



## **Venture Capital in the Slovak Republic**

# **MASTER PLAN**

**Developed within the ESTER project**

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The previous analyses have shown that the venture capital (VC) financing is underdeveloped in Slovakia. The situation is not changing since years and the accession of the Slovak republic to the EU has not changed it. There are more reasons for the absence of the VC industry both on the demand and supply sides.

## **1. The demand side**

Insufficient innovation capacity of SMEs is considered a serious problem for the economy restructuring and development in Slovakia. There are two main reasons for this: a non-existing communication and transfer of solutions for innovation between R&D institutions and companies and a difficult access to finance for SMEs, particularly for innovation and development projects.

Long-term competitiveness of companies relies on permanent innovations. It is not possible only to copy existing solutions because it cannot guarantee any sustainable success on market but it is necessary to come with new original solutions to get some competitive advantage. Such solutions are usually based on new scientific findings and results of sophisticated R&D.

### **1.1 The absence of state innovation and technology policy**

The state has not defined its technology policy; it means there are no priorities supported by public means. Combined with the limited resources used for R & D where neither the academia and universities nor the industries concentrate on chosen technology sectors the generation of new technologies is poor. This is the reason why the productivity and the expansion of SMEs are increasing slowly.

Currently, there was approved by the Government “Competitiveness strategy for the Slovak Republic until 2010” that create a framework for the development of innovation and technology policies. The strategy address the most important issues related to innovation.

### **1.2 A weak R&D base**

In Slovakia, the R&D base has shrunk considerably during the last 15 years. It concerns the number of researchers and creative workers as well as the provided money. Partially, non-productive people left to improve efficiency but also many exceptional researchers moved out for better salaries. Generally, the capacity and performance of R&D has decreased.

The R & D dropped to 25% compared to the eighties. The state budget is financing just 0.39% of the GDP and the provision of the private sector is similar so the whole R & D expenditures are under 0.8% of the GDP, which is far under the EU average. The next problem is that companies prefer often purchase of ready-made technologies and the orders from the private sector are poor. Finally the large multinational companies are performing R&D in their head quarters. The consequence is that the domestic state funded R&D sector has almost no private financing and therefore is not generating enough new technologies. Lag of technologies does not allow dynamic development of companies.

The low levels of private R&D funding and the lack of commercialisation of R&D from the academic and research institutions suggest the need for some form of direct government support for early stage R&D activity by firms:

Matching grants that provide direct funding by government for R&D projects by firms are likely to be the most effective mechanisms to target directly the critical early-stage private R&D activity. There are significant challenges, however, to implementing R&D grant programs because of high potential for distortion of the selection process when civil servants are relied on to choose “winners”. Requirements for 50%+ matching of the grants by the firm, semi-independent selection committees, and requirements for partial reimbursement of the grants can all create incentives for the firm and the selection committee to emphasize projects with commercial potential.

At the most basic level, an effective government policy should create an institutional base for innovation to generate the specific R&D projects that attract private investment by firms and investors.

Beyond these general policies, the government have also to intervene at the firm level to stimulate private funding of R&D based on the arguments of market failures and the capital gap for funding of innovative, technology-oriented firms. In general, these types of interventions should take two forms:

- Direct government support for R&D investment by firms, typically at the early stage of the R&D cycle to determine commercial viability, through procurement preferences, direct grants or soft loans; and
- Intervention in the market for financing of innovative/ technology-oriented firms that are engaging in commercialisation of R&D through direct government funding or incentives for private venture capital funding.

#### **Support measures**

- Funding of shared knowledge (partnerships industry/university);
- Competitive funding of research and innovation (matching grant programmes);
- Support program for spin-off from universities and research institutions.

### **1.3 Lacking communication between R&D and firms**

State funded research despite the low level of financing does not transfer its results to companies for implementation. There is no communication between R&D institutions and producing companies. Results of R&D are published but not used commercially by firms. According to our repeated statistical surveys, less than 5% of implemented research results used by innovating companies originate from the Academy or universities. On the other hand, there is no feedback for research institutions about demand for innovative solutions. This prevents any substantial flow of private financial resources into state financed science and R&D institutions. There is no system or market for knowledge products.

A slow process of dissemination of information and incorporation of knowledge into products and services leads to an inefficient economic outcome, because the knowledge is not fully exploited throughout the economy. A particular source of information asymmetries leading to a low level of innovation is the existence of weak institutional set ups and reduced interaction among economic agents. This systemic inefficiency is more acute for SMEs, which face proportionally higher search costs and have smaller advertising budgets. Innovation related measures are increasingly aimed at providing interfaces and building bridges across relevant actors of the system. Companies experience difficulties in gaining access to scientific knowledge on which to base their business activities.

To approach individual companies is not very efficient. It is widely accepted that good governance and an effective institutional structure are an important source of regional competitiveness through facilitating cooperation between the various parties involved in both the public and private sectors. In particular, they can improve collective processes of learning and the creation, transfer and diffusion of knowledge and transfer, which are critical for innovation. In addition, they can cement networks and public-private partnerships and so stimulate successful regional clusters as well as regional innovation strategies and policies.

The establishment of a framework for inter-firm cooperation is of importance for the promotion of innovation in SMEs in particular. Such cooperation and the networks that are formed help to translate knowledge into economic opportunity, while at the same time building the relationships between people and organisations which can act as a catalyst for innovation.

Innovation intermediaries are entities providing infrastructure and services to undertakings involved in innovative activities. They may be public or private entities.

