fi compass ERDF

Case Study
January 2025

2014-2020 ERDF equity financial instruments in Sweden

European Commission

European Investment Bank

2014-2020 ERDF equity financial instruments in Sweden

DISCLAIMER

Abbreviations

Abbreviation	Full name
CEoI	Call for Expression of Interest
CPR	Common Provisions Regulation
EIB	European Investment Bank
EIC	European Innovation Council
EIF	European Investment Fund
ERDF	European Regional Development Fund
ESIF or ESI Funds	European Structural and Investment Funds
EU	European Union
FoF	Fund of Funds
GBER	General Block Exemption Regulation
GDP	Gross Domestic Product
MA	Managing authority
OP	Operational Programme
SME(s)	Small and medium-sized enterprise(s)
SVI	Swedish Venture Initiative
VC	Venture capital
WIPO	World Intellectual Property Organization

Table of contents

Executive summary

This case study presents the equity instruments implemented under the national and regional European Regional Development Fund (ERDF) Employment and Growth Operational Programmes (OP) 2014-2020[1] in Sweden with three streams of co-investment funds for venture capital (VC) investments:

- Eight **regional venture capital funds** with a financial size of EUR 119 million[2];
- The **national Holding Fund, the Swedish Venture Initiative (SVI)** with a financial size of EUR 34 million;
- the **national Green Fund** with a financial size of EUR 57 million.

During the 2014-2020 period, the venture capital landscape in Sweden experienced significant challenges, particularly in the cleantech segment. Sweden's venture capital market struggled to regain momentum following the financial crisis, which had led to a marked decline in VC activity, with the number of active VC funds dropping dramatically from 51 in 2010 to 20 in 2014. Despite subsequent recovery during the following years, early-stage funding remained scarce, especially outside major cities. The primary objective of the instruments was to increase the volume of invested capital in small and medium-sized enterprises (SMEs) by addressing the market failure in early-stage investments and to promote research, innovation and the application of low-carbon technologies, recognising the unique barriers faced by companies in this sector.

1 These include the following eight regional OPs: Central Norrland, East-Central Sweden, North-Central Sweden, Småland and islands, South Sweden, Stockholm, Upper Norrland, West Sweden.

2 The SEK/EUR exchange rate used throughout the document is the one applicable on 1 July 2024: 1 SEK = ca. 0.0877 EUR.

The management of these instruments has been assigned to (see Section 3.2):

- The European Investment Fund (EIF) as manager of the SVI, the national Holding Fund[3]. The SVI further selected and invested in three early-stage venture capital funds: Luminar Ventures, Spintop Ventures and Brightly Ventures;
- Subsidiaries of Almi Invest AB as managers of seven of the eight regional VC funds[4], and Partnerinvest Övre Norrland AB as manager of one regional VC fund;
- Almi Invest AB, later Almi Invest Greentech AB (transfer of mandate) in case of the national Green Fund.

The VC instruments have achieved impressive outcomes. They have reached nearly full capital deployment and exceeded private co-investment targets, demonstrated a high leverage ratio and supported companies in various sectors, including technology, life sciences, cleantech, industry, commerce and tourism.

Funding source
National and regional ERDF Employment and Growth OPs 2014-2020

Type of financial products
Equity

Financial size
EUR 210 million, out of which EUR 119 million for the regional VC funds, EUR 57 million for the national Green Fund and EUR 34 million for the Swedish Venture Initiative (SVI), the national Holding Fund

Thematic focus
Growth and innovation of SMEs and low-carbon technologies

Timing of implementation
2015-2023

Partners involved
Managing authority
Swedish Agency for Economic and Regional Growth (Tillväxtverket)
Bodies implementing the financial instruments
Almi Invest AB (manager of seven of the eight regional VC funds and of the national Green Fund)
Partnerinvest Övre Norrland AB (manager of one regional VC fund)
European Investment Fund (manager of the SVI)
Fund managers
Brightly Ventures (fund manager under the SVI)
Luminar Ventures (fund manager under the SVI)
Spintop Ventures (fund manager under the SVI)

3 Currently referred to as the 'Body Implementing the Holding Fund' or 'Body implementing the financial instrument', which was referred to as 'Body Implementing the Fund of Funds in the CPR terminology for the 2014-2020 programming period.
4 Currently referred to as the 'Body Implementing the Specific Fund' or 'Body implementing the financial instrument', which was commonly referred to as 'Financial intermediary' in the CPR terminology for the 2014-2020 programming period.

1.1 Key takeaways

The strategic focus of the equity instruments was to address the market gap for innovative early-stage and growth companies in regions (including Sweden's most remote areas) that typically struggle to attract venture capital. The emphasis has been on achieving long-term results, such as job creation and sustainable growth within these enterprises. The instruments are well on track in delivering these long-term results (please see further details in section 5 of this publication). An important element in the design phase was to involve regional financiers in addition to the ERDF co-financed investment. By sharing risks, private capital has been incentivised to invest, with active ownership and investment board participation maintaining insight and influence over the portfolio companies. This, in turn, ensured that the support provided extended beyond just financial backing and included strategic efforts and operational support needed for business growth within target companies.

The main development of these second-generation venture capital instruments, compared to their first-generation predecessors from the 2007-2013 programming period, was the strategic evolution towards inclusivity and sector diversification, aligning with market trends and national (further to regional) policy objectives. This led to investments across diverse sectors such as life sciences, cleantech and industry (e.g. telecommunications, pharmaceuticals, industrial machines, precision equipment, chemical goods).

The addition of national instruments allowed addressing national priorities such as supporting the general robustness of the venture capital lifecycle and stepping up climate policy efforts. The public procurement and launch of the Green Fund marked a significant innovation, being the first of its kind in Sweden, backing Swedish early-stage start-ups that significantly reduce greenhouse gas emissions or improve local environments.

The early completion of the ex-ante assessment and the pro-active public sector involvement, combined with effective dialogue between the managing authority and fund managers, ensured alignment with policy objectives and efficient implementation. This collaborative approach facilitated mutual understanding, transparency and strategic alignment, enhancing decision-making and outcomes.

Despite challenges posed by the COVID-19 pandemic and the energy crisis, the ERDF financial instruments demonstrated counter-cyclical capabilities, continuing investments in poor market conditions. Impressive leverage rates highlighted significant economic impact. While maintaining regional focus, they helped navigate less crowded markets and effectively deploy funds.

02 Design of the financial instruments

2.1 Context

Sweden's economy is known for its robust performance, high standard of living and well-developed welfare state. As of the 2014-2020 period, Sweden maintained a stable economic environment with a high GDP per capita and a low unemployment rate. The financial ecosystem is sophisticated, featuring strong banking and investment sectors. Sweden holds the second position among the EU economies in the WIPO Innovation Index 2024[5]. This strength is rooted in the country's significant presence of large, established companies that have consistently driven demand for innovation over decades, as well as a robust ecosystem of highly ranked universities and public support programmes for SMEs.

However, the VC landscape experienced notable fluctuations in the recent years. Following the financial crisis, the Swedish VC market underwent a prolonged period of reduced investment activity, with many VC funds closing down around this period (the number of active Swedish private funds decreased from 51 in 2010 to 20 in 2014). Due to the liquidity shortage caused by the financial crisis, VC firms focused their investments on their core sectors and expertise, instead of experimenting in other markets. As a consequence, following a record high VC investment volume of EUR 420 million right before the financial crisis in 2008, private venture capital investments showed a negative trend up until 2014, when total investments amounted to EUR 228 million, reflecting a cautious approach from investors who were recovering from previous losses due to the financial crisis. This decline in investment activity highlighted the fragility of the VC ecosystem during times of economic uncertainty and the need for intervention to address this market failure.

In the 2014-2020 period, due to the aftermath of the financial crisis, small businesses in Sweden faced significant challenges in accessing venture capital, especially during their early growth stages. The scarcity of early-stage funding impeded the development and scaling of innovative start-ups. Cleantech start-ups, in particular, faced a lack of early-stage venture capital funding. Despite the overall recovery of the VC market post-2008, the cleantech sector remained an exception until its restoration around 2018-2020. Companies in this sector faced specific barriers to entry for investors compared to other industries, as investments are often capital-intensive and associated with high risks related to technology, market demand, and policy and regulatory design. Nevertheless, between 2007 and 2011, many Swedish private funds invested in the sector, but since 2013, it had primarily been government funds that continued to do so, resulting in a significant lag in attracting early-stage venture capital. Therefore, an intervention was needed in order to redress the balance.

Moreover, Sweden's VC scene, including early-stage venture capital funding, was highly concentrated in urban areas in the south, particularly around Stockholm, Gothenburg and Malmö, leaving many smaller towns and less developed regions across the country's vast geography with limited access to capital despite their entrepreneurial potential. This was another market failure that necessitated an intervention in order to fill the gap.

In 2014, both public and private funds predominantly invested in the life science and IT sectors, with public funds allocating 61% and private funds 93% of their capital to these industries. Investments were increasingly focused on later stages, at the expense of the start-up phase.

5 Global Innovation Index 2024.

The COVID-19 pandemic introduced new challenges to the financial ecosystem, when investor sentiment and capital deployment were adversely affected. The pandemic, coupled with rising inflation and high interest rates from 2020-2024, dampened investor enthusiasm. Additionally, macroeconomic uncertainties, including the ongoing war in Ukraine, continued to influence investor behaviour and market dynamics.

Despite these challenges, the VC market in Sweden has showed resilience in the previous decade, thanks to strategic government interventions and adaptation to new market dynamics and investor needs. The ground lost during the 2008 crisis was gradually recovered, and the market continued to strengthen throughout the 2014-2020 period. The closure of many VC funds post-crisis gave way to steady growth in fund formation and fundraising. Notably, foreign direct investment targeting deep tech, cleantech and industrial sectors increased steadily from 2018 onwards, signalling a renewed confidence in these areas.

Sweden's innovation support strategy emphasised the importance of fostering a dynamic environment for start-ups and SMEs, by leveraging Sweden's strong industrial base, advanced digital infrastructure and highly ranked universities particularly in sectors like cleantech and life sciences. Sweden's National Life Sciences Strategy[6] is designed to reinforce the country's position as a leading life sciences nation, focusing on equitable healthcare, cutting-edge research and innovation. The strategy highlights the importance of preventing illness and rapidly adopting new technologies and treatments to enhance healthcare effectiveness and quality. It emphasises Sweden's strengths in world-class research infrastructure, a high-standard healthcare system, competitive industry and a robust innovation ecosystem, which collectively form the foundation for the country's leadership in precision medicine and other life sciences advancements.

2.2 Previous experience with financial instruments in Sweden

The implementation of financial instruments in the 2014-2020 period built on the experiences from regional venture capital investments during the 2007-2013 programming period and national private investments. During the 2007-2013 programming period, regional ERDF programmes aimed at increasing the supply of equity capital saw significant demand. The investment during the 2007-2013 period amounted to EUR 210 million, representing about one-fifth of the entire venture capital market in Sweden in 2011. Initially, there was uncertainty about attracting private co-investors, but results up to 2013 showed a leverage effect where each euro invested was matched by 1.9 euros in private funds.

