

# 6G – connectivity and beyond for the 2030's

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# Meeting the needs of the 2030s

Ericsson's 6G vision was first announced in 2020 in the first edition of this white paper and later updated in 2024. Today we can see accelerated focus on 6G across the ecosystem. With early standardization activities underway and expectations rising for the 2030s, the industry is aligning on what must come next: a network that expands the 5G standalone (5G SA) and 5G-Advanced journey, scales with new traffic patterns and device classes, is highly autonomous, and enables new services and business models.

As artificial intelligence (AI), cloud, and mobile technologies converge, they are reshaping how systems sense, learn, and act. This calls for 6G to become an intelligent fabric—an open, secure and interoperable infrastructure that lets distributed, autonomous AI agents collaborate at machine timescales with predictable, verifiable performance.

Similar to previous generational shifts, 6G must meet both technical and business needs. It should build on the global success of mobile communications and set a new baseline for performance, efficiency, and programmability.

This white paper presents Ericsson's perspective on the key technical capabilities and the business value of 6G, with emphasis on the following expectations:

- a step-change in connectivity performance to support new traffic patterns and device segments, for example AI- and augmented reality (AR)-driven experiences, including improvements in uplink, coverage, capacity, and privacy/security. The goal is scalable network capabilities for 2030 and beyond
- greater value creation through programmability, expanding beyond connectivity through exposed network application programmable interfaces (APIs) and capabilities such as sensing, time synchronization, compute, data, and AI services
- improved energy and cost efficiency through leaner system design, higher levels of automation, and native intelligence that supports autonomous operation
- a platform approach for a complex ecosystem, providing telecom platforms, APIs, service assurances, for example, service-level agreements (SLAs), and integration with AI agents and cloud-native application environments
- AI-native design across all layers (including features, software architecture, hardware acceleration and automation) leading to unprecedented performance, efficiency and time to market

6G will provide a foundation that enables a smooth migration from 5G and that evolves with future business needs. We describe the evolution from now to 2035 and beyond in three phases:

- scaling emerging and existing use cases by modernizing today's networks with 5G-Advanced capabilities, supporting new device types and extending services so new opportunities, to be prepared for 6G
- initial deployments of 6G networks around 2030, establishing the base line for a wide range of use cases, including upscaling of 5G-Advanced enabled use cases
- furthering the 6G evolution in 2035 and beyond, driven by new market needs and technology advancements

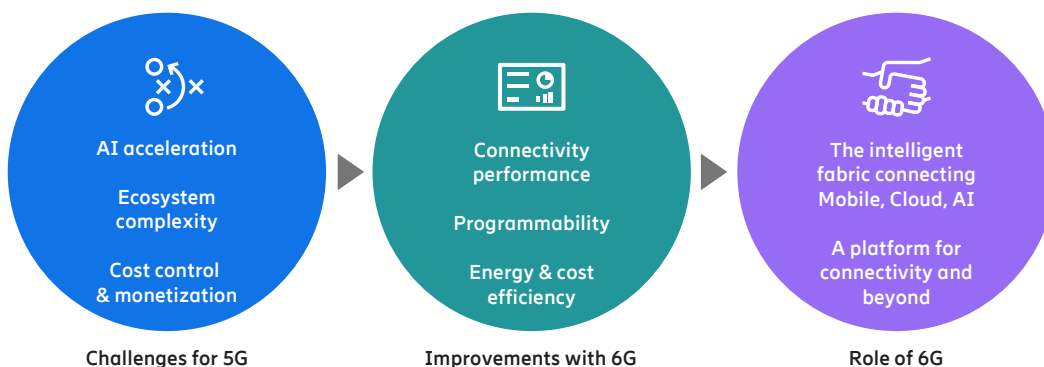


Figure 1. Expectations on 6G

# The 6G vision

As we enter the 2030s, AI-powered automation is available at every level and digitalization is accelerating across domains, opening new ways to learn and create knowledge, improving efficiency, enabling innovation, and ultimately improving daily lives.

This shift connects things, people, and activities through a digital domain of intelligence and data, creating a fully cyber-physical world. 6G should swiftly bridge these domains.

With the exceptional growth of AI and the establishment of cloud services, mobile technology sits in a central position with the ability to connect everything into an intelligent digital fabric. This is the role 6G is designed to play.

Beyond connectivity, 6G networks become service platforms. They support new and improved consumer use cases, API-based interaction of a wide range of services to applications, and offer SLA-based guarantees to enterprises. This will expand 5G capabilities and services, extend existing business opportunities, and open new ones.

Communication service providers (CSPs) have strong reasons to prepare for 6G, most notably to:

- increase revenues with new services offered from the mobile platform stack, such as cellular sensing with integrated sensing and communication (ISAC) data, and services tailored for AI users
- meet increased traffic from fixed and mobile users, especially in uplink, by getting more out of available bands
- reduce operational costs with an energy-efficient, autonomous network, powered by AI at every level.

