

## Research Article

# An Analysis of the Russian Patent Situation in the Context of the Ukrainian Situation

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This research analyses the Russian patent landscape, particularly focussing on the implications of the Ukrainian situation and subsequent global economic sanctions. Utilising global patent databases, the study identifies that over the last decade, 77,000 patents have been granted in Russia to foreign entities, with the largest numbers attributed to the United States, Japan, and Germany. An observable decrease in patent applications by foreign entities in Russia from 2018 onwards is documented.

Amidst sanctions and Russia's new laws limiting infringement compensation, potential isolation of Russia from global patent systems is anticipated. This isolation permits internal infringement of non-Russian patents while externally exposing Russian innovations to unimpeded global use. The data and trends presented here provide insights into the impacts of geopolitical events on international patent filings and offer a basis for evaluating the evolving functionality and utility of global patent systems amid international conflicts.

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## Introduction

In light of the post-war economic sanctions on Russia, many other companies around the world have received much criticism for the continuing provision of products and services in Russia. This public criticism prompted us to research companies that may have ongoing economic interests in Russia. One tool for discovering these companies is a careful analysis of the global patent databases.

In this context, we examined the patent landscape in and around Russian patent rights. The methodology that we chose to use was a careful review of the publicly available information in the global patent

databases (through the use of the premium proprietary patent research tool, Derwent Innovation<sup>1</sup>). We searched for Russian patent rights (both standard patents and utility patents) published over the last ten years where the owner of a Russian patent right was not domiciled in Russia (i.e., the patent in question was first filed outside of Russia).

## Results

In the last ten years (to 2022), about 77,000+ patent rights have been granted in Russia to overseas (non-Russian) entities. United States entities are collectively by far the largest owners of granted patents in Russia, with 21,144 collective Russian patent rights. Chinese entities have about 5,000 granted patent rights in Russia. Australian entities have just 323 granted Russian patent rights. See Table below.

Country of Origin of Patent Owning Entities	Number of Patent Rights Granted in Russia
United States	21,144
Japan	7,095
Germany	6,957
PRC	4,936
France	3,868
UK	2,371
Italy	2,225
South Korea	1,833

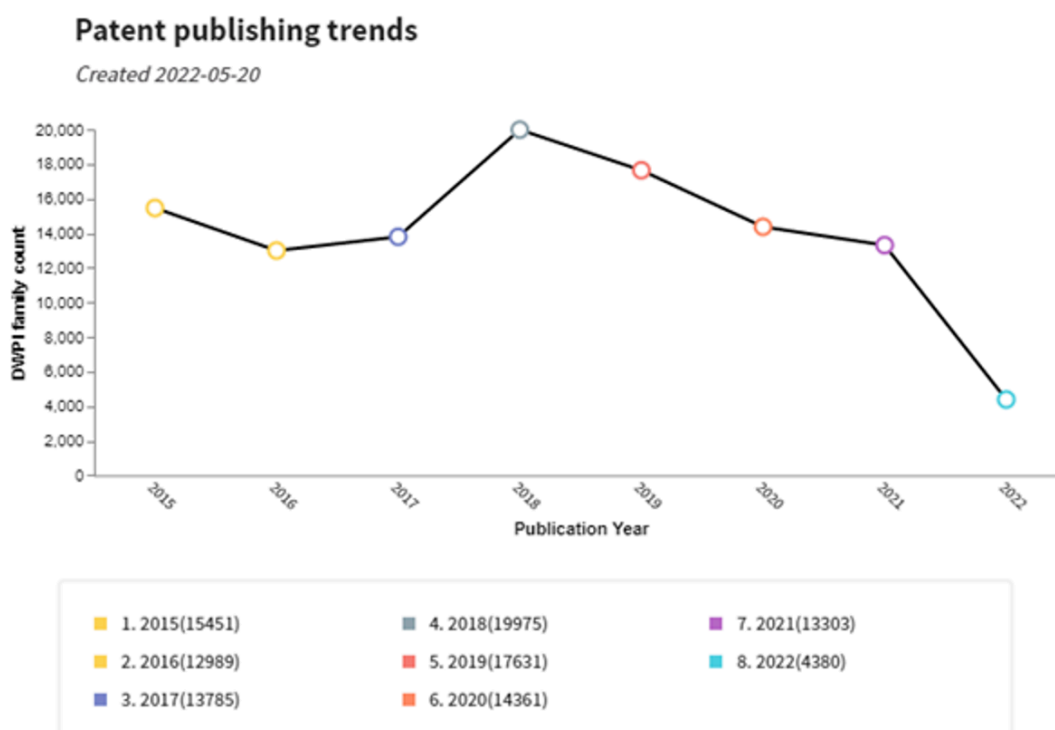
**Table 1.** Cumulative number of Russian patents granted between 2012 and 2022 to entities by country of origin of the patent owner

