



Work Package 5 / Deliverable

Recommendations with regards to a cross-national Patent Fund for SEE

by the SEE-IFA consortium
addressed to stakeholders of the European eco-innovation system

PROJECT

South-east European Co-operation of Innovation & Finance Agencies (SEE IFA Network)

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1. Introduction

This report presents the findings and recommendations from Work Package 5 (WP5) of the SEE-IFA Project. It discusses the potential establishment of an IP commercialisation support fund for South East Europe (SEE) known as the SEE.IP Fund. Much of the findings and recommendations contained in this report stem from the SEE.IP Fund Feasibility Study (October 2010) and therefore readers are encouraged review this document also.

Download Study - http://www.see-ifa.eu/uploaded/editor/file/SEE_IP_Fund_Feasibility_Study.pdf

2. Key Findings

The consultation, research and pilot projects activities of WP5 were valuable in creating relevant new learning to inform future European level, national and local innovation policy. The following summarises the key learning.

1. It is understood by most relevant stakeholders across SEE that increasing local innovation and commercialisation of local knowledge is important for the social and economic development of their region.
2. There are differing IP commercialisation support needs across SEE. However, there are also some major common needs across the SEE region including:
 - a. More **funding** to support the commercialisation of innovative technologies
 - b. **New mechanisms** to make technology transfer simpler, less costly, safe and successful
 - c. Improved access by businesses to applicable or **marketable technologies from global technology resources**
 - d. Improved **collaboration** and integration between business and research sectors
 - e. Creating a **culture** that actually encourages and supports commercialisation of IP
 - f. Development of **local skills** to both enable and support researchers, entrepreneurs and companies to commercialise IP. Those most in need of such capability building are economic development and innovation support agencies, entrepreneurs, SMEs and researchers
 - g. Improved accessibility to **specialist support services** to assist IP owners achieve commercialisation success, including services to assist assess IP, develop commercialisation strategies, and locate other needed support services, expertise and partnerships.
 - h. Improved accessibility to **specialist support services** to assist businesses identify, assess and access available technology.
3. The specific commercialisation challenges WP5 has focused on have become more prominent issues at an EU level since this project began in 2009. The European Commission has recently releases a report by their Expert Group into the Valorisation of European IP (see http://ec.europa.eu/enterprise/policies/innovation/files/options-eu-instrument-patent-valorisation_en.pdf)
4. The proposed French and European Investment Fund (EIF) led European Patent Fund will not address the specific SEE IP commercialisation challenges that the SEE-IFA project seeks to address. As such new mechanisms that will address these challenges are still required.
5. SEE countries are keen to create new innovation and commercialisation support mechanisms however they are lacking the resources, and in some cases the know-how, to successfully to do so. The financial crisis has further reduced their financial capability to invest in such initiatives.

6. A number of regional, national and European organisations have expressed support and a potential willingness to invest in the proposed SEE.IP Fund. Further information is required by these potential investors before firm commitments would be likely. Private investment organisations also need to be more fully investigated.
7. A significant amount of **further work** is still required to prepare a detailed fund establishment and operational plan and an **investment prospectus** to convince potential investors to make funding commitments. As yet, **no resources** have been identified to undertake this additional planning and capital raising work.

3. Proposed Model

Considering the many objectives to be attained by the Fund, it is necessary to apply a **multi-step stage-gate (SG) model for the Fund** (see Fig. 1 below) which accounts for the many different needs and achieves the envisaged goals. Inventions may be referred to the Fund by partner organisations or be submitted directly by inventors or IP owners. Invention entries received by the Fund are checked and selected in a four-stage procedure that ensures that an application will be ever more stringently assessed by the Fund the further up it goes. The proposed four-step stage-gate model operates as follows:

Acquisition and Pre-Selection: This first stage involves fund marketing as well as identification and pre-screening of technologies for possible selection by the Fund. The intention is for this activity to be predominantly undertaken by the local partners in participating countries, not by the proposed Fund organisation itself, thus reducing the operational cost of the Fund. The Fund will provide local partners with online tools to assess potential projects and refer those that meet the basic criteria to the fund for further assessment. The same assessment criteria will be used by all partners such as the general suitability for investment, the technology field involved (area of interest), commercial potential and funding limits etc.

