 1974
<b>IP</b>	Internet protocol, the dominant network layer protocol or set of rules governing the format of data within the TCP/IP protocol suite, used to encode data packets for transmission over the Internet or other network

<b>IPO</b>	Initial public offering, process by which shares in a private or state-owned company are listed on the stock market in order to raise capital, and to transform the company into a public company
<b>ISAD</b>	Information Society and Development, conference held in Midrand, South Africa, 13 – 15 May 1996
<b>ISPA</b>	Internet Service Providers' Association, established in 1996 as an association of entities providing Internet infrastructure and services
<b>ISP</b>	Internet Service Provider, company providing end users access to the Internet and to online services such as e-mail
<b>ITRs</b>	International Telecommunications Regulations, binding international treaty, adopted through the ITU (qv) in 1988, covering the definition of international telecommunication services, cooperation between countries, safety of life and priority of telecommunications and charging and accounting principles
<b>ITU</b>	International Telecommunication Union, formed in 1865 as the International Telegraph Union, became in 1947 a specialised agency of the United Nations responsible for issues concerning information and communications technologies
<b>Knowledge economy</b>	System of production and consumption based on intellectual capital, in which economic growth is dependent on the quantity, quality, and accessibility of the information available, rather than on agricultural or industrial production
<b>Latency</b>	Network transmission delay, measuring the length of time for a unit of data to travel across the network from one node or endpoint to another
<b>LDCs</b>	Least developed countries, those countries (currently 48 in number) that, according to the United Nations, exhibit the lowest indicators of socioeconomic development, covering poverty, human resource weakness and economic vulnerability
<b>Leased line</b>	A point-to-point permanently-connected communication channel or circuit rented out by a network operator to an individual subscriber for their exclusive use, usually for telephony, data or Internet services between geographically distant premises. Interconnection between leased lines and the PSTN is not permitted in many jurisdictions.
<b>Least-cost Routing</b>	(LCR) The process of selecting the path of outbound (usually voice) communications traffic specifically in order to reduce cost. Operators do this as a standard business practice; consumers can also do so where carrier pre-select is in operation. The function is also often automated by a device or software program known as a 'Least Cost Router', often installed by businesses on their PABX (qv).
<b>Least auction subsidy</b>	Competitive tender process whereby bidders compete for a licence or project award based on the level of subsidy requested. The bid with the lowest subsidy requirement is scored the best.

<b>Liberalisation</b>	(1) more generally, the relaxation of previous government restrictions affecting the ICT sector, through privatisation of the incumbent operator, the introduction of competition, and the establishment of a national regulatory authority, sometimes also referred to as deregulation; (2) more specifically, the introduction of competition in the ICT sector through licensing additional service providers
<b>Lifeline Tariff</b>	A pricing structure that involves the provision of a free or subsidised block of services, covering basic needs, and aimed at providing support to low-income households
<b>LRIC</b>	Long Run Incremental Costing, a cost modelling methodology often used to determine the price paid by competitors for services provided by an operator with significant market power
<b>LTE</b>	Long Term Evolution, a telephone and mobile broadband communication standard, offering data speeds on the threshold of 4G (qv)
<b>M2M</b>	Machine to machine communication, direct communication between devices without direct human intervention, ranging from industrial instrumentation to IP communication over the mobile network via the Internet of Things (IoT)
<b>Machine learning</b>	xxx
<b>Market efficiency gap</b>	Component of universal access and service model that exhorts policy-makers and regulators to achieve UAS goals by stimulating market forces and removing regulatory blockages
<b>MDDA</b>	Media Development and Diversity Agency, established by Act of Parliament in 2002 to support and fund community media and small commercial media in the interests of the historically disadvantaged and under-served
<b>MDGs</b>	Millennium Development Goals, objectives and targets agreed to by participating countries and the world's leading development institutions at the 2000 Millennium Summit of the United Nations, and set out in the United Nations Millennium Declaration
<b>MERG</b>	Macro-Economic Research Group (South Africa), formed by the ANC in November 1991 as an econometric think tank, but later side-lined
<b>MFN</b>	Most Favoured Nation status, a method of ensuring non-discriminatory treatment amongst members of an international trading entity, such as the WTO, by requiring that the terms of trade of one country do not discriminate against another in favour of a third
<b>MMS</b>	Multimedia Messaging Service, a standard way to send messages that include multimedia content such as images and sound clips to and from mobile phones
<b>mmWave</b>	Millimetre wave. Frequency spectrum from around 24 GHz up to 39 GHz and beyond, so-named wavelength of the signal can be measured in millimetres, used for short-range, high-bandwidth low latency applications

