

创新，标准，知识产权之间的平衡

Striking the Balance of Innovation, Standards and Intellectual Property

标准与知识产权论坛

Forum on the Interface of Standardisation and Intellectual Property

魏哲博士

西门子（中国）有限公司

西门子研究院

Dr. Sven Wehser

Siemens Ltd., China

Corporate Technology

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全球面临的最棘手问题

The World's Toughest Questions

SIEMENS

我们可以解决全球最棘手的问题
从**1847**年开始
这是我们的传统

**We have answers to the world's toughest questions.
This is our tradition.
Since 1847.**

气候变化 **Climate Change**

城市化 **Urbanization**

人口变迁 **Demographic Change**

全球面临的最棘手问题 The World's Toughest Questions



工业：如何提高效率，减少排放量？

Industry: How to increase efficiency, yet reduce emissions?



能源：如何远距离传输能源？

Energy: How to transmit large amounts of power over long distances?

医疗：如何同时实现骨骼和不同组织的即时呈像？

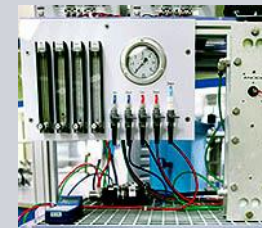
Healthcare: How to visualize bones and different types of tissue simultaneously in real-time?



创新——西门子的生命线 Innovation is Siemens Lifeblood

高效海水淡化技术 Energy-efficient desalination technology

目前西门子正在研发一种新海水淡化技术，消耗能源比之前系统减少50%。
Siemens is developing a new technology that consumes at least 50 percent less energy for desalinating seawater than previous systems.



光为加密 Encrypting with light

可防止被盗取的数据传输技术又有了新发展：近期几位合作者展示了世界上首个量子密码网络。

Data transmission that is absolutely impervious to interception has now come a step closer: several partners recently demonstrated the first quantum cryptography network.



输送管监控 Monitoring pipelines

以后一种新型感应系统将用于自动监控数千公里长的输送管，可以及时发现任何损坏征兆。
In the future, a special sensor system could be used to automatically monitor kilometers of pipeline for signs of damage.



从1847年开始致力于解决全球问题 Answers since 1847

- 解决全球棘手问题需要大量的研发支持
Answering world's toughest questions requires significant R&D,
- 我们在中国，欧洲，美国以及印度都有研发中心
R&D centers in China, Europe, the United States and India,
- 2008年西门子在研发领域的投入已达到30.8亿欧元
Siemens increased R&D spending to Euro 3.8 billion in 2008,
- 在全球拥有55000项专利
55,000 patents world wide,
- 2008年，西门子的32500名工程师创造了8200项发明
In 2008, Siemens' 32,500 engineers developed 8,200 inventions,
- 23项专利已经投入日常应用
23 patent applications every working day.

西门子是具有强大的创新能力 Siemens is an Innovation Powerhouse

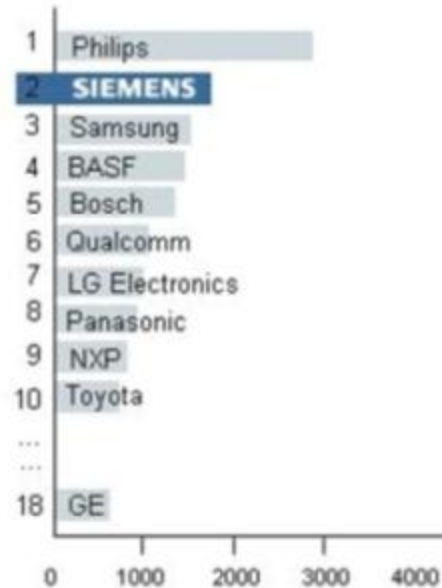
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German Patent and Trademark Office



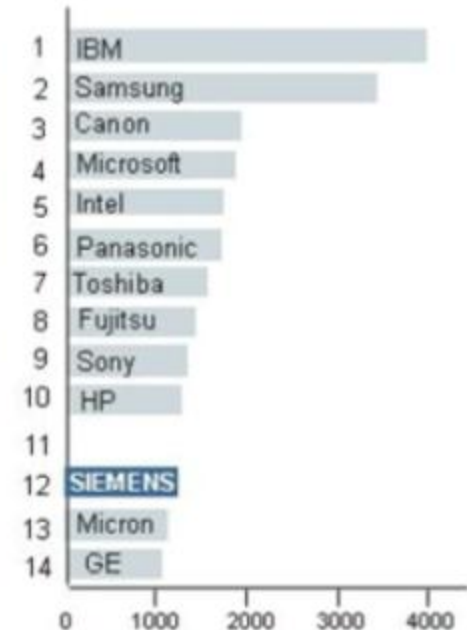
(Source: DPMA, Published Patent Applications, for the Year 2008)