The then recently formed Almi Invest AB was appointed as fund manager for ERDF instruments under the 2007-2013 programming period, deploying the first generation of regional (NUTS 2) venture capital funds.

In the first generation, the ERDF instruments were launched with a clear mission to facilitate access to capital, particularly from a geographical perspective. This strategic focus aligned with the market segmentation trends prevalent at that time, which primarily concentrated on digital B2B and B2C segments. However, what set this first generation apart was its openness to sectors beyond digital, including life sciences and industry, adding a broader scope to the market segmentation approach. This inclusive strategy established the first regional capitalisation efforts in Sweden, creating a structured approach to venture capital distribution across the country and setting a precedent for future financial instruments.

6 National Life Sciences Strategy.

Nevertheless, the initial instruments had a slower investment pace and lower profitability as expected, due to low returns from venture capital funds driven by shrinking exit markets and significant challenges in attracting private capital in the seed phase, which required more intensive work in portfolio companies and often necessitated a readiness to ease strict co-financing conditions to facilitate investments. These lessons learnt, pointed out by the ex-ante assessment for the 2014-2020 period, highlighted the need for better visibility and strategic planning in future programming.

As pointed out earlier, the 2008 financial crisis severely impacted the Swedish venture capital market, with recovery only evident by 2016-2018. One key takeaway from that was the importance of recognising the market's vulnerability and designing resilient financial instruments for the next period.

In Sweden, various instruments and sources of finance have been available to support venture capital investments, complementing the regional and national initiatives. These include:

- **Government-owned fund of funds:** Originally established to manage legacy government enterprise assets, Saminvest AB is a government-owned fund of funds, that has been reinvesting exit capital into venture capital investments;
- **Swedish government pension funds:** Pension funds, such as AP2, AP4 and AP6 have intermittently deployed VC investment strategies alongside their private equity asset allocations. Their involvement provided a significant source of capital for the venture market, leveraging their substantial financial resources to support innovative start-ups and growth companies.

2.3 Ex-ante assessment

The primary need identified by the ex-ante assessment[7] was to increase the volume of invested capital in SMEs, by addressing the market failure in early-stage investments. The annual equity gap was estimated to amount to **EUR 53-79 million**.

SMEs are vital for economic growth and innovation, but they often face significant challenges in securing necessary funding, especially in their nascent stages. A dynamic and diverse early-stage venture capital market is essential to support the unique needs of these companies. The 2007-2013 programming period saw positive impacts from projects involving business angels and smaller VC funds, but the need for market-complementary VC measures had since grown. The ex-ante assessment highlighted a continued decline in the number of private funds in this segment and reduced interest from institutional investors due to the high-risk nature of early-stage investments leading to historically weak returns.

Another critical objective identified in the ex-ante assessment was to promote research, innovation and the application of low-carbon technologies, recognising the unique barriers faced by companies in this sector. The transition to a low-carbon economy requires substantial capital investment, longer commercialisation processes and specific expertise that is often lacking among traditional investors. Traditional VC investment horizons (3-7 years) are misaligned with the low-carbon technologies sector's needs. Therefore, capital shortage in this sector is more pronounced.

7 Ex-ante assessment for support to financial instruments under ERDF 2014-2020.

The ex-ante assessment recommended the following instruments:

- **A National Fund Initiative:** it aims to increase the dynamism and diversity of the private venture capital market in the early stages by creating new venture capital funds, implemented with the help of a national holding fund. The fund targets portfolio companies throughout the country, fostering innovation and growth across all phases of SME development, with a stronger emphasis on the start phase;
- **Regional Venture Capital Funds:** operating under the eight regional (NUTS 2) ERDF programmes, they aim to provide early-stage capital to growth-oriented SMEs. The initiative seeks to increase the supply of venture capital, support SMEs in all phases with a stronger emphasis on the start-up phase and facilitate risk-sharing between public and private sectors. This approach helps SMEs gain access to crucial financial resources, expertise, working procedures, and valuable networks, thereby fostering regional economic development and innovation;
- **A National Fund Initiative CO_2 Fund:** it aims to promote the transition to a low-carbon economy by providing early-stage capital to growth-oriented SMEs with innovative business ideas focused on reducing carbon dioxide emissions. This fund specifically targets the energy technology sector, which is characterised by long lead times and is often less attractive to private investors. Investments will be made in the start and expansion phases.

The ex-ante assessment analysed also other existing public financing measures in order to highlight potential conflict areas or overlaps in relation to the planned equity investments.

- In the equity field, key public actors included Almi AB, Fouriertransform AB[8], Inlandsinnovation AB[9] and Industrifonden[10], alongside several state-owned companies and university holding companies. These entities provided early-stage capital, with specific focus on geographical regions or sectors, to foster growth and innovation among SMEs. For instance, Almi Invest AB operated regional funds with a capital of EUR 125 million, Fouriertransform AB focused on the manufacturing industry with EUR 263 million to invest, and Inlandsinnovation AB targeted Northern Sweden's region with a capital of EUR 175 million in the years prior to the launch of the instruments. The Swedish National Pension Fund and Industrifonden also played significant roles, offering substantial investments to support early-stage companies;
- Complementing these measures, soft loans and grants had been provided by entities such as Almi AB, the Swedish Energy Agency and Vinnova[11] as well. These instruments aimed to facilitate research, development and innovation, as well as business development and internationalisation. Almi offered innovation loans and pre-study funds, the Swedish Energy Agency provided business development loans, and Vinnova granted substantial funds through various programmes. Additionally, regional seed funding was available in some counties, supporting early-stage companies with grants or conditional loans.

8 Fouriertransform has invested in Swedish manufacturing companies since 2009, with an emphasis on vehicle-related companies. Since 2017, Fouriertransform is a subsidiary of the venture capital company Saminvest, owned by the government.

9 Inlandsinnovation has invested in growing companies in various industries in northern Sweden since 2010. In 2017 Inlandsinnovation became a subsidiary of the venture capital company Saminvest, owned by the government.

10 Industrifonden is an independent venture capital fund investing in early-stage companies, in particular in deep tech, life science and transformative tech.

11 Vinnova is Sweden's innovation agency with a mission to strengthen Sweden's innovative capacity and contribute to sustainable growth.

Ex-ante assessment for financial instruments, Sweden

This 2018 fi-compass case study describes the process of drafting the ex-ante assessment covering the potential use of financial instruments in Sweden under the European Regional Development Fund during the 2014-2020 programming period. The case study outlines the ex-ante process and highlights the importance of previous experience and lessons learned.

For further reading, see: https://www.fi-compass.eu/library/case-studies/ex-ante-assessment-financial-instruments-sweden.

2.4 The financial instruments initiated

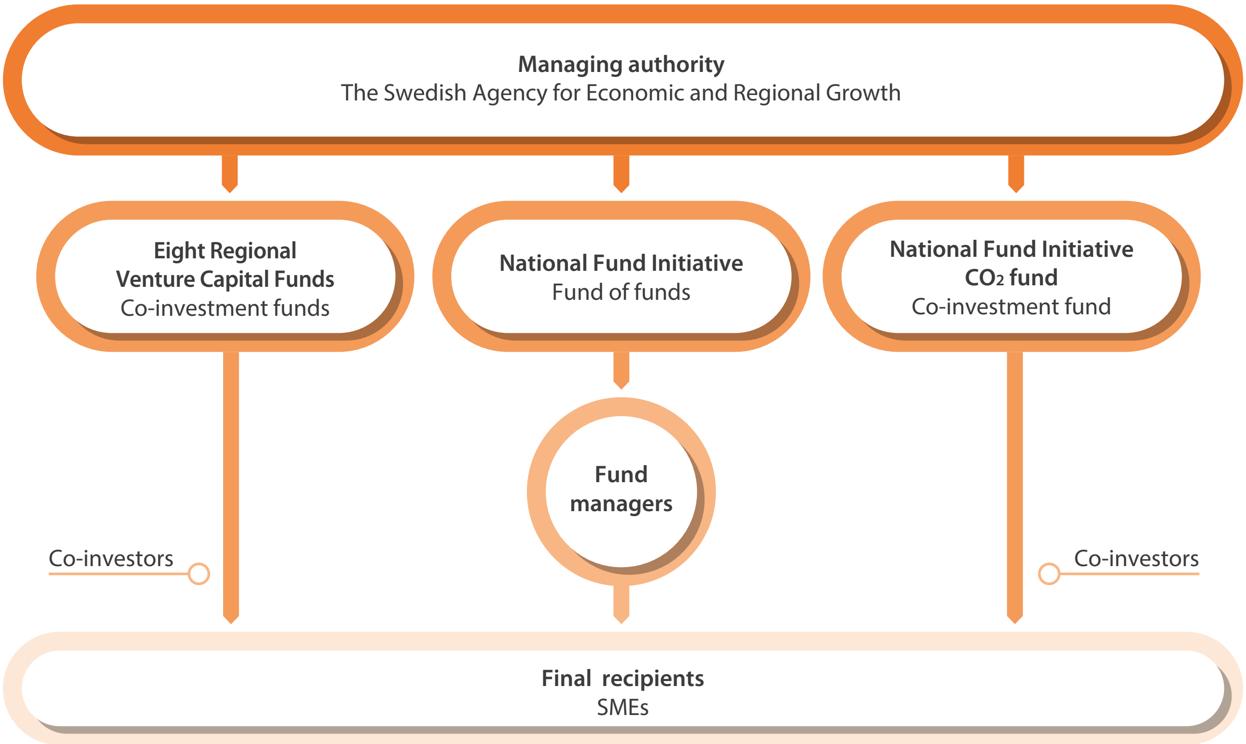
The main objectives and strategic priorities defined in the nine 2014-2020 OPs for the use of financial instruments in Sweden focus on increasing the volume of invested capital in SMEs and promoting innovation in low-carbon technologies. These priorities were set against the backdrop of past experiences and challenges identified in the venture capital market, especially in the early-stage investment landscape.

The relevant Investment Priorities are as follows:

- **Investment Priority 3d:** Support SMEs' growth and innovation capacity through market-complementary financing in early-stage investments;
- **Investment Priority 4f:** Promote low-carbon technologies by addressing capital needs and sector-specific barriers to entry;
- **Investment Priority 3a:** Promote entrepreneurship by facilitating the economic exploitation of new ideas and fostering the creation of new businesses.

The general framework of the financial instruments followed the recommendations laid down in the ex-ante assessment, envisaging three streams of co-investment funds for venture capital investments (one regional, one national and one thematic).

Figure 1: The general framework of the financial instruments



Source: fi-compass.

2.5 Timetable for set-up and implementation

The timeline for the set-up of the financial instruments is described in the table below.

