The Ericsson Perspective
– Patents and IPR Q&A

How important are patents and other IPR to Ericsson?

Very important: our substantial R&D efforts over the years mean we now hold around 24,000 patents worldwide. However, unlike some industry players we do not live off IPR licensing. We aim to strike a balance between providing value to our customers and earning a fair return on our significant investments in R&D when other parties benefit from them.

Is it important to Ericsson that it maintains a significant share of essential patents?

Ericsson views having a strong patent portfolio as an important aspect of having a healthy R&D culture, and we naturally wish to maintain any market leads we have established. We are constantly looking for new ways to improve the capabilities and performance of our products and solutions for operators. This is why we plan to invest around US$25 billion in R&D over the next five years, in technologies like Long Term Evolution (LTE) and Gigabit Passive Optical Networks (GPONs). In LTE, for example, we aim to be the number one patent holder, as we are currently in WCDMA. More specifically, for LTE we target to maintain a share of the essential patents of around 25 per cent.

Don't patents result in single vendors gaining a stranglehold on certain markets?

Not if they are handled properly. While it would be possible for a company to use patents to gain a monopoly, the standard setting organisations policies, prevents this from happening and ensures everyone gets a fair return for their IPR.

At the same time, open standards help ensure that new products and solutions offer optimal functionality for the customer at a fair price. In telecoms standardization, on a voluntary basis, each of the participants shares its technology developments and is open about its IPR claims from the start.

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Furthermore, each agrees to waive its rights to a monopoly and promises to license all of the relevant patents on fair, reasonable and non-discriminatory (FRAND) terms. The companies that contribute the most get the largest share of, and the highest return on, patent rights – but do not gain a monopoly. Patents essential to the standard are not used to impede competitors.

The result for telecom operators is a highly competitive market for interoperable solutions, which enables them to choose vendors based on a range of factors, not just technology. All the companies that contributed to standards also get a fair share of the resulting IPR license fees, even when they don't win a contract – enabling them to continue investing in new technology.

The difference in approach between the telecoms industry and the IT industry can be highlighted by the example of messaging services. While virtu-

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ally all 3.5 billion subscribers to Third Generation Partnership Project (3GPP) mobile networks – including GSM, EDGE, WCDMA and HSPA – can text one another using the standardized Short Message Service (SMS), whichever network or device they are using, users of instant messaging (IM) software are locked into individual competing products that cannot talk to each other. The telecom industry is now also addressing the IM issue through a standardization approach.

Why did Ericsson join with other industry players to strive for reasonable LTE royalties?

The experience of GSM has shown how open standards and FRAND licensing principles have created the world's most dynamic and competitive telecoms technology. The proof is that GSM has been adopted in virtually every country and new GSM subscribers are still being added at four times the rate of CDMA, which offers little in the way of competition.

Ericsson joined with a number of other market leaders with the aim of ensuring that LTE enjoys similar levels of economies of scale and market acceptance. The agreement targets reasonable maximum aggregate percentage royalty rates for LTE handsets to be a single-digit figure and to ensure that royalties are shared in a fair way, on FRAND terms.

Doesn't WiMAX offer lower IPR royalty rates for 4G wireless networks?

It is a misconception that WiMAX is free from IPR issues, and it is unlikely that IPR will provide any differentiator between WiMAX and 3GPP technologies. The IPR situation for Mobile WiMAX is still unclear, and the costs may well be higher than for 3GPP technologies.

By reaching reasonable IPR agreements for 3GPP standard technologies, Ericsson and the other major drivers in the 3GPP can offer products with very low IPR costs. We believe that similar reasonable accumulated rates should also apply to new players in the 3GPP and WiMAX arenas.

Has the technology battle for wireless dominance now been won?

The experience of GSM has shown how open standards and FRAND licensing principles have created the world's most dynamic and competitive telecoms technology. The proof is that GSM has been adopted in virtually every country around the world.

What is known as the 3GPP family of technologies – GSM, EDGE, WCDMA and HSPA – have maintained the position as leading standard in wireless ever since GSM was established in the late 1980s. The GSM technology track has enjoyed tremendous development since its inception, continually adding functionality and capacity to stay in front. The addition of LTE to the 3GPP standard will help ensure this lead is maintained long into the future.

However, to stay in the lead, the standard needs constantly to evolve. The companies that contribute to the standard cannot rest on their laurels, and simply be happy to receive the royalty payments due on past patent holdings. Even if a company starts with two patents out of ten for a new standard, it will not still receive 20 per cent of royalties after hundreds of new patents have been added to the standard. The participants' shares are constantly changing.

Would IPR pooling help streamline 4G innovation?

In a patent pooling arrangement several patent owners join in out-licensing their patents under one single licensing agreement. This is frequently referred to as a "one-stop shopping" arrangement. However, there are no guarantees that the pool includes all relevant patent holders of a standard.

While some players claim that an IPR pooling arrangement would help control and even reduce costs, the set-up of a licensing mechanism cannot in itself provide the whole solution.

We believe the resounding success of the open-standard 3GPP family of technologies – built firmly on FRAND IPR principles – shows the way forward. This is true whether the licensing of patent rights is handled through a pooling system or through bilateral agreements.

Working with patents and other IPR in an open and collaborative way will continue to be crucial to the success of telecoms.