Strategic Innovation Management

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Lecture 10. Protecting innovation

- 1. Patents
- 2. Trademarks
- 3. Copyrights
- 4. Additional information

- The main **objective** of this lecture is to consider intellectual property rights.

Overview

Determining whether and how to protect its technological innovation. Traditionally, economics and strategy have emphasized the importance of vigorously protecting an innovation in order to be the primary beneficiary of the innovation's rewards, but the decision about whether and to what degree to protect an innovation is actually complex. Sometimes *not* vigorously protecting a technology is to the firm's advantage—encouraging other producers (and complementary goods providers) to support the technology may increase its rate of diffusion and its likelihood of rising to the position of dominant design.

We will review the factors that shape the degree to which a firm is likely to appropriate the returns from its innovation, and the mechanisms available to the firm to protect its innovation.

APPROPRIABILITY

The degree to which a firm can capture the rents from its innovation is termed **appropriability**. In general, the **appropriability** of an innovation is determined by how easily or quickly competitors can imitate the innovation.

The ease with which competitors can imitate the innovation is, in turn, a function of both the nature of the technology itself and the strength of the mechanisms used to protect the innovation.

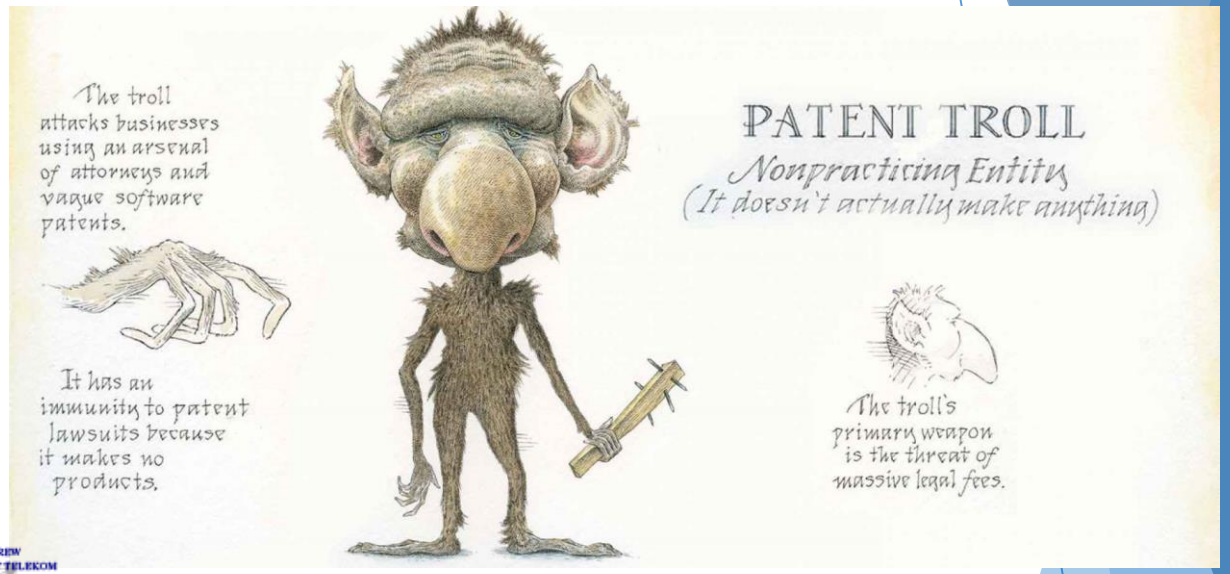
Some technological innovations are inherently difficult for competitors to copy; the knowledge underlying the technology may be rare and difficult to replicate. A firm's unique prior experience or talent pool may give it a foundation of technical know-how that its competitors do not possess. If this knowledge base is **tacit** (i.e., it cannot be readily codified into documents or procedures) or **socially complex** (i.e., it arises through complex interactions between people), competitors will typically find it very difficult to duplicate.

