



How to identify the IPR's capacity in innovative projects

prof. Albena Vutsova

Structure of the presentation

- Innovation projects and modern funding instruments
- Importance of innovation and creativity
- IPR capacity and innovation **milieu**
- IPR and open science
- IPR and ethical issues

Why - innovative projects?

- A project is a contemporary basic tool for funding, because it provides a clear frame for applying and managing resources and MORE:
 - The majority of funding contributions are project/program-based
 - The tender procedure is project-based
 - Various programs are project-based

The project as a preferable form for capacity-building

- A project operates with:
 - Structural approach – demonstrates viability (aims, needed resources, outcomes)
 - Accountability and transparency
 - Competitive advantages
 - Long-term planning
 - Flexibility – targeted to various types financing instruments

More innovations – Why?

- Innovation involves the development and implementation of new ideas, products, processes, or services that create value and contribute to economic growth, social progress, and environmental sustainability
- Innovation contributes to fast adaptation towards dynamic economic environment
- Innovative capacity (IC) – prerequisite for innovation

More innovations – Why?

- Lall (1992) defines IC as a set of skills and knowledge necessary to effectively absorb, master and improve existing technologies and products, and to create new ones.
- Kogut and Zander (1992) claim IC enables a mobilisation of employees' knowledge, combines them and results in new knowledge that derives in innovation processes or products.

Innovation and social perception

- It is important to strike the right balance between promoting innovation and ensuring access to knowledge and technology for the benefit of society as a whole
- Innovations belong to the category of objects and services that economists refer to as **‘public goods’**
- BUT relevance to that category depend on the level of the access



Innovation and social perception

- Public goods are non-rivalrous; they can be replicated easily
- In order to limit replication following steps are possible:
 - making the government a part of innovations
 - subsidizing innovative activities in some scope
 - post-hoc prizes or rewards to persons and organizations that provide the public with socially beneficial innovations
- In some cases there is a risk that the pace of innovation may fall below **socially optimal levels**

Creativity, Invention and Innovation – similarity and/or complementarity?

Invention, Innovation and Creativity are interlinked

- Invention is a basis for innovation
- Creativity as a precondition for innovation
- Creativity also refers to the generation of novel and valuable ideas, solutions, and insights that very often lead to innovation
- Innovation provides a value added and could turn failure into knowledge

IPR and innovation capacity

- Innovation and IPR's are interconnected concepts that play a crucial role in driving progress and fostering sustainable development

Bright side is

- IPRs - facilitates innovation
- The synergy between innovation and IPRs catalyzes technological progress, promoting creativity and diversity, and incentivizing investment in research and development

Shadow side is:

IPR's could constrain innovation due to business considerations

Innovation and IPR capacity



The recognition of IPRs – needed pace (inventor's view)

- Intellectual property rights provide creators with legal protection over their innovations, stimulating them to invest again and explore new ideas as well
- Intellectual property rights allow innovators to monetize their inventions through licensing, enable the dissemination of new technologies and foster market competition

The recognition of IPRs – needed pace (economist's view)

- IPR's have a significant role and contribute to economic prosperity
- IPR's capacity often generates a synergy effect
- IPRs are an integral part of trade agreements

NB! Trade agreement-basic document for international cooperation
(commerce in goods and services)

IPR – some considerations

- IPRs are an essential element of innovation policy

BUT:

- The IPR system is not ideal for innovation, because it creates confronting and transaction costs, and it is not the best option available for disseminating knowledge
- So
 - IPR should be redesigned to ‘increase its benefits and reduce its costs’

IPR – some considerations

- IPRs in addressing market failure has not considered some of the important characteristic of technological knowledge and has neglected the importance of the non-market institutions that are part of the innovation process
- There is non-linear relationship between IPR and innovative developing, depending on level of IPR, predominantly on country level

IPR and its capacity – various effects

- The milieu for presenting some new IPR results is different
- If an innovator wishes to place their invention in the public domain, no IPR-related formalities are required; so there is no additional burden and access is regularly arranged
- However, if the innovator wants to protect their results, current IPR regulation can impose a significant burden and access is limited
- IPRs can create obstacles to innovation process by inhibiting access through monopolies that benefit the few at the expense of many

IPR regime and innovations

- IPR are costly to administer; impede cumulative innovations; but sometimes stimulate too much innovation
- The more rigid IP protection is, the less they will be able to compete with more innovative companies
- Strict IPRs affect the gap between more and less innovative companies and tend to grow over time
- More innovative products will have more success on the market, increasing the profits, and thus allowing them to reinvest again in innovation with IPR option