# The 6G use cases

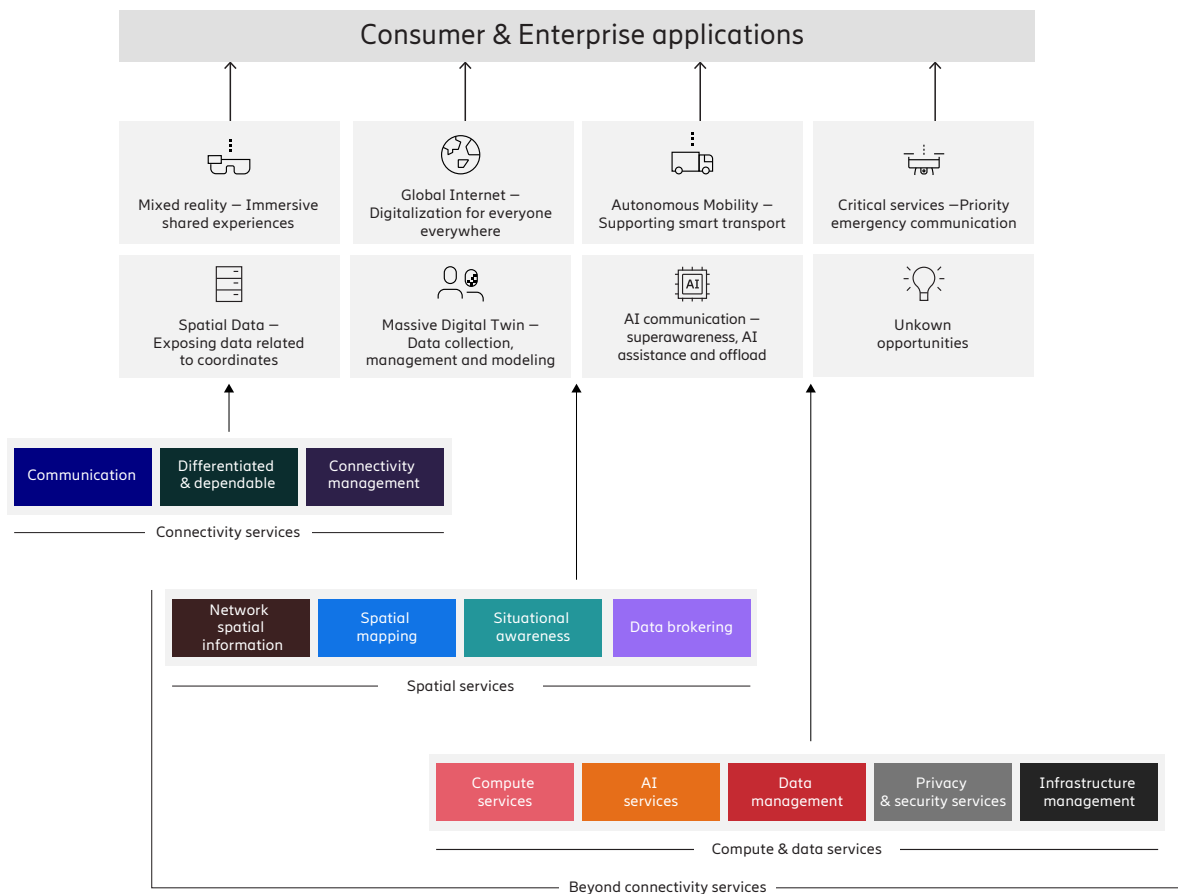


Figure 2. Service segments exposed from the mobile platform stack supporting use cases

The 6G cyber-physical world use cases will be about real-time access to physical and digital data everywhere, applied in relevant consumer and enterprise scenarios [ref]. Many of these can start to be explored on 5G SA networks. The full potential and large-scale adoption will come with new 6G deployments and the corresponding market development. All use cases will be delivered through common sets of new and enhanced mobile services, from the connectivity services segment, and the beyond connectivity segments of spatial services, and compute and data services:

- Connectivity services include data transport modes such as voice, messages and streaming, as well as services for differentiation and dependability such as quality on demand, predictions and insights, plus management and authentication services.
- Spatial services use the network as an information source for timing, positioning, and data from ISAC and connected sensors, enabling spatial mapping and situational awareness.
- Compute and data services let the network process, store, and manage data, moving workloads smoothly across the intelligent fabric of cloud, AI, and mobile.

Use cases for the 2030s build on 6G support for a range of device segments, from high-end AR/AI glasses and autonomous robots, through mobile broadband and AI assistant devices, to lower-end internet of things (IoT), and non-terrestrial network (NTN) devices. To serve them efficiently, the network should offer a single, scalable solution.

Priority use cases include smart glasses for consumers, Autonomous Mobile Robots (AMRs) for enterprises, and connected AI cities for the public sector, where market growth and a strong role for network services are expected. These use cases need much functionality from the mentioned service segments and are expected to scale strongly. Common for the use cases is also constant media data streams to AI agents to trigger continuous actions, leading to an expected strong growth of traffic volumes in networks, especially in uplink, as well as new traffic characteristics for networks to deliver on [EMR].

