PATENT & TECHNOLOGY LICENSING PROGRAMS WITHIN ERICSSON

ERICSSON

TAKING YOU FORWARD

OUR VISION IS TO BE THE PRIME DRIVER IN AN ALL-COMMUNICATING WORLD!

Ericsson makes it possible for people around the globe to communicate better. We do this by helping operators bring intriguing new services to their customers, and by evolving and improving the networks that make these services possible. Over 1,000 networks in 140 countries currently utilize our network equipment and 40 percent of all mobile calls are made through our systems.

Creating a world where people can communicate with whoever they wish, without limitation, will yield a remarkable freedom: freedom of communication that will knit together the people of the world with threads of unprecedented mutual understanding and respect.

To become the world's partner for progress – we believe this is a goal worth reaching for.

Contents

ERICSSON – THE TRUE LEADER IN TELECOMMUNICATIONS **3**
RESEARCH & DEVELOPMENT **4**
IPR AND OPEN STANDARDS AS ENABLER OF TECHNOLOGY TRANSFER **5**
LICENSING PROGRAMS **6–7**

Ericsson – the true leader in telecommunications

Ericsson is the world leader in telecommunications. We are driving the industry and shaping the future of telecommunications, based on the belief that communication is a basic human need. We are the largest supplier of mobile systems in the world and a leader in broadband connectivity and multimedia services. The world's 10 largest operators are among our customers and 40 percent of all mobile calls are made through our systems.

Ericsson provides end-to-end solutions – from systems and applications to services and core technology for mobile handsets. Working closely with Sony Ericsson means we are also a top supplier of complete mobile multimedia products. Ericsson has been active worldwide since 1876, employs more than 63,000 people and is present in more than 140 countries today.

With a turnover during the 2006 fiscal year in excess of SEK 178 billion, an increase of 17 percent on the previous year, while maintaining strong operating margins - 20.1 percent for the full year - we have concluded another successful year. The headquarters remain in the company's birthplace of Stockholm, Sweden, and Ericsson is recognized as a truly international company. "

Ericsson has a long tradition of innovation. We led the shift from analog to digital mobile telephony and now, based on our strong commitment to R&D, we are leading the way in mobile broadband communication. We have around 22,000 patents worldwide, making Ericsson the unquestionable leader in R&D.

Our long experience in fixed networks, our leading wireless technology, our IP knowledge and knowledge of optical networks are essential components in evolving broadband networks as well as driving the convergence of networks and services necessary to achieve ease-of-use and convenience for users.

Consumer behavior is changing and there is an increased demand for communication enriched with multimedia, entertainment and infotainment. We help our customers to launch new services around voice, messaging, TV and video, music and information.

Research & Development

Ericsson has long believed that the key to competitiveness and long-term success is the investment in a robust research & development program, investing almost SEK 28 billion, or over 15% of sales turnover, per annum. Ericsson has about 17,100 employees within its R&D operations based in 17 sites in e.g. Sweden, Germany, Finland, Canada, the Netherlands and Spain. A new site focused on terminal prototyping is being developed in Nuremberg. The acquisition of Marconi gave the company further R&D sites in the UK, Italy and Germany, focusing on optical transport, access and microwave.

Over the last few years, Ericsson has strategically placed its R&D emphasis on fewer design platforms to increase the level of product commonality. Most of the company's R&D investment – one of the largest in the industry – is in mobile communications network technologies. Ericsson has maintained a high level of investment in the important areas of broadband access, core network and service layering. The company actively promotes open standards and has been a strong driver in major standardization fora for many years, through all generations of mobile technology. Ericsson is a member of for example 3GPP (Third Generation Partnership Project, WCDMA/UMTS, EDGE), 3GPP2 (Third Generation Partnership 2, CDMA), Liberty Alliance, IETF (Internet Engineering Task Force), OMA (Open Mobile Alliance), WiFI Alliance and WiMAX Forum. Marconi adds to our deep experience of standards work, in particular in SDH and photonics.

Consequently the efficiency and quality of telecommunications has been greatly enhanced. Ericsson research laboratories are at the cutting edge of the telecom industry, developing the innovations and establishing the standards for others to follow.

IPR and Open Standards as enabler of Technology Transfer

Patents help facilitate the voluntary sharing of knowledge and technology. In exchange for sharing and enabling the enhancement of technological development, patent owners are awarded a limited period of reserved rights to ensure adequate remuneration.

In contrast with industries in which patents are primarily used to exclude competitors from a market, patents play an active role in developing the telecommunications industry through standardization and licensing. Members of standardization bodies such as the European Telecommunications Standards Institute (ETSI) voluntarily commit to license any essential patents they hold on fair, reasonable and non-discriminatory – or FRAND – terms. In practice, FRAND means reasonable accumulated IPR costs where the contributors are compensated proportionally in relation to their patent portfolio within a standard.