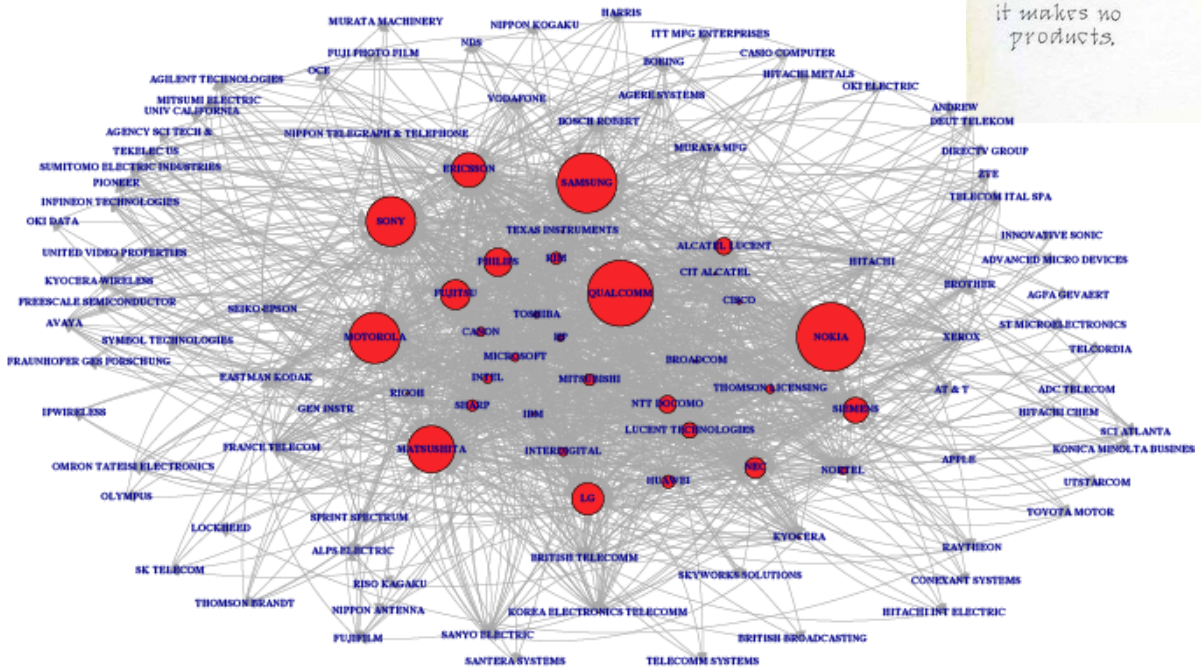
- For example, a firm that has a team of uniquely talented research scientists may have a rare and difficult-to-imitate knowledge base. While some of the skill of the research scientists may be due to imitable training procedures, ***talent*** typically implies that an individual (or group) has a natural endowment or ability that is very difficult, if not impossible, to replicate through training.
- Furthermore, if the unique capabilities of the research team arise in part from the nature of the interactions between the scientists, their performance will be socially complex. Interactions between individuals can significantly shape what each individual perceives, and thus what each individual—and the collective group—discovers or learns. The outcomes of these interactions are ***path dependent***, and thus are idiosyncratic to the combination of individuals, the moment of the interaction, and the nature of the interaction.
- This means that knowledge can emerge from the interaction of a group that could not be replicated by any individual or any different group.
- Many innovations, however, are relatively easy for competitors to imitate. Individuals and firms often employ legal mechanisms to attempt to protect their innovations. Most countries offer legal protection for intellectual property in the form of **patent, trademark, copyright, and trade secret laws.**

