

Evaluation of the High-Tech Gründerfonds (short version)

Since 2005 the High-Tech Gründerfonds (HTGF) invests in young technology-based enterprises in order to stimulate the German seed-financing market and to improve the environment for technology-based founders with regard to access to finance. In 2010 HTGF started a second fund to continue its seed investment activity after the closure of the first fund's investment phase. The Federal Ministry for Economic Affairs and Energy (BMWi) commissioned this evaluation to provide empirical information about the performance of the HTGF in relation to its goals and objectives and to come up with recommendations for the further development of the HTGF. The findings of the evaluation shall inform policy makers in the preparation phase of a third HTGF fund, which is currently under discussion.

The evaluation comprised a literature review and the analysis of secondary data on the development of the early stage financing markets in Germany and selected European countries. The evaluators carried out more than fifty expert interviews with young entrepreneurs, early stage financing institutions and various stakeholders of the HTGF (HTGF management, HTGF investors, members of the HTGF investment committees, HTGF network partners). In an online questionnaire survey all companies that had received an HTGF term sheet since 2009 were contacted by email and asked about their motives and experience with securing seed-financing for their companies, their expectations and experience with collaborating with the HTGF and about the further financial and economic development of the companies after the end of their contacts with the HTGF or after the HTGF investment. The evaluators addressed with the questionnaire survey also companies that have chosen other forms of financing in the seed-phase (such as grants provided by the BMWI's EXIST research transfer programme) or that received seed-financing from other private and public sources. The evaluators also carried out in-depth follow-up interviews with both HTGF portfolio companies and companies from the control groups.

The results of the evaluation show that the HTGF quite successfully meets the goals and objectives as laid down in the mission statement. Today, the HTGF is in qualitative and quantitative terms by far the most important seed-financer in Germany and has established a tight stakeholder network comprising both co-financing partners and young technology oriented companies that may be considered for investments.

Between 2009 and 2015 the number of founders and young companies that contact the HTGF in order to explore investment opportunities more than doubled from around 700 to about 1,500. In turn, the HTGF has become significantly more selective concerning its investment targets. Over the period 2009 to 2015 the number of new investments per year was more or less constant with 40 to 50 cases. Statistical data from the German Private Equity and Venture Capital Association (BVK) indicate a HTGF market share of more than 50 % of all seed investments in Germany among institutional PE and VC investors. The analysis of data that also includes investments of non-institutional investors such as business angels suggests that the HTGF market share among companies in Germany that receive early stage VC investments for the first time is above 20 %.

Since the first evaluation of the HTGF which took place in 2009 the seed financing environment in Germany has changed significantly. On the one hand, compared to the situation some years ago, at least some groups of technology oriented young businesses find more and improved financing opportunities today. Business angels have become more active as investors in the seed phase of technology oriented companies over the past. Furthermore, a number of accelerators have started their activities in Germany, attracting innovators and founders and offer access to networks and other support. A number of German companies, some of them "Mittelstand" firms, have set up corporate venture arms and actively seek access to young innovative businesses in order to stimulate change in their established business units. Alternative financing such as crowdfunding has gained increasingly

attention. Not least, public funding for technology oriented young companies via grant schemes (e.g. BMWI EXIST programme) has become more widely available.

On the other hand, little has changed with regard to the subdued investment activities of institutional VC investors in the seed phase. As is the case in many European countries, in Germany too, private venture capital funds hardly invest in seed companies. Private investors still find the risks involved in seed investments being prohibitive and they anticipate higher returns on their investments by focussing on later stages. Empirical evidence supports this assumption. A 2013 comparative study by EVCA European Private Equity and Venture Capital Association (now renamed Invest Europe) showed an average negative rate of return for seed funds and early stage funds whereas the average rate of return of PE investments overall was strongly positive.

In this challenging environment private venture capital companies still active in the seed phase consider the HTGF an invaluable asset for the financing landscape in Germany. The evaluators could not find any evidence for the crowding out of private venture capital investments in the seed phase caused by the HTGF investment activities. On the contrary, evidence suggests that a substantial amount of crowding in of private investments can be attributed to the central role of the HTGF as market maker and instance for quality screening among potential investment targets. For many private and public venture capital companies the HTGF acts as a reliable and trusted initial investor whose selection and financing functions have become a quality brand in the German seed market. The HTGF activities also allow private venture capital companies to jointly invest in promising companies at a later stage, reducing investment risks while contributing to the growth of the financed start-ups.