Innovation intermediaries can help solve market failures due to insufficient information dissemination, externalities and lack of coordination, by providing services and infrastructure to undertakings. However, the market price for services may be at too high a price for start-ups, small and medium-sized enterprises, and the market may be insufficiently developed for private actors to be willing to enter it.

Such services might include:

- Research and identification of innovative projects;
- Business advisory services such as: research, identification of and connection with suitable business location (e.g. in a cluster) and/or business partners; strategic advisory and training during incubation and after creation; technological assistance for innovative projects; consultancy for acquisition, protection and trade in Intellectual Property Rights and for licensing agreements; consultancy on the use of standards;
- Provision of facilities such as: office space; data banks for the search of existing technologies and of partners for transfer of technology; quality labelling, testing and certification services.

It is necessary to define innovation intermediaries on the basis of the services they provide, as support organisations (public or private) for innovative SMEs and entrepreneurs. To qualify as an innovation intermediary, a legal entity should provide in particular:

- Specific services as defined above;
- At least one of the following types of infrastructure: physical incubation for innovative projects (fully equipped offices); training facilities; laboratory facilities; testing and certification facilities;
- Dissemination of services provided and results obtained.

Creation of such a knowledge market and its infrastructure composed from a market operator supported by the information system and technology counselling companies, technology brokers, cluster organizers, wide spectrum of financial institutions, technology incubators, education and training providing institutions, and other service providers as defined before must be initiated and supported at least in its initial phase by state funded programs. The best form of the state support is through the final beneficiaries. This infrastructure should serve for all research institutions, companies and clusters.

## **1.4 Network elements and services**

The system is intended to facilitate technology and knowledge transfer between certain providers of technology and SMEs. For this purpose, support programmes are meant to cover the operating costs of technology centres or costs of specific projects aimed at improving and accelerating the transfer of technology as well as the creation of new enterprises:

- Linkage to incubators;
- Training and education;
- Legal and technical assistance to enterprises in the patenting process;
- Spin-off of enterprises;
- Incubation facilities;
- Innovation related measures are increasingly aimed at providing interfaces and building bridges across relevant actors of the system;
- Public authorities promote collaboration and networking to facilitate knowledge diffusion (e.g. industry-science relations, technological and scientific networks, science and technology parks, contract research organisations, intermediation bodies, technology brokers);
- Orators of clustering and networking activities;
- Measures to promote knowledge diffusion (knowledge services, libraries, education, training, fairs);
- Facilitation of technology transfer and interfaces (e.g. industry-science relations, research joint ventures for development of innovative products/processes, science and technology parks);
- Support to intermediary actors (e.g. technology consultants, IPR brokers);
- Activating and improving technology transfer between technology suppliers, like for instance universities or research establishments, and technology users, i.e. small and medium-sized enterprises (SMEs) and at the creation of innovative and technology oriented SMEs and SMEs in their start-up stage;
- Facilitate the transfer of technology and to promote the creation and development of knowledge-intensive enterprises;
- Innovation assistants in the field of 'innovation and knowledge management' in SMEs (especially start-ups) involved in R&D projects to convert results of pre-competitive development activities into new, substantially changed or improved products, processing or services.

### **Support measures**

- Support programme for SMEs for state contribution to specific service fees.

## **1.5 The absence of the innovation system support**

Innovative SMEs have been demonstrated to be a critical component of the innovation process, with new firms active in commercialising technologies and new products. The absence of the innovation system support is a serious obstacle for dynamic companies' development. There is almost no system of support for technology-based companies. They are

investing just their own resources in technology development and introduction of innovation. According to performed analysis about one third of the interviewed companies is investing in innovation measures. Those investments are usually lower than 10% of their turnover.

On the other side, innovation is for companies risky and financially demanding process. Currently, there are no investors and financial resources willing to invest in this type of activities.

While the government should, in general, be dissuaded from “picking winners” at the industry level, R&D support could target particular weaknesses in the innovation system such as university-business collaborations.

The key to effective policy design is not in coming up with better instruments but in determining what package of instruments is appropriate for the Slovak economic, academic, business and governance framework. Among others, the following factors are likely to influence policy design:

Repayable support should be preferred due to the motivation of companies and because restricted resources can serve to larger number of companies and innovation actors.

It is necessary to have in mind the government support distribution failure through rent seeking and capture. The continued prevalence of corruption and capture of governmental processes by interest groups place a heavy burden on the design of successful policy instruments. Grants, credits and other forms of funding will attract rent-seeking behaviour resulting in inefficient funding allocation, if the institutional design cannot immunize the funding allocation from interference by political actors and other interest groups. Crucially, the design of the policy instruments needs to preserve incentives for the innovator to invest time and effort in the project. Typically any grant or credit under an innovation policy instrument requires a co-investment by the entrepreneur. While it is the aim to share some of the project risk between the government and the entrepreneur to overcome the high-risk threshold in the early stage technological development (ESTD) phase, it is crucial that the entrepreneur retains some of the risk to preserve the incentives for the entrepreneur to make the project successful.