Table 1: Set-up and implementation timeline of the equity instruments

Time period	Action taken
February 2015	Ex-ante assessment completed
Q1 2015	Call for expression of interest launched to select the bodies implementing the regional VC funds
September 2015	Funding Agreement signed between the managing authority and Almi Invest AB for the implementation of seven regional funds
September 2015	Funding Agreement signed between the managing authority and Partnerinvest AB for the implementation of one regional fund
Q3 2015	First contract signed with final recipient
April 2016	Funding agreement signed between the managing authority and EIF for the implementation of the SVI
April-September 2016	Call for expression of interest to select fund managers under the SVI
Q2 2016	Announcement of public procurement for fund management of the national Green Fund
October 2016	Funding agreement signed between the managing authority and Almi Invest AB for the implementation of the national Green Fund
Q2 2017	Selection of fund managers under the SVI finalised
June 2023	End of eligibility period for the regional VC funds and the national Green Fund
December 2023	End of eligibility period for the initial investments under the SVI

Source: Managing authority.


Lights /ceiling
off
on
Lights / desk
off
on
Lights / wall
off
Heating
on
Radio
off
Timer
12 pm
9 am
3 pm
6 am

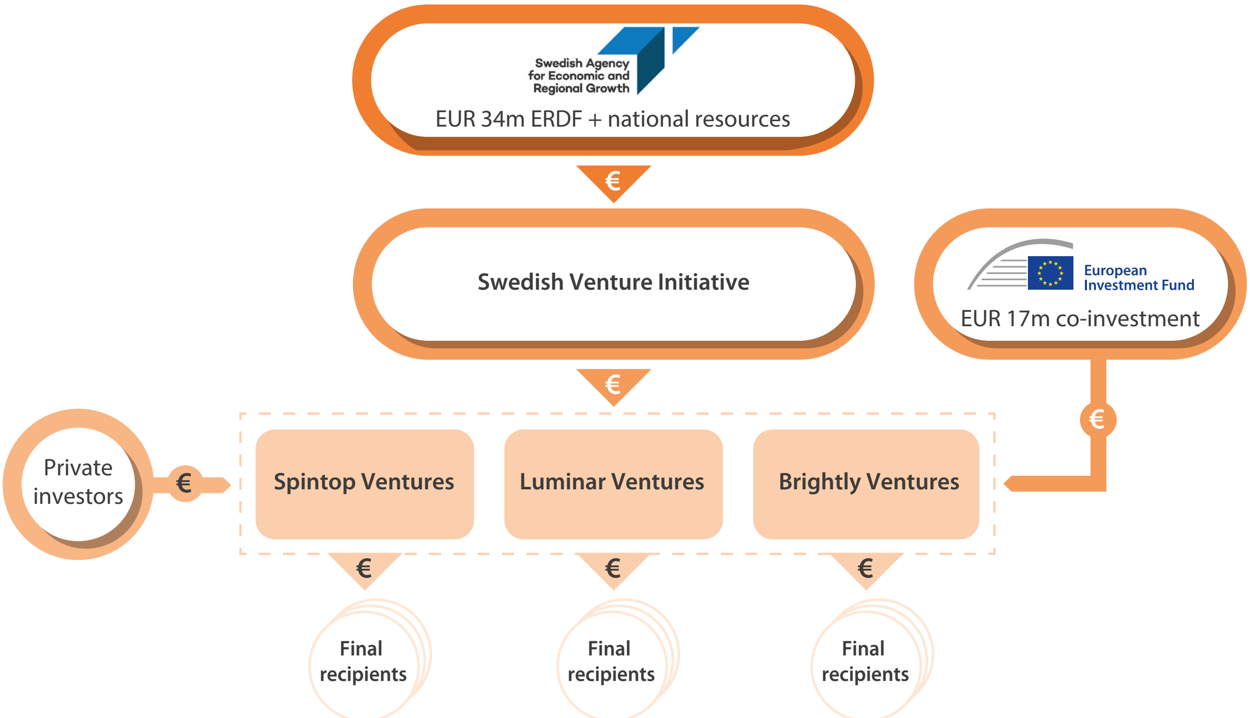
03 Set-up of the financial instruments

3.1 Financial size and payments

The total financial size of the **regional VC funds** amounted to EUR 119 million, of which EUR 57 million were from ERDF, while EUR 62 million were contributed by national public funds. The amount allocated in venture capital investments (i.e. minimum available capital, after deduction of budgeted management costs and fees) was EUR 99 million, which was matched with a minimum co-financing of an equal sum, totalling EUR 198 million of investments.

The financial size of the **SVI** amounted to EUR 34 million, of which EUR 17 million were from ERDF. After deduction of the budgeted management costs and fees, the available capital mounted EUR 32 million. In addition, the EIF co-invested alongside the SVI at the level of the underlying funds to encourage private investors to commit additional resources into these funds. The co-investment by EIF was made with fixed 2 (SVI) : 1 (EIF) ratio. As a result, together with other private investors, the total amount attracted at the level of the underlying funds reached over EUR 135 million to be invested into eligible companies.

Figure 2: The funding mechanism of the national Swedish Venture Initiative



The Swedish Agency for Economic and Regional Growth contributed EUR 34 million (50% from ERDF and 50% from national budget) to the SVI, managed by the EIF. The SVI invested in early-stage venture capital funds using the allocated ERDF and national budget. In addition, EIF co-invested alongside the SVI at the level of the underlying funds. While the SVI followed a two-tier structure typical of FoF models – where the FoF (top tier) provided capital to underlying funds (second tier) that subsequently invest in target entities – the direct co-investment by the EIF at the fund level served as additional market stimulus. The selected fund managers raised additional capital from private investors at the fund level before starting their investment activities primarily in Swedish enterprises. This structure allowed the public sector to take a more withdrawn role in finding, evaluating and deciding on investment obligations, and all investment decisions were done by the fund managers following the market practice and on market terms.

The financial size of the **national Green Fund** amounted to EUR 57 million, of which EUR 28.5 million were from ERDF, while the other EUR 28.5 million were contributed by national public funds. The amount allocated in venture capital investments (after deduction of budgeted management costs and fees) was EUR 45.5 million, with another EUR 45.5 million co-financing coming from co-investors, which allowed to provide financing of EUR 91 million to SMEs under the thematic fund.

Table 2: A breakdown of the ERDF and the national public funding per instrument

Financial instrument	Funding source	Amount
Almi Invest Småland and the Islands Fund II	ERDF	EUR 5 525 100
	Almi corporate partners (Företagspartner AB)	EUR 2 386 045
	Gotland Municipality	EUR 328 799
	Region Kronoberg	EUR 499 210
	Regional Council of Kalmar County	EUR 612 690
	Region Jönköping County	EUR 872 766
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 825 590
	TOTAL	**EUR 11 050 200**
Almi Invest Northern Central Sweden Fund II	ERDF	EUR 6 577 500
	Almi corporate partners (Företagspartner AB) Stockholm AB	EUR 3 288 750
	Region Värmland	EUR 1 096 250
	Region Dalarna (Municipal Federation)	EUR 1 096 250
	Region Gävleborg	EUR 1 096 250
	TOTAL	**EUR 13 155 000**

Almi Invest West Sweden Fund II	ERDF	EUR 5 554 333
	Region Halland	EUR 827 888
	Region Västra Götaland	EUR 3 343 124
	Almi corporate partners (Företagspartner AB)	EUR 4 609 512
	Almi corporate partners (Företagspartner AB) Väst AB	EUR 473 580
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 1 357 596
	TOTAL	**EUR 16 166 033**
Almi Invest Mitt Fund II	ERDF	EUR 6 577 500
	Almi corporate partners (Företagspartner AB) Stockholm AB	EUR 2 192 500
	County Administrative Board of Västmanland	EUR 2 192 500
	Region Jämtland Härjedalen	EUR 2 192 500
	TOTAL	**EUR 13 155 000**
Almi Invest South Fund II	ERDF	EUR 10 085 500
	Almi corporate partners (Företagspartner AB)	EUR 3 710 384
	Region Skåne	EUR 1 436 256
	Region Blekinge	EUR 857 436
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 2 765 923
	Almi Invest AB	EUR 1 315 500
	TOTAL	**EUR 20 171 000**
Partner Invest Norr Fund II	ERDF	EUR 8 112 250
	County Administrative Board of Norrbotten	EUR 1 229 563
	Regional Council of Västerbotten	EUR 1 097 352
	Norrlandsfonden	EUR 1 953 969
	Almi corporate partners (Företagspartner AB)	EUR 1 953 969
	County Administrative Board of Västerbotten	EUR 132 211
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 1 745 186
	TOTAL	**EUR 16 224 500**

Almi Invest Eastern Central Sweden Fund II	ERDF	EUR 6 577 500
	Regional Council of Sörmland	EUR 454 286
	Region Östergötland	EUR 505 152
	County Administrative Board of Västmanland	EUR 530 585
	Almi corporate partners (Företagspartner AB)	EUR 2 729 224
	Region Uppsala	EUR 25 433
	Region Örebro county	EUR 454 286
	County Administrative Board of Södermanland	EUR 50 866
	County Administrative Board of Örebro	EUR 76 299
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 1 347 949
	TOTAL	**EUR 13 155 000**
Almi Invest Stockholm Fund II	ERDF	EUR 8 024 550
	Almi corporate partners (Företagspartner AB)	EUR 5 968 862
	County Administrative Board of Stockholm	EUR 350 800
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 1 704 888
	TOTAL	**EUR 16 049 100**
SVI	ERDF	EUR 17 013 800
	Swedish Agency for Economic and Regional Growth (Tillväxtverket)	EUR 17 013 800
	TOTAL	EUR 34 027 600
National Green Fund	ERDF	EUR 28 502 500
	Swedish Energy Agency	EUR 14 251 250
	Almi corporate partners (Företagspartner AB)	EUR 13 111 150
	Almi Invest AB	EUR 1 140 100
	TOTAL	**EUR 57 005 000**
	GRAND TOTAL	**EUR 210 158 433**

Source: Managing authority.

3.2 Selection of bodies implementing the equity instruments

The management of the financial instruments has been assigned to bodies implementing the financial instruments through three different methods:

- Direct award of a contract to the EIF as manager of the SVI;
- Assignment after a competitive call to subsidiaries of Almi Invest AB as managers of seven of the eight regional VC funds, and Partnerinvest Övre Norrland AB as manager of one regional VC fund;
- Via public procurement to Almi Invest AB, later Almi Invest Greentech AB (transfer of mandate) in case of the national Green Fund.

3.2.1 The Swedish Venture Initiative

The management of SVI was entrusted to the EIF in April 2016. This direct appointment is allowed by the Common Provisions Regulation (CPR)[12]. The EIF was selected due to its strong market access and ability to achieve volume increases in general venture capital interventions.

EIF's role in the private equity market

The EIF is a leading institution in the European private equity market, playing a vital role in fostering high-growth and innovative SMEs. By providing access to equity throughout the entire lifecycle of corporate innovation, the EIF supports companies from the earliest stages of intellectual property development to more mature growth phases, backing well-established and first-time teams alike. This strategy has built a strong industry track record, enabling the EIF to take significant minority stakes in funds and attract commitments from a broad range of private sector investors. The equity activities of the EIF are primarily funded by its main shareholders, the European Investment Bank (EIB) and the European Commission.