In the years 2005 to 2015 HTGF portfolio companies completed 701 rounds of follow up financing. Private investors participated in 546 investment rounds (78 %). The HTGF provided € 96m for follow up financing while other investors contributed € 981m. The share of private sector investors was € 766m, with € 459m coming from private venture capital company funds. In the last three years 2013 to 2015 there were on average 101 follow up financing rounds with a total investment volume (including HTGF) of annually on average € 125m, of which third parties invested € 110m with € 92m (83 %) coming from private investors. Both the total volume of private third party investments and the investment share of private investors very clearly exceed the expectations of the HTGF investors when setting up the first fund in 2005.

Over the past years the interest of investors from abroad has increased significantly. In 2009 foreign venture capital companies contributed less than 10 % to the total follow up financing for HTGF portfolio companies. In 2014 and 2015 the investments by venture capital companies from abroad amounted already to more than a third of the total follow up investments.

The first HTGF fund which started in 2005 made total investments of € 243.2m and has so far generated returns to its investors amounting to € 67.9m. An internal assessment of the economic potential of the portfolio companies in the first fund estimated the lower range of the exit value with € 200m. Total value to paid in (TVPI) of the fund was 78 % by December 31, 2015. The TVPI ratio is above the expected minimum rate concerning the fund's performance at closure. This means that the HTGF is well on course to achieve the targeted rate of return.

After the exit about half of the former portfolio companies showed an overall successful economic development. In about a quarter of the cases significant efforts are still required by the new owners to develop the companies to the stage where they meet the original expectations regarding their economic potential.

More than half of the seed companies which had received a term sheet but no HTGF investment was agreed later on succeeded in tapping other sources of equity capital from public or private venture capital companies or business angels. The findings in the questionnaire survey point to marked differences concerning the total amount of equity investments between portfolio companies and the control group. Portfolio companies received on average € 2.4m of equity capital (excluding HTGF) whereas companies in the control group secured equity funding amounting to € 1.6m on average. This

difference in equity funding at later stages can also be seen as an indicator that HTGF portfolio companies have received higher valuations than the companies in the control group.

The industry investors of the HTGF were able to take advantage of their investments that significantly go beyond the expected financial returns. The industry investors can gain timely access to new technological developments and innovative business concepts whilst the business interests of the portfolio companies are fully respected. Besides their investments in the HTGF funds, until the end of November 2015 the 18 industry investors had committed an additional amount of € 53m for direct investments in HTGF portfolio companies. In three cases industry investors acted as buyers in HTGF exits.

In addition, various other forms of mutually beneficial co-operation between industry investors and portfolio companies have emerged, such as joint research and development projects or the establishment of client-customer relations. In the interviews industry investors confirmed that their overall expectations on the benefits of investing in the HTGF have already been met. Given the positive experience with the HTGF since 2005, industry investors expressed their sustained interest to financially contribute to the creation of a follow up fund in the future.

The comparison of the survey results from the 2009 evaluation with the results from 2016 shows, that founders get into contact with the HTGF at an earlier stage today than in the first years after creation of the HTGF. The share of founders that were looking for capital for at least six months before the first contact with the HTGF dropped from 40 % in the 2009 survey to less than 20 % in the 2016 survey. This finding reflects both the improved availability of alternative pre-seed and seed funding and the dominant role of the HTGF within the German seed financing landscape.

Founders contact the HTGF increasingly also with non-financial motives in mind. The share of portfolio companies that were seeking HTGF's management know-how and its special expertise in the seed phase grew significantly from the 2009 survey and the 2016 survey. At the same time, the share of founders that were motivated to contact the HTGF due to their failed attempts to get capital from other sources decreased between the 2009 and 2016.

Most portfolio companies experience the HTGF as a competent partner that offers adequate and transparent investment conditions, also when compared to other equity financing options. Portfolio companies most often mentioned the high interest rate of the convertible loan (which was reduced in late 2015) as a negative feature of the HTGF investment conditions (80 %). Many portfolio companies are also critical about the loan conversion rules and the limited financial clout of the HTGF in follow up financing rounds (61 %). The right to convert the subordinate loan in equity can be considered critical to make sure that the HTGF can adequately benefit from the development of the portfolio companies in follow on financing rounds and exits, given the high risks in the seed phase. The current total investment ceiling of € 2m per portfolio company however does unreasonably limit HTGF's room for manoeuvre pursuing its investment strategy. There are young companies, especially some that focus on technology-intensive business to business solutions or in the life sciences, that require more initial capital in the seed phase than the HTGF can offer. Some of our interviewees stated that founders of such companies would often be forced to seek financing opportunities abroad due to the lack of options available in Germany. This situation would impede business development and innovation in Germany. Among the portfolio companies more than half stated in the questionnaire survey that they originally had been looking for more capital than the HTGF could offer.