Sequencing of policy interventions. The success of policy instruments targeted at increasing private funding for innovation is dependent on the existence innovative capacity. This must be carefully analysed. If innovative capacity is limited (for example, because there are not enough trained scientists and engineers), the primary policy focus needs to be targeted at training and education. An effective policy must address the deal flow at all levels of the R&D and commercialisation continuum. If the availability of potentially commercial R&D projects is weakest at the academic stage, than a program should emphasize R&D grants. If the academic institutions are generating interesting technologies but new firms are struggling to commercialise them, then a program should emphasize VC support. On the other hand, pouring money into the VC industry without having a significant base of potentially innovative firms and new technologies will not be effective. In addition, a functioning IPR framework is key in providing incentives for the private sector to invest in R&D.

### **Support measures**

- Support for R&D performing firms;
- Aid to incubation facilities.

## **1.6 The low patent activity**

The low patent activity is a specific problem in creating the demand side and substantial deal flow for VC funds. The SMEs are not very active in patenting, as they cannot often afford financial means for obtaining European patents. There is a very high price of patents. This is serious obstacle in expanding to European markets, as they are able to protect their IP. The IPR infrastructure generally is not developed well.

Also there are no motivating rules for all shareholders of the innovation process for sharing ownership and related benefits. It seems that Bayh-Dole Act is very effective in US. Similar approach was successfully adopted in other countries. Therefore better business environment in many cases provides natural incentives and can avoid state aid.

### **Support measures**

- Support programme for SMEs for co-financing patenting fees based on extent of innovative effects;
- New legislative rules for sharing benefits for innovation stakeholders.

## **1.7 The ignorance of the VC financing**

The seed and early-stage equity gap is not only a supply-side problem but also reflects that there are problems on the demand-side. First, entrepreneurs can be reluctant to dilute their ownership or cede a share of control to equity investors and instead try to borrow or accept limits to the firm's growth. Second, being able to evaluate the available funding options and to understand the concerns and needs of investors is essential for entrepreneurs who try to get risk capital funding.

SMEs in Slovakia are more averse to seeking risk capital than their competitors in the EU and elsewhere and ways to improve SME demand for external finance must be considered.

The investment readiness of entrepreneurs remains a problem also in Europe, although several national and cross-border initiatives have started to address the problem. One example is Ready4Growth, a cross-border initiative part funded under the Commission's eContent programme. The experience from the Ready4Growth project showed that entrepreneurs appreciated in particular the guidance from investment professionals who could give immediate feedback about real-world solutions. Slovakia must join these European initiatives and provide support measures for these activities.

Since the VC financing is not present among the Slovak SMEs, most managers do not know it and do not like to share their management competencies. This is a part of the management culture and has to be taken into the consideration.

Public awareness about venture capital is absent. In countries with highest usage of venture capital, the entrepreneurial and equity-oriented culture makes venture capital a well-known and well-regarded financing alternative, at least in the key cluster regions. In Slovakia, the clusters are almost missing and the presence of venture capital is limited, holding back the possibilities of wider public recognition of the benefits of venture capital investments. Besides public policy initiatives to enhance the operating environment of venture capital investors, a sustained further effort from the part of the venture capital industry might be useful to raise public awareness about the benefits of venture capital. It can be managed by including this obligation for supported venture capital funds.

Simultaneously with creating and supporting VC funds, it is necessary to promote new financing tools and to support information dissemination about these schemes as well as counselling and training to use them effectively. It should become a part of curricula at all types of economic and entrepreneurial education.

**Support measures**

- Public-private cooperation can help entrepreneurs, who are seeking funding, to understand the concerns of venture capitalists and to evaluate different funding options.

## 2. Incubation system in the Slovak Republic

The process of establishment and operation of incubators in Slovakia will be defined in respective Sectoral Operational Programmes, which are currently under the preparation by responsible ministries; mainly by the Ministry of Economy of the SR. Support of incubators' creation in Slovakia will be included also in the **National Strategic Reference Framework** under the 2<sup>nd</sup> Strategic priority – Innovations, informatisation and knowledge-based economy; Specific priority 2.1 – Support of companies' and services' competitiveness through innovations; Operational priority 2.1.2 – Support of common services for entrepreneurs (incubators, technology parks, clusters, start-up and spin-off centres, B2B and B2G services).

Incubators will present a part of whole suggested innovation infrastructure, which is formed apart from incubators by technology centres and science and technology parks. Incubators will be located in different regions and will cover the whole area of the Slovak Republic.

The financing of incubation system development will be linked to EU Structural funds planned for period 2007 -2013 and will be interconnected with suggested seed funds that will finance innovative starts ups located in incubators.

### 2.1 Identifying of parameters of incubators

According to the regional disparities, no central definition of parameters will be implemented in Slovakia. In general incubators in Western Slovakia (mainly Bratislava and Trnava) will be focused on high-tech, incubators in Eastern Slovakia will be focused on job creation and only limited incubation capacity will be dedicated to high-tech/middle-tech. The specification is envisaged only in Bratislava region, where critical mass of activities in automotive and IT clusters is present.

### 2.2 Planning on the regional level

The planning of the incentives on the regional level is carried out in the framework of RIS (Regional Innovation Strategy) projects in individual region. The RIS methodology has been developed by the European Commission and RIS projects are supported under the EU Framework programmes. Since 1994, RIS projects have been implemented in more than 120 EU25 and candidate countries' regions and currently (2005 – 2008) are being implemented in 33 regions of the EU and candidate countries, including all Slovakian regions except of the regions of Nitra and Bratislava, where the RIS project has been implemented during 2002 – 2004. The main aim of RIS projects is to develop Regional Innovation Strategy of respective region. The part of proposed regional innovation strategies is also definition of incubation system, with concrete actions providing its development. The strategies will be used for planning of measures in individual regions within national and structural funds in order to provide finances for innovation activities envisaged.