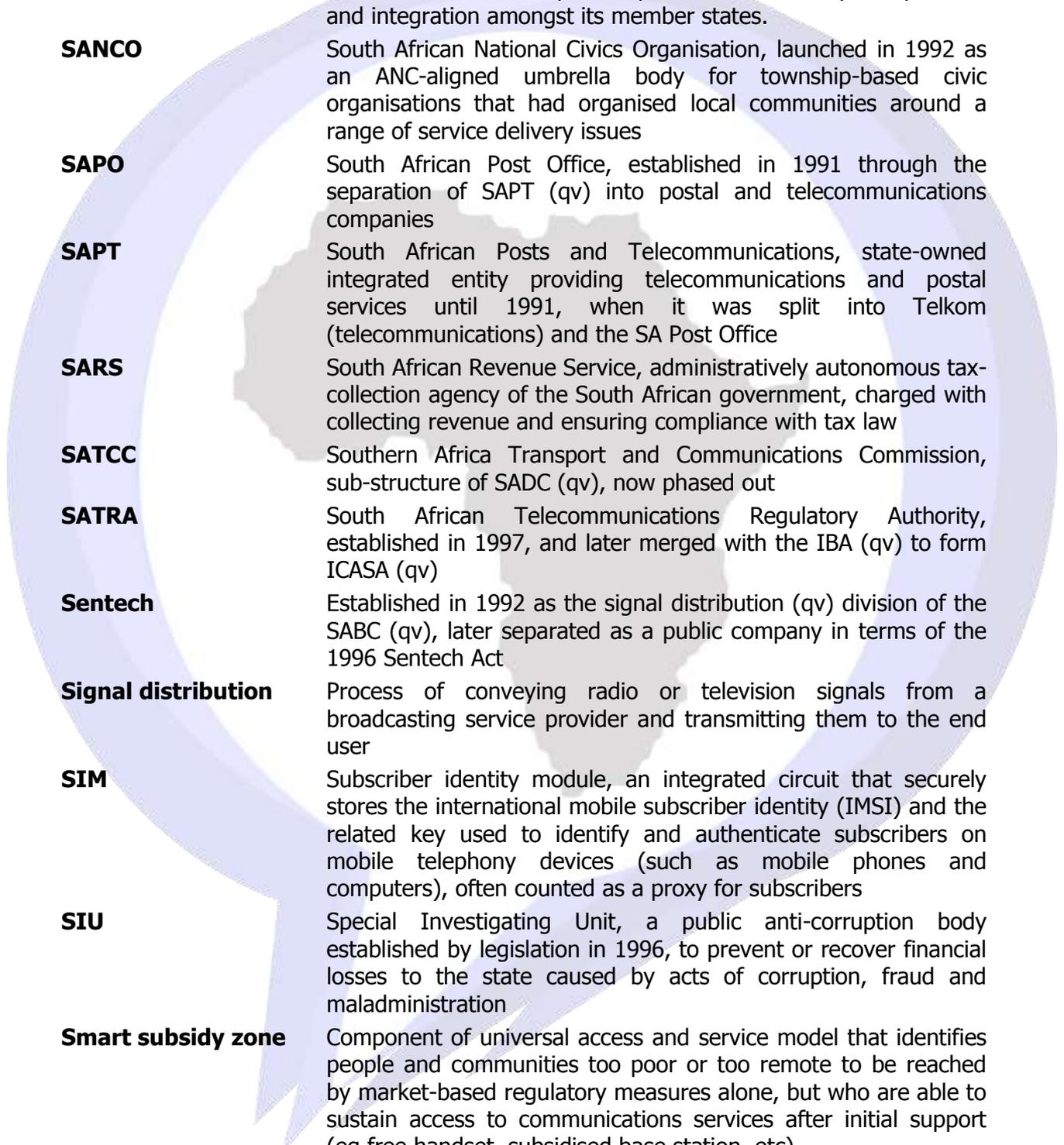
<b>MPCC</b>	Multi-Purpose Community Centre, a telecentre offering a broad range of ICT services, with a political motivation to support the participation and upliftment of a disadvantaged group
<b>MTN</b>	Mobile Telephone Networks, second largest mobile telecommunications operator in South Africa, licensed in 1993. Originally owned by pay-tv provider M-Net and BEE (qv) partners, MTN is now a listed multinational mobile telecommunications company, operating in predominantly in African countries.
<b>MTRs</b>	Mobile termination rates, the fees mobile operators charge other operators to terminate calls on their networks, which are a significant input cost in providing the retail service of fixed-to-mobile and mobile-to-mobile calls
<b>MVNO</b>	Mobile virtual network operator. An MVNO sells mobile phone services without owning its own wireless network infrastructure. It secures bulk access to network services at wholesale rates from an existing mobile network operator, and sets its own retail prices under its own branding.
<b>NABVU</b>	National Association of Business Voice Users (South Africa)
<b>NAFCOC</b>	National African Federated Chamber of Commerce, established in 1964 as an umbrella body for 'black' traders and to promote 'black' business interests
<b>NAIL</b>	New African Investments Limited, founded in the early 1990s by prominent Soweto activist Dr Nthatho Motlana as a vehicle for black economic empowerment, originally main BEE (qv) partner in MTN (qv)
<b>Neo-liberalism</b>	Pejorative term for the 20th-century resurgence of 19th-century ideas associated with laissez-faire economic liberalism, sometimes referred to as the 'Washington Consensus', including privatisation (qv), fiscal discipline, deregulation, free trade, reducing the role of government in the economy and society
<b>NeoTel</b>	Second fixed-line telecommunications operator in South Africa, licensed in 2005, now majority owned by Liquid Telecom (Zimbabwe)
<b>NGN</b>	Next-generation Network, a broad term for body of key architectural and technological changes in telecommunications access and core networks to provide packet-switched (usually using the Internet protocol), high-bandwidth, quality-of-service enabled, converged services, natively encompassing voice, data and additional media such as video
<b>Non-discrimination</b>	Condition requiring an operator not to apply less favourable technical and commercial conditions on any competitor than what it would apply to itself, its subsidiaries or its affiliates, in the delivery of services
<b>NITF</b>	National Information Technology Forum, a stakeholder body established to discuss information society issues leading up to the 1996 ISAD Conference