### **Smart glasses**

They place digital objects such as avatars or video fields inserted in the user's field of view and interact with AI agents for all sorts of services. They are expected to be a primary interaction interface and make immersive communication between people a reality. This requires high traffic capacity, with a specific focus on uplink performance. A constant video stream from the glasses is processed together with digital models, which can be run at the edge for better performance and higher privacy, after which digital data is sent back to be presented.

### **Autonomous mobile robots**

AMRs including delivery robots and humanoids are expected to be commonplace across enterprises, cities, and homes, simplifying everyday life and business efficiency. Besides connectivity with quality guarantees in wide areas, they will need spatial services from the networks for safe and reliable operation, and constant access to AI tools for operation and navigation.

### **Connected AI city**

In a connected AI city, ubiquitous connectivity feeds data into a dynamically updated city digital twin where AI agents run to perform various tasks, such as emergency operations and traffic management. ISAC and positioning data, together with many connected sensors, give instantaneous situational awareness.

## Services from platforms

A transformation is taking place in the way use cases are offered to end-user applications. Instead of only transporting data for apps, CSPs are part of a broader mobile platform stack providing API access to the service segments. This gives applications direct access to a range of capabilities from a range of providers, with protocols adapted for developers and AI agents.

This stack consists of CSPs' network platforms, aggregator platforms such as Aduna, and developer/service platforms such as Vonage, offering advanced products and services that address the application and enterprise needs in a simpler and user-friendly way, and with global reach. From standardized CSP APIs, services are composed with intelligence functionality to more tailored offerings, enabling ASPs to utilize networks for high-stakes, business-critical tasks of higher value. This applies equally to regular consumer and enterprise applications. Service API categories evolve from identity verification and insights/fraud prevention to human and AI agent identity trust, from network insights to network predictive insights, from location services to integrated sensing and location. In connectivity experience, we evolve from quality on demand over a best-effort network, providing improved connectivity but still in best-effort mode to predictive connectivity and SLA-bound connectivity experience.

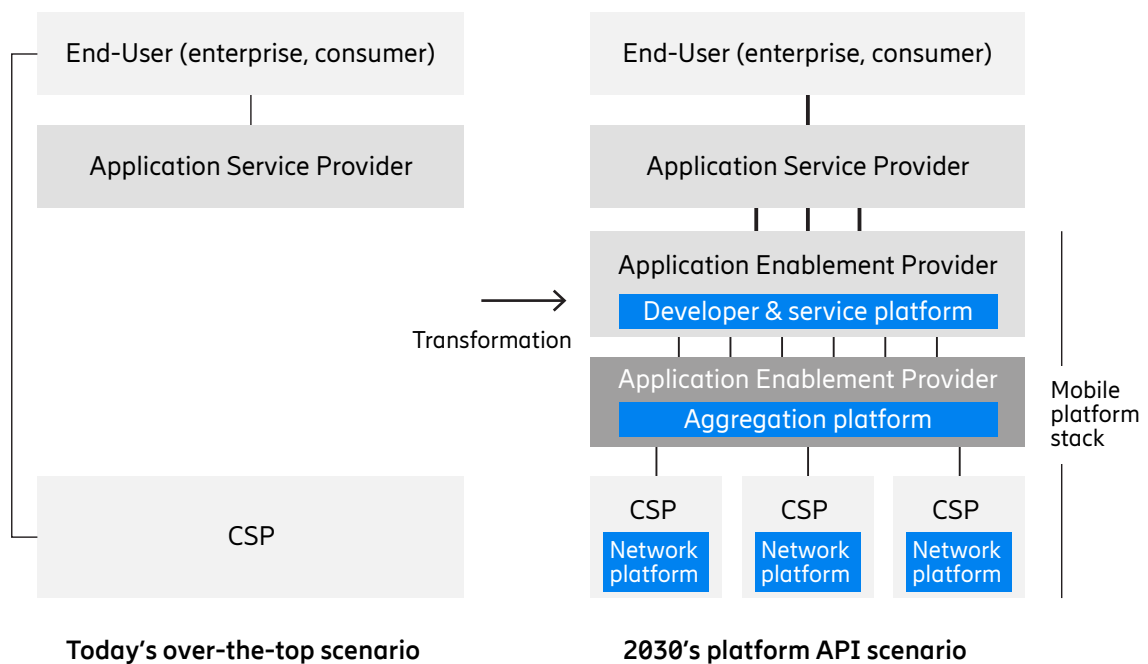


Figure 3. Transition of mobile services into a platform ecosystem

# The initial 6G network deployments

The first 6G networks are anticipated to be deployed in 2030 and will offer a new baseline as a scalable solution for a wide range of use cases. By then, 5G is expected to be the dominant network technology [ref]. A smooth introduction of 6G will be essential and ensured through a future-proof core network and efficient spectrum sharing between 5G and 6G.