SG IP Creation: In this stage the pre-screened projects submitted to the Fund by partners will undergo initial assessment by the Fund. Projects/inventions that have a high potential for innovation and development will be accepted into this stage-gate and will be certified by the Fund. During this stage selected projects will be assigned a project manager who will work with the IP owner to develop a project plan to progress the IP towards implementation or commercialisation (as applicable). This may include also accessing services and assessing opportunities to bundle the IP with other known IP, to make a more marketable product to sell or licence. Out of this pool, projects will then be selected to pass on to the next higher stage-gate.

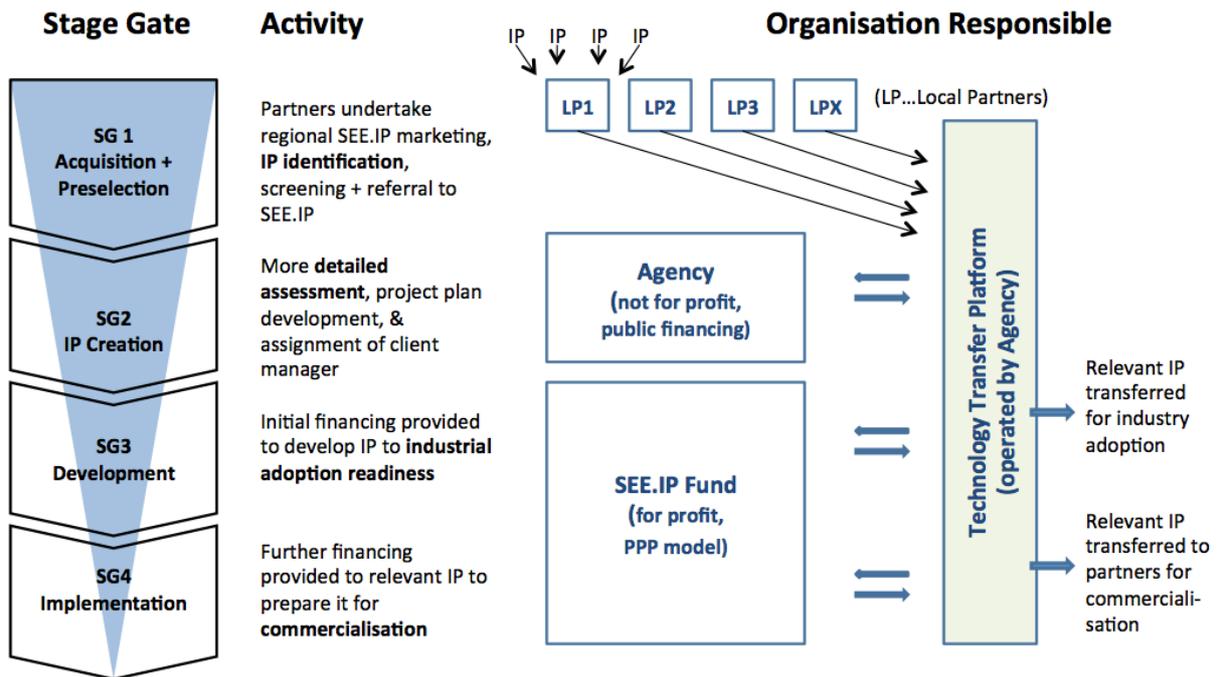
SG Development: This stage provides further support to technologies that have the potential to be transferred and used for industrial implementation or commercialisation. These technologies will inevitably require further design, development and testing to enable them to be transferred to potential users for implementation (licensees) or commercialisation partners. Promising technologies may be accepted directly into this stage without coming via the *SG IP Creation*.

