

Technology Start-Up Fund (TGFS)

... bridging the financing gap for highly innovative entrepreneurs in the region ...

Case Study





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The authors of this study are a consortium of three companies: t33 (lead), University of Strathclyde – EPRC and Spatial Foresight.

CFH BG	CFH Beteiligungsgesellschaft GmbH	
ERDF	European Regional Development Fund	
ESIF	European Structural &Investment Funds	
OP	Operational Programme	
R&D	Research and Development	
SBM	Venture Capital Unit of the Savings Bank Leipzig	
SC-K	Venture Capital Unit of the Savings Bank Chemnitz	
SIB	Venture Capital Unit of the Savings Bank Dresden	
SME	Small and Medium Enterprise	
TGFS	Technology Fund for Founders in Saxony	

Abbreviations

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Abb	Abbreviations		
1	Summary	4	
2	Objectives	6	
3	Set up of the financial instrument	7	
3.1	Preceding events	7	
3.2	Funding and partners	8	
3.3	Implementation	10	
3.4	Governance	11	
4	Strategy	13	
4.1	Investment strategy	13	
4.2	State Aid	14	
4.3	Financial products and terms	15	
4.4	Final recipients targeted	17	
4.5	Project types	18	
4.6	Changes in strategy	18	
5	Achievements	19	
5.1	Output	19	
6	Lessons	20	
6.1	Main success factors	20	
6.2	Main challenges	21	
6.3	Outlook	22	

1 Summary

This case study describes the 'Technology Start-Up Fund in Saxony' (TGFS) that was created within the Operational Programme Saxony (ERDF) 2007-2013. The provision of venture capital through the TGFS addresses the lack of capital needed for the economic exploitation of innovative ideas and technologies coming, for example, from universities or research institutions in Saxony (Germany). The TGFS investment strategy is similar to a classic seed capital and start-up fund. The fund targets young innovative and technology-based companies such as QONIAC, a fast-growing young company based in Dresden that specialises in process optimisation and control solutions for the semiconductor industry.

This case study shows how the public sector and financial entities can work together to support the regional economy and promote the creation and growth of young and innovative SMEs. The TGFS started work in 2008 and manages approximately EUR 60 million across two funds: the Seed Fund and the Start-Up Fund. Until 31 December 2013, EUR 45 million of public resources, both ERDF (EUR 35 million) and regional (EUR 10 million), were paid to the TGFS through the ERDF Regional OP Saxony 2007-2013. In addition, the TGFS managed to raise EUR 63.4 million in private resources. As a result, with the ERDF contribution a total amount of EUR 108.4 million for investments in innovative companies and jobs was generated reaching the leverage effect of 3.1 (each EUR of ERDF contribution was multiplied by 3.1).

Since 2008, this financial instrument has supported 45 companies, helped to create more than 317 new jobs and safeguarded 146 jobs in Saxony. The public money will be fully invested until 2015. However, the TGFS will re-invest the funds as well as the additional private resources until 2019, in order to maximise the support to such type of companies and the return on investment. A follow-up fund is envisaged for the 2014-2020 period, also within the ERDF Regional OP Saxony. It is currently (December 2014) undergoing the obligatory ex ante assessment.

This case study demonstrates that support for innovative companies requires the engagement of all relevant regional players, from public administrations to universities, start-up networks and financial entities. A governance structure for the fund must integrate the different interests under a common purpose. Another reason for success is the provision of additional assistance (i.e. advice, contacts and motivation). Furthermore, the TGFS managed to handle challenges related to the high risk of investing and the requirements of EU regulations.

Name

Technologiegründerfonds Sachsen (TGFS) (Saxony, Germany)

Funding source

ERDF and regional contribution in the OP Saxony 2007-2013

Type of FI

Equity and additional advisory assistance

Financial size

EUR 60 million Total = OP Saxony resources (EUR 35 million from ERDF, EUR 10 million from public regional funding) and EUR 15 million in private resources

Absorption rate

80.35% (at the end of 2013)

EU leverage

3x (leverage effect of ERDF funds)

Leverage of public resources

2.4x (leverage effect of ERDF and other public funds)

Re-investment

Re-investment through investment revenues (with two exits until November 2014).