PATENTS, TRADEMARKS, AND COPYRIGHTS

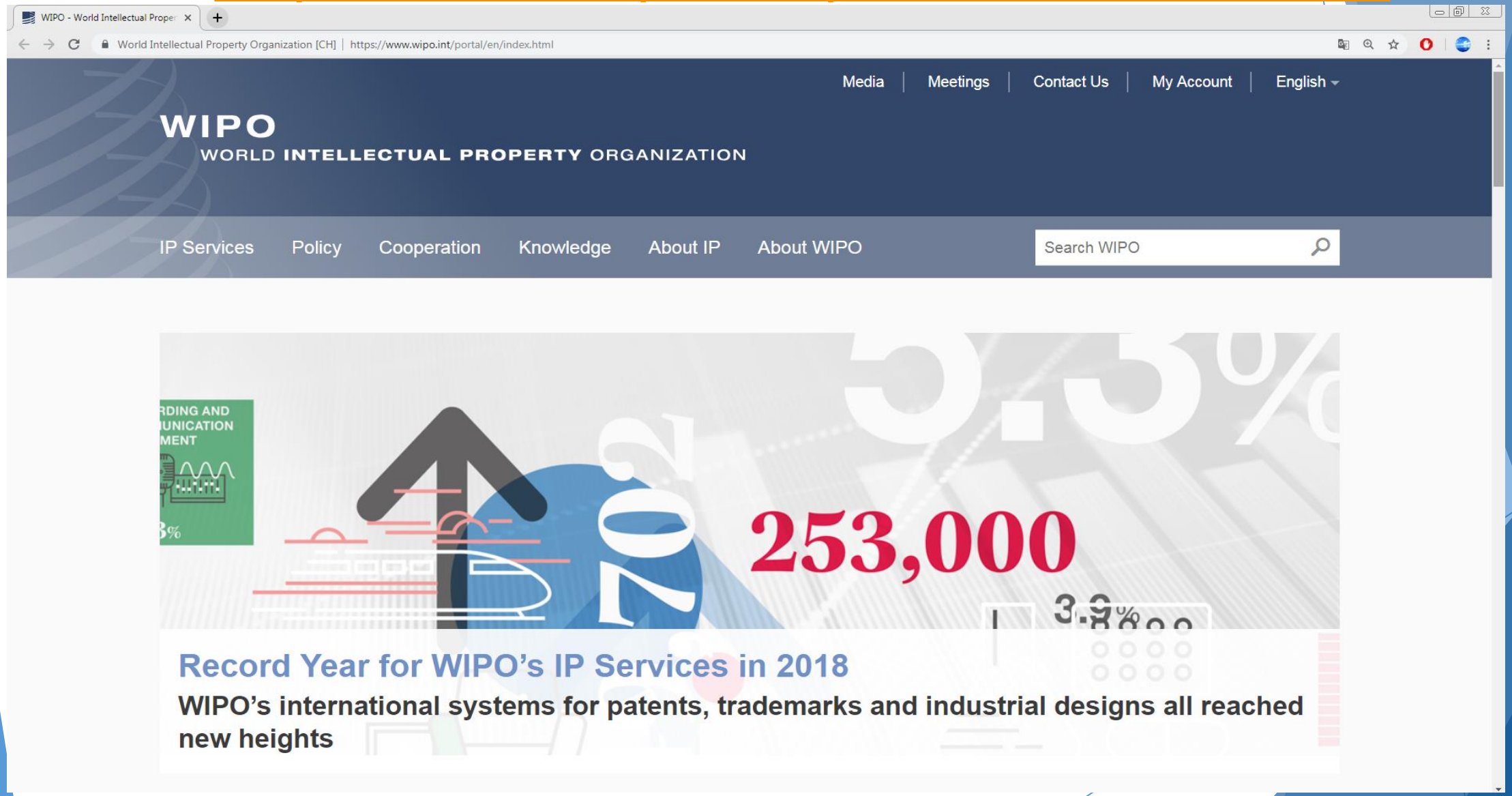
- While patents, copyrights, and trademarks are all ways of protecting intellectual property, they are each designed to protect different things. A **patent** protects an invention, and a **trademark** protects words or symbols intended to distinguish the source of a good. A **copyright** protects an original artistic or literary work.
- **Patent** A property right protecting a process, machine, manufactured item (or design for manufactured item), or variety of plant.
- **Trademark** An indicator used to distinguish the source of a good.
- **Copyright** A property right protecting works of authorship.
- **Trade secret** Information that belongs to a business that is held private.

- **Patent trolling** A pejorative term for when an individual or firm misuses patents against other individuals or firms in attempt to extract money from them.
- **Patent thickets** A dense web of overlapping patents that can make it difficult for firms to compete or innovate.