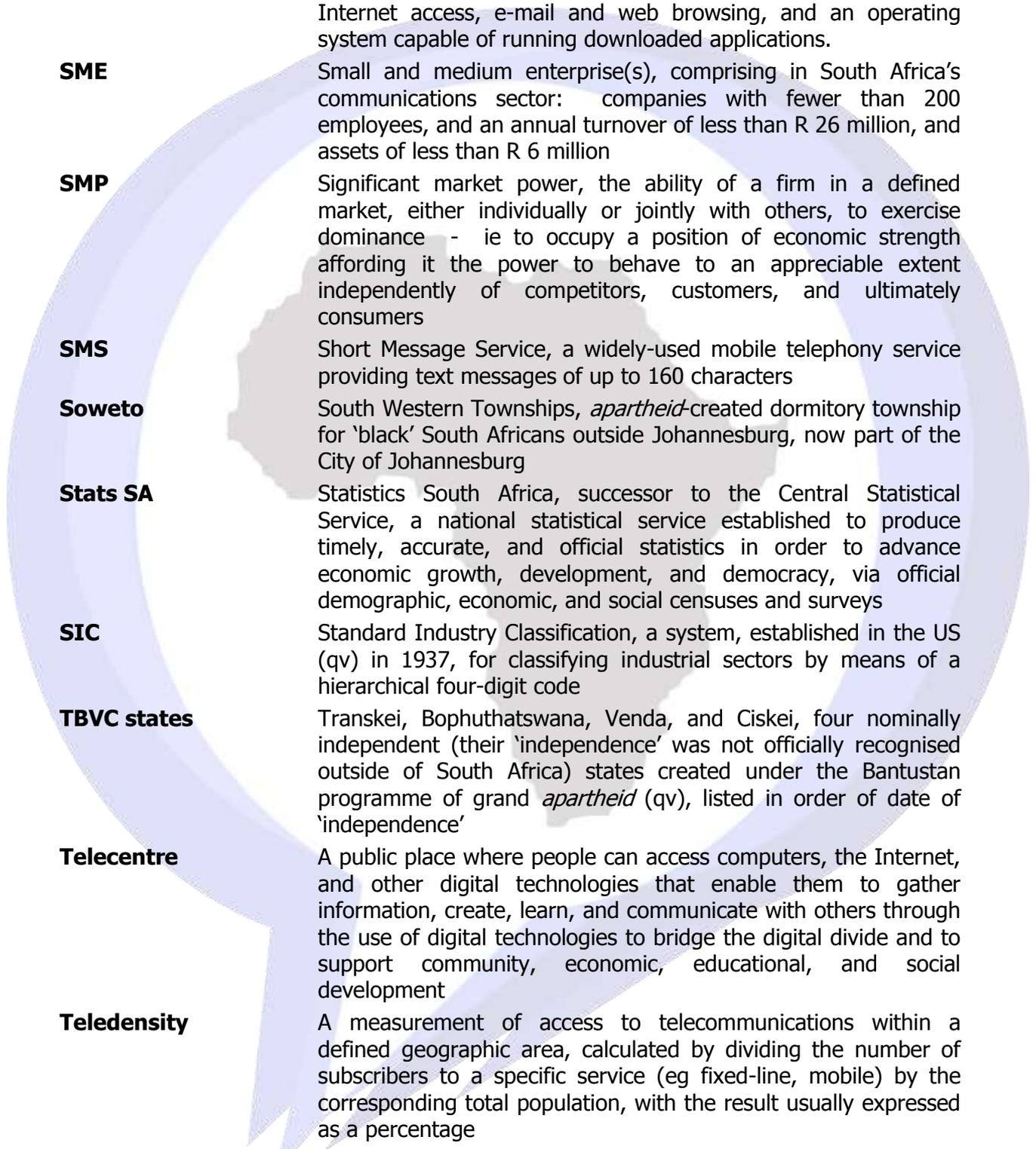
<b>NRF</b>	National Revenue Fund, Treasury account specified in the Constitution, into which all money received by the national government must be paid, unless reasonably otherwise specified by legislation
<b>NTCA</b>	National Telephone Cooperative Association (now styling itself The Rural Broadband Association), a US-based industry association established in 1954, bringing together over 1 000 independent, community-based rural and small-town telecommunications companies, providing advocacy and a range of support services
<b>NTF</b>	National Telecommunications Forum, a stakeholder body established as a negotiating platform in the lead up to the 1996 Telecommunications Act
<b>NTIA</b>	National Telecommunications and Information Administration (US), government agency principally responsible for advising the President on telecommunications and information policy issues
<b>NTPP</b>	National Telecommunications Policy Project, supported by the IDRC (qv) with additional funding from CIDA (qv), established in 1995 as a stakeholder negotiating vehicle under the Minister of Posts and Telecommunications to prepare Green and White papers on telecommunications
<b>NTUG</b>	National Telematics User Group (South Africa), founded in 1978 as an association of business users of telecommunications services
<b>OAU</b>	Organisation of African Unity (1963-2002). Forerunner of the African Union (AU, qv), founded in 1963, <i>inter alia</i> to strengthen co-operation amongst African states, to oppose colonialism, and to promote development and solidarity
<b>OECD</b>	Organisation for Economic Co-operation and Development, international economic organisation of 34 countries founded in 1961 to stimulate economic progress and world trade, and to provide a platform to compare policy experiences, to seek answers to common problems, to identify good practices and to co-ordinate the domestic and international policies of its members, who describe themselves as committed to democracy and the market economy
<b>Ofcom</b>	Office of Communications (United Kingdom), established in December 2003 as converged super-regulator for telecomms, broadcasting and postal services
<b>Oftel</b>	Office for Telecommunications (United Kingdom), telecomms regulator from its establishment in 1984 until its absorption into Ofcom (qv) in 2003
<b>OSS</b>	Operational Support Systems. Computer systems used by operators to control and manage their networks, and which support network management functions, including network inventory and configuration, fault management and service provisioning
<b>Packet</b>	Block or grouping of data that is treated as a single unit for transmission within a communications network

