# Table of Contents

- Foreword .............................................................................. 5
- Info About ktMINE ................................................................... 7
- Anatomy of a License Agreement .................................................. 13
- Lessons Learned in *Amazon v. IRS* on Valuing Marketing Intangibles .......................................................... 17
- Alternative and Renewable Energy ..................................................... 21
- Biotechnology ........................................................................ 25
- Business Services ...................................................................... 29
- Chemicals ............................................................................. 33
- Computers: Hardware and Software ................................................ 37
- Consumer Durables .................................................................... 41
- Consumer Nondurables ................................................................. 45
- Consumer Services.......................................................................... 49
- Entertainment . ........................................................................ 53
- Environmental Waste and Management ................................................ 57
- Financial Services....................................................................... 61
- Foods and Nonalcoholic Beverages .................................................. 65
- Healthcare: Facilities ................................................................. 69
- Healthcare: Pharmaceuticals ............................................................. 73
- Healthcare: Products and Supplies .................................................. 77
- Industrial Equipment and Machinery ............................................. 81
- Internet . .............................................................................. 85
- Oil & Gas, Mining, Metals ................................................................. 89
- Retail ................................................................................ 93
- Telecommunications. ................................................................. 97
- Transportation Equipment .............................................................. 101
- Sample License Agreement . .............................................................. 105
I am delighted to present the BVR/ktMINE Royalty Rate Benchmarking Guide, 2017-2018 Global Edition. This guide provides a comprehensive report on global licensing royalty rates and an analysis of value within specific industries. ktMINE collected and analyzed royalty rate information published in the public domain between 2006 and 2016 for the basis of this guide.

Acknowledgments
In response to the abundant feedback we received regarding previous editions of the BVR/ktMINE Royalty Rate Benchmarking Guide, ktMINE and BVR recognize the need for continued industry analysis on royalty rates. Disproving the myth that global royalty rate information is not available, we developed this report on industry-level licensing and royalty rate trends to provide greater valuation insights.

Comprehensive Source
ktMINE is dedicated to providing the most recent filings from the public domain while maintaining the most comprehensive repository of intellectual property (IP) data. These filings contain agreements with effective dates ranging from the current year to several years in the past. For instance, an agreement can be filed today but have an effective date from five years ago. This is often the case for agreements that have recently become material or are maintaining their materiality. Thus, prior-year results will change due to this phenomenon, and the variations in the data presented in different editions of the guide can be attributed to this.

Intellectual Property Driving Corporate Value
As the Economics & Statistics Administration and the United States Patent & Trademark Office reported in 2016, the total value IP-intensive industries added amounted to 38% of U.S. GDP. In a similar study the European patent office conducted, 42% of total economic activities in the EU can be attributed to IP-intensive industries. The rising impact of IP on corporate value has driven corporations to focus on the competitive advantages offered through the ownership, utilization, and commercialization of strategic IP portfolios.

With so much opportunity at stake, striking the right balance between IP exploitation and protection is an increasingly key business objective for many organizations. Yet even the fundamental step of deriving an accurate IP portfolio valuation can pose a significant challenge due to insufficient transactional insight and/or lack of a clear-cut methodology for analysis.

Market Evidence Strengthens Deals
The BVR/ktMINE Royalty Rate Benchmarking Guide, 2017-2018 Global Edition, was developed to help analysts seeking clarity in this new valuation frontier. The industry insights in this guide are meant to improve transparency from licensing transactions in a global marketplace that is often murky. The statistics in this guide are best used as a starting point in questioning the selection of royalty rates and should be counterbalanced by analyzing the specific market, industry, and other factors pertinent to the particular IP under examination. As referenced in recent court cases such as Amazon v. IRS and StoneEagle Services Inc. v. Pay-Plus Solutions, Inc., supporting evidence is imperative to strengthen and defend your analyses. The information provided here is not intended to replace thorough economic analysis; rather, it is meant to serve as an aggregated, big-picture indication of trends within industries. Relying purely on industry trends without an understanding of the underlying data leaves analyses open to scrutiny.

ktMINE and BVR release the BVR/ktMINE Royalty Rate Benchmarking Guide, 2017-2018 Global Edition, in the continuous effort to improve market transparency by demonstrating the impact royalty rate data has on valuation and expertise analyses. Our ultimate goal is to help IP owners and stakeholders strengthen deals across the globe.

David R. Jarczyk
President and CEO, ktMINE
1. Overview
ktMINE is a leading intellectual property (IP) data and analytics platform. It is the only platform that finds, connects, and analyzes IP data, simplifying the research process, minimizing research time, and maximizing analysis power. ktMINE is the most comprehensive repository of IP data, including license agreements, royalty rates, patents and assignments, trademarks and assignments, M&A deals and rumors, patent court cases, IP connections, IP portfolios, corporate trees, and IP news. By aggregating IP in a single location, ktMINE is able to make connections across data sets and create custom applications for a broad range of research needs.