Looking at individual non-Russian entities, the Ford Motor Company holds the most granted Russian patent rights (2,212). The rest of the top 10 companies in this category are shown in the table below, with a mixture of technology sectors being represented, including automobile technology, consumer electronics, communications, aerospace and even tobacco interests.

Entity of Origin	Number of Patent Rights Granted in Russia
Ford Global Tech LLC	2,212
Koninklijke Philips NV	1,912
Huawei Technology Co Ltd	889
Siemens AG	877
Toyota Motor Company Ltd	819
Nissan Motor	771
Xiaomi Inc	695
Philip Morris Products SA	590
Ericsson Telephone AB	574
Boeing	528

**Table 2.** Top ten cumulative number of Russian patents granted between 2012 and 2022 to foreign entities

We also reviewed trends in patent applications filed in Russia by the foreign entities by year (including those patents that were not necessarily granted at the time of this study). Overall, there has been a downward trend in the filing of patents by foreign entities in Russia since 2018. Generally, such a trend occurs because enforcing patent rights in a jurisdiction has a diminishing return on investment, often due to costs and difficulties related to enforcement processes or because of poor economic conditions in the country of interest, or because of cost-saving measures by the corporate sector. *Note: the lowish 2022 result in the figure below is only for a half year when this data was analysed.*



**Figure 1.** Cumulative number of Russian patents granted between 2015 and 2022 to all foreign entities, by year

The Russian patent application rate by year is shown below for the top-filing foreign applicant entities. Interestingly, many of these companies seemed to have started pulling out of the Russian patent system well before the current Ukrainian war. Noting that it is difficult, if not impossible, to measure the Return on Investment (ROI) for patents, the decision to file a patent in more or fewer countries is usually deferred to an “expert” IP committee within a company, which is usually not overly concerned with costs and benefits. When such a committee reduces the number of countries that any patent is filed in, that is usually a reflection of the finances of the company making the decision and not the economic conditions in the country under consideration. Indeed, since patents typically have a 20-year life, decisions to patent or not to patent in a specific country should not be made solely on current economic conditions in that country. Therefore, it is possible that the data shown in Figure 2 reflects general cost-cutting, or IP-specific cost-cutting, by these top patenting companies. Alternatively, it could have been a collective belief in the contracting value of patents in Russia over this period.