BIC Bratislava has been a partner in the **RIS SKKproject** co-financed by the European Commission and has been responsible for the Regional Innovation Strategy development in the Bratislava Self-Governing Region (BSGR). The project has been implemented during 2002 – 2004 and BIC Bratislava has been given a mandate from the BSGR (regional government) to represent BSGR in the RIS SKKproject.

The main priorities approved by the BSGR Parliament and included in the document "Development strategy of the Bratislava Self-Governing Region" has been:

- Innovation infrastructure development;
- Establishment of investment fund;
- Clusters creation.

**Direct measurements proposed within the Regional Innovation Strategy for the Bratislava Self-Governing Region has been as follows:**

- Innovation infrastructure development;
- Material and non-material innovation infrastructure;
- Creation of "innovation" clusters in selected technology sectors;
  - Automotive industry
  - ICT sector
- Establishment of innovation activities' financing system and capital funds.

The full version of Regional Innovation Strategy proposal for the Bratislava Self-Governing Region may be found at <http://www.bic.sk/ris-sk>

Currently, BIC Bratislava is involved in RIS projects' implementation in Trnava and Presov regions – **RIS Trnava, RIS Presov**, where the issue of incubators establishment and start-ups support should be addressed as well.

### **2.3 Presentation of existing incubator project - InQb**

The project of technology incubator in Bratislava was promoted and supported by NADSME and BIC Bratislava.

#### **InQb incubator was implemented within the Slovak university of technology**

InQb is a complex start-up programme of the University technology Incubator of Slovak University of Technology in Bratislava. It supports establishment and development of small enterprises oriented at technical and technological fields. InQb and participating experts provide broad support for the future entrepreneurs starting from basic rent of space in the University Technological Incubator and ending up with full range of support services, marketing, development of managerial skills and searching for investors as well.

Start-up companies can use advantages of the incubator during 3 year period that contributes to significant decrease of risk of failure. Technological expertise will be provided by experts from universities from Bratislava and Vienna. These additional benefits of the incubator will enable start-up companies to develop in such a way that they could independently act on the market later on.

InQb is a part of project of establishment of University Technology Incubator elaborated based on the call for proposals issued by the National Agency for Small and Medium Sized Enterprises in the framework of INTEG grant scheme. The project is financed from PHARE - CBC Austria - Slovakia funds. The goal is to stimulate cross-border cooperation, development

of small and medium sized technology oriented enterprises in Bratislava and Trnava regions and prevent leaving of young and highly educated people from Slovakia.

InQb programme is a strategic part of long-term development plan of Slovak University of Technology in Bratislava. Direct contact between the university and practice brings along possibility for participation of students and teachers in solving real problems. Opportunity for self-realisation for graduates in form of development of their own company should lead to increase of attractiveness of study.

### **Intense educational pre-incubation programme**

- intense training of business skills
- cooperation with experts in the business plan composition
- networking - using of existing networks and contacts in client search
- investment and capital search
- start-up legal assistance

### **Services**

- provision of site for the emerging companies
- administrative and training facilities (approx. 2000 m2)
- high information and communication standard
- package of services - accounting, marketing, tax, legal and financial accounting
- lower prices than those available on the market
- 3-year incubation period

### **University support**

- technical and professional expertise, know-how
- international research and innovation networks
- high-tech device equipment
- laboratories, workshops and additional premises

### **Investment support**

- entrepreneurial experience
- potential business partners contacts
- capital
- support by means of the "owners' supervision"

### **Company finance possibilities**

- Own resources of the founders
- Private venture capital
- Public resources (Seed Capital)
- Public resources grants (EU structural funds, national support schemes etc.)
- Bank loans

### **Support of BIC Bratislava to InQb**

BIC Bratislava in addition to incentives provided from the scheme INTEG (presented further on) proposed to InQb agreement on provision of the services focused to the needs of innovative start-ups. This support will be carried out immediately after start of Incubator in the years 2006-2007 and will be focused on:

- Business planning;
- Financial planning;
- Due diligence;
- Acquisition of seed capital;
- Networking;
- Access to FP 6 activities.

**The incubation system development in the Slovak Republic will depend on the financial means available for these activities in Structural funds and has to be directly linked with the seed capital funds aimed at start ups support proposed within this Master plan.**

## 3. Supply side

### 3.1 The present situation

There is a lag of risk capital in Slovakia as presented in the WP 7. There are more reasons for it:

- a) The private entrepreneurship has been developed in the last 15 years, e.g. the companies are relative young and often not establish enough on the international market, they are in most cases undercapitalised. That is why most companies are technology followers rather than technology leaders and just few companies are developing new technologies.
- b) The R&D base is not reformed yet and does not produce enough R&D results which could be used for development of new technologies. That means the spin off potential from the academy sector is rather limited.
- c) There is almost no tradition in risk capital financing in Slovakia, it is almost unknown and the managers are not used this financial tool.
- d) There is no state coordinated technology policy; the limited means for R&D are diffused in too many technology sectors. The financial means both public and private do not concentrate on chosen technology sectors.
- e) The state coordinated innovation policy does not exist, too. According to the Innovation scoreboard published by CORDIS Slovakia's position is one of the worst among the member states. Actually there are almost no programmes supporting technology based SMEs. Almost all innovation activities in Slovak companies are being paid by themselves.

