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AN ANALYSIS OF THE CURRENT STATE OF PUBLIC UNIVERSITIES IN THE CZECH REPUBLIC AND THEIR PROGRESS IN THE FIELD OF INDUSTRIAL RIGHTS

Summary: Nowadays the protection of intellectual property objects is mentioned and discussed more and more frequently. This paper is focused on the specific category of intellectual property − the valuation of industrial property objects in the environment of public universities. The paper includes an analysis across all public universities with regard to the history and current state of annually developed objects of industrial property, as well as long-term intangible assets. The final comparison is dedicated to the relation between the number of protected objects of industrial property and the stagnating area of their valuation and correct reflection in the accounting books.

Keywords: objects of industrial property/rights, valuation, long-term intangible assets.

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1. Introduction

The paper is aimed at the development of objects of industrial rights at public universities in the Czech Republic throughout the period 2000-2012, in comparison with the progress of long-term intangible assets. The first part of the paper focuses on the selected industrial rights objects: patent, utility design and industrial design. The second part of the paper analyzes the history of long-term intangible assets at public universities, more particularly the following balance sheet items: valuable rights, software and the intangible results from research and development (R&D). These items are closely connected with industrial rights objects developed within an entity.

The conclusion includes a comparison between the progress in the quantity of individual industrial rights objects with the progress of selected items of long-term intangible assets, and an analysis of the current state and recommendations towards the future development in this area.

2. Development of industrial rights objects at public universities in the Czech Republic in the period 2000-2012

The first part of the paper is aimed at the progress in the quantity of industrial rights objects at public universities in individual years from 2000 until 2012. It particularly deals with the most frequently protected industrial rights in the Czech Republic, i.e. patents, utility designs and industrial designs. The analysis intentionally omits trademarks that primarily do not come out of research and development and are even not used as a basis for further development.

2.1. Development of patents at public universities by year of enforcement in the period 2000-2012

Figure 1 below shows total sums of patents enforced at all the public universities in the Czech Republic in particular years. As is obvious from the graph, in the period 2000-2004 on average 40 patents were enforced every year at all public universities registered in the territory of the Czech Republic. In the period 2005-2008 the annual quantity of patents enforced decreased considerably, to fewer than 20 patents. Since 2009 the number of patents enforced has been constantly growing. Considering the trend shown in the graph we can expect that also in future the number of annually enforced patents will be increasing.

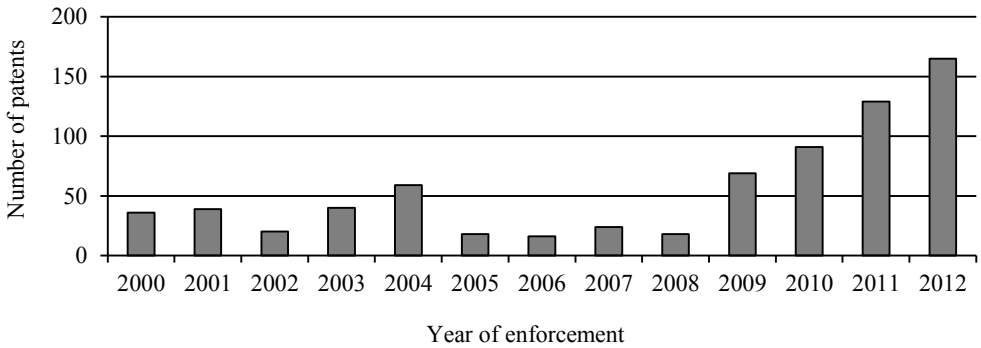

Figure 1. Number of patents by year of enforcement at public universities in the period 2000-2012

Source: own elaboration [Internet 1].