According to ETSI, which established the GSM standard, an essential patent is "an IPR which has been included within a standard and where it would be impossible to implement the standard without making use of this IPR. The only way to avoid the violation of this IPR in respect of the implementation of the standard is therefore to request a license from the owner."

Although GSM is a standard to which only a few leading companies have contributed technology, the "FRAND" commitment enables anyone who reaches a licensing agreement for the standard essential patents to enter the market. That openness has led to the sale of more than 800 million GSM handsets during 2006 in a global market which hosts multiple chipset vendors and almost 100 handset vendors. Furthermore, the GSM standard continues to develop with such enhancements as Wideband Code Division Multiple Access (WCDMA) and High Speed Packet Access (HSPA).

Patents that are essential to a certain standard may also apply to other standards with similar functionality. For example, the WiMAX Forum is working to create a mobile standard with functionality similar to HSPA or LTE. WiMAX, which is an access technology, will necessarily include patents based on technology from Ericsson and other companies. Accordingly, Ericsson will offer licenses for essential WiMAX patents under the same conditions as the Ericsson patent portfolio as a whole.

In short, it is Ericsson's philosophy that licenses for patents essential to standards should be widely available at FRAND terms, to provide compensation to companies that have made substantial investments in the development of these standards. Accordingly, we have a patent licensing program that offers licenses to all who wish to use essential patents invented by Ericsson.

Licensing Programs

Patent Licensing

We offer for licensing a multitude of patent portfolios, essential & implementational, including these:

- 3GPP Core Network
- 3GPP IMS (IP Multimedia Subsystem)
- 3GPP GSM/GPRS GERAN
- 3GPP GSM/GPRS MS
- 3GPP TD-SCDMA UE
- 3GPP TD-SCDMA UTRAN
- 3GPP WCDMA/HSPA UE
- 3GPP WCDMA/HSPA UTRAN
- 3GPP2 cdma2000
- 3GPP/OMA MMS (Multimedia Messaging Service)
- 3GPP/OMA WAP (Wireless Application Protocol)
- 3GPP MBMS (Multimedia Broadcast Multicast Service)
- OMA IMPS (Instant Messaging and Presence Service)
- ETSI DVB-H (Digital Video Broadcasting - Handheld)
- ETSI DECT (Digital Enhanced Cordless Telecommunications)
- ETSI TETRA (Terrestrial Trunked Radio)
- TIA IS-95
- ITU H.323
- ITU xDSL
- ITU SDH/ANSI SONET (Synchronous Digital Hierarchy/Synchronous Optical Netw.)
- ISO JPEG2000
- IEEE 802.3 Ethernet
- IEEE 802.11 - W-LAN
- IEEE 802.16 - WiMAX
- CCITT ATM (Asynchronous Transfer Mode)
- AMR Codec (Adaptive Multi-Rate)
- Cellular positioning & LBS (Locations Based Services)
- Charging
- Bluetooth
- Softswitch
- VoIP
- Security (e.g. 3GPP AKA)
- Enterprise Solutions
- Graphics & Multimedia
- I.N. (Intelligent Networks)
- Antenna & Antenna Near Technologies
- MMIC (Monolithic Microwave Integrated Circuit)

Technology Licensing

Reference design:
- Mobile Platforms
- EriRoHC, Robust Header Compression integration solution compliant with IETF RFC3095 (part of 3GPP and 3GPP2).
- sRIO, serial Rapid/O Micro TCA Carrier Hub design.
- HEMCT, High Efficiency Multi Carrier Transceiver design suitable for e.g. CDMA base stations
- CDMA-node: PDSN - Packet Data Serving Node (Linux)
- DVB-H (Digital Video Broadcasting –H)
- Power Amplification design, PA+ (GaAs PA design)

Interfaces:
- A-bis interface for manufacturers of measurement equipment
- Iub interface for manufacturers of measurement equipment
- IMS Cx interface for manufacturers of measurement equipment

Other:
- Product Dashboard - Product Management supporting system (web application).
- Simulators - SW-modules for generating certain distinct (characteristics) IP-traffic (e.g. Voice, Data, SMS, MMS).
- TrustTrade, Trusted party Internet payment solution

Why Ericsson?

Ericsson is shaping the future of Mobile and Broadband Internet communications through is continuous technology leadership. Providing innovative solutions in more than 140 countries, Ericsson is helping to create the most powerful communication companies in the world.

Read more at http://www.ericsson.com

FOR FURTHER INFORMATION, PLEASE CONTACT

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