

Standards and IPRs from the Perspective of an Innovative Company

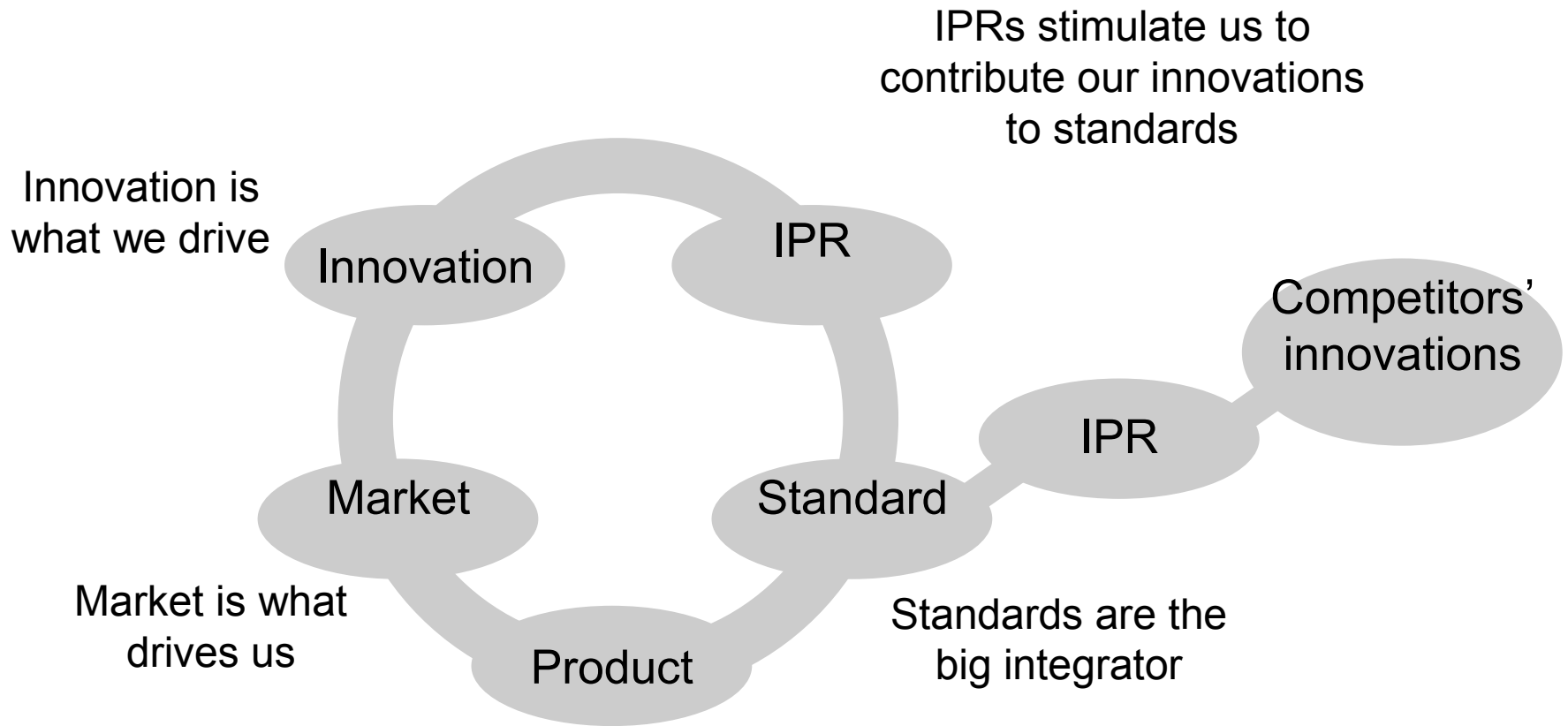
Dr. Kai Brandt

“There is a popular saying among Chinese enterprises that the top companies sell standards, second-class firms sell brands, and companies at the bottom of the rung simply sell products.”

China Daily 2006-03-06

Great eye-opener, but if looked at in detail a little bit as if the tail wags the dog.

Standards from a company's point of view



A long tradition of IPR activities at Siemens

Intellectual Property Rights and technological progress

“I believe that one of the main reasons behind the success of our factories is that most of our products are based on our own inventions.” *Werner von Siemens*

2nd half of 19th century:

- Germany was in the process of catching up with the leading industrial nations of the world
- Werner von Siemens, together with politicians and other leading industrialists, initiated a highly enforceable patent law in Germany



Intellectual Property Rights at Siemens create ...

Investment	> 5.1 billion Euros of R&D investment. Only if such an investment is sufficiently protected by IPRs will shareholders allow us to continue like this.
Research and Development	> 45,000 research and development engineers, who develop new technologies to help reduce air pollution, cure cancer, prevent traffic accidents etc.
Employment	> 400,000 colleagues, who manufacture and sell our products, because these products provide new features and functionalities.

