



Assessing the Potential for EU Investment in Venture Capital and Other Risk Capital Fund of Funds

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Contact: Steve Rogers

E-mail: steve.rogers@ec.europa.eu
RTD-PUBLICATIONS@ec.europa.eu

European Commission
B-1049 Brussels

Final Report

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Glossary of acronyms and terms

GLOSSARY OF ACRONYMS AND TERMS

A glossary is now provided in order to help non-specialists understand the key concepts and terms used in the report relevant to venture capital fund of funds and private equity. The glossary contains (i) definitions of key terms and (ii) a list of acronyms.

Acronyms

AUM	Assets under management
CMU	Action Plan on Building a Capital Markets Union (30.9.2015 COM(2015) 468 final)
COSME	The Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (SMEs) 2014-2020
DIV	Dedicated Investment Vehicle
EBRD	European Bank for Reconstruction and Development
EFSI	European Fund for Strategic Investments (EFSI)
EIB	European Investment Bank Group
EIF	European Investment Fund
EVCA	European Private Equity and Venture Capital Association
EVFIN	The European Venture Fund Investors Network (EVFIN) is a platform launched in March 2011 by major national VC investors in response to the continuing funding crisis in this sector across the EU.
FoF	A fund of funds (note that for simplicity purposes, we refer to FoF in both the singular and plural).
FO	Family Office
GP	General Partner
H2020	Horizon 2020 (2014-2020) under which the Single EU Equity financial instrument is being supported.
IRR	Internal Rate of Return
LP	Limited Partner
PE	Private Equity
R&I	Research and innovation
RCM	Risk Capital Mandate - the EIF's former mandate to invest in risk capital financing instruments.
RCR	Risk Capital Resources (RCR) mandate - the EIF's current mandate to invest in equity instruments.
DG RTD	DG Research & Innovation
SFO	Single Family Office
SME	Small and Medium Sized Enterprise
SWF	Sovereign Wealth Fund
UHNWI	Ultra-High Net Worth Individual
VC	Venture Capital
VC FoF	Venture Capital Fund of Funds

Glossary of acronyms and terms

Key terms

Term	Definition
Assets under management	AUM, sometimes called funds under management (FUM), measures the total market value of all financial assets which are managed by a VC fund manager, known as an LP (Limited Partnership – see LP).
Burn rate	The rate at which a start-up uses its venture capital funding before it begins earning any revenue.
Capital commitment	Investors in equity funds (and / or fund of funds) commit to investing a specified sum of money in the fund partnership over a specified period of time. The fund records this as the limited partnership’s capital commitment. The sum of capital commitments is equal to the size of the fund. Limited partners and the general partner must make a capital commitment to participate in the fund.
Capital distribution	The returns that investors in in equity funds (or fund of funds) receive. This will include the income and capital realised from exits minus the fees of the fund manager and any expenses. Once a limited partner (LP) has had their cost of investment returned, further distributions are actual profit. The partnership agreement determines the timing of distributions to LPs. It will also determine how profits are divided among the LPs and general partner (GP).
Carried interest / “carry”	The share of profits or more commonly “carry” that the fund manager is due once the principal investment and the agreed percentage return to investors has been distributed. Carried interest is normally expressed as a % of total fund profits. The industry norm is 20% for VC funds and circa 10% for fund of funds.
Closing	When VCs or FoF are raising funds, they will announce the “first closing” when the initial target level of funds has been reached. This is the point at which a fund can begin investing and drawdown funding. A fund may have many closings, but the usual number is around three prior to final closing when the fund stops accepting new investments.
Early-stage finance	Venture capitalists invest in enterprises at an early-stage in their development, either when the company was only recently established, or is still in the process of being set up.
Evergreen fund	A fund (or FoF) in which the returns generated by investments are channelled back and reinvested rather than being distributed back to investors. The aim is to maintain continuous supply of capital for further investments to maximise returns by avoiding having to liquidate funds and divest of investments within a fixed timeframe. Since value crystallisation often occurs during the later stages of a VC fund / FoF’s operation, this ensures that full value is captured.
Exit	In order to deliver a return to investors, FoF and the underlying funds they invest in need exit mechanisms for their investments. GPs have three exit mechanisms open to them, trade sales, MBOs and IPOs (the latter is uncommon in most EU countries, unlike in the US). Venture capitalists normally agree an exit with the company’s management team. Liquidity has been helped in recent years by the development of secondary offering, which provides an alternative to formal exits (see entry under secondaries).
Fees	A FoF investment vehicle will charge an annual management charge (AMC) to cover the cost of administering the vehicle and for remunerating the fund manager. Typically, for FoF, rates are in the order of 1.0-1.1%, but can be lower, given concerns about double layers of charges. The fees for the underlying VC funds are typically 2%.
Fund of Fund	The lifetime of a fund of funds that make investments in underlying VC funds. Typically,

Glossary of acronyms and terms

Term	Definition
and fund duration	underlying VC funds operate on the “10 + 2” principle of a 10 year fund and two years to exit the investments in companies (e.g. through trade sales, MBOs and IPOs). A fund of funds has an initial investment period of up to 5 years to select which FMs it will invest in. Therefore, the minimum time commitment for a FoF is often 16-20 years (i.e. 5 year investment period + 10 years +2 for the underlying period, plus possibly additional time to wind up the FoF once investments have been exited and liquidated).
General Partner (GP)	The firm that manages investment in private equity, either through a fund of funds intermediary vehicle, or through direct investments in a portfolio of start-ups and SMEs. Whereas a FoF manager may be perceived from the perspective of an institutional investor as more like a GP in that they are investing money on behalf of the investor, for the underlying VC funds the FoF manager is an LP: i.e. they are committing capital to the fund alongside other investors, but are not part of the deal-making process, or involved in operational issues with portfolio companies.
UHNWIs and HNWIs	Ultra-high net worth individuals and high net worth individuals. Due to tax breaks in particular countries, such as France and the UK, UHNWIs and HNWIs are among the most significant investors in seed and early-stage (through angel and VC investments).
Hurdle Rate	The performance threshold which the GP has to achieve in order to be paid carry. The hurdle rate is the minimum level of return that must be distributed to the limited partners (LPs) until the general partner is able to deduct carried interest. This ensures that the general partner shares in the profits of the partnership only after investments in underlying VC funds have performed well.
Industry vs Market Statistics	When reporting on national PE data, a distinction can be made between industry and market statistics. EVCA states that industry statistics are an aggregation of figures according to the country of the private equity firm’s office in charge of the investment. At EU level, this relates to investments made by European private equity firms regardless of the location of the target company. Market statistics are an aggregation of figures according to the location of the portfolio company. At EU level, this relates to investments in European companies regardless of the location of the PE firm. For example, Austrian industry statistics refer to all investments made by PE firms headquartered in Austria, including those investments made abroad. Market statistics, on the other hand, refer to all investments made in the Austrian market, including those made by foreign investors.
Investment period	The initial period following fund (or FoF) closure over which investments in the underlying funds must be made. For publicly backed FoF, this is typically a period of up to 5 years. Drip-feeding funding into selected VCs over a period of time helps the FoF to diversify risk by avoiding having an over-focus on a particular vintage year. In private FoF, the investment period is typically 4 years, as is the case for the underlying VC funds in which FoF invest.
Internal rate of return (IRR)	Time-weighted return expressed as a percentage. IRR uses the present sum of cash drawdowns (money invested), the present value of distributions (money returned from investments) and the current value of unrealised investments and applies a discount. A GP’s carried interest is often dependent either on the IRR, or a different performance hurdle, such as achieving a particular multiple on the original investment.
Later stage finance	Capital for better established, high-growth medium-sized companies that are close to breaking even or trading profitably. Capital is used to finance late-stage expansion, growth, acquisitions and management buy-outs.
Leverage ratio	A financial measurement of the ratio between the total amount of VC investments and the level of EU investment as a cornerstone investor (excluding fees).

Glossary of acronyms and terms

Term	Definition
Limited Partner (LP)	Investors in venture capital funds (e.g. pension funds, insurance companies, asset management firms) are known as limited partners. These are either institutional investors or high net worth individuals that contribute capital to a given private equity fund (or fund of fund).
Limited partnerships (LPs)	The standard investment vehicle for investing in VC funds and in fund of funds. An LP has a fixed life, usually ten years with the divestment period prior to fund closure usually lasting a further 2 years (hence why it is referred to as 10+2). The partnership's general partner (GP) makes direct investments, monitors these and at an appropriate time juncture exits investments to secure a return for the LP investors. The GP usually invests in the LP's funds over an investment period of between three & five years. During the remainder of the fund's life, the GP attempts to achieve the highest possible return for investments upon exiting. When all investments are fully divested, a LP can be terminated or 'wound up'.
Secondaries	The term for the market for interests in VC and PE LPs from the original investors, who are seeking liquidity of their investment before the LP terminates. An original investor might want to sell its stake in a private equity firm for a variety of reasons: it needs liquidity, it has changed investment strategy or focus or it needs to re-balance its portfolio. The main advantage for investors looking at secondaries is that they can invest in PE funds over a shorter period than would otherwise be possible.
Seed capital	The provision of very early-stage finance to a company with a business venture or idea that has not yet been established. Capital is often provided before venture capitalists become involved. However, a small number of venture capitalists do provide seed capital.
Ticket size	Commonly, a minimum and maximum ticket size is set during a fund-raising exercise. Average ticket size is considerably lower in Europe than in the US ¹ .

Explanation of fund stage

- **Balanced fund** – a venture capital (“VC”) fund focused on both early-stage and development, with no particular concentration on either.
- **Early-stage fund** - a VC fund focused on investing in companies in their development stage.
- **Generalist fund** - a fund with either a stated focus of investing in all stages of private equity investment, or with a broad area of investment activity.
- **Growth fund** - funds whose strategy is to invest in relatively mature companies that are looking for capital to expand or restructure operations. Later-stage fund
- **A Venture Capital fund** - focused on investing in later-stage companies in need of expansion capital.
- **Mezzanine fund** – a fund that provides (generally subordinated) debt to facilitate the financing of buyouts, frequently alongside a right to some of the equity upside.
- **Buyout fund** - a fund whose strategy is predominantly to acquire controlling stakes in established companies.

Source: Invest Europe (formerly EVCA)

¹ See for example Talmor and Vasvani (2014). The Extent and Evolution of Pension Funds’ Private Equity Allocations. The Adveq Applied Research Series. Collier Institute, London Business School.

Authors and acknowledgements

Disclaimer: The views and propositions expressed herein are those of the experts and do not necessarily represent any official view of the European Commission or any other organisations mentioned in the Report.

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Authorial team

The authorial team consisted of the following consultants:

- Mark Whittle – CSES (lead author)
- Mike Gardiner - CSES
- Stephan Kreutzer – CSES
- Jan Smit - CSES
- Morten Larsen – Oxford Research
- Ylva Grauers – Oxford Research

Wider contributing team

The wider team contributing to the country research, benchmarking of FoF and case studies included:

- Maria Bernardita Cardenas Arancibia – New Frontier Services
- Jacqueline Snijders – Panteia
- Tommy Span – Panteia

High-Level Expert Advisory Panel

An advisory panel assisted in commenting on the deliverables. This was comprised of a combination of academics (with experience of applied research in evaluating venture capital and Fund of Funds programmes and VC practitioners. The panel was comprised of the following experts who participated in an independent capacity:

- Professor Gordon Murray, University of Exeter Business School
- Professor Marc Cowling, Brighton Business School
- Sophie Manigart, Vlerick Business School and Ghent University
- Wojciech Szapiel, Polish Investment Fund

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A full list of interviews is provided in Appendix A.

Lastly, the study team would like to thank the project officer from DG RTD, Mr Steve Rogers and the Steering Committee for the diligent comment and review process during the study research.

Introduction - study aims and scope

1. INTRODUCTION - STUDY AIMS AND SCOPE

This document contains the Final Report in respect of the study "Assessing the Potential for EU Investment in Venture Capital and Other Risk Capital Funds-of-Funds"². The assignment was carried out by the Centre for Strategy & Evaluation Services ("CSES") and Oxford Research, supported by Panteia and New Frontier Services. The views expressed in this report are the sole responsibility of the authors and do not necessarily reflect the views of the European Commission.

1.1 Study aims

The study aims and objectives are, in summary, to:

- Examine whether there is a need for further EU public intervention in the European Venture Capital ("VC") market in order to attract the private sector back to the VC asset class.
- Assess the rationale for using fund of funds ("FoF") as a delivery mechanism for equity investment.
- Analyse the scope for EU investment in FoF, either by setting up a pan-European VC FoF or by investing in one or more public-private, cross-border FoF.
- Identify and review alternative configurations of a possible pan-European or multi-country FoF during the set-up, operational and exit phases.
- Examine the possibility of the EU investing in existing regional, national or transnational FoF, and also consider the scope for setting up a pilot FoF.

The study's origins stem from a number of relevant EU policy and other developments relevant to the setting up of a pan-European FoF (or FoF programme) over a five year period. In March 2010, Invest Europe (formerly EVCA), issued a position paper on VC³ that included a recommendation for the EU to promote FoF with a significant allocation to VC. This was followed up by further position statements in November 2011 and November 2014⁴. In the European Council conclusions of February 2011⁵, the European Commission ("EC") was invited to present a proposal for putting in place an EU-wide VC scheme building on the activities of the EIF and other appropriate financial institutions, in cooperation with national operators. In October 2011, the former DG Enterprise & Industry (now DG GROW) held a workshop on VC FoF⁶.

² The study is part of a Framework Contract for the provision of services to the Commission in the field of evaluation of research and innovation programmes and policies" (Framework Contract: 2012/s 144-240132).

³ <http://www.evca.eu/media/27397/evca-venture-capital-white-paper.pdf>

⁴ Invest Europe's position statements: <http://www.scribd.com/doc/213369256/EVCA-FoF-Position-Nov-2011> and http://www.investeurope.eu/media/340371/141109_EVCA_FOF_scheme.pdf

⁵ EUCO 2/1/11 REV 1, para 22: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/119175.pdf

⁶ Summary report of the FoFs workshop: <http://www.scribd.com/doc/213367902/Workshop-VC-FoFs>

Introduction - study aims and scope

Strengthening access to risk capital financing (including equity capital) is among the central planks of the EU policy framework in this area. Significant EU funding of €1.13bn has been made available in 2014-2020 through the Single EU Equity Financial Instrument⁷. The ideal outcome from the study is to determine a possible way forward for subsequent EU policy interventions to strengthen the European VC ecosystem. The legal bases of the 2014-2020 COSME and Horizon 2020 programmes adopted in December 2013 contain legal provisions for EU investments to be made into FoFs⁸.

The rationale for the study is to investigate the potential role of VC FoF as a mechanism to support EU research and innovation policy, which includes support for innovative start-ups and SMEs with high-growth and internationalisation potential. The 'Access to Risk Finance' component of the 2014-2015 Horizon 2020 work programme contains provision for a study to assess the potential for EU investment in fund of funds (FoF)⁹.

1.2 Study scope

There are a number of aspects to the study scope, namely the:

- **Thematic scope** – the focus is on seed and early-stage VC, although the extent to which market failures can be identified in respect of other investment stages has also been examined.
- **Geographic scope and the Types of FoF within scope** – the benchmarking analysis of existing public-private partnership initiatives to set-up and operate FoF focused on Europe. The focus was on identifying the main characteristics and to the extent possible, the performance parameters of publicly-backed FoF within the EU. Reflecting the global nature of VC, international benchmarking comparisons were carried out between the EU and key global competitors, such as the US, Canada and Australia to assess the state of development of FoF and to compare the average size of VC funds and key performance parameters, to the extent data was available on returns. Examples of international initiatives to attract private sector investors and FoF managers back to VC have also been analysed, such as the VCAP FoF scheme in Canada.

⁷ This includes the COSME Programme for SMEs and within Horizon 2020, up to €690m and the InnovFin SME Venture Capital Facility, up to €430m. These programmes are the successor programmes and build on predecessor programmes from the previous 2007-2013 programming period.

⁸ For COSME, see Art. 18 4. (b) and Art. 5 of Regulation (EU) 1287/2013 - page 43 of <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0033:0049:EN:PDF>.

For Horizon 2020, see Council Decision 2013/743/EU (Specific programme) — p. 996 of http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/sp/h2020-sp_en.pdf

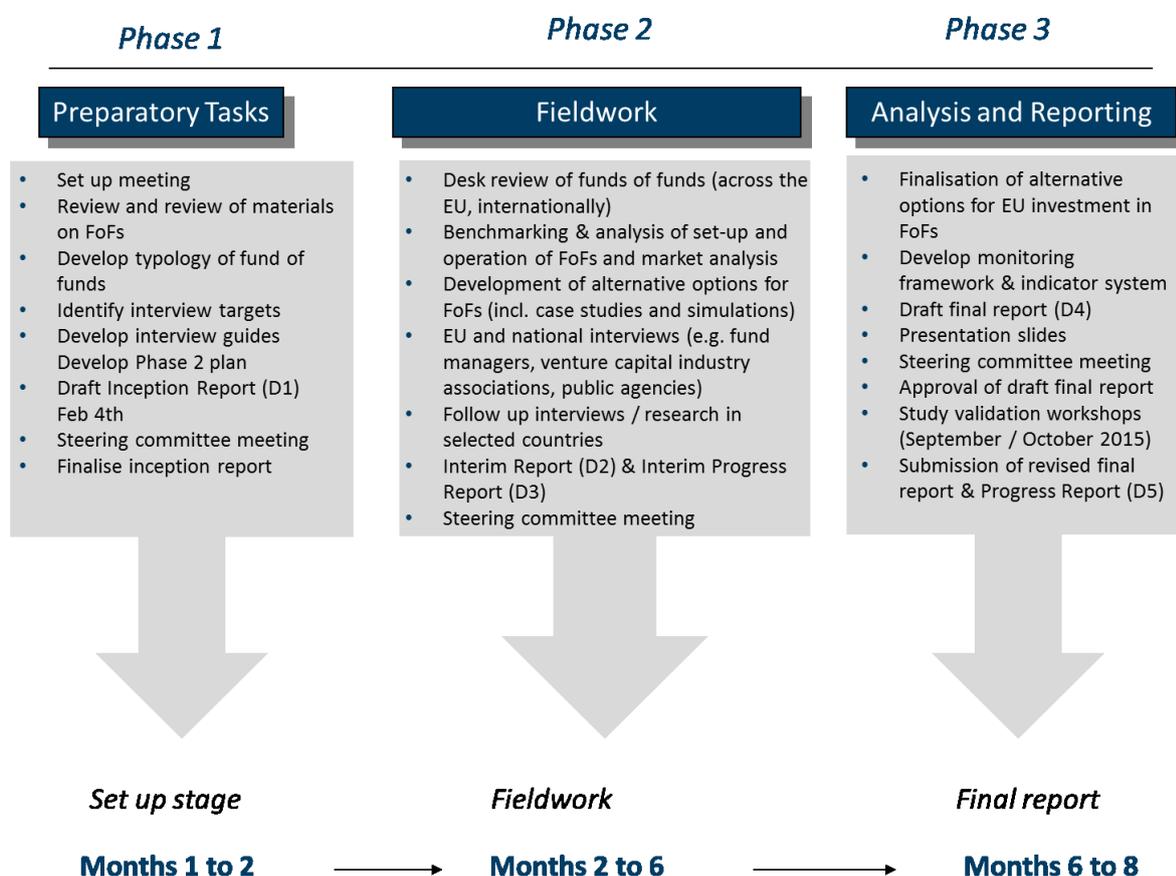
⁹ Action 10 in http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-finance_en.pdf

Introduction - study aims and scope

1.3 Methodological approach

The methodological framework used to carry out the study is summarised in the figure below:

Figure 1 – Methodological overview



The assignment was undertaken over three phases, consisting of (i) a structuring phase, (ii) the core fieldwork and data collection phase and (iii) an analysis and report writing phase. The following aspects of the research should be highlighted to demonstrate that the findings are evidence-based:

- An extensive literature review was carried out, supported by an assessment of key industry data on trends and developments in European VC.
- An extensive review of performance data of the VC asset class in Europe and in competitor countries outside the EU was undertaken (see Appendix E - performance data and benchmarking).
- A problem analysis was undertaken supported by a demand and supply-side assessment of European VC.
- The analysis of **supply** focused on: identifying the relative importance of different sources of investment in the European VC asset class by investor type (e.g. high net-worth investors, business angels, single family offices, pension funds). The changing investor base and the increasing dependence of European VC on the public sector were examined.
- The analysis of **demand** focused on whether innovative firms with high-growth potential could obtain access to capital and whether there is a sufficient flow of high-quality, investor-ready start-ups and existing firms seeking growth and expansion capital.

Introduction - study aims and scope

- A mapping and benchmarking exercise was undertaken of existing publicly-backed FoF funded at national level and by the EIF, as well as of EU risk capital financing instruments in the 2007-2013 and 2014-2020 programming periods.
- The focus of benchmarking individual FoF was to gain an understanding of the main characteristics relating to their set-up, operation and performance. Among the parameters assessed were their size, sources of financing, sectoral focus and the investment stage(s) they covered.
- A review of the managerial set-up, remuneration arrangements and performance incentives for FoF managers was carried out.
- An interview programme was undertaken with 105 stakeholders active in (or with an interest in) the European VC ecosystem and in supporting innovative start-ups and SMEs, such as with investors (LPs), public and private FoF managers, VC managers (GPs), and national VC associations.
- An assessment of the different policy options and sub-options was conducted based on stakeholder feedback. Issues relating to the design, set-up and operation of a possible future pan-European FoF were analysed, such as how many FoF should be set up within a FoF programme, their target size, selection criteria, alignment of interest, investment period, the procurement mechanism for appointing a FoF manager, management incentives for FoF managers and the returns structure for investors (e.g. asymmetric returns vs. pari passu).
- In order to help advise the EC in “operationalising” a pan-EU FoF, relevant EU legislation on state aids and pertaining to setting up new financial instruments has been reviewed in detail, notably:
 - Title VIII of the EU Financial Regulation, which addresses financial instruments (applicable to the general budget of the Union and its rules of application).
 - Article 21 of the 2014¹⁰ revised General Block Exemption Regulation (GBER).
- In order to validate the study findings, the conclusions and recommendations were presented at a workshop held on 24th September 2015 to present the findings to the Commission services.

¹⁰ Aid for access to finance for SMEs Risk finance aid (Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty.

Introduction - study aims and scope

1.4 Structure of report and supporting documents

An overview of the structure of the **Final Technical Report** is now provided:

Section	Detail
Section 2	<ul style="list-style-type: none">• Outlines the importance of ensuring continued access to equity capital (seed, venture, growth and expansion) for high-growth start-ups and SMEs (“gazelles”).• Analyses the role of FoF as an intermediary mechanism to enhance the supply of funding to the European VC asset class.
Section 3	<ul style="list-style-type: none">• Examines the problem definition and assessment of demand and supply-side issues linked to the problem definition.• Provides an analysis of the intervention logic.• Definition of policy objectives.
Section 4	<ul style="list-style-type: none">• Identification and analysis of the different options / sub-options and their relative advantages/ disadvantages.• An assessment of the feasibility and risks associated with implementing the different options.• Analysis of stakeholder views within the European VC ecosystem on the options.• Identification of a policy option preferred by a majority of stakeholders, and consideration as to whether any supplementary options might be implemented either in parallel or subsequently.• Assessment of state aids issues relating to setting up EU risk capital financing schemes.
Section 5	<ul style="list-style-type: none">• Overall conclusions and recommendations on implementation.

There are in addition a number of supporting standalone documents:

Supporting document 1 – Technical Annexes

- The appendices provide detailed evidence to support the core research findings.
- **Appendix A:** List of interviews completed during the study.
- **Appendix B:** Case studies.
- **Appendix C:** Literature review to examine the findings from previous evaluations and studies to examine the efficiency, effectiveness and impacts of different equity instruments. Review of existing fund of funds
- **Appendix D:** Country Fiches presenting the situation with regard to venture capital, key stakeholders in VC, existing funds and FoF and regulatory framework in EU Member States.
- **Appendix E:** Performance data and benchmarking of the European VC asset class, international comparisons.
- **Appendix F:** Bibliography. A list of studies, evaluations, research papers and other information and data sources examined.

Introduction - study aims and scope

Supporting document 2 – Assessment of key implementation issues - setting up and operating a pan-European Fund of Funds Programme.

- This document addresses the 16 issues identified in the Tender Specifications relating to the set-up and operation of a public-private pan-European FoF, together with a review of exit mechanisms and returns structures. A benchmarking assessment of existing approaches to the set-up and operation of FoF is provided, and the merits and drawbacks of different alternative FoF models are considered. This document provides evidence to support the proposed configuration of a pan-European FoF programme and of individual FoF, drawing on the evidence obtained through the benchmarking of existing FoF.

Supporting document 3 - Country fiches on VC provision.

- This document contains country fiches in a representative sample of 12 EU Member States to examine the state of development of the VC industry. This includes a focus on both countries with more mature VC markets and on under-developed markets. The extent to which equity capital provision is available to innovative SMEs through angels, seed and early-stage VC, and possible barriers is examined.

2. PROBLEM DEFINITION, INTERVENTION LOGIC & POLICY OBJECTIVES

This section examines the importance of access to equity capital (seed, venture, growth and expansion) for high-growth, innovative European start-ups and firms. A detailed demand and supply-side analysis is also provided as part of the problem definition. An assessment of the intervention logic is then provided. The definition of policy objectives is also provided.

Table 1 – Key points

The role of equity in the SME financing lifecycle

1. Although equity only represents a small percentage overall of SME sources of finance, but it is crucial to facilitate the accelerated growth and development of high-growth innovative gazelles.
2. Following the global economic and financial crisis, banks are becoming more risk-averse, especially for start-ups investing in innovation. This trend has been exacerbated by EU regulation (e.g. Basel III to tighten capital adequacy ratios). This may increase demand for financing from alternative forms of financing (equity, crowdfunding and angels).
3. The long-term view required by investors in highly innovative firms, which often only realise full returns after several years, is conducive to equity financing.

Problem definition

4. The rationale for EU intervention is driven by supply-side failures in respect of access to innovation financing for SMEs throughout the equity financing lifecycle.
5. Supply of VC has fluctuated in Europe, and private participants have exited the market due to low returns. Structural weaknesses of the European VC market relate to small average fund size, fragmentation and geographic imbalances, and a lack of cross-border investment.
6. Despite a more positive trend in the European VC asset class' performance in the previous 2-3 years, there has not been a corresponding increase in fund-raising activity, only in later stage PE (buy-outs).
7. The small maximum ticket size and lack of scale deters institutional investors.
8. The prevailing framework conditions (regulatory, fiscal, culture of entrepreneurship, availability of talent) drive the supply-side dynamics in Europe.
9. The public sector is trying to address these supply-side failures and to attract international capital.
10. The dominance of public money implemented on behalf of the EC through the EIF means that there is a need to promote greater diversity of sources of investment in the VC market.

Intervention logic

11. The baseline situation is characterised by an over-reliance on the public sector as a financing source within the European VC market, a lack of private sector interest and opportunity costs in not tapping into global sources of capital from international investors.
12. Funding instruments such as Horizon 2020 and new instruments such as the EFSI are among the prospective sources of funding (**inputs**).
13. The expected **results** are larger average size of VC funds and increased private sector funding of European VC. The anticipated **impacts** range from the enhanced attractiveness of European VC to international investors, greater ability to support start-ups throughout the equity financing lifecycle, retaining the high-growth potential of innovative gazelles in Europe, thereby enhancing the contribution of European VC to Europe 2020 and the jobs and growth agenda.

Policy objectives

14. In supporting VC through existing equity-based instruments (and possibly the implementation of additional complementary objectives), the EU pursues a number of policy objectives. These include, among others: ensuring access to equity finance for innovative, high-growth start-ups ("gazelles") during economic downturns, promoting the global competitiveness of European VC by attracting the private sector to the asset class, thereby strengthening its future sustainability.