The parallel evolution of AI technologies and their application in all layers of the stack in the different domains will be central to the 6G network deployments. The initial deployments of 6G will be built on the experience gained from AI-powered 5G systems and introduce an AI-native 6G network architecture [ref], providing an important step toward autonomous networks. This is crucial since, as services diversify and demands grow in the 6G era, autonomous networks will become essential for enabling more dynamic, efficient, and rapid creation and delivery of services.

The initial 6G network deployments will leverage the industry's investment in 5G SA and 5G core, as well as the CSPs' monetization options provided by differentiated connectivity and exposure. These deployments will scale today's services and evolve them with new capabilities.

## 6G RAN initial deployments

CSPs that intend to deploy 6G RAN in 2030 are interested in several aspects, including the delivery of real differentiators between 5G and 6G, good performance from day one, the possibility to build on successful monetization use cases in 5G, and the smooth introduction of 6G into their network.

6G RAN is expected to be AI native from day one, moving from an AI-powered 5G where intelligence is added to selected functions, to a system where AI is included on all layers and the network is prepared to manage AI traffic handling and AI processing whenever it is needed across the network. The 6G network should both optimize the network performance and move towards a fully autonomous network using AI and intent-based principles. Hardware, architecture, and solutions are expected to be prepared for this from the first day of commercial deployment.

To enable a smooth introduction of 6G RAN to the network, it is essential that the network has migrated to 5G SA and that 5G is already deployed in both low-band frequency division duplexing (FDD) (sub-2GHz FDD) and midband time division duplexing (TDD) (sub-6GHz TDD) before 6G is added.

The first step to introducing 6G is to deploy multi-Radio Access Technology (RAT) spectrum sharing (MRSS) on at least one 5G FDD band and at least one 5G TDD band. This will enable in-band, low overhead, dynamic coexistence between 5G and 6G on Frequency Range 1 (FR1) which is crucial for wide-area coverage. In addition, coexistence between 6G and the existing Long-Term Evolution Machine Type Communication (LTE-M) and Narrowband (NB)-IoT technologies on FDD bands will also be supported although not in a dynamic fashion.

Besides the existing 5G spectrum, new 6G spectrum, both sub-6GHz and in the range 6-8.4GHz, is expected to be available. The new spectrum should be added to the network at initial deployment to provide needed capacity for 6G. For 6 to 8.4GHz, when combined with massive multiple input multiple output (MIMO) and beamforming, downlink coverage is expected to be on par with existing sub-6GHz TDD deployments.

Coverage depends strongly on frequency and transmit power, with a marked asymmetry between downlink and uplink. 6G will combine different frequency bands to balance this. Uplink/downlink decoupling, together with fast 6G+6G spectrum aggregation across all bands where 6G is deployed, will provide extended coverage, improved user experience, and ensure good day-one performance.

To ensure early monetization of 6G, it is essential that differentiated services at scale are supported early. This includes leveraging end to end 5G differentiated connectivity and established use cases—such as best effort mobile broadband and fixed wireless access - and optimizing characteristics such as uplink capacity and positioning accuracy. Consistent, guaranteed performance over wide areas must also be supported, with readiness for beyond connectivity services such as ISAC.

User experience will be key for initial 6G deployments, especially in the uplink where the traffic characteristics of future AI and extended reality (XR) use cases bring new demands. Beyond improved uplink coverage, 6G will support consistent latency behavior, avoiding large variations for services that require performance stability.

Finally, improvements in energy performance, both on the network infrastructure side and on the device/modem side, are expected to play a part in achieving better performance and lower total cost of ownership (TCO) starting from early 6G deployments. As older mobile generations retire, the benefits from the 6G energy optimizations will become increasingly visible.

## 6G core network initial deployments

The core networks for initial 6G deployments need to address a range of different aspects to be relevant in 2030 and beyond.

The core network needs to efficiently support multiple access network generations. This applies to interworking with 5G SA to provide an optimized mobility between 5G and 6G. This is essential for a smooth introduction of 6G, supporting regulatory services such as voice and emergency calls [ref]. The 6G core network will facilitate migration and mobility by having a common UP anchor point shared by both access technologies. Such a core network will also simplify the inter-working with earlier generations and thus enable efficient rollout of 6G deployments.

Additional services provided by commercially deployed 5G SA networks, such as 5G-based roaming and multimedia priority services for first responders and defense, will also be supported in 6G networks. Advanced location services will be supported by the 6G core network and in a similar way built on the evolved 5GC capabilities.

Differentiated connectivity offerings, business models, and value chains that have been established in the market through 5G monetization investments will be built upon and enhanced in 6G. 6G will also enable the exposure of new or enhanced services such as consumer AI services, AI-driven immersive communication, and sensing/ISAC. The initiatives for API services and monetization being driven by, for example, CAMARA and Aduna are the foundation for this evolution to 6G [ref] as outlined in the services from platforms chapter above.

The core network will be a data-driven solution, utilizing AI technology on all relevant layers, for optimizing performance and enabling autonomous operations.

This is realized by an AI framework that governs how AI is designed, deployed, and lifecycle managed in the network. A key supporting capability is a holistic approach to data collection and management [ref].