For further reading, see: https://www.eif.org/what_we_do/equity/index.htm.

The selection process of the underlying fund managers involved a structured and rigorous approach to ensure transparency, objectivity and adherence to best practices. The process began with the submission of an Expression of Interest by potential applicants, which were then assessed by the EIF through three main stages: eligibility and quality assessment, due diligence and final selection. During the pre-selection stage, the EIF conducted an eligibility assessment to ensure applications meet the necessary criteria, followed by a quality assessment to evaluate the potential and competitiveness of the applicants. In the due diligence stage, the EIF conducted a thorough review of the pre-selected applicants' financial and operational capabilities. This included evaluating their ability to generate quality deal flow, implement effective investment strategies and comply with reporting requirements. On-site visits are typically part of this phase to gather detailed insights. The final selection was based on the outcomes of the pre-selection and due diligence phases. The EIF may either approve an applicant, place them on a reserve list, or reject their application. Approval involves EIF's internal decision-making processes, including obtaining Board approval. Thereafter, the EIF negotiated the Operational Agreement.

Following this process, the EIF decided that the SVI would invest in new venture capital funds managed by three fund managers: Luminar Ventures, Spintop Ventures and Brightly Ventures.

12 According to article 38(4)(b)(i) of the CPR the managing authority may entrust implementation tasks, through the direct award of a contract to the EIB Group.

The selected VC funds: Luminar Ventures, Spintop Ventures and Brightly Ventures

Luminar Ventures, is one of the most active pre-seed and seed-stage VC fund in Sweden. It mainly targets companies committed to transforming traditional industries through digital technologies and innovations.

Spintop Ventures, with offices in Östersund, Stockholm and Malmö, is an early-stage technology venture capital firm. They invest to support innovative software-based technology companies from the Nordics to become sector leaders and drive the transformation into a long-term sustainable society.

Brightly Ventures, an early-stage investor focused on the Nordics, invests in technology companies mainly driving digital transformation in sectors such as media, e-health and fintech.

The selected three fund managers received a cornerstone investment into their fund from the combined resources of the SVI and co-investment by the EIF.

Greenely

Sector: Technology
Fund: Swedish Venture Initiative
Holding Fund manager: EIF
Fund manager: Luminar Ventures
Co-investors: Byfounders
Total value of the investment: EUR 2 280 200
Location: Stockholm
Year invested: 2019

Greenely offers an energy management platform for consumers, combined with an hourly priced electricity tariff and residential virtual power plant technology. The company's integrated mobile application enables households to optimise their energy consumption, reduce costs and participate in grid balancing services. By connecting various home energy assets, Greenely's platform allows consumers to efficiently manage their energy use while contributing to overall power system stability. Greenely's solution addresses the challenges of the modern energy landscape, promoting a more efficient, sustainable and reliable electricity network.

The investment round led by Luminar Ventures and Byfounders allowed Greenely to raise EUR 2.3 million of new capital. The new capital was used to increase the number of employees, further develop the product and continued expansion - both in Sweden and internationally.

For further reading about the project, visit: https://www.greenely.com/.

3.2.2 The eight regional VC funds

The selection procedure for the regional VC funds involved open procedure with competitive calls, in line with the revised Commission guidelines for risk finance requiring a competitive selection of bodies implementing financial instruments. The calls were launched in Q1 2015, resulting in one application per mandate. Subsidiaries of Almi Invest AB were appointed as fund managers for seven of the eight regional funds, while Partnerinvest Övre Norrland AB (Partnerinvest AB) was selected as fund manager for the regional fund in Övre Norrland. The funding agreements were signed with the regional subsidiaries of Almi Invest AB as well as with Partnerinvest AB in September 2015. Instructions for bodies implementing the financial instruments were generally generous in defining target groups but included stringent regulatory requirements, including those related to State aid and reporting.

The role of Almi Invest AB in the venture capital market

Almi Invest AB, a state-owned fund manager in Sweden and part of the Almi Group, manages the group's venture capital activities, including those acquired from the Innovation Bridge merger in 2013. It is formed as a group of joint-stock companies with a parent company wholly owned by the state. Almi Invest AB is a leading venture capital firm in the early stages of the market. Currently, Almi Invest AB is the most active equity investor in Sweden, with over 800 venture capital investments in their portfolio. Almi Invest has established a physical presence through a network of regional offices and fund managers, which allows the fund to maintain close proximity to local businesses and provide tailored support, fostering a strong, accessible investment environment even in underserved regions.

The regional subsidiaries of Almi Invest AB are generally owned with a majority by the parent company and the rest by regional stakeholders such as county councils or regional associations. The subsidiaries were responsible for the implementation of the first generation of eight regional funds with a total amount of EUR 105 million, and invest across various industries, tech and life sciences being the dominant ones.

For further reading, see: https://www.almi.se/en/venture-capital/.

The role of PartnerInvest AB in the venture capital market

Partnerinvest AB, jointly owned by Norrlandsfonden[13] and Almi Invest AB, operates similarly to Almi Invest but in the northernmost part of Sweden, Övre Norrland, and targets the same segments within this specific region. This latter region covering about one-third of Sweden's landmass is a sparsely populated and underdeveloped in terms of access to private venture capital. Partnerinvest AB collaborates closely with private investors on equal terms, facilitating the growth of companies, especially those emerging from universities. In general, for every million euro invested by Partnerinvest AB, private investors contribute an additional 3-4 million euros.

For further reading, see: https://www.partnerinvestnorr.se/.

13 Norrlandsfonden is a foundation tasked with promoting the development of companies in the northern region of Sweden.

Once Upon Publishing

Sector: Industry
Fund: Regional VC fund (Partner Invest Norr Fund II)
Fund manager: Partnerinvest AB
Co-investors: classified
Total value of the investment: EUR 412 190
Location: Skellefteå
Year invested: 2018 and 2019

Once Upon Publishing provides a new way of making photo books. With full focus on the user, they have created a positive customer experience with an app that meets the user's needs and a product that everyone can succeed with. They also provide a support service, whereby they are available to their customers and leave them with a positive feeling.

The initial investment was made before the company had sold its first product in 2018 and Partnerinvest AB participated in an additional funding round in 2019. Today the company has a turnover of EUR 22 million. The company is led by a strong entrepreneurial team (female founder and CEO) and is a great example of a company that has developed very well with the help of public venture capital and active board work and ownership. Partnerinvest AB was the first external investor in the company, and since then, the company has successfully attracted capital from several well-known Swedish investors and in connection with this, Partnerinvest AB sold parts of its ownership in the company.

For further reading about the project, visit: https://onceupon.photo/.

3.2.3 The national Green Fund

The selection procedure for the Green Fund involved a public procurement through negotiated procedure with a prior call. This call opened in Q2 2016 and received two bids. The procurement was won by Almi Invest AB and a funding agreement was signed in October 2016. This public procurement method was chosen to ensure a competitive selection process, with detailed instructions and definitions of operating parameters. The selection mechanism included a screening process, nomination, due diligence and investment committee selection. The public procurement approach allowed for the selection of a fund manager who could focus on achieving non-mainstream qualitative interventions, increasing geographical coverage of access to capital and promoting equality and non-discrimination in access to capital.

By adopting a co-investment model, the fund facilitates risk-sharing between public and private sectors, thereby increasing the supply of venture capital to start-ups in the energy sector. This approach not only provides SMEs with essential financial resources but also offers access to valuable expertise and networks.

3.3 Governance structure

The governance structure followed the general recommendations laid down in the ex-ante assessment in terms of bodies implementing the financial instruments.

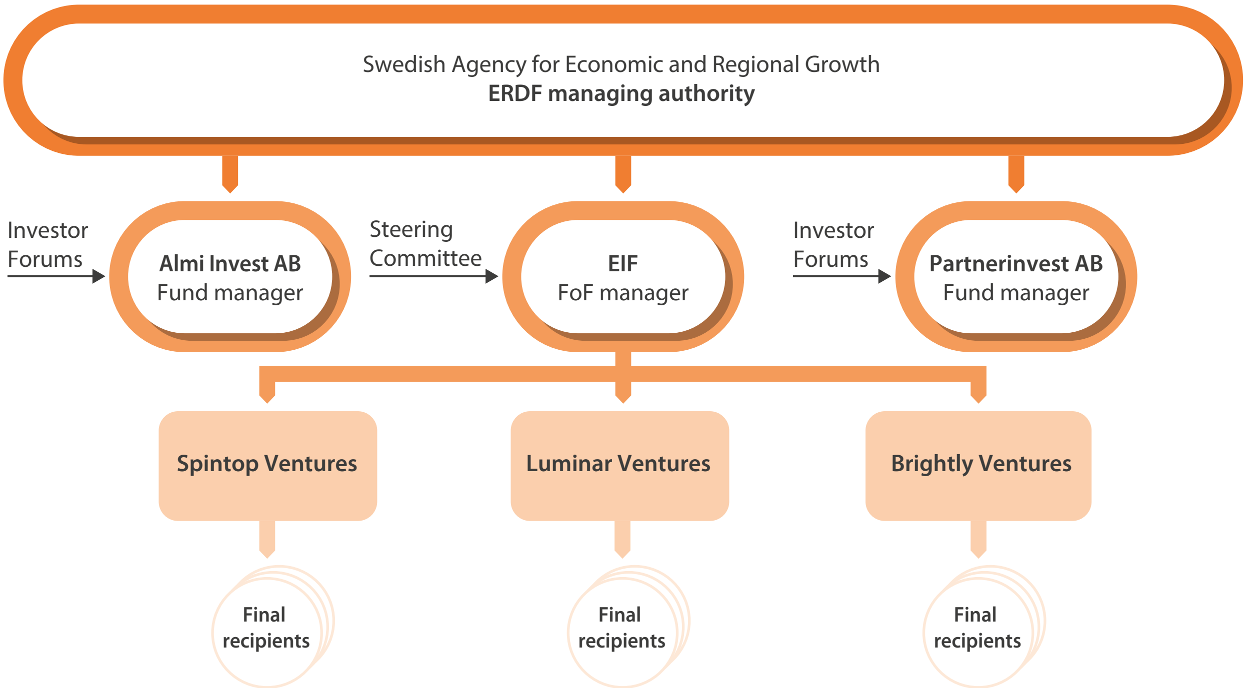
The Swedish Agency for Economic and Regional Growth (Tillväxtverket) is the ERDF managing authority responsible for the nine 2014-20 ERDF programmes (eight regional and one national). Tillväxtverket is a government agency under the Ministry of Climate and Enterprise. The agency has tasks in three policy areas: enterprise policy, regional development policy and rural policy.

The implementation of the **SVI** is carried out by EIF as Holding Fund manager. The three selected fund managers, Brightly Ventures, Luminar Ventures and Spintop Ventures act as fund managers attracting other private investors and managing the respective funds.

In relation to the **regional VC funds**, Almi Invest AB and Partnerinvest Övre Norrland AB are fund managers of seven and one regional funds respectively. Almi Invest AB also manages the **national Green Fund**. The governance of these funds emphasises an arms-length monitoring role for the managing authority, avoiding dual lines of governmental control over public investment organisations like Almi Invest. The managing authority's role is primarily to monitor the implementation of EU-funded projects and ensure correct execution of the financial agreements.