Policy context & mapping existing provision

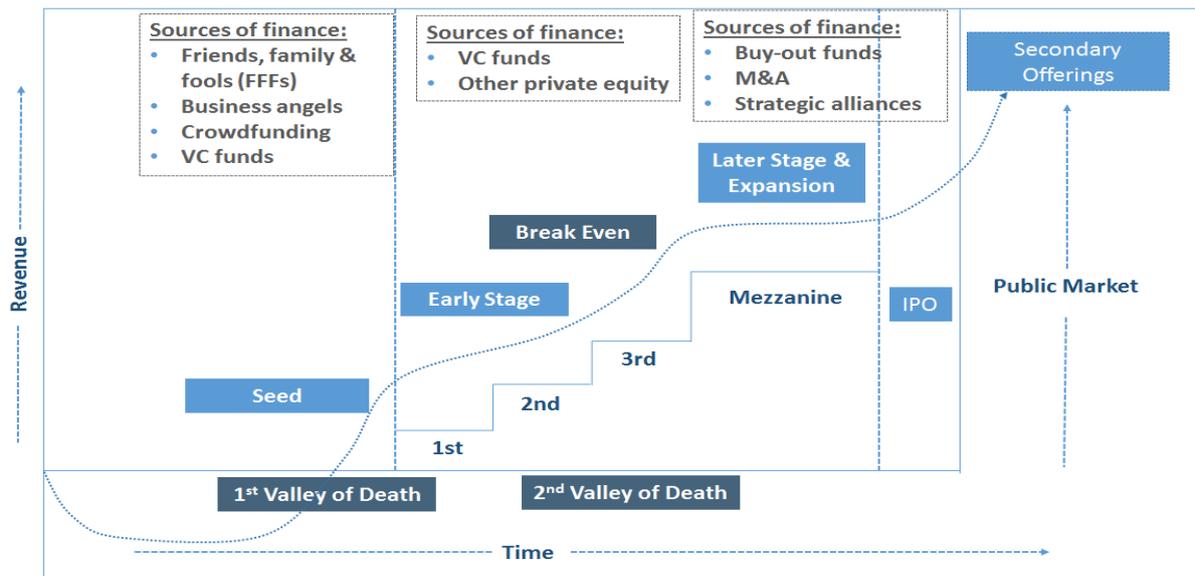
2.1 The role of risk capital in providing finance for innovative start-ups and SMEs

2.1.1 The SME financing lifecycle

SMEs are a major asset to the European economy since they represent 99% of all businesses, account for 86 million jobs equalling 65.5% of all European jobs and contribute € 3.4 trillion to European GDP in 2012.¹¹ At the same time, 24% of European SME managers are not confident they will obtain the financing they need in the future and 15% of them mentioned access to finance as the most pressing problem for their business.¹²

Moreover, Europe lags behind the US when it comes to the size of innovative technology-based companies. According to Bank of America Meryl Lynch, measured in terms of market capitalisation, North America accounts for 69% of firms globally compared to a mere 3% in Europe. Start-ups and SMEs need to raise capital during the different stages of the SME financing lifecycle in order to grow at different stages in their development trajectory. The sources of finance will vary depending on the stage of development. For instance, at the ideas/ conceptual stage, (pre-seed and seed), the so-called three Fs – friends, family and fools, and business angels, are an important source of finance for many entrepreneurs. At the early-stage and later stage growth period, loans are the most important source of finance for most SMEs. This is summarised in the following figure:

Figure 2 - Financing sources for start-ups and SMEs by investment stage



Source: CSES

There are two points in the SME development lifecycle when start-ups and early growth stage firms risk succumbing to the 'Valley of Death'. Post start-up stage, as firms embark on the early growth stage, they continue to require a combination of funding to cover working capital requirements but also to invest in RTDI, production capacity, and in developing both the quantity and quality of their human resources. Secondly, following the first round of financing, as firms seek to grow, during the early growth stage, particularly for RTDI-intensive SMEs, they will incur a lot of upfront operating costs. Such firms will remain vulnerable to cash-flow problems as the business expands. During the early growth stage, additional financing is usually scarce, leading to cash flow strains before breakeven is achieved. Post-breakeven, firms may still risk closure if they cannot obtain the later stage and expansion funding needed to grow.

¹¹ Annual Report on European SMEs 2012/2013. P. 6 & 11

¹² 2013 SMEs' Access to Finance survey. Analytical report. http://ec.europa.eu/enterprise/policies/finance/files/2013-safe-analytical-report_en.pdf

Policy context & mapping existing provision

A high proportion of start-up firms will fail before a steady revenue stream can be established for a variety of reasons, such as difficulties in raising follow-on funding within an adequate timeframe, a lack of sufficient investment in innovation and R&D to bring new products and services to the market in a sufficiently timely manner and organisational and managerial challenges in expanding sufficiently quickly. According to a report for Invest Europe¹³ "some evidence points to private-equity-backed companies being less likely to fail than companies on average and a higher productivity of 6.9%". It is difficult to generalise about survival rates, since a distinction can be made between:

- **External variables**, such as the stage in the economic cycle, which influences the extent to which financing to optimise growth potential is likely to be available.
- **Firm-specific variables**, such as the sector in which the firm operates, the level of innovation and its growth prospects, and the types of products and services the firm specialises in.

2.1.2 The equity lifecycle and the role of equity capital

Equity capital (including hybrid equity and loan instruments) is an important financing source for high-growth, innovative start-ups and SMEs. However, it should be noted that the use of equity capital is atypical and only represents a very small percentage of all start-ups and SMEs. According to an economic analysis¹⁴ to support the September 2015 Communication on a Capital Markets Union¹⁵, only 4% of micro firms and 6% of small firms utilise equity finance.

Table 2 - Use of financing instruments by non-financial corporations

	Micro	Small	Medium	Large
	<i>(percentage averages out of total sample over 2009-2014)</i>			
Retained earnings	24	30	38	46
Grants/subsidised loans	12	16	20	22
Bank overdrafts	38	43	40	42
Bank loans	28	39	43	48
Trade Credit	26	30	35	38
Other loans	9	12	19	28
Leasing	19	40	50	56
Debt securities	1	1	1	4
Mezzanine	1	2	4	6
Equity	4	6	8	9

Sources: ECB and European Commission Survey on the access to finance of enterprises.

However, although small in absolute terms as a percentage of total SME financing needs, they are **crucial to the success of Europe's economy**, since firms benefiting from equity financing are characterised by:

- An accelerated growth trajectory compared with the majority of European start-ups / SMEs;
- A high level of innovation (not only in products and services, but also organisational and process) growth and employment potential;
- Strong potential scope to scale up and internationalise.

¹³ Exploring the impact of private equity on economic growth in Europe, May 2013, Frontier Economics, London.

¹⁴ SWD(2015) 183 final

¹⁵ Action Plan on Building a Capital Markets Union, Brussels, 30.9.2015, COM(2015) 468 final

Policy context & mapping existing provision

Start-ups and SMEs accessing equity financing not only gain access to capital, but are also able to tap into the entrepreneurial and managerial expertise of angels and VC fund managers. Many VC fund managers have significant operational experience in the development of scale businesses, and through their networks of contacts are able to put entrepreneurs in contact with strategic partners and are able to provide financial and strategic advice relating to subsequent investment stages thereby helping to accelerate the development trajectory of firms.

There are a number of different types of equity financing and mechanisms through which SMEs can access such capital. These include business angels¹⁶, seed and venture capital funds, but also equity-based crowdfunding platforms. The different types of equity funding by round to meet the financing requirements of innovative start-ups and high-growth firms are summarised in the table below:

Table 3 - The equity lifecycle - range of funding by investment stage

<i>Investment stage</i>	<i>Funding range (€)</i>	<i>Average funding realised (€) 2010-14</i>	<i>Description</i>
Pre-seed and seed capital First stage of VC financing	25,000 – 1m	357,000 (in the US, by contrast, 60% of seed deals in 2014 were above \$ 1 million)	<p><u>Pre-seed financing</u> is designed to research, assess and develop an idea or initial concept before a company has reached the formal start-up process.</p> <p><u>Seed financing</u>. The enterprise may have already been formally set-up but is at a very early-stage in its development. Investors are often either angels or public seed funds. The level of funding required depends on the type of firm & sector. EUR 250,000 to EUR 1 million – top-ranking VC firms’ seed investment. Publicly backed seed investments are often in lower range.</p>
Early-stage capital Second stage of VC financing	500,000 – 2m	1458m (in the US, deals range from \$ 500,000 - \$ 25m)	<p><u>Early-stage capital</u> allows firms to grow that may already have developed a product or service but have not yet achieved breakeven or they may still be in the process of refining their product and service before bringing it to the market commercially. This initial development stage can be capital-intensive.</p>

¹⁶ Angels are often engaged at an individual level in pre-seed and seed funding, and provide advice and mentoring support to management. Through angel syndicates, they may be in a position to provide early-stage follow-on funding.

Policy context & mapping existing provision

Investment stage	Funding range (€)	Average funding realised (€) 2010-14	Description
Later stage Third stage of VC financing (known as “Series C”)	2m –5m	2341m (in the US, almost 30% of all late stage VC deals in 2014 were above \$ 25m)	<u>Later stage</u> financing facilitates firm growth, also often pre break-even. Additional capital may be used to finance increased production capacity, market or product development, or to provide working capital. The product or service provided by the firm should be in production and be commercially available. The company demonstrates significant revenue growth, but may or may not yet be profitable.
Expansion capital Fourth stage of VC financing (known as “Series D”)	5m-100m	7164m	Growth-stage capital is often invested through the Series C and Series D rounds. At the <u>expansion stage</u> , the firm has already reached (or is approaching) breakeven. Expansion capital is a crucial area within the VC ecosystem since it is at this point when recipient firms have scope to scale up and to internationalise their activities. If no funding is available within Europe at this stage, many high-growth firms seek funding and migrate to the US. This means European early-stage investors and the European economy misses out on value crystallisation (jobs and wealth creation potential being greatest in high-growth firms with international scalability potential). <u>Mezzanine (bridge)</u> – mezzanine finances the step of going public and represents the bridge between expanding the company and the IPO. IPOs are however much less common in the EU than in the US.
Replacement capital	NA	NA	Purchase of shares from another investor, possibly via an IPO/secondary offering or a trade sale, or to reduce gearing via the refinancing of debt.

Source: CSES, European data on average funding by investment stage based on EVCA data; US data based on Pitchbook 2015 Annual US Venture Industry Report

There are significant differences in the **average size of fundraising at different investment stages between the European and US VC ecosystem**. Consequently, there are different interpretations as to which funding range defines a particular investment stage. Within the EU, the funding range by investment stage depends on the market geography and state of market maturation, the sector, RDI intensity, market lead times and other factors. Data on the average size of VC funds by investment stage is provided in Section 2.2.2 – supply-side analysis.

2.2 Problem definition

A problem definition has been carried out, which includes a thorough demand and supply-side analysis, supported by appropriate data. Comparisons are also made between the structural characteristics of the European and international VC sectors.

The analysis of the problem incorporates the following elements:

- Describe the nature and scale of the problem, supported by clear evidence;
- Identify clearly the drivers or underlying causes of the problem;
- Describe how the problem has developed over time and how existing policies at EC or MS level affect it;

Policy context & mapping existing provision

- Identify a clear baseline, i.e. describe how the problem is likely to develop in future without EU intervention;
- Identify assumptions made, risks and uncertainty involved; and
- Describe why the problem needs action at EU level (note – this is provided later in the study, in the conclusions and recommendations section).

The above elements are addressed in this sub-section, which is split up into a demand and supply-side analysis of the European VC market in recent years. An assessment of historical performance returns in the asset class is also provided in Appendix E.

Key hypothesis for the problem definition:

Innovative, high-growth European SMEs with world-class potential need access to finance in order to grow, and to scale-up and internationalise their activities.

However, there is evidence of continuing structural problems in the size and scale of the European venture capital industry, which is characterised by small average size of VC funds compared with the US, leading to over-fragmentation (also due to their geographic dispersal). It is moreover difficult for some European VC firms to support investee companies throughout the equity investment lifecycle, with evidence that fast-growth European gazelles often decide to relocate to the US during their expansion phase.

The inter-play between **demand-side** and **supply-side failures** in respect of equity financing for innovative start-ups and SMEs is central to investigating the rationale for further EU intervention through a possible future pan-European public-private FoF.

2.2.1 Demand-side analysis

Demand for equity finance will vary according to:

- **Macro-economic factors** – the prevailing economic environment, economic fluctuations such as the recent global economic and financial crisis, sectoral growth rates, etc.
- **Micro-level factors** - the growth and internationalisation potential and level of ambition of individual start-ups and SMEs, the degree of innovativeness and technological intensity of the product/ service offering developed by the start-up/ SME.

Innovative firms with high-growth potential need **access to seed and early-stage risk capital to support their accelerated growth and internationalisation**. However, equity finance is only appropriate for a small percentage of start-ups and SMEs among the total European SME population, including those who seek to accelerate their growth and internationalisation.¹⁷

An economic analysis¹⁸ to support the September 2015 Capital Markets Communication suggests that equity finance is used by only 4% of micro firms and 6% of small firms. This corroborates an earlier 2013 survey of SMEs' access to finance by the EC¹⁹, which found that equity financing was used by 5% of European SMEs in the previous six months, down from 7% in 2011. It was most likely to be used by publicly-listed SMEs (17%), SMEs with a turnover higher than € 50m (10%) and gazelles (9%), which are high-growth firms with an accelerated development trajectory.

¹⁷ An economic analysis to support the September 2015 Capital Markets Communication suggests that equity finance is used by 4% of micro firms and 6% of small firms. http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-economic-analysis_en.pdf

¹⁸ http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-economic-analysis_en.pdf

¹⁹ http://ec.europa.eu/enterprise/policies/finance/files/2013-safe-analytical-report_en.pdf p. 6

Policy context & mapping existing provision

Although demand is difficult to predict, the **popularity of equity capital may grow among entrepreneurs in general and gazelles in particular**, set against a background of more stringent regulations on capital adequacy (e.g. Basel III). Banks are more reluctant to invest in start-ups and SMEs because of the higher perceived risks associated with investing in seed and/ or early stage and associated low survival rates. This has made it more likely that alternative financing forms are embraced, including external equity. Previous experience of implementing EU funded equity instruments such as the High Growth and Innovative SME (GIF) within the Competitiveness and Innovation Programme 2007-2013 suggests that demand for equity finance among start-ups and SMEs is likely to remain strong.

There are however some **demand-side bottlenecks**, such as poor investment-readiness among start-ups and early-stage growth firms is a barrier to using risk capital (indeed, there are a number of pilot instruments under Horizon 2020 designed to address this problem). Since the VC industry has experienced a significant decline in participation by the private sector, the remaining private equity players in the European VC asset space have exacting standards in selecting deals and have access to the best deal flow globally. This means that only the best start-ups and SMEs secure equity capital. An interviewee commented that “only a tiny minority of European SMEs would meet their exacting standards”.

The **high level of selectivity by top-performing fund managers in making equity investments in European start-ups and SMEs** could paradoxically be regarded as a virtue. By being highly selective and only supporting high-growth potential start-ups and early-stage firms, this should improve the performance of the European VC asset class in the medium and longer term by strengthening quality on the demand side (i.e. entrepreneurs) and the supply side (GPs and LP fund managers). This should lead to higher investment multiples (provided a benign of positive economic environment).

The fact that VC is only suitable for a small percentage of innovative European start-ups and SMEs does not negate the potentially significant contribution of the European VC asset class to the European economy and the growth and jobs agenda. A disproportionate share of Europe’s future economic growth and jobs are likely to be generated by a small percentage of high-growth European SMEs, as demonstrated in previous literature on ‘gazelles’²⁰.

Spotlight on gazelles

There are different definitions as to what constitutes a firm that has successfully made the transition from being a high-growth firm to a “gazelle” but academic literature suggests that the term can be applied to firms with a turnover growth rate of at least 20 % p.a. for three or more consecutive years (Birch & Medoff, 1994; Birch, Haggerty, & Parsons, 1993; Reuber & Fischer 2005; Nicholls-Nixon, 2005, Sims & O’Regon, 2006; Tatum, 2007). Autio, Arenius, & Wallenius (2000) and Acs, Parsons, & Spencer (2008) however define high growth firms as firms that obtain at least 50% turnover growth during each of three consecutive financial years.

In a recent UK study²¹, it was observed that demand for equity finance is not always linked to the economic cycle and may be driven by other factors, such as a greater willingness among entrepreneurs to use risk capital. It was noted that “whilst demand for equity finance has increased since the financial crisis, access to it has become harder”. This was also due to the fact that alternative financing sources, such as bank and mezzanine finance, have become more difficult to obtain during the crisis.

²⁰ Gazelles -High-Growth Companies- Final report Task 4, Horizontal Report 5, Europa Innova, January 2011
K. Mitusch and A. Schimke (University of Karlsruhe (TH)).

²¹ The Role of UK Government Equity Funds in Addressing the Finance Gap facing SMEs with Growth Potential, Robert Baldock, CEEDR, Middlesex University Business School

Policy context & mapping existing provision

2.2.2 Supply-side analysis

This section is structured around the following headings:

- Overall trends in the supply of European venture capital;
- Funding by investment stage;
- Funding by source of capital / type of investor (including a comparison with sources of funding to support VC in the US and EU);
- Performance returns and exits;
- Geographic fragmentation and concentration of the VC market in Europe;
- The role of wider alternative asset classes (business angels and crowdfunding);
- Supply-side baseline situation – summary of key problem drivers; and
- Challenges in attracting international investors.

2.2.2.1 Overall trends in the supply of European VC

This section sets out data on the size of the European VC industry and highlights recent key trends and developments in the provision of VC in Europe and internationally. It also examines the size of the European VC industry and makes international comparisons.

Since the early 2000s, many **private sector investors have exited the European VC asset class**. This trend began with the “dot com crash” (early 2000s) and accelerated during the economic and financial crisis (2007-2009) and the sovereign debt crisis of 2011-2013.

It can be noted however that the industry has only existed since the early 1980s, and there have always been fluctuations, reflecting economic cycles and market shocks. However, **fluctuations in risk capital financing supply have become more frequent and pronounced**.

Whereas returns have improved, and investment is picking up in European VC, fundraising according to some figures has dropped from 2012-2014 by 33%, unlike in the US where it grew by 45% over the same period.²² This **mismatch between VC returns and investment on the one hand, and fundraising on the other can be interpreted as a market failure**.

Invest Europe data shows that European VC funds lack scale and are only half the size of their US equivalents²³. Between 2007 and 2012, the average size of European VC funds (at final closing) was €61 million and 50% of all VC funds were smaller than €27 million, as shown in the table below.

Table 4 - Average size of a European Venture Capital Fund (2007-2012)

	Amounts in € millions	Number of funds	Average (in € millions) Fund size	Median (in € millions) fund size
Early-stage	7,488	126	59	25
Later stage venture	3,091	41	75	36
Balanced	7,018	120	58	28
Total Venture	17,597	287	61	27

Source: EVCA/PEREP Analytics

²² BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought. P. 6

²³ However, broad-brush geographic comparisons can be misleading since there is a need to compare key innovative regions in Europe and the US to look at specific eco-system level characteristics.

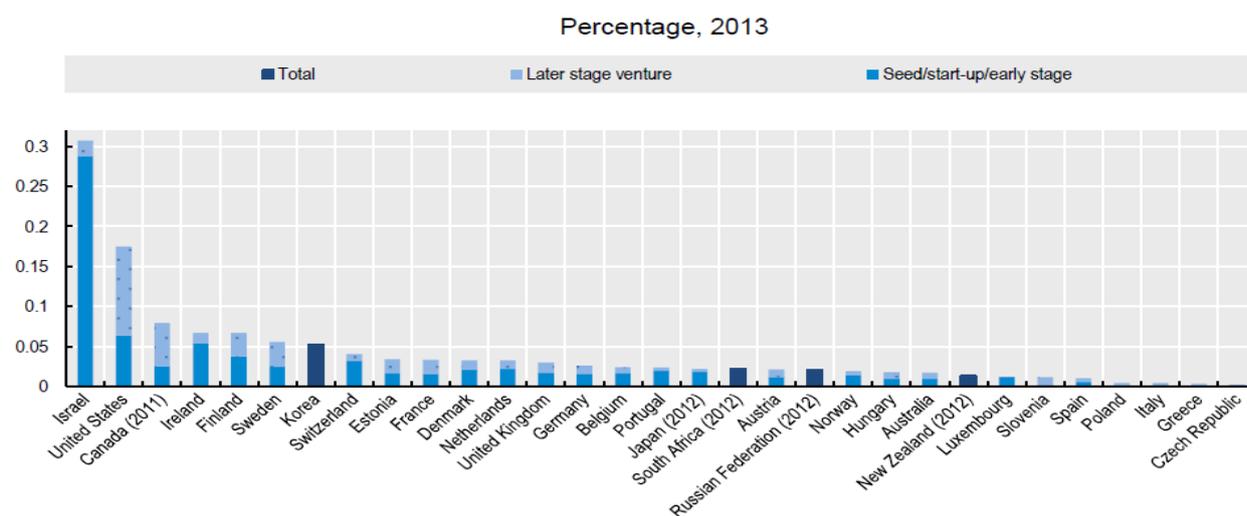
Policy context & mapping existing provision

The average size of mid-market funds is €500 million - € 2 billion and over €2 billion for large buyout funds.²⁴ In contrast, the average US VC fund in 2014 was \$130 billion in size. But even in the US, 360 out of 635 VC firms managed \$25 million or less.²⁵ In the same year, \$3,480 billion were invested in the US VC market compared to only \$1,395 billion in Europe.²⁶

Reflecting both an improving economic environment and an improvement in performance returns, there was significant capital-raising during 2013 and 2014 for late stage and buy-out funds. For example, growth fundraising of €1.8billion was the highest level in three years, an increase of nearly 70% compared to 2013. However, interest among investors has not yet returned to European VC.

The scale of VC activity in Europe is lower than in the US. Data sources²⁷ show that the total level of VC activity in Israel, the US and Canada is significantly higher than in Europe. A 2014 OECD report²⁸ noted that in the majority of EU countries, “VC represents a small percentage of GDP, often less than 0.04%. Exceptions are Israel and the United States, where the VC industry is more mature and represented 0.3% and 0.2% of GDP respectively”. Differences in the level of VC investment as a percentage of GDP between Europe and international comparators are shown in the figure below.

Figure 3 - Venture capital as a percentage of GDP



Source: *Entrepreneurship at a Glance, OECD, 2014 (c.f. pp 90-91)*

The percentage of GDP invested in European VC (seed, early-stage or later-stage) EU28 was 0.05 or below in 25/28 EU Member States (the exceptions being IE, FI and SE). A 2015 report by BCG²⁹ confirms that “European VC investments equalled 0.03% of European GDP whereas US investments was 0.14% of US GDP. In 2014, the share increased to 0.05% in the EU, whereas it almost doubled to 0.29% in the US, demonstrating the dynamics of the US VC market”.

²⁴ Invest Europe. 2014. Position Statement. Accelerating Innovation & Delivering Growth: Using the Jobs, Growth and Investment Package to Attract Private Sector Investors to the European VC Industry. Pg. 6

²⁵ National Venture Capital Association. Yearbook 2015. P. 6 & 20

²⁶ [http://www.ey.com/Publication/vwLUAssets/EY-venture-capital-insights-2013-year-end/\\$FILE/EY-venture-capital-insights-2013-year-end.pdf](http://www.ey.com/Publication/vwLUAssets/EY-venture-capital-insights-2013-year-end/$FILE/EY-venture-capital-insights-2013-year-end.pdf)

²⁷ Sources: Invest Europe 2014 yearbook, MoneyTree Report, Data: Thomson Reuters, Pitchbook PE Breakdown 2014 Annual Report

²⁸ Entrepreneurship at a Glance, OECD, 2014 (c.f. pp 90-91)

²⁹ BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought. P. 7

Policy context & mapping existing provision

2.2.2.2 Funding by investment stage

This sub-section considers the supply of funding by **investment stage**.

Fundraising in the European VC asset class was **concentrated on the buyout sector for more mature companies (78.7% in 2014), whilst VC represented only 9.1%** and generalist funds accounted for 3.1%. Within the PE sphere in 2014, some 75% of funding raised was invested in buyouts whilst only 4.6% was invested in start-ups, 3.9% in later-stage ventures and 13.4% in growth. A mere 0.2% was invested in seed capital.³⁰ The **scale of investment in VC as a proportion of total Private Equity (“PE”) investment does not differ greatly between Europe (9%) and the US (7% in 2013)**.

Table 5 – Incremental funds raised by private equity, 2012 to 2014, €’000

	2012		2013		2014	
Early-stage	2,190,810	8.9	1,714,090	3.2	2,266,770	5.1
Later stage venture	222,540	0.9	341,780	0.6	312,390	0.7
Balanced ³¹	1,461,960	5.9	2,552,440	4.7	1,479,580	3.3
Total Venture	3,875,310	15.8	4,608,310	8.5	4,058,740	9.1
Growth capital	540,590	2.2	1,063,430	2.0	1,796,680	4.0
Buyout	16,729,250	68.1	45,441,990	83.5	35,145,010	78.7
Mezzanine	2,107,660	8.6	1,517,110	2.8	2,266,200	5.1
Generalist	1,326,700	5.4	1,764,420	3.2	1,372,720	3.1
Total funds raised	24,579,510	100.0	54,395,260	100.0	44,639,350	100.0

Source: Invest Europe 2015 Yearbook, Table 2³². Statistics include all PE and VC fund managers investing in Europe, not only EVCA members.

The data shows that in 2014, **buy-outs accounted for 78.7% of incremental funds raised**, far larger than any other category within Private Equity, such as 4% on growth capital and 5.1% on mezzanine. Venture capital accounted for only 9.1% in total, a small proportion of total PE funding overall. Early stage accounted for 5.1%, and later-stage venture 0.7%. Balanced VC funds accounted for a further 3.3% of capital raised. Caution should be exercised in interpreting the figures however, since due account needs to be taken of deal flow volume by investment stage. Investment required at the seed and start-up phases and in the early funding rounds is considerably lower than at later stage or expansion / growth stage (Series C, Series D).

Although international comparisons are made with elsewhere (e.g. Israel and Canada), comparisons are made below between the EU and the US, since the US plays a globally-leading role in European VC and therefore provides a key benchmark.

³⁰ 2014 European Private Equity Activity. Fundraising, Investments & Divestments. P. 30

³¹ Balanced funds make multiple stage investments i.e. a combination of early and later stage.

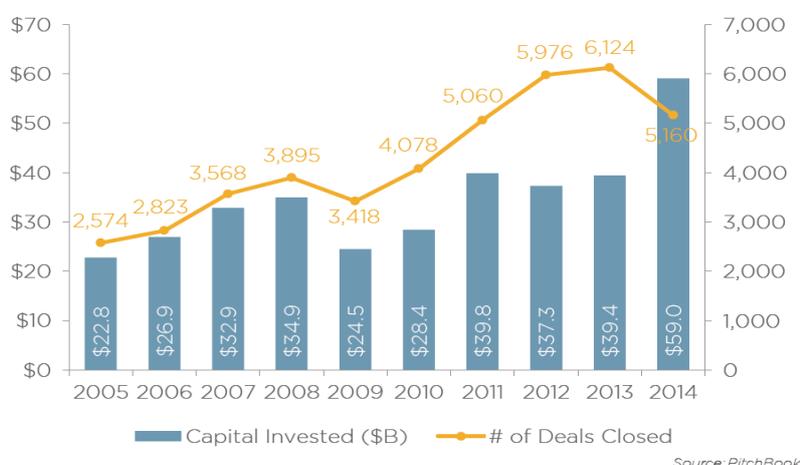
³² Invest Europe data only covers a particular asset class or type of investment into start-up and other early-stage companies. However, the data includes all EIF investment into VC funds in Europe under the category “Government Agency” so long as they are LPs in VC and private equity funds. Since comprehensive market data is not always available, research has also been carried out to estimate the informal, invisible market.

Policy context & mapping existing provision

With regard to **differences between the EU and US in the ease of raising capital by investment stage**, it was noted by many interviewees that it is significantly easier for entrepreneurs to raise Series C and Series D follow-on funding in the US than in Europe. Venture capitalists interviewed stated that SMEs in the US seeking expansion phase capital can raise between two and three times the level of capital at the corresponding investment stage in Europe. Recent studies³³ put this range at between two and five times across all investment stages. Although there has been an increase in the number of VC and buy-out funds focusing on the expansion stage, it appears to be much easier to scale-up and internationalise in the US than in Europe.

The **global economic and financial crisis has had a major impact on the level of VC deal flow in Europe and in the US**. However, it is notable that US VC activity has recovered more quickly, as shown in the following figure, which sets out US VC deal flow by year over the past decade:

Figure 4 - US VC deal flow by year



Source: Pitchbook, 2015 Annual Report on the US Venture Industry.

The data shows that total annual activity in the US VC industry (\$6bn in 2014) is significantly greater than in Europe. Invest Europe data estimates that the total size of the European VC market in 2014 was approximately €3.6bn³⁴, an increase of 6%. However, total equity and other risk capital financing investments (e.g. hybrid equity and loans) may be underestimated, since this extends beyond formal seed and venture capital fund activities, and includes business angels and crowdfunding platforms.³⁵ It should however be recalled that VC supply in the US is concentrated in California (i.e. Silicon Valley area), Massachusetts, Texas and to some extent New York. It does not extend US-wide.³⁶

³³ BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought.

³⁴ European Private Equity Activity Statistics on Fundraising, Investments & Divestments, 2014, INVEST EUROPE.

³⁵ Statistics Compendium, EBAN 2014

³⁶ PWC/National Venture Capital Association. MoneyTree Report. Investments by State Q1 2013 – Q2 2015

Policy context & mapping existing provision

According to Pitchbook's above report, the amount of funding per investment round has increased significantly in the US. The report notes that "\$59 billion was invested throughout the year across 5,160 rounds, representing a 16% drop from 2013 (6,124 rounds). The total dollar amount in 2014 was \$20 billion higher than in the previous year (\$39.4 billion). Over 60% of all VC capital invested went toward \$25 million+ rounds in 2014, versus under half in the previous two years. The proportion of capital invested in \$25 million+ rounds (64%) was easily the highest percentage since the dot-com boom". The data found evidence of lower deal flow overall, but higher average funding by firm at each stage. In other words, high-growth start-ups are scaling up and internationalising more rapidly and in a more capital-intensive way than was previously the case. This can be contrasted with the situation in Europe, where the research identified supply-side bottlenecks in VC funds being able to support investee start-ups beyond Series A and Series B funding rounds.