Thematic focus

Start-up support to technology entrepreneurs and small innovative companies

Partners involved

ERDF – Freistaat Sachsen (Regional Government) – CFH Beteiligungsgesellschaft – Three Provincial savings banks

Timing

From 1 March 2008 to 31 December 2015, with an option to extend to 2019 (presuming that ERDF support will be continued in the 2014-2020 period).

Main results

45 companies benefitted from the TGFS so far (June 2014); 317 new jobs created and 146 jobs safeguarded

2 **Objectives**

In recent years Saxony has become a region with an important research and university infrastructure, with seven universities, twelve applied sciences universities, many colleges and numerous research and technology centres. The companies in the region are innovative and have relatively high R&D intensity, but still lower than the national average.

However, there are still considerable weaknesses that hamper more dynamic economic development. A socio-economic analysis of the ERDF Regional OP Saxony 2007-2013 highlighted specific bottlenecks for regional development that needed to be addressed. For example, from 1999 to 2005, the number of patents applied for in Saxony continuously decreased. Prior to 2005, Saxony was also one of the German regions where the entrepreneurial activity of innovative companies and high technology start-ups lagged behind the national average. Traditional financial instruments like debt finance were not available for this type of high-risk investments. Moreover, the private venture capital market was particularly reluctant to invest in the early 'seed' and 'start-up' stages.

Therefore, the ERDF Regional OP Saxony 2007-2013 was established, one of its key objectives was to strengthen innovative forces in the economy and society in general. It was considered that the conditions for the creation and growth of knowledge-based SMEs should be improved in order to foster economic growth based on the diverse knowledge resources available in the region. Stakeholders identified the lack of available capital for innovative entrepreneurs as a major impediment to innovation. Thus Priority Axis 1 'Strengthening Innovation, Science and Research' included Action 1.4 'Venture capital for young technology companies.

In 2008, the TGFS was designed specifically to bridge the financing gap for highlyinnovative entrepreneurs in the region. By providing venture capital, the TGFS assists universities, research institutions and other organisations in Saxony to exploit innovative ideas and technologies that they otherwise would not be able to do without this capital.

The TGFS targets knowledge- and technology-based entrepreneurs and companies with growth potential that are based in Saxony. Generally, these entrepreneurs and start-up companies do not have access to sufficient capital in their early phases for turning their innovation projects into marketable products or to expand their business scope to introduce them into the market. The TGFS should assist these individuals and companies to obtain additional funding.

Other support measures promoting innovation within the ERDF Regional OP Saxony 2007-2013 are grants to R&D projects, infrastructure expenditure and expert assessments for SMEs through Technology Centres.

3 Set up of the financial instrument

The TGFS was established in 2007 specifically to support the creation and growth of technology-based and innovative companies in Saxony. After deciding to set up a new financial instrument, a procurement process was started. Implementation procedures and governance arrangements allowed a straightforward set up of the new fund that started to work in 2008.

3.1 Preceding events

Since the 1990s, the Saxony regional government, together with the Sachsen Landesbank, a regional public bank, supported entrepreneurial development in the region, especially SMEs and start-ups. The ERDF-co-funded 'Wachstumsfonds Mittelstand Sachsen' (SME Fund Saxony), is a prior example of Saxony using an FI with ERDF support.

Market gap and regional needs

In the mid-2000s, a new regional need was highlighted due to limited support for creating and developing technology-based and innovative firms. Specific regional studies showed a gap in the market since neither traditional debt financing such as banks nor private venture capital sufficiently addressed for the needs of young Saxon technology firms during their seeding and start-up phases. In addition, German private venture seed capital was scarce and concentrated mostly in metropolitan areas such as Berlin, Hamburg and Frankfurt. This hampered Saxony firms' access to equity finance. However, the regional government had a clear objective to support the creation of new growth-oriented firms in order to create jobs and encourage investment in the region because there were few regional companies having their headquarters in Saxony.