2.2. Development of utility designs at public universities by year of enforcement in the period 2000-2012

Graph 2 demonstrates the development of the annual totals of utility designs at public universities. Compared to patents here we can see a slight year-to-year increase of utility designs registered at public universities. Until 2004 no utility design was

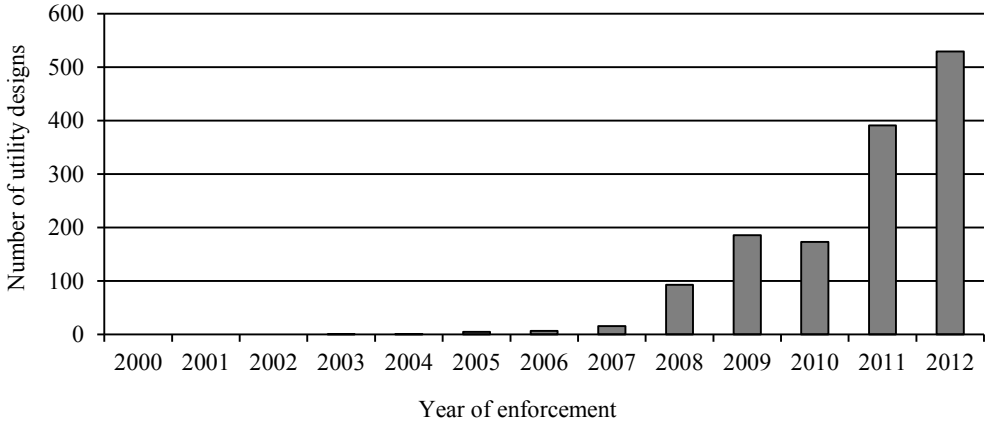

Figure 2. Number of utility designs by year of enforcement at public universities in the period 2000-2012

Source: own elaboration [Internet 1].

registered, but since 2005 − except for 2010 − there has been a constant growth of utility designs at public universities.

Based on the comparison of Figures 1 and 2 we may claim that since 2005 the number of results of R&D protected by patents has been decreasing as more frequently the results of R&D are protected by means of utility designs. In my opinion this deflection from patent protection to utility design protection is caused by the simpler process of rights registration. It is cheaper to enforce and maintain rights protection by means of utility design, also the time between filing an application and the final registration of utility design is much shorter than in the case of patent. Moreover, the registration of a utility design does not require the overall research that should demonstrate the newness of the invention to be protected.

2.3. Development of industrial designs at public universities by year of enforcement in the period 2000-2012

Figure 3 demonstrates the annual totals of industrial designs enforced at public universities in individual years. Because of the industrial design nature (it does not protect technical design, but rather the visual appearance of the object), in my opinion there is no direct relation between the development of patents/utility designs and industrial designs.

We may only claim that in this case the legal protection of the object, just as in the case of utility design objects, was not enforced before 2006. After the decline in 2007 even here we can witness the constant increase of registered industrial designs year after year. We may assume that the growth will continue even longer.

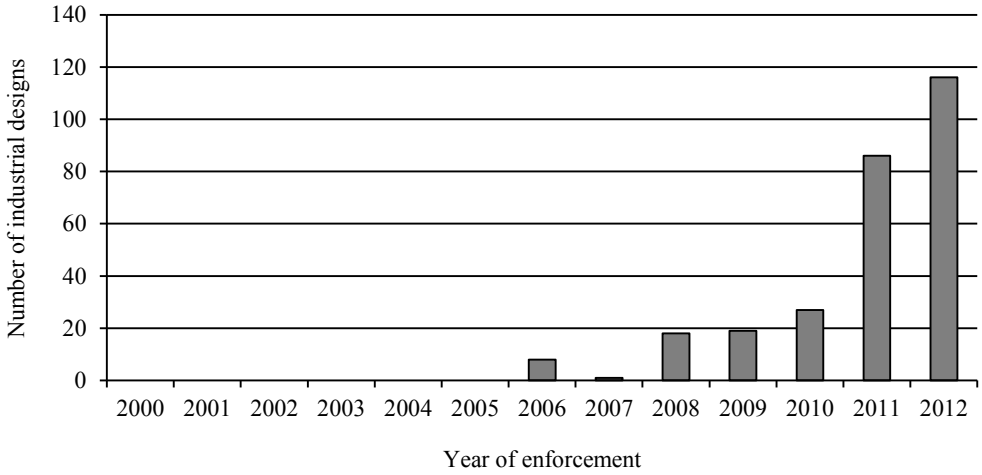

Figure 3. Number of industrial designs by year of enforcement at public universities in the period 2000-2012

Source: own elaboration [Internet 1].