<b>PABX</b>	Private automatic branch exchange, automatic telephone switching system within a private enterprise, which provides internal telephone connectivity, and which connects externally to the PSTN (qv)
<b>PATU</b>	Pan-African Telecommunications Union, established in 1977 as a specialised agency of the Organisation of African Unity (OAU, qv) focused on telecommunications, succeeded in 1999 by ATU (qv)
<b>Pay or Play</b>	Mechanism whereby licensees may opt to fulfil their USOs (qv) either through implementation of approved universal access and service projects or via contributions to agreed financial mechanisms such as the USF (qv)
<b>PAYE</b>	Pay as you earn income tax
<b>PIT</b>	Public Information Terminal, a self-service, Internet-connected kiosk, developed jointly by the DoC (qv) and SAPO (qv) in 1998, connected to the Internet, pre-loaded with local government information, and rolled out in Post Offices country-wide
<b>PNC-ISAD</b>	Presidential National Commission on the Information Society and Development, established in 2001 by President Thabo Mbeki to make recommendations on how ICTs (qv) can be developed and used to accelerate South Africa's development programmes
<b>POTWA</b>	Posts and Telecommunications Workers' Association, COSATU-aligned trade union, organising mainly 'Black' workers at SAPT (qv) to oppose racism in the workplace. Founded in Soweto on 1 August 1986, it later merged with the ('Indian') South African Post Telecommunication Employees Association (SAPTEA) and the ('Coloured') Post Office Employees Association (PEASA) to form the Communication Workers' Union (CWU)
<b>Privatisation</b>	Process of transferring ownership or control of a telecommunications or other enterprise, partially or fully, from the public sector (state ownership) to the private sector, either through the sale of an equity stake (asset sale privatisation) or by issuing shares on the stock exchange (share issue privatisation), or both. One of the core principles of neo-liberalism (qv).
<b>PSTN</b>	Public switched telephone network, aggregates the world's circuit-switched telephone networks operated by national, regional, or local telephony (qv) operators, providing infrastructure and services for public telecommunication. Includes telephone lines, fibre optic cables, microwave transmission links, cellular networks, communications satellites, and undersea telephone cables, all interconnected via switching centres
<b>PSTS</b>	Public switched telephone service, telephony service provided over the PSTN (qv)
<b>PTN</b>	Private telecommunications network, a network based on leased lines or other telecommunications facilities, which are used to provide connectivity and services within an organisation or closed user group as a complement or a substitute to the PSTN (qv)