Setting-up a technology holding fund for young innovative companies was included in ERDF Regional OP Saxony 2007-2013. No formal ex ante assessment or additional formal market gap study was required at that time. However, during negotiations with the European Commission, specific studies and a formal business plan, including a market analysis, were provided.

After the approval of the OP and financial allocation to the TGFS, there was a European-wide procurement process to find the most skilled team to manage it. In 2007 venture capital firms answered the call.

A consortium from the Sachsen Landesbank, (after 2009 continued by the successor CFH Beteiligungsgesellschaft) and three provincial savings banks won the management contract for the 2008-2013 period, with an option to extend the contract up to 2019. The consortium is also connected with existing technology (e.g. universities), SMEs and start-up networks in the Saxony region. This was an obvious advantage in reaching the targeted final recipients, and has embedded the new fund into the existing support and funding structure in the region.

3.2 Funding and partners

The 'Technologiegründerfonds Sachsen Holding GmbH & Co KG' was set up as a limited company in which four regional financial entities participate, with Freistaat Sachsen which has a non-voting share, as the legal representative for the TGFS. The financial entities are the venture capital departments of CFH Beteiligungsgesellschaft, which since 2009 operates within the SüdBG Group, as well as three venture capital departments of the Dresden (SIB), Chemnitz (SC-K) and Leipzig (SBM) provincial savings banks.

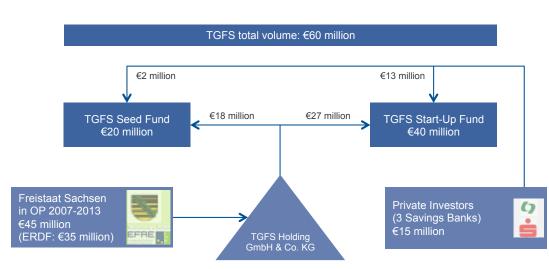


Figure 1: Funding Scheme

Source: Spatial Foresight 2014, according to Business Plan TGFS 2008

All four entities work together in managing and running the TGFS. The three provincial partners – closely linked to the provincial savings banks and therefore to SMEs in the region – are particularly important for the acquisition of new clients. Their experience with venture capital helps them to assist the targeted final recipients.

Until 31 December 2013, EUR 47.37 million were paid to the TGFS under the ERDF Regional OP Saxony 2007-2013. The funding sources were:

Funding sources	EUR
ESIF (ERDF)	35.53 million
Public (regional)	9.47 million
Private (Holding company level)	2.37 million

Source: Annual Implementation Report 2013. ERDF Regional OP Saxony 2007-2013. Data from 31 December 2013 as well as Information from the TGFS

When it was launched, the TGFS managed approximately EUR 60 million, distributed in two funds: the Seed Fund and the Start-Up Fund, including EUR 15 million from private participation at fund level. Additional private venture capital of EUR 48.4 million, not only from the provincial savings banks, but also from other private venture capital funds and investors was mobilised at the level of investments in final recipients which means the TGFS managed to raise EUR 63.4 million in private resources. Thus, for every euro of public money coming from the ERDF and public regional entities, EUR 1.40 in private resources was raised (thus, resulting in a leverage effect of 2.4). The ERDF contribution generated a total amount of EUR 108.4 million for investments in innovative companies and jobs thus reached the leverage effect of 3.1 (each EUR of ERDF contribution was multiplied by 3.1).

At the end of December 2013, the TGFS' disbursement rate to final recipients was 66% of the initial EUR 60 million. This low rate is not due to problems with absorption, but to the availability of funding for future investment rounds until 2019, which is the extended term of the TGFS. One hundred percent of public money (i.e. EUR 45 million) is expected to be disbursed by the end of 2015.

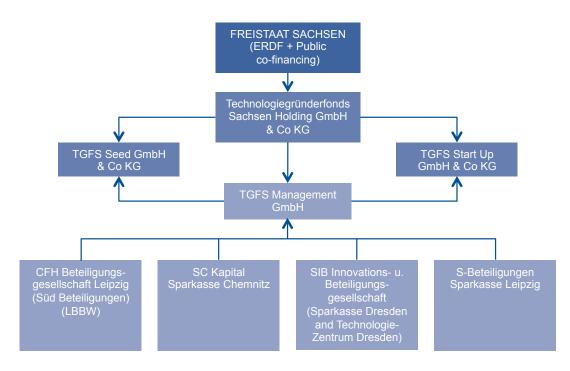


Some investment revenues from successful investment exits could be re-invested in the TGFS, which helped to increase financial sustainability of the FI. However, it is still too early to evaluate the final results and TGFS' long-term performance.