2.4. Evaluation of the analysis aimed at industrial rights enforced at public universities in the period 2000-2012

In consideration of the above mentioned facts, we may assume that even in forthcoming years the number of annually enforced objects of industrial rights at

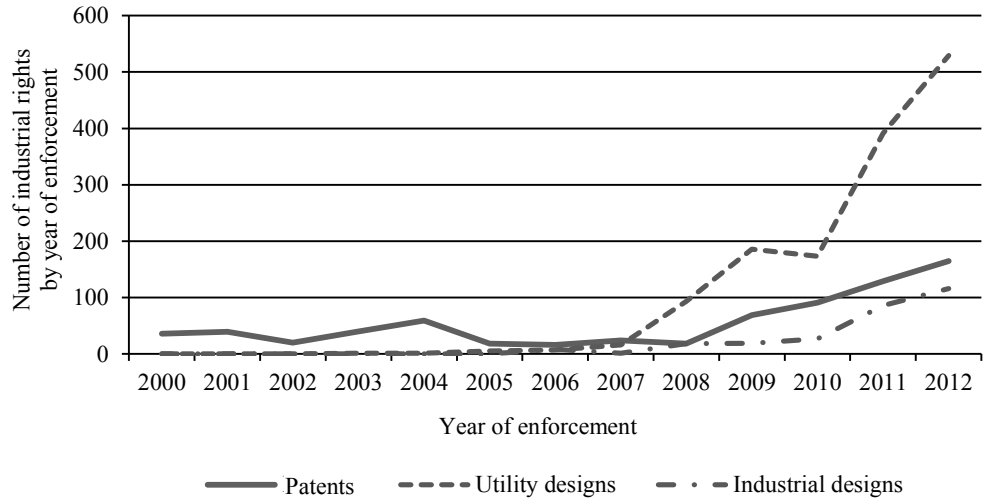

Figure 4. Number of selected industrial rights by year of enforcement at public universities in the period 2000-2012

Source: own elaboration [Internet 1].

public universities will be increasing. We can also expect more registered utility design objects than patents because of the facts mentioned in section 2.2. Industrial design objects will not be affected by the ratio between patents and utility designs. However we can assume that with the expansion of new technical solutions in the form of utility designs and patents, the interest in the protection of intentions and special design features will also spread. This means that the total sum of industrial design objects will be also constantly increasing in particular years.

A summarized history of industrial rights objects at public universities in particular years is shown in Figure 4.

3. Development of long-term intangible assets at public universities in the Czech Republic in the period 2006-2012

The second part of the paper is dedicated to the development of long-term intangible assets at public universities. Because of this topic only a few selected items of long-term intangible assets were analyzed − valuable rights, software and intangible results from research and development (R&D). The required data were compiled from annual reports from all the 27 public universities in the Czech Republic. Because of the limitations in the collection of the necessary data, the analyzed period was reduced to 2006-2012. For this period it was possible to collect 26 of the total 27 annual reports from particular public universities.

3.1. Overview of public universities in the Czech Republic and their long-term intangible assets in 2012

Figure 5, covering all the public universities in the Czech Republic, demonstrates the share of intangible results from R&D, software and valuable rights in the long-term intangible assets in 2012. Starting from the initial graph of the section it is obvious that the share of both the intangible results from R&D and valuable rights in long-term intangible assets is rather insignificant. In all the cases the decisive share is represented by software. The remaining part of the share is represented by other − for this paper non-essential − items of long-term intangible assets.