European Patent Office



(Source: EPA, Patent Applications Published, for the Year 2008)

US Patent & Trademark Office



(Source: IPO, granted Patents, for the Year 2008)

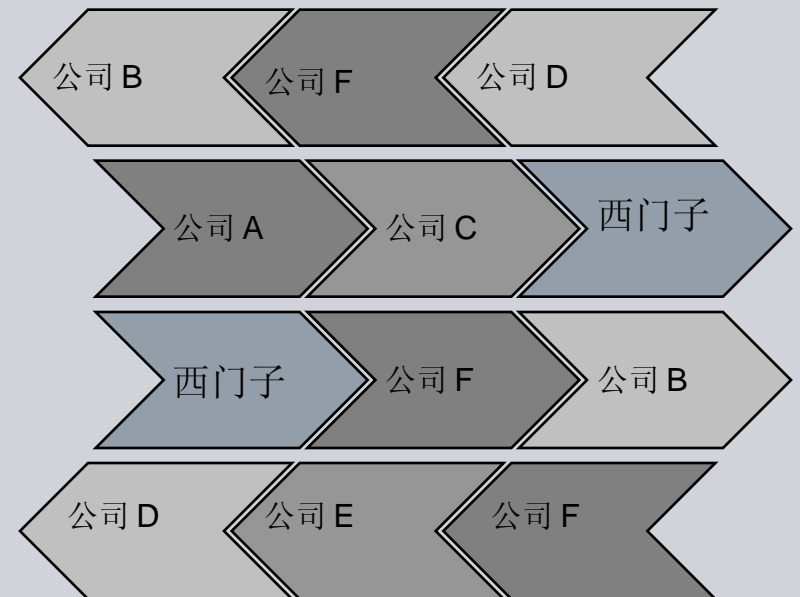
为什么要标准化？ Why Standardisation?

- 解决问题仿佛把一块块的拼图拼接在一起
Finding answers means putting together the pieces of a complex puzzle
- 许多产品和解决方案需要交互操作
Many products and solutions need to inter-operate!
- 标准化（如：界面的标准化）满足了市场需求！
Standardisation (e.g. of interfaces) answers market needs!
- 我们需要协作以保证互用性，安全性，以及环境性
We need to cooperate to ensure interoperability, safety, and environmental performance

标准开启无限商机

Standards open tremendous new business opportunities

- 只有通过标准化
Only through Standardisation
- 我们才能避免保守，不兼容，无法提升的技术
Can we avoid insular, incompatible, dead end technology
- 我们才能通过达到一定规模为开拓新市场贡献绵薄之力
Can we contribute to develop new markets by achieving a critical mass
- 我们才能向消费者提供花费少，竞争力强，可兼容，安全性高的先进技术
Offer customers advanced technology which is cost efficient, competitive, compatible and safe



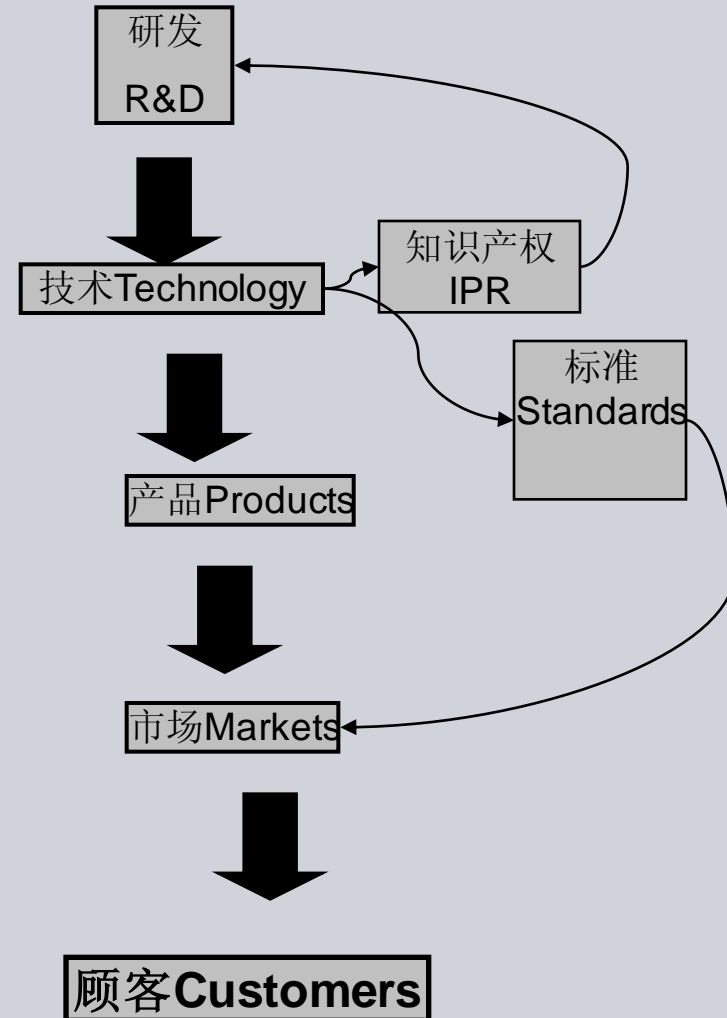
在标准化方面的积极作用 Active Role in Standardisation