#### 3.1.1 The need of a public intervention and accompanying measures

According to the analysis carried out with the financial operators – the banks and the investment funds the Slovak business environment is not favorable for risk capital financing development. The present situation can be characterized as a “**market failure**”, that means a **public intervention** is needed in order to stimulate risk capital development in Slovakia. However the public intervention should be rather complex and has to deal with legislative barriers, financial intervention and stimulation of the demand side.

#### 3.1.2 Removing legislative barriers

As already mentioned there are legislative barriers in Slovakia directly prohibiting the main providers of risk financing to invest into the VS funds.

The present legal situation in Slovakia does not allow the banks to invest in risk funds. This may change but the banks can not invest into risk capital funds at present. The same situation is concerning the insurance companies and the pension funds. According to the negotiations with the Slovak ministry of Finance this situation should change during 2006 so the banks insurance companies and pension fund will be allowed to invest into the risk capital funds by 2007.

### **3.1.3 The taxation**

The flat tax of 19 % in corporate taxation, income taxation and VAT and 0 % dividend tax creates favourable conditions for investing in generally. Concerning VC funds one issue should be solved which is the consolidation of profits and losses of the VC funds during the investment period. This is not possible under the current legislation and the change would be a strong incentive for the VC industry development in Slovakia.

## **3.2 The public intervention in creating risk capital funds**

The public intervention in creating risk funds is necessary as there is a market failure in Slovakia. The examples from abroad are showing that the public intervention can have a significant triggering effect, can multiply the public investment considerably. The following scheme is based on YOZMA and other countries (e.g. Latvia) experience however developed for Slovak conditions.

The BIC Bratislava and the NADSME discussed since begin 2004 with the Ministry of Economy and the Ministry of Finance the creation of the VC fund via public intervention. The proposal was not accepted in the begin of the discussion, the state secretary of the Ministry of Finance argued that the “Slovak tax payer” will not contribute to public VC financing he could imagine that the structural funds from the 2007 – 2013 period would be used for it. This was the first positive reaction coming from the Slovak government. The situation changed in 2005 when 40 mil € was transferred the NADSME from not used public funds for diverse financial programmes. The transferred means can be used as risk capital funds. The next important initiative was the risk capital financing planning for the period 2007 – 2013 in Slovakia. The result of these activities was the proposal for creation of the risk capital financing in Slovakia. This proposal was communicated with the Ministry of Economy and the Ministry of Finance and finally with the Slovak government. The public intervention was approved the proposal itself will be however still subject for updating but the scheme is approved although the amounts proposed may be changed.

### **3.2.1 The creation of the “fund of funds”**

The instrument for the public intervention for the risk bearing funds creation will be, according to the foreign experiences, especially from the Israeli YOZMA program, the creation of a public “fund of funds”. This fund will be created by public means, mainly by the state budget and other public means. These funds will be matched by structural funds. Based on the negotiation with the European Investment Fund (EIF), the EIF is able and willing to contribute to the fund of funds if private investors will joint the scheme. This instrument will be the developed within the new structural funds planning period beginning from 2007.

### **3.2.2 The implementing organisation**

The implementing organisation for the fund of funds creation and following matching with private investors should be the National Agency for Development of SMEs (NADSME). The agency is managed by the Ministry of Economy and by the management board. It has a daughter organisation – the Seed capital company, which belongs to few organisations in Slovakia having experiences with risk capital investing. The NADSME is a public body; it is an implementing organisation of the structural funds and has the capability to manage the public fund of funds. The final decision will make the Governmnet of the Slovak republic.

### **3.3 The risk capital funds creation**

The risk fund creation in the period 2006 – 2013 will be carried out in two steps: in the period 2005 – 2006 and in the period 2007 – 2013. The second period will use the structural funds dedicated to the innovation programme in the Slovak republic and will use the instrument of the public “fund of funds”.

#### **3.3.1. The period 2005 – 2006**

The NADSME obtained 40 mil. € (1500 mil. SK) from public funds – the Phare programme means and former state budget funds – which were not used in the past. The funds were transferred to the NADSME in 2005 and can be used as risk capital funds. These funds shall initiate the risk capital financing in Slovakia and shall prepare the VC scheme of the second period, e.g. 2007 – 2013. The plan foresees to create three funds; from them two would be matched with private investors. The funds should be prepared for investment by the end of 2006 and should be the first investment wave preparing the risk capital funds which should be created via the public fund of funds.

##### **1. The Seed capital fund**

The seed capital fund will be aimed at start ups. The fund will be correlated to the current incubating programme and will address the start ups. As the risk of the seed fund investments is high, there is no matching of this fund with private funds planned.

The size of the fund shall be SKK500 mil. (€13 mil.) The maximum investment amount will be SKK20 mil. (€520 k), the average investment will be lower.

##### **The special measures**

- At least a part of the investment would be used for active marketing;
- The owners of the companies should be asked to co-invest into the company.

##### **2. Early stage fund**

The early stage fund will address young companies up to three years of their existence or up to three years of the development of a new product or of a new service. This fund is compared with the seed capital fund less risky and will be matched with private investors.

The size of the fund will be minimum 800 mil. SKK(€20mil.) The public sector will provide SKK400 mil. (€ 10 mil.) and least further SKK400 mil. (€ 10 mil.) will be matched by private investors. The maximum investment amount will be SKK40 mil. ( €1. mil.)

##### **The special measures**

- The owners of the companies should be asked to co-invest into the company;
- The sales contracts or and at least letters of intents should be signed;
- Loan co- financing would be advantage.