For example Figure 5 demonstrating the year 2012, shows that only 6 of the total of 27 public universities generated some intangible results from R&D, and only 9 generated some valuable rights. The total long-term intangible assets in 2012 in all the public universities amounted to 1,853,384.03 thousand CZK, of which 22,048.95 thousand CZK (1.19%) were intangible results from R&D and 45,832.39 thousand CZK (2.47%) were valuable rights. From the graph it is clear that in 2012 the area of industrial rights valuation was quite marginalized at public universities.

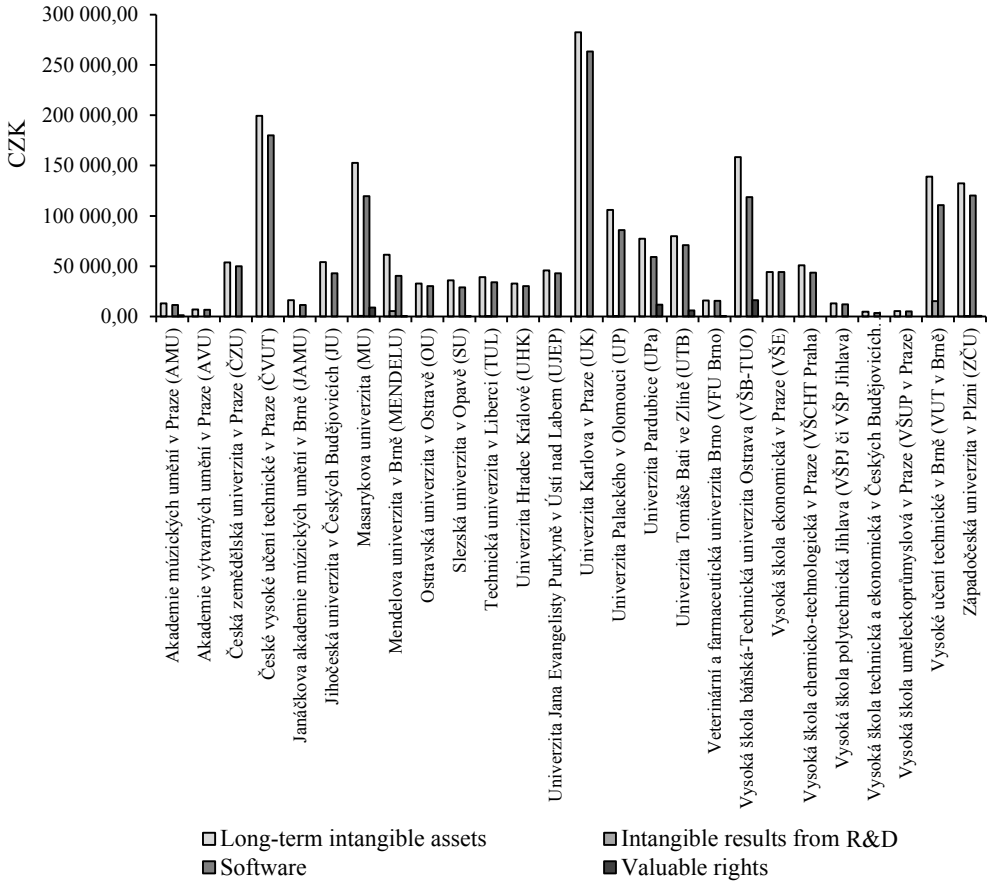

Figure 5. Overview of public universities in the Czech Republic and their long-term intangible assets in 2012

Source: own elaboration [Internet 2-27].

3.2. Development of selected long-term intangible assets items at public universities in the Czech Republic in the period 2006-2012

The final part of this section demonstrates the development of intangible results from R&D, software and valuable rights in relation to long-term intangible assets in general.