SG Implementation: This stage provides further support to technologies that have a potential for commercialisation. The financing of new technology will stimulate technology transfer for commercialisation, which can be further boosted by supplementary in-bound licensing.

Both acquisition and marketing of the projects will be facilitated by a technology transfer platform specifically developed for the Fund.

Figure 1 below provides an overview of the proposed operational model. This model is designed to be scalable. Importantly, the numbers of inventions that are identified in each stage reflect an optimal fund size of €50 million (as per the Feasibility Study). However, at present a initial fund size about one-tenth this optimal size appears more realistic at the establishment phase.

Fig. 1: Proposed Partner Cooperation and Stage-Gate Model of the SEE.IP Fund



Source: SEE.IP Fund Feasibility Study, Oct 2010

4. Investor Interest

The WP5 partners have held investment discussions with over twenty organisations from the SEE region who were identified as possible investors in the Fund. These discussions provided very mixed feedback regarding interest and capability to invest. At present, seven of these potential investors expressed moderate to strong initial interest, and are open to further discussions when more detailed information is available. Unfortunately, with the exception of the European Investment Fund (EIF), the other interested parties would be relatively small potential investors, the largest being able to commit perhaps €1M.

It has been established that the EIF is a potential investor. However, EIF would provide a maximum of 50% of the total investment funds - potentially matching the total amount of funds obtained from other investors.

Unsurprisingly, the initial interest in the Fund comes mainly from public ministries and agencies in SEE, not from private institutions in these countries. Importantly, these organisations were not presented with a detailed investment prospectus, only the results from feasibility study. Generally the private investment sectors in participating countries seem still less adventurous when it comes to supporting high risk commercialisation projects, which is the case generally across Europe.

Some of the partner countries in this project are developing economies and all partners have been adversely affected by the financial crisis. As such, most of the public organisations in these countries are already severely resource constrained. Many also operate with small budgets in comparison to sister organisations in countries like France, Germany, UK and Switzerland. As such, the amount of initial funding likely to come from SEE public investors is not high.

5. Suggested Fund Structure

The overarching establishment and operational principles proposed for the SEE.IP Fund are:

- **A partnership model** – the fund will rely on and utilise local partners across SEE to provide marketing, IP identification and referrals to the Fund
- **Lean and efficient structures** – the Fund will ideally be housed within an organisation with relevant skills and infrastructure already in place which can be leveraged
- **Funding and capability focused** – to increase commercialisation and technology transfer in SEE, funding is not enough. As such, the Fund would aim to support access to value adding services to assist IP owners through the commercialisation process. In addition, it would seek to implement initiatives with local partners to increase their commercialisation skills and provide them with the capability to transfer this learning to others in their regions.

A supraregional fund would be established whose shareholders are interested SEE-IFA project partners and other organisations within and outside SEE that are interested in participating in the Fund. This organisation would create an IT-based technology transfer platform, and hire a small number of commercialisation, investment and technology transfer experts.

The Fund's Supervisory Board will consist of representatives of investors and will be authorised to decide on investment criteria, funding criteria, funding rates, and additional services etc.

Financial Structure

Most of the interviewees polled for the Demand Analysis activity as well as the technology transfer experts considered a scheme of **mixed financing** that draws on **both public and private funds** to be optimal. However, it seems attracting private financing initially will be more difficult, although the fund structure will allow private financing to be incorporated at any time. Accordingly, a private-public partnership model is proposed for financing. Including **public sector agencies** will help to create an IP commercialisation culture and network **in each country**, which will act as the necessary foundation for successful technology transfer. The funds role as a source of first-line financing is to be gradually cut back to a supervisory function once private sector funds are gradually attracted.

Potential investors from the **public sector** will therefore be institutions that act as **initial Fund shareholders**. Through their financing these organisations will stimulate a market-oriented approach for local and European R&D activities, increase patent affinity and improve IP protection by local and European public research organisations and SMEs.