## Top assignees by year

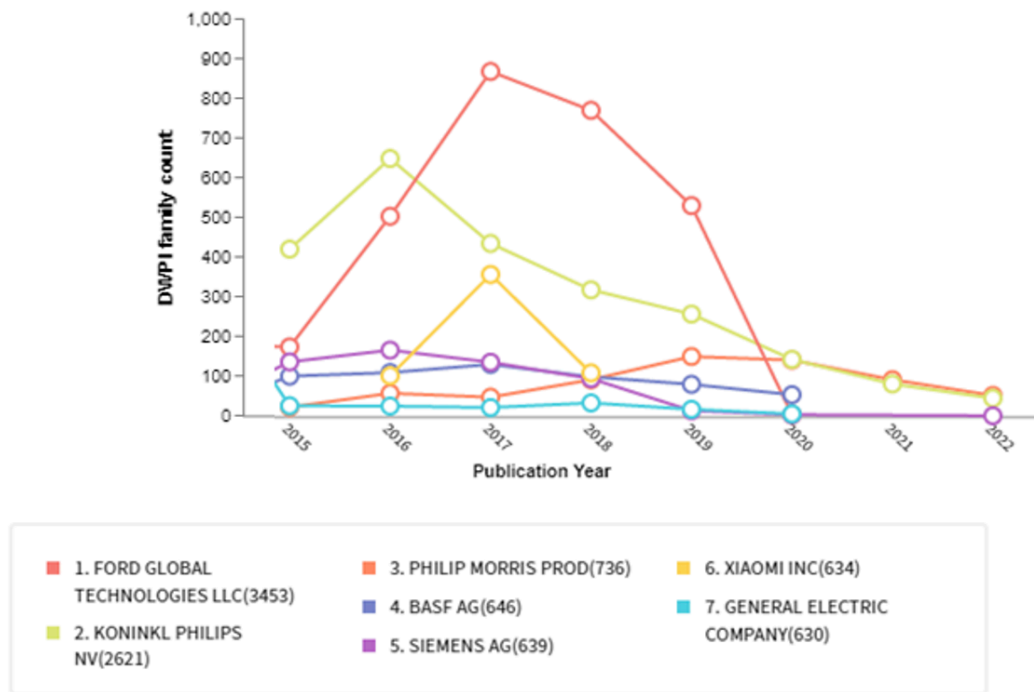


Figure 2. Cumulative number of Russian patents granted between 2015 and 2022 to specific foreign entities, by year

## Discussion and Conclusion

Due to the economic sanctions surrounding the Ukrainian war there have been many unprecedented activities associated with Russian patents:

- Many countries, including the US, have introduced sanctions that include restrictions on processes associated with new patent filings in Russia.<sup>2</sup>
- Russia recently enacted a law that limits compensation for infringement of patents held by patentees of certain “unfriendly” countries, including the United States, Canada, EU Member States, the UK, and Australia, to 0% of the actual revenue of the individual/person who has exercised the right to use the invention.<sup>3</sup> The practical result of this is that a large majority of the 77,000 patent rights granted to foreign entities over the last ten years should now be written off or written down. Our estimated collective patenting costs for these 77,000 patent rights is ca. \$3b.

The result of these measures is that the rate of patent applications in Russia by foreign entities is predicted to fall to extremely small numbers.

Collectively, these actions will likely cut Russia off from the world patent systems. Companies in Russia will be free to infringe any non-Russian patented technology without fear of the enforcement of infringement by foreign patent owners, but will not be able to export products derived from those technologies with any patent protection to any country that is still in the world patent system where enforceable rights exist (i.e., just about everywhere – see <https://bit.ly/39Dvmnds>).

On the other hand, any Russian company patenting in Russia will be unable to access reciprocal patent rights in other countries, which would lead to a situation where their published technologies (i.e., their Russian patent documents) would be freely and readily available for use by entities outside of Russia. Will these companies continue to use the Russian patent system? One expects not.

From a business point of view, holding on to patent rights in Russia might make sense because of the 20-year patenting life (term) and the possibility that the patent system will recover in this time frame if the Ukrainian war ends, and a political détente is achieved between Russia and the West. However, unravelling the patent mess that has been created, if there is such a détente, will be excruciatingly difficult. For example, a Russian company that is currently infringing (on paper) a foreign entity's granted Russian patent without fear of legal action may face retrospective legal action if the patent systems are reintegrated in the future.

