

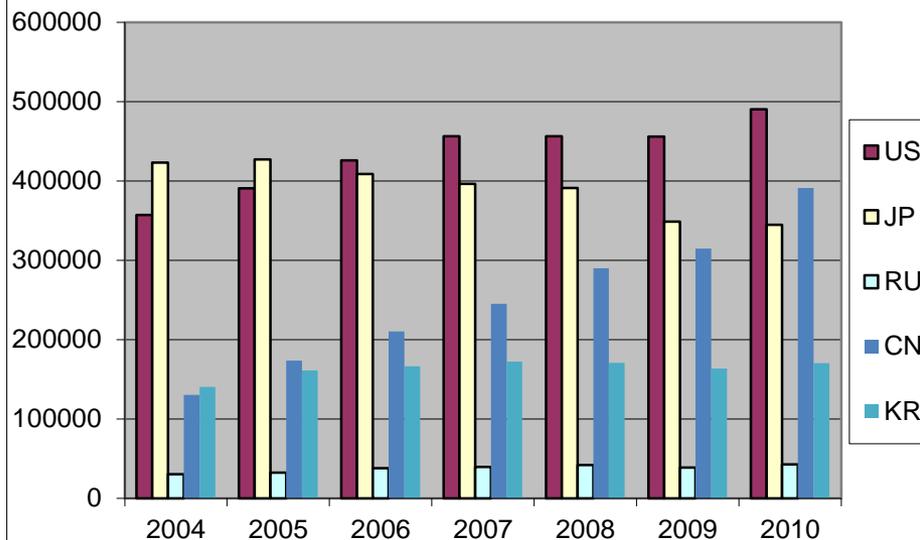
IPR Management Within the Frameworks of Cross Border Nanotechnology Commercialization

Outline

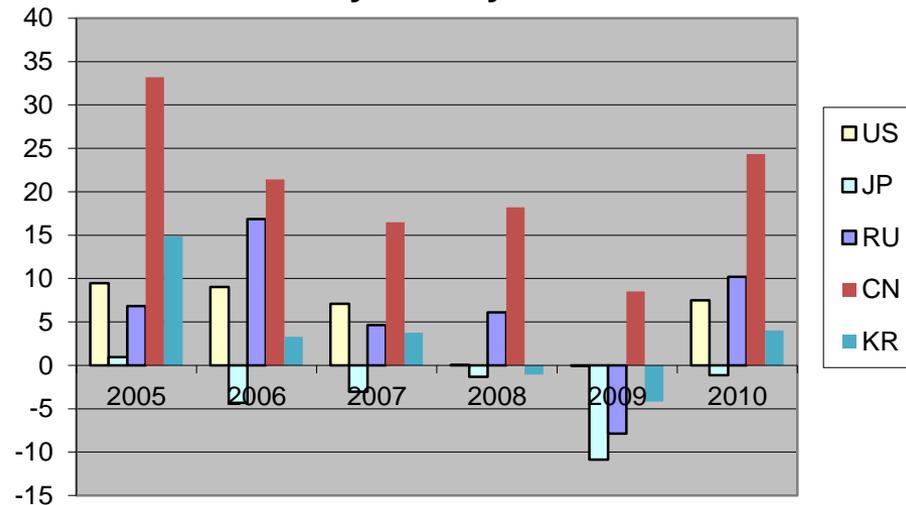
- ▼ Introduction & Statistics
- ▼ What to protect? => When to file?
- ▼ Where to file?
- ▼ Don't forget the trademarks