Public capital is to be used to launch the Fund and finance its management. Public money is also to finance patent applications within the scope of *SG IP Creation* and investments in technology development within the scope of *SG Development*, e.g. by granting tax breaks to private investors. Participation and supervision by the state would provide an incentive for private investors, helping them to overcome their reluctance in the face of economic and legal risks. These risks are assumed by the public side of the scheme: public capital finances all of *SG IP Creation* and most of *SG Development*. Private venture capital, on the other hand, bolsters projects in *SG Implementation* which have already passed through a multi-stage selection process. This process reduces the risk of technological implementation and will increase interest from private investors.

The input made by the public sector should diminish over time. Nevertheless, the risk taken by the public sector needs to be compensated by investors once a project finally makes money.

Any profits achieved need to be returned to the Fund and the surplus shared out among investors apportioned by their contribution to the investment and by the investment stage.

Adding Value

With the Stage-Gates each having different objectives, the expected added value and returns will have different dimensions.

SG IP Creation will be not for profit-oriented trust. Here the added value consists of the development of an IPR and technology transfer culture and network that will become a sound foundation for increased technology transfer activities. The proposed measures could thus stimulate the creation of competence centres, the formation and location of technology companies and the establishment of expert networks for IPR and technology transfer. Given the *SG IP Creation* is non-profit orientated, consideration should be given to the benefits and disadvantages of separating this SG into a different entity. This would need to be discussed with potential investors. It is likely private investors would prefer to see public funds directed to this type of activity, and public investors may see advantages in quarantining their funds into this SG given the issues around investing public funds in the profit seeking entities.

SG Development will be profit-oriented. It aims to close the current financial gap in the technology transfer from development status to industrial implementation ready by investing in the next development stages. For the Fund, the added value comes from the increase in the value of a technology when it passes from the proof of concept stage to the stage where it is ready for industrial use. When the R&D project reaches a successful conclusion, returns and profits can be achieved by the sale of IP rights to other patent funds or by licensing them to licensees.

SG Implementation will also have a profit objective which is critical to attract private investors. Revenues could be generated by way of a brokerage fee when the technology is made ready for the market or when a franchise package has been created. Where the technology derives from *SG Development*, the Fund would add value through licensing revenues thus obtained.

Given the *SG IP Creation* is non-profit orientated, it may be necessary to separate this activity into a different entity.

Operational Structure

It is proposed that the management and administration of the Fund will be undertaken by a company set up specifically for this purpose. Its employees need to cover the following responsibilities:

- **Project and technology evaluation:** All submitted applications for acceptance in each of the SGs will undergo an evaluation based on standardised criteria. This evaluation results in a project rating that allows the screening of projects for potential admittance. Selected projects are presented to the Supervisory Board which will then decide on their acceptance or rejection. All subsequent evaluation steps required during project facilitation within the scope of *SG Development* and *SG Implementation* (milestones, market analysis, etc.) are carried out by the Fund's technology transfer staff.
- **Project facilitation:** Professional support will also be provided by Fund managers to projects accepted in each SG. Such facilitation may include assistance for international patent application in *SG IP Creation* or monitoring compliance with milestones in *SG Development*.
- **Scouting:** This will include searching for potential licensees or buyers of technologies from *SG Development* and *SG Implementation* as well as targeted searching for technologies to match technology requests from SEE businesses.

- **Capacity Building:** The Fund will provide training to partner organisations to improve their skills in identifying, referring and supporting IP commercialisation projects in their region.
- **Technology Transfer Platform administration:** Fund employees need to be familiar with the development and administration of the platform as this constitutes a key component of the Fund.
- **Fund administration:** This will include financing of patent protection, technology development, precommercialisations activities and monitoring of income and expenditure from licensing etc.