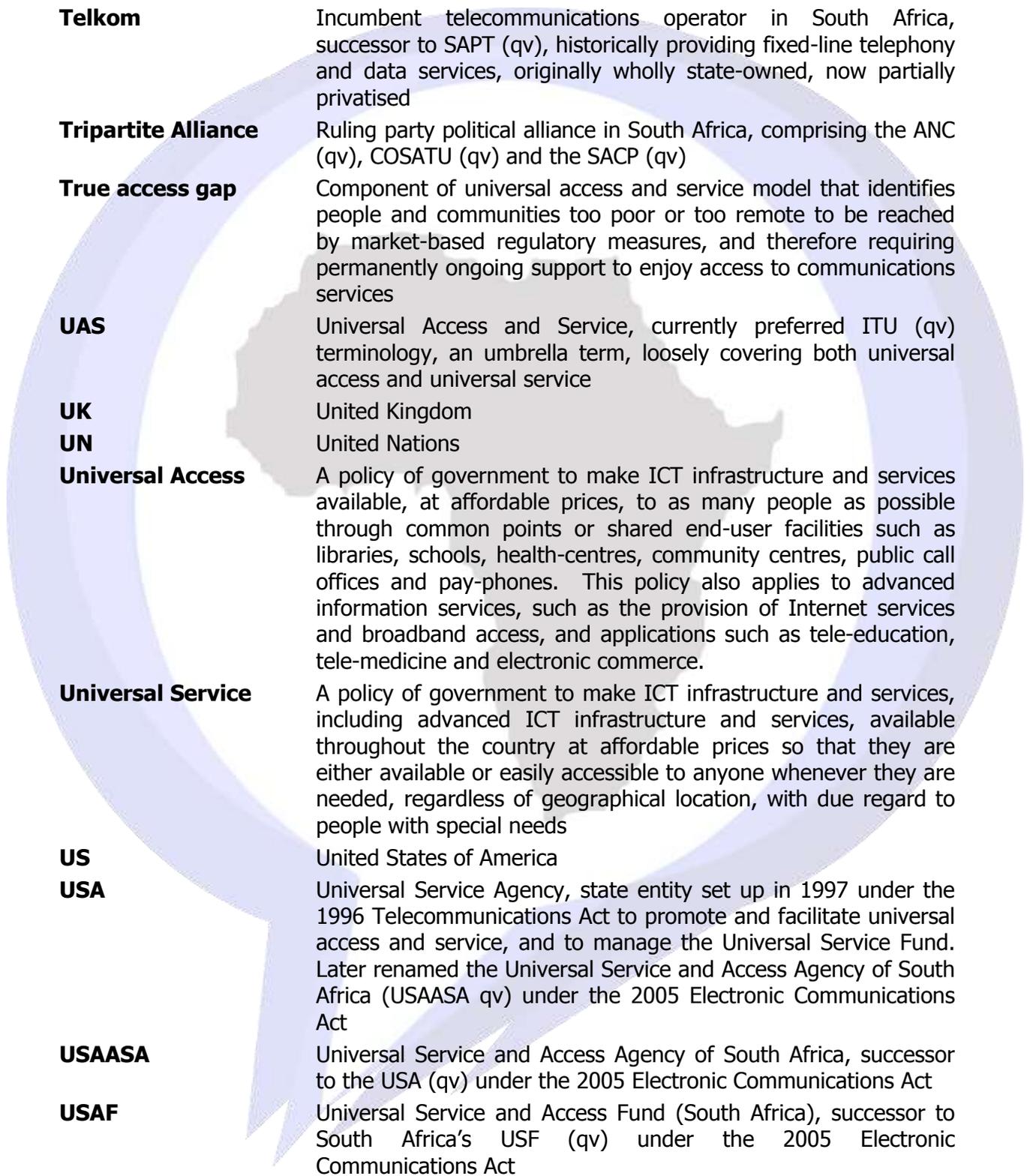
<b>PTT</b>	Postal, telegraph, and telephone entity, typically a state-owned incumbent monopoly service provider
<b>Public Protector</b>	One of the six independent institutions set up under Chapter Nine of South Africa's Constitution to support and defend democracy; empowered to investigate and make rulings in relation to government maladministration, improper conduct by government functionaries, and corruption and other improper acts with respect to public monies
<b>QoS</b>	Quality of service, a measure (mostly quantitative) of the performance of a telecommunications network, particularly as experienced by the users of the network, usually via recording various metrics for the service, such as error and dropped call rates, faults and fault response times, bandwidth, throughput, transmission delay, availability, jitter, etc
<b>Regulator</b>	Regulatory Authority or Regulatory Agency. A public entity established in law by government, with responsibility to exercise autonomous authority and supervision over a designated area of economic or social activity, usually by means of secondary legislation (ie regulation)
<b>Regulatory capture</b>	An instance of politically corrupt institutional failure which can afflict a regulatory authority created to act in the public interest, when instead it advances the narrow sectoral interests of one or more of the specific groups that it is charged with regulating
<b>Regulatory state</b>	Model of governance where the state pursues an economic policy privileging arm's-length regulation and arbitration of market exchanges over direct intervention, usually through the establishment of one or more regulatory agencies (qv)
<b>Resale</b>	The offering to users or customers for profit of ICT services obtained from another ICT service provider
<b>RIA</b>	Regulatory Impact Assessment, a report providing a detailed and systematic appraisal of the potential impacts of a new regulation in order to assess whether the regulation is likely to achieve its desired objectives
<b>Roaming</b>	Arrangement allowing customers of one mobile operator to access mobile services via the network of another when outside to coverage area of their service provider, such as when travelling abroad
<b>SABC</b>	South African Broadcasting Corporation, state-owned, nominally public service broadcaster, established in 1936 as a state broadcaster, latterly subject of much public controversy
<b>SACF</b>	South African Communications Forum, successor to the African Telecommunications Forum, formed in 2001 as a non-profit, membership-based industry association, representing a range of stakeholders in the ICT sector, including the public and private sectors and civil society organisations
<b>SACP</b>	South African Communist Party, founded in 1921 as the Communist Party of South Africa, outlawed in 1950, and later re-established underground as the SACP, in political alliance with the ANC (qv)