3.3 Implementation

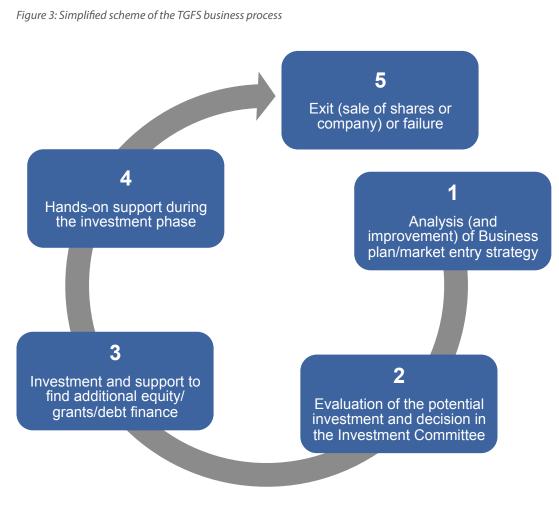
As mentioned before, the management consortium and the Freistaat Sachsen (Regional Government) created a new holding company to implement the TGFS. The holding company has a seed company, a start-up company and a management company. The holding company is the single contact point for the regional government; however having these sub-companies increases transparency and allows two different funds with specific objectives and conditions to be managed concurrently. The Regional Government participates actively in the work of the two funds, especially through the investment committees that decide on the investments.





Source: Spatial Foresight, 2014

There is no standardised implementation process since investments are hard to plan and each investment in high-tech and innovative companies is unique and different. However, the general business procedure consists of five phases.



Source: Spatial Foresight, 2014

The TGFS as beneficiary of the OP Saxony 2007-2013 received yearly payments from the ERDF Managing Authority.

3.4 Governance

TGFS partners are responsible for different management functions. The CFH is responsible for the Investment Centre, whose tasks are (a) controls and reporting; (b) quality assurance (criteria for the evaluation of investments); (c) overall implementation of the fund's strategy and (d) the sale of investments. The CFH has three employees for these tasks.

To ensure successful investment performance, efficient market screening is important. The three provincial savings banks have the necessary regional distribution and ability to reach the target groups. In each savings bank, one person is responsible for acquisitions. For the province of Dresden, SIB takes the lead; for Chemnitz it is SC-K and SBM for Leipzig. SIB, SC-K and SBM management help evaluate investments. The final investment decisions are made by an investment committee (one for the Seed Fund and another for the Start-Up Fund). All partners are represented on the Investment Committee. However, private experts are also invited to sit on this committee in order to increase its technological and business expertise. As the main investor, the regional government can appoint two members. CHF, SIB, SC-K and SBM can nominate one member together, who chairs the Investment Committee. In addition, three other members are elected as external experts, after proposals from the management. The three external members are acknowledged experts in business technology, e.g. a university professor and entrepreneur, a university rector and former manager, or the manager of a technology SME. Decisions are taken by simple majority.

All TGFS investments are included in the CFH central control and reporting system. Additionally, the TGFS system aims at complying with all reporting, control and audit provisions as required by the Regulations.

Management remuneration follows international market standards and conditions for this type and size of Funds (2-2.5% of the total fund value per year including set-up costs). In addition, there is a performance-based component. After completion of the investment period, remuneration is not dependent on the original fund size but based on invested capital plus applicable outstanding capital commitments. The fee is reduced over time and thus takes into account the reduced amount of time needed to manage the investment. Furthermore, performance-based management compensation for exceeding a minimum rate of return for the investor provides an incentive. The income of the Start-up Fund is allocated among investors and management 80/20, i.e. equivalent to the ratio of capital.