Furthermore, the Fund needs to receive significant operational support from its **member country partners** to undertake the **local marketing** and **project pre-screening** activities in their region. A Technology Transfer Platform will be made available to assist them screen the projects and submit the appropriate ones to the Fund. Importantly, the Technology Transfer Platform will also be made accessible by member country partners to local intermediaries, universities, research institutions and SMEs enabling them to also search for IP of interest. This will ensure the Fund has both push and pull elements.

Technology Transfer Platform

A key component of the Fund is the Technology Transfer (TT) Platform which will perform the following tasks:

- **Acquisition and preselection:** Inventors, public research institutions and SMEs interested in obtaining financing from the Fund will register on this internet platform which then accepts invention entries. Inventors, institutes and SMEs can file their own profile showing their requisite expertise and competence, e.g. as development partners. Projects are electronically preselected on the basis of standardised criteria, and subsequently rated by experts, again through an IT-based rating process.
- **Technology marketing:** Activities on the TT Platform add value mostly through the marketing of technologies accepted by it. The Platform is designed to provide information on all its technologies and their status (see above descriptions of SGs) available to potential licensees and buyers. It also publishes technology requests and specifically ties them in with the Fund. Transactions will be handled on an online auction platform made available by the Fund which offers standardised auction, bidder and seller services. Inventors who were financed from *SG IP Creation* or who exited *SG Development* in a later phase will also be offered an opportunity to use the Platform to market their own technologies.

The TT Platform is managed by the Fund managing company whereas regional stakeholder can provide support especially by acquiring local inventors, PROs and SMEs.

6. Funding Requirements

Like most investment services and initiatives, scale can provide operational efficiency. In the case of the proposed Fund this is likely to be the case. The Feasibility Study completed as part of WP5 found that an ideal fund size would be in the vicinity of €50M. However, current consultations with potential investors make this seem unrealistic. Fortunately the proposed Fund model is designed to be scalable. A scaled down version of what is proposed in the Feasibility Study is suggested based on initial establishment funding totalling between €4M and €6M, with an initial pilot period of 2 years to demonstrate demand, and demonstrate investment opportunities for potential private investors.

The minimum suggested fund operations term is 10 years, to ensure that even sectors where longer project terms are to be expected (such as pharmaceuticals or medicine) will have a genuine chance to profitably complete the technology transfer and commercialisation.

7. Preconditions for Establishment

There are a range of current uncertainties that will impact the future planning and establishment likelihood of the proposed SEE.IP Fund. The following highlights some of these uncertainties.

1. **Demonstrated demand** – Whilst the Feasibility Study clearly identified demand for the Fund by inventors and businesses, other elements are required to further highlight the need for the Fund.

Firstly, it is important sufficient actual technologies or projects from SEE can be identified and showcased to encourage potential investors. The Pilot Projects component of this Work Package have helped to demonstrate the potential technology supply (see chapter 8).

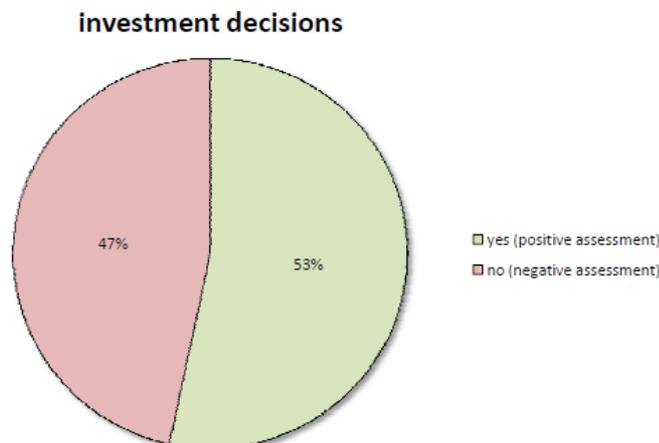
Secondly, the national agencies responsible for IP commercialisation and technology transfer support the actively commit to and support the Fund. This provides a clear signal that it is recognised at a national level that the Fund is needed.