##### **3. Early stage development fund**

The early stage development fund will address companies in their development phase. The companies need not to be necessarily innovative, should be however technology based. The fund will be matched with private investors, too.

The size of the fund will be minimum 1 200 mil. SKK(€32 mil.) The public sector will provide SKK600 mil. (€16 mil.) and least further SKK600 mil. (€16 mil.) will be matched by private investors. The maximum investment amount will be SKK50 mil. ( €1.3 mil)

### **The special measures**

- The owners of the companies should be asked to co-invest into the company;
- The sales contracts or and at least letters of intents should be signed;
- Loan co- financing would be advantage.

### **Comments:**

#### **State aid rule**

The Early stage fund and the early stage development fund shall obtain public co-investing. As in both cases public funding will be provided the improvement by Slovak government and by the European Commission should be obtained according to the state aid rule. The evidence of the market failure has to be provided.

#### **Syndicating with the fund creation from the period 2007 – 2013**

The present plan considers to create three funds, where all 1 500 mil. SKK(€40 mil.) shall be used and further 1000 mil. SKK( €26 mil.) shall be co-invested. In the case the creation of the planned funds would not be completed by the end of the year 2006, a part of the financial means could be used for creation of public funds which would together with the structural funds trigger the creation of the VC industry in Slovakia. Other wise these means will have to come from the state budget and from other public means.

#### **The impact of the planned risk capital funds**

As the NADSME obtained 1500 mil. SKK (€40 mil.) which can be used as risk capital financing. These means could be matched with further 1000 mil. SKK( €26 mil.), so the SME sector could obtain 2 500 mil. SKK (€66 mil.) as equity financing. This, compared to present public equity financing, will accelerate the creation and further development of innovative and technology based companies in Slovakia. The funds shall consider the existing incubator programmes in Slovakia and current Regional Innovation Strategies (RIS) projects actually performed in almost all lands in Slovakia.

### **3.3.2 The period 2007 – 2013**

Within the planning period 2007 – 2013 it is possible to **use the structural funds** for risk capital funds creation in Slovakia. The EU budget for the period is not clear yet (begin of December 2005) that is why this master plan considers the planned figures as they were presented by the Slovak authorities. According to the present status about €10 billion should be used for the structural funds in the planning period 2007 – 2013 and from that about 6 %, e.g. € 600 mil. should be used for supporting innovation. The amount of 600 mil. € for innovation support has been considered.

The de facto absence of the risk capital financing among the Slovak SMEs is a market failure. That is why the public intervention is needed. This proposal considers the experience of the Israeli Yozma program but also experience from other contrives where relative small amounts of public funds have triggered the development of the VC industry countrywide. The proposed scheme enables **to increase the public Slovak investments by the factor ten** if

structural funds and European Investment Fund (EIF) and private investors would be involved into the risk financing system creation.

### **3.3.2.1 The creation of the fund of funds**

The creation of the fund of funds is the first step in the risk financing development in Slovakia. This master plan considers three main components within the fund of funds creation process.

#### **1. The public means of the Slovak republic**

The Slovak republic has to invest a minimum of 10 % of the planned VC funds in order to trigger the VC funds creation process. The means can be provided by the state budget and by other public financial means, e.g. by the NADSME. The means do not have to be provided at once, the VC funds creation could be carry out within a period of four years. The proposed amount of the public means is **800 mil SKK** ( €21 mil) which is about a half compared to the present public means ( € 40 mil.), which as mentioned above, is at the disposal of the NADMSE. The requirements on the state budget should not exceed €10 mil. as the rest of the needed means can be provided from NADSME. In the case that the part of the present risk capital means of the NADSME would be used for the VC funds creation of the period 2007 – 2013 almost no means form the state budget would be needed. Anyway the requirements on the state budget are relatively moderate and realistic as they are also other public means especially in the NADSME.

#### **2. The structural funds**

According to the present figures 600 mil € should be dedicated to the innovation support. The master plan suggests using of **2 400 mil. SKK** ( **€63 mil.** ) for the VC funds creation which presents about 10.5 % form the whole structural funds planned for the innovation support. It should be realistic that even in case of shortening of the overall structural funds budget for Slovakia, the amounts for innovation support should not shrink. In the case the amount for innovation should shrink, the master plan would be adopted. It is clear that just a part of the innovation support can be used for direct financial instruments as the other part should be used for innovation infrastructure development. The risk capital funds are on the other side also a part of the direct financial instruments, that is why the master plan foresees about 10 % of the means dedicated for the innovation support for risk capital funds creation.

#### **3. The European Investment Fund**

The European Investment Fund (EIF) will form the last part of the proposed public “fund of funds”. The EIF does not normally invest into public funds. According to the negotiations with the EIF in March 2005 there will be new rules for new member states from 2007. This means that the EIF could invest also into public funds in new member states incl. Slovakia. There are however three restrictions which have to be considered - the private investors have to invest too, the minimum amount of the EIF investment has to be €10 mil. and the share of the EIF on the whole investment can not be higher than 25 %. These conditions can be however fulfilled if the EIF would invest in tranches as the private investors are anyway considered to invest. The planned amount of the EIF investment is **2 000 mil. SKK(€52 mil.)** The negotiations with the EIF should be redeemed after the master plan will be approved.

