Rosatom Approach to IPR Management in Collaborative Projects on Innovations

Natalia Belenkaya
Project Leader, Innovation Management
ROSATOM

Vienna, IAEA
November 2014
Nuclear for Development

Post-MDG Agenda

Power for infrastructure development

Applications to improve human life
Rosatom Makes Solid Contribution

- International contracts for 22 new nuclear power units
- 100 billion USD worth of contracts signed for the next 10 years
- Works in 17 countries
- Covers full nuclear fuel cycle
### Main Challenges

<table>
<thead>
<tr>
<th>CHALLENGES</th>
<th>SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. General issues regarding IPR management</strong></td>
<td></td>
</tr>
<tr>
<td>1.1. Lack of modern IPR management tools and methods, low level of awareness in the field of Intellectual Property</td>
<td>National and corporative policies in intellectual property</td>
</tr>
<tr>
<td>1.2. Differences in legal regulation of IPR in different regions and countries</td>
<td>Approximation of national IPR aspects, using regional patent procedures</td>
</tr>
<tr>
<td>1.3. Non-Practicing Entities (“Patent Trolls”)</td>
<td>Litigation/Invalidation Procedures with regard to foreign markets</td>
</tr>
<tr>
<td><strong>2. IP management issues specific to collaboration on innovations and technology transfer activities</strong></td>
<td></td>
</tr>
<tr>
<td>2.1. How to manage confidential information in collaborative projects</td>
<td>Establishing close confidential regime, NDAs</td>
</tr>
<tr>
<td>2.2. Contributing IPR to multilateral collaborations</td>
<td>Definition of Background IPR, Foreground IPR, etc.</td>
</tr>
<tr>
<td>2.2. Territoriality of patent protection according to the Paris convention on industrial property, assembling patent portfolio for international projects</td>
<td>Using conventional and unitary procedures (e.g. PCT, EPC etc.) to provide for patent protection on the foreign markets</td>
</tr>
<tr>
<td>2.3. International transactions concerning IP rights</td>
<td>Careful drafting and negotiating with regard to differences in legal regulation</td>
</tr>
<tr>
<td>2.4. Export and import control issues with regard to international IPR transactions in the field of nuclear technologies</td>
<td>Taking into account the time and resources needed for customs clearances of technologies and other objects concerning IPR</td>
</tr>
<tr>
<td>2.5. The problem of background and foreground IPR</td>
<td>Providing for special IPR management issues in multilateral agreements and contracts</td>
</tr>
</tbody>
</table>
IPR Management for Innovative Development: Comprehensive Solution

Rosatom knowledge flow

**Creation**
- Management of technical and scientific communities
  - **Outcome:** Collaboration environment to support innovation and generation of tacit knowledge

**Formalization**
- Management of scientific and technical content
  - **Outcome:** Scientific content management system

**Identification and protection of IP rights**

**Utilization**
- Management of IP rights
  - **Outcome:** Commercialization of knowledge ensuring its safety and security

Functional and business scope
Rosatom Approach – from Idea to Product

- Creation
- Formalization
- Communities
- Content
- IPR Management
- Identification and Protection of IPRs
- Utilization & Commercialization

KM system
The Importance of IPR Management for Nuclear Industry

- Safety
- Competitive Advantage
- Profit
- Capitalization
IPR Management System: General Principles

- unified, necessary & interlinked complex of IPR processes and procedures
- deals with the whole IPR lifecycle
- requests effective cooperation of wide range of specialists
- not the only Policy or Strategy (paper).
- implementation of “as is” & “to be” with regard to corporate regulations and processes
- requests top-management support
- motivation of inventors and facilitating innovative development
- unified approach to IPR COUNTING and unified IT-tools
General Overview of IPR management system in a holding company

1. IP Policy
2. IPRs mining
3. IPR creation on request
4. Selection of IPR protection mechanisms
5. Acquisition of IPRs
6. Patent protection nationally and abroad
7. Trade secrets and know-how
8. Non-patent protection
9. IPRs registration system
10. Use in the activity
11. In-holding licensing
12. IPR involved deals with third parties

Motivation of inventors
IPR and technology database

IPR enforcement
Detection and prevention of violations
Dispute resolution and claims

Sectoral license agreement
Assignment agreements with third parties
IPR Processes to Be Regulated

- Policy
- Regulation
- Order
- Instruction

Additional methodology, template documents, samples etc.