<b>SADC</b>	Southern African Development Community, successor to the Southern African Development Coordination Conference (est 1980), established in 1992 as an inter-governmental organisation, currently comprising 15 southern African countries. With headquarters in Gaborone, Botswana, it aims to advance socio-economic development, political and security co-operation and integration amongst its member states.
<b>SANCO</b>	South African National Civics Organisation, launched in 1992 as an ANC-aligned umbrella body for township-based civic organisations that had organised local communities around a range of service delivery issues
<b>SAPO</b>	South African Post Office, established in 1991 through the separation of SAPT (qv) into postal and telecommunications companies
<b>SAPT</b>	South African Posts and Telecommunications, state-owned integrated entity providing telecommunications and postal services until 1991, when it was split into Telkom (telecommunications) and the SA Post Office
<b>SARS</b>	South African Revenue Service, administratively autonomous tax-collection agency of the South African government, charged with collecting revenue and ensuring compliance with tax law
<b>SATCC</b>	Southern Africa Transport and Communications Commission, sub-structure of SADC (qv), now phased out
<b>SATRA</b>	South African Telecommunications Regulatory Authority, established in 1997, and later merged with the IBA (qv) to form ICASA (qv)
<b>Sentech</b>	Established in 1992 as the signal distribution (qv) division of the SABC (qv), later separated as a public company in terms of the 1996 Sentech Act
<b>Signal distribution</b>	Process of conveying radio or television signals from a broadcasting service provider and transmitting them to the end user
<b>SIM</b>	Subscriber identity module, an integrated circuit that securely stores the international mobile subscriber identity (IMSI) and the related key used to identify and authenticate subscribers on mobile telephony devices (such as mobile phones and computers), often counted as a proxy for subscribers
<b>SIU</b>	Special Investigating Unit, a public anti-corruption body established by legislation in 1996, to prevent or recover financial losses to the state caused by acts of corruption, fraud and maladministration
<b>Smart subsidy zone</b>	Component of universal access and service model that identifies people and communities too poor or too remote to be reached by market-based regulatory measures alone, but who are able to sustain access to communications services after initial support (eg free handset, subsidised base station, etc)