Introduction & Statistics

Patent Applications



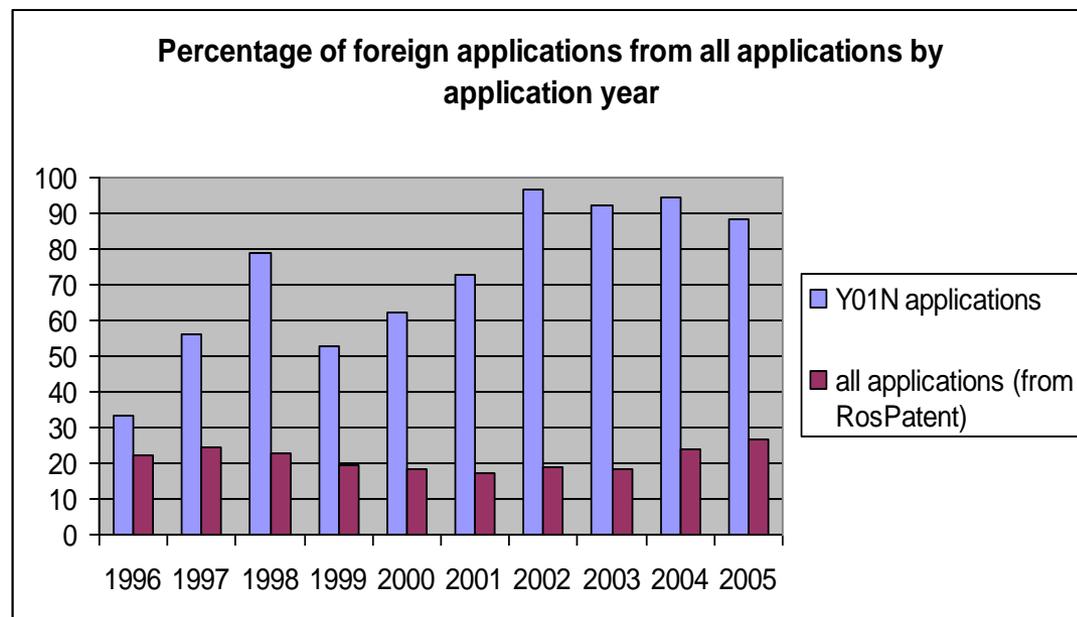
Patent Applications / Percent Change year-to-year



Introduction & Statistics

PATENTING OF NANOTECHNOLOGY IN RUSSIA

Percentage of foreign applications of all applications in Russia



What to protect

▼ Patents can be used to e.g.

- ▼1) **Attract venture capital (VC)**
 - ▼2) **Increase market value**
 - ▼3) Build a brand (increasing the value of a trademark)
 - ▼4) Defend against infringement lawsuits ("I won't sue you if you don't sue me")
 - ▼5) **Attack/Enforce: Protect the company's core technology and drive away competition**
 - ▼6) Get licensing revenue
 - ▼7) Improve negotiating position in cross-licensing situation
- } Marketing tool
- } Legal tool
- } Direct business tool

What to protect

Applications

▼...LED structures, quantum-dot lasers, nanocomposites, nanolaminate materials, fuel-cell electrodes, fuel-cell catalysts, photonic crystals, devices used for DNA mapping, scanning probe microscopes, electron microscopes, tunneling microscopes, waveguides, displays, optical fibers, quantum electronic devices, micro-mechanical devices, thin-film synthesis, construction materials, transistors, adhesives, medicines, drug delivery...

What to protect

OBTAINING A NANOTECHNOLOGY PATENT – PATENT PROSECUTION

- ▼ "Nanotechnology" can be regarded as an "unpredictable" technological field.
- ▼ Special attention should be paid to...
 - ▼ "...sufficient disclosure" of the invention, which often necessitates disclosure of a fabrication method (e.g. "shovel vs. quantum-dot laser") and a "sufficient amount" of embodiment examples. Data (e.g. clinical research) and theorization may be beneficial.
 - ▼ "...inventiveness" requiring not only small size but a "surprising/advantageous technical effect or solution" (Corresponding method may still be inventive regardless...).

What to protect

IDENTIFYING THE INVENTION

- ▼1. Identifying the invention commonly begins with a "surprising" measurement result
 - ▼What "can" be patented: USE, METHOD (broadly)

(MORE STUDIES)

- ▼2. Theorizing the mechanism (in the nanoscale) leading to the "surprising" measurement result
 - ▼What "can" be patented: USE, METHOD, PRODUCT (broadly)

(MORE STUDIES)

- ▼3. Understanding/knowing the structure leading to the "surprising" measurement result
 - ▼What "can" be patented: USE, METHOD, PRODUCT

Time



WHEN TO FILE?

Where to file

- ▼ Priority application: where do you get the best search for your invention (at the start of the process)
 - ▼ E.g., RU, US, EPO: however [check first filing requirements for e.g. RU and US]

PCT application

=>

- ▼ National phases: What region has the most business potential (company strategy)

Don't forget the trademark

- ▼ A trademark can be protected on Russia by either registering it at Rospatent or by applying for an International registration (from e.g. Finland)
- ▼ Sound, Scent, Word, Pattern OK (color not OK)
- ▼ Pay attention to non-use periods

Thank You!

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