2.2.2.3 Funding by source of capital / type of investor

This sub-section considers the type of investors that currently invest in European VC across different investment stages. The sources of funding and the role of larger investors are also considered. It is crucial to understand the needs of the institutional investors regarding alternative assets in order to devise an appropriate solution to the problems identified.

A number of trends in respect of funding by source of capital / type of investor can be noted. There has been a **significant reduction in investment in the European VC industry by private LPs relative to the early 2000s**. According to EVCA data, investment has declined by 45% and the level of investment in the European VC asset class has only just recovered from 2007 levels. This downtrend reflects a number of key trends and developments, such as:

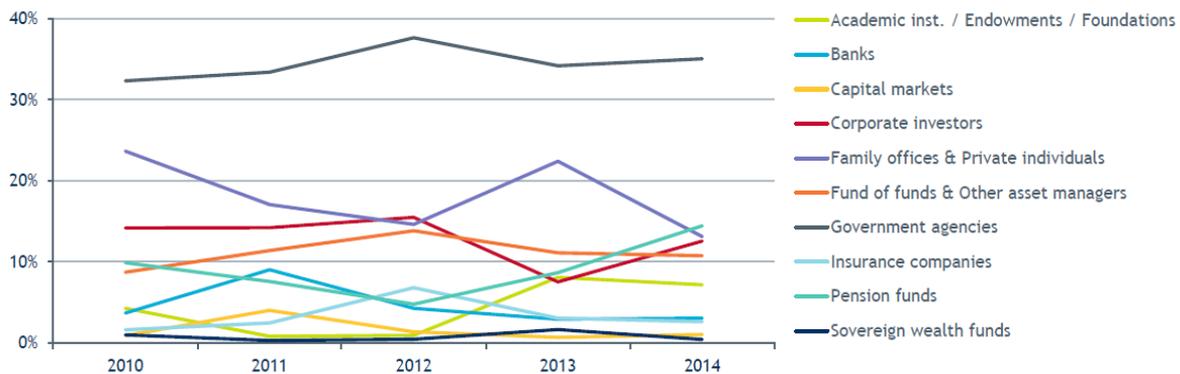
- The poor performance of the European VC asset class relative to other asset classes (see Appendix E) and the inadequacy of commercial returns to justify the higher level of risk;
- The impact of market shocks (the dot com crash) and cyclical fluctuations in capital flows to the European VC asset class (e.g. due to the global economic and financial crisis).
- Regulatory uncertainty associated with the reaction of EU policy makers and regulators to the economic and financial crisis and the strengthening of EU regulation on capital adequacy and solvency (e.g. Basel III, Solvency II).
- This may deter institutional investment but also has effects on the demand side (e.g. entrepreneurs in innovative start-ups may experience difficulties in accessing loan funding).

Many private investors / Limited Partners (LPs) no longer invest in the European VC asset class due to the higher risks and lower performance returns associated with investing in venture. Start-ups and early-stage growth firms have yielded poor returns, which has deterred the private sector from returning to the asset class. However, **individual investors, notably business angels and other high-net worth and ultra-high net worth investors** have continued to invest in European seed and early-stage VC, at least in EU MS where significant tax breaks are offered for investment in start-ups and for divestments made through successful exits.

In response to private investors withdrawing from the market, the **public sector has stepped in to maintain risk capital financing availability during the global economic and financial crisis**. The public sector's role within the European VC ecosystem has consequently increased significantly in the previous since the mid-2000s. According to Invest Europe's 2014 Yearbook, in 2014, **government agencies contributed 35% of the funds** raised followed by pension funds 14%, family offices and private individuals (13%), and corporate investors (13%). North American institutional investors had a share of nearly 13% as set out in the following figure:

Policy context & mapping existing provision

Figure 5 - 2010–2014 – European Venture Capital - incremental amount raised during the year - % of total amount



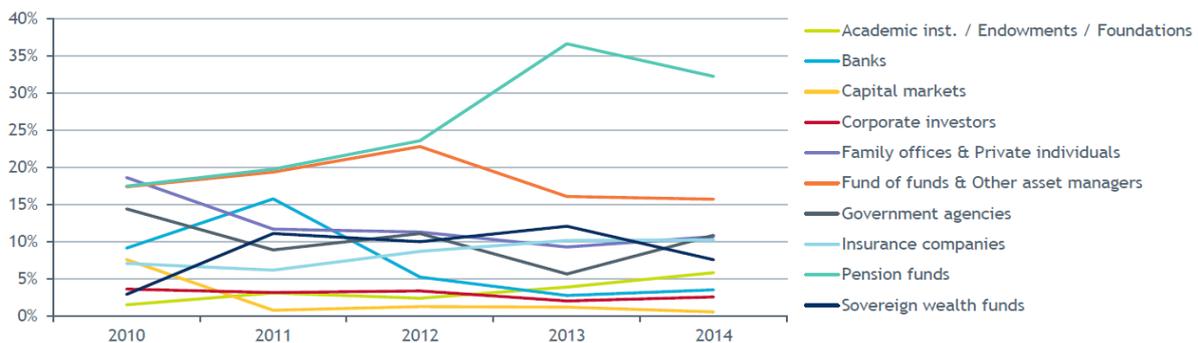
Source: 2014 European Private Equity Activity Statistics on Fundraising, Investments & Divestments³⁷

The data shows the changing sources of investors in European VC in the past five years. European VC funds have become increasingly dependent on public sector funding at a fund of funds level and through direct public-private sector co-investment.

Linkages between sources of capital by type of investor and different investment stages should be noted. For example, pension funds only account for a very small proportion of investment in early-stage and later-stage VC, because they are risk-averse and wary of poor performance returns. However, they are major investors in PE, with an uptrend discernible in the past five years in cumulative investment in growth-stage and buy-out funds.

Across PE investments in Europe overall, different participation patterns are in evidence by type of investor, as summarised below.

Figure 6 - 2010–2014 - European Private Equity - incremental amount raised during the year - % of total amount



Source: 2014 European Private Equity Activity Statistics on Fundraising, Investments & Divestments

³⁷ High net worth individuals and angels account for a significant % of funding for pre-seed, seed and early-stage VC but are not included in the data in the figure, which covers VC fund structures only.

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In 2013, the largest source of funding was the public sector, followed by angel investment from private individuals and syndicates. However, in 2014, EVCA noted that the allocation to VC by pension funds and corporate investors slightly exceed those to private individuals. An analysis of investment sources by type of investor is shown in the table below:

Table 6 Venture Funds raised by type of investor 2012 to 2014, €'000³⁸

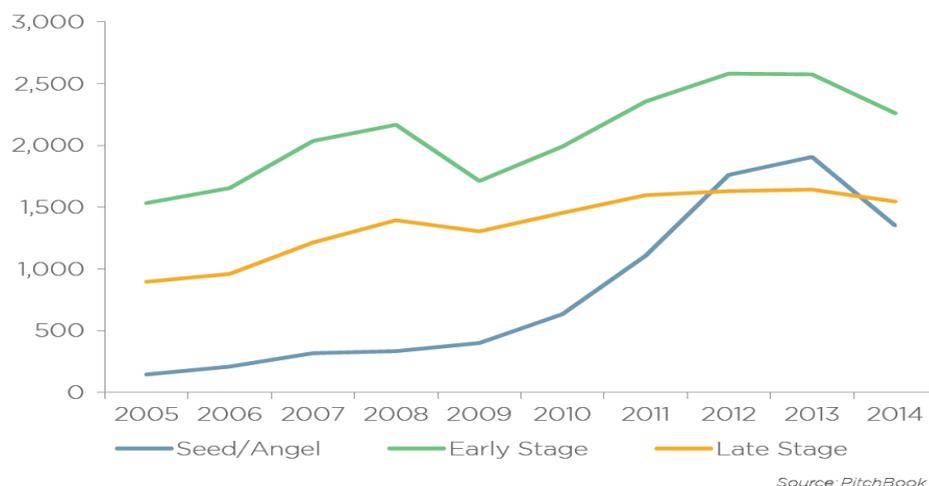
Amounts in € thousands	2012		2013		2014	
	Amount	%	Amount	%	Amount	%
Academic institutions	300	0.0	10,750	0.2	101,700	2.5
Banks	143,910	3.7	125,030	2.7	106,110	2.6
Capital markets	45,850	1.2	28,580	0.6	36,100	0.9
Corporate investors	522,240	13.5	322,490	7.0	438,670	10.7
Endowments and foundations	30,290	0.8	336,260	7.3	148,510	3.6
Family offices	227,480	5.9	216,020	4.7	207,780	5.1
Fund of funds	307,220	8.0	407,380	8.8	314,860	7.7
Government agencies	1,270,700	32.9	1,468,880	31.9	1,226,580	30.0
Insurance companies	229,860	5.9	129,930	2.8	91,200	2.2
Other asset managers (including PE houses other than fund of funds)	159,410	4.1	69,160	1.5	61,280	1.5
Pension funds	160,780	4.2	371,700	8.1	504,880	12.3
Private individuals	265,970	6.9	746,300	16.2	250,550	6.1
Sovereign wealth funds	14,430	0.4	70,000	1.5	14,100	0.3
Unclassified	485,400	12.6	305,830	6.6	590,520	14.4
New funds raised	3,863,840	100.0	4,608,310	100.0	4,092,840	100.0

It is interesting to compare the evolution in VC activity overall and by investment stage in Europe and in the US. It can be noted that whilst seed and angel activity have significantly lagged behind the number of late stage and early stage deals, the number of seed and angel deals has grown considerably during the economic recovery.

³⁸ Invest Europe Yearbook, 2015.

Policy context & mapping existing provision

Figure 7 - US VC deal count by stage



Source: Pitchbook, 2015 annual report on the venture industry in the US.

In 2015, a report by BCG³⁹ notes that “European VC investments equalled 0.03% of European GDP whereas US investments equalled 0.14% of US GDP. In 2014, the share increased to 0.05% in the EU whereas it almost doubled to 0.29% in the US, demonstrating the dynamics of the US VC market”.

The weak performance of the European VC asset class has had a knock-on effect in terms of the ability of private fund of funds to attract investors, who also have to justify their additional layer of management fees. Consequently, many private FoF managers have exited the market, and only a small number of private equity managers remain active in FoF vehicles.

Some university and family investors have been long-term supporters of the best VC technology investors in the US for decades. Given that Europe mainly has public universities and that there is no culture of private endowments comparable to the US, there is a totally different scenario in Europe and the US. **University endowments** in the US not only have a commercial imperative to make a profit but also have a mandate to pursue other objectives, such as promoting innovation and fostering a culture of entrepreneurship. Such an onus is now very clearly on some universities in Europe. For instance, the UK government’s Research Excellence Framework (REF) places a strong emphasis on the importance of research impacts and is very pro-entrepreneurship and science. This is also the case in other countries such as Germany, Denmark and Sweden.

There are significantly more university endowments in the US and such endowments are typically much better resourced than their European equivalents. With the exception of a handful of university endowments such as Cambridge and Oxford University⁴⁰, there is insufficient capital available through European university endowments to become a major source of funding for European VC. Whilst Cambridge and Oxford University are European leaders by a significant margin (with €5.3bn and €4.3bn respectively) in relation to the size of their endowments, other universities in the top 10 lag considerably behind.

For comparison purposes, the following box shows the comparative sizes of the top 10 university endowments in Europe and the US. It can however be noted that the UK and some other elite university colleges in other countries are going in the direction of the US.

³⁹ BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought. P. 7

⁴⁰ https://en.wikipedia.org/wiki/List_of_European_universities_by_endowment

Policy context & mapping existing provision

Table 7- Comparison of university endowments in Europe and the US

Top 10 university endowments in Europe	Top 10 university endowments in the US* ⁴¹
1. Cambridge University - €5.3bn	1. Harvard University, €28.7bn
2. Oxford University - €4.3bn	2. Yale University, €18.5bn
3. ETH Zurich, Switzerland - €1,100m	3. University of Texas System, €18.2bn
4. University of Copenhagen, Denmark - €1,003.8m	4. Stanford University, €16.6bn
5. University of Zurich, Switzerland - €960.4m,	5. Princeton University, €16.2bn
6. Utrecht University, Netherlands - €749.0m	6. Massachusetts Institute of Technology, €9.8bn
7. Lund University, Sweden, - €724.5m	7. Texas A&M University System and Foundations, €7.7bn
8. Central European University, Hungary - €656.6m	8. University of Michigan, €7.5bn
9. University of Oslo, Norway - €652.8m,	9. Columbia University, €7.3bn
10. University of Helsinki, Finland - €624.0m	10. Northwestern University, €6.9bn

US data - the NACUBO report, 2013. U.S. and Canadian Institutions Listed by Fiscal Year 2013 Endowment Market Value and change in Endowment Market Value from FY 2012 to FY 2013. Source of European data, check of individual university websites. Exchange rate at 30.06.15 (1 €US Dollar - 0.89 Euro). European data – check of university websites.

In the US, the typical size of university endowments is between 10 and 20 times the size of their European equivalents. Harvard and Yale University's combined endowment size dwarfs the size of the top 20 European university endowments combined.

Family offices manage \$4 trillion in assets globally⁴², about 55% of which is based outside of North America, according to a 2014 study by London-based researcher Campden Wealth. There are two main types of Family Offices, single family offices (SFOs) and multiple family offices (MFOs). There are estimated to be between 3000 and 5000 single family offices (SFO) in the **United States**. According to some data and information sources, following the financial crisis, family offices in the US have increasingly invested in VC, because other asset classes that were ostensibly "low risk" turned out to be as equally risky as VC but delivered lower returns.

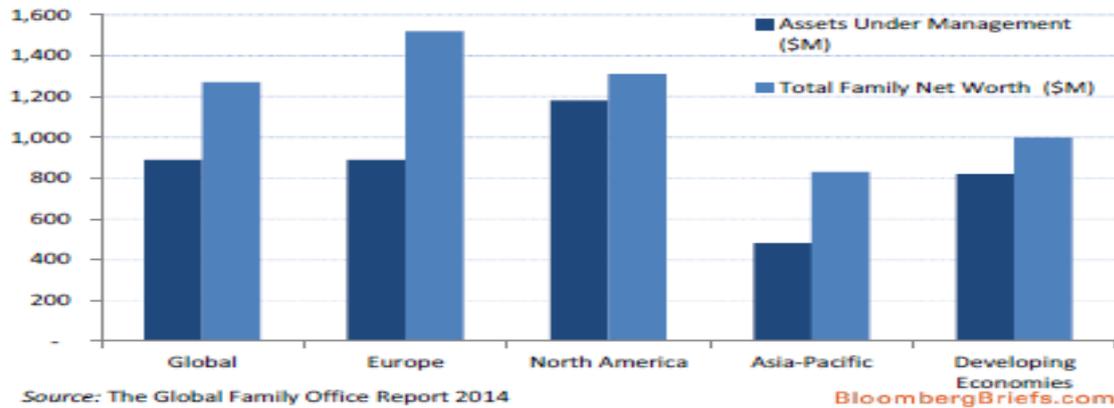
⁴¹ <http://www.forbes.com/sites/ccap/2014/07/30/22-richest-schools-in-america/>

⁴² Europe's Family Offices, Private Equity and Venture Capital, an EVCA Special Paper, November 2007.

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However, although investment by Family Offices in the US is often perceived as being significantly greater in the US than the EU, the data suggests that family offices are a potentially significant source of funding for European VC, with total family worth exceeding that of the US, although AUM is lower.

Figure 8 - Average Family Office AUM and Total Family Net Worth⁴³

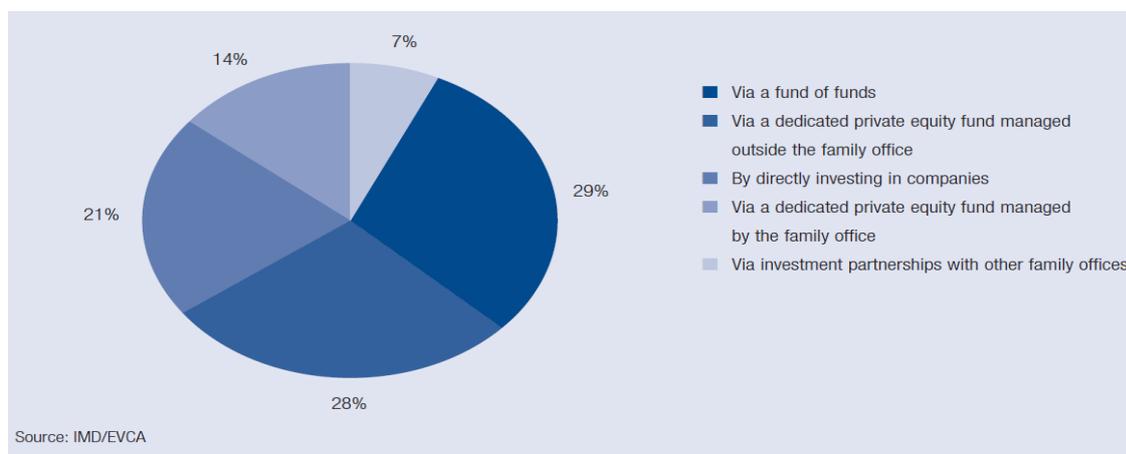


Source: December 2014 Bloomberg Brief on Family Office.

A 2007 report by EVCA (now Invest Europe) focused on Family Offices in Europe⁴⁴. The report examined the allocation by family offices to particular investment types. Approximately 10-15% of investments by single family offices (SFOs) are typically in private equity. Among the findings were that one-third of family offices interviewed preferred to enter the private equity asset class directly rather than to rely on intermediaries. An advantage of working alongside private-equity firms rather than through fund of funds is that it pays no fees or carried interest on co-investments. The double payment of fees and carry might well be an issue for some institutions when considering whether to invest in FoFs. The deals arranged by GPs managing FoF could ensure that the penalty of the structure is not too high.

However, a significant percentage of SFOs still invest through FoF mechanisms in order to have a diversified portfolio, as shown below:

Figure 9 - Preferred method of entering the private equity asset class



Source: EVCA/IMD

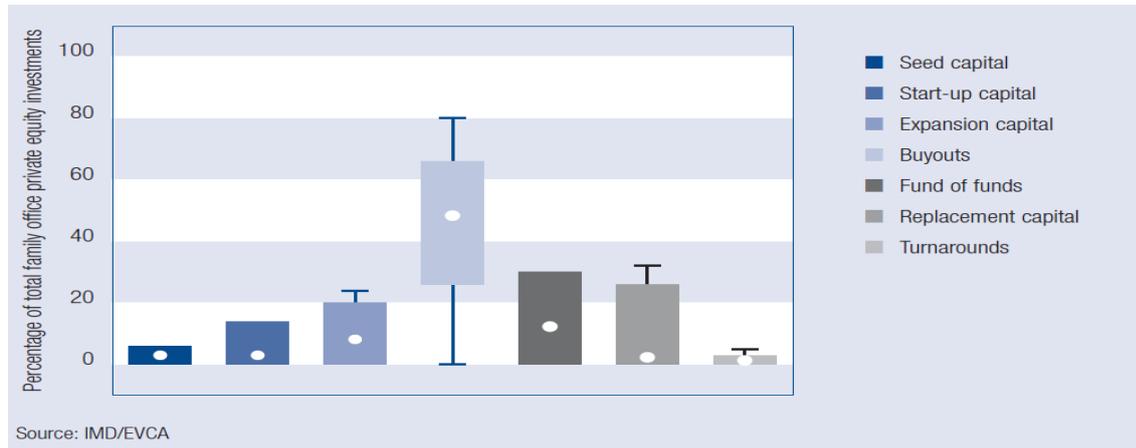
⁴³ http://www.bloombergbriefs.com/content/uploads/sites/2/2014/12/Family-Office_December.pdf

⁴⁴ Family Offices in Europe, EVCA, 2007. No more recent report with comparable data available. Given the general nature of the findings, the position should not have changed fundamentally in recent years.

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It is however unclear whether this breakdown is by the number of allocations or is weighted by the value of the funds allocated. In terms of the preferred investment stage in which Family Offices invest their allocation in private equity, there is a strong preference for investing in later stage buyout funds, as demonstrated in the following Figure from the same study.

Figure 10 - Allocation of family offices to private equity by investment stage (of family offices reporting private equity investments)



Source: EVCA/IMD

This could be an argument in favour of making a future pan-European FoF programme multi-investment stage focused rather than focused on seed and early-stage, which is much less attractive to the private sector, given the higher levels of risk and perceived lower returns. For example, institutions investing in Danish Growth Fund insisted that majority of investment went to later stage deals in order to protect future returns. The low target IRR (and the lack of longitudinal performance data on the actual IRR) for early-stage public FoF suggests that commercial investors would not be interested in investing without either a multi-investment stage approach, an asymmetric returns structure or a combination of the two.

2.2.2.4 Performance returns and exits

Performance returns in VC

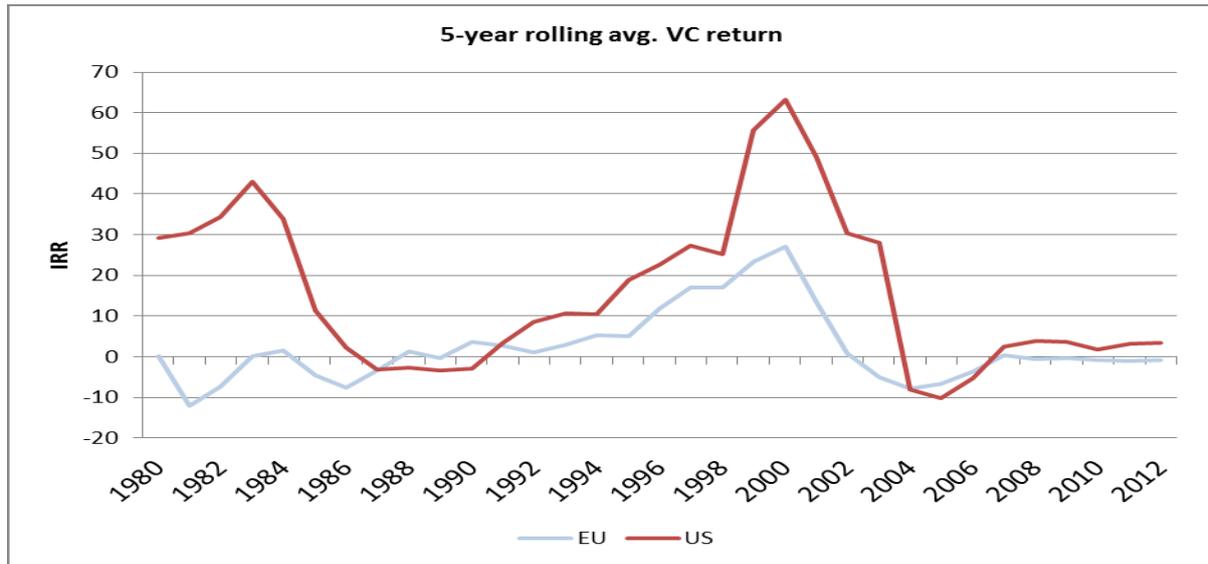
The poor commercial performance of European VC (and of the asset class globally) relative to other asset classes is clear from data on historical performance returns. A detailed assessment of VC performance is provided in Appendix E.

In summary, outside a few US tech VCs, **virtually all the financial returns have been made in private equity, which prefers to invest in mature undertakings** (i.e. in expansion stage investments and buy-out funds), which are less risky and generate higher returns. As the figure below shows, both the EU and the US VC market have shown relatively low returns. It should however be stressed that according to many interviewees, in the period 2013-2015, VC returns have significantly improved. The EIF, for example, has actually reported improving returns in recent years. The returns on their VC fund portfolio increased by 7% between October 2011 and April 2014.⁴⁵

⁴⁵ BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought. P. 3

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Figure 11 - 5 year rolling average returns in the VC asset class



SOURCE: THOMSONONE

Some data from PE managers supports the impression of an upward trend in the European VC industry. According to Preqin⁴⁶, the proportion of investors that find European investment opportunities attractive, has considerably increased in the last years. In particular, the share of North-America-based Limited Partners (LPs) that consider Europe as an attractive region for investment had grown from 27% in December 2012 to 60% in December 2013.

Performance of private equity investments in general at a global level seems to be picking up. A report by Collier Capital found that 93% of LPs anticipate annual net returns above 11% from across their portfolio over the next 3-5 years, up from 81% 2 years ago. The more positive outlook is driven mainly by buyout expectations in North America and Europe – before Asia.⁴⁷ In France, according to the Association of Investors for Growth (AFIC)⁴⁸, the IRR in the private equity industry amounted to 10.1% in 2014, up from 9.5% in 2013. For a ten-year-horizon, the IRR is even better at 11.3% per year as opposed to 10.9% in 2013.

These findings are confirmed by Thomson Reuters, according to whom European VC performance stabilised in 2013. The EIF mapped the evolution of 3, 5 and 10 year IRR in the European VC market over the last 15 years⁴⁹:

⁴⁶Preqin. 2014. Private Equity Spotlight. April 2014. 10.04.2014.

https://www.preqin.com/docs/newsletters/pe/Preqin_Private_Equity_Spotlight_April_2014.pdf

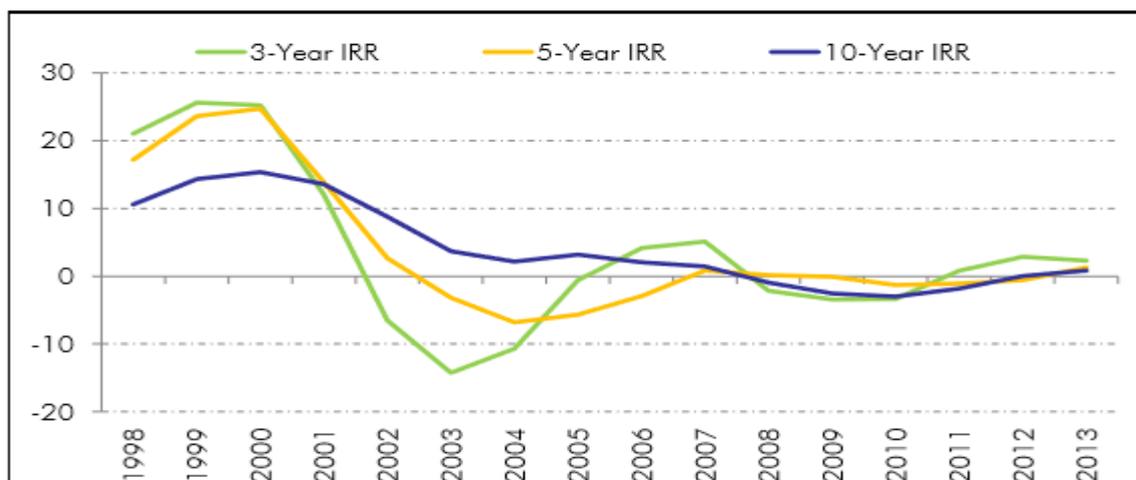
⁴⁷ Collier Capital. 2014. Global Private Equity Barometer. Winter 2014-15. P. 4

⁴⁸ Ernst&Young. 2015. Performance Nette Des Acteurs Français Du Capital-Investissement À Fin 2014.

⁴⁹ EIF. 2014. European Small Business Finance Outlook. P. 36

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Figure 12 – IRR in European VC over time (in %)



Source: EIF, based on Thomson Reuters data

As the figure shows, for the first time since 2008, the rolling-horizon IRRs for the 5-year (+1.3%) and the 10-year (+0.8%) periods are positive at the same time. Data from PE managers supports the impression of an upward trend in the European VC industry. According to Preqin⁵⁰, the proportion of investors that find European investment opportunities attractive, has considerably increased in the last years. In particular, the share of North-America-based Limited Partners (LPs) that consider Europe as an attractive region for investment had grown from 27% in December 2012 to 60% in December 2013.

Performance returns in VC Fund of Funds

Industry data from 2014 on the performance of FoF was obtained from VC managers in the industry⁵¹. Based on a sample of 582 FoF globally, the index shows an end-to-end pooled return of 21% over one year, 10% over 3 years, 13% over 5 years, 10% over 10 years, and 9% over 15 years. For comparison, this level of returns is lower than that of the Standard & Poor Index over a 1, 3 and 5 years' time horizon, but higher than the S&P index when running over 10 years and longer. Looking at data for the past 10 years, the one-year rolling returns appear to be highly volatile – ranging from -21% in 2009 and 2% in 2012 at the low end to 27% in 2007 and 26% in 2011. Again looking only at data for the past 10 years, data from 571 FoF formed between 1986 and 2012 suggests that the total value paid in capital multiple to LPs ranged from 0.27 in 2008 to 1.42 in 2007 with the median moving between 1 and 1.41.

⁵⁰ Preqin, 2014. Private Equity Spotlight. April 2014. 10.04.2014.

https://www.preqin.com/docs/newsletters/pe/Preqin_Private_Equity_Spotlight_April_2014.pdf

⁵¹ The data is still being prepared for a proprietary industry report. The source cannot be revealed at this stage.