In terms of **supervisory bodies**, the governance structure of the SVI aligns closely as well with the ex-ante assessment recommendations, featuring a steering committee with delegated judicial capacity as specified in the funding agreement. This committee also plays a performance monitoring and insight role. The benefit of this structure is that it allows for the resolution of foreseeable issues without the need for renegotiating the financial agreement, ensuring smoother operations and efficient governance. In contrast, in case of the regional VC funds and the national Green Fund there is no formal steering committee set up. Instead, these funds have investor forums that focus solely on monitoring and providing insights fostering collaboration and shared learning among national and regional co-investors, but without any delegated judicial capacity. The managing authority participates in these forums as well as in annual meetings with regional authorities, but avoids direct involvement in daily operations to prevent conflicts of interest. Direct governance is exercised through the boards of the regional fund managers, which include regional authorities reflecting co-ownership.

Figure 3: Implemented governance structure



3.4 State aid[14]

The financial instruments primarily operated under the principles of *pari passu*, meaning independent private investors contributed at least 50% of the total investment and these investments occurred on equal terms, ensuring no advantages for private investors in terms of return or loss distribution.

However, under certain circumstances, in theory there was a possibility to invest without following the principles of *pari passu*. For instance, under the **regional VC funds**, according to the funding agreements, public funds may take a larger share of the investment due to the high risk and difficulty in attracting private capital. In exceptional cases, public funding of up to 100% may be allowed for very small amounts in the seeding phase, pursuant to Art. 22 GBER. Notably, small investments in seed-stage companies up to EUR 26 000, no co-financing was required. For investments exceeding EUR 26 000 but not more than EUR 220 000, at least 10% private co-financing was required.

In case of the **SVI**, the fund's primary focus was also to operate under a *pari passu* arrangement without asymmetric conditions favouring private investors. Although the ex-ante assessment had foreseen that deviations might be necessary for seed-phase investments and to incentivise new private managers under Art. 21 GBER, the funds were not structured under GBER in the end. Remuneration for the managers of the sub-funds was determined through an open selection process, ensuring no State aid impact in terms of EU law.

The **national Green Fund** also had the possibility, pursuant to Art. 22 GBER, to provide an initial investment of up to EUR 400 000 in undertakings which qualify as a seed-stage undertaking and as a start-up undertaking with co-financing from a private, but necessarily independent investor of at least 20% of the amounts.

14 It is the Member State's responsibility to ensure compliance with State aid rules when they give aid through financial instruments (co-) financed by EU shared management funds. This section presents the State aid regime adopted in Sweden and is not an assessment or official position of the European Commission.

3.5 Monitoring and reporting

The monitoring activities for the financial instruments involve several layers of oversight. During implementation, the fund manager engages in active ownership and board participation to maintain insight and influence over the portfolio companies. There is regular communication between controller teams and fund managers to address current issues and interpret financial agreements. The manager proactively ensures good reporting practices to benefit current owners and prepare the companies as attractive acquisition candidates.

Semi-annual reports are submitted to the managing authority by the fund managers. These reports document completed transactions and costs both at the level of the fund as well as individual investments, and include a written account describing qualitative aspects of the investments. An annual meeting is held between the bodies implementing the financial instruments and managing authority to summarise annual performance and review a self-evaluation provided by the intermediaries. Additionally, periodical external evaluations are conducted, to assess compliance and effectiveness.

Saveggy

Sector: Tech
Fund: Regional VC fund (Almi Invest South Fund II)
Fund manager: Almi Invest Greentech AB
Co-investors: Unconventional Ventures, LRF Ventures
Total value of the investment: EUR 215 053
Location: Lund
Year invested: 2022

Driven by the desire to reduce food and plastic waste and create a more sustainable food system, Saveggy is a visionary food-tech company that combines cutting-edge technology with a passion for nature and environmental responsibility. They develop a bio-based, edible vegan coating. The protection extends the shelf life of fresh fruits and vegetables (such as cucumbers). It is easily applied by using dipping or spraying after harvest.

For further reading about the project, visit: https://saveggy.com/.

04 Implementation of the financial instruments

4.1 Terms and conditions of financing

Investments from the Funds were made exclusively in the form of equity or quasi-equity. Portfolio companies must have had their main activity in the Programme area and be unlisted SMEs in one of the following phases:

- Seed (not active in any market);
- Start-up (operating in a market for less than seven years since their first commercial sale); or
- Expansion (requiring an initial risk capital investment exceeding 50% of their average annual turnover over the last five years).

The regional VC funds were designed to provide smaller investments to a broad spectrum of companies, thereby fostering local entrepreneurship, whereas the national funds were aimed at larger investments, focusing on scaling businesses with significant growth potential and addressing national strategic priorities. Despite the different objectives and target groups, they could, in some cases, finance the same SME, provided they complied with State aid rules and avoided double funding.

The Funds had certain investment restrictions, prohibiting support for the construction of nuclear power plants, investments to achieve the reduction of greenhouse gas emissions from activities listed in Annex I to Directive 2003/87/EC, manufacturing tobacco products, support provided for undertakings in difficulty, and investing in airport infrastructure unless it relates to environmental protection. Additionally, the Funds were supposed to consider horizontal criteria as expressed in Articles 7 and 8 CPR, focusing on reaching companies run by women and people with a foreign background, and promoting environmental and resource efficiency.

Investment sizes differed per each Fund. For the **SVI**, the regulatory ceiling is EUR 15 million per investee. However, as per the call for expression of interest, sufficient diversification was to be ensured, hence typically the maximum investment volume should not exceed 15% of the fund size. The fund could essentially start investing early in the seed stage of the company development and have the potential to follow on in next rounds. However, it could also participate directly in A-rounds[15], provided appropriate opportunities occur. In case of the **regional VC funds**, it ranged from EUR 88 000 to EUR 880 000, with a focus on EUR 263 000-438 000, and could exceptionally exceed EUR 880 000. The largest proportion of investments, both in number and amount, were expected to be to companies in the start-up phase. The total risk finance for an individual undertaking could not exceed EUR 15 million, including private co-financing. As regards the **national Green Fund**, investment sizes primarily ranged between EUR 1-1.75 million per portfolio company, with flexibility depending on the business model, ensuring the majority are in the start-up phase. The total risk finance per individual undertaking was capped at EUR 15 million, including private co-financing. The aim of the managing authority of allowing larger exposure in green tech investments was to meet needs of capital intensive deep green tech investments as well as scale-up investments.

15 An "A-round" is the first substantial venture capital funding stage following seed funding. During this phase, institutional investors purchase equity (shares) in a company to provide capital for significant growth and scaling operations. This funding helps start-ups refine their products, expand their market reach and build out their teams. Investing at this stage is usually regarded as high risk since the company is still at the start-up stage with no track record.

The funds allowed for follow-on investments under specific conditions, ensuring continuity in support while adhering to the initial financing principles. Follow-on investments must align with the fund's strategic goals and maintain the company's SME status according to EU guidelines. If the initial investment was made with funds from the 2007-2013 programming period as mentioned in section 2.2 or via the ERDF VC funds of the 2014-2020 programming period, follow-on investments must follow the same terms, i.e. *pari passu*.

Table 3: Financial product key characteristics

	SVI	Regional VC funds	National Green Fund
Purpose of the Fund	Support new and emerging early-stage venture capital fund management teams with a strong track-record and commitment to invest in SMEs in Sweden.	Address market gaps in early-stage financing for small enterprises.	Support green technology innovations, reduce environmental impact.
Target group	Unlisted SMEs in seed, start-up or expansion phases.	Unlisted SMEs in seed, start-up or expansion phases.	Unlisted SMEs in seed, start-up or expansion phases that work with innovative products or services related to green technology.
Investment focus	Innovative high-growth early-stage SMEs.	General early-stage and expansion financing.	Green technology, renewable energy, sustainability.
Expected number of companies financed	60	35-59	50
Volume of investment per company	Up to 15% of the total fund size in any single investee.	EUR 88 000 – 880 000, with focus on EUR 263 000-438 000, up to EUR 1.3 million including private finance.	EUR 88 000 – EUR 1.75 million.
End of eligibility period	31 December 2023	30 June 2023[16]	

Source: Investment Strategies of the Funding Agreements, CEoI for SVI.

16 The initial end date for the eligibility period was set as 31 December 2023. However, for practical considerations like accounting closure, the end of the eligibility period was ultimately adjusted to 30 June 2023.

The companies invested in can also attract credit facilities in a way that would otherwise not be possible, thanks to a healthy balance sheet. Usually, fund managers collaborated with the loan providers to ensure a solid financing package for the individual company. Moreover, the advantages of public venture capital extended beyond providing funds; it includes offering expertise and networks to invested companies, leveraging strong expertise and of the fund managers in both structuring venture capital investments and exiting companies. Fund managers took active ownership in the portfolio companies, often occupying a board seat, thereby not only supervising the use of funds by participating in strategic decision-making, but also providing hands-on management knowledge to the SMEs.

4.1.1 Specificities of the national Green Fund

The national Green Fund had a narrower target group definition and was investing in early-stage unlisted SMEs in Sweden that possess high growth potential and are engaged in the development of innovative services and goods aimed at reducing greenhouse gas emissions (i.e. including the implementation of green technology). These target companies encompass a wide range of sectors, from IT-related services to capital-intensive technologies. As defined in the investment strategy of the Green Fund, a critical criterion was that the business idea behind their offerings must directly or indirectly contribute to lowering greenhouse gas emissions. The fund manager had to ensure compliance with this criterion and that companies involved in traditional products or services with merely energy-efficient processes were excluded from the investments.

The investment strategy offered the possibility for the Fund to make an initial investment of up to EUR 400 000 in undertakings which qualify as a seed-stage or start-up companies with reduced co-financing from independent private sector investors (i.e. at least 20 % of the investments).

The national Green Fund was structured to address not only the initial capital needs of innovative SMEs but also to support these companies as they scale up, particularly in phases where capital demands increase significantly. Follow-on investments are only considered if they align with the initial business plan set during the first investment. Prior to such follow-on investments, the Fund would assess whether a market failure persists at the time of the follow-on investment. For follow-on investments related to the funds under the 2007-2013 programming period as mentioned in section 2.2 above, the national Green Fund can reinvest in companies it previously supported. If the portfolio companies were in the seed or start-up phase during the initial investment and still meet the current programming period's criteria, specifically that the company had been operating for less than seven years after its first commercial sale at the time of the initial investment, follow-on investments may be made with reduced co-financing requirements. These follow-on investments, combined with the initial investment, must not exceed a total EUR 400 000. If a company no longer meets these criteria, the follow-on investment is considered a first investment, requiring a minimum private co-financing of at least 50% of the investment amount by independent investors, in accordance with the *pari passu* principles.