- 利用标准方面的知识缩短投入市场的时间
Reduce time to market due to standards know how
- 推动最好的技术应用 Promote best technology available
- 先形成一定规模，再开拓市场 Creation of markets through critical mass
- 创造可互通产品 Create inter-operable products
- 避免保守，不兼容的解决方案 Avoid insular, incompatible solutions
- 降低商业风险 Reduce business risk
- 保证所有产品的市场渠道 Ensure market access due for all products

顾客—研发，标准以及知识产权的最终目的

The Customer – The Ultimate Purpose of R&D, Standardisation and Intellectual Property

- 研发，标准化以及知识产权活动都为同一个目标服务
- R&D, standardization and intellectual property serve one purpose only
- 为顾客提供尖端技术解决全球棘手问题
- To deliver to our customers cutting edge technology to solve the world's toughest questions
- 问题：解决开放标准与自主知识产权之间的内在冲突
- **Issue:** Resolve inherent tension between open standards and proprietary intellectual property



- 标准化应当提倡创新 Standards should promote innovation
- 创新不总是建立在专利技术基础上
Innovation often, not always based on proprietary technology (IPR)
- 涉及知识产权的标准化程序应：
Standards process involving IPR should be:
 - 稳定 Stable,
 - 可预期 Predictable,
 - 透明 Transparent,
 - 有效 Effective.

协调知识产权与标准 **Balancing IPR and Standards**

- “公正、平等、无歧视” (FRAND)原则被广泛接受
FRAND is one generally accepted principle
- 创新变得越来越复杂，许多专利技术具有可互用性
Innovation is becoming increasingly complex and various proprietary technologies inter-operate
- 众多核心专利
Multitude of essential patents
- 逐渐累积的知识产权特许使用费有可能会增加
Cumulative IPR royalty can be high

是否可以改进“合理且非歧视”(RAND)许可? Can RAND Licensing be Improved?

- 免许可费
Royalty free licensing
- 使用一项标准前公布（最高）许可税率（采取措施前声明）
Publication of (maximum) royalty rates before adoption of a standards (*ex ante* declaration)

是否可以改进“合理且非歧视”(RAND)许可? Can RAND Licensing be Improved?



- 免许可费
- Royalty free licensing
- 谁从事研发工作?
- Who will do the R&D?

是否可以改进“合理且非歧视”(RAND)许可? Can RAND Licensing be Improved?

- 使用一项标准前公布（最高）许可税率（采取措施前声明）
- Publication of (maximum) royalty rates before adoption of a standards (*ex ante* declaration)
- 标准在使用之前有很长时间的发展过程
- Long time of evolving standards, it often takes years before standards are adopted
- 多种许可模式Multitude of licensing schemes
 - 净卖价比例Percentage of net selling price
 - 比例加最低费用Percentage plus min. fee
 - 总付Lump sum payment
 - 总额折扣Volume discounts
 - 很难协调hardly comparable
- 通常要几年才可以投入市场Time to market - It often takes years
- 这一时间可以缩短Overstating, to have room

原则 Principles

- ✓ 公开 Disclosure
 - ✓ 有许可意愿 Willingness to License
 - ✓ 不干预 Non-intervention
 - ✓ 透明 Transparency
-
- 标准应当支持创新，采取措施前声明将会有困难
Standards should favor innovation, ex ante declaration can be difficult
 - 技术应当优先 Technology should take priority
 - “合理且非歧视”（RAND）复杂有缺陷，但是决定权在市场
RAND is complex and not perfect, yet market should decide