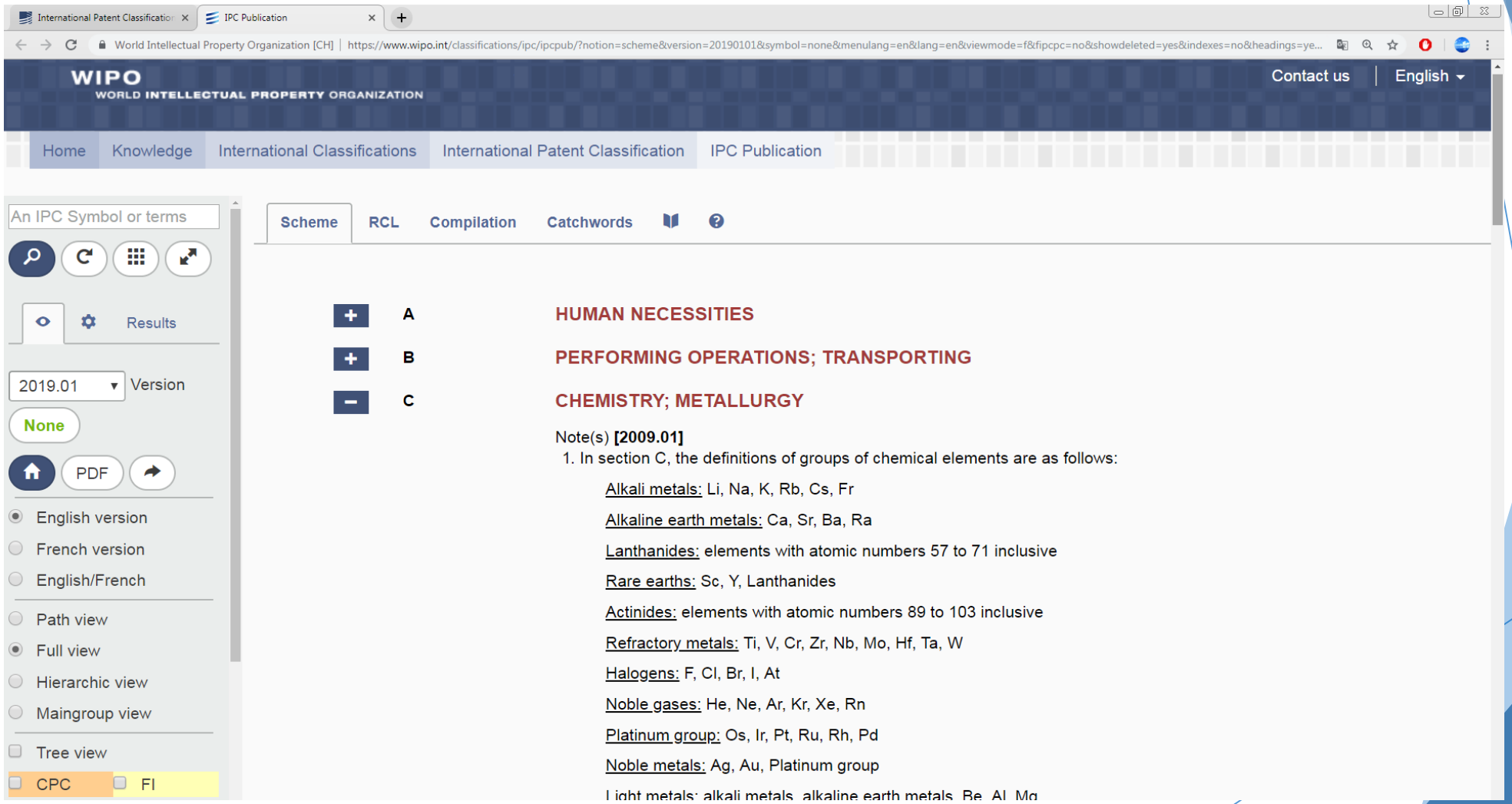


WIPO - https://www.wipo.int/portal/en/index.html

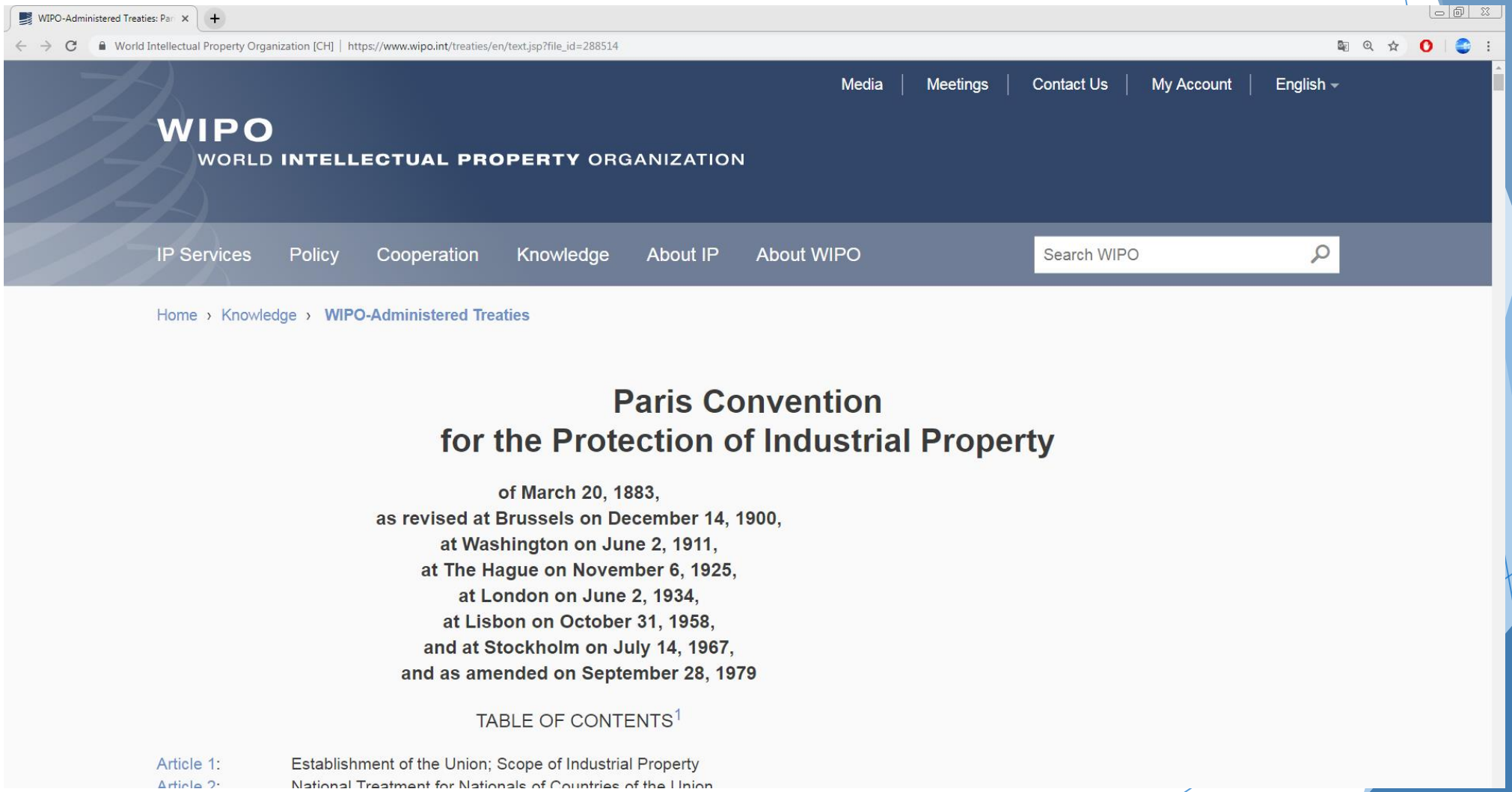


International Patent Classification

https://www.wipo.int/classifications/ipc/ipcpub/?notion=scheme&version=20190101&symbol=none&menulang=en&lang=en&viewmode=f&fipcpc=no&showdeleted=yes&indexes=no&headings=yes&notes=yes&direction=o2n&initial=A&cwid=none&tree=no&searchmode=smart