There is another meaning of the EIF participation in the fund of funds, not just the financial one. The EIF has a lot of know how in the field of risk investment funds creation and will play an important role in the selection of the private investors in the fund of funds. The know

how of the EIF and its networking activities are an added value within the selection process of the private investors. The private investors are on the other side crucial for the success of the venture capital funds created.

The size of the fund of funds created by public resources of the Slovak republic, by the structural funds and by the EIF would be **5 200 mil. SKK( €137 mil.)**. The fund of funds would be matched with private investments.

### **The management of the fund of funds**

The fund of funds will attract private investors. These private investments will create the single investment funds which will be invested into the companies. The right selection of the private investment companies is crucial for the success of the whole process of the creation of the VC industry in Slovakia.

### **The management company of the fund of the funds**

The creation of the fund of the funds will be carried out by the NADSME. This agency, belonging to the ministry of economy, will in cooperation with the respective ministries raise the fund of funds. It will provide its own resources as the resources of the Ministry of Finance and (state budget) and the ministry responsible for the structural funds management (the Ministry of Construction and Regional Development at present) will provide the structural funds needed. The NADSME will also raise the funds from the EIF.

The master plan foresees that the NADSME will be the management company of the fund of funds. This means the NADSME will raise the fund, it will be deposited at the NADSME and the NADSME will be also a member of the investment committee. The rights and the duties of the NADSME will be defined in the management agreement.

### **The board of the fund of the funds**

The board will supervise the NADSME especially if the agency is fulfilling its duties in term of attraction of the proper private investors. The board will regularly supervise the agency and will have the veto right concerning the selection of the private investors. The members of the board will be the respective ministries – of Economy, Finance and regional development and from the EIF representatives.

### **The investment committee**

The investment committee will consist from the NADSME, the board and of the selected experts. The main role of the investment committee is to decide about the selection of the private investors. This is a crucial function of the investment committee as the right selection of the private investors will have the main impact on success or failure of the VC industry development in Slovakia. The investors will be pre-selected by the NADSME according to defined criteria. The final decision however will be done by the investment committee. The members of the investment committee will have the veto right.

### 3.3.2.2 The private investors

The private investors are necessary not only as co-investors to the fund of funds but also as the managers of the single funds. More private investors will be chosen. They are supposed to invest together **2 800 mil SKK (€74 mil.)**.

These means will be invested into the fund of funds and via these investments the single investment funds will be created. The master plan supposes to create 5 to 10 single funds which would be managed by private investors. The potential private investors are the existing VC funds with sufficient experience and relevant track report and after the change in the respective legislation in Slovakia also the Slovak banks, insurance companies and pension funds.

The selection of private investors will be as already mentioned of a high importance for the development of the VC industry in Slovakia. Therefore it is important to set the selection criteria in advance. The investors must have beside the funds needed also a sound experience and a proven track report in risk capital investing. As the probability that the most investors and VC funds will come from abroad is high, it is important that in the management of the single investment funds Slovak managers will take part, too.

The private investors will have normally minority shares within the proposed VC funds. They should be however responsible for the **active management of the VC funds**. The management position of the fund of the funds will be a passive one. The management of the fund of funds, the EIF representatives and the state representatives will be members of the investment committees of the single investment funds.

The master plan foresees the size of the fund of funds created by public resources of 5 200 mil. SKK (€137 mil.) and the co-financing by private investors in a total amount of 2 800 mil SKK (€73 mil.).

The total amount of the investment funds, e.g. the fund of funds and the private investments will be **8 000 mil. SKK (210 mil. €)**. This will create a critical mass on risk capital financing in Slovakia and will develop not just the VC industry but it will accelerate the development of the technology based SMEs as the equity investments will increase their capitalisation.

### 3.3.2.3 The implementation of the VC scheme

#### 1. Period 2005 – 2006

NADSME will use 1 500 mil. SKK (€40 mil.) for creating of the three funds:

- The Seed capital fund;
- Early stage fund;
- Early stage development fund.

The later two funds will be matched by private investors, further 1 000 mil SKK (€26 mil.) should be raised, the state aid rule has to be considered.

#### 2. Period 2007 – 2013

The public “fund of funds” will be raised by:

- Slovak public means (state budget and funds from the NADSME)
  - 800 mil SKK (€21 mil) 10 %

▪ Structural funds	
○ 2400 mil. SKK (€63 mil.)	30 %
▪ EIF	
○ 2 000 mil. SKK(€52 mil.)	25 %
<b>Together: 5 200 mil. SKK( €137 mil.).</b>	<b>65 %</b>
▪ The private investors	
○ 2 800 mil SKK( €74 mil.)	35 %
<b>The total amount of 8 000 mil. SKK (210 mil. €)</b>	<b>100 %</b>

The investments of private investors into the public fund of funds will create single VC funds. It is planned that the VC funds will be created within a period of 4 years between 2007 and 2010, so the means do not need be invested at once.

The funds shall cover the lifetime of companies that is why following types of funds shall be created:

### **Seed capital funds**

The master plan foresees creation of three seed capital funds, each fund would have the size of 500 mil. SKK (€13 mil.) . The seed capital funds would be used in connection with the incubation programme in all regions in Slovakia. The investments will be aimed at innovative start ups. Together with the seed capital fund from period 2005 – 2006 there would 4 seed capital funds in the total size of 2 000 mil. SKK( €52 mil.) As the maximum amount of a single investment will be limited by 20 mil. SKK (€0.5 mil.), more that 100 new innovative companies will be supported by the seed capital funds

### **Early stage funds**

The early stage fund will address young companies up to three years of their existence or up to three years of the development of a new product or of a new service. The master plan proposes creation of two funds, the size of each fund would be 1000 mil. SKK (€26 mil.) Together with fund form the first period the three early stage fund would have the size of 2 800 mil. SKK (€73 mil.) The maximum investment would be 40 mil. SKK(€1 mil.), more than 70 technology SMEs will be supported by the early stage funds.