The ktMINE Royalty Rates application provides direct access to royalty and market rates, full text license agreements, and detailed agreement summaries. Finding comparable royalty and market rates has never been easier. Quickly find and analyze market comparables from over 17,000 unredacted IP license agreements with over 65,000 royalty rates.

A team of valuation and transfer pricing professionals who had spent valuable time hunting for the right market comparables envisioned and developed ktMINE. In search of a faster, more efficient process, they joined together to create the world’s most robust repository of license agreements and royalty rates. Through a proprietary process, ktMINE technology searches the public domain for relevant data. Using a 30-point-plus checklist, ktMINE expert analysts review the data and enter IP license agreements, patents, and trademarks from publicly available sources, such as the SEC, into their vast repository of IP data. While available agreements may contain redacted information, ktMINE expands their data through obtaining unredacted documents from Freedom of Information Act (FOIA) requests. Each document is analyzed to ensure it contains royalty rate data and has associated keywords that reflect the true context of each agreement. Additional checkpoints include effective date, industry, rights granted, and more.

2. Accessing the Data
Business Valuation Resources distributes ktMINE, which can be found at www.bvresources.com/ktMINE. Analysts can also access more information about the database at the same website. Access to the database can be purchased as a 24-hour pass or as a subscription. Prepaid accounts are available. The ktMINE database is accessed through a portal at www.bvresources.com/ktmine. For further information, you may call, fax, email, or mail us as follows:

Phone: 503-479-8200
Fax: 503-291-7955
Email: sales@bvresources.com
Mail: Business Valuation Resources
111 SW Columbia Street, Suite 750
Portland, OR 97201

3. Sample Transaction Report
A typical “transaction report,” called the “results summary” in ktMINE, consists of an analysis of each agreement found within a search set. The analysis contains a synopsis of the agreement, written by a ktMINE analyst, and a list of the search criteria assigned to that agreement. (See the following pages for further discussion of the available search criteria.) In addition, the variable royalty rate data in each agreement in the search set are extracted, with contextual language from the agreement provided. Exhibit 1 is a typical results summary. It represents one agreement in a search set of 101 such agreements. The results summary in each of the 87 agreements follows the same format.
4. What Is Included in the Transaction Data?

ktMINE’s data repository houses thousands of public agreements and contains license agreements, as well as service contracts, referral agreements, and more. ktMINE users can run unlimited searches and see unlimited results, which include all royalty rates and full text for various agreement types, including:

- Patent agreements;
- Know-how agreements;
- Process agreements;
- Trademark agreements;
- Trade name agreements;
- Copyright agreements;
- Cross-license agreements;
- Joint development agreements;
- Distribution agreements;
- Sales agent agreements;
- Franchise agreements;
- Advertising agreements;
- Service agreements; and
- Software agreements.

5. General Steps to Follow When Using the Data

1. All searches for royalty rates in ktMINE begin at the Search Center page, and most begin with a determination of “Agreement Type” and “Industry.” (See Exhibit 2.)

2. Searches can be narrowed by SIC, effective date, licensor and licensee, exclusivity, and keyword.

As search criteria are added, researchers can follow the effects on the results of each. (See Exhibit 3.)

As an example of this process, Exhibit 2 and Exhibit 3 show how these filters are used. Beginning with the “Agreement Type” filter, a researcher can select “Marketing Intangible” to filter his or her results to 5,223. Adding keyword “Agribusiness” to the search reduces the search set to 101 agreements. Note the circled column in Exhibit 3. Once a second step is added to a search, a Boolean option is added. A researcher could have chosen “And Not” Agribusiness in this example.
6. Gathering Transaction Data for a Valuation Assignment

Once an analyst has refined a search to a manageable number of agreements, summaries of those agreements are one click away. In the above example, marketing intangibles in agribusiness, we know 101 agreements match the search criteria. The Results Summary tab yields summaries for those 101 agreements, with each summary including a synopsis of the agreements, a list of all of the search filters assigned to the agreement, and an extraction of royalty rate data. Agreement 54 in the set of 101 agreements can be seen in Exhibit 4.

---

**Exhibit 4. Synopsis of Agreement 54 of the 101 Agreements**

If this agreement is interesting or relevant to the analyst, one click produces the full text of the agreement. **Key point:** ktMINE is a Web-based system, and, therefore, the Find function on your browser (Control + F) allows you to efficiently search the full text of the agreement for relevant royalty rate information, terms, milestone arrangements, etc.

If the agreement works as a comparable for the analyst, he or she can create a folder in which to save the document and its summary. The best way to look at it is computer logic got the analyst to the 101 agreements; the analyst’s judgment and expertise need then be applied.