2. **Sufficient partner interest** – The proposed model relies on the future commitments of current project partners as well as other relevant potential partners to collaborate with the fund to undertake local marketing, project identification and referrals activities. If an appropriate level of commitment cannot be obtained from such partners it would make the current model difficult to implement. Actual commitments from partners to help create and support the Fund are yet to be obtained.
3. **Accessing funding** – At this stage consultations with potential investors have shown some potential interest in investing, however no firm commitments have been made. If investment cannot be confirmed there can be no fund, regardless of the demand and need. The EIF has indicated willingness to continue discussions with the SEE-IFA partners regarding their potential investment in the Fund, indicating they could provide up to 50% of the total investment funds.
4. **Further planning support** – Whilst a significant amount of work has been undertaken to date, more detailed planning is required before investors will give proper consideration to Fund investment. This planning will need to continue post project. It will be time consuming and require further resources which are yet to be identified.

8. Findings from Pilot Projects Assessments

As mentioned above a critical element of the model is the sufficient “deal flow” of new technologies entering the stage gates. Therefore the WP5 participants decided, although the Fund has not (yet) existed, to simulate the acquisition, selection and assessment procedures. Consequently the WP5 partners sourced 23 pilot technologies in their respective regions which they deemed to be appropriate for such a Fund. In the next step an external expert team assessed 15 technologies against certain criteria which are commonly used by investment decision makers.

As a result more than half of the pilot technologies were positively evaluated, thus proposing to incorporate them into the developing stages of a (fictive) Fund.



An acquisition portfolio with about 50% projects appropriate for investment can be considered as an outstanding finding. This exercise gave not only evidence that the WP5 partners are able to address and encourage technology providers but also that SEE area might be able to deliver the critical mass of technologies of quality.

9. Other Relevant Activities

There is significant attention being paid to developing new mechanisms to increase the commercialisation and uptake of IP in Europe to underpin future economic growth and industry sustainability. This includes a strong interest to create European IPR trading instruments or marketplaces to facilitate this. A successful marketplace requires both supply and demand. Some of the new initiatives being considered aim to address the current supply issues, some aim to address the demand issues, and others are trying to address both.

The supply issue in this context is about improving the access to existing IP and having it in a form that can be easily transferred to interested users. This is referred to as **Technology Push**. The demand issue is about improving the market’s understanding of and demand for IP, especially SMEs. Mechanisms that address demand issues can be referred to as **Market Pull** mechanisms.

Importantly, **Intermediaries** are necessary to help the push and pull efforts actually connect in the middle by either matching known IP with potentially interested users, or by linking organisations with IP needs to relevant known IP.

The main focus of the proposed **SEE.IP Fund** will be to address the IP supply and access issues through creating a new Technology Push mechanism that will help IP holders prepare and make available their IP to intermediaries and potential users. Importantly, SEE.IP will also undertake capacity building and seek to up-skills IP creators and local intermediaries with relevant commercialisation skills.

Three other major IP market mechanisms were identified through the SEE-IFA project since the completion of the Feasibility Study in 2010. They are described below.

European Patent Fund

A new European Patent Fund model is being explored by the European Investment Bank (EIF) and the French Caisse des Depots (CDC). The focus of the fund is to access, bundle and on sell or license IP via Technology Push mechanisms to interested businesses across Europe. It is focused on increasing commercialisation of European developed IP whilst improving access to this IP by European based businesses. Importantly, this fund would seek to identify and access IP that is already in a state where the fund believes it could be profitably transferred for adoption or commercialisation. It would not seek to undertake capacity building or funding support for inventors through this specific initiative. The current EIF/CDC model is based on raising significant capital (several hundred million Euros) and using this to access and bundle IPR via licensing and possibly proxy methods.