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Exits

Difficulties in achieving profitable and timely exits during the economic and financial crisis have put off private investors from investing in European VC in the past five+ years. There has however been progress in the **development of secondary markets to help improve the liquidity of investments** through which stakes in VC funds can be disposed ahead of term. A disadvantage of early exits is that they typically lead to lower returns. Optimising returns requires long-term commitment. Despite the poor performance in the past, recent data on the number and the total value of exits suggests that **performance multiples appear to be improving significantly in the past 2-3 years in Europe and internationally.** Although the improvements are focused on later stage investment funds, VC returns are also improving.

With regard to mechanisms for exiting VC investments the **types of exits, trade sales, management buy-outs and IPOs**, the common perception is that the IPO market is much weaker in Europe than in the US, and therefore most exits are via trade sales or management buy-outs.

However, a report for BVCA⁵² in the UK notes that “there is no difference in the success rates of European and US deals from the same vintage year with respect to IPO exits, while Europe has about an eight percentage point lower probability of exit via trade sales than the US”.

The market for trade sales and management buy-outs has been less vibrant than in the US. IPOs as an exit mechanism are less common in Europe compared with the US. Generally, exits in European VC have remained stable in recent years, as shown in the table below:

Table 8 – Exits in Europe 2012-2014 (market statistics)⁵³

Year	2012	2013	2014
Exit (amount at cost) in € '000	1,851,258	2,210,296	1,864,600
Number of companies	1012	1008	1003

It remains however the case that **the IPO market in many European countries is either weak or non-existent**, a problem exacerbated during the global economic and financial crisis, when investor interest in IPOs evaporated. With regard to “average time to exit”, in both Europe and the US, the above-mentioned study for BVCA found that the “probability of exit via an initial public offering (IPO) has gone down significantly in the last decade, while the time to IPO has gone up – in contrast, the probability of exit via trade sales and the average time to trade sales do not change much over time”.

There are increasing numbers of successful former VC successful exits in Europe. According to Invest Europe, in 2014, more than 2,400 European companies were exited, representing former equity investments (divestments at cost) of €37.8bn. This amount was the highest to date for European private equity overall, of which VC accounts for circa 1000 (41.6%). **A small number of EU countries dominate the exits market.** For instance, “in the tech sector in 2014, Germany had the most ‘domestic’ company exits in Europe: 59, compared to 54 in the UK, although the UK had significantly more major ‘home runs’ (8 out of the 20 largest exits in 2014 involved a UK company)”⁵⁴. EIF data from 2015, too, shows more encouraging results as 15 exits with valuations above \$ 100 m generated approximately \$ 10 billion in exit value.⁵⁵

⁵² European VC: Myths and Facts - Dr. Ulf Axelson and Mr. Milan Martinovic, London School of Economics

⁵³ EVCA Annual Yearbook 2015 Data.

⁵⁴ <http://tech.eu/research/4471/european-tech-exits-2014-key-takeaways/> European Tech Exits Report 2014

⁵⁵ European Venture Capital - the Facts. Patric Gresko European Investment Fund. Presentation

Policy context & mapping existing provision

The uptrend has had an impact in restoring confidence after the crisis. There is evidence however that whilst this has attracted private institutional investors, such as pension funds and SWFs to invest in later-stage Private Equity (e.g. buy-out funds), it has not led to a return of private investors to European VC. It can be noted that there is a **lack of comprehensive dataset on European exits**, since a “very large proportion of exits happen after more than 10 years after the initial investment – leading to a concern that only deals with successful and late exits were picked up in datasets”⁵⁶.

In the US, there is evidence of a **strong uptrend in return multiples**. However, unlike in Europe, this has translated through to increased investment in VC as an asset class, not only later stages of PE. Pitchbook's 2015 Annual Report on the VC industry in the US confirmed that 2014 was a record year in that 86% of VC fund closes hit target. It was also the strongest year for exits globally as highlighted in the following table:

Global Venture Exits

Total Exits: Global exit flow climbed in 2014 with 1,295 exits totalling \$95.4 billion, up from 1,283 exits and \$56.5 billion exited last year

Exits by Region: North America accounted for nearly 83% of global capital exited in 2014. Europe realised 12% of total capital exited in 2014.

Exits by Industry: Software industry exits continue to grow rapidly, accounting for roughly 36% of total capital exited globally. Additionally, exits in Pharma & Biotech increased 53% since last year, with 136 exits globally.

Largest Exits in US: WhatsApp's \$22 billion acquisition by Facebook was the largest exit of 2014. Other top exits include Nest Labs (\$3.2 billion), Oculus VC (\$2 billion) and JD.com (\$1.8 billion).

Source: Pitchbook - 2014 Year-End Global Venture Capital Data

Generating a high return for investors SMEs through equity financing - European exits

A number of European exits success stories can be noted that were supported during the start-up, early growth or expansion phase by VC funds that have subsequently increased in value between 20 and 50 times for VC investors. Examples are: Skype (Sweden with software development in Estonia), Spotify (Sweden) and Rocket Internet (Germany).

There are examples of large exits that received VC and PE-backing, such as MySQL \$1bn, Net a porter \$525m Symbian \$317m, Mycitydeal >\$400m+ and Bebo \$850m.

The research feedback made clear that central to the success of the above firms in delivering a very high rate of return for early-stage VC investors was the availability of successive rounds of equity financing to foster the accelerated development of the firms.

A further issue relating to returns is that large institutional investors such as Sovereign Wealth Funds (SWFs) have higher returns expectations than publicly-backed fund of funds currently target. The lack of a sufficiently commercial approach means that Europe “misses out” on potential international sources of investment. For example, It was noted that although had the EIF has been approached in the past by SWFs about investing in their FoF programme, the negotiations had not proceeded because the target IRR / multiples are below the level that was viewed as commercially acceptable.

⁵⁶ European VC: Myths and Facts - Dr. Ulf Axelson and Mr. Milan Martinovic, London School of Economics

Policy context & mapping existing provision

There is some evidence that since the US market has just achieved a record-breaking year for capital-raising, both for PE overall and for VC that the market **in the US may be becoming over-saturated on the supply side, which could lead to more constrained returns**. This might help to attract international investors to European VC, since there is less capital chasing the potential rewards from outsized exits.

2.2.2.5 Geographic fragmentation and concentration of the VC market in Europe

Caution is needed in referring to a single or homogenous “European” venture capital market. The EU consists of 28 different Member States and there is evidence of geographical dispersal and over-fragmentation of the market, but conversely also of concentration in particular counties and cities where VC hubs are thriving, such as London, Paris, Berlin and Stockholm.

Rather, VC activity is highly concentrated in a few European countries. Moreover, VC in Europe tends to be clustered in major cities where VC markets are more mature (e.g.) rather than uniformly spread across all EU regions or countries.

Direct comparisons with the VC in the US therefore need to be interpreted with caution, since the US VC industry is heavily geographically concentrated in California/ Silicon Valley and Massachusetts⁵⁷. These together, account for over 50% of all VC activity. Texas and New York are also important States for US VC, New York being a major tech hub.

The table below sets out the relative percentage shares of funds raised for VC by geographic region in Europe.

Table 9 - VC fundraising - sources of funds for EU-based VC funds, breakdown by geographic market

Region	VC Fundraising geographic breakdown%		Countries
	2013	2014	
FR&BNLX	43.6	46.1	France, Belgium, Luxembourg, Netherlands
NA	11.8	12.6	North America
UK&I	19.5	10.2	UK and Ireland
DACH	9.6	8.4	Germany, Austria and Switzerland
Nordics	7.9	8.4	Norway, Sweden, Denmark and Finland
SE	3.5	6.8	Portugal, Spain, Italy, Greece
EU unclassified	0.6	6.1	
CEE	1	0.9	Estonia, Latvia, Lithuania, Poland, Hungary, Romania, Ukraine, Bulgaria, Serbia, Albania, etc.
AA	2.4	0.2	Asia, Australia
RoW	0.1	0.3	Rest of the world

Source: Invest Europe, 2014 European Private Equity Activity

The wide disparities suggest that the rationale for intervention should explicitly bear this in mind, and that the implications of options should also be considered in terms of regional impacts.

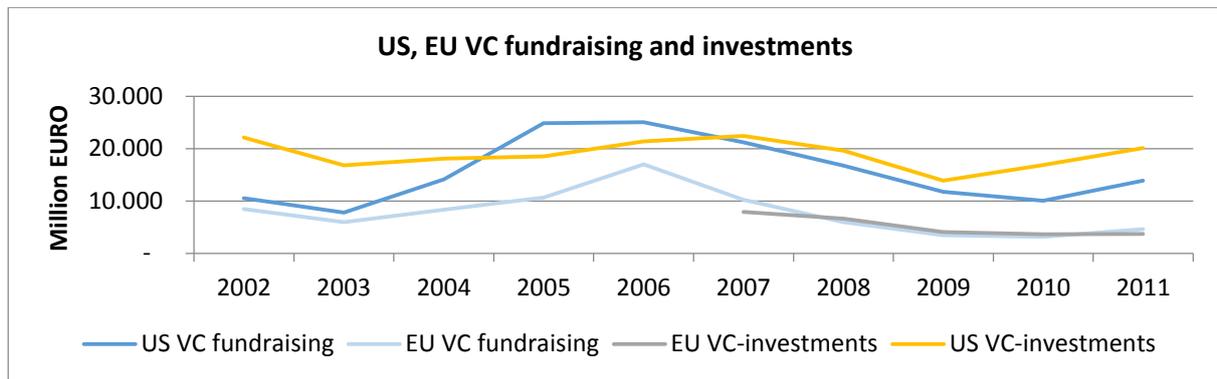
⁵⁷ <https://www.cbinsights.com/research-venture-capital-q1-2015>

Policy context & mapping existing provision

The number of deals also varies considerably. In the second quarter of 2015, the UK had the highest numbers of VC deals (89), but France was not far behind, with 82. Germany was a distant third with 46 deals.⁵⁸ Other EU countries had significantly fewer deals. The wide disparity between different parts of Europe suggests that the rationale for intervention should explicitly bear this in mind, and that implications of options should also be considered in terms of regional impacts.

Recent data points to a strong recovery in the European VC asset class, albeit at a low level. Based on Dow Jones Venture Source and VentureWire data, the amount invested in European start-ups rose from €6.35 billion in 2013 to €8.29 billion in 2014, and to €5.77 in the first two quarters of 2015.⁵⁹ However, this was largely driven by investment in growth stage and buy-outs, reiterating the point that supply is fragile for seed and early-stage start-ups and vulnerable to economic fluctuations.

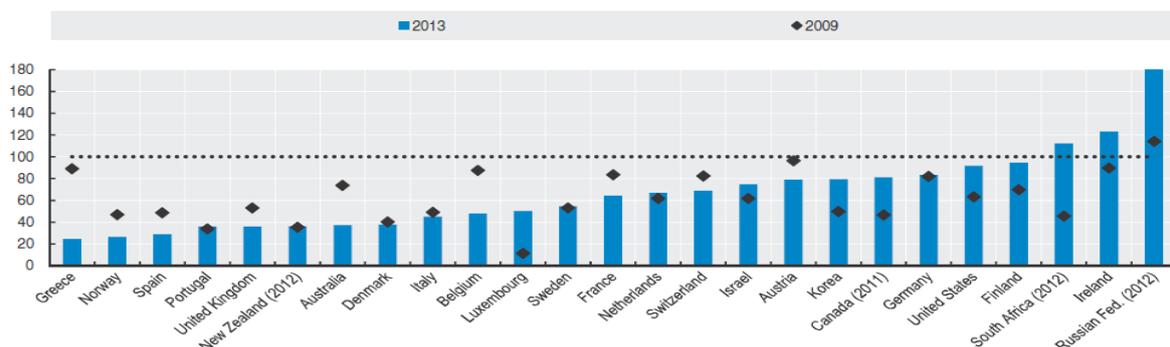
Figure 13 - Comparison between VC fundraising and investments in the EU and US.



Source: Invest Europe and Thomsonone (Invest Europe data prior to 2007 are not available)

The extent of **cross-border venture capital in Europe is limited**. The provision of cross-border VC is constrained by obstacles such as different regulatory and taxation regimes, legal uncertainty as to mutual recognition principles when money is repatriated following exit. The **state of maturity of the VC market** in individual Member States varies significantly. A small number of Member States have a vibrant venture capital industry, whilst other Member States have little VC provision.

Figure 14 - Venture capital trends, Index 2007 = 100



Source: Entrepreneurship at a Glance, OECD, 2014 (c.f. pp 90-91)

⁵⁸ <http://pevc.dowjones.com/Article?an=DJFVW00120150727eb7rapetw&cid=&ctype=&from=Search>

⁵⁹ <http://blogs.wsj.com/venturecapital/2015/07/27/the-daily-startup-vc-investment-in-european-startups-accelerates/>

Policy context & mapping existing provision

Some Member States have set up **dedicated legal regimes for VC** which set out rules on portfolio composition, investment techniques and eligible investment targets. The UK and the Netherlands have introduced favourable tax treatment for VC investments, at least for individuals. However, most Member States do not have specific VC legal regimes, and instead apply general rules on company law and prospectus obligations to the activities of all fund managers who wish to offer 'private placements' of venture capital within their jurisdictions.

Tax incentives are also widely used in some Member States to stimulate the supply side of venture capital, for instance, through R&D tax credits and others specific instruments, such as Enterprise Investment Schemes (EIS) and Venture Capital Trusts (VCTs) in the UK, and similar schemes in France.

As an example of the nature and extent of geographic differences, the table below summarises the average amount raised in 2010-2014 across 6 European regions at four investment stages:

Table 10 – Average amount raised 2010-2014 at 4 investment stages – geographic disparities⁶⁰

EU region	Seed (in €'000)	Start-up (in €'000)	Later Stage (in €'000)	Growth (in €'000)
Central & Eastern Europe	221,000	808,000	1,238,000	5,062,000
DACH ⁶¹	292,000	1,490,000	1,644,000	5,047,000
France & Benelux	466,000	1,742,000	2,536,000	7,420,000
Nordics	300,000	1,018,000	2,286,000	6,959,000
Southern Europe	811,000	1,113,000	1,889,000	6,433,000
UK & Ireland	608,000	2,090,000	4,019,000	11,489,000
EU average	357,000	1,458,000	2,341,000	7,164,000

Source: Invest Europe. Note - includes VC funding, but excludes funding from "other sources", such as friends and families, and business angels, which previous research suggests can be significant.

As the table shows, firms in the UK and Ireland receive by far the highest amount on average across all investment stages, considerably higher than the EU average. Central and Eastern European firms lag behind furthest at the seed and start-up stages. However, differences are somewhat less pronounced at the later stage. However, they are still significant. A typical growth investment stage fundraising is circa €11.5 million in the UK compared with less than half that (€5.06 million) in Central & Eastern Europe.

Many private investors / Limited Partners (LPs) no longer invest in the European VC asset class.

This is due to the higher risk associated with investing in start-up and early-stage growth firms and poor returns has deterred the private sector from returning to the asset class. The following figure based on Invest Europe data shows the extent to which the public sector has replaced the private sector in the provision of risk capital finance (moving from a 7% share to a 30% share of total funding).

Further supporting data and analysis in respect of key trends and developments in respect of the European Venture Capital asset class - including – is provided in Appendix C. Appendix E provides performance data on the asset class. Invest Europe data only represents the activity of VC funds,

⁶⁰ Based on data supplied by Invest Europe for this study

⁶¹ Germany, Austria, Switzerland

Policy context & mapping existing provision

while there are other sources of seed and early-stage investment, notably from the EIF and other public sources, and from angel investors and syndicates.

2.2.2.6 The role of wider alternative asset classes (business angels and crowdfunding)

According to EBAN, business angel activity accounts for a greater share of the seed and early stage market than VC capital. In 2014, the total European early-stage investment market including angel investment was estimated to be worth 7.5 billion EUR per annum, according to the EBAN Statistics Compendium. Business angels represented the biggest share of the investment market with 5.5 billion EUR of (cumulative) investment, followed by the venture capital industry which invested 2 billion euros (or €3.6 billion according to Invest Europe data) in seed and early stage VC.

A distinction is needed between the visible and non-visible angel markets. Previous studies have shown that the non-visible market may be up to several times the size of the visible market. It should be noted that there are tax incentives available to angels which play an important role in attracting investment from high net worth individuals.

Equity-based crowdfunding is still marginal as a proportion of total equity finance, but is becoming growingly important. EBAN estimated by the size of crowdfunding to be 80m EUR. According to a 2015 published report on alternative finance⁶², equity-based crowdfunding grew to €82.56m in 2014 and is expected to grow in future.

Whilst many VCs exited the market, those that remain generate higher investment returns, benefiting from access to high quality deal flow. Individual investors (high net worth individuals, angels) account for a disproportionate share of the market relative to their share of other asset classes, reflecting their longer term approach. EBAN estimates that funds raised by businesses angels, and by other investors, amounted to between €4 billion and €5 billion in 2011-2013.

Table 11 Funds raised by Business Angels and informal investors in early-stage investment (€ million)

Year	2011 (€m)	2012 (€m)	2013 (€m)
Angel networks (formal)	427	509	554
Visible %	9	10	10
Total (visible and invisible)	4317	4590	4989

Source: EBAN

Data on formal angel networks has been formally reported through national business angel associations. However, the estimates of the size of the angel market are largely based on speculative assumptions about the scale of the invisible market, the data should be interpreted with caution.

Early-stage investment in Europe might amount to €6.5 billion per annum (i.e. the sums of the two previous tables combined). Of this, somewhat less than 40% comes from formal funds. The data suggests that the majority of European seed and early-stage funding comes from informal investors and business angels. In terms of the level of returns on business angel financing, Wiltbank (2009) did some work for NESTA⁶³ in the UK which the BA industry found were over-estimates of the actual returns. EBAN also estimates that some €80 million has been raised by crowdfunding. According to

⁶² [www.ey.com/Publication/vwLUAssets/EY-and-university-of-cambridge/\\$FILE/EY-cambridge-alternative-finance-report.pdf](http://www.ey.com/Publication/vwLUAssets/EY-and-university-of-cambridge/$FILE/EY-cambridge-alternative-finance-report.pdf)

⁶³ NESTA Research report: May 2009. Siding with the Angels - Business angel investing – promising outcomes and effective strategies, Robert E. Wiltbank

Policy context & mapping existing provision

a 2015 published report on alternative finance⁶⁴, equity-based crowdfunding grew to €82.56m in 2014.

2.2.2.7 Supply-side baseline situation – summary of key problem drivers

In summary, the main findings from the analysis of the baseline situation were that:

- Invest Europe and other data shows that there is **evidence of the market overshooting during upturns and downturns** leading to an under-supply of VC during economic downturns and conversely oversupply leading to poor investment returns during periods of economic boom.
- This suggests that there is consequently a need for the public sector to ensure that market shock driven and cyclical economic fluctuations do not hamper innovative start-ups and SMEs' ability to access equity start-up, early-stage, growth and expansion capital.

Other characteristics relating to the size and structure of the VC industry are now considered:

- **European VC funds are on average small compared with their US competitors.** Consequently, institutional investors and large pension funds are deterred from investing in the European VC asset class due to the small ticket size which is often below the minimum level at which is viable for them to invest (€10m - €25m).
- **In principle, larger VC funds generate better returns.**⁶⁵ Although larger-scale VC funds would help to overcome structural weaknesses within the market, there is a trade-off between VC fund size and performance. The research found that if individual VC funds become too big, their relative performance may decline, especially if they are investing in sectors where the total size of the market is relatively small.
- **There is a lack of transparency** in the European VC market with many VC funds lacking an extended track record and reporting inadequately on their activities and performance of their investments. While Invest Europe has introduced a Code of Conduct and self-regulatory reporting standards⁶⁶, these have not (yet) been implemented widely in the industry.

⁶⁴ [www.ey.com/Publication/vwLUAssets/EY-and-university-of-cambridge/\\$FILE/EY-cambridge-alternative-finance-report.pdf](http://www.ey.com/Publication/vwLUAssets/EY-and-university-of-cambridge/$FILE/EY-cambridge-alternative-finance-report.pdf)

⁶⁵ See, for example, BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought. P. 8

⁶⁶ See, for example, EVCA Special Paper 2007, p. 37: <http://www.evca.eu/media/78722/guide-on-private-equity-and-venture-capital-2007.pdf>

Policy context & mapping existing provision

- **The European VC industry is highly fragmented and spread across different geographies.** Whereas in the US, there is a high level of concentration of VC activity, there is wide heterogeneity across EU28 in terms of the state of maturation of the VC market, market size and structure and the scope for exits.
- **There are wide variations in the state of development of the European VC asset class across different EU countries.** A disproportionate level of seed and early-stage VC activity – and equity financing supply - is concentrated in a small number of Member States. This includes the UK, France and Germany, Scandinavia and to a lesser extent Italy and Spain.
- **The infrastructure for the VC ecosystem is much less developed in some of the newer Member States.** Although there are emerging fund managers (GPs), the investor base lacks depth, the private sector as investors (e.g. LPs) are generally absent and to achieve fund closure, GPs have to rely on EIF and / or other public sector support.
- The extent to which wide divergence in the state of maturation of markets and geographic concentration of VC activity and deal flow is a problem was questioned by some stakeholders. It was argued that further concentration of the European VC sector in regional hubs (e.g. London, Berlin) capable of competing globally could be positive since VC activity in the US is also concentrated. However, other stakeholders disagreed and saw scope to strengthen the European VC ecosystem across all investment stages, given the importance of equity capital in accelerating the development of high-growth SMEs across the equity lifecycle.
- Because of the high level of fragmentation and small average size of VC funds, challenges in attracting investment to the European VC asset class. A key opportunity cost for Europe is missing out on accessing international pools of capital. Many large investment funds (LPs) have a minimum ticket size of €25m - €50m. Given that investments in any individual VC fund (or FoF) should not exceed 10% of total fund size, this would be too large to invest in most European VC funds, and possibly prohibitive even at the individual FoF level, unless each FoF was of sufficient scale (alternatively a Direct Investment Vehicle structure could be set up).
- **Many private investors remain wary of the European VC asset class because of historical under-performance.** Public pension funds in some countries (e.g. Sweden) are no longer allowed to invest in VC because of the low returns. Private pension funds and institutional investors remain largely absent from the market. LPs instead attract investment from private equity groups, high net worth individuals and from the EIF and other public investors at national and regional level.
- **Invest Europe data shows that many private sector players exited the market in the early 2000s.** Despite some evidence of improving performance linked to cyclical recovery, many have still not returned to the asset class.
- **However, the situation for VC overall may be beginning to recover from the economic and financial crisis:** in 2014, data⁶⁷ shows that 40% of the funds raised from institutional investors came from outside Europe. This suggests that awareness about improved performance returns in the European VC asset class in the past 2-3 years have begun to impact investor behaviour.

⁶⁷ Invest Europe - 2014 European Equity Activity. Statistics on Fundraising, Investments & Divestments. P. 6

Policy context & mapping existing provision

- **Some investment, notably by individual investors, is tax-driven.** There are different tax treatments between Member States and between different types of investors (individual and corporate) with the most generous tax incentives being given to individual investors in some Member States.
- **The public sector continues to account for a high percentage of the seed and European VC market.** According to the latest data⁶⁸, government agencies accounted for 30% of new funds raised in 2014, and fund of funds for a further 7.7% which includes EIF investment.
- **There is a lack of cross-border provision of venture capital.** Although some progress has been made to improve the situation, for instance, through the adoption of a new regulatory framework for cross-border venture capital and the EuVECA designation, the extent of cross-border investment in VC remains limited.
- **However, there are examples of increased cross-border activity and the structuring of FoF to encourage multi-country VC investment flows.** For instance, the EIF and national financing agencies set up the Baltic Innovation Fund in the 3 Baltic States in 2013. Larger private equity groups investing in VC usually adopt a multi-country approach in order to diversify risks.
- **There were mixed views on the extent to which the low level of provision of cross-border VC is a problem.** Although increasing the critical mass of FoF and VC funds to attract international capital through larger ticket size implies greater cross-border cooperation, most underlying VC managers favour proximity to investments in start-ups and SMEs in order to be able to nurture their accelerated growth. This links to an earlier point that seed (including angel activity) and early-stage VC investment goes beyond access to capital and is concerned with strategic advisory support, access to networks of contacts, and ensuring the availability of follow-on financing.
- In some larger EU countries, such as the **UK, France** and **Germany**, the private sector has 15 years'+ experience in operating in the VC industry and a well-developed VC eco-system.
- Conversely, in most other EU countries, there is a lack of private sector VC infrastructure and technical capacity at the level of GPs (fund managers) and low levels of awareness among investors (LPs), especially in EU13 countries i.e. the relatively new Member States⁶⁹.

2.2.2.8 Challenges in attracting international investors to European VC

The main challenges and barriers in attracting larger (especially international) investors to the European VC asset class are now examined.

From an investor perspective, the **lack of sufficient scale of individual VC funds in Europe** is a major problem, since many LPs, pension funds and institutional investors require a minimum ticket size of €25 million (possibly as high as €50 or €100 million for Sovereign Wealth Funds (SWFs) and the largest LPs). A further challenge (as noted in the section on performance and returns) is that SWFs demand higher commercial returns than are usually possible in a publicly backed FoF structure, where commercial considerations compete with public policy objectives.

⁶⁸ Invest Europe Yearbook, 2015

⁶⁹ A case study on the EBRD's Integrated Support Programme in the Baltic States highlights the importance of raising the visibility and attractiveness of VC as an asset class among investors through capacity-building and awareness-raising events (see Appendix B).

Policy context & mapping existing provision

There are major barriers in attracting international investors due to the maximum ticket size in European VC funds being below the level at which larger investors will commit funding. Risk management demands that large investors do not invest more than 10% of their total capital allocation to a particular asset class within any given FoF or underlying VC fund. This implies that the minimum critical mass for a VC fund to attract investment from larger international investors is 250m€ (€25m ticket size 10% maximum investment in total fund size).

A further challenge relates to the **lack of diversity of different types of investors** within European VC and in particular the lack of private investment, makes it more difficult to achieve funding closure within a reasonable timeframe. In contrast, in the US, there are a wider range of sources of funding and diversity among potential LPs in the US compared with Europe, such as FOs, endowments, HNWIs and institutional investors.

The **time taken to achieve first closure in the US for VC funds is shorter than in Europe. This can be as short as 3-4 months**, even for a new VC manager Interviewees argued that this reflects the fact that there are a wider range of sources of funding and diversity among potential LPs in the US compared with Europe, such as FOs, endowments, HNWIs and institutional investors.

An illustration of the quicker speed of fundraising in the US is outlined in the following table:

Table 12 - Accelerated fundraising timeframes in the US

Homebrew Venture Capital Fund – first-time fund manager:

~40 initial emails all via warm introductions to investors familiar with early-stage tech

~20 of which converted into phone calls or meetings

10 of those 20 turned into multiple conversations

5 said yes within the timeframe, of which four became part of the fund.

The timeline is now outlined:

- January 2013: Homebrew starts fundraising from institutional LPs
- March 2013: First lead institutional commitment secured
- April 2013: terms are agreed with three other institutional LPs, several smaller LPs and a few individuals. The four lead institutions contributed ~92% of the fund and the other investors rounded out the total.

Source - <http://hunterwalk.com/2013/07/22/homebrew-100-days-of-fundraising/>

In comparison, it can take between **12-18 months to achieve first fund closure in Europe**. First-time fund managers may find it particularly challenging to raise funding.

The additional timeframes required in undertaking fundraising in Europe to achieve fund closure are a factor that should be reflected in the finalization of the design of the FoF programme. Individual FoF will need to be given sufficient time to raise capital. Experience from VCAP suggests that it takes time to build sufficient momentum.

Policy context & mapping existing provision

The table below shows how the early-stage VC asset class currently is at least as attractive in investors' considerations and how this should be improved to rank 10 out of 15 by spreading risk with the help of a FoF. As of 2013 the performance ranking by stages and geographical location based on a five-year horizon IRR was as follows: US buyouts (13.52%), European buyouts (9.63%), US venture (5.86%), and European venture (1.32%).⁷⁰

Table 13 – International investors' level of interest in the private equity asset class⁷¹

	US	EU	Asia
Large buyout	14	13	12
Mid-Market	7	6	8
Small Buyout	2	1	3
Turnaround	5	4	n/a

Lastly, the **results** from the set-up of a pan-EU FoF should create positive **longer term impacts** for the European economy. The types of impacts expected include: higher levels of participation by the private sector in the European VC asset class, making it more attractive relative to alternative asset classes and geographies (e.g. vs. Asia, the US and Australia), accelerating jobs and growth in innovative “gazelles” and supporting European innovation, a key competitiveness driver.

If the new instrument were multi-investment stage, this would help the EU to capture the upside potential benefits – on the economy as whole, employment and innovation. Europe currently often “loses out” since at the point when high-growth firms have greatest upside potential, they often relocate to the US since it is easier to raise expansion funding in the US than in Europe. Some stakeholders also pointed out that there are other framework conditions that influence the decision of European gazelles in relocating to the US, such as closer proximity to clients in the tech area, a more robust IPO market and more attractive taxation and incentives structures for entrepreneurs.