4 Strategy

The TGFS targets young innovative and technology-based companies in order to help them overcome the difficult first phases of development and support their growth. Its investments strategy resembles that of a classical Seed Capital and Start-Up Fund.

4.1 Investment strategy

TGFS' investment strategy focuses on supporting young, innovative Saxon companies (under 5 years old) that are based on technology products or on knowledge-related services. TGFS supports early phases in the so-called 'death valley' of financing for young companies, particularly for knowledge- and technology-based companies with a high demand for resources in the development phases of their products and services. This support should also help them survive their first few years, bearing in mind that only about 60% of all new ventures survive the first two years¹.

The objective is not only to facilitate funding for companies, but also to: (a) assist them in their development in order to increase their growth possibilities and to evolve successfully; and (b) to attract and leverage additional private resources, e.g. private venture capital, business angels, corporate venture capital uninterested without first-step funding from the TGFS and its risk-sharing. The principal interest of the regional government is to help create new companies and jobs in the region in order to boost economic development. Innovative companies with their headquarters in the region are especially important because once they are more fully developed they are usually more resilient to external crisis and competition from low-wage countries. They bring highly-qualified employment and have important spill-over effects on other economic sectors. A financial instrument allows joint efforts among public, private and other non-profit organisations to find common interests.

For Germany, the survival rate of new SMEs after 2 years was 59.9% in 2010.

The initial objective was to support 10-12 companies each year. Given the specific characteristics of technology-based companies in the early phases, including their high and continuous demand for capital, for six to seven years, the ERDF funding period 2007-2013 was considered too short to guarantee the financing needed for most client companies. Therefore, an extension of the investment period to 2019 was approved for the TGFS. However, until the end of 2015, the TGFS must report on the investment of the resources made available by the OP Saxony 2007-2013.

Investment in the company QONIAC (Dresden) (1)

QONIAC is a fast-growing young company based in Dresden, Germany, that specialises in process optimisation and control solutions for the semiconductor industry. QONIAC was founded in April 2009 by Boris Habets and Adwin Timmer, drawing on more than a decade of experience in semiconductors and lithography. The company has developed specialist software such as the OVALiS Suite, which provides unprecedented optimization of on-product overlay as well as an innovative focus on monitoring capabilities. In



combination with the OVALiS suite, QONIAC provides thorough training programme and application support. Today, QONIAC has customers in the USA, Taiwan, Singapore and Korea. Since 2009, QONIAC is supported by the TGFS, first with a Seed Investment that was later followed by a Start-Up Investment. Altogether, the TGFS invested about EUR 3 million in QONIAC.

4.2 State Aid

From the outset, the TGFS has developed 'Investment Principles' to guide its decisions on equity investments. These guidelines are in line with the 2007-2013 legal framework for financial instruments within ERDF programmes. These guidelines establish that all investments will be checked in order to be compliant with the current State aid rules, in this case, with EU guidelines on State aid to promote risk capital investments in SMEs. Investments in sensitive sectors such as steel, coal and shipbuilding, as well as in export activities are explicitly excluded. In order to avoid potential conflicts with State Aid rules, the TGFS also recommends a more sensitive utilisation of GA grants, i.e. grants from a national SME support programme that is also available for Start-ups. Therefore, companies should apply for 20% less than the eligible limit of the grant, if companies use the equity in combination with these supplementary grants, to comply with State Aid rules.

4.3 Financial products and terms

The TGFS is divided into a Seed Fund for the creation phase of new companies and a Start-Up Fund to finance growth of technology-based and knowledge-intensive companies in the early stages. The conditions of these products are as follows:

Fund	Terms & Conditions	
TGFS Seed	Company has to be less than one year old.	
Fund	 The business plan is used to evaluate the project. 	
	The main instrument is open equity investment (voting	
	shares) up to 49% of the total shares of the company.	
	Depending on the financial situation, combinations with	
	mezzanine capital are possible.	
	 Investment amount: maximum up to EUR 0.5 million in any 	
	twelve-month period, usually EUR 0.1 to 0.35 million.	
	 Conditions for mezzanine capital: usually 5-8 years duration 	
	with regular interest rates.	
	 At the beginning of the contract, the exit strategy is defined 	
	as comprehensively as possible.	
	 It is possible to follow-up with a TGFS Start-Up Fund 	
	investment.	
TGFS Start-Up	 Company has to be less than five years old. 	
Fund	 An existing product or service such as a design, prototype 	
	or proof of concept that is ready for market entry is used to evaluate the project.	
	The main instrument is open equity investment (voting	
	shares) up to 49% of the total shares of the company.	
	Combinations with mezzanine capital are possible.	
	 Investments of up to EUR 1.5 million in any twelve-month 	
	period, usually totalling EUR 0.5 to 2.5 million. Maximum	
	EUR 5 million per company. The investments can be made in	
	tranches.	
	 Conditions for the mezzanine capital: usually 5-8 years 	
	duration with regular interest rates.	
	 At the beginning of the contract, the exit strategy is defined 	
	as comprehensively as possible.	

Source: Investment Principles TGFS (12/2007).

When signing an investment contract, the entrepreneurs also receive additional assistance in form of advisory services. Even before the official investment, support is given to the entrepreneurs in preparing the necessary paperwork such as applications, business plan, concepts, etc.

The additional assistance is offered by the TGFS staff free of charge, including for:

- contacts and signposting on professional services, e.g. accountability, tax, legal advice;
- implementing appropriate controls and planning tools;
- access to services for intellectual property rights and patents;
- help in finding suitable additional management assistance;
- support in establishing an advisory board as a decision-making body;
- contacts with other institutional and private investors, e.g. business angels;
- initiating and implementing licensing or partner agreements.

This additional assistance provided to a company in the portfolio of the TGFS increases credibility and reputation. For potential clients, investors and partners, the company increases its standing and is seen as a serious business partner.

Investment in the company QONIAC (Dresden) (2)

QONIAC participated in a regional start-up competition in 2009 organised by the start-up support network FutureSAX. After winning the competition, the founders contacted the TGFS, about which they had already heard positive comments and recommendations. There was a smooth and positive working relationship between QONIAC and the TGFS from the very start.

The two organisations signed an investment contract in December 2009. First, QONIAC received a seed investment, followed directly by a start-up investment, due to the company's steady growth. QONIAC was supported from the beginning by the TGFS investment manager in all its preparatory tasks and in fulfilling the administrative requirements to access the funding.

The return on the invested capital is divided among the investors and the Fund management (80/20). The returns on the ERDF and regional public funds are re-invested in the TGFS. Some exits and returns on the investment made by the TGFS have been re-invested. However, the time to reach the exit phase has taken longer than expected due to the downturn in the markets during the financial crisis.

4.4 Final recipients targeted

The TGFS aims to assist knowledge and technology-based entrepreneurs and companies with growth potential. These entrepreneurs and start-up companies do not generally have sufficient capital to turn their innovative projects into marketable products or to expand their business to introduce such products into the market. The three specific target groups are: (a) university staff or students founding a company; (b) staff starting a new company from an existing company; (c) entrepreneurs coming from outside the region. Potential beneficiaries can only be small companies, as defined in the EU definition for SMEs as less than 50 employees and annual turnover or annual balance sheet total not exceeding EUR 10 million. Companies must be less than 5 years old (less than 1 year old for the Seed Fund).

To ensure efficient market screening and acquisition, TGFS partners work in all three Saxony provinces with the relevant technology clusters. For this a continuous dialogue between the appropriate scientific and industrial research institutions is vital. The cooperation with existing entrepreneurial support initiatives and networks like futureSAX, or Universities in Saxony is one of the core issues.

In order to promote the financial instrument, the TGFS provides information on its website (www.tgfs.de) about its products and services. The partner savings banks in the fund promote the financial instrument online and through their offices. The TGFS regularly participates in fairs, conferences, expositions and competitions for founders and/or researchers in Saxony. The TGFS staff regularly visits Universities, research institutes and technology centres like incubators in the region in order to promote its services to future entrepreneurs.

Investment in the company QONIAC (Dresden) (3)

QONIAC received not only financial resources from the TGFS but also on-going support in the form of professional advice contacts, access to experts and professional business services. Although it is only a small venture capital fund, the TGFS offered a professional service and demanded professional management from QONIAC – which improved the efficacy and seriousness of QONIAC's management.