Technology intensive young companies and young companies in the life sciences are also those that might most often experience problems with the current company age limit for HTGF seed investments. The HTGF can only invest in companies that were established or that started their operational activities within a year before the first contact to the HTGF. Many interviewees from portfolio companies and companies from the control group and interviewees from HTGF network partners pointed out that the current age limit is not adequate to allow the HTGF to invest in companies with a structurally longer seed phase. Due to improved grant financing schemes such companies would often only explore the possibility of an HTGF investment at a stage, where they are no longer eligible, given

the age limit. The analysis of the HTGF contact data base confirms that the share of requests which the HTGF rejects on grounds of the age limit has been rising over the last couple of years. In 2009 the HTGF only rejected 8 % of the funding requests due to the age limit criteria, whereas in 2015 the respective share increased to 14 %.

The comparison with public seed financing and early-stage financing schemes in other European countries also confirms HTGF's quite restrictive age limit criteria. The age limit criteria used in financing schemes in other European countries is often set much higher. Other schemes abroad do not apply the age limit criteria at all but focus on the SME status of the startup company.

Compared to the term sheet control group the HTGF portfolio companies are more successful to attract other venture investors and business angels for follow on equity investments. HTGF portfolio companies are also more likely to get additional grant financing for their business development. Likewise, the share of companies that finance themselves (partly) through operational turnover is significantly higher among portfolio companies than among the term sheet control group. Portfolio companies more often report significant improvements in business development regarding the technological maturity of products and services, the overall market potential and the company value.

Over the past years, the HTGF succeeded in making its procedures and processes even more effective and client focussed. More than 80 % of the portfolio companies agree with the statements that the HTGF investment managers collaborate competently with their clients and that communication with the HTGF is easy and unbureaucratic. The share of portfolio companies that consider the duration of the phase prior to the closing to the investment being adequate rose from 52 % of respondents in the 2009 survey to 71 % of respondents in the 2016 survey. The analysis of data from the HTGF contact database confirms this finding. Portfolio companies that received their HTGF seed investment in 2009 had on average contacted the HTGF 302 days before the closure date, whereas companies financed in 2014 had established the contact with the HTGF on average 219 days before the closure date. The HTGF also communicates rejections earlier than it did in the first years of the fund's activity. In 2009 the average duration between first contact date and rejection date was 85 days. In 2015 it took the HTGF on average only 48 days to decide on and to communicate a rejection.

The follow up interviews with portfolio companies and other companies with prior contact to the HTGF confirm that in comparison with other public (i.e. regional) funds the founders experience the HTGF as a very proactive and business-like venture capital company. The HTGF successfully balances the management and the provision of support to its portfolio companies with the overall goals and objectives concerning the financial performance of the fund. This approach does necessarily lead to decisions that in some cases seem harsh on founders or on the portfolio companies but are necessary and justified in the light of the overall HTGF objectives and the wider public and private interests of the HTGF investors.

In response to the changing supply side environment for seed financing in Germany it would seem reasonable to concentrate the HTGF's investment activity on cases which other potential seed investors do not or cannot take into consideration for investments or where their involvement requires the HTGF as an anchor or lead investor. This mainly applies to young companies that require a long term investors commitment right from a very early stage or that have seed investment needs that go beyond what private seed funds, business angels and alternative financing instruments (such as crowdfunding) are willing or capable to offer. In order to allow HTGF investments in these cases the HTGF investment guidelines should be adapted. In justified cases the HTGF should have more freedom to make investments that diverge from its standard investment model and to finance such companies alone or pari passu jointly with private investors. The total investment limit per company could be raised to € 4m. This would allow to better address technology oriented companies which are clearly within the investment focus of the HTGF but have particularly high seed capital requirements. It goes without saying that the higher risks involved with taking such investment decisions will require additional and effective risk management procedures. Risks should be shared by jointly investing with private partners whenever possible. A considerable higher share of contributions by industry investors in the third HTGF fund currently under discussion would also contribute to hedge public investments.

As an accompanying measure the current age limit should be adapted to allow for HTGF investments in companies that, for example, have partly financed themselves via public funds after incorporation of the company or that have had operational activities for more than a year even though their core business model is still clearly in its seed phase. The one option would be to change the HTGF age limit for investment to 3 years after incorporation. The other option would be to adapt the current cash-flow criteria to better reflect the actual state of business development.