Paris Convention
https://www.wipo.int/treaties/en/text.jsp?file_id=288514



Bern Convention

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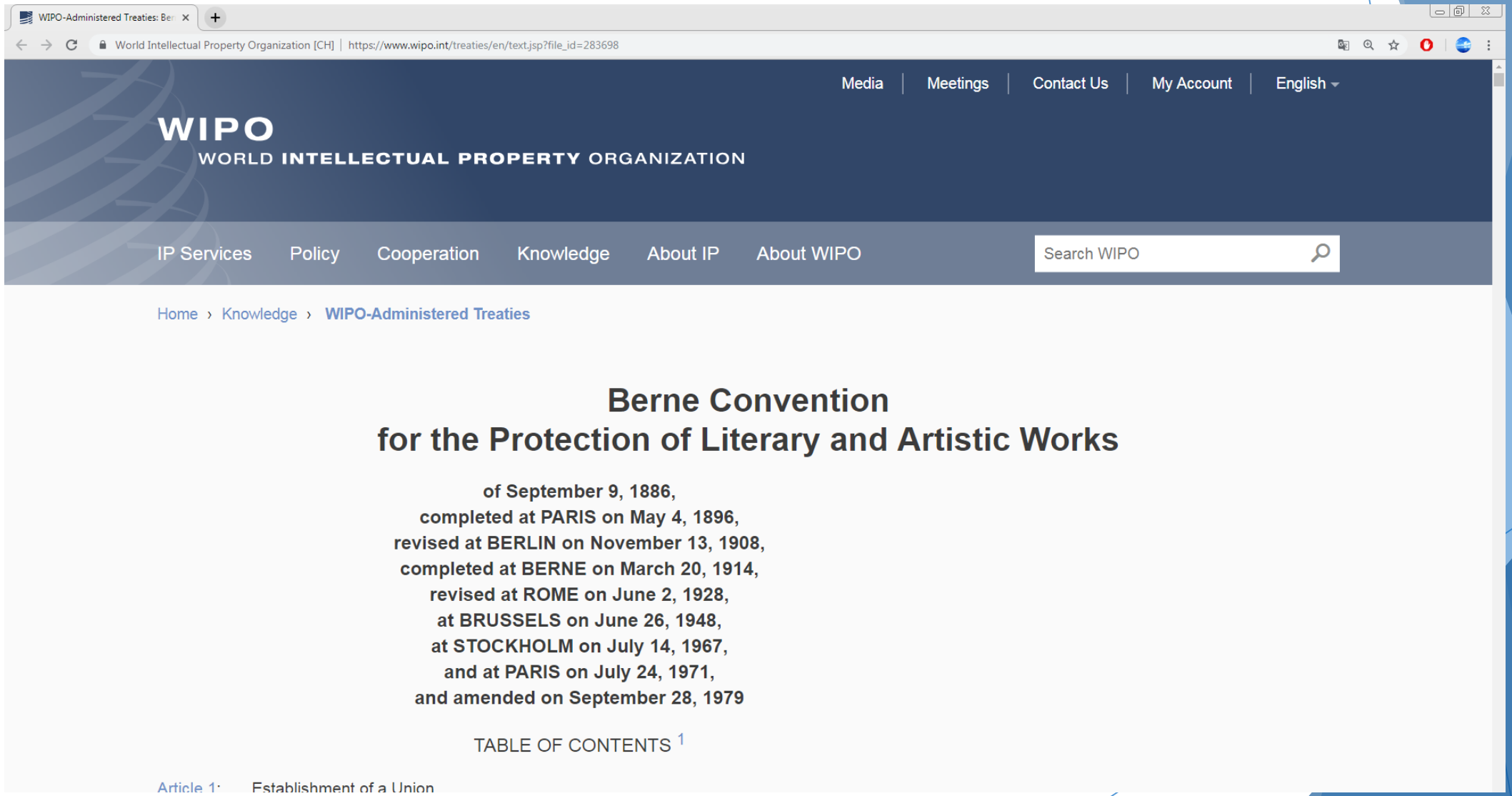
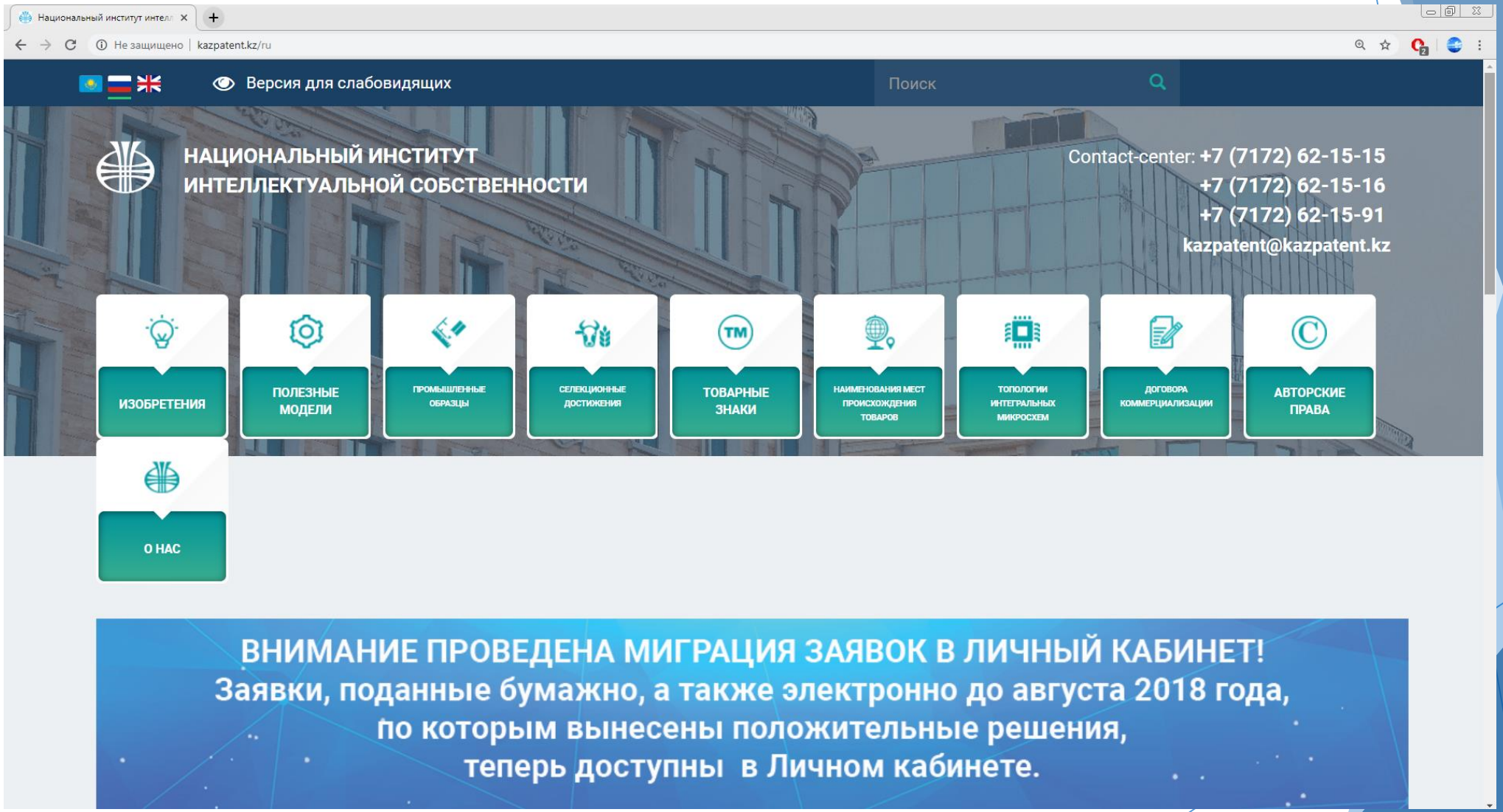
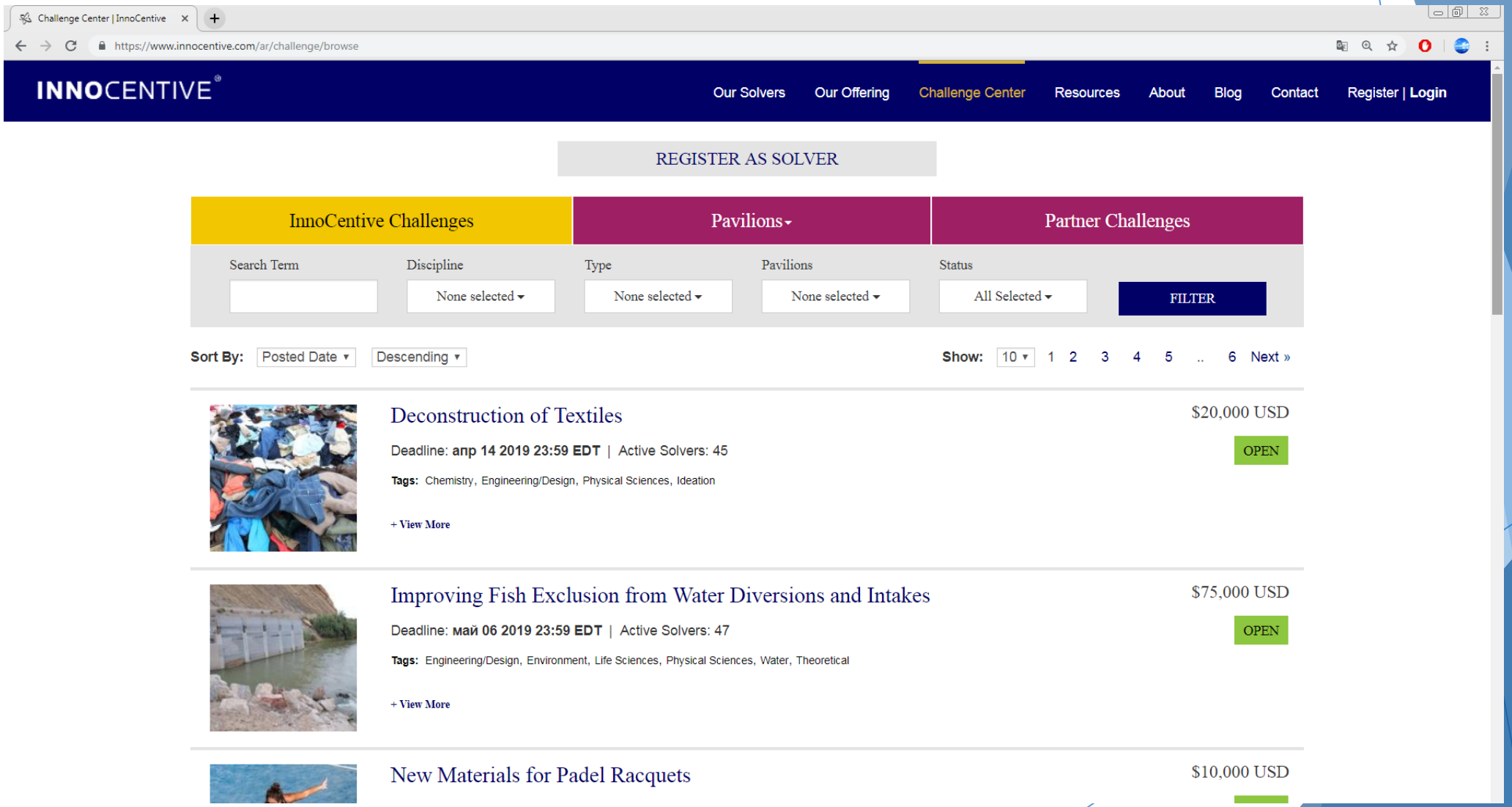