2.3 Definition of policy objectives

EU research and innovation (R&I) policy emphasises the importance of supporting innovative SMEs with high-growth and internationalisation potential through a number of policy instruments (e.g. RTD funding, pilot schemes to promote technology transfer, promoting access to innovative finance).

More broadly, there are well-established EU policies relating to strengthening access to finance for SMEs in general so as to facilitate the growth and development of start-ups and SMEs. These objectives should collectively contribute to the achievement of the aims of the Europe 2020 strategy of smart and sustainable growth. The EU *“aims to make the European venture capital (VC) industry more self-sustainable and globally competitive by reducing its dependence on the public sector and encouraging more investment from institutional and private sources back into VC, especially into early and growth-stage funds”*⁷².

During the course of the study, DG RTD has further elaborated on the above objectives regarding venture capital in the EU. In summary, these are to:

⁷⁰ EVCA. 2013. Pan-European private equity performance benchmarks. Global comparisons of VC investment returns across geographies

⁷¹ Initial numbers based on EVCA position statement Nov 14. P. 7

⁷² Source - European Commission's DG RTD - terms of reference for this study

Policy context & mapping existing provision

- improve the supply of, and access to, seed and venture capital for firms undertaking R&I;
- maintain an adequate supply of risk capital finance for start-ups and SMEs during the economic cycle to avoid cyclical-related fluctuations and variations in the availability of funding supply;
- encourage more investments from institutional and private sources back into VC, especially into early and growth-stage funds that invest in firms undertaking R&I;
- encourage the creation (i.e. new market entrants) or expansion of both funds and FoF across Europe.
- increase the average size of VC funds, given that lack of critical mass is a major challenge in attracting international capital.
- ensure that if a FoF programme were to be set up, this should not take place in isolation, but should rather be embedded as part of a package of support measures, to include technical capacity-building measures⁷³.

In order to determine which policy option is most appropriate, it is necessary to identify and analyse how far each of the above policy objectives would be likely to be achieved under the different options and sub-options spelt out in detail in Section 5.2. This in turn should influence the assessment of policy options and the identification of a preferred option. Were a pan-European fund of funds approach to be adopted, the objectives will also inform the development of the suggested configuration (set-up, operation, exit mechanisms and the approach to returns) of a fund of funds (or FoF programme).

The objectives defined by the European Commission for a possible future initiative will determine for instance whether the FoF should have a sectoral or generalist focus, the geographic scope, whether incentives should be included to encourage fund managers to invest in markets where VC is less well developed, the optimal size of a FoF, the investment strategy and investment criteria, etc.

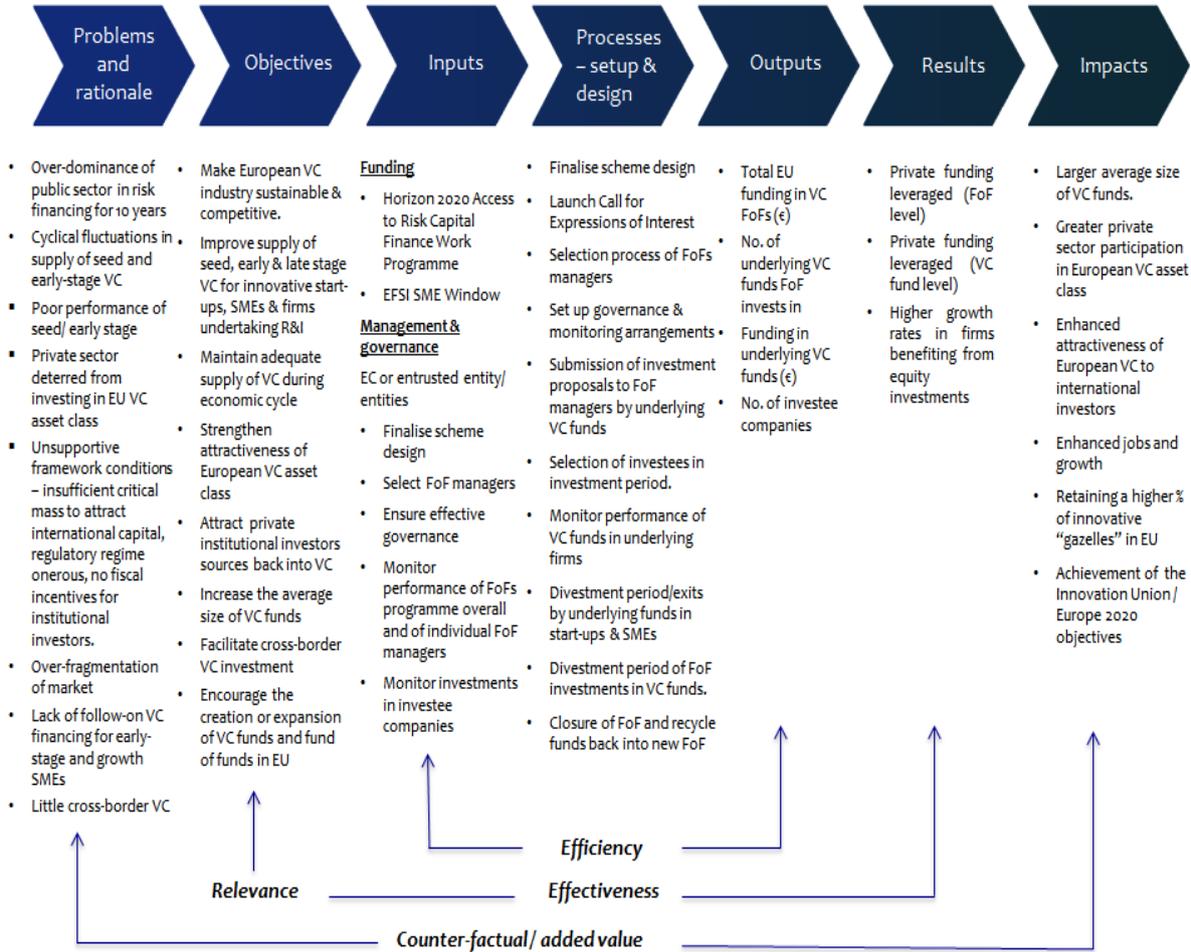
⁷³ Any intervention by the EU led by the European Commission must help to foster the experience of those operating funds and funds of funds. At the minimum, any new initiative should not undermine the acquisition of such skills, which appear to have a large element of "learning by doing".

Policy context & mapping existing provision

2.4 Intervention logic

In the following diagram, the basic intervention logic is set out.

Figure 15 - Intervention logic – a pan-European fund of funds



All public interventions start with the identification of the problems and needs that the intervention would address i.e. the identification of the baseline scenario and underlying **rationale**. In this study, among the assumptions are those:

- Innovative SMEs need access to equity capital in order to promote an accelerated development trajectory, and to help them to achieve sufficient scale and to internationalise.**
- Innovative SMEs make a valuable contribution to boosting economic growth and jobs in the EU.** SMEs contribute more than half of the total value added in the non-financial business economy and provided 80% of all new jobs in Europe in the past five years.⁷⁴
- At the same time, start-ups and SMEs experience difficulties in accessing finance to fund the start-up phase, and their growth and expansion.** It is therefore necessary for the public sector to monitor financing supply and to intervene where necessary to ensure that there is adequate access to finance in general, and to risk capital financing in particular.

⁷⁴ Structural Business Statistics (Eurostat)

Policy context & mapping existing provision

- **Successive rounds of equity financing enable technology and science-based SMEs to significantly scale up their activities prior to achieving breakeven point.** This is crucial given the employment and potential of high-tech new and emerging sectors. Conventional sources of financing would not allow them to scale up their activities and to internationalise before breakeven.
- **Innovative SMEs generate a disproportionate share of employment, economic growth and wealth creation** through for instance, the development of breakthrough and disruptive technologies and innovations.

Although there is evidence of significant publicly backed intervention to maintain the supply of finance to innovative start-ups and SMEs, there remain areas of structural market failure.

Many private sector investors (LPs) have withdrawn from the European VC asset class, due to poor performance returns, and an over-supply of equity funding concentrated in a small number of sectors (e.g. ICT, technology-oriented, clean-tech), which exacerbated the problem.

The economic and financial crisis, and the subsequent sovereign debt crisis, worsened the situation, since performance returns diminished still further, with difficulties in achieving successful exits and a significant countercyclical reduction in the level of VC activity. Moreover, the introduction of more stringent EU regulation (e.g. Solvency II, Basel III, AIFMD) on investing in private equity and in alternative asset classes has deterred private investors from returning. Another factor that has limited the scale of investment is greater risk aversion among investors, especially institutional investors and pension funds.

Many fund managers (GPs) have also withdrawn from the European venture capital asset class since the early 2000s. Fund managers have found the additional fees associated with FoF structures difficult to justify given under-performance of European (and global) VC as an asset class until recently.

To address structural problems within the market, notably market failures at particular investment stages, the EIF and other public authorities at national and regional levels have intervened. Significant public sector investment has been made, as demonstrated in the Invest Europe figures on the share of the European VC market that is dependent on the public sector (circa 45% in 2013).

Framework conditions - insufficient critical mass to attract international capital, regulatory regime onerous, no fiscal incentives for institutional investors and over-fragmentation of the market.

The rationale for setting up a pan-European FoF is that it would complement existing financial instruments at EU and MS level led by both the public and private sectors, and address outstanding market failures in the VC sector. The main areas of market failure were analysed in Section 2.1.2 (demand and supply side analysis). A summary is provided in the table on the following page by way of reminder:

Policy context & mapping existing provision

Table 14 – Summary of market failures

Structural market failures

- Led by the EIF, but with national fund of funds operators also playing an important role, the public sector dominates the European VC asset class. Whilst this is sustainable in the short-medium term, ideally the private sector would be attracted back to the asset class.
- European fund of funds – and the underlying VC funds themselves – suffer from the problems of insufficient mass and over-fragmentation. To attract international capital into the asset class will require significantly bigger average ticket sizes (€25m at the VC level and circa €50m at the FoF level).
- Performance returns are insufficiently high to attract the private sector back to the asset class. Pension funds and institutional investors appear especially reluctant to invest, with some exceptions (e.g. Portuguese FoF EIF-backed with the support of pension funds).

Market failures by investment stage.

- Another aspect of market failure is the extent to which there are funding gaps at particular stages of the start-up and SME equity financing lifecycle.
- Whilst seed capital and early-stage has historically been a clear area of market failure (lower returns, higher risks), there have been a lot of public interventions in this marketplace (e.g. BPIFrance was asked to manage a €600m seed capital fund by the French government).
- Although the private sector is especially interested in investing in later stage expansion funding and in management buy-outs, compared with the US, there remains a gap in later stage funding from €5m to €15m.

The interview feedback found that although the private sector is especially interested in investing in later stage expansion funding and in management buy-outs, compared with the US, there remains a gap in later stage funding from €5m to €15m. Whilst from a public policy perspective, there has been less focus on this area of the market in the past, this is an area where the EU faces a considerable potential loss of economic output through employment and turnover growth in VC-assisted high-growth SMEs. During the expansion phase, many European high-growth firms relocate to the US for a number of reasons. First, in relation to access to funding, during Series B, C and D funding rounds in the US, approximately 2.5 times the amount of capital was raised that could have been raised through carrying out an equivalent equity capital raise in Europe.

Secondly, there are a range of non-financial reasons why European high-growth firms may relocate to the US, such as a desire to be in closer proximity to their clients (especially in the ICT sector), and achieving a step-change in their development and scale in order to internationalise. A number of interviewees in private equity fund of funds and VC funds stated that they had had to exit successful investments earlier than they would otherwise have liked since later stage investors from the US had insisted that either the whole firm, or at least entire teams of people from tech-firms relocated.

Policy context & mapping existing provision

The **definition of objectives** is closely linked to the issues of relevance and coherence. A future possible intervention has to be **relevant** in addressing the identified needs and problems identified above. The **objectives** of such an intervention would be several fold. The objective would firstly be to provide sufficient incentives to attract the private sector back to the European VC asset class and to reduce the dependence of SMEs on public sector equity investment. Secondly, a key objective would be to strengthen the supply of seed, venture capital and growth phase capital to innovative, high-growth SMEs. A third objective would be to use public sector investment to generate additional leverage at both the FoF level and through the underlying funds by at the minimum level securing match funding from the private sector by attracting investors at the FoF level rather than achieving leverage through investment in the underlying funds alone (as is generally the case with EIF FoF).

This would be relevant in the context of the 2015 Regulation on the **European Fund for Strategic Investments (EFSI)**⁷⁵, which places a strong emphasis on achieving public sector leverage. EFSI envisages using €21bn of new money in order to generate €315bn in investment, a leverage effect of 15:1. This initiative can also be viewed in the wider context of the Capital Markets Union that is currently under development. By fostering cross-border VC in Europe, this initiative may contribute to a more united European Single Market for financial products and services.

In relation to **coherence**, a key consideration is how a VC FoF instrument could be **differentiated from existing provision** (e.g. FoF established by national operators, the EIF and by private sector equity players) and whether an additional mechanism would complement or conversely duplicate existing publicly backed FoF. Also of relevance in terms of understanding existing provision is the mapping exercise undertaken to identify current EU equity-based risk capital financing instruments (see Section 2.4 – EU funding for innovative financial instruments). The research found that in both the 2007-2013 and 2014-2020 programming period, there are already a number of financial instruments, such as the High Growth and Innovative SME Facility (GIF)⁷⁶ within the Entrepreneurship and Innovation Programme (EIP) and in the current period, the Single EU Equity Financial Instrument supports European enterprises' growth, research and innovation (R&I) from the early-stage, including seed, through to expansion and growth stage capital, which are funded through H2020 and COSME.

Although considerable existing (public) provision has been identified, it remains the case that the private sector is under-represented in the European VC asset class, which raises sustainability issues over the medium and longer term. There are moreover concerns about the EIF's role and the danger of an **over-concentration of seed and early-stage VC market in the hands of a single European public institutional actor**. It is imperative that a possible future pan-European VC FoF is **differentiated from existing provision**. One way in which this achieved is if the FoF were to be managed by the private sector in order to attract the private sector back to the European VC asset class. Further details as to the way in which a VC FoF established by the European Commission's DG RTD could potentially differentiate itself is summarised in Section 4 (options analysis).

In order to set up a VC FoF, human resources would need to be allocated by the EC or an entrusted entity (**inputs**) to oversee the set-up of such a FoF and once established, to monitor the management, implementation and performance of the FoF to ensure transparency and good governance. However, it was emphasised that given that achieving positive performance through underlying investments under a FoF model takes considerable time, the EC will need to recognise the typical J-curve performance of a FoF during the first 10 years of its operations.

⁷⁵ Regulation (EU) 2015/1017 of 25 June 2015 on the European Fund for Strategic Investments

⁷⁶ The GIF was operated by the EIF on behalf of the EC, and aims to increase the supply of equity for innovative SMEs in their early-stages (GIF1) and in the expansion phase (GIF2). Investment proposals by financial intermediaries are selected on the basis of an open call for expression of interest, 11 projects have been allocated a budget of 550 million EUR.

Policy context & mapping existing provision

Stakeholders interviewed also stressed that **monitoring activities should not extend to interfering with investment decisions and day to day management**. Private sector fund managers should achieve better performance and higher rates of IRR (or investment multiples depending which performance measurement tool is used) wherever they are not subject to political or policy-driven constraints, and focus on selecting investments in VC funds based on commercial criteria alone.

There was reluctance among most interviewees to **impose geographic and sectoral restrictions on EU-supported FoF**. This does not however preclude putting in place basic rules on the geographic focus of investments, since the EIF allows the flexibility for VC funds to invest up to one-third of their funds outside the EU provided they invest two-thirds within the EU. This was viewed as being sufficiently flexible.

Financial and human resource inputs can be translated into **processes** which would have to be implemented under this intervention. A Call for Expression of Interests for a FoF manager would first need to be prepared, which should include criteria for selecting FoF managers, such as track record and experience, historical performance, knowledge of high growth sectors, etc. Once the FoF programme is set-up, the FoF manager appointed to run each individual FoF would need to identify VC funds to invest in by reviewing investment proposals and selecting VC managers. The performance of these underlying funds would then have to be monitored during the investment period and finally exit options chosen during the divestment period.

The intervention logic also maps out causal chains, i.e. the relationship between the inputs and processes described above and the outcomes that should be achieved. Here, a differentiation can be made between the immediate outcomes (**outputs**), the intermediate outcomes (**results**) and the longer term outcomes (**impacts**).

Examples of expected **output indicators** are the number of VC funds support, and the number of investee companies that these VCs in turn invest in. The outputs should then lead to **results**, such as the leverage ratio achieved on initial EU funding as a cornerstone investor and growth in the underlying undertakings that have received funding support. Examples of the types of impacts that might be expected are:

- Larger average size of VC FoFs and reduced fragmentation.
- Making the European VC asset class more attractive relative to alternative asset classes.
- Promotion of jobs and growth through ensuring access to equity finance for innovative “gazelles” throughout the equity lifecycle.
- Higher growth in innovative European start-ups and SMEs benefitting from staged equity investments (measured in terms of turnover, profitability and employment).

3. POLICY CONTEXT & MAPPING EXISTING PROVISION

The role of a fund of funds mechanism in enhancing seed and VC supply

1. A venture capital FoF can be defined as a FoF that makes equity investments in a number of different underlying seed and VC funds.
2. In order to address market failures in risk capital provision in Europe, a number of public FoF have been set up by the EIF and national FoF operators over the last 15 years.
3. A FoF can attract additional private finance, international large ticket investors and help to diversify risk by investing in a portfolio of underlying VC funds. This should help to maintain supply and contribute towards increasing the average size of European VC funds.

EU policy and regulatory framework

4. Strengthening access to finance for SMEs in general and of access to equity finance for high-growth “gazelles” are important EU policy priorities.
5. The **Capital Markets Union**⁷⁷ seeks to strengthen the framework conditions for the European venture capital industry. This builds on the **Small Business Act** and **Single Market Act (I and II), Regulation 345(2013) on European Venture Capital Funds**.
6. The **Alternative Investment Fund Managers Directive**, the **Solvency II Directive**, and **Basel III** all seek to ensure more stringent regulation of alternative forms of investment, albeit with unintended consequences in terms of challenges in attracting private institutional investment in European VC.

Existing provision of equity financing instruments to support innovative start-ups and SMEs in Europe

7. The EU provides significant support to innovative SMEs through existing equity instruments e.g. in 2014-2020, through the Single European Financial Equity Instrument under Horizon 2020 InnovFin SME VC) and COSME (Equity Facility for Growth). These build on earlier instruments, such as the GIF under the EIP/ CIP in 2007-2013.
8. The European Fund for Strategic Investments (ESFI) and Horizon 2020 both already provide legal scope to invest in VC FoF.
9. The EIF implements equity-based funding schemes as an entrusted entity on behalf of the EC to support innovative SMEs, such as the High Growth Innovative SME Scheme under the GIF and, funded through COSME and Horizon 2020.
10. The EIF is the most significant player in the European VC ecosystem and has invested €4.2 billion over the last 18 years in >260 VC funds. It runs a FoF programme of €2.5 billion, serving as a cornerstone investor and also managing 13 national FoF across the EU.
11. The EIF’s financial scope to increase the scale of its equity investments in the EU is set to increase in the near future under its Risk Capital Resources Mandate.
12. The European Bank for Reconstruction and Development (EBRD) also runs several risk financing schemes aimed at supporting the European VC industry.

But a lack of private funding.....

13. Notwithstanding the public sector’s important role, there is a lack of private sector investor participation in European VC at the underlying funds level and the FoF level.
14. Publicly-backed FoF are unable to attract international capital since they are not sufficiently commercially-oriented and / or the minimum ticket size is below the threshold at which large investors would be prepared to invest.

Definition of policy objectives

⁷⁷ 30.9.2015 COM(2015) 468 final

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1. EU R&I policy emphasises the importance of ensuring support and access to finance for innovative SMEs with high-growth and internationalisation potential
2. The European Commission *“aims to make the European venture capital (VC) industry more self-sustainable and globally competitive by reducing its dependence on the public sector and encouraging more investment from institutional and private sources back into VC, especially into early and growth-stage funds”*.
3. The intervention under consideration in this study aims to improve the supply of VC throughout the economic cycle for firms undertaking R&I, and to attract institutional and private investors back to VC, to encourage the creation or expansion of FoF across Europe, to improve the average size of VC funds, and to complement the intervention with technical capacity-building measures.

3.1 Advantages and disadvantages of a fund of funds structure

A venture capital fund of funds (“VC FoF”) can be defined as a fund that makes equity investments in a number of different underlying seed and VC funds⁷⁸. FoF may have a sectoral or geographic focus, but equally may be generalist or non-geographically targeted. The advantages and disadvantages of a FoF structure as a mechanism for deploying equity capital to innovative SMEs investing in research and innovation (“R&I”) are now considered.

In the first table, the role of a FoF in addressing **EU policy challenges** is summarised:

Table 15 – advantages and disadvantages of a FoF model (policy maker/ EC perspective)

Challenges and objectives	Role of a fund of funds
Overcome fragmentation in the European market.	<ul style="list-style-type: none"> • By investing in a portfolio of underlying funds, a FoF can help to increase the supply of VC. • Fund managers benefit from access to an additional source of investment. This may help to increase the average size of European VC funds. • The pooling of resources through cross-border FoF may help Europe to overcome fragmentation and strengthen critical mass.
Increase the supply of VC. Maintain access to innovation financing (equity capital) for high-growth start-ups and SMEs.	<ul style="list-style-type: none"> • Since the early-2000s, private investors have largely exited the European VC market. • FoF are a useful instrument for disbursing EU funds to support the European VC industry. • FoF play an important counter-cyclical role⁷⁹. Public cornerstone investors in a FoF structure help ensure access to equity finance for VC funds and in turn to innovative, high-growth start-ups/ SMEs. • Mechanism to tap untapped sources of international capital from large investors (see benefits for investors above). • Comparatively low risk compared with direct investment in VC.
Generate leverage on EU funds by attracting private capital to European VC	<ul style="list-style-type: none"> • An objective of FoF set up or funded by the public sector (e.g. the EIF, British Business Bank, BPIFrance, INEO (ES) is to leverage in additional private finance by acting as the cornerstone investor. • Publicly-led FoF, often EIF-backed, have been successful in attracting significant private sector funding (a ‘leverage ratio’ of between 5:1 and 10:1 is not uncommon in some countries. • However, FoF in which the EIF has played a crucial role either as a

⁷⁸ A FoF may be “fettered”, meaning that it invests only in funds managed by the same investment company, or “unfettered”, when it can invest in external funds. This study focuses on unfettered FoF.

⁷⁹ For instance, the UK Innovation Investment Funds was set up during the crisis.

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Challenges and objectives	Role of a fund of funds
	cornerstone investor, fund manager or both typically achieve a 2:1 ratio, reflecting the difficulty in attracting private sector funding to the European VC asset class in many European countries).
Attract private investors back to the asset class and attract new sources of capital, such as international investors.	<ul style="list-style-type: none"> • Large pension funds and endowments may be put off from investing directly in VC funds through a lack of expertise, operational resources etc. but also due to their large size and minimum ticket thresholds. • A FoF structure has the advantage that it can attract large investors by allowing for investments of large ticket size to be invested. • A FoF can attract new sources of capital, e.g. tapping into international investor networks. Many large international investors e.g. Sovereign Wealth Funds, private pension funds and institutional investors do not currently invest in the European VC asset class.
Create greater liquidity within European VC.	<ul style="list-style-type: none"> • Accessing new sources of capital through the additional scale possible through a FoF should create greater liquidity and strengthen exit mechanisms. • Whilst VC is a longer-term investment, a FoF mechanism could encourage the further development of secondary markets for PE investments, for instance by allowing for early exits.
Risk diversification.	<ul style="list-style-type: none"> • Since public money is at stake, it is important that the public sector takes steps to mitigate risks. • Diversification of risk through investment portfolio of underlying funds across a group of underlying VC funds (on average, a VC FoF in the EU invests in 20-30 VC funds).

In order to **address market failures in the availability of risk capital**, a number of FoF have been set up by the public sector. According to 2014 data from Invest Europe presented earlier, government agencies account (which includes EIF funding) for about 35% of venture funds raised.

In the table below, the advantages of a FoF mechanism from the perspective of investors (Limited Partnerships or LPs) and VC funds (General Partners or GPs) are outlined:

Table 16 - Advantages and disadvantages of a FoF mechanism – different stakeholder perspectives

Stakeholder type	Advantages (summary)	Advantages (detail)
Investors (LPs)	Portfolio diversification, professionally-managed fund selection and economies of scale.	<ul style="list-style-type: none"> • Diversification of risk through investment portfolio of underlying funds across a group of underlying VC funds (on average, a VC FoF in the EU invests in 20-30 VC funds). • Spreading risk is important to benefit from the high-risk, high-return nature of investment in early-stage growth SMEs. • FoF managers have knowledge of both established and emerging VC fund managers, with specialised investment skills in selecting potential funds. • Knowledge of the market and of top-quartile VC funds should enable FoF managers to deliver superior returns compared to direct investment in funds. • Compared with investing directly in underlying VC funds, a more effective mechanism for attracting large investors, who

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		<p>have a minimum ticket size (circa €25m – 100m) which prohibits direct investment and favours investing through an intermediary.</p> <ul style="list-style-type: none"> Economies of scale from starting with larger size individual FoF could translate into lower costs for institutional investors, potentially offsetting the additional layer of fees.
Stakeholder type	Advantages (summary)	Advantages (detail)
Investors (LPs)	Intermediary between investors and investees	<ul style="list-style-type: none"> For international investors, large-scale investment funds may not understand the European VC ecosystem well. A FoF vehicle allows the European VC industry to access large pools of capital available among international investors (e.g. pension funds, sovereign wealth funds, etc.). FoF managers could promote the European VC asset class to large, international investors that might not otherwise invest in Europe, and not directly in start-up and early-stage growth firms. A FoF vehicle may be attractive to larger investors, since it is unprofitable to invest directly in VC funds due to high overheads (e.g. setting up equity research teams, actively monitoring investments) relative to the small amounts of seed and VC needed by start-ups and SMEs prior to the later stage.
VC funds (GPs)	Accessing further sources of capital, ensuring financing supply during cyclical economic downturns.	<ul style="list-style-type: none"> VC funds fundraise from a number of different types of investors (e.g. private equity, pension funds, the EIF). However, many pension funds and institutional investors have ceased investing since the early 2000s. Public sector FoF have provided an additional investment source prior to fund closure to address funding gaps.
	Disadvantage (summary)	Disadvantage (detail)
Investors (LPs)	Double layer of fees	<ul style="list-style-type: none"> Management fees are applicable at both the FoF level and the underlying VC funds. FoF levy fees of circa 0.6-1.1% on top of the management fees associated with the underlying VC funds. Given poor historical performance, the double layer of fees has deterred investors from investing in FoF vehicles, unless the fund manager's performance is such that the additional returns generated are able to justify the additional fees.
Investors (LPs)	Poor performance track record	<ul style="list-style-type: none"> FoF have not performed particularly well, reflecting the poor performance of the European VC asset class more generally in the past 15 years (although performance returns are improving).

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3.2 EU policy and regulatory framework

Promoting access to finance for SMEs (especially for SMEs engaged in R&D and innovation with high-growth potential) is an important EU policy priority and has been cited in a number of Commission Communications since the late 1990s, when the Risk Capital Action Plan was adopted.

The Action Plan on Building a Capital Markets Union⁸⁰ (CMU) of 30th September 2015 notes that “public sector risk sharing can help to increase the scale of VC funds in Europe and the industry’s footprint across all 28 Member States, as well as acting as a catalyst for private sector investment, helping to promote scale, diversification and geographical reach. The promotion of FoF could in particular help broaden private investment in venture capital by attracting additional investment by institutional investors. A commitment has also been made to launch a package of measures to support VC and equity financing in the EU in 2016, including catalysing private investment using EU resources through one or more pan-European FoFs.

This is also reflected at an institutional level, with dedicated units dealing with access to finance within the Commission, such as DG RTD Unit B3 ‘Financial Engineering’, who manages the Single EU Financial Equity Instrument under Horizon 2020. The crucial role that venture capital plays by in financing the growth and development of start-ups and early-stage, high-growth firms has been emphasised in many policy Communications, which are reviewed in brief in this section. In this section, EU policy and regulatory developments relevant to the following are considered:

- Promoting the development of cross-border VC within the framework of the Capital Markets Union;
- The regulation of financial services and markets and remaining obstacles to attracting investment to the European VC asset class.

EU policies and regulation are important elements of the overall framework conditions in which the European VC industry operates. They may serve as a positive catalyst to the development of the European venture capital industry. Conversely, there may be unintended consequences that hinder the development of the sector by deterring investors from investing in the asset class.

3.2.1 Policy developments relevant to fund of funds.

There have been a number of EU policy developments relevant to a possible future EU-supported FoF programme. A chronological summary of key developments is now provided.

In October 2011, the EC’s DG GROW held a **workshop on VC FoF**⁸¹. Following the workshop, a number of public and private sector stakeholders have had ongoing dialogue and engagement with the EC. The 2011 workshop was prompted by the earlier development of a position statement⁸² by the EVCA on the need for further action to strengthen the supply of venture capital. DG RTD has, however, now initiated the further investigation of a possible FoF instrument through this study. However, there are several other DGs looking at FoFs in various contexts – EFSI (ECFIN), CMU (FISMA) etc.