From an academic point of view, this will be a very interesting experiment, especially the impact on Russian exporting companies. For well over a century, the question of the social and economic benefits of the patent system has been debated without any clear consensus because of a paucity of definitive data on the subject.<sup>4</sup> This situation in Russia potentially creates the first cut-and-dried experiment as to what happens to the rate of new product invention if there is suddenly no effective patent system in a single jurisdiction.

Previous empirical data on the subject has been inconclusive and widely debated. For example, in Thailand, the patent system was amended to conform to TRIPS (Trade-Related Aspects of Intellectual Property Rights) in 1992. In the pharmaceutical market, this did not affect the price of patented medicines that were already on the market. However, it did affect the price of new patented medicines that were introduced after 1992.<sup>5</sup>

In Canada, the 1987 Patent Act amendments strengthened the patent system and brought it more in line with the US and global patent systems. A study<sup>6</sup> found that medicine prices increased relative to pre-1987 prices after 1987, potentially as a result of improved monopoly rights offered by stronger patents. The inference is that higher sales margins allow for more investment in product invention.

Similarly, in Italy,<sup>7</sup> new medicine prices were, on average, 163% higher than new drug prices before 1978 when stronger patent law was introduced that year. The period of patent protection was increased from seven to ten years, while also allowing the generic drug industry to implement compulsory licensing.

In all the cases described above, other explanations for the noted changes in the prices of medicines, specifically patented ones, have been put forward. Indeed, prices are simply a second-order measure of the intended purpose of a patent system, i.e., to get companies to invest in new product invention. The actual impact of changes to a patent system upon the investment by companies into invention is difficult to measure because of many reasons: (a) many companies are private and do not publish their annual financial reports, (b) even if the amount of company R&D can be measured, it is difficult to assign any increases to changes in a patent system – other factors may have played a larger role, and (c) many companies selling drugs in, say, Italy (in the example above) are foreign and do their R&D elsewhere, and it is unlikely that a price-favourable situation in a single-country market would encourage them to invest more in R&D.

On a final note, in recent times, there have been all sorts of trade bans between individual countries, e.g., the recent bout of trade disputes between China and Australia which are currently before the WTO.<sup>8</sup> Despite these trade disputes, usually, the reciprocal patent rights between the countries are maintained, as “managed” by the World Intellectual Property Organization (WIPO). Our belief is that, as can be seen in the current Russian situation, when reciprocal IP rights are interrupted in a dispute, it will be very difficult to “normalise” these rights when the dispute is settled, so rationally, the parties usually do not drag IP rights into their disputes. Also, we note that patent rights are typically a long way from public attention, and political leaders are rarely under public pressure to use IP as an international “weapon”. Therefore, we would argue that a dispute between countries can be considered to be very serious when the governments involved bother to modify reciprocal IP rights.

## Footnotes

<sup>1</sup> <https://clarivate.com/products/ip-intelligence/patent-intelligence-software/derwent-innovation/>

<sup>2</sup> <https://bit.ly/46Mh6XX>

<sup>3</sup> <https://bit.ly/3rSnnCw>

<sup>4</sup> Mazzoleni, R., Nelson, R. R. (1998). The benefits and costs of strong patent protection: A contribution to the current debate. *Research Policy*, 27(3), 273-284.

<sup>5</sup> Yamabhai, I., & Smith, R. D. (2012). A review of the health and economic implications of patent protection, with a specific focus on Thailand. *Health Research Policy and Systems*, 10, 24.

<sup>6</sup> Jones, J. C. H., Potashnik, T., & Zhang, A. (2001). Patents, brand-generic competition and the pricing of ethical drugs in Canada: some empirical evidence from British Columbia, 1981-1994. *Applied Economics*, 33(7), 947-956.

<sup>7</sup> Scherer, F. M., & Weisburst, S. (1995). Economic Effects of Strengthening Pharmaceutical Patent Protection in Italy. *International Review of Industrial Property and Copyright Law*, 26, 1009-1024.

<sup>8</sup> <https://bit.ly/3PMB2mG>

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