Figure 6 shows the development of both the long-term intangible assets and the three above mentioned items from the balance sheet. From the graph it is obvious that whilst the sum of long-term intangible assets and the directly related software from all the public universities is growing, the items of intangible results from R&D and valuable rights are rather stagnating on a long-term basis. The graph is therefore

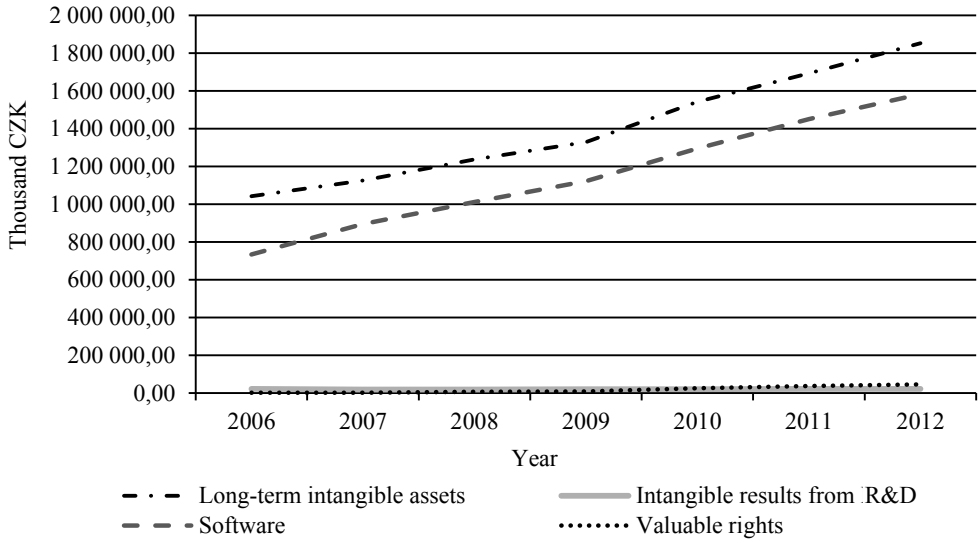

Figure 6. Long-term intangible assets at public universities in the Czech Republic in the period 2006-2012

Source: own elaboration [Internet 2-27].

supplementing the statement from section 3.1 that this area is not marginalized in a short-term perspective only (year 2012), but there has not been any positive signs since 2006.

4. Comparison of industrial rights objects with long-term intangible assets at all public universities in the Czech Republic

The final part of the paper is the comparison of industrial rights objects with the long-term intangible assets at all public universities in the Czech Republic. Because of the above mentioned facts the analysis is focused on the period 2006-2012 covered by the survey of not only the long-term intangible assets at public universities, but also the industrial rights objects registered by public universities in the Czech Republic.

The comparison can be made using Figures 4 and 6 where the development of individual areas is more than obvious.

From Figure 4 we can see that in 2006 in total 16 patents, 7 utility designs and 8 industrial designs were enforced. In the course of six years we could see a huge increase in all areas of industrial rights. In 2012 for example, the public universities enforced in total 165 patents, 529 utility designs and 116 industrial designs.

On the other hand, from Figure 6 it is clear that in the period 2006-2012 the long-term intangible assets were constantly growing (from 1,042,106.65 thousand CZK in 2006 to 1,853,384.03 thousand CZK in 2012) just as was software (from 735,040.23 thousand CZK in 2006 to 1,583,210.25 thousand CZK in 2012), but the intangible results from R&D and the valuable rights were stagnating. In 2006, the item of intangible results from R&D represented 22,069.29 thousand CZK, and despite a few ups and downs it did not increase at all until 2012 when it amounted to 22,048.95 thousand CZK. In the same period the percentage value of valuable rights increased considerably, but in absolute numbers compared with long-term intangible assets the amount of this item is still very small (from 2,062.94 thousand CZK in 2006 it increased to 45,832.39 thousand CZK in 2012).