<b>Smartphone</b>	A mobile phone, typically having a touchscreen interface, that includes much of the functionality of a number of other digital devices, such as a computer, a camera, a camcorder, a music and movie player, a GPS, a personal digital assistant. It provides Internet access, e-mail and web browsing, and an operating system capable of running downloaded applications.
<b>SME</b>	Small and medium enterprise(s), comprising in South Africa's communications sector: companies with fewer than 200 employees, and an annual turnover of less than R 26 million, and assets of less than R 6 million
<b>SMP</b>	Significant market power, the ability of a firm in a defined market, either individually or jointly with others, to exercise dominance - ie to occupy a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers, and ultimately consumers
<b>SMS</b>	Short Message Service, a widely-used mobile telephony service providing text messages of up to 160 characters
<b>Soweto</b>	South Western Townships, <i>apartheid</i> -created dormitory township for 'black' South Africans outside Johannesburg, now part of the City of Johannesburg
<b>Stats SA</b>	Statistics South Africa, successor to the Central Statistical Service, a national statistical service established to produce timely, accurate, and official statistics in order to advance economic growth, development, and democracy, via official demographic, economic, and social censuses and surveys
<b>SIC</b>	Standard Industry Classification, a system, established in the US (qv) in 1937, for classifying industrial sectors by means of a hierarchical four-digit code
<b>TBVC states</b>	Transkei, Bophuthatswana, Venda, and Ciskei, four nominally independent (their 'independence' was not officially recognised outside of South Africa) states created under the Bantustan programme of grand <i>apartheid</i> (qv), listed in order of date of 'independence'
<b>Telecentre</b>	A public place where people can access computers, the Internet, and other digital technologies that enable them to gather information, create, learn, and communicate with others through the use of digital technologies to bridge the digital divide and to support community, economic, educational, and social development
<b>Teledensity</b>	A measurement of access to telecommunications within a defined geographic area, calculated by dividing the number of subscribers to a specific service (eg fixed-line, mobile) by the corresponding total population, with the result usually expressed as a percentage
<b>Telecommunications</b>	Domestic or international transmission of information by wire, radio waves, optical media or other electromagnetic systems, between or among points of the user's choosing