In the European Council conclusions of February 2011⁸³, the EC was invited to present a proposal for putting in place an **EU-wide VC FoF scheme building on the activities of the European Investment Fund and other appropriate financial institutions**, in cooperation with national

⁸⁰ Brussels, 30.9.2015 COM(2015) 468 final

⁸¹ Summary report of the FoF workshop: <http://www.scribd.com/doc/213367902/Workshop-VC-FoF>

⁸² Accelerating Innovation & Delivering Growth: Using the Jobs, Growth and Investment Package to Attract Private Sector Investors to the European Venture Capital Industry (Invest Europe, November 2014).

⁸³ EUCO 2/1/11 REV 1, para 22: https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/119175.pdf

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operators. The legal bases of the **2014-2020 COSME and Horizon 2020 programmes**, proposed by the EC in November 2011 (adopted in December 2013), contain provisions, as part of their respective equity facilities⁸⁴, for EU investment in FoF.

In 2012, the EC reaffirmed that it was necessary to strengthen the availability of seed and VC financing for start-ups and SMEs through the **Small Business Act (SBA)** and the **Single Market Act (I and II)**⁸⁵, and to tackling **remaining obstacles to cross-border VC** (e.g. regulatory, tax). In the SBA, the EC committed to ensuring that VC funds established in any MS can raise capital and invest freely throughout the EU without obstacles or additional requirements. This commitment was also highlighted in the **Innovation Union Flagship Initiative**.

In its Green Paper on *Long-Term Financing of the European Economy*⁸⁶ (March 2013) the EC identified the development of the VC sector as a potential solution to the difficulties that SMEs face in accessing finance: *“The VC sector suffers from lack of resources and is influenced by bank and insurance regulation. **Funds of funds could be efficient instruments to increase the volume of VC.**”* (pg 17).

In response to the need to **strengthen the framework conditions for the European VC industry**, Regulation 345/2013 on European Venture Capital Funds was adopted in 2013. This introduced a *“common framework of rules regarding the use of the designation ‘EuVECA’ for qualifying VC funds, in particular the composition of the portfolio of funds that operate under that designation, eligible investment targets, the investment tools they may employ and the categories of investors that are eligible to invest in them by uniform rules in the Union”*. The purpose was to create legal certainty and to establish a level playing field within the internal market to boost the supply of VC. However, the interview feedback suggests that this labelling scheme has only been rarely used by market participants, partly because larger funds are subject to the AIFMD, the Alternative Investment Fund Managers Directive (Directive 2011/61/EU) – see next sub-section.

The Action Plan on Building a Capital Markets Union⁸⁷ (CMU) was adopted on 30th September 2015 and addresses a broad range of issues relevant to the development of cross-border capital markets across the EU, such as the EuVECA Regulation mentioned above and, which provides a marketing passport for the EU. Section 1.2 of the Communication, dealing with the early expansion phase of high-growth firms, is especially important to the development of a pan-European fund of funds programme.

⁸⁴ For COSME, see Article 18 4. (b) and Article 5 of Regulation (EU) 1287/2013 of 11 December 2013 — page 43 of <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0033:0049:EN:PDF>.

For Horizon 2020, see Part II, section 2.2, para 2, of Council Decision 2013/743/EU of 3 December 2013 (Specific programme) — p. 996 of http://ec.europa.eu/research/participants/data/ref/h2020/legal_basis/sp/h2020-sp_en.pdf

⁸⁵ Single Market Act Twelve levers to boost growth and strengthen confidence COM/2011/0206

⁸⁶ http://ec.europa.eu/finance/general-policy/financing-growth/long-term/index_en.htm

⁸⁷ Brussels, 30.9.2015 COM(2015) 468 final, http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-action-plan_en.pdf

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The CMU Communication notes that “public sector risk sharing can help to increase the scale of VC funds in Europe and the industry's footprint across all 28 Member States, and acting as a catalyst for leveraging private investment, helping to promote scale, diversification and geographical reach. The promotion of FoF could in particular help broaden private investment in venture capital by attracting institutional investors”. A commitment has also been made to launch a package of measures to support VC and equity financing in the EU in 2016, including catalysing private investment using EU resources through pan-European FoF. On 30 September, the Commission also launched a public consultation on means of strengthening the effectiveness of EuVECA cross-border VC funds⁸⁸.

The CMU reiterates the problems mentioned in other literature (e.g. EVCA, evaluations, academic literature) relating to the fragmentation of the European VC market. In some Member States, “VC funds face problems reaching the scale they need to spread their portfolio risk. The absence of an equity investment culture, lack of information, a fragmented market and high costs seem to be among the main reasons for this. Another issue raised is the “lack of exit opportunities for investors may also be an obstacle to the development of VC funding”. At present, many European start-ups eventually move their headquarters to the US and exit there. As a consequence, many of the employment and wealth creation potential of innovative gazelles are not fully captured in Europe.

The economic analysis accompanying the Action Plan provides an in-depth analysis of the problems of VC markets in Europe⁸⁹. It notes that the main obstacle to the development of VC investment in Europe is market fragmentation and that 75% of VC funds are smaller than EUR 82 million. It cites Invest Europe data from 2015, only 20% of funds had raised more than EUR 100 million over the last six years. The economic analysis also notes that there is 60% less VC investment in Europe in 2012 compared with 2007. It also notes that the current supply of VC is concentrated in a small number of sectors any may not therefore be available to meet demand in other sectors. “Companies active in growing business sectors such as life sciences, communications and electronics attract the majority of the available funds”. It also notes that “the impact of VC investment on productivity growth has been studied and shows that enterprises backed by VC are more competitive than others, feature higher individuality of their products and have better technologies” (see Szerb (2009)).

3.2.1.1 Framework conditions (regulatory, fiscal)

The framework conditions for European VC are an important factor that influences supply-side dynamics. These include, among others, the regulatory environment, the presence or absence of fiscal incentives for investors, the extent to which there is a culture of entrepreneurship etc.

There have been a number of regulatory developments at EU level following the economic and financial crisis with more stringent regulation of alternative forms of investment being adopted in parallel with other EU and international legislation to strengthen capital adequacy ratios among banks and pension funds and other types of financial institutions, such as alternative asset managers. This legislation includes:

- **Alternative Investment Fund Managers Directive (AIFMD)** (2011/61/EU) – which governs the regulation of alternative investment fund managers (AIFMs) operating in the EU.
- The **Solvency II Directive (2009/138/EC)**, which codifies and harmonises EU insurance regulation.
- The **Basel III Regulation** – international legislation relating to the capital adequacy of banks.

⁸⁸ http://ec.europa.eu/finance/consultations/2015/venture-capital-funds/index_en.htm

⁸⁹ http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-economic-analysis_en.pdf

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The AIFMD covers all collective investment schemes (and their managers) in the EU, on a default basis. Unless a collective investment scheme is covered by the UCITS Directive (on an "opt-in" basis), all fund managers will be covered by the AIFMD. Note that the AIFMD regulates also collective investment/fund management below the EUR 500 million threshold. However the AIFMD has a de minimis exemption (AUM < EUR 500 million) for which a light-touch, registration-based regime applies and exempts small fund managers from the most burdensome requirements. At the same time, the de minimis threshold withholds the pan-EU passport from a large population of AIFs and their managers. Two passporting regimes have been developed for VC funds (EuVECA) and social entrepreneurship funds (EuSEF), the managers of which typically fall under the AIFMD's AUM threshold. Sub-threshold AIFs registered under the AIFMD (but not fully authorised, and therefore not benefitting from the AIFMD passport) can opt in to the EuVECA regime and obtain a passport.

A number of stakeholders interviewed attested to unintended consequences associated with the above EU regulations, such as undermining the attractiveness of the European VC sector as an asset class because of the administrative and regulatory burdens associated with investing in Europe. Similar concerns have been voiced in response to the Capital Markets Union Green Paper consultation under questions 5, 10, and 15.⁹⁰ A number of specific issues were raised by potential investors:

- Investment in seed and VC among investors may be deterred due to regulatory uncertainty.
- Although this appeared to be a more significant problem in the period immediately following the financial crisis, perceptions of an overly burdensome regulatory framework in the EU may continue to deter some investors.
- However, the EU has now shifted from dealing with financial crisis to once again easing the regulatory burden for businesses and potentially also financial services /investors.
- A particular issue for larger international investors is that ensuring regulatory compliance and monitoring ongoing potential future regulatory developments is not seen as proportionate given the relatively modest potential asset allocation to European VC relative to total fund size/ AUM.

These issues were also raised by respondents to the CMU Green Paper consultation in their answers to several questions (e.g. Q5, Q10 and Q15)⁹¹. On 30th September, the Commission also launched a call for evidence on the Call for evidence: EU regulatory framework for financial services⁹².

Turning to the **Basel III Regulation**, although banks are unlikely to invest in European VC funds (or fund of funds), more stringent capital adequacy requirements have an impact on the demand-side by tightening credit.

Other key developments of relevance to a possible future pan-European FoF programme are also important to note in relation to EU funding. On 25 June 2015, the Council adopted a regulation on a European fund for strategic investments (EFSI) aimed at stimulating the economy through the **European Fund for Strategic Investments (EFSI)**⁹³. This is highly relevant, given the focus on

⁹⁰ http://ec.europa.eu/finance/consultations/2015/capital-markets-union/docs/summary-of-responses_en.pdf.

⁹¹ Please see feedback statement: http://ec.europa.eu/finance/consultations/2015/capital-markets-union/docs/summary-of-responses_en.pdf.

⁹² http://ec.europa.eu/finance/consultations/2015/financial-regulatory-framework-review/index_en.htm

⁹³ Regulation on the European Fund for Strategic Investments - EFSI Regulation (EU) 2015/1017 of 25 June 2015

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leveraging existing EU investments. Fund of funds are explicitly mentioned, and equity and quasi-equity instruments are among the financial instruments that will be used to implement EFSI.

Point 21 of the recitals states that “many SMEs, as well as mid-cap companies, across the Union require assistance to attract market financing, especially as regards investments that carry a **greater degree of risk**. Given that the EFSI sets an ambitious multiplier of 1:15, the possibility of a ‘double leverage’ effect of a FoF mechanism e.g. attracting private sector investment – including international capital - from LPs at the FoF and underlying funds level is relevant.

The EFSI Regulation emphasises that “attention shall be paid to the complementarity of new infrastructure and innovation window products focusing on SMEs and small mid-cap companies with existing EU financial instruments and **EFSI financial instruments under the SME window** so that the highest level of efficient use of financial resources is achieved”.

- **Poor returns are the major factor deterring investors from investing in European VC.** Although according to some interviewees, institutional investors have been deterred from investing in European VC due to the more stringent regulatory requirements (e.g. Solvency II, Basel III) relating to capital adequacy, the extent to which EU regulation has deterred institutional investment should not be over-estimated. For regulatory purposes, VC is categorised together as private equity, yet data from Invest Europe shows that institutional investors are increasingly turning to later-stage PE (buy-out and mezzanine funds), but avoiding VC (seed, early and late stage). This suggests that returns rather than risk aversion stemming from regulatory requirements, is the main reason why private institutional investors only invest in later-stage PE.
- For international investors, since European VC was only a small potential element as part of their total global asset allocation, the presence of regulatory obstacles was viewed as being a further barrier to investing in European VC. Some interviewees however commented that regulatory uncertainty was worse than the actual regulations adopted. Invest Europe suggested that looking ahead, regulation may be less of a perceived barrier than it has been in the previous 3-5 years.
- **Turning to the impact of national fiscal regimes on investment in the European VC asset class, the favourable tax regime for individuals in some EU countries such as the UK and France has incentivised investment in VC for Ultra High Net Worth Individuals (UHNWIs) and HNWIs.** Such investors are among the most active in angel and early-stage VC. This also has the advantage of leveraging the entrepreneurial potential of the individuals concerned, who may be able to assist investee companies with expertise.
- **However, institutional investors face fiscal disincentives to invest in VC, since they face all the same risks but do not benefit from the same fiscal rewards as individuals.** The tax position can therefore distort the market for investment.

3.3 Existing provision of equity financing instruments to support innovative start-ups and SMEs in Europe

3.3.1 Introduction

In assessing the scope for further possible EU support for the European VC asset class, it was necessary to take into account **the baseline situation in respect of the provision of existing EU funded equity capital** to address market failures and the level of funding allocation. This is a prerequisite before the question as to whether there is a need for additional EU funding through a FoF (or FoF programme) mechanism can be established. In this section, an analysis of the different

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types of funding instruments supported and the level of EU funding already invested in venture capital (and the timing of investments) is therefore provided.

The EU provides financial support for risk capital for innovative start-ups and SMEs through a number of programming and other types of instruments. This section includes a review of:

- EU risk capital financing schemes funded through EU multi-annual programmes with a focus on equity instruments (e.g. 2007-2013, 2014-2020);
- EU funding through the EIF's Risk Capital Mandate (RCM) now Risk Capital Resources Mandate (RCR)⁹⁴. The EIF operates a fund of funds programme and makes direct co-investments in venture capital funds;
- Funding schemes implemented by other actors that have invested in the European VC asset class (e.g. the EBRD).
- Examples of EU-funded and private fund of funds programmes.

3.3.2 EU multi-annual programmes in support of venture capital

3.3.2.1 EU financial instruments for equity capital in 2007-2013

In the **2007-2013 programming period**, the main financial instruments to provide equity capital to support innovative start-ups and SMEs were:

- The **High Growth Innovative SME Scheme (GIF)** within the EIP pillar within the **Competitiveness and Innovation Framework Programme (CIP)**. The GIF supported co-investments in VC funds and business angels.
- The **SME guarantee facility (SMEG)**, which provided direct guarantees to financial intermediaries providing SMEs with loans, mezzanine finance and equity.
- The **RSFF (Risk-Sharing Finance Facility)** and **RSI (Risk-Sharing Instrument) through the Seventh Framework Programme (FP7)**. RSFF made EIB-backed loans and mezzanine finance available to large corporates and mid-caps investing in RTDI, while innovative SMEs and small mid-caps benefitted from RSI, a loan guarantee scheme run by the EIF.
- **Structural Funds support for VC and other forms of risk financing**. The ERDF provided considerable support for VC. In addition, the JEREMIE Holding fund implemented by the EIF and overseen by DG REGIO is the most relevant instrument.

The EIB (including the EIF) has been designated as an entrusted entity⁹⁵ and delegated to implement a number of programmes on behalf of the EC. Currently, the EIF is the only entrusted entity, although it has not been precluded that other entrusted entities could be appointed in future.

Through the High Growth Innovative SME Scheme (GIF), €550 million was allocated to the EIF in 2007-2013 to make VC investment in SMEs through a fund of funds mechanism. The EIF managed the funds and provided co-financing to national and multi-country venture funds, which in turn made funding available to start-ups and SMEs for early-stage and expansion funding rounds. There were two main instruments within the GIF:

⁹⁴ A description of the RCM and its implementation and effectiveness to date is provided in a 2009 EIB Evaluation <http://www.eib.org/infocentre/publications/all/evaluation-eif-venture-capital-operations.htm>

⁹⁵ A new EU legal framework for financial instruments was adopted in 2014. This enables the European Commission to designate entrusted entities. Such a Single Framework Agreements (FAFA) has been signed with the EIF to deliver the equity component within Horizon 2020 and COSME.

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- **Risk capital for innovative SMEs in their early-stages (GIF1).** The EIF usually invested between 10 and 25% of the total equity of the intermediary VC fund (or up to 50% in specific cases);
- **Risk capital for SMEs with high growth potential in their expansion phase (GIF2).** The EIF was able to invest between 7.5% and 15% of the total equity in the intermediary venture capital fund. In exceptional cases, this could be increased up to 25%.

Some data is available on the outcomes achieved through the implementation of the GIF within COSME:

Table 17 - Results of the GIF within the CIP by investment stage⁹⁶

GIF 1 - Early-stage	GIF 2 - Expansion and Growth Stage
<ul style="list-style-type: none"> • GIF 1 commitments into 29 funds • EUR 381m commitment • EUR 1.8bn total fund sizes • 17 countries • 354 portfolio companies <p><i>There is some limited IRR data available from DG GROW, but this is not publicly available.</i></p>	<ul style="list-style-type: none"> • Commitments into 14 funds • EUR 172m commitment • EUR 1,2bn total fund sizes • 13 countries • 83 portfolio companies

In addition, monitoring data is presented in the *Final Evaluation of the Entrepreneurship and Innovation Programme (2011)* in respect of the average cost/ job for early-stage funds (GIF 1) was EUR 6,362, whilst the average cost/ job for the expansion stage (GIF 2 – later stage) was EUR 10,420.

Building on the successes of earlier programming periods, there was also continued support for VC through the EU Structural Funds (ERDF) in the 2007-2013 period. By 30th September 2011, € 1.9 billion in VC funding had been mobilised for SMEs and by the end of 2012, 124 funds were providing equity funding and hybrid loan and equity products to start-ups and to existing SMEs. According to EC monitoring data, there were 2,021 equity/venture capital investments in enterprises, representing a total of €747 million of ERDF contributions through operational programmes. It should however be noted that most Structural Funds support for financial instruments during the 2007-2013 period was either in the form of loans or loan guarantees (€8.6 billion).

In 2007-2013, EUR 1168.1 million was made available through the JEREMIE holding instrument funded through ERDF Structural Funds (EIF data). JEREMIE was implemented by the EIF in conjunction with national and regional managing authorities. The use of JEREMIE was optional and designed to help Member States with less experience of managing investments into VC funds. JEREMIE was more commonly used as a mechanism to deploy funds in the new member states. It was nevertheless used at regional level in Western Europe, for instance in France (Languedoc Roussillon, the PACA region in southern France), Italy (Campania, Calabria and Sicily) and in Spain (Extremadura). It therefore helped to address under-provision in less mature VC markets.

⁹⁶ Situation in September 2014 as per EIF presentation

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An overview of the total level of investment through JEREMIE in seed and VC is provided below:

Table 18 - Holding Funds Supported by Structural Funds (JEREMIE)

JEREMIE Holding Funds (country)	Size in EUR
BULGARIA	EUR 349m
CALABRIA (IT):	EUR 45m
CAMPANIA (IT):	EUR 90m
CYPRUS (CY):	EUR 20m
EXTREMADURA (ES)	EUR 10m
GREECE:	EUR 250m
LANGUEDOC ROUSSILLON (FR):	EUR 30m
LITHUANIA (LT):	EUR 67.1m
ROMANIA (RO):	EUR 100m
MALTA (MT):	EUR 12m
PACA (FR):	EUR 20m
SLOVAKIA (SK):	EUR 100m
SICILY (IT):	EUR 60m
SICILY ESF (IT):	EUR 15m
Total	EUR 1168,1

Source – EIF, 2015.

Through the interview feedback, it was noted by several stakeholders that a drawback of JEREMIE is that JEREMIE funds are domestically-focused and that there are geographic restrictions on where selected VC managers which serve as intermediaries can invest in SMEs.

3.3.2.2 EU financial instruments for equity capital in 2014-2020

In the **2014-2020 period**, the **Single EU Equity Financial Instrument** supports research and innovation in European enterprises' with fast-growth potential from seed through early-stage up to expansion and growth stage. The instrument is being funded through **Horizon 2020's InnovFin SME Venture Capital scheme**, which will provide €430m in support through the Access to Risk Finance Programme and **COSME** (Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises), the successor programme to the GIF within the Competitiveness and Innovation Framework Programme (CIP).

The creation of a **Single EU Equity Financial Instrument** represents the transition in 2014-2020 towards a more integrated approach to EU financial instruments schemes to strengthen access to equity capital for SMEs. The Single EU Equity Financial Instrument consists of:

- **Horizon 2020's InnovFin SME Venture Capital scheme** - the Single EU Equity Financial instrument was launched in June 2015 and is supporting SMEs (small to midcaps) that are focused on research and innovation activities. Funding of up to EUR 330m.
- **COSME – the Equity Facility for Growth** will provide VC to enterprises, with a focus on the growth phase. Funding of up to EUR 660m.

Both programmes support multi-stage funds on a pro-rata basis. The difference between the two is that whereas COSME will only focus on SME's, Horizon 2020 will provide equity finance to research organisations and larger companies. The rationale for supporting innovative financial instruments in the 2014-2020 period cited in programme documentation is that there remains a need to address

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continued market failures in debt and equity markets supporting R&I and growth and to complement national and regional “access to finance” schemes for SMEs. In relation to equity finance, “access to equity remains scarce for early / growth-stage investments; average VC fund sizes are sub-optimal and there is a need to build an integrated European VC market”.

The implementation of the Single EU Equity Financial Instrument (as with predecessor programmes) has been delegated to the EIF by the EC. In future, there could however be an expansion in the number of entrusted entities to include other supra-national institutions (the EBRD has been mentioned as one possibility).

In June 2015, during the First Innovative Enterprise Week in Riga, the EIB Group and the European Commission (EC) launched three new financial products to boost the competitiveness of innovative companies in Europe under the **"InnovFin – EU Finance for Innovators" programme**. Two products are loan-based but the third, an innovative financial product launched by the EIF is the InnovFin SME Venture Capital Facility. It focuses on Venture Capital funds that target start-ups, which often find it challenging to obtain financing. The EUR 430m allocation to early-stage funding will target enterprises located in EU Member States and Horizon 2020 Associated Countries. The EIF expects to invest in around 30 funds, helping to generate total investment in start-ups of up to EUR 1.6bn. In addition, the Commission has expanded the InnovFin advisory mandate: making innovative firms more attractive to private investors, benefitting new businesses across Europe.

In the 2014-2020 period, the EIF will be responsible for implementing the successor EC programmes “Competitiveness for SMEs” (“COSME”), Horizon 2020 and other EC mandates, as appropriate, as well as the second generation of Decentralized Financial Instruments (“DFI” or ex-“JEREMIE”).

As in previous programming periods, there will be continued support for seed and venture capital through the **European Structural and Investment Programmes 2014-2020**. There will be a second generation of Decentralized Financial Instruments (“DFI” or ex-“JEREMIE”) capitalising on the improved regulatory framework and building on lessons learned. The interview feedback suggested that whilst there are disadvantages from an investor perspective in setting up regional VC funds, such as the perceived overly constrained geographic and sectoral focus of investments, regional VC funds form an important part of the overall publicly funded seed and VC landscape especially in regions that are under-served by VC provision due to their weak state of maturation.

3.3.2.3 Pilot instruments to support the accelerated growth of innovative start-ups and SMEs in Europe.

Under Horizon 2020, it is also important to note that the Commission is supporting pilot funding schemes in order to promote the accelerated growth of innovative start-ups and SMEs. This includes the **“Pilot facility for technology transfer”** and the **Fast Track to Innovation (FTI) pilot**. It should be noted that one of the sub-options (Option 2.3) considered in Section 4.2/ 4.3 is increasing EU funding to these pilots. Further information about these pilot initiatives is now provided.

The purpose of the **Pilot facility for technology transfer** is to:

- Target the transfer of R&D results with a high commercial potential from public research organisations to the market in particular by:
 - Providing finance (equity, subordinated loans) for technology transfer through the creation of companies (PoC, seed, early start-up phase) or licensing
 - Supporting targets the very early-stage of new companies before conventional, commercial venture capital would be available

The Technology Transfer Finance Facility (TTFF) will need to:

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- Provide proof of clear EU added value (addressing a market gap; no crowding-out of existing schemes at national or regional level; cost-effective implementation possible)
- Provide finance in the form of equity or quasi-equity (including subordinated loan finance) intended to be a pilot facility for the period 2015-2017, with support from Horizon 2020 (Access to Risk Finance).

This pilot facility will co-finance investments made by existing technology transfer (TT) funds and vehicles. It will focus on TT undertaken via the creation of new companies and the licensing of intellectual property (IP), and concentrate on the proof-of-concept, development and early commercialisation stages of the TT process. It builds on the experiences gained from the Technology Transfer Pilot (TTP) implemented in 2007-2013 by the European Investment Fund (EIF) and from the investments in TT funds made by EIF under GIF-1 in CIP. The indicative budget is €60 million from the 2015 budget.

The TFFF approach is being accompanied by a capacity-building action to improve the investor readiness of projects, research teams and TTOs, also includes mentoring, not about patenting or licencing. It is expected that 60 TTOs to benefit, and this will help to secure further TT investment.

The **Fast Track to Innovation (FTI) pilot** provides funding for bottom-up proposals for close-to-market innovation activities in any area of technology or application. This thematic openness – combined with the possibility for all kinds of innovation actors to work together and deliver innovation onto the market and/or into society – should nurture trans-disciplinary and cross-sectoral cooperation.

The aim is to:

- reduce time from idea to market,
- stimulate the participation of first-time applicants to EU research funding, and
- increase private sector investment in research and innovation.

The FTI Pilot will be implemented in 2015 and 2016 with a budget of €200 million (€100 million per year) across the Horizon 2020 priority “Societal Challenges” and the specific objective “Leadership in Enabling and Industrial Technologies (LEITs)”. The pilot will be implemented through one common and continuously open call, meaning that proposals can be submitted at any time. The continuation of the Fast Track to Innovation beyond 2016 will depend on the results of an in-depth evaluation of the pilot scheme.

3.3.3 Other international organisations involved in the provision of European VC

The European Bank for Reconstruction and Development (EBRD) was founded in 1991, and operates in 34 countries from central Europe to central Asia and the southern and eastern Mediterranean. This includes central and eastern Europe in the countries of the ex-Soviet Block (former CIS countries) and south-eastern Europe (including the Balkans). Its objectives are to support the transition to market economies and to promote private and entrepreneurial initiative. The bank is owned by 64 countries and two inter-governmental institutions (the EU and the European Investment Bank).

In addition to its other investment and lending activity, the EBRD invests in equity funds⁹⁷ across the countries that form part of its geographic mandate. The EBRD's activities extend beyond investing in equity funds and making an investment return alone. In particular, the main objectives include:

⁹⁷ <http://www.ebrd.com/equity-funds.html>

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- Making equity finance available to SMEs.
- Building long-term institutional capacity in the region by supporting both first time and successor funds which demonstrate strong management team potential.
- Developing capacity through innovation - underpinning the development of industry capacity through diversification and innovation.
- Fostering local innovation and technological development by supporting “best in class” local and international sponsors in specialist technology-focussed venture capital and private equity fund managers.
- Attracting institutional investors.
- Increasing transparency - working to increase the transparency, visibility and attractiveness of private equity industries in the region for domestic and international investors, for instance by strengthening cooperation with local VC industry associations.

The EBRD is the single largest investor in private equity funds in the regions in which it operates. In the past, in the venture capital part of the market, the EBRD has mainly invested in larger-scale, balanced or later-stage VC funds.⁹⁸ Since 2012, however, it has also made direct co-investments in early and growth-stage ventures alongside experienced venture capital investors through its Venture Capital Investment Programme (VCIP)⁹⁹ and in 2014, it strengthened its commitment specifically to seed and early-stage technology investments by putting in place a dedicated financing programme for early-stage focused venture capital funds and business accelerators, the Early-Stage Innovation Facility (ESIF). The ESIF integrates additional pre and post-investment advisory support administered by EBRD to further assist underlying entrepreneurs and the fund managers in developing these early-stage enterprises with the limited financial and technical resources available to them.

In the following table, information about the role of the EBRD in building the VC infrastructure and in supporting new and emerging VC funds is provided.

Table 19 - Spotlight on the EBRD and its support for European VC

The EBRD has supported more than 180 funds since its inception through **intermediated investment vehicles**. These have in turn supported 1300+ investments in enterprises. As at mid-2014, the EBRD has achieved 18.5% gross IRR since its inception, which is comparable with commercial rates of IRR.

The role of the EBRD in **supporting new and emerging fund managers** should be particularly stressed. For instance, in 2014, approximately 80% of the fund management teams it supported through new fund closures were new teams. Although this was unusually high, and historically the average is closer to 60%, it demonstrates the EBRD’s commitment to supporting new market entrants, reflecting the relatively early state of maturation of the VC industry in many of the countries in which it operates. It should be noted here that the EIF also invests in new and emerging fund managers, at least in less developed VC markets. For instance, many of the underlying VC funds securing VC funds for the Baltic Innovation Fund had been established relatively recently (some were established specifically to gain experience as first-time fund managers under the JEREMIE holding fund instrument).

Since the EBRD operates in geographies where VC markets are not that well developed, its role is viewed as extending beyond making investments across multi-investment stages in the European VC marketplace, but

⁹⁸ In addition, the EBRD makes direct investments (and co-investments with these funds) into more mature technology companies through its ICT sector team. See <http://www.ebrd.com/information-and-communication-technologies.html>

⁹⁹ See <http://www.ebrdvcip.com/>. This Programme is administered by a team of three dedicated investment professionals, and an Advisory Committee which is complemented by three outside venture capital partners. To date, six investments have been completed.

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also in enhancing the technical capacity of fund managers in which it invests and in helping to build a sustainable VC ecosystem more broadly. It has put in place mechanisms through its Enterprise Growth Programme to be able to bring in technical, functional and sectoral expertise to support fund managers and the technology entrepreneurs supported by those funds.