CorPower Ocean

Sector: Cleantech
Fund: National Green Fund
Fund manager: Almi Invest AB
Co-investors: SEB Greentech, InnoEnergy
Total value of the investment: EUR 3 980 110
Location: Hägersten
Year invested: Q4 2018

CorPower Ocean brings high-efficiency wave energy technology enabling reliable and cost-effective harvesting of electricity from ocean waves. With research and development spanning decades, their innovations are inspired by the pumping principle of the human heart. Ocean energy brings stability to the clean energy mix, accelerating the transition to zero-carbon energy. Headquartered in Sweden, with offices in Portugal, Norway and Scotland, CorPower Ocean design, build and install turnkey solutions that allow our customers to power the planet with clean energy from ocean waves.

In March 2024, CorPower Ocean was selected by the European Innovation Council (EIC) Scaling Club as one of the highest-potential European deep tech scale-ups poised to make a positive, global impact[17]. The EIC Scaling Club will assist CorPower Ocean and the other hand-picked deep tech scale-ups with fundraising support, leadership mentoring and coaching, corporate partnership identification and matchmaking, media visibility, recruitment, and much more.

For further reading about the project, visit: https://corpowerocean.com/.

4.2 Investment process

Almi Invest AB's appraisal process heavily depended on collaboration with co-investors. In regions like Stockholm, this process was more straightforward due to a more robust presence of private investors. Generally, Almi Invest AB's model was designed to complement private capital, acting as a catalyst for private investments. The process could be initiated in two primary ways: either companies approach Almi Invest AB for financing or seeking advice on how to attract private investors, or private investors themselves started the process, seeking Almi Invest AB as a co-investor. The number and types of co-investors involved in each deal varied based on factors such as the company's location, the local economy and the level of deep technology involved, which correlates with higher risk and potential rewards.

In case of Partnerinvest AB, the appraisal process was structured into distinct stages, such as attraction, selection, enhancement and sale. During the attraction and selection phases, there was a strong emphasis on the entrepreneurial team's ability to deliver (with particular attention to female and mixed-gender teams). Additionally, the business's scalability (including international potential), sustainability, and the valuation at the time of investment compared to the anticipated payment capability of a future buyer were key considerations.

Under the SVI, the three selected fund managers were required to make investment decisions based on each investment's business plan, which should contain product description, turnover and profitability calculations and forecasts, previous assessment of project viability, as well as each investment's clear and real exit strategy.

17 https://corpowerocean.com/corpower-ocean-selected-to-join-the-eic-scaling-club-network/.

4.3 Visibility and communication

Regarding visibility and communication activities for the financial instruments, the Swedish Agency for Economic and Regional Growth (managing authority) played a key role by periodically highlighting these financial instruments within the broader context of ERDF implementation. This was done through regular updates on their website, publications and reports to inform stakeholders and the public about the objectives, progress and impacts of these instruments. Additionally, the managing authority presented the financial instruments in various external forums, including conferences, seminars and workshops, to discuss the benefits and achievements of the ERDF financial instruments.

Throughout the eligibility period, the fund managers had consistently worked to enhance visibility to reach companies seeking venture capital and attract private investors for co-investment, meeting *pari passu* requirements. Efforts were made to ensure that other actors in the company's ecosystem were aware of the availability of public venture capital.

Additionally, Partnerinvest AB has actively promoted its portfolio companies to potential buyers, facilitating the sale process and ensuring market awareness of investment opportunities.

Almi Invest AB conducted regional outreach programmes, workshops and seminars to educate potential beneficiaries about funding opportunities. They also engaged with local media to publish success stories and promote funded projects.

05 Achievements

As at end 2023, the main achievements of these financial instruments are noteworthy. Nearly full capital deployment was achieved and private co-investment targets were exceeded, indicating both the complementarity and attractiveness of these investments.

The ten financial instruments have supported 591 final recipients, showing an increase from the previous generation of equity instruments. Geographical coverage has extended far beyond what private professional VCs offer, and Almi Invest AB and its subsidiaries has collectively been recognised as the most active VC investor in Sweden during this period.

There has been a good distribution of investments across different market sectors for general regional mandates, and the national instruments, particularly the national Green Fund, have shown promising profit potential and projected carbon reduction outcomes of 50 million tons CO2-equivalent until 2030, corresponding to the entire annual national CO2 output of Sweden as a nation.

Table 4: Key performance indicators

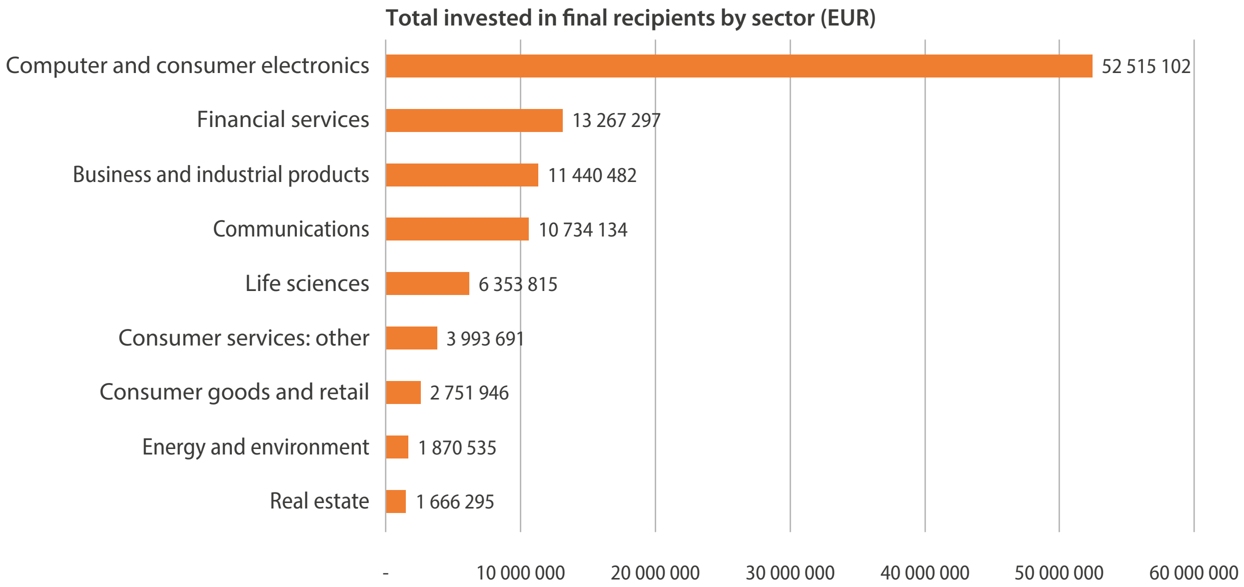
Indicator	Target	Results[18]
SVI		
Number of enterprises receiving support	60	57
Private investment matching public support	EUR 42 million	EUR 80 million
Regional VC funds		
Number of enterprises receiving support	373	485
Private investment matching public support	EUR 119 million	EUR 492 million
Job creation in supported companies	1305	2156
National Green Fund		
Number of enterprises receiving support	50	35
Private investment matching public support	EUR 47 million	EUR 111 million

Since its launch, the SVI has facilitated investments totalling EUR 24 million in 57 unique portfolio companies through the three selected venture capital companies. Together with the private funding attracted at the funds level, the total invested amount into SMEs is EUR 104 million. The total leverage ratio is 4.21. The focus of these funds was on digital transformation and technology.

18 Results as at 31 December 2023.

The data presented in the Figure 4 below shows the total amount invested in companies by sector under the SVI, highlighting the allocation of resources across various industries. The largest investment was in the computer and consumer electronics sector, which received over EUR 52 million, significantly surpassing other sectors. Considerable amount was provided in the financial services sector, business and industrial products and communications sector. In contrast, sectors like real estate and energy and environment received relatively lower amounts, indicating a strategic focus on technology and industrial sectors.

Figure 4: Total amount invested by sector under the SVI



Source: EIF.

Looking at the regional funds together with the national Green Fund, the results presented in Table 5 below indicate that the technology and life science sectors dominated in terms of the number of investments (256 and 112 companies financed, respectively)[19]. In terms of total amount invested, the industry sector is ranked second (ca. EUR 35 million) after the technology sector (ca. EUR 63 million). Significant individual investments were also made in cleantech and green tech sectors. The high standard deviation in former suggests diverse investment sizes, ranging from small to very large.

19 Investments under the Green Fund included sectors outside the green tech sector as well (i.e. investments were carried out also in cleantech, industry, life sciences and tech sectors under the Fund).

Table 5: Statistical analysis of the regional funds and the national Green Fund by sector (EUR)

Sector	Number of companies	Total amount invested	Largest investment	Average investment	Median investment	Standard deviation
Tech	256	63 432 907	1 532 352	247 785	186 070	241 014
Life sciences	112	31 135 111	3 507 898	277 992	219 036	371 753
Industry	86	35 283 159	1 753 999	410 269	258 449	439 433
Cleantech	38	23 519 246	3 947 195	618 927	259 670	928 569
Commerce/ Tourism	18	3 000 727	500 762	166 707	149 657	143 452
Other	15	1 830 385	433 472	122 026	26 310	136 247
Green tech	1	3 266 363	3 266 363	3 266 363	3 266 363	N/A

Source: fi-compass, based on managing authority (Status report (2024). Implementation of financial instruments by venture capital fund for the 2014-2020 programming period).

Specifically, the **regional venture capital funds** received a total of 7 207 requests during the investment period, resulting in investments in 491 companies, representing an investment rate of approximately 6.8%. The distribution of these investments varied significantly across different regions. Notably, regions like Småland and the Islands have shown higher investment rates, reaching 19.9%, followed by Northern Central Sweden at 12.6%. Conversely, Stockholm, which accounted for nearly 40% of all proposals, had the lowest approval rate of just 2.4%. In terms of the number of companies financed following the appraisal process, Almi Invest South Fund II achieved the highest number, with 82 companies in total, followed by Almi Invest Småland and the Islands Fund II (73 companies). The requirement of *pari passu* has enabled these funds to attract co-financing, resulting in an average leverage of 5.5 times.