AI technology can be used to optimize performance and detect anomalies in the network, enabling OPEX savings. The framework will also support new AI-based services for consumers and enterprises, including new device types with AI agents.

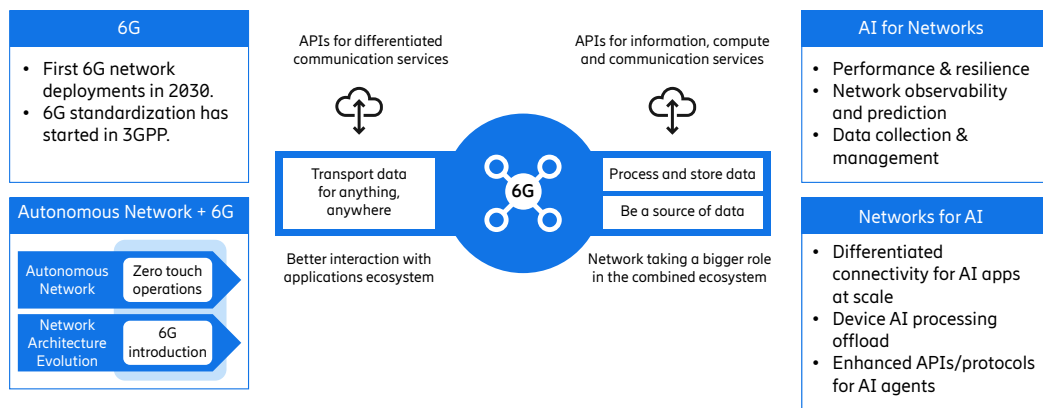


Figure 4. AI-native 6G networks, serving AI users and workloads and enabling new APIs

The 6G network will inherently provide enhanced security and resilience. The security framework for 6G, akin to that of 5G, will rely on open standards and technologies, as well as methods and processes employed throughout the development, deployment, and operation of mobile networks. A few areas of particular focus are support for post-quantum encryption and security solutions for ISAC and AI services [ref].

## Autonomous networks aspects

The journey toward a fully autonomous, or zero touch, network has been underway in the 5G timeframe and is further accelerated by advances in AI, agentic AI, and network digital twins. While most CSPs are today at TM Forum (TMF) Level 2, by 2030 networks will be well on the path toward Level 4, that is, in highly autonomous operation for selected processes and domains.

At the core of the vision for fully autonomous networks lies intent based management, enabling operators to specify what the network should achieve rather than how it should be accomplished, separating business innovation from technical innovation. The autonomous network architecture is defined by TMF as a collection of autonomous domains, each with clear responsibilities and capable of autonomous behavior without human intervention. Intents are managed end-to-end across the autonomous domains, and AI and agents are realization techniques for implementing the needed functionalities [ref].

Achieving full network autonomy requires complementing intent handling with integrating observability, data, and knowledge management, and AI and agentic AI capabilities in every domain and throughout the entire network lifecycle, including planning, deployment, service provision, maintenance, and optimization [ref].

# The 6G standardization key enablers

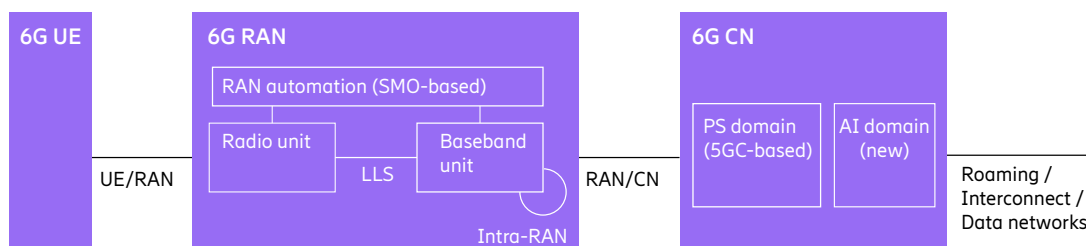


Figure 5. 6G RAN and CN architecture.

The main architecture principles of 6G, earlier presented in [ref], include: having a standalone 6G RAN architecture, connecting to the core network (CN) over a point-to-point interface, and minimizing the number of standardized internal interfaces. The most relevant RAN internal interfaces are the interface interconnecting different base stations, which in 6G will ensure that there is a single control point for the user equipment (UE), and the open fronthaul, also known as next-generation lower layer split (LLS), connecting baseband and radio. For the 6G CN, the Packet Switched (PS) domain will be based on the 5GC (5G Core) service-based architecture, to minimize re-standardization work of existing functionality and interfaces. A new AI Domain is added to the 6G CN to address new opportunities.

In line with earlier generations, most of these interfaces, as well as the air interface will be specified by 3GPP. The open-RAN alliance will specify the open fronthaul and the service management and orchestration (SMO)-based management architecture for RAN autonomous domains. Moving beyond the 5G AI-powered automation and realizing the full potential of 6G requires networks to be fully autonomous and AI-native [ref] by design. To enable this, ETSI's industry specification group on Zero touch network and Service Management (IETSI ZSM) provides an end-to-end framework for zero-touch service management and orchestration across multi-domain networks and TMF advances operations support system/business support system (OSS/BSS) processes, framework, information models, and open APIs for end-to-end and dynamic intent management.