IPR and companies' attitude

- Domestic companies' preferences toward IPRs can be seen through the economy's innovative capacity but also through the trade negotiations conditions
- The fewer innovative companies exist in a country, the more that country should strive to avoid the internationalization of IPRs or at least should only want to make fleeting commitments
- Less innovative companies can be expected to oppose the (international) protection of IPRs. They benefit from the broad diffusion of IPR as this allows them to imitate the inventions of more innovative firms

IPR and companies' attitude

- Organizations with high internal capabilities can operate in an innovation system even with weak institutional and policy environments
- Broad stakeholder involvement could allow creating an improved IPR regime and to leverage achieving further IPRs
- The key resource is not only innovations or ideas but also
 - the *distributed and heterogeneous information* that surrounds it
 - the friendly environment and better understanding of IPR matter

IPR regime and innovations in countries with a smaller income

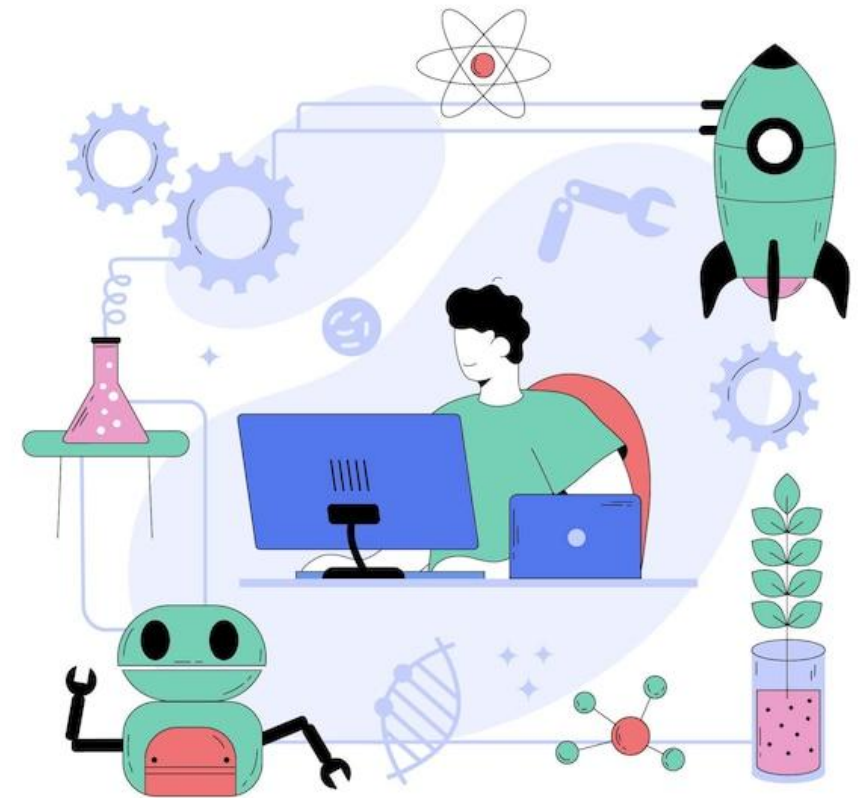
- According some scholars, patent rights do not lead to an improved national innovation performance, especially in developing countries, as they rather imitate external innovation and keep a low investment in innovation
- So, in this case, *to support that innovative outcome's adaptability, replication and diffusion has a bigger impact on productive growth than creating or owning novel products*
- In less innovative countries, IPR-favoring pressures are largely absent. So, *they will try to resist the inclusion of (far-reaching) provisions on IPRs in their official trade agreements*

IPR and Open science

- Open science (OS) is considered the new paradigm for science and knowledge dissemination.
- OS fosters co-working and new ways of distributing knowledge by promoting effective data sharing (as early and broadly as possible) and a dynamic exchange of research outcomes, not only publications.
- IPR legislation seeks to balance the moral and economic rights of creators and inventors with the wider interests and needs of society.