<b>Telephony</b>	Voice telecommunications, a service providing point-to-point voice communication primarily, in real-time or interactively, through the use of appropriate equipment, usually via a telephone call
<b>Telkom</b>	Incumbent telecommunications operator in South Africa, successor to SAPT (qv), historically providing fixed-line telephony and data services, originally wholly state-owned, now partially privatised
<b>Tripartite Alliance</b>	Ruling party political alliance in South Africa, comprising the ANC (qv), COSATU (qv) and the SACP (qv)
<b>True access gap</b>	Component of universal access and service model that identifies people and communities too poor or too remote to be reached by market-based regulatory measures, and therefore requiring permanently ongoing support to enjoy access to communications services
<b>UAS</b>	Universal Access and Service, currently preferred ITU (qv) terminology, an umbrella term, loosely covering both universal access and universal service
<b>UK</b>	United Kingdom
<b>UN</b>	United Nations
<b>Universal Access</b>	A policy of government to make ICT infrastructure and services available, at affordable prices, to as many people as possible through common points or shared end-user facilities such as libraries, schools, health-centres, community centres, public call offices and pay-phones. This policy also applies to advanced information services, such as the provision of Internet services and broadband access, and applications such as tele-education, tele-medicine and electronic commerce.
<b>Universal Service</b>	A policy of government to make ICT infrastructure and services, including advanced ICT infrastructure and services, available throughout the country at affordable prices so that they are either available or easily accessible to anyone whenever they are needed, regardless of geographical location, with due regard to people with special needs
<b>US</b>	United States of America
<b>USA</b>	Universal Service Agency, state entity set up in 1997 under the 1996 Telecommunications Act to promote and facilitate universal access and service, and to manage the Universal Service Fund. Later renamed the Universal Service and Access Agency of South Africa (USAASA qv) under the 2005 Electronic Communications Act
<b>USAASA</b>	Universal Service and Access Agency of South Africa, successor to the USA (qv) under the 2005 Electronic Communications Act
<b>USAF</b>	Universal Service and Access Fund (South Africa), successor to South Africa's USF (qv) under the 2005 Electronic Communications Act

<b>USAL</b>	Under-serviced area licence / licensee (South Africa), category of licence introduced in 2001 by Amendment to the 1996 Telecommunications Act, requiring successful bidders to provide telecommunications infrastructure and services to areas with low fixed-line teledensity
<b>USAO</b>	Universal Service and Access Obligation (South Africa), term adopted by ICASA (qv) to refer to USOs
<b>USF</b>	Universal Service Fund: (i) a fund into which contributions imposed on operators or derived from other sources are paid for the purpose of providing basic and advanced ICT infrastructure and services to underserved areas, communities or individuals who cannot afford such services on their own; (ii) the fund (South Africa) set up for this purpose under the control of the USA (qv) in terms under the 1996 Telecommunications Act
<b>USO</b>	Universal Service Obligation, mandatory stipulation imposed on operators / licensees, requiring, <i>inter alia</i> , network rollout or facilities or service provision to under-serviced areas and communities
<b>VANS</b>	Value-added network services, ICT services provided over public or private networks which, in some way, add value to the basic carriage, usually through the application of computerised intelligence
<b>Vodacom</b>	Largest mobile telecommunications operator in South Africa, licensed in 1993. Originally jointly owned by Telkom (qv) and Vodafone (UK), now majority-owned by Vodafone, Vodacom is a JSE-listed multinational mobile telecommunications company, operating in several African countries.
<b>VoIP</b>	Voice over IP, generic term used to describe the techniques used to carry voice traffic by means of Internet Protocol
<b>VSAT</b>	Very small aperture terminal, a two-way satellite ground station with a dish antenna that is smaller than three metres in diameter
<b>WASP</b>	Wireless Applications Service Provider, a company that provides remote services, typically to handheld devices, such as cell phones, that connect to wireless data networks
<b>White Paper</b>	<i>Official public document issued by government setting out policy positions, usually in preparation for major legislative changes; often preceded by a Green Paper (qv), and sometimes inviting stakeholder comment</i>
<b>WiFi</b>	Short-range wireless local area computer networking technology that allows electronic devices to interconnect
<b>WiMax</b>	Worldwide Interoperability for Microwave Access, a fixed wireless communications standard providing long-range, high-bandwidth wireless connectivity, used to provide broadband access or telecommunications backhaul (qv)
<b>WISP</b>	Wireless Internet Service Provider, a company providing Internet services over a network based on wireless technologies.

**World Bank**

United Nations international financial institution, created at the 1944 Bretton Woods Conference, which provides loans to developing countries for capital programmes, and which has the reduction of poverty as its official goal, with its decisions guided by a commitment to the promotion of foreign investment and international trade and to the facilitation of capital investment

**WSIS**

World Summit on the Information Society, two conferences (2003, Geneva & 2005, Tunis) sponsored by the United Nations, focusing on information, communication and the information society, which aimed to bridge the global digital divide by increasing access to the Internet in the developing world, and which has been followed by ongoing stocktaking and other activities

**WTO**

World Trade Organisation, an intergovernmental organisation to regulate international trade, established in 1995 to succeed the General Agreement on Tariffs and Trade (GATT qv)