Again, looking at Agreement 54, the analyst can create his or her own set and save the agreement into that set by accessing the circled area as shown in Exhibit 5.

Full text is printable for documentation.
Finally, analysts can enlist the help of ktMINE’s Analysis Center for a look at the royalty rates in a search set, analyzed by quartiles. It is not uncommon for analysts to copy and paste these data into reports.
Exhibit 7: Finding and Analyzing Royalty Rates

1. Determine Existence of Market Royalty Rates
   - Internal Market Royalty Rates
   - External Market Royalty Rates

2. Assess Comparability

3. Interdependent Comparability Factors
   - Business Relationship Between Licensor & Licensee
   - Exclusivity & Restrictions
   - Uniqueness of IP
   - Territory & Field of Use
   - Profit Potential
   - Duration
   - Functions & Risks Born by Licensor vs. Licensee
   - Rights to Receive Updates & Modifications

4. Establish Defensible Market Royalty Rates

©2017 ktMINE. All rights reserved.
Industry Royalty Rates

Alternative and Renewable Energy

Includes:

- Alternative energy, defined as energies that are nontraditional and have low environmental impact
- Solar power
- Wind power
- Hydroelectric power
- Biofuels
- Products, equipment and software used by this industry’s establishments
- Other related products and activities

Highlights:

- Licensed rights range across many industries including:
  - Biomass-derived fuels and energy
  - Solar panel technology
  - Water and waste desalination
  - Electric car batteries.
- Gross sales and net sales royalties are utilized nearly equally among manufacturing/process intangible agreements.
- Service agreements commonly utilize cost-based royalty rates.
- Distribution agreements have the lowest royalty rates among all agreement types.
- There are similar royalty rates as a percentage of sales for marketing or manufacturing/process intangible agreements, with median rates around 5% of net sales.
- Cost-based royalties are most commonly used among agreements made in the United States.
- A large number of agreements are also included in the “Business Services” industry.
- Sublicense agreements are more commonly used among worldwide territories.

See paid version for data
Agreement Type

Alternative and Renewable Energy Marketing Intangibles—Last 10 Years (2006-2016)

License for the right to utilize a combination of manufacturing/process intangibles and marketing intangibles.

License for the right to utilize intangibles such as:
- Trademarks;
- Trade names;
- Trade dress;
- Copyrights;
- Service marks; and
- Logos.

Agreement Type Analysis

Technology / Manufacturing Intangibles
Marketing Intangibles
Combination Intangibles (Both Marketing and Technology Intangibles)

Median Royalty Rate: 4.5% of Net Sales
(% of net sales, 11-year median for exclusive deals)

Agreement Type Analysis

Median Royalty Rate: 4.5% of Net Sales
(% of net sales, 11-year median for exclusive deals)

Territory Analysis

Asia Pacific
Europe
North America
South America
Africa
Worldwide

License is likely to grant the right to use any of the following in the manufacture of a product:
- Patents;
- Processes;
- Know-how;
- Technical information;
- Recipes;
- Formulations; and
- Training materials.

See paid version for data

License for the right to utilize a combination of manufacturing/process intangibles and marketing intangibles.

See paid version for data

See paid version for data
Summary Agreement for Alternative and Renewable Energy Industry

Synopsis

Grant the right to utilize the Licensed Technology (Patents and Proprietary Materials) to develop, have developed, manufacture, have manufactured, import, export, use, market, offer for sale, sell, have sold and otherwise commercialize and exploit the Licensed Products in the field of (i) consumer electronics including wearable electronics, mobile phones, smart devices and electric batteries, including rechargeable and non-rechargeable batteries; and (ii) electric vehicles.

Agreement ID: 106601
Filing Company: BLUE SPHERE CORP.
Licensor(s): NANYANG TECHNOLOGICAL UNIVERSITY (SINGAPORE)
Licensee(s): BLUE SPHERE CORPORATION
Effective Date: 11/03/2014
Term: Perpetual
Type: MANUFACTURING/PROCESS INTANGIBLE
Industry: ALTERNATIVE AND RENEWABLE ENERGY, ELECTRIC UTILITIES, ENVIRONMENT AND WASTE MANAGEMENT
SIC Code: 7370
Territory: WORLDWIDE
Exclusivity: MULTI-EXCLUSIVITY