All in all we can conclude that despite the number of protected industrial rights objects has been constantly increasing considerably, the valuation and posting of these rights in accounting books is stagnating. Even in the future we have no clear indications that this situation will improve.

5. Conclusion

The conclusion of the analysis of the state of the current situation reveals that the valuation of industrial rights is still quite a marginalized area. Considering the costs associated with the research and development at public universities, it is surprising that the accounting books of many universities completely miss out valuable rights. At other universities they only represent a minor part of long-term intangible assets. As the contemporary trend in the field of research and development at public universities is moving towards lower subsidies and a higher share of non-public sources that can be obtained from the licensing or sale of industrial rights objects, public universities should more focus on the valuation of results from R&D, not only to cover them in accounting books, but also to determine their market value and facilitate their potential sale.

Internet sources

[1] Informační systém výzkumu, experimentálního vývoje a inovací, *Výsledky VaVaI 2000-2012*, http://www.isvav.cz/basicResultForm.do?typVyhledavani=advanced&resultLanguage=&resultDataSuplier=&resultCode=&updateForm=&submitterName=&vyzOrg=0&vyzOrgRok=2014&authorSurname=&resultName=&resultExerciseCode=U&resultYearFrom=&resultYearTo=&resultBranch=&resultAnnotation=&resultIsbn=&formType=1.

[2] Akademie múzických umění v Praze (AMU), *Výroční zprávy 2006-2012,* http://www.amu.cz/cs/amu/dokumenty/vyrocni-zprávy.

[3] Akademie výtvarných umění v Praze (AVU), *Výroční zprávy 2006-2012,* http://www.avu.cz/category/avu-menu/akademie/dokumenty. %C5%99%C3%A1dy/v%C3%BDro%C4%8Dn%C3%AD-zpr%C3%A1vy.