Through the ESIF initiative, the EBRD seeks to engage “best in class” experts to work together with VC managers and portfolio companies to help them in certain areas. For instance, if a young company with limited financial and human resources needed an international expert for a time-limited engagement to assist it to develop a digital marketing strategy, then the EBRD can seek to assist identify suitable experts and finance the provision of expertise for short periods. This was seen as an important differentiator in the EBRD’s engagement in the early-stage space. The EBRD has also invested in pilot **capacity-building initiatives** such as the “Integrated Approach for the Further Development of the Venture Capital and Private Equity Ecosystem in the Baltic States” which commenced in 2013. Further details about this initiative are provided in Appendix B (case studies).

It should be noted that a more detailed case study on the EBRD is provided in Appendix B.

3.3.4 EIF investment in seed and venture capital

It should be noted that this section provides an overview of the EIF’s equity-based activities. Further detail on its fund of funds programme is provided in the following sub-section, alongside other types of FoF programmes operated at national level and by the private sector.

The European Investment Fund (EIF) was founded in 1994 as part of the European Investment Bank group (EIB). It is the European financial institution which promotes the creation, growth and development of Small and Medium-sized Enterprises (SMEs) by guaranteeing SME loans and by financing the venture capital funds that invest in SMEs. Article 2 of the EIF Statutes commits the EIF to support EU policy objectives.

It is therefore important to analyse the size and scope of the EIF’s current activities to support venture capital across its different mandates. It is also necessary to check whether there are any gaps in provision not currently served by the EIF, whether geographic or by investment stage.

Over the last 18 years, the EIF¹⁰⁰ has invested €4.2 billion in more than 260 European VC funds benefitting more than 3,800 underlying companies.¹⁰¹ In 2014, the EIF has private equity assets worth € 8.2 billion under management (own and mobilized capital combined) - €19 billion in early-stage and €6.4 billion in growth stage investments.¹⁰² The EIF’s **Risk Capital Mandate (RCM)** was signed in 2000 and was recently extended through the new **Risk Capital Resources (RCR) mandate**. This allocated the EIF an additional €2.5 billion in funding to support European private equity and VC funds. Ultimately, the aim is to supply SMEs and mid-caps with a combined additional €75 billion in funding¹⁰³.

An *Evaluation of EIF funding of Venture Capital*¹⁰⁴ noted that since the EIF’s first mandate in 2000, the EIF has played an important role as a cornerstone investor and fund manager. It now has some 25 separate mandates, including a mandate for each of the EU programmes where it manages VC instruments, such as the Single EU Equity Financial Instrument in 2014 – 2020, which supports European enterprises’ growth, research and innovation (R&I) from the early-stage, including seed and early-stage growth through to expansion. As such, the EIF plays an important role within the European venture ecosystem.

¹⁰⁰ The EIF is part of the EIB Group and shares are held by the EIB (63.7%), EU (24.3%), and 26 public and private banks and financial institutions (12%). Some national financing banks are EIF shareholders (e.g. KfW, BPIfrance).

¹⁰¹ European Venture Capital - the Facts. Presentation by Patric Gresko, the European Investment Fund.

¹⁰² EIF Annual Report 2014. P. 10

¹⁰³ Presentation 20.5.2015. Introducing the EIF.

¹⁰⁴ Evaluation of EIF funding of Venture Capital by the EIB Group’s Operations Division in 2006

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3.3.4.1 The EIF's equity and risk capital financing mandates

The different EIF mandates, and the volume of funding involved in each of these funding mechanisms, are now considered. In particular, the following are examined:

- The size and current geographic scope of the EIF's fund of funds programme which was set up under the Risk Capital Mandate (now the Risk Capital Resources - "RCR" - mandate).
- The nature and size of the EIF's mandates to implement EU programmes on behalf of the European Commission in the 2007-2013 and 2014-2020 programming periods.

The EIF's role in providing equity and other forms of risk capital financing dates back to the Risk Capital Mandate (RCM) delegated to it by the EIB in 2000. The Risk Capital Resources ("RCR") mandate provided by the EIB has recently been increased from €5bn to €7.5bn¹⁰⁵. The RCR is not linked to a multi-annual programming period and has enabled the EIF to set up a fund of funds programme and to make direct co-investments in VC.

As noted in the previous section, the EIF has a mandate to operate various EU programmes on behalf of the EC in the 2007-2013 and 2014-2020 programmes. The objective is to assist the EU in the efficient and effective deployment of capital to support access to (innovative) risk finance through a number of financial instrument programmes that use equity / quasi-equity instruments. In the following table, monitoring data in relation to risk capital finance programmes managed by the EIF through its various mandates (including those on behalf of the European Commission) is summarised. These correspond to a total size of EUR 9835 million.

¹⁰⁵ Presentation 20.5.2015. Introducing the EIF.

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Table 20 - Overview of the EIF's mandates – investment in seed and VC

Mandate	Funding instrument	Timeframe	Amount (EUR)	Notes
Risk Capital Resources mandate (RCR) ¹⁰⁶	EIF fund of funds programme	2000-2015 and ongoing. Not linked to multi-annual programmes	EUR 3120m – 2015 Note - <i>planned increase in future size to EUR 7bn</i>	Planned future increase in size e.g. DVI from €150m to €300m. Funding is not linked to multi-annual programmes.
Horizon 2020 mandate ¹⁰⁷	Part of the Single EU Equity Financial Instrument InnovFin SME Venture Capital Facility.	2014-2020	EUR 450m – EU funding EUR 25m – EIF funding	<i>Supplemented by a commitment of EUR 25m to demonstrate an alignment of interests</i> Operational from June 2015
The Competitiveness and Innovation Framework Programme (CIP) mandate	High Growth Innovative SME Scheme (GIF)	2007-2013	EUR 550m	
COSME mandate (Competitiveness & SME programme)	Equity Facility for Growth Part of the Single EU Equity Financial Instrument	2014-2020	EUR 690m – EU funding	Operational from 2014 Successor to the High growth & innovative “GIF” within the CIP.
JEREMIE mandate	JEREMIE Holding Funds Instrument (supported by ERDF Structural Funds).	2007-2013	EUR 1168.1	Detailed breakdown by country / region in previous sub-section
DFI mandate	Decentralized Financial Instruments (i.e. JEREMIE and new ESIF).	2014-2020		Successor to the JEREMIE Holding Fund.

**This figure represents the total i.e. includes EIF funding and national funding.*

3.3.4.2 The EIF's role in ensuring the supply of capital to the European VC asset class

The EIF plays a critical role in setting-up national FoF and has provided significant funding support through its FoF programme. Its role has been both *financial*, often as a cornerstone investor and *managerial/ technical*, since it has a fund manager role in some fund of funds, and also provides

¹⁰⁶ RCR is the combination of the former RCM and a mezzanine mandate from the EIB. So effectively the RCM no longer exists as an investing mandate since it has been superseded by the RCR.

¹⁰⁷ Since the equity instrument for SMEs within H2020 was only just launched, there is not currently any data available on commitments and expenditure, only on total indicative allocations, as indicated in the table above. However, there is some initial monitoring data available on the implementation of the COSME Equity Facility for Growth.

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advisory support to national financing agencies in the set-up and operation of FoF, including monitoring investments in underlying VC funds. In the following Box, the *efficiency, effectiveness, impact* and *EU added value* of the EIF's role are considered.

As noted above, the EIF has supported the establishment of 12 national and 2 multi-country FoF to date. In 10 out of 14 FoF, the EIF is the fund manager. Through its dual role as both a major cornerstone investor in FoF and as a FoF manager, it has gained considerable expertise in the set-up and operation of FoF. The EIF utilises resources entrusted by third parties such as the EIB, the European Commission, national and regional authorities and has leveraged in investment from other public sector funders at the fund of funds level. In a small number of FoF, private sector participation by pension funds in FoF has been secured, notably in southern Europe (Portugal, Spain and Italy).

Among the benefits of the EIF's participation in the European VC market in general and its role in setting up, investing in and managing FoF in particular are:

- **Effective capital deployment mechanism** – the EIF is able to disburse EU and national public money to support seed and early-stage VC efficiently and effectively.
 - **Pan-European market monitoring capabilities** – because the EIF has teams focusing on particular geographic regions within Europe (e.g. the Baltic States, south-Eastern Europe) and teams focused on specific countries in more mature markets, it is able to actively monitor market developments across the entire EU.
 - **Technical capacity to make and to monitor investments across EU28** – the EIF was regarded by interviewees as being highly professional and having gained a reputation over 15 years for managing FoF and co-investments in private equity VC funds effectively.
- **Generating leverage on EU public funds** - by investing in underlying VC funds, the EIF has secured further investment in the European VC asset class from the private sector and has achieved a leverage effect of 2:1 on average, although for some FoF, such as the Baltic Innovation Fund, it is likely to achieve circa 3:1. In 2014, EIF data shows that the EIF invested in 28 VC funds with an average investment of €10m.¹⁰⁸
- **Development of private sector VC infrastructure** – although the EIF does not work with private fund managers at the FoF level, in the past 15 years, it has played an important role in developing capacity among VC managers in countries where previously there was little VC activity. The EIF has supported FoF that have invested in new fund managers to structure the market and to develop LP capacity through instruments such as JEREMIE, the EIF has invested directly alongside managers in countries where the VC market is under-developed. In addition helping with the development of capacity and expertise among fund managers, co-investment funds alongside private sector investments have also helped to achieved leverage on public funds.

3.3.4.3 Recent developments at the EIF – expansion in the provision of equity capital to SMEs

In 2014, a Commission proposal¹⁰⁹ was published “*on the participation of the EU in the capital increase of the EIF*”. This noted that the EIF sees scope for enhancing the value added of its activities in supporting innovative SMEs by “creating additional investment capacity for private

¹⁰⁸ EIF Annual Report 2014. P. 35

¹⁰⁹ COM(2014) 66 final of 6th February 2014.

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equity, mezzanine and venture and growth capital". The proposal noted that "EIF own resources will be key to support these activities as well as to ensure alignment of interest with other mandates, including EU mandates such as Horizon 2020 and COSME, through co-investment".

Accordingly, there has been a recent increase by the EIB in the total size of the EIF's Risk Capital Resources (RCR) mandate from EUR 5bn to EUR 7.5bn. In order to meet the challenge of an increase in allocation to risk capital funding, the EIF needs to strengthen its own resources since there is a new 5% co-investment requirement to ensure appropriate alignment of interest. In 2014, the EIF's shareholders approved a 50% capital increase in the EIF's total authorized capital from EUR 3 billion to EUR 4.5bn¹¹⁰.

Looking ahead, according to the EIF's Corporate Operational Plan 2014-2016, there will be a significant increase in EIF resources for investment in risk capital over the next 3 years. *"The increase (27%+) is mainly driven by the launch of COSME equity, Horizon 2020 and several new fund of funds which will bring in additional national or regional funds as well as the new DFIs (the instrument to follow-up on and to replace the JEREMIE Holding Instrument). "* The cumulative amount of EIF AUM is expected to reach EUR 14.9bn by the end of 2016. It should be stressed this includes guarantees not only equity.

In order to achieve alignment of interests, looking forward, the EIF will invest 5% of its own resources in the fund of funds, co-investment vehicles and programmatic mandates that it operates.

3.3.4.4 Analysis of advantages / disadvantages of EIF's role (and public money) in European VC

The crucial role of the EIF in enhancing the provision of capital to the European VC industry is well-recognised. The counter-cyclical role played by the EIF in ensuring that innovative start-ups and SMEs continue to have access to capital during periods of economic downturn was emphasised. Although the returns are lower than in the commercial sector, this can be justified on the basis of the achievement of key policy objectives, such as promoting access to risk finance for innovation and for innovative SMEs, and supporting entrepreneurship.

However, a number of stakeholders, especially VC funds, VC associations and some national FoF operators expressed the view that the EIF's dominant role as a cornerstone investor in the European VC market and as a fund manager of fund of funds raises **longer-term sustainability** questions. A concern is that it may not be appropriate to have a single public sector player dominating financing supply for the European VC asset class. The expansion in the EIF's capital base referred to in Section 2.4.3 from EUR 3bn to EUR 4.5bn will be allocated to equity and other forms of risk financing. This should help to increase the supply of VC and to boost the EIF's capabilities in making counter-cyclical interventions.

¹¹⁰ http://www.eif.org/who_we_are/news/2014/capital-increase.htm

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However, interviewees also said that there were advantages in **promoting greater diversity of sources of investment** in the VC market and in having more than one major source of (public) funds, because this might encourage greater competition and would be healthy for the European VC market overall.

The EIF's role as a manager of publicly-backed FoF may not be a problem if FoFs only represent a small share of the VC market overall. According to Invest Europe data, this may indeed be the case. However, the EIF is also active in non-FoF schemes, including direct investment in VC funds. It is worth noting however that other national investors in FoFs and operators / managers in FoF such as BPIFrance also make direct co-investments in venture capital funds and do not limit their investments to FoF vehicles alone.

Among the key issues raised in relation to the impact of the EIF's dominance of the market by some (though by no means all) private sector participants were:

- The over-dominance of public money. The EIF is a major player in the European VC asset class both as a cornerstone investor and as a fund manager with a risk of market distortion.
- There are consequent risks of "crowding out" effects on the private sector. According to Invest Europe data, the EIF is present as an investor in at least 25% of the 120 active VCs in Europe. Some private FoF managers raised concerns about the EIF's dominant role in the market and in serving as both the main cornerstone investor and the fund manager of most national FoF structures. It is also a co-investor in many private equity VC funds.
- A potential concern among the private sector is that if further EU money were to be invested in European VC by setting up a FoF programme in addition to the EIF's equity mandate, this could risk further aggravating market distortion. However, this was not found to be a major problem because of the close involvement of the private sector who would be able to compete with public sector fund managers to run fund of funds, but also the requirement for significant funding to be raised from non-EU investors (predominantly private but could also be public).

The need to reduce the European VC industry's reliance on public sector money.

- Although lower performance returns and higher levels of risk associated with seed and early-stage VC mean that continued public sector funding will be needed for the foreseeable future, the asset class is arguably overly dependent on the public sector in general, and on the EIF in particular.
- The dominance of public sector money can be interpreted as a reflection of imperfect market conditions under which private investment remains scarce. It was never intended by policy makers or public sector officials to replace private investment permanently. Rather, it was intended as a temporary, counter-cyclical measure.
- The importance of promoting greater competition among FoF providers and encouraging new market entrants in the European FoF ecosystem was highlighted, especially those willing to operate on a cross-border or pan-European basis, such as larger US and international players.
- Greater diversity in supply and greater scale of funds could help to reduce management charges at the FoF level and alleviate the problem of the double layer of fees. Alternatively, by selecting only globally-leading FoF managers through enhanced performance returns, this could help to justify and demonstrate the added value to investors of paying additional fees.
- Promoting further competition in FoF investing in the European VC asset class may also enhance the attractiveness of European VC as an alternative asset class. Private FoF managers have access to different investor networks than the EIF.

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Opportunity costs of the EIF and other public FoF not being able to tap into international pools of capital

The EIF's public sector shareholders (e.g. the EIB, the EC, national and regional authorities) expect the organisation to pursue objectives through its various mandates that extend beyond achieving a commercial rate of return. In some areas/markets where it has different mandates, a lower IRR is acceptable for the EIF, given that it has been set public policy objectives to achieve, such as promoting access to finance for innovative SMEs, building a VC infrastructure in under-developed markets and strengthening the technical capacity of fund managers (GPs) and awareness levels among investors (LPs).

However, whilst willingness to accept a low IRR may help to achieve public policy objectives, it makes it more difficult to attract international investors to the asset class, given low historical performance returns. Accordingly, although some leverage has been achieved through the EIF's FoF programme from the private sector through securing investments from pension funds in Southern Europe, international investors such as sovereign wealth funds have been deterred from investing in EIF-backed FoF by the low rates of return compared to those to be expected in other asset classes.

However, balanced against this argument, a more important barrier to investment by sovereign wealth and pension funds is that of small ticket size. At least in this respect, the larger size of EIF-backed funds, and the credibility and visibility that EIF involvement as an investor or fund manager brings, should have a positive rather than a negative impact.

The opportunity costs of missing out on international investment could be overcome by setting up a pan-European FoF programme operating separately from the EIF's FoF programme that would adopt a more commercial approach and attract globally-leading FoF managers to operate the FoF and to attract untapped international capital.

3.4 Fund of funds - investing in European VC

A number of FoF have been set up by the **EIF and national FoF operators** in the last 15 years to address market failures in the provision of VC by investment stage (e.g. seed, early-stage) and in particular geographies, where the VC market was under-developed, such as Central and Eastern Europe and Southern Europe. In addition, **national and regional VC funds** have been set up, for instance, funded through the Structural Funds. The two main types of publicly-backed fund of funds are:

- **The EIF's FoF programme** – the EIF has established and / or been a cornerstone investor in a number of fund of funds, such as the UK FTF – (UK Future Technologies Fund), MDD (Mezzanine Dachfonds für Deutschland), the Dutch Venture Initiative (DVI), the Polish Growth Fund of Funds (PGFF) and the Baltic Innovation Fund (BIF).
- **National FoF operators** – such as the British Business Bank, BPIFrance etc. which have established FoF vehicles, either with the support of the EIF, national government or both.
- **Private FoF operators** – although some fund managers have exited the market and/ or instead concentrate on later-stage private equity, there remain top-performing FoF in the market.

There are advantages in having a combination of public and private sector FoF managers' active in the European VC market. FoF managers with public sector backing play an important role in intervening in areas of the market where there are supply-side bottlenecks. However, the presence of private FoF managers in the market is also helpful since many top-performing VC funds are reluctant to be seen to be accepting public funding, given their commercial orientation and ethos.

A detailed mapping and benchmarking assessment of existing FoF has been undertaken as part of this study. The purpose was to:

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- Identify the size of public intervention at EU and national level through FoF mechanisms.
- Analyse key issues relating to the set-up and design, operation and to the extent data was available, the performance of EIF and national fund of funds (including exits).
- This informed the assessment of the possible scope for a pan-European FoF programme and the configuration of suggested alternative models for setting up such a programme.
- However, it should be noted that whilst data and information on key parameters relating to the set-up and operation of FoF (e.g. duration, size, investment sources, investment period, it was only possible to obtain partial performance data.

Reference should be made to the following sections in particular, which draw on the benchmarking assessment of existing FoF:

- Supporting document 1
 - Appendix B - case studies focused on EIF-backed fund of funds, such as the Baltic Innovation Fund, the Polish Growth Fund of Funds and other international fund of funds programmes such as VCAP in Canada.
 - Appendix E – considers performance data (to the extent that data is available on national and EIF FoF performance).
- Supporting document 2 – implementation issues relating to the set-up and operation of a pan-European FoF programme.

3.4.1.1 The EIF's fund of funds programme

The EIF has operated a FoF programme since the mid-2000s, which has recently been expanded. The EIF's FoF programme is not linked to a multi-annual programming period, but is instead funded through the Risk Capital Resources mandate). According to the most recently available data, the current size of the EIF's FoF programme is over €3.1 billion (EUR 3120m). A summary of the EIF's FoF activities is provided below:

Table 21 - Total size of EIF FoF programme

Fund of Funds (name and country)	Size in EUR	Managed by EIF
Baltic Innovation Fund	EUR 100 m	Yes
ERP Venture Capital Fund Investments (DE):	EUR 1000m	Yes
LFA-EIF (DE)	EUR 50m	Yes
MDD (DE)	EUR 200m	Yes
NEOTEC (ES)	EUR 183m	Yes
Dutch Venture Initiative - DVI (NL)	EUR 150m	
Fondo Italiano Investimenti (IT)	EUR 600 m	
Luxembourg Future Fund (LU)	EUR 150 m	
Polish Growth Fund of Funds - PGFF (PL):	EUR 90m	Yes
Portugal Venture Capital Initiative - PVCi (PT)	EUR 111m	
Istanbul Venture Capital Initiative - iVCI (TR)	EUR 160m	Yes
UK Future Technology Fund (UK)	EUR 274 m / GBP 200 m	Yes
Social Innovation Fund (EU28)	EUR 52 m	Yes
Total	EUR 3120m*	Yes

Source – EIF, 2015. Note - this figure represents the total i.e. includes EIF funding and national funding.

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The data in the table above includes not only EIF funding but also co-financing raised from other national FoF operators and other national funding sources, such as national financing agencies and national state banks (e.g. INVEGA in Lithuania, KfW in Germany). There is also a plan to increase the size of some existing FoFs such as the DVI (Netherlands), which is expected to be increased to €300m target size (currently €150m) through partnering with the Dutch region. There has been a recent increase to EUR 2.5bn in the increase of the EIF's RCR mandate, which through the EFSI will provide new capacity to invest into private equity /venture capital funds. The EIF already supports 500 venture and growth funds.

Data on the total size of the fund could not be obtained consistently for all non-EIF supported FoF through the benchmarking exercise. However, a conservative minimum estimate based on the data available puts the overall size of such national FoF at € 4,471 million.

The EIF is able to invest a maximum of up to 50% in FoF, although it typically aims to represent no more than 40% of total FoF size in order to avoid being too dominant in the funding structure. Still, the EIF portfolio covers 80% of all EU VC funds. EIF-backed FoF invest in both generalist and specialist private sector VC funds that have the expertise and track record to invest directly in innovative businesses. In addition, the EIF also makes direct co-investments together with successful VC fund managers in order to help increase the supply of VC.

3.4.1.2 National fund of funds operators

National FoF operators also play an important role in ensuring the supply of equity and other forms of risk capital financing support for innovative SMEs through fund of funds investments in underlying VC funds and through direct co-investments. There are a number of national fund of funds such as those belonging to EVFIN, an informal network consisting of a group of national FoF operators¹¹¹.

Most national fund of funds receive funding support from the EIF. Indeed, a small number of national FoF, such as KfW and BpIFrance are shareholders in the EIF. In some instances, such as the UK's Future Technology Fund and the Baltic Innovation Fund, the EIF is not only a cornerstone investor but also the fund manager. Some data in respect of the size and scope of national FoF was provided in the previous sub-section on the EIF's FoF programme (the data includes national and EIF financing).

However, not all have national FoF operators were established with EIF funding. A non-exhaustive, illustrative list of publicly-backed FoF working without EIF funding is provided below:

Table 22 - Examples of publicly-backed national FoF that operate without EIF support

Country	Name of fund	Size in million EUR
AT	AWS Mittelstandsfonds	80
AT	Aws 'Venture Capital Initiative'	
BE	Arkimedes2	211.1
DK	Danish Growth Fund	750
EL	TANEO	140
ES	INNVIERTE	234.5

¹¹¹ EVFIN is comprised of the following national operators: AWS (Austria), Bpifrance (France), British Business Bank (UK), Caixa Capital (PT), Enterprise Ireland (Ireland), Finnish Industry Investment (Finland), KfK (Krajowy Fundusz Kapitałowy (PL), MFB Invest (HU), New Economy Development Fund (TANEO) (Greece), PMV (Belgium) and SRIW (Belgium).

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FI	Tekes Venture Capital Ltd	30 per annum
FI	Finnish Industry Investment Ltd	574
FI	Finnish Industry Investment Fund of Fund Growth I & II	127 & 130
FI	Veraventure Ltd	
FI	Sitra Ventures	
FR	Sino-French Fund	150
HR	VENCRO	4.6

3.4.1.3 Private fund of funds

Although as noted earlier, many private FoF managers exited the market during the economic and financial crisis of 2007-2009, a number of large-scale private FoF managers remain. Among the largest private sector FoF based in Europe include AlInvest partners (NL), Ardian (FR), LGT Capital Partners (CH), Pantheon Ventures (UK), Capital Dynamics, Partners Group and Horizon21 Alternative Investments (all CH), SL Capital Partners (UK), Allianz Private Equity Partners (DE), ADVEQ (CH) and SVG Capital (UK).

Among the advantages of having private sector FoF managers operating FoF within the European VC ecosystem are:

- Professional and commercially-oriented.
- Often highly experienced in investment selection – a specialist skills set.
- Ability to attract private capital - it is quite difficult for publicly-backed FoF that follow public policy objectives to pursue levels of returns acceptable to commercial investors, irrespective of the performance metrics used (e.g. IRR or investment multiples).
- Access to international investor networks.
- Access to high-quality deal flow - there is a mutually symbiotic relationship between top-performing FoF managers and top-quartile performing VC funds.

Previous research¹¹² using Monte Carlo simulations with real VC fund return data has modelled the return and risk profiles of FoFs and has established that the risk of a FoF losing capital was found to be small (<1%) provided that a minimum of 20 VC funds are invested in. Typically, a large private FoF operating in Europe will therefore invest in between 20 and 30 individual GPs, in order to spread risk and ensure a diversified portfolio, whilst maximising returns.

¹¹² See Weidig and Mathonet (2004, “The risk profiles of private equity”) and Risk in Private Equity - New insights into the risk of a portfolio of private equity funds - BVCA and Montana Capital Partners, 2015

Options analysis & key issues

4. OPTIONS ANALYSIS AND KEY ISSUES

Section 4 identifies and analyses the relative advantages and disadvantages of the different options and sub-options. In particular, this Section includes:

- A typology of FoF and an assessment of their relative advantages and disadvantages;
- The identification of options and sub-options under consideration;
- A summary of stakeholder views on the different options/ sub-options under consideration;
- An assessment of the main risks and possible mitigation measures;
- An assessment of the feasibility of setting up a pan-European FoF (or a FoF programme);
- A synthesis of findings;
- The identification of the preferred policy option and the rationale for the selection is outlined; and
- A concise outline of the set up and operation as well as state aid and competition issues related to the implementation of the preferred option.

Note: A more extensive review of set up and operational issues and of state aid and competition considerations is provided in the supporting document “Assessment of Implementation Issues – Setting up a pan-European FoF Programme”.

The identification of options and sub-options draws on an extensive assessment of existing FoF and their modus operandi, which was part of the benchmarking assessment (see Appendix E).

4.1 Typology of funds of funds

A typology of FoF was developed to inform the analytical framework and the modelling of alternative scenarios for a possible future pan-European FoF programme. Four main types of FoF that invest in underlying seed or VC funds were identified through the benchmarking assessment:

Table 23 - Alternative typologies of funds of funds

Model type	Description	Structure	Leverage effects
Model 1 – Publicly supported FoF.	Cornerstone public sector investor (e.g. EIF, BPIFrance), usually with additional public investors. Usually no private investor participation at FoF level, only through underlying funds. Target IRR (5%) is below what would be commercially acceptable, given that public policy objectives will apply (e.g. support for specific geographic markets during the earlier investment stages).	Public cornerstone investor Fund manager either public or private.	Underlying VC funds only
Model 2 - Public-private FoF	Similar to model above with a cornerstone public investor but with private investors at the FoF level (e.g. an EIF FoF in Portugal has attracted pension funds to invest). Although not a common model, there are examples of “private-public partnerships” where private FoF managers established a FoF (e.g. Arkimedes/ BE).	Public-private	FoF level and underlying VC funds level
Model 3 - Private equity FoF.	Large FoF may invest a small percentage of their total AUM in the European VC asset class. Given the exit from the market of many GPs, private equity groups concentrate their investments in the top 20-30 private VC funds in Europe. These VC funds, such as	Private	No leverage, but participation by PE and high IRR achieved enhances the

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Model type	Description	Structure	Leverage effects
	Index Ventures, Wellington Partners, have access to the best deal flow and typically achieve a high IRR (20%+).		supply of capital to European VC.
Model 4 – Hybrid model – combining a public-private FoF approach with a co-investment fund model.	The federal-level VCAP FoF programme in Canada has incorporated a co-investment fund dimension into their FoF model to enhance overall returns. VCAP has provided cornerstone funding and supported the setting up of four privately-led fund of funds to date.	Public-private	FoF level and through underlying VC funds

4.2 Identification of options

A number of options and sub-options were identified in response to the policy objectives described in section 2.3, as detailed in the table below:

Table 24 - Options identification (overview)

Definition of options	Description and sub-options (where appropriate)
Option 1 – No further action at EU level	The no further action option provides a “counterfactual”.
Option 2 – Increase funding for existing EU-financed equity instruments and / or the EIF’s existing fund of funds programme.	There are already a number of equity instruments being implemented in the 2014-2020 period (which build on earlier equity schemes from 2007-2013). The sub-options include. <ul style="list-style-type: none"> • Sub-option 2.1 – increase funding for existing equity instruments e.g. the Single EU Equity Instrument under the Horizon 2020 and COSME programmes. • Sub-option 2.2 – increase funding to strengthen capital available to the EIF to expand the size and scope of its FoF portfolio. • Sub-option 2.3 –increase funding for other pilot equity instruments for innovative SMEs (e.g. pilot facility for technology transfer, Fast Track to Innovation Pilot).
Option 3 – The EU could provide additional co-investment for existing national fund of funds to encourage them to set-up cross-border FoF	<ul style="list-style-type: none"> • Sub-option 3.1 - EU to invest in established national (public) FoF operators to encourage them to cooperate with national FoF in other countries through cross-border, multi-country FoF. • Sub-option 3.2 – EU to invest in setting up a FoF mechanism to promote cross-border VC by building on existing regional VC funds funded through the European Structural and Investment Funds that do not currently operate cross-border.
Option 4 – Set up a pan-European public-private Fund of Funds.	<ul style="list-style-type: none"> • Sub-option 4.1 - set up a pan-European FoF programme. <i>This would consist of several public-private FoF in the first generation (4-5) and would be operated by private or public sector FoF managers selected following a call for proposals.</i> • Sub-option 4.2 - set up a single pan-European public-private FoF. • Sub-option 4.3 - set up a pilot FoF to test the feasibility of going ahead with a public-private pan-European FoF programme. • Sub-option 4.4 – provide EU support through a FoF mechanism for new VC funds still at the investor-search stage.