IPR and Open science

- One of the big issues to address to better understand OS and IPR is to provide scope for the principle **‘as open as possible, as closed as necessary’**
- The idea that a stronger IPR system produces more innovation and creativity could benefit from more data



IPR and Open Science

- Open innovation – no strong regulation by EC yet (rather RRI)
- Lack of readiness/inclination to invest in research based on open science – by business
- Authors point to IPR as one of the obstacles to making OS a reality without inhibiting its valorization
- Possible issues:
 - PPP
 - Licensing of open code (open AI or Linux) – open access and given business mode
 - Balanced dissemination

IPR's assessment capacity – criteria

- General topics for assessment:
 - Recognition of IPRs objects, any strict confidential data
 - Strategy for IPR, more detailed territorial scope and time frame
 - Risk assessment and Freedom operate – FTO (frequently required from some FPs instruments)
 - IP due diligence
- More specific elements:
 - Life cycle of the product
 - Possible models for monetization (selling; franchising, licensing, TT)

IPR's capacity and Funding instruments



IPR capacity and Funding instruments

- EU programs- FPs programs and other new implemented ones
- **Horizon-EU** - the main instrument for research and innovation funding
 - Ownership on the results - belongs to the partners and funding structure
 - Respecting background and foreground
 - Balancing towards results dissemination-open access to research articles but not to violate IPRs
 - IPRs activities consider GDPR and sensible technologies

IPR capacity and Funding instruments

- **Digital Europe Program:**

- the beneficiaries are owners of the rights unless otherwise agreed
- the rights are distributed between the partners on the basis of an agreement
- in case of option for commercial exploitation, the results must be protected
- EC has the right to require royalty-free licenses for the use of results that are of public interest
- open source and access are encouraged only if it is possible
- access to results to third parties - under certain conditions

IPR capacity and Funding instruments

LIFE program

- the beneficiaries are owners of the rights unless otherwise agreed
- the rights are distributed between the partners on the basis of an agreement
- in case of option for commercial exploitation, the results must be protected
- Plan for IPRs management - obligatory element
- EC keeps a right to exploit project results for the its policies implementation

IPR capacity and Funding instruments

- National programs and recovery and development plan
 - Following EU regulations
 - Specific agreements upon exploitation are possible
 - Transferring the rights - on the base of expiration
 - Donor's organizations must prove that results are applied for economic growth and sustainability (RDP)
 - Some limitation for third countries access (RDP)
 - In some cases – FRAND license for Public institutions (RDP)

Ethical issues



Ethical issues

- Ethics is a complex subject with a variety of nuances, perspectives, challenges, and pitfalls. It is also a corporate and societal imperative
- Intellectual Property Rights ethics are based on two key points
 - encouraging innovation
 - and sharing knowledge
- To what extent can meritism be applied to innovation
 - Ethical innovation refers to pursuing technological advancements and aiming to ensure principles of honesty, equity, and accountability

Ethical issues

- IPR are protected legally but there are moral norms which should be respected as well, there are two styles:
 - morality considerations are historically, and firmly rooted within IP law; law and morality are connected.
- BUT
- there is some risk in IP laws to be in conflict with morality

Ethical principals and IPR

Four Key Ethical Principles are approved:

- **Integrity:** IP professionals must act with honesty and uphold the law.
- **Confidentiality:** Protecting client information is paramount.
- **Competence:** Professionals must maintain the necessary skills and knowledge.
- **Conflict of Interest:** Avoiding situations where personal interests clash with professional duties.

Ethical areas of interventions for IPRs:

- ensuring social responsibility,
- protecting the environment,
- safeguarding human rights,
- encouraging fairness and equality,
- fostering long-term sustainability.

NB! Ethical implications help ensure we don't create more problems than we solve

Some findings on ethical issues and IPR

- The ethical issues surrounding innovations often and perhaps inevitably, attract attention post factum.
- The unforeseeable consequences of innovation result in moral uncertainty
- Future technologies and AI will certainly raise ethical consideration
 - Three specific ethical risks are related to AI — bias, explainability, and privacy; some actions are needed to mitigate these risks.
- Ethics could be implemented through stakeholder dialogue, deliberation and engagement, incorporating moral imagination, systems-thinking, and multiple-perspectives approaches

IPR and plagiarism?

- IPRs – regulated by legislation - legal issue?
 - Balance between safeguarding the privileges of inventors meanwhile guaranteeing that society overall can access and profit from information, data, and progress.

For instance: when a patent from pharmaceuticals comes into force, it can put restrictions and limitations on access to essential medicines for poor people or even whole nations.
- Plagiarism – moral issue or moral and legal issue?
 - Access to knowledge is a critical moral issue with respect to the domain of Intellectual Property Rights.

Summary

- IPR capacity plays a vital role for economic prosperity being the result of creativity and innovative development
- IPR capacity should be stimulated via different initiatives
- Open science and IPR influence each other to a certain extent, but also each of them poses obstacles
- IPR capacity should respect ethic principals and legislative rules as well

Thank you!