НИИС РК - www.kazpatent.kz



Concept of “Open Innovation”

Open Innovation Platform – InnoCentive



Kazakhstani Legislation

- http://adilet.zan.kz/rus/docs/Z990000427_
- http://adilet.zan.kz/rus/docs/Z960000006_
- http://adilet.zan.kz/rus/docs/Z990000456_
- For more: http://kazpatent.kz/ru

Summary

- 1. The degree to which a firm can capture the rents from its innovation efforts is largely determined by the degree to which competitors can quickly and easily imitate the innovation. Some innovations are inherently difficult to copy; others are difficult to copy because of the mechanisms the firm uses to protect its innovation.
- 2. The **three primary legal mechanisms** used to protect innovation in most countries **are patents, trademarks, and copyrights**. Each mechanism is designed to protect a different type of work or good.
- 3. **International treaties** have helped to harmonize patent, trademark, and copyright laws around the world. Most countries now have patent, trademark, and copyright laws of some form, and in some instances protection can be applied for in multiple countries simultaneously.
- 4. **Trade secrets** provide another mechanism of protecting innovation. Firms that protect their intellectual property as a trade secret often have legal recourse if another party wrongfully takes and uses such property.

5. Legal mechanisms for protecting innovation are more effective in some industries than others; in some industries, inventing around a patent or copyright is relatively easy. Similarly, in some industries it is nearly impossible to protect an innovation by using trade secrets because commercializing the innovation reveals its underlying technologies.

6. Sometimes the choice between protecting versus diffusing a technology is not obvious. Both strategies offer potential advantages. Many firms use neither a wholly open nor wholly proprietary strategy, but rather a partially open strategy.

7. Protecting an innovation helps ensure that the firm earns the lion's share of the returns from the innovation. These returns can then be reinvested in further developing the technology, promoting the technology, and producing complementary goods.

8. Protecting an innovation also preserves the firm's architectural control, enabling it to direct the technology's development, determine its compatibility with other goods, and prevent multiple incompatible versions of the technology from being produced by other firms.

9. Diffusing a technological innovation can encourage multiple firms to produce, distribute, and promote the technology, possibly accelerating its development and diffusion. Diffusion can be particularly useful in industries that accrue increasing returns to adoption. It is also useful when the firm has inadequate resources to be the sole developer, producer, distributor, and marketer of a good.

Questions:

- 1. What are the differences between patents, copyrights, and trademarks?
- 2. What factors should a firm considering marketing its innovation in multiple countries use in formulating its protection strategy?
- 3. When are trade secrets more useful than patents, copyrights, or trademarks?

- **Literature:**

1. Melissa Schilling: Strategic Management of Technological Innovation, McGrawHill, International Edition 2011.
2. Tidd, J., Bessant, J.R. 2014. Strategic innovation management. Wiley, Hoboken.
3. Innovation management / authors Borut Likar ... [et al.] ; editor Borut Likar, co-editors Peter Fatur, Urška Mrgole ; translation Arslingue K. Žontar, TEFL, TBE. - 1st. ed. - El. knjiga. - Ljubljana: Korona plus - Institute for Innovation and Technology, 2013
4. Kupeshova S. Innovation Management. Almaty, “Kazakh universiteti”. 2011. - 160 c.

Thank you for your attention!