The CEO of QONIAC, Adwin Timmer, is especially grateful to TGFS for its long-term commitment to the company, as well as for the sincere and transparent conditions of support – in comparison with professional VC investors who might be more interested in the short-term profit.

4.5 **Project types**

Targeted companies are in the following sectors: medical technology, life sciences and health, IT and new media, mobility, environmental technologies, microsystems, new materials, advanced manufacturing and services.

The main characteristics of the projects are that they: (a) are high-risk; (b) are in need of financial and human resources; (c) are spin-offs of university research; or (d) originate from professional work in other companies; or (e) are just innovative ideas. Projects that promise rapid growth in markets, volume or staff usually need a lot of capital. These projects can make use of the TGFS. However, the high risk related to these ventures in the early stages results in a failure rate of almost 75%², which makes it difficult to attract private or institutional investors. For the TGFS, the risk can only be taken if it is spread among many investments, assuming that at least 10% will be highly successful and bring returns that exceed the losses from the failures enterprises.

4.6 Changes in strategy

The financial crisis that hit Germany in 2009/2010 reduced the supply of private venture capital, so it was more difficult for the TGFS to find co-investors for their projects. This required a change in the investment strategy to a more conservative approach, based on its own fund and saving resources for upcoming financing. This change in strategy led the TGFS to re-programme and reduce its initial target of supporting 60 new firms to just 40.

Moreover changes in the market may lead to further adjustments in the TGFS's strategy if it continues under the ERDF Regional OP Saxony 2014-2020. Depending on the results of the ex ante assessment, first, the thresholds for investments per project could be higher and adjusted to higher wage levels and market prices. Second, increased globalisation demands that even small companies aim from the start at the larger markets of Europe, USA and Asia if they want to grow quickly. This increases the need for the TGFS to work and cooperate at both national and international levels with their companies and other investors. Third, the time to exit has taken longer than expected in the 2008-2014 period, which extends the investment periods, as well as the necessary attention from TGFS staff.

² Assumption by TGFS management based on experience with similar seed and start-up venture capital investments.

5 Achievements

The TGFS started its work in 2008. The first years were important in creating a track record and promoting itself to other potential investors to supplement investments in the region and to targeted final recipients. Up to this point, the TGFS has been quite successful in its work.

5.1 Output

Until 31 December 2013, the TGFS received EUR 47.37 million (100% of the allocated resources) under the framework of the ERDF Regional OP Saxony 2007-2013. By the end of 2013, the TGFS Seed Fund and TGFS Start-Up Fund closed contracts totalling EUR 38.06 million, of which EUR 28.55 million came from the ERDF. In order to anticipate follow-up investments in the portfolio companies, the TGFS Start-Up Fund needs to keep some reserves, which should be spent during the 2014-2015 period. As of the end of December 2013, the following outputs were generated:

Result	Number
Companies supported in the seed phase	33
Companies supported in the start-up phase	19 (10 already received support in the seed phase)
Total No. of companies supported	42
Private Investment raised (Total)*	EUR 15 million (at Fund level) + EUR 48.4 million (at final recip- ient level)*
New Jobs (seed phase +start-up phase)	317
Safeguarded Jobs (start-up phase)	146

Source:

Annual Implementation Report 2013. ERDF Regional OP Saxony 2007-2013. Data as of 31 December 2013. * Data from TGFS managers at CFH at October 2014. As mentioned earlier, with the ERDF contribution a total amount of EUR 108.4 million for investments in innovative companies and jobs was generated reaching the leverage effect of 3.1 (each EUR of ERDF contribution was multiplied by 3.1).

Investment in the company QONIAC (Dresden) (4)

From 2009 to 2014, QONIAC had a stable growth. In 2014, QONIAC had 16 full-time employees in Dresden and cooperated with several freelance part-time staff. Its turnover for 2014 is expected to be at least EUR 2 million, with some contracts still to be negotiated. Today, QONIAC has clients and sales representatives in the USA, Taiwan, Singapore and South Korea, i.e. the leading markets for the semiconductor industry. The founders are currently in M&A negotiations that could result in the sale of their company with a significant profit.