[4] Česká zemědělská univerzita v Praze (ČZU), *Výroční zprávy 2006-2012,* http://www.czu.cz/cs/?r=2934.
[5] České vysoké učení technické v Praze (ČVUT): *Výroční zprávy 2006-2012,* https://www.cvut.cz/vyrocni-zpravy-o-hospodareni.
[6] Janáčkova akademie múzických umění v Brně (JAMU), *Výroční zprávy 2006-2012,* http://dokumenty.jamu.cz/vyber.php?col=&adr=%64%6f%6b%75%6d%65%6e%74%79%2f%70%75%62%6c%69%63%2f%56%ec%72%6f%9f%6e%a1%5f%7a%70%72%a0%76%79%5f%68%6f%73%70%6f%64%61%fd%65%6e%a1.
[7] Jihočeská univerzita v Českých Budějovicích (JU), *Výroční zprávy 2006-2012,* http://www.jcu.cz/official_board/documents/annual_report/folder.2004-07-15.2989695670/.
[8] Masarykova univerzita (MU): *Výroční zprávy 2006-2012,* http://www.muni.cz/general/public_reports.
[9] Mendelova univerzita v Brně (MENDELU), *Výroční zprávy 2006-2012,* http://www.mendelu.cz/cz/uredni_deska/vyrocni_zprava_o_hospodareni_?lang=cz.
[10] Ostravská univerzita v Ostravě (OU), *Výroční zprávy 2006-2012,* http://www.osu.cz/index.php?kategorie=56.
[11] Slezská univerzita v Opavě (SU), *Výroční zprávy 2006-2012,* http://www.slu.cz/slu/cz/dokumenty/vyrocni-zpravy-a-dlouhodoby-zamer.
[12] Technická univerzita v Liberci (TUL), *Výroční zprávy 2006-2012,* http://www.tul.cz/urednideska/uredni-deska-tul/vyrocni-zpravy_108.
[13] Univerzita Hradec Králové (UHK), *Výroční zprávy 2006-2012,* http://www.uhk.cz/cs-cz/o-univerzite/uredni-deska/uredni-deska-uhk/Stranky/default.aspx?RootFolder=%2Fcs-cz%2Fo-univerzite%2Furedni-deska%2Furedni-deska uhk%2FDocuments%2FV%C3%BDro%C4%8Dn%C3%AD%20zpr%C3%A1vy&FolderCTID=0x012000BFC95CC235087D409652A8D921AB0CB9&View={3D634A69-3165-4184-9DB7-D82A8F2C821B}.
[14] Univerzita Jana Evangelisty Purkyně v Ústí nad Labem (UJEP): *Výroční zprávy 2006-2012*, http://www.ujep.cz/cz/podle-cinnosti/univerzita/uredni-deska/dokumenty-univerzity/vyrocni-zpravy.html.
[15] Univerzita Karlova v Praze (UK), *Výroční zprávy 2006-2012,* http://www.cuni.cz/UK-4511.html.
[16] Univerzita Palackého v Olomouci (UP), *Výroční zprávy 2006-2012,* http://www.upol.cz/uredni-deska/verejne-dokumenty/.
[17] Univerzita Pardubice (UPa), *Výroční zprávy 2006-2012,* http://www.upce.cz/deska/dokumenty.html
[18] Univerzita Tomáše Bati ve Zlíně (UTB), *Výroční zprávy 2006-2012,* http://www.utb.cz/o-univerzite/vyrocni-zpravy.
[19] Veterinární a farmaceutická univerzita Brno (VFU), *Výroční zprávy 2006-2012,* http://www.vfu.cz/uredni-deska/vyrocni-zpravy/index.html.
[20] Vysoká škola báňská-Technická univerzita Ostrava (VŠB-TUO), *Výroční zprávy 2006-2012*, http://innet.vsb.cz/cs/uni/uredni-deska/vyrocni-zpravy-a-zamery/.
[21] Vysoká škola ekonomická v Praze (VŠE), *Výroční zprávy 2006-2012,* http://www.vse.cz/kategorie/1745.
[22] Vysoká škola chemicko-technologická v Praze (VŠCHT Praha), *Výroční zprávy 2006-2012*, http://www.vscht.cz/homepage/udeska/zakl_dokumenty/vyrocni_zpravy.
[23] Vysoká škola polytechnická Jihlava (VŠPJ), *Výroční zprávy 2006-2012,* http://www.vspj.cz/skola/uredni-deska/vyrocni-zpravy-o-hospodareni.
[24] Vysoká škola technická a ekonomická v Českých Budějovicích (VŠTE), *Výroční zprávy 2006-2012*, https://is.vstecb.cz/do/5610/uredni_deska/VZ/

[25] Vysoká škola uměleckoprůmyslová v Praze (VŠUP), *Výroční zprávy 2006-2012,* https://www.vsup.cz/skola/.
[26] Vysoké učení technické v Brně (VUT), *Výroční zprávy 2006-2012,* http://www.vutbr.cz/uredni-deska.
[27] Západočeská univerzita v Plzni (ZČU), *Výroční zprávy 2006-2012,* http://www.zcu.cz/about/important-documents/vyrocni-zpravy.html.

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Streszczenie: Coraz więcej uwagi poświęca się zagadnieniom ochrony przedmiotów własności intelektualnej. Niniejszy artykuł dotyczy specyficznej sfery ochrony własności intelektualnej, wyceny przedmiotów własności przemysłowej w środowisku publicznych uczelni wyższych. W tekście przeprowadzono analizę wszystkich publicznych uczelni wyższych i ich rozwoju pod kątem zarówno ilości co roku wykorzystywanych przedmiotów własności przemysłowej, jak i wartości niematerialnych i prawnych. W zakończeniu opracowania dokonano porównania rosnącej liczby objętych ochroną przedmiotów własności przemysłowej w odniesieniu do stagnacji w sferze ich wyceny i odzwierciedlania w rachunkowości.

Słowa kluczowe: przedmioty własności przemysłowej, wycena, wartości niematerialne i prawne.