Siemens' innovations have changed the world (1/3)



1847 Electronic pointer telegraph - the advent of modern communication



1866 Invention of the dynamo lays the foundation for electrical engineering



1879 First electric railway



1896 X-ray tube with adjustable vacuum

Siemens' innovations have changed the world (2/3)



1930 E44 multipurpose locomotive



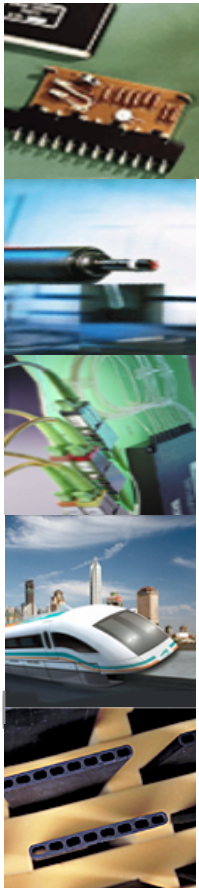
1939 Electron microscope



1953 High-purity silicon

1954 Initial steps in computing

Siemens' innovations have changed the world (3/3)



1959 Simatic – the first electronic automation system for industry

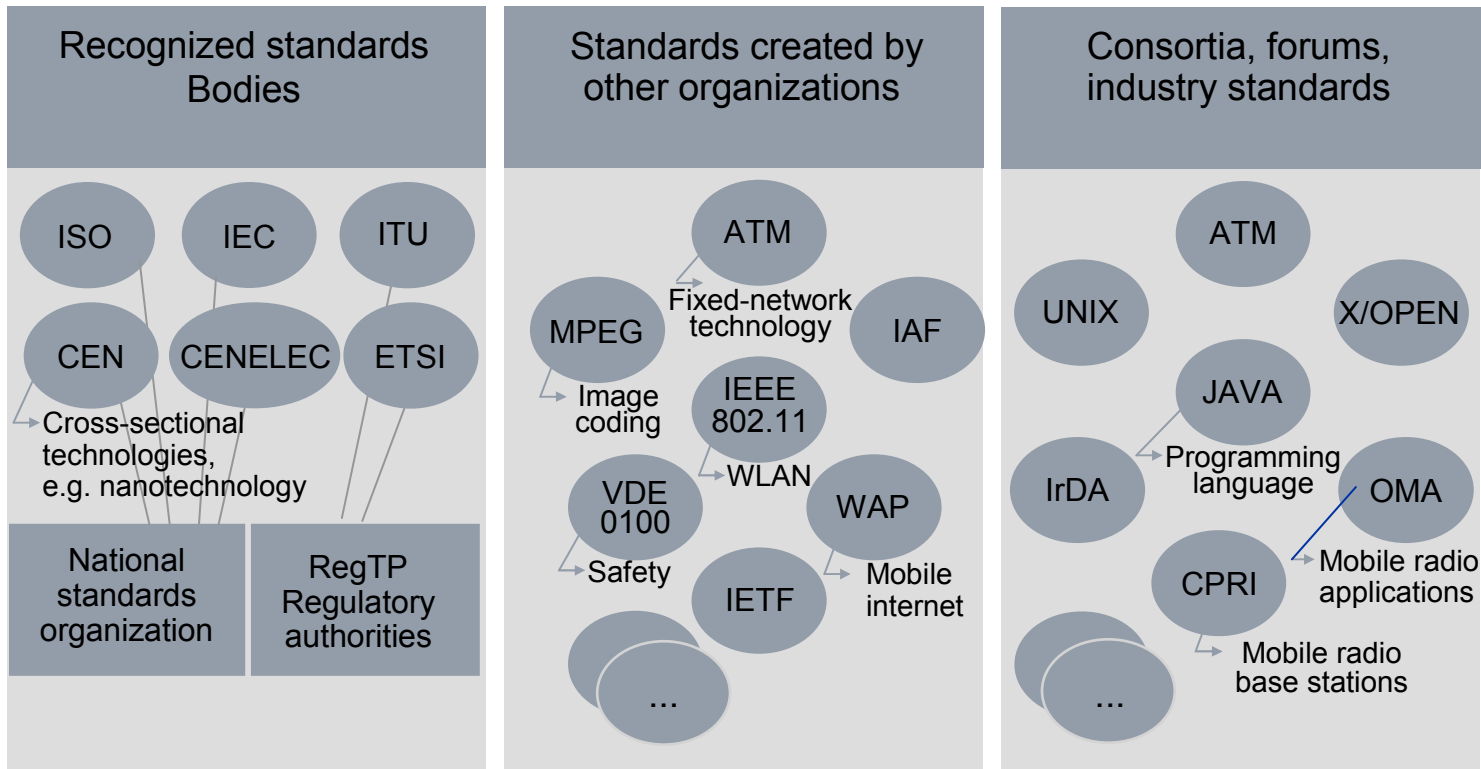
2000 Piezoelectric valves

2001 World record for data transmission on optical fiber

2003 Market launch of Transrapid

2005 Electronic Wedge Break

Innovation is our lifeblood and lets us take part...