IPX International

IPXI is a US based company that is establishing a financial market for trading IP rights. Its model uses a mechanism called Unit License Rights (ULR) contracts. ULR contracts aim to transform private licensing of technology into consumable and tradable products, allowing for improved market transparency, smooth technology transfers, and increased efficiencies.

ULR contracts allow patent owners to license select technology in a non-discriminatory manner via standard form licenses on publicly disclosed terms. IPXI serves as the intermediary between patent owners and potential licensees, listing the ULR contracts and facilitating one or more offerings of consumable “license rights” – the ULR contract. Each ULR contract purchased gives the buyer the right to use a pre-established unit of IP, for example the right to make and/or sell up to an established quantity of products covered by the patents in question.

Technology Reserve

A second model being implemented internationally by Canadian based Snowflake Innovation Inc. is a global Technology Reserve. The Technology Reserve is a platform to accelerate the transfer and commercialization of technologies on a global scale. It provides a new and transparent pricing transfer mechanism aimed at significantly lowering SME technology access barriers. The Reserve acts like a technology bank, in that owners and producers of technologies may deposit rights to use their IP at the Technology Reserve and receive annual interest payments on these deposits. The Technology Reserve will then lend these technology assets (IPR) to government borrowers, who pay annual interest to receive options to license all the technologies deposited by depositors. Governments can then automatically pass on these rights to all the SME in their region. These SMEs are then allowed to use these technologies for free to test them or even to develop new products and services. If they later want to commence manufacture, production, and sale of products and services containing deposited technology, they can quickly and simply convert their options to licenses at preset SME friendly prices.

The Technology Reserve is targeted towards supporting three groups:

1. Depositors: Substantial producers and owners of technologies, such as large companies, universities, and research institutes (private and public).
2. Borrowers: Government or government related entities with an economic development focus that collectively form to borrow technologies on deposit and pass through licenses to a defined group of SMEs.

3. SMEs: Small and medium sized enterprises that gain access to the technologies borrowed by their government.

It is understood that the Technology Reserve will commence lending technology in Europe in mid 2012 to Finnish SME.