Multi-vendor interfaces are important for our industry and the operator services delivered. To target new revenue streams, it is crucial to focus on the business-relevant interfaces enabling that, such as exposure interfaces. In addition, some fundamental system interfaces require attention, such as the radio interface, roaming interfaces, the RAN-CN and management interfaces. While working on these interfaces, it is important to avoid specifying solutions that quickly become outdated, such as, in case of the rapidly evolving field of AI technologies. Here it is important to focus on AI enablers, for example data collection, rather than technology as such. In this way, 6G will build on a set of open interfaces of practical business relevance.

The following highlights key capabilities that the 6G standard will provide. To leverage the new cm-wave bands spectrum assets, 6G will support a larger number of antennas, up to 1024, ensuring 6G downlink coverage provided on par with existing midband deployments and allowing operators to reuse their midband sites for cm-wave deployments.

MRSS will be an integrated part of the 6G specifications, enabling in-band coexistence between 5G and 6G. Thanks to the lean design of 5G, the standardization impact for 6G will be quite small. The scheduler will be able to realize MRSS, scheduling 6G transmissions while avoiding impact to basic 5G signaling, at an overhead of at most a few percent.

6G will enhance the carrier aggregation framework to reduce the time to activate a carrier, improving the latency behavior and the user experience. A new scheduling framework in 6G, with reduced scheduling constraints compared to 5G, as well as improved control signaling, will also contribute to improving user experience. These enhancements have the potential of improving the end-user experience—beyond 50 percent increase in uplink data rates for small packets [ref]—and reduce the scheduling latency for a user.

The 6G specifications will support uplink-downlink decoupling as part of the enhanced carrier aggregation framework. This can significantly improve uplink coverage for devices with challenging propagation conditions—a tenfold increase in data rates in some cases [ref]—by taking advantage of better propagation conditions at lower frequencies in the uplink while using the very wide bandwidths available at higher frequency bands for the downlink, individually for each device. In addition, 6G will natively support NTN communications, thereby providing additional coverage possibilities.

The introduction of wake-up signals will allow the device to extend its sleep time thereby improving the device energy efficiency and the battery lifetime. On the network side, redesigning the initial access procedures to work with a much longer synchronization signals block (SSB) period of up to 160 ms will improve energy efficiency for the network operator. The longer periodicity will allow network nodes to sleep in between at low network loads, thereby reducing the energy consumption to almost 80 percent [ref].

A cornerstone for the scalability of the radio access will be the new design of the initial access and connection setup mechanisms, providing the possibility to serve a wide range of services and devices, ranging from low-end massive IoT to high-end XR glasses, with a common solution. Thus, it will not be necessary to deploy and maintain separate access technologies such as NB-IoT and LTE-M for IoT applications [ref], thereby reducing operational costs. In addition, the different features or technology components of 6G will not be tailored to a specific use case but widely applicable to any of them, improving the commercialization opportunities for all segments.

Sensing in the form of ISAC is one example of services beyond connectivity supported by 6G [ref], where the network infrastructure is used to detect and track different objects or obtain environmental information. For example, experiments in a live test communication network [ref] have shown that a drone can be tracked with a horizontal accuracy of 2 to 3 m [ref].

In 6G, the use cases will expand to detection and tracking of automated guided vehicles (AGVs), support for self-driving cars and sense-assisted communication. In addition, the supported sensing topologies will be widened from sensing using a single base station to sensing among multiple base stations or sensing between base stations and devices. Sensing requires processing of large amounts of data, often in ways that are specific for the use case. To maximize innovation, it is important to keep most of the sensing processing together within the RAN domain.

AI use cases in the network will be supported by a unified and coherent framework for observability, data collection, and management. AI solutions at different layers in the network will rely on this framework to realize the different use cases. An AI domain in the 6G CN can ensure support functions for use cases where UEs or application functions provide their intents to the network. Intents that could be provided by AI agents. To fully cater for AI agent-based use cases, the AI domain would also facilitate agent-to-agent communication between devices. Thus, by providing a set of data-related and AI supporting capabilities in the standards, 6G will enable the introduction of value-add solutions using the latest AI technology addressing different use cases at fast pace, without needing to standardize them.

Resiliency of the network and the connectivity against failures and intentional disturbances is highly relevant for 6G. Tools such as enhanced carrier aggregation and other improvements of the basic 6G procedures will provide means to minimize the impact of and recover from failures and incidences. Finally, resilience will also be improved for 6G NTN connectivity, ensuring that it can operate without relying on Global Navigation Satellite System (GNSS) signals.