### **Development funds**

The development fund will address companies in their expansion phase. The companies need not to be necessarily innovative, should be however technology based. The development fund shall finance the expansion of companies to international markets. The master plan proposes creation of two funds, the size of each fund would be 1250 mil. SKK (€336 mil.) Together with fund form the first period the three early stage fund would have the size of 3 700 mil. SKK (€97 mil.) and would be so the largest type of VC fund. The maximum investment would be 50 mil. SKK(€1.3 mil.), more than 80 technology SMEs will be supported by the development funds.

### **Equity funds**

As there is a lag of high tech companies in Slovakia and the situation will not changed in next future the master plan proposes to establish two equity funds which would invest into the middle tech companies e.g. for the supply companies in automotive industry as this sector develops extremely fast in Slovakia and a dynamic growth of supply companies is expected.

The size of each fund would be 1000 mil SKK(€26 mil.) and the maximum size of the investment would be 50 mil. SKK(€1.3 mil.), more than 40 companies could be supported. The master plan foresees to create in period 2005 -2006 three funds and in 2007 – 2013 nine funds.

### **The management of the risk capital funds**

The management of these funds as already mentioned would be carry out by private investors. The role of the fund of funds within the management of the single VC funds would be a passive one. The fund of funds shareholders representatives would have their representatives in the investment committees of the single funds; they should have the veto right during the investment decision process, however they should normally not interfere into the management of the VC funds.

The minimum requirements on management companies are:

- Investing into fund of funds;
- Experiences and track record in investing of risk capital;
- Sound business plan – fund management, deal flow, added value and management support in investee companies, exit strategies, management fees.

### **The incentives for private investors**

The main incentive for the private investors is the participation of the fund of funds;  
Risk sharing, where the major part of the risk will be born by the public fund  
Management of the risk capital funds and management fee  
Possibility of buying parts of public fund of funds for LIBOR and 2 % p.a.  
Penetrating CEEC markets

### **The lifetime of the risk capital funds**

The Funds from the period 2007 – 2013 will be raised between 2007 and 2010. The means will be invested within 5 years the deal flow will glide within the 5 years while the first investments will be carrying out in most cases after first two years of the risk capital fund existence. The exits will mature after 5 to 7 years. The life cycle of the risk capital funds will be 10 to 12 years.

### **The main investment rules**

- The investee companies will be either the start ups or young innovative or at least technology based small or medium sized private companies resident in the Slovak republic
- The companies can not be in financial or legal difficult situation
- The investment shall stimulate development projects
- The market criterion
- The quality of management criterion
- Yields expected
- Risk assessment
- Exit opportunities
- Limitation of single investments (max. 20 mil. or 50 mil. SKKper investment)

## **Exit strategies**

- Trade sells (to large companies or to other strategic investors)
- Buy back arrangements
- Self liquidating of the investments from the cash flow of the investee companies
- IPO (on European stock markets – rare in Slovakia)

## **Sharing of the yields**

The yields will cover:

- The costs of the fund
- Investments of private investors
- Investments of the fund of funds
- 5 % yields for private investors
- 5 % yields for the fund of funds
- The rest will be shared among the investors

## **The demand side**

For successful development of risk capital industry in Slovakia the **stimulation of the demand** side is necessary. That means an offensive awareness campaign an intensive detection process and training activities in business planning.

From approximately 15 000 technology based SMEs in Slovakia about 300 companies, e.g. **2 %** should be chosen as investee companies.

The next issue is **to choice sectors** with dynamic development in Slovak and European circumstances. These sectors could be:

- Automotive;
- ICT;
- Renewable energies;
- Wood processing;
- Electro mechanics and micro electronics;
- Chosen high tech sectors as nanotechnologies, new materials, etc.

## **Embedment into to knowledge based economy system**

The development of the risk capital financing has to be embedded into the development of the national knowledge based economy as it is defined in the “National Lisbon strategy” for Slovakia. The most important issues on the **state level** are:

- Reformation of the national R&D base
- Essential increase in financing of the R&D base
- Development of the support system in R&D results commercialization
- Creation of the national innovation system
- Creation of the state technology policy
- Stimulation of SMEs investment in R&D
- Development of IPR infrastructure
- Stimulation of patenting activities
- Development of the knowledge based economy

On the **regional level** it is important that the Regional Innovation Strategies (RIS) projects are being performed in almost all regions in Slovakia. **The risk capital financing should be an important element of the developed innovation strategies in Slovakian regions.** On the other side the structural funds for regional development are crucial, too.

Besides the risk capital funds the regional development funds for creation of innovative infrastructure should be an important issue. The regional development funds should be used for step by step development of innovative infrastructure like incubators, technology centres, technology parks, etc.

The proposed master plan for risk financing development in Slovakia has to be approved by the national government and finally by the European commission. It may be changed concerning amounts and, number of funds and some other details. The most important fact is that Slovakia will be until the end of this decade able to create the national risk capital financing system. The risk capital financing will contribute not only to the development of innovative and technology based companies in Slovakia but also to the creation of knowledge based economy of the 21st century.