Fig. 2: IP Marketplace Models in relation SEE.IP Fund

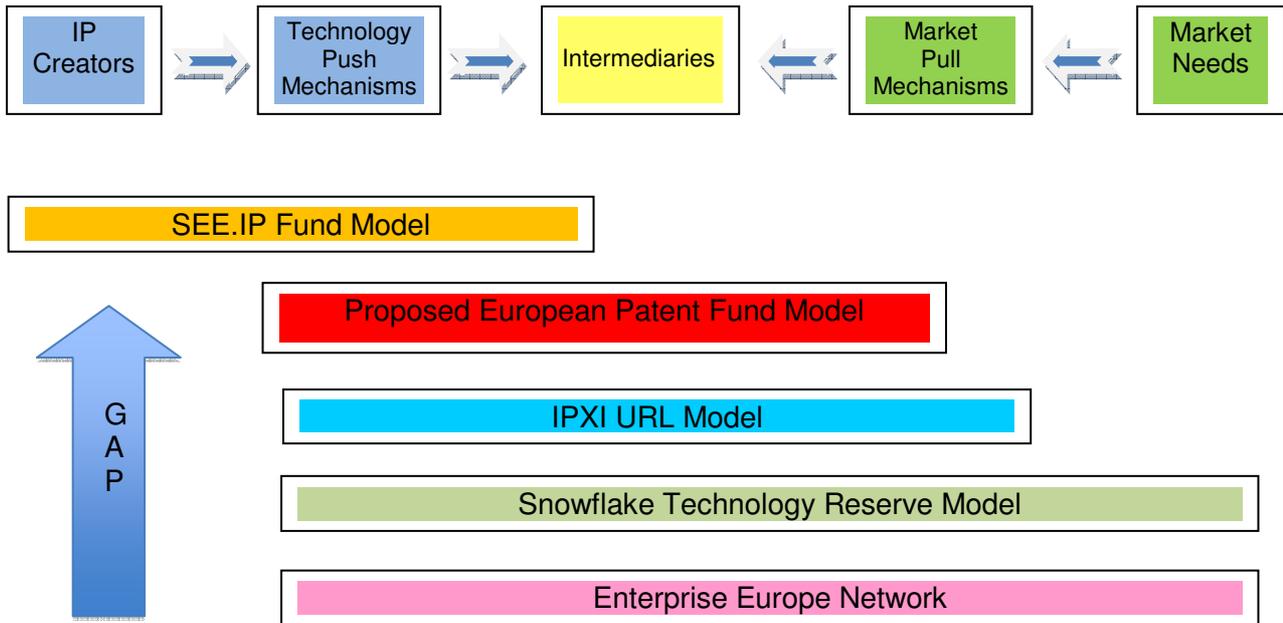


Figure 2 above appears to show the proposed SEE.IP Fund activity overlapping with both the other three models. This is not the case in reality. A more detailed examination of each initiative indicates that the SEE.IP Fund would complement rather than compete with the other three initiatives. The SEE.IP Fund is specifically focused on helping inventors who lack the skills and finances to prepare their IP to a stage where it can be transferable to potential users/adopters. None of the other models seek to focus on this specific objective, and provide no support to inventors to enhance their IP to bring it to a transfer-ready stage.

Importantly, IP supported through SEE.IP Fund could also easily be added to or market through the other four models, to take advantage of their platforms to connect the SEE.IP Fund IP with interested users internationally.

10. Final Recommendations paving the way to a Technology Development Fund

The following are the Recommendations from this WP5 of the SEE-IFA Project.

General:

1. The WP5 activities have confirmed a need for new instruments to support IP commercialisation in SEE. It found that there is a clear need for additional targeted capacity development activities, inventor support programs/services and funding to prepare IP to a stage where it can be either successfully transferred or attract commercialisation financing. Feedback to date regarding the proposed SEE.IP model has been positive. Therefore, it is recommended that further activities are now undertaken to develop a more detailed fund financial and operational structure, and commence the Fund investment raising process.

Working Group:

2. Create a Working Group to establish an IP commercialisation focused fund to meet the specific IP commercialisation challenges common across South East Europe. The Working Group should investigate the need for a follow-up project in order to progress the fund planning, investment attraction and establishment at an optimal pace.
3. The Working Group focus will be to undertake more in-depth planning and ensuring a robust implementation plan and investment prospectus is available to help convince potential investors to commit funds.
4. The Working Group should work closely with the European Investment Fund to:
 - a. ensure the proposed fund complements rather than duplicates the proposed European Patent Fund activities and services
 - b. develop a working relationship with the EIF during the SEE.IP Fund planning stage to increase the likelihood of funding commitments from this important potential investor.
5. The Working Group should be open to any European organization interested in advancing the IP asset market.

Fund Establishment (initiated by the Working Group):

6. The proposed Fund model should be structured such that both public and private organisations and individuals can easily invest in the Fund during establishment and later.
7. The proposed Fund should adopt a stage gate approach regarding the screening and funding of investment opportunities.
8. The public investments received should be focused more towards the earlier stages of screening, selection and initial investment to de-risk opportunities and make them more attractive to private investors to fund the later commercialisation requirements.
9. A partnership model should be used where the Fund has formal partnerships with appropriate existing local economic development, innovation or business support agencies in each country. These agencies will act as the Fund's local marketing presence. The Fund should provide these organisations with training to build the commercialisation capability of these organisations. This will enable these agencies to better identify and assist relevant investment opportunities, and tailor the Fund marketing towards local market requirements.

10. A lean and efficient structure and operation should be implemented for the Fund. This includes avoiding setting up new stand-alone facilities for the Fund. If possible, it should be housed within an organisation who has the relevant skills and infrastructure already in place that can be leveraged to minimise operational costs.

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