Group of processes
Processes
Subprocesses
Procedures
Operations/Actions

IPR management system

Increasing level of detail
IPR Management in ROSATOM

- Strong in-house team of qualified professionals
- Vertically integrated IP management system
- Modern IT system to manage patent portfolio and technologies
- Corporate IP-policy, regulations and guidelines
To Manage IPR Professionally

Corporate centre of competence on IPRs management (IP-оператор)

- Technology Management
- Foreign Patents
- Strategic Transactions
- IP-Policy implementation
- Managing state IPRs

New challenges

Demand on new technologies and applications

Enhancing capacity building of global nuclear energy
IPR Management in Collaborative Projects

- Technology holder is technology developer
- Technologies are assembled into TECHNOLOGY PORTFOLIO
- Technology portfolio protected and sold as license to foreign entities
- Several technology holders and technology developers
- New technology belongs equally to technology developers
- Revenue from technology utilization is split between technology holders

- Technology developer invests capital and technology holder provides IP
- Technology holder receives shares traded in for technology portfolio (IP)
- Technology developer receives capital from investor
- Technology developer becomes technology holder
- Investor receives discounted license for a new technology
Model 1. Technology Transfer

- **Competitive product protected on foreign market**
  - TECHNOLOGY USER
  - TECHNOLOGY USER
  - TECHNOLOGY USER

- **Single technology portfolio of IP rights**
  - Integrator
    - Technology 1 (IP rights portfolio)
    - Technology 2 (IP rights portfolio)
  - Organizations
    - Project 1
    - Project 2
    - Project 1
    - Project 2
  - Technology authors
    - R&D
    - R&D
    - R&D
    - R&D
Model 2. Joint Technology Development

PARTNER 1

Technology 1

JOINT TECHNOLOGY

Technology 2

PRODUCT

REVENUE SPLIT AS AGREED
Model 3. IPR for Shares
Model 4. Capital for Discounted License
Case Study: MBIR Facility

Top intended mission of MBIR:
- Enhancement of international R&D infrastructure for future innovative nuclear power system

Basic parameters of MBIR reactor:
- Thermal power 150 MW
- Maximum neutron flux $5.5 \cdot 10^{15} \text{n/(cm}^2\cdot\text{sec)}$
- Designed life time 50 years

MBIR reactor conceptual view:
- Priority on research activities providing reliability and safety of operation
- Tight schedule: commissioning in 2019, thus quick fundraising
- Closed fuel cycle to minimize fuel cost
- MBIR experimental capabilities could be upgraded: more loops, irradiation devices, neutron beams
Advantages of International Collaboration

International partners

Worldwide community

MBIR project

Additional expertise and experience

Modern features of control and measurement, diagnostic equipment

Guaranteed international contracts

Wide cooperation

Research studies at MBIR after 2020

Russian expertise & experience

Expansion of cooperation with Russian experts

Strengthening the cooperation atmosphere

Russia

The content of this presentation is for discussion purposes only, shall not be considered as an offer and doesn’t lead to any obligations to Rosatom and its affiliated companies. Rosatom disclaims all responsibility for any and all mistakes, quality and completeness of the information.
Proprietary Information and IPR Policy

- Creators of jointly developed IPRs shall take reasonable steps to protect it
- Unless otherwise agreed jointly managed IP assets shall be used free of charge by each creator in own business and for future research
- User fees are not charged for MBIR IRC research
- Full cost recovery is required for bilateral research
- Non-proprietary information – jointly issued IRC reports
- Proprietary information – any other kind of information and documents separately agreed on
- Compliance with export control requirements and shipping regulations is subject to each User’s obligation

<table>
<thead>
<tr>
<th>Research</th>
<th>Non-proprietary</th>
<th>Proprietary</th>
<th>IP assets’ ownership</th>
<th>User Fees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bilateral, including access to irradiation</td>
<td>☑</td>
<td></td>
<td>joint</td>
<td>depends on agreement with host</td>
</tr>
<tr>
<td>and PIE at home</td>
<td></td>
<td>☑️</td>
<td>sole</td>
<td>depends on agreement with host</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>optional</strong></td>
<td></td>
</tr>
<tr>
<td>Joint R&amp;D Program, approved by Steering</td>
<td>☑</td>
<td>☑️</td>
<td>joint</td>
<td>not charged</td>
</tr>
<tr>
<td>Committee</td>
<td></td>
<td></td>
<td>sole</td>
<td></td>
</tr>
<tr>
<td>ROSATOM National R&amp;D Program</td>
<td></td>
<td>☑️</td>
<td>sole</td>
<td>not charged</td>
</tr>
</tbody>
</table>
How to Organize Effective IPR Management

- Researcher is to propose
- Integrator chooses and decides
- Enhancing mutual IPR protection
Case Study: How to Enhance IPR Utilization within National Research Programme

Free of charge license agreement

Non-exclusive license

Sublicensing opportunity

Cross-licensing is possible
Thank You for Attention!

Natalia Belenkaya
Project Leader, Innovation Management

E-mail: NVBelenkaya@rosatom.ru
Phone: +7 (499) 949-42-79