# The 6G evolution

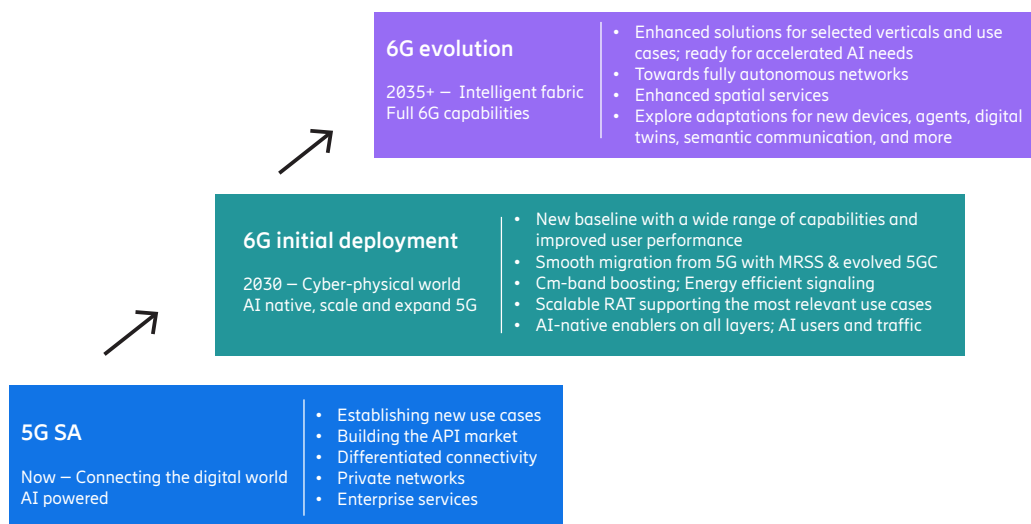


Figure 6. Evolution of 5G into 6G and beyond

6G will continue to evolve beyond the initial deployments, based on the future proof architecture, to meet foreseen networks needed in 2035 and the years to come. This includes support for more use cases and device segments, and more capable solutions building on the future standardization efforts of 3GPP Rel-22 and onward.

The aim with the initial release of 6G is to address a large proportion of use cases with a common solution. This will provide all relevant verticals, such as mission critical segments and segments with long life cycles, an evolution path. Following business demand, the evolution of 6G will strengthen the support for selected verticals. For example, by broadening the application of IoT to ensure that the full span from the lowest end—massive IoT—to advanced capabilities—broadband IoT—is covered.

After the first 6G release, work beyond connectivity will also continue with support for new sensing use cases and positioning for new scenarios such as using NTN. Given the different market size and lifespan for verticals, our view is that the evolution of 6G should aim at expanding and complementing the existing ecosystems. That is, 6G networks should build on and complement 5G solutions for verticals.

The networks beyond 2035 are anticipated to be fully autonomous - that is to be on Level 5 - and run with minimal to no human intervention and use a minimum of resources. At the same time, 6G networks need to stay ahead of the curve of anticipated traffic and service needs, such as the significant uplink traffic increase expected from always-on AI agents in AR glasses [EMR]. The rapid evolution of technology will bring new applications that we are yet to even imagine, and new devices will set new requirements. AI agents already now create new traffic patterns and new ways to connect to networks, which 5G has started to address and 6G will need to expand on. We do not know what the next generation of these tools will look like, but we should design networks for a major shift, with flexibility and scalability.

Looking toward 2035 and beyond, the rapid pace of technological evolution, especially in AI, presents an opportunity to design networks that are adaptable and evolve dynamically alongside emerging innovations, and truly stand the test of time. The network should be equipped with suitable enablers that can be used for its own operations as well as for supporting applications. Industry and academia should now look ahead towards the next set of enablers to add in 6G evolution, reaching more domains with relevant solutions and further strengthening the intelligent fabric. This includes exploring the impact and prospects of semantic communication, new network topologies, and self-synthesizing networks, enhancing the spatial services in terms of precision, coverage and use cases, and building useful services for the merged cloud-AI-mobile continuum. We must also continue working on integrating 6G technology into existing ecosystems to establish it as the go-to-solution for all cyber-physical interactions in the 2030s.

# Conclusion

6G will empower CSPs to expand into new market segments and accelerate large scale adoption of emerging use cases. At the same time, 6G is expected to deliver material efficiency gains—reducing OPEX, improving TCO, and strengthening long term network economics.

It will shape an intelligent fabric of cloud, AI and mobile: an AI native, increasingly autonomous platform that exposes capabilities and APIs for connectivity experience, sensing, positioning/timing, compute, data and more—enabling network, aggregator and developer ecosystems. Building on 5G SA and 5G Advanced, it will establish a new baseline for the 2030s with step change in user experience (notably uplink, coverage, capacity and resiliency) and improved energy and cost efficiency through a leaner, less complex system design—providing the scale needed as emerging 5G use cases ramp up to mass adoption.

Spectrum will remain to be a primary value driver; 6G will extend performance in existing 5G bands, add new capacity with cm-band from 7 to 15 GHz, and enable a smooth migration via efficient in-band coexistence with 5G using multi-RAT spectrum sharing. With first deployments expected around 2030, CSPs can build on existing 5G SA/5GC investments and immediately scale differentiated connectivity and exposure capabilities to monetize new services.