Without the TGFS investment, this growth would not have been possible, since the financial crisis negatively affected the availability of equity capital for the semiconductor market.

6 Lessons

After almost six years with 45 investments, the TGFS identified a series of lessons that are relevant for working with a financial instrument.

6.1 Main success factors

Physical proximity and the expert knowledge of local and regional players (and potential targeted beneficiaries), with expertise in financial management for SMEs, have been the main success factors for the TGFS. The stakeholders were certain that the strong point of the entire project was the combination of the expertise of the regional public bank (formerly Sachsen Landesbank, now CFH), which is familiar with SME support and investment for growth, and the three provincial savings banks, which are distributed throughout the region, and which were very visible and in close contact with the other stakeholders and institutions, e.g. SME networks, industry, universities.

The TGFS also benefitted from its previous **experience with another SME Fund** that was also a financial instrument with the regional government and ERDF co-funding. This allowed working out procedures and arrangements between the partner institutions more easily.

It also created **trust and a common interest** among the partners, especially the regional government and the financial institutions. Clearly identifying common interests is vital, e.g. economic growth in the region, long-term success of the TGFS, support for regional entrepreneurs and SMEs. This common interest may be easier to find with local and regional partners than with investors from outside the region.

For fund management, it was important to provide staff with **expert knowledge** in financial products, business finance, equity, technology-based ventures and projects, university research, as well as familiarity with the specificities of the region. An additional strong point was that TGFS partners were part of **professional networks**, i.e. accountants, tax experts, and specialists for patents, licences, strategic management, etc. as well as of **national networks and schemes** to support young companies and founders. This allowed the TGFS to offer added-value support to its clients.

A key success factor was the **use of a central mediating body** within the overall fund structure (the TGFS management unit at CFH). This central body facilitated communication between the various stakeholders who sometimes had diverse interests. It mediated in potential conflicts and competition. The management unit was used as a central access point by all partners and set the rules of procedure and decision making. For example, in financing rounds when there were only limited resources remaining, but two or three potential target companies had been identified in three different provinces, without a central mediator it might have been difficult to find an acceptable solution among all the partners. In the end, the central unit stabilised the TGFS' business model and made it more institutionally sustainable.

6.2 Main challenges

The main challenges in the generally positive implementation experience of the TGFS are detailed below.

It is a **relatively small equity fund with limited resources**, i.e. staff, financing, contacts and industrial expertise, as compared to professional venture capital funds, so it has to develop close contacts, a good regional network, relations based on trust and long-term commitment with regional companies.

The TGFS needed **time and investment volume** to reach a performance level that made the fund and its portfolio interesting to other private venture capital investors.

Investment periods for the companies have been longer than expected. This means that **each investment required more time and attention** and it took longer to reach the point of de-investment (sales) and corresponding returns to the Fund. This also increases the cost per client for the fund management.

There is a high **level of risk**; the probability of failure is around 75%. This means that the other 25% of investments need to be really successful to cover the high risk of loss. This is easier to achieve with a higher fund volume and a greater spread of risk among many investments.

It is a **challenge to deal with the State Aid rules**. Ensuring compliance with State Aid rules presents a disadvantage in comparison to private venture capital funds (e.g. the combination with other EU-funded grants is complicated, although they are especially important in the early seed and start-up phases). Also it is challenging to handle in practice, since only one part of the Fund has to follow the State Aid rules (the public one), but the other part does not (private).

6.3 Outlook

It is expected that the financial instrument will continue its work with the support from ERDF 2014-2020 under the Specific Objective 3 'Supporting the creation and growth of technology-based and knowledge-intensive companies' under Investment Priority 3a of the OP Saxony 2014-2020.

In general, the ERDF-supported Financial Instruments offer new opportunities for regional governments to support innovation and regional development in the 2014-2020 period. However, requirements for future fund managers are challenging as, on the one hand, they will have to ensure compliance with ESIF Regulations, and, on the other hand act in a rather uncertain investment environment.

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