PeptiSystems

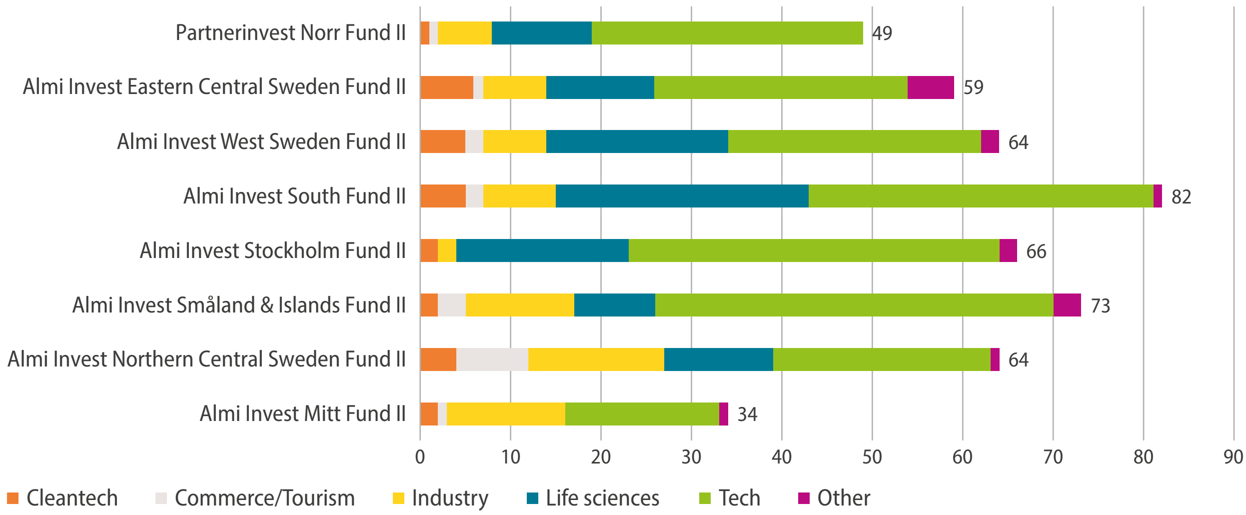
Sector: Life Science
Fund: Regional VC fund (Almi Invest Östra Mellansverige Fund II)
Fund manager: Almi Invest Östra Mellansverige AB
Co-investors: classified
Total value of the investment: EUR 483 870
Location: Uppsala
Year invested: 2019

PEPTISYSTEMS
Scalability. Flowthrough. Automation.

PeptiSystems has launched a new generation of solid-phase synthesis instruments for process development and large-scale Good Manufacturing Practices (GMP) and non-GMP manufacturing of peptides and oligonucleotides. In the field of oligonucleotide synthesis, PeptiSystems is introducing several new features and functionalities, including heating, full UV scans, near-infrared detectors, cooling options and modern-looking, easy-to-use software.

For further reading about the project, visit: https://www.peptisystems.com/.

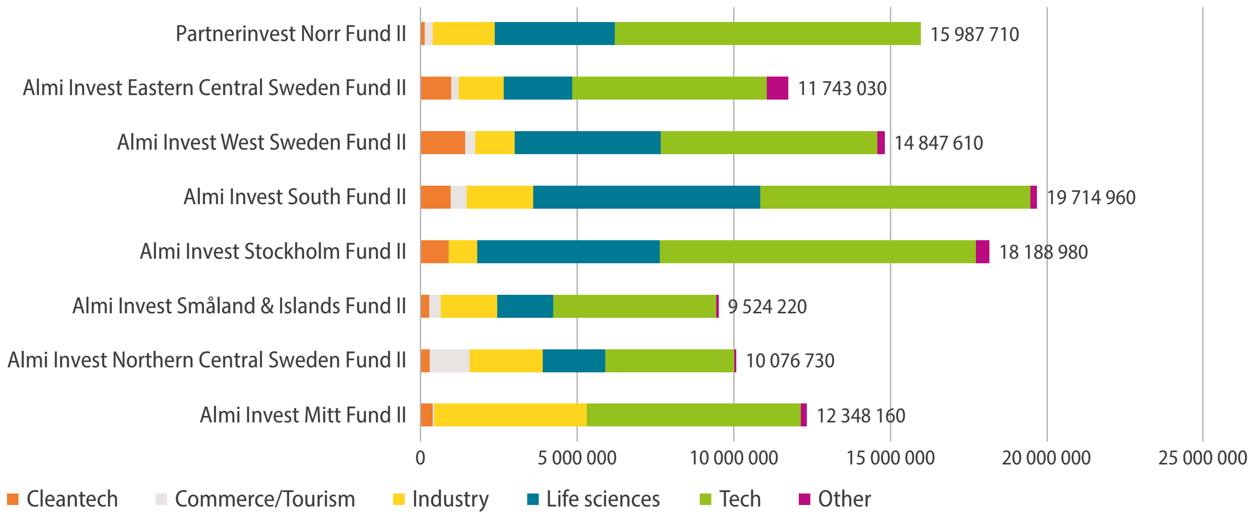
Figure 5: Total number of companies financed by sector under the regional funds



Source: fi-compass, based on managing authority (Status report (2024). Implementation of financial instruments by venture capital fund for the 2014-2020 programming period).

The following Figure presents the sectoral split of the total amount invested per each of the regional funds.

Figure 6: Total amounts invested by sector under the regional funds (EUR)

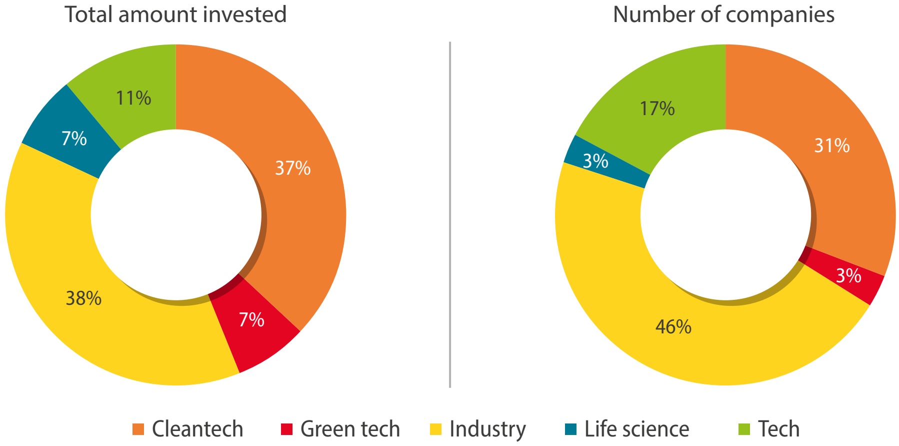


Source: fi-compass, based on managing authority (Status report (2024). Implementation of financial instruments by venture capital fund for the 2014-2020 programming period).

The technology sector stands out as the primary focus for most funds, attracting the highest total investments across the regional funds (EUR 58 million in total). Almi Invest Stockholm Fund II leads with EUR 10.1 million, followed by Partnerinvest Norr Fund II with EUR 9.8 million. Life science is another significant sector, receiving considerable investments (EUR 27.6 million in total), particularly from Almi Invest South Fund II (EUR 7.3 million) and Almi Invest Stockholm Fund II (EUR 5.8 million).

The Green Fund has completed 35 investments totalling EUR 49 million since inception in 2017. The main sectors were the industry and cleantech sectors, with ca. EUR 18 million invested in each. The technology sector received EUR 5.5 million of investments, while the life science and green tech sectors EUR 3-3.5 million, respectively. This total investment amount has been complemented by a total private funding of EUR 114 million, indicating a strong leverage effect (leverage ratio of 3.3) as well substantial private sector interest and effective mobilisation of capital for green technology initiatives. 30 invested companies are still in their portfolio, during the holding period (which ends in December 2029).

Figure 7: Distribution by sector based on total amount invested and number of companies financed under the Green Fund

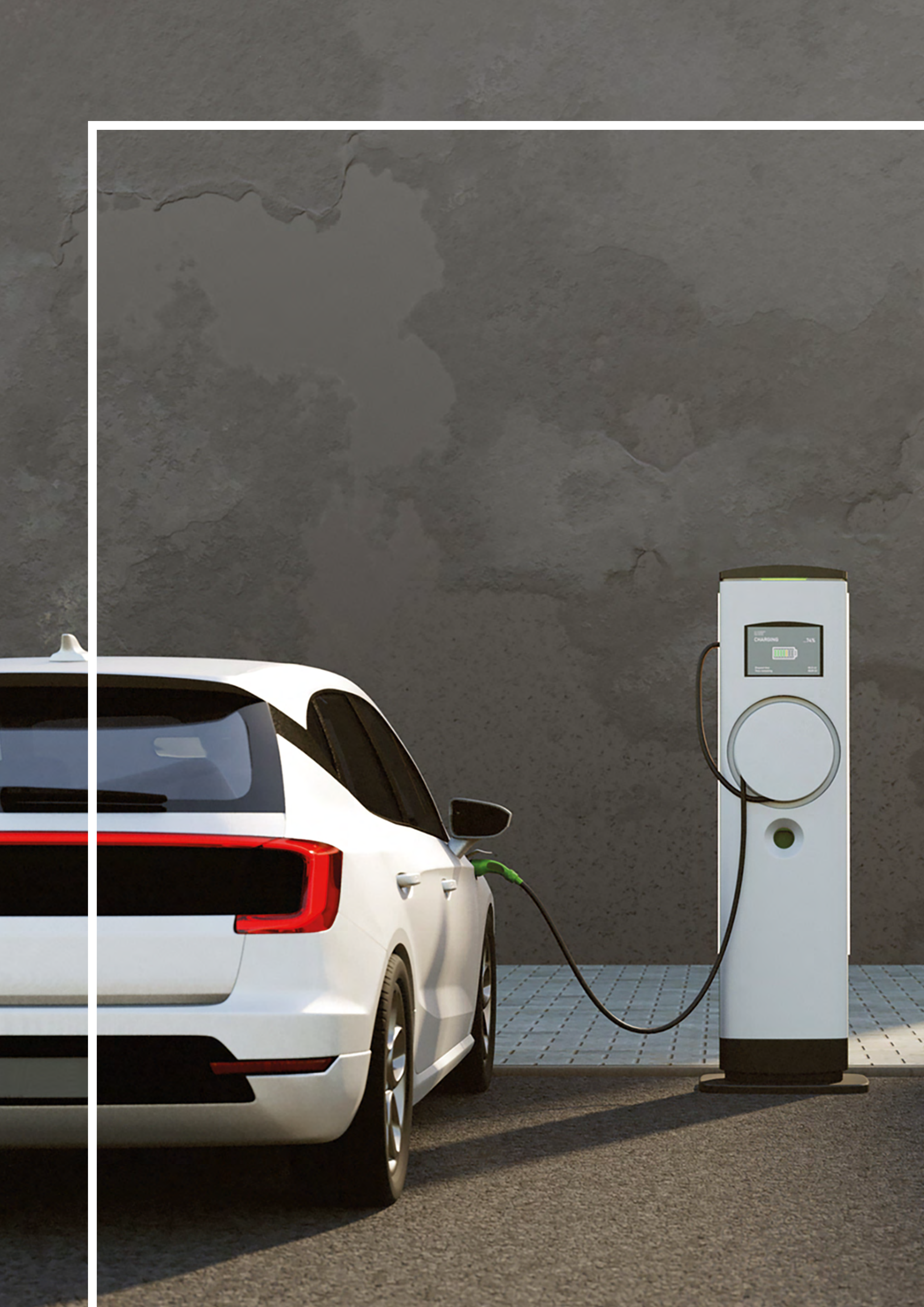


Source: fi-compass, based on managing authority (Status report (2024). Implementation of financial instruments by venture capital fund for the 2014-2020 programming period).

In the end of the ERDF eligibility period i.e. by December 2023, the funds concluded their investment period and transitioned into the holding period. According to the status report as at end of 2023, two of the regional funds (Northern Central Sweden Fund II and Småland and the Islands Fund II) had funds remaining from the total budget at the end of the investment period, which have been transferred to an escrow account.