Royalty Rates

<table>
<thead>
<tr>
<th>License Actuals</th>
<th>Value</th>
<th>Agreement Base</th>
<th>Modifier</th>
<th>Common Base</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.5%</td>
<td>NET SALES</td>
<td>In addition to any milestone payments, Licensee will pay to NTU royalties in respect of all sales, leases or other transfers of Licensed Products during the Term of this Agreement, such amounts to be exclusive of any applicable GST payable by Licensee on such royalties, at the following rates: (a) three and one half percent (3.5%) of Net Sales ofPatented Licensed Products; and (b) three and one half percent (3.5%) of Net Sales of Other Licensed Products.</td>
<td>NET SALES</td>
</tr>
<tr>
<td></td>
<td>3.5%</td>
<td>NET SALES</td>
<td>In addition to any milestone payments, Licensee will pay to NTU royalties in respect of all sales, leases or other transfers of Licensed Products during the Term of this Agreement, such amounts to be exclusive of any applicable GST payable by Licensee on such royalties, at the following rates: (a) three and one half percent (3.5%) of Net Sales ofPatented Licensed Products; and (b) three and one half percent (3.5%) of Net Sales of Other Licensed Products.</td>
<td>NET SALES</td>
</tr>
<tr>
<td>Sublicense Actuals</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15%</td>
<td>SUB-LICENSE</td>
<td>In addition to any milestone payments, Licensee will pay to NTU royalties in respect of all sales, leases or other transfers of Licensed Products during the Term of this Agreement, such amounts to be exclusive of any applicable GST payable by Licensee on such royalties, at the following rates: (a) three and one half percent (3.5%) of Net Sales ofPatented Licensed Products; and (b) three and one half percent (3.5%) of Net Sales of Other Licensed Products.</td>
<td>NET SALES</td>
</tr>
</tbody>
</table>
ktMINE Royalty Rates provides an organized gateway to canvass the landscape of IP licensing payments and terms. Full licensing details are captured and complete license agreements are viewable to enable thorough due diligence.

**Advantages**
- Unlimited access to full intangibles licensing agreements for each summary
- Ability to quickly locate relevant information
- Full royalty and market rate detail that can be integrated into analysis models
- Access to the same intangibles licensing data and documentation used by many government agencies and tax authorities across the globe
- Access to hard-to-find compensation terms such as cost-plus and profit-split payments
- Complete royalty rate detail, including all tiers

**Data Coverage**
- Over 60,000 royalty and market rates, representing nearly 16,000 intangible license agreements
- Agreements representing cross-border licensing rights, including Manufacturing and Marketing intangibles, Software, Service, Asset Purchase, Distribution, Franchise, Joint-Development and Cross License licensing terms
- Over 200 countries represented in licensing territories
- Licensing records continually added, with the most recent filings added first

**ktMINE Search Center**
- Begin by combining any number of search filter criteria
- Use Boolean logic conditions to further refine your search
- View number of search results before viewing Results Summary

www.ktMINE.com  ©2012-15 ktMINE. All rights reserved.
Key agreement details are captured and made available in one convenient location for more efficient analysis.

### Analysis Features
- Organize projects by client and engagement
- Combine multiple searches to find the best intersection of comparables
- Accept and Reject individual agreements
- Select individual royalty rates and rights by agreement
- Archive prior projects for backup and easy updates

**REQUEST INFORMATION/QUOTE**
For more information or to learn about subscription options, please visit bvresources.com/ktMINE or contact us at (503) 479-8200 ext. 2 or sales@bvresources.com.
About Business Valuation Resources

Every informed stakeholder in business valuation, performance benchmarking, or risk assessment turns to Business Valuation Resources (BVR) for authoritative deal and market data, news and research, training, and expert opinion. Trust BVR for unimpeachable business valuation intelligence. BVR’s data, publications, and analysis have won in the boardroom and the courtroom for over two decades.

Deal & Market Data

- Pratt’s Stats
- Public Stats
- BIZCOMPS
- PitchBook Guideline Public Company Comps Tool
- Economic Outlook Update
- Factset Mergerstat/BVR Control Premium Study
- Stout Restricted Stock Study™
- Valuation Advisors Discount for Lack of Marketability Study
- ktMINE Royalty Rate Data & License Agreements
- First Research Industry, State & Province Profiles
- BizMiner Industry Financial Reports
- Mergerstat Review & Mergerstat Review Monthly
- Valuation Handbook Risk Premium Toolkit
- Valuation Handbook - U.S. Industry Cost of Capital
- Valuation Handbook – International Industry Cost of Capital
- Butler Pinkerton Calculator – Total Cost of Equity and Public Company Specific Risk Calculator

News & Research

- Business Valuation Update
- BVLaw
- Economic Outlook Update
- Business Reference Guide Online

Training & CPE

- Webinars
- Web Workshops & Special Series
- Desktop Learning Centers
- Self-study CPE
- eLearning

Guides, Books & Reports

- Digital Library
- Guides & Books
- Special Reports
- Legal Compendiums
- Yearbooks

Learn more about all of our offerings at: bvresources.com

Contact us at: 1-503-479-8200 or info@bvresources.com