Standardization is targeting first implementable specifications by early 2029. Looking ahead, a 2035-and-beyond evolution will be guided by market demand and technology progress, especially in the rapid development of AI. Now is the time to align priorities across research, standardization, and ecosystem partners to translate these enablers into deployable, monetizable solutions.

# Authors



**Gustav Wikström** is a Senior Research Manager at Ericsson. He joined the company in 2011 following postdoctoral research in particle physics. Since then, he has worked on standardization, concept development, and performance evaluation for WLAN, 4G, and 5G, and now contributes to 6G vision, use cases, services, and technology foresight.



**Patrik Persson** is holding the position as 6G program manager director at Ericsson Research. Focus is on driving the preparations for 6G covering both standardization and non-standardization related concept work. Patrik joined Ericsson Research in 2007.



**Stefan Parkvall** is a Senior Expert at Ericsson Research working with 5G and future radio access. He is one of the key persons in the development of HSPA, LTE and NR radio access and has been deeply involved in 3GPP standardization for many years. Dr Parkvall is a fellow of the IEEE, received the IEEE J C Bose medal in wireless communications in 2026, has co-authored several popular books, and holds thousands of patents in the area of mobile communication. He holds an PhD from the Royal Institute of Technology, Stockholm, Sweden.



**Göran** joined is a senior expert in core network architecture at Research Area Networks. Since joining Ericsson in 1989 he has gained 30+ years of experience in mobile systems and network architectures. His career spans from 2G to 5G, including both RAN and CN. In his current role he focuses on the 6G network architecture. Göran holds a Licentiate of Engineering degree in solid state physics and an M.Sc. in applied physics and electrical engineering, both from the Institute of Technology at Linköping University, Sweden.



**Robert Baldemair** joined Ericsson in 2000, where he was initially engaged in research and standardization of digital subscriber line technologies ADSL and VDSL. In 2004, he started to work with research and development of radio access technologies for LTE and later with wireless access for 5G.

For the last few years Robert has been working with wireless access for 6G.

Robert received the Ericsson Inventor of the Year 2010 award. In 2014, he and colleagues at Ericsson were nominated for the European Inventor Award, the most prestigious inventor award in Europe. In 2019, Robert was one of the winners of the Ericsson Top Performance Competition, an annual competition that recognizes outstanding achievements.

Robert received his Dipl. Ing. and Dr. degree from the Vienna University of Technology in 1996 and 2001, respectively.



**Farnaz Moradi** is a master researcher in AI at Ericsson Research. She joined Ericsson in 2014 and has since worked with research and development of AI/machine learning solutions across a range of telecom domains, including intelligent network management and automation. In her current role, she focuses on driving research initiatives for autonomous networks. Moradi holds a Ph.D. in computer science and engineering from Chalmers University of Technology in Gothenburg, Sweden.



**Marie Hogan** as the 6G Portfolio Strategist at Ericsson's Business Area Networks, Marie is responsible for creating the strategy for Ericsson's 6G radio access networks portfolio.

Having led product management teams in the early phases of both 4G and 5G, Marie currently focuses on the future introduction of 6G and the innovative enabling technologies that it will bring, while leveraging on the ongoing evolution of 5G Advanced.

Her main responsibilities include driving the new use cases for consumers, society and enterprises in the XR, real-time media, mobility automation, remote control and industrial control areas with focus on technologies such as enhanced Mobile Broadband, URLLC, Time Critical Communication and IoT.

She has worked in many areas within Ericsson from product development to product management spanning 3G, 4G and 5G technologies. Marie has worked with both radio and core network solutions as well as with transport, synchronization and security solutions.

Marie holds a Master of Science in Technology Management from UCD Michael Smurfit Business School, Ireland, and a degree in Electronic Engineering from University College Cork, Ireland.



**Torbjörn Cagenius** is a senior expert in network architecture at Business Area Cloud Software and Services. He joined Ericsson in 1990 and has worked in a variety of technology areas such as fiber-to-the-home, main-remote radio base stations, fixed-mobile convergence, IPTV and network architecture evolution. In his current role, he focuses on 5G and network architecture evolution toward 6G. Cagenius holds an M.Sc. in electrical engineering from KTH Royal Institute of Technology in Stockholm, Sweden.



**Carlos Bravo** is Principal Architect focusing on Exposure and Network APIs. He oversees the development and implementation of Ericsson's technology strategy. He leads the architecture of Network Exposure and Network APIs across CSPs, aggregators and developer platforms. Collaborating and building global partnerships is key in his role. He has over 25 years' experience in lead roles within Ericsson from Service Delivery to Product Development, Global Services, Market Unit and Business Areas. Carlos holds a MSc. in Telecom Engineering Data Communications.



**Johan Lundsjö** Ericsson in 1996 where his initial focus was research, design and standardization of 3G radio interface protocols and network architectures. He has held various technical and people leader positions during the course of research and early development of 3G, 4G and 5G mobile systems, as well as in research on related network and cloud technologies.

He is now Director of Communication at Ericsson Research, where current focus is on future 6G systems.

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