During the holding period, the funds shall: (a) manage the holdings of portfolio companies; (b) make follow-on investments in existing portfolio companies with either escrow funds or funds returned to the fund from, for example, sales; and (c) sell off their existing holdings. The anticipated closure date for the funds is 31 December 2027. Any remaining capital will then be returned to investors and the ERDF financing will be earmarked back to the state budget.

Exiting investments requires structured and active efforts within the ownership group, often taking longer than anticipated. To address this, Almi Invest AB for instance, developed a structured exit programme. This approach includes a more controlled and strategic process, guided by an exit playbook with detailed instructions and a dedicated team focused on driving exits. By selling companies well before the fund's end date, it is aimed to avoid the reduced valuation that often accompanies last-minute sales, ensuring better returns and a smoother transition for both the portfolio companies and investors. Partnerinvest AB's strategy is to sell companies when opportunities arise, typically within five years, though this hasn't always resulted in optimal exit multiples. Potential buyers were frequently already associated with the company, i.e. part of the company's network, and were identified early in the investment process. Exits have ranged from industrial sales, which yielded the best financial results, to financial exits and transactions involving sales back to founders and co-investors.


CHARGING

06

Lessons learned

6.1 Main success factors

Strategic evolution towards inclusivity, sector diversification and national priorities

A key success factor of Sweden's 2014-2020 ERDF equity instruments lied in their ability to evolve strategically over the programming period with the investment strategies set out between the managing authority and the fund managers, transitioning from a geographical focus to a more diversified and inclusive approach. This evolution aligned with market trends, societal priorities and national policy objectives, making the instruments more adaptive, relevant and impactful throughout their lifecycle.

Strategic diversification and balanced portfolio approach

The second generation of venture capital instruments in Sweden witnessed an increased footprint in sectors like life sciences, cleantech and industry, indicating a strategic diversification away from pure-play digital investments. As presented in Section 5 above, investments in these three sectors amounted to overall EUR 90 million. Further to this diversification, digital investments and investments in the technology sector (EUR 63 million) remained substantial, showcasing a balanced portfolio approach.

Early ex-ante assessment enhanced the instruments' alignment with policy objectives and the effectiveness of implementation

Starting the ex-ante assessment as early as possible in the programming period allowed for a good understanding of market needs and the feasibility of interventions, enabling proactive adjustments and ensuring that the instruments were well-aligned with programme objectives and the then existing macro and micro economic environment.

The creative involvement of the public sector and effective dialogue between the managing authority and fund managers contributed to a collaborative approach and efficient deployment

In addition to the proactive involvement of the managing authority from early-on in the design and set-up phase, including the launch of procurements, securing a dialogue between the managing authority and fund managers from the start was another key success factor. This open and continuous communication fostered collaboration, transparency and mutual understanding of roles, responsibilities and expectations. It facilitated the alignment of strategies, priorities and actions, leading to more efficient decision-making, effective implementation and better outcomes for the instrument and its beneficiaries.

Strategic regional coverage by Almi Invest ensured investment access across all territories of Sweden.

Almi Invest, a state-owned fund manager in Sweden, played a crucial role in ensuring that each region, including the most remote areas, had at least one fund manager to provide investment opportunities. By leveraging its existing regional office structure, Almi Invest effectively covered regions that typically struggle to attract venture capital, ensuring a strong local presence and significant impact.

The national Green Fund's strategic design allowed to boosts early-stage company maturity and market appeal

The design and deployment of the Green Fund was done in a way that was attractive for early-stage companies, including initial investments with potentially reduced co-financing requirements and follow-on investments, allowing them to receive further financing from the private sector. By bridging the gap between initial funding and subsequent investment, the instrument created a sustainable pathway for companies to scale up, attract additional funding and contribute meaningfully to the green economy.

Significant economic impact achieved through impressive leverage rates

The achieved leverage rates were impressive, with an average leverage of 5.5x for regional instruments and 4.2x for national instruments, as a result of the *pari passu* requirement and effective mobilisation of capital, which in turn reflected a significant impact of these financial instruments on the Swedish economy.

Synergy between active ownership and knowledgeable co-investors together with committed entrepreneurs, has created a fertile environment for successful investment outcomes.

A critical success factor from an operational perspective has been the combination of active ownership and investment board engagement alongside private co-investors. This approach ensured that investments are not only well-capitalised but also strategically guided thanks to the involvement and deep industry knowledge of the co-investors. Strong entrepreneurial teams, who have significant 'skin in the game' in their ventures, contributed to the robustness and drive needed for business growth.

6.2 Main challenges

Recent crises like the COVID-19 pandemic, the war in Ukraine and the energy crisis affected investor sentiment, making co-investments more challenging and time-consuming. These events also created operational uncertainties, raising questions about whether performance slumps were due to external factors or internal issues like resource allocation and planning. Despite these challenges, the instruments demonstrated counter-cyclical capabilities, continuing to invest in poor market conditions, which was indeed one of their unique advantages.

Accessing less crowded regional markets posed challenges in terms of transaction costs. However, these challenges were partly mitigated by the historical regional presence and brand establishment of fund managers. Higher incentives on investment pace compared to profits encouraged counter-cyclical actions for the instruments. These incentives ensure continued investment even when market sentiment declined. Additionally, the regional mandates of these fund managers were hard-wired to focus on deploying capital inside their respective regions. This regional focus helped in navigating the complexities of less saturated markets and contributed to the effective deployment of funds.

Competition in the investment landscape was a complex issue, with some fund managers facing challenges in crowded regions like Stockholm. Co-investor surveys suggested that many considered the fund managers' role complementary, but there were reports of fund managers opting out of investment rounds due to private market interest. This dynamic highlighted the delicate balance between attracting investors and maintaining the strategic direction of the financial instruments.

Funding periods are sometimes found to be too short to build strong companies in the technology and life sciences sectors. Moreover, in 2022-2023, fund managers were facing significant challenges in exiting their investments, due to the economic circumstances, finding it difficult to sell the portfolio companies.

In 2022-2023, the managing authority and bodies implementing the financial instruments also found themselves managing regional funds for different programming periods concurrently. This parallel management was partly driven by initiatives like REACT-EU, which required a multifaceted approach to fund management. Managing funds across multiple programming periods added complexity and required robust coordination to ensure effective utilisation of resources and adherence to programme objectives.

6.3 Outlook

The ERDF equity financial instruments implemented in the 2021-2027 programming period supporting start-ups include eight regional VC funds, seven of which are general VC funds and one focused on deep tech ventures in the Stockholm region. Additionally, a national Climate Fund is implemented as a successor of the national Green Fund. Fund managers for these are selected through public procurement, with a total planned allocation of resources exceeding EUR 80 million. All these instruments fall under Specific Objective 1.3 'Strengthen the growth and competitiveness of SMEs.'

Compared to the previous programming periods, there are several notable differences in the support planned to be provided during the 2021-2027 period:

- The instruments have a more limited scope of support compared to previous periods, with a specific thematic concentration on critical priorities like green, digital and innovative initiatives;
- There is greater emphasis on supporting territories facing development challenges, including rural areas, regions in demographic decline and outermost regions;
- The discontinued support of the SVI-type general VC mandate reflects a shift in policy priorities based on generally improved commercial fundraising conditions compared to the time of programming the SVI;
- The evolution towards modernised environmental policies is evident, with a broader mandate for climate funds that goes beyond CO2 reduction, aligning with green transition strategies;
- As regards State aid, there has been a move away from using Art. 22 GBER and the new financial instruments have introduced *pari passu* options at the fund level;
- The extension of fund lifecycles, particularly for deeptech investments, breaks traditional market standards to enable more research-intensive cleantech investments;
- A new performance-based remuneration model focusing on operational performance has been introduced;
- A specialised deeptech mandate has been deployed as a pilot in the Stockholm region;
- The governance set-up has been restructured, focusing on managing contractual requirements and amendments within the framework of mandate business plans;
- There is a greater emphasis on evaluation and evaluability of financial instruments. This includes earmarked funds for evaluation and detailed data tracking with a focus on assessing the impact, effectiveness and alignment with programme objectives.

6.3.1 Climate Fund

The national Climate Fund, as a successor of the national Green Fund, aims to foster sustainable growth, competitiveness and job creation in SMEs while advancing climate transition efforts. It utilises equity capital to provide financing to SMEs contributing substantially to climate transition, aligned with the Swedish net-zero emissions target by 2045.

It addresses the financing needs and specific challenges faced by SMEs in climate transition investments. These challenges include the need for more financiers believing in business for climate transition, the necessity of risk capital to complement credit guarantees and the demand for more risk-averse and patient venture capital tailored for climate transition investments. The fund's strategic importance lies in reversing the declining trend in venture capital funding for environmental technologies and contributing significantly to Sweden's energy and climate goals.

A critical ambition of the Climate Fund is to build upon the success of the Green Fund, aiming for a broader target group and larger investments to meet market needs effectively.

Nevertheless, with respect to the Green Fund, the Climate Fund marks significant advancements in instrument design and management in several areas:

- **Broadened scope:** The Green Fund's narrow focus on carbon reduction was broadened for the Climate Fund to include investments that directly and indirectly support the green transition, ranging from environmental technology companies to those developing innovative solutions for climate resilience. This aligns the fund with the EU's green transition agenda, though it operates outside the constraints of the EU taxonomy, which was deemed less suitable for early-stage innovation investments;
- **Enhanced collaboration:** Building on the positive experience in collaboration with the Swedish Energy Agency for the previous Green Fund, the Climate Fund involved the Swedish Environmental Protection Agency as collaborating partner. This partnership facilitated more in-depth discussions on shaping the climate investment frameworks;
- **Evolved public procurement process:** The procurement process evolved from a negotiated procedure to one with more transparent rules, clear requirements, and articulated options, allowing for better negotiation on strategy, governance and organisation;
- **Revised financing agreements:** The financing agreements were completely revised to increase specificity and clarify non-negotiable aspects of operations and governance. Additionally, a new format for investment strategy governance was introduced, enabling continuous renegotiation and updates to align with evolving market conditions;
- **Refined investment strategy:** The investment strategy was refined to clearly position the fund as a feeder for the more liquid growth-stage market, targeting specific groups more effectively;
- **Extended investment horizons:** Lessons from the Green Fund's success in making larger, long-term green tech investments were applied to the Climate Fund, which now allows even longer investment horizons, up to 20 years (extendable until 31 December 2043). This extended duration is designed to support Sweden's growing deep green tech sector, characterised by capital-intensive, high-risk enterprises with longer timelines to market readiness.

With an indicative timetable extending from 2022 to 2036 and a total budget of approximately EUR 25 million, the Climate Fund represents a strategic investment in driving sustainable growth, innovation and climate resilience in SMEs across Sweden.

www.fi-compass.eu
contact@fi-compass.eu

European Commission
Directorate-General
Regional and Urban Policy
Unit B.3 "Financial Instruments
and IFIs' Relations"
B-1049 Brussels

European Investment Bank
EIB Advisory
fi-compass
98-100, boulevard Konrad Adenauer
L-2950 Luxembourg