... in an incredible big world of standardization

IPR policies – finding the right balance (1/2)

“IPR policies should be designed to balance the needs of those implementing a standard with those owing the intellectual property rights necessary to implement the standard.” But:

- How about those who do not participate in standardization?
- How about the time scale?

IPR policies – finding the right balance (2/2)

IPR policies should be designed to encourage participating in standardization - especially of those who are owning the technologies, which make a new technological concept fly.

IPR policies should be designed to avoid unreasonable conditions for those who are implementing a standard – over the whole live of the standard.

Interoperability

- How to avoid that companies create closed systems and island solutions?
- How to encourage companies to participate in a network that is merging the best technologies available?
- How to avoid that important contributors of technologies stay away from standardization and hide their solutions in secrecy?
- How to encourage companies to make their innovations accessible for everyone?
- How to implement a mechanism that safeguards competition from the very beginning - instead of afterwards trying to fight actual or alleged dominant positions with anti trust law?

Pool

- Is it worth the effort/money?
- Who will pay for it?
- Will it be set up under the roof of the SDO or independently? (Probably many IPRs will not be owned by the companies participating in standardization)?
- How will the statutes look like?
- Will the pool be operable? How will decisions be made (unanimously or by a majority)?

Ex Ante

- Do you know the price of the technology in 10 or 20 years from now?
- Can you bear the risk that companies which participate in standardization are left in a worse position than companies which do not?
- When will you enter the area of forbidden trusts and unfair competition?

Case Studies

1. ISO/IEC/ITU
2. ETSI
3. JBIG1
4. KNX

ISO/IEC Directives – General Principles

ISO/IEC

Consensus standards of public interest like safety or EMC should generally be free of IPRs

In exceptional and well justified cases patents could be included in standards

Common Patent Policy for ITU ISO IEC ITU ISO IEC

General Patent Statement and Licensing Declaration Form for ITU-T/ITU-R Recommendation ITU-T/ITU-R

1. The Patent Holder is prepared to grant a free of charge license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and under other reasonable terms and conditions to make, use, and sell implementations of the relevant ITU-T/ITU-R Recommendation.
2. The Patent Holder is prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the relevant ITU-T/ITU-R Recommendation.

ETSI FRAND (1/2)

- **ETSI requesting IPR owner to give undertaking to grant licenses under fair reasonable and non-discriminatory (FRAND) terms and conditions**

ETSI

- avoid blocking of standard following a refusal to license after creation of standard, ensure access to standard

- **Free choice of IPR owner to refuse inclusion of its IPR in a standard by refusing to give the requested undertaking IPR**

ETSI FRAND (2/2)

In case of refusal a transparent and refined procedure is initiated

- Differencing between prior and after publication, members and third parties + taking into account availability of alternative technology

- **Determination of terms and conditions of license agreement up to the parties**

- License agreement is a mutual agreement between licensor and licensee

- discussion of commercial issues shall not take place within ETSI

ETSI No involvement of ETSI in any legal and commercial discussion on IPR matters**Guide on IPRs ETSI 4.1 Licensing terms**

Specific licensing terms and negotiations are commercial issues between the companies and shall not be addressed within ETSI. Technical Bodies are not the appropriate place to discuss IPR Issues.

Technical Bodies do not have the competence to deal with commercial issues. Members attending ETSI Technical Bodies are often technical experts who do not have legal or business responsibilities with regard to licensing issues. Discussion on licensing issues among competitors in a standards making process can significantly complicate, delay or derail this process.

JBIG1 and “joint licensing commitment” (1/2)

- JBIG1 (ITU-T|ISO/IEC) T.82 „Information technology - Coded representation of picture and audio information - Progressive bi-level image compression” 1992
- Why was this possible? Because both Patent Holders and the Standards Group had consensus about the practicability of such a solution.

JBIG1 and “joint licensing commitment” (2/2)

- How?
 - An IPR and Licensing Strategy was “ex-ante” agreed by the patent holders and positively noted by the technical standardization Group JBIG
 - The 4 patent holders have recognized that they had to compete with already established RF standards (ITU-T T.4 and T.6) and therefore the market can only bear some (but not too high) FRAND terms
 - The 4 patent holders have agreed to license FRAND for 5.000 \$ each (20.000 \$ in total) for a licensee for unlimited number of implementations. They have given a written statement to JBIG about this.

KNX

- Standard for home and building controls
- The KNX IPR clearance process ensures that any patent rights (Intellectual Property Rights) that are contained in the KNX specifications can be **freely used** by all members in the KNX association
- Other examples: T.81 JPEG1 „baseline“ and „arithmetic coding“; T.851 JPEG1 based alternative coding; T.800 (JPEG2000);....

Thank you!

Questions?

One size
does not fit all