The different options/ sub-options are not mutually exclusive. Subject to funding availability, there would be nothing to prevent a combination of options / sub-options from being implemented in parallel, as part of a package of measures. For instance, a pilot for a public-private, pan-European

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FoF could be supported at the same time as boosting EU support to co-finance national/ regional FoF.

In relation to Options 3 and 4, it can be noted that a number of different proposals have already been made by Invest Europe (formerly EVCA), EVFIN and other actors. In particular:

- EVCA's views¹¹³ on the general design principles for a VC FoF have been set out in position papers in 2011 and in November 2014. These include experienced private-sector management, using incentives to attract private-sector investors, investing across all industry sectors (and not by theme), and investing in VC funds with a high target allocation of EU firms.
- A group of national VC operators and long-term investors, EVFIN¹¹⁴, has developed a proposal for pooling the capital and expertise of member institutions (mostly in the public sphere) in a €250 million fund. Such a FoF would aim to build up a portfolio of 15 to 20 VC funds, and would invest on equal terms with other market-oriented investors in the expectation of attracting funds. Its focus would primarily be on cross-border VC funds managed by both established and newly created management companies, with the emphasis on teams located in the countries of EVFIN members. It would mainly target early-stage funds.

In the table on the following page, an assessment of the relative advantages and disadvantages of the different options is provided, before looking more closely at stakeholder feedback:

¹¹³ See <http://www.investeurope.eu/policy/key-topics/promoting-the-industry/pan-eu-funds-of-funds/>

¹¹⁴ AWS (Austria), Bpifrance (France), British Business Bank (UK), Caixa Capital (Portugal), Capital Dynamics (UK), Enterprise Ireland (Ireland), Finnish Industry Investment (Finland), KFK (Krajowy Fundusz Kapita/owy (Poland), MFB Invest (Hungary), New Economy Development Fund (TANEO) (Greece), PMV (Belgium), SRIW (Belgium). Membership as on 20 March 2013.

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Table 25 - the advantages and disadvantages of different options for a FoF

Definition of options	Sub-options	Advantages	Disadvantages
Option 1 – No further action at EU level (counterfactual).	<ul style="list-style-type: none"> None 	<ul style="list-style-type: none"> The EIF is recognised as a professional and experienced FoF manager. Some investors are reassured by the EIF's presence as a cornerstone investor. Stimulate uptake of equity capital investment by start-ups and SMEs in EU countries where there was previously a lack of VC and market failures. Promote economic development, growth and jobs in less developed regions. The EIF supports several €100m+ VC FoF in MS where there are recognised market failures / supply-side bottlenecks and is also active in more mature VC markets. 	<ul style="list-style-type: none"> Market domination concerns and risk of absence of competition as a driver to help attract the private sector back to VC The EIF is already one of the biggest players in the European VC market. The EIF has provided extensive backing for existing successful VC funds but may be less agile and quick-moving in spotting emerging talented GP managers. Other investors may be deterred by the presence of the EIF (and/ or other public sector investors) as a cornerstone investor and FoF manager. They may be more likely to invest in a privately managed FoF.
Option 2 – Increase EU funding for existing equity-based financial instruments for innovative SMEs	<ul style="list-style-type: none"> Sub-option 2.1 - increase funding for the Single EU Equity Financial Instrument. Sub-option 2.2 – increase funding to strengthen the EIF's FoF portfolio. Sub-option 2.3 - increase funding for other pilot equity instruments for innovative SMEs 	<ul style="list-style-type: none"> There are already a number of equity instruments being implemented by the EIF in 2014-2020, such as the Single EU Equity Financial Instrument (COSME and Horizon 2020). Since these are already established, it could arguably be more efficient to boost funding for existing instruments. There is sufficient experience of implementing existing EU equity instruments to build upon the GIF implemented in 2007-2013. 	<ul style="list-style-type: none"> It may be difficult to make programmatic changes mid-way through the period given that the budget for particular equity instruments has already been agreed. Many instruments are at an early stage in implementation and there is unlikely to be sufficient time to evaluate these. This is an issue for the two pilots that are as yet untested¹¹⁵. Although the EIF's involvement in FoF is welcomed by market participants in addressing market failures in particular geographies, the EIF has a dominant market position. If it were to be appointed to manage a single pan-European FoF programme as an entrusted entity, this would further cement its position and make it difficult to attract the private sector.
Option 3 – The EU could invest in existing publicly-backed national and / or regional fund of funds	<ul style="list-style-type: none"> Sub-option 3.1 - EU investment in existing national public FoF operators through cross-border, multi-country or pan-European FoF. 	<ul style="list-style-type: none"> Stimulate increased cross-border provision of VC at national level. Support less developed markets and build the VC ecosystem. Address problem of lack of critical mass and the need for increased average fund size Establish a single FoF as a Dedicated Investment Vehicle could be viable if it operated as a pool of additional funding to which national FoF operators could apply. 	<ul style="list-style-type: none"> Although national FoF play an important role, if the objective is to attract the private sector back to European VC, increasing the supply of seed and VC through public provision alone may not achieve this aim. Concerns among private sector that investment selection criteria may be too constrained by national political considerations rather than purely focused on generating optimal investment returns.
	Sub-option 3.2 – EU investment in	<ul style="list-style-type: none"> Stimulating increased cross-border provision of VC at 	<ul style="list-style-type: none"> Many regional VC FoF have not generated successful returns.

¹¹⁵ The Pilot Facility for Technology Transfer (<http://www.2020-horizon.com/Technology-Transfer-Financing-Facility-Pilot-i2120.html>) and the Fast Track to Innovation Pilot - <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/fast-track-innovation-pilot>

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Definition of options	Sub-options	Advantages	Disadvantages
	setting up new regional VC FoF, building on existing regional VC funds not yet operating cross-border.	<ul style="list-style-type: none"> regional level Addressing problem of lack of critical mass and the need for increased average fund size. Some regional authorities are already beginning to identify benefits in cooperating together cross-border, as illustrated by the Vanguard Initiative. 	<ul style="list-style-type: none"> Concerns among private sector that investment selection criteria are constrained by geographic and political considerations rather than investment returns potential Lower prospective investment returns may deter investors.
Option 4 – Set up a pan-European seed and venture capital Fund of Funds.	Sub-option 4.1 - set up a FoF programme to support 4-5 individual FoF in the first generation.	<ul style="list-style-type: none"> Enhance the supply of seed and VC to VC funds and in turn to innovative, high-growth firms. Achieve a double leverage effect at the FoF and underlying VC funds level. Promotion of greater competition and diversity of supply at the FoF level. Attract private sector investors back to the European VC asset class (may necessitate asymmetric returns). Attract private FoF managers. 	<ul style="list-style-type: none"> The EIF model is to co-invest in a FoF together with other public sector investors and to work with the private sector by investing in underlying funds and through co-investments. Asymmetric returns may be needed to attract the private sector. The extent of stakeholder acceptance of an asymmetric returns structure is uncertain.
	Sub-option 4.2 - set up a single pan-European public-private FoF following a Call for Expressions of Interest.	<ul style="list-style-type: none"> Enhance the supply of seed and VC to VC funds and in turn to innovative, high-growth firms. If the objective were to ensure that VC is more widely available across EU28, then a new mechanism could be put in place to distribute EU funding to VC funds across the EU, including in under-served markets. 	<ul style="list-style-type: none"> If managed by the EIF, a question mark as to how this could be differentiated from existing EIF FoF provision. If managed by a single private FoF manager, would have less impact in promoting competition and diversification among market participants in running FoF specialising in the European VC asset class. The EIF and EBRD already provide funding to address supply-side bottlenecks in less developed markets (and in some countries, also help with capacity building across the VC eco-system). Experience in the US suggests that it is not realistic to tackle geographic market failures.
	Sub-option 4.3 - set up a pilot FoF to test the feasibility of going ahead with a more significant scale public-private pan-European FoF.	<ul style="list-style-type: none"> Supporting a fully-fledged FoF has some reputational risks for the EC. It has not previously set up such schemes. A piloting approach e.g. rolling out one or two FoF in the first year to gain experience in the initial set-up phase and to fine-tune the FoF programme's design could help to overcome this problem. 	<ul style="list-style-type: none"> The duration of a publicly-backed FoF is between 10 and 16 years. Given the J Curve factor inherent in FoF, a piloting approach may not yield a definitive response as to the success or failure of the approach for 10-15 years. The pilot option is generally regarded as unrealistic by stakeholders.
	Sub-option 4.4 – EU support for new VC funds still at the investor-search stage to encourage private FoF back into European VC (a “gap funding” approach).	<ul style="list-style-type: none"> A “gap funding” approach has been successful in other areas of EU spending (e.g. ERDF). Supporting new managers by giving them the opportunity to manage micro VC funds could strengthen the European VC ecosystem's sustainability. 	<ul style="list-style-type: none"> Higher risks for the EU in supporting prospective FoF managers without a previous track record in managing FoF A possible mitigation measure would be to support FoF management teams that include a combination of those that have previously managed FoF and those that have only managed VC funds). Higher risks associated with investing in FoF at the investor-search stage.

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4.3 Stakeholder views on policy options

4.3.1 Introduction

In this section, we analyse stakeholder feedback on the alternative options and sub-options. During Phase 2, interviews were carried out with 105 stakeholders across the EU and internationally to ascertain views on the issues raised through the study. Stakeholder views were then corroborated through further desk research^{116 117}. Feedback is now provided from stakeholders on the different options and sub-options. Feedback was received on the different options and sub-options from a representative sample of VC and FoF managers through a total of 105 interviews.

4.3.2 Option 1 – No further action at EU level (counterfactual)

There were different views among market participants in relation to maintaining the **counterfactual option (status quo)**. The key arguments made in favour of not taking any further action, i.e. the status quo option, can be summarised as follows:

- The EIF already *de facto* acts as a pan-European FoF. Any further EU intervention risks duplicating existing instruments without adding discernible value.
- There is no market failure but rather low investment in European VC reflects problems in the European VC ecosystem. The problem therefore is not a lack of funding but that the framework conditions need to be improved.

The key points made in favour of taking further action are:

- There is a clear market failure when VC investment is decreasing while returns are improving. This makes public intervention in one form or another necessary to reinvigorate the market.
- The market needs to be diversified given the current dominance of the EIF both as a cornerstone investor and FoF manager.

4.3.2.1 The public sector - already active in addressing market failures

Even without a new European initiative, some stakeholders noted that there is already a significant range of public funding schemes for European VC.

Stakeholders confirmed that many private sector investors and VC fund managers have already exited the market due to poor performance. Public sector actors, notably the EIF and national FoF operators, have stepped in to ensure that innovative start-ups and SMEs continue to have access to equity capital. It was argued by some interviewees that there is already sufficient public sector provision of seed and VC, since for instance, the EIF has already backed 13 FoF in countries such as the Baltic States, the Netherlands, Poland, Turkey and the UK. Several interviewees noted that the EIF and EBRD have been active through a combination of support for setting up new fund of funds and through direct co-investment in VC in addressing under-provision in particular market geographies where the VC eco-system is under-developed, such as the Baltic States, Central and Eastern Europe and Southern Europe. Some stakeholders expressed the view that such measures were more than sufficient, and suggested that the main problem was not one of lack of financing supply, but rather lack of high-quality start-ups and SMEs with world-class growth potential. Conversely, others suggested that there remains a need for further

¹¹⁶ Accelerating Innovation & Delivering Growth: Using the Jobs, Growth and Investment Package to Attract Private Sector Investors to the European Venture Capital Industry, EVCA, November 2014

¹¹⁷ The case for a European venture capital fund for innovative companies, French non-paper

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investment in European VC, and in particular, to take steps to ensure that the private sector returns to the market.

In addition, national funding schemes have been set up in some EU countries to ensure supply of equity finance for start-ups. In France, for instance, an interviewee mentioned that the national seed capital fund set up, the *Fonds national d'amorçage (FNA)*¹¹⁸, has capital of €600m, which is very large by seed fund standards. In the UK, the British Business Bank set up the UK Innovation Investment Fund (UKIIF) with €280m of government money as a counter-cyclical measure.

In addition, some interviewees observed that in EU countries with a less well developed VC eco-system, many regional venture capital initiatives have been supported, utilising EU Structural Funds. In Lithuania and Bulgaria, for instance, stakeholders noted that ERDF funding has been used to promote access to seed capital through the JEREMIE holding fund. Other countries, such as the UK and France have also made extensive use of ERDF funding to establish regional VC funds, albeit with mixed success, according to evaluations of these funds.

4.3.2.2 Private sector and industry association views on the adequacy of VC provision in Europe

The role of private individuals in providing funding through business angel activity was also highlighted by business angel associations interviewed. In the UK, Germany and France, there is a vibrant angel community¹¹⁹. However, a problem with angel financing is that it is not that well-developed in many EU countries (some studies have estimated the UK share of angel financing at 50%). Nevertheless, an interviewee in Bulgaria mentioned that angels played a significant role in providing seed funding in the €20000 - €50000 bracket. Business angel associations emphasised that although institutional investors are under-represented in seed and early-stage VC, it could be argued that such investment was pre-institutional anyway.

Some GPs interviewed did not view there as being a supply-side problem on the basis of the data alone which shows a reduction in the number of private sector market participants. High-performing GPs continue to be profitable, whereas weaker GPs have exited the market. Since the EIF and other public actors have already stepped in to address market failures in the provision of seed and early-stage VC, some GPs felt that further EU public intervention was unnecessary, unless there was clear differentiation from existing public provision.

A related concern was that an increase in EU funding could lead to “crowding out” effects (e.g. mentioned by a German public bank representative, a Dutch investor and a number of VC fund managers). However, as explained in Option 4.1, the key differentiator of a pan-European FoF initiative is that it would seek to attract significant private sector capital and operate on a more commercial basis, rather than replicate existing EIF and other publicly backed FoF provision.

A VC stakeholder from Germany argued that increasing the supply of VC was by itself insufficient and that financing scarcity is not necessarily a problem since it means that only truly excellent business ideas, where start-ups have global potential and are scalable get funding. “Financing scarcity could paradoxically lead to greater competition and the very best start-ups will always get funding”. This was however a view shared by only a minority of stakeholders.

¹¹⁸The FNA is operated by BPIFrance on behalf of the French government - <http://www.bpifrance.fr/Bpifrance/Nos-metiers/Fonds-propres/Les-fonds-de-fonds/Fonds-national-d-amorçage-FNA>

¹¹⁹ See for example <http://www.seedcapitaluk.co.uk/seed-capital-partners.php>

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4.3.2.3 Arguments against maintaining the “status quo” approach

Stakeholders, such as Invest Europe, private equity FoF managers and some VC managers took the view that the market is not working effectively because the public sector continues to dominate the market, with the EIF being overly present in some markets. This was also echoed by some investors interviewed. Without further steps to structure the market and to significantly increase average FoF and VC fund size, there is a risk that the private sector will not return to the asset class. This could result in considerable “missed opportunities” in terms of lost monetary benefits from not capturing the economic and employment effects of later-stage VC in instances where high-growth European early-stage growth firms relocate to the US before full value can be realised. Even if investors from European VC secure successful and profitable exits, the firms exited are still growing and later stage and buy-out investors will capture most of the upside (e.g. through MBOs, LBOs and IPOs, all of which are more active market segments in the US compared with the EU).

Some interviewees noted that although the EIF is highly professional in setting up and operating FoF, it is already very dominant within the market. There was broad support for the notion that whilst the EIF should continue to play an important role in future, further competition would be healthy for the European VC ecosystem overall. However, there were divergent views as to whether the EU should support diversity in provision by setting up a pan-European national FoF scheme (Option 2) or should promote competition at the FoF level by encouraging the emergence of private pan-European FoF operators through a public-private partnership approach which would then ensure three different types of FoF operators (the EIF, national publicly funded operators and the private sector).

A further argument made was that the EIF is already one of the biggest players in the European VC market. If the EIF remains the only publicly funded pan-European FoF player in the EU able to invest in cross-border FoF, it may become increasingly difficult to attract the private sector back to European VC in future given market entry costs. The discussions with national FoF operators confirmed that presently, although the underlying funds in which they invest have investment portfolios of SMEs in different countries, the FoF structures themselves are national in character. Indeed, although the EIF has a pan-European remit and monitoring reach, the FoF that it has set up to date have been national rather than cross-border, with the one exception of the Baltic Innovation Fund (est. 2013).

Some stakeholders suggested that rather than setting up entirely new funding schemes, it would be more appropriate to encourage the Member States to take further steps to improve framework conditions (for instance, encouraging Member States to set up a regulatory framework at national level conducive to supporting FoF, replicating the tax breaks in France and the UK for individual angel and VC investors etc.). It was also suggested that the EU could also play a role in improving framework conditions, through a rigorous assessment of the impact that EU financial legislation to regulate investment in alternative asset classes and relating to capital adequacy ratios.

In summary, those against further EU intervention in this area questioned whether attracting private institutional investment was necessary, since it was argued that the funding gap in European VC is already being plugged through a combination of different funding sources, ranging from the EIF and the EBRD, through to national and regional public interventions and angel activity. It was noted that given differential tax breaks for individual, as opposed to institutional investors, it is unsurprising that institutional investors only account for a small percentage of VC investment.

Overall, although opinions were clearly divided on the nature and extent of market failures in some areas, most stakeholders agreed that some action on EU level would be beneficial for economic growth. However, a significant minority (circa 15 interviewees) expressed the view that the EIF is already doing a good job in addressing market failures did not think that action was needed. However, the majority of stakeholders argued that some action is needed.

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4.3.3 Option 2 – Increase EU funding for existing equity-based financial instruments and FoFs for innovative SMEs

A number of sub-options were reviewed, including:

- Sub-option 2.1 - Increase funding for the Single EU Equity Financial Instrument (e.g. Horizon 2020 (InnovFin SME VC) and COSME (Equity Facility for Growth))."
- Sub-option 2.2 – increase funding to strengthen capital available to the EIF to expand the size and scope of its FoF portfolio.
- Sub-option 2.3 - increase funding for other pilot equity instruments for innovative SMEs (e.g. pilot facility for technology transfer, Fast Track to Innovation Pilot).

The different sub-options are now considered.

Option 2.1 - Increase funding for the Single EU Equity Financial Instrument.

The main points in favour of this sub-option were:

- The EIF already manages many existing EU financial instruments. As an institution, the EIF is experienced, well regarded in the market and has a successful track record.
- It therefore has the internal delivery and monitoring capacity to increase the size of the Single EU Equity Financial Instrument.

The counter-arguments can be summarised as follows:

- The funding allocation was already thought through at the programming stage.
- Absorption capacity among potential beneficiaries is not yet proven, since it is too early in the implementation of the new instruments for sufficient monitoring data to be available.

EU funding could be increased for existing EIF FoFs and / or other EU financed equity instruments targeted at SMEs, such as the Single EU Financial Equity Instrument funded through both H2020 (access to risk finance) and COSME. According to a German public bank representative, there is a sufficient demand in the market for more EU money to be allocated, provided that this is well-managed. The EIF was widely recognised by interviewees as being a credible market player both as a cornerstone investor and FoF manager.

An advantage of this sub-option is that the EIF has the capacity, skills and knowledge to increase the size and scope of its operations on a pan-European basis since it already has the monitoring capabilities and local teams in place to implement a pan-European FoF. It is recognised as having extensive experience both in making direct investments in GPs and in managing FoFs. The EIF has also managed significant scale co-investment funds, for example, funded by the ERDF (e.g. Scottish co-investment funds, JEREMIE holding funds in Lithuania, Bulgaria, etc.).

One argument put forward by some stakeholders for increasing funding to the EIF was that supporting an existing actor with relevant skills, knowledge and experience of the European VC market may make it easier to hold them accountable compared to creating a new financial intermediary with several managers involved (e.g. mentioned by a Polish public FoF manager and a number of VC managers). A practical solution came from a representative from a German public bank who suggested that the EU could provide the EIF with investment guarantees and that the EIF could then allow underlying funds to benefit from such guarantees in order to attract private investors. A Dutch public authority, conversely, believes that it would be better for the EU to co-invest together with the EIF rather than to provide guarantees.

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With regard to the relationship between a pan-European fund of funds and the EIF, there is general agreement among interviewees that the EIF already fulfils some of the same functions that a pan-European FoF would do. Some stakeholders argued that investing additional EU funding to support European VC through an expansion of the EIF's existing FoF programme would be a more cost-effective solution than establishing a new pan-European FoF from scratch. However, as noted earlier, there are already concerns that the EIF accounts for too high a share of the European VC market and should not increase its market share, due to the risk of "crowding out" effects and over-reliance on a single actor.

It is moreover doubtful whether investing additional public money into existing schemes will attract further private sector investment, which would be one of the key goals of a pan-European FoF initiative as described in Option 4.1.

Option 2.2 – increase funding to strengthen capital available to the EIF to expand the size and scope of its FoF portfolio.

Key points in favour of this sub-option were:

- The EIF is already performing its role in increasing the supply of VC both in more mature markets (e.g. successful EIF-backed FoF in the UK and the Netherlands) and in less well developed markets (e.g. the Baltic States, Poland).
- It could therefore relatively easily scale up the size and scope of its existing FoF programme compared with other actors.

The counter-arguments can be summarised as follows:

- Increasing funding through an expansion in the size of the EIF's programmatic mandate from the Commission could reinforce the EIF's dominance and may not attract additional private investment (especially larger international investors seeking large ticket size and higher commercial returns).
- Plurality in the market would be better served by having multiple cornerstone investors, rather than being over-dependent in the EIF.

Detractors of Option 2.2 mentioned that whilst the EIF is playing an invaluable role in plugging funding gaps in the European VC industry, over the longer term, there needs to be more sustainable supply of VC and a better balance between public and private sector market participation.

Whilst VC and FoF managers interviewed recognised that increasing EU funding for the EIF's FoF programme has certain advantages (e.g. not reinventing the wheel, technical and monitoring capacity to serve both as a cornerstone investor and FoF manager), there would equally be disadvantages. These arguments were set out earlier in detail and include: the difficulty for the EIF given that it also pursues EU policy aims in achieving a sufficiently high commercial return to attract private sector investors, the risk of crowding out of private FoF managers (by making an already dominant player in the market even stronger, etc.).

Several stakeholders cautioned, however, that the FoF backed by the EIF in less developed markets sometimes have inexperienced managers and are too constrained in their investments by additional rules. A British investor raised the point that it may be hard to justify politically diverting money away from other funding channels under Horizon 2020 into venture capital investments (as envisaged under sub-option 2.1).

Overall, whilst stakeholders recognised the vital role of the EIF within the VC eco-system as a source of finance and also professionalism and expertise, it was generally accepted that increasing the size of the EIF's existing FoF and direct co-investment activities would not address some of the structural barriers facing the European VC market (e.g. lack of private participation, difficulty in attracting large-scale international capital and small average size of VC funds).

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Option 2.3 - increase funding for other pilot equity instruments for innovative SMEs (e.g. pilot facility for technology transfer, Fast Track to Innovation Pilot).

A third alternative approach could be to provide additional funding to existing pilots being tested out by DG RTD, namely: ,

- The Pilot facility for technology transfer – which is under development; and
- The Fast Track to Innovation (FTI) pilot¹²⁰ which provides funding for bottom-up proposals for close-to-market innovation activities in any area of technology or application.

Further information about these initiatives is provided in Section 2.4 (Existing provision of equity financing instruments to support innovative start-ups and SMEs in Europe). Option 3 - set-up a fund of funds programme to increase financing supply to existing national Fund of Funds and / or encourage regional VC funds to cooperate through a FoF structure.

Through these stakeholder interviews, very little feedback was received on the scope for increasing EU funding for these pilots. This reflects the fact that as pilots, these important initiatives are not yet that well known among the VC stakeholder community.

However, it can be observed that the FTI already has a budget of €200 million over 2 years whilst the Technology Transfer Finance Facility (TTFF) has a budget of €60 million. Since these are pilots, and by definition, their effectiveness and success cannot yet be judged, it would be imprudent to increase EU funding to them until a thorough evaluation has been carried out. A further observation is that whilst supporting technology transfer and close-to-market innovation activities is imperative, it is part of the supporting framework conditions in which a successful European VC sector can operate, rather than being an alternative approach to channelling EU funding directly into VC.

4.3.4 Option 3 – supporting existing FoFs through an EU scheme to encourage them to invest cross-border.

Turning to Option 3, two sub-options were identified under Option 3 and the stakeholder feedback on these is now examined:

Option 3.1 - EU to set up a pan-European funding scheme to encourage established national (public) fund of funds operators to cooperate with FoF in other countries through cross-border, multi-country FoF.

The key points in favour of Option 3.1 were:

- A pan-European FoF scheme benefiting national FoF operators would encourage the setting up of cross-border, multi-country FoF, which are important for achieving critical mass.
- Strengthening publicly-backed national FoF operators could help to stimulate competition and ensure that underlying VC funds were less dependent on securing EIF funding.
- A new scheme would allow EU to draft the rules of governance according to their objectives

¹²⁰ <http://ec.europa.eu/programmes/horizon2020/en/h2020-section/fast-track-innovation-pilot-2015-2016>

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Conversely, some stakeholders maintain that:

- Supporting existing instruments might increase public sector dominance, especially if the EIF were to be involved as an entrusted entity or in running individual FoF.
- Publicly-backed FoF are not currently attractive to private investors, either because they pursue at least some public policy objectives and are not sufficiently focused on return on capital or because they operate in European countries (or regions) with little VC activity.
- Private sector investors made it clear that they were unlikely to invest if there were geographic or political constraints on where they could invest.
- Absence of a clear market failure - there is already extensive provision of seed and early-stage VC at regional level through the European Structural and Investment Funds (including the Jeremie Holding Fund instrument in the new member states and through national funding schemes, such as the *Fonds nationaux d'amorçage* in France. Often regions have excessive investment funds and the quality of enterprises supported suffers.

Under Option 3.1, the EU would put in place a structure for a new funding mechanism that existing publicly-backed national FoF could tap into to increase the size of newly established FoF in future. This option was supported by members of the EVFIN network (see Section 2.4.4 for a full list of national FoF operators belonging to EVFIN), who made a proposal to the EC to pool the capital and expertise of its member institutions into such a FoF structure. These are mostly national public financing agencies.

Such a FoF would aim to build up a portfolio of 15 to 20 VC funds, and would invest on a *pari passu* basis with other commercial investors. The aim would be to focus primarily on cross-border VC funds managed by established and newly created management companies, targeting early-stage funds. Among the potential benefits of such an approach according to members of EVFIN interviewed are: increasing average fund size by pooling new EU money from the Commission together with national FoF capital pooled across several countries and in addition, attracting additional funds from international investors, who would not otherwise invest unless there were sufficient critical mass.

A Dedicated Investment Vehicle (DIV) has already been established by a French management company (called Athena) to this end. According to EVFIN, the purpose of setting up a DIV is to provide a legal entity through which a funding mechanism could in future be set up to support national FoF in establishing cross-border FoF.

A small number of stakeholders supported this Option on the basis that it would encourage national operators to cooperate with one another through the setting up of multi-country VC funds, rather than through a pan-European FoF approach. This would enable them to set up larger FoF by pooling capital. Greater critical mass could help them to attract private sector participation. If each national FoF operator established a cross-border fund by pooling their capital (matched by a commitment from the EU to a new FoF to boost the supply of capital to national FoF, wishing to engage in cross-border FoF provision), there is a risk that the individual national constituent FoF continue to operate mainly on a domestic basis.

A number of stakeholders recognised that there could be benefits in increasing the role of national FoF operators, such as providing competition for the EIF, potentially attracting new international capital into national VC markets from investors. An interviewee from Lithuania's national financing agency involved in the €100m Baltic Innovation Fund said that it would have been difficult to attract investors if a VC fund of funds had been established focused solely on supporting SMEs in the Lithuanian domestic market. A similar view was echoed through the interviews in Sweden, where two interviewees stressed that "an international FoF could help to foster the transnational dimension and to bring in international capital.

This would benefit recently established and high-growth companies wanting to internationalise and extend their professional networks across Europe. In addition, regional funds have a closer proximity to

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market and could be more effective in encouraging cross-border investments and separate lines of investment for underserved markets such as in Eastern Europe (British investor).

There were different views as to which organisation would best be placed to implement a pan-European VC scheme involving the public sector, in particular whether this should be managed on a decentralised basis by national FoF operators, as mooted under the EVFIN scheme, or alternatively whether such an initiative should be managed under the umbrella of EIF, which is one of the only players, perhaps along with the EBRD that has the pan-European reach, knowledge of the different state of development of different VC markets and monitoring capacities to implement such a scheme. Again, the two are not mutually exclusive in that the EIF could potentially administer the distribution of funding to national FoF operators for instance through a call for expression of interests.

There were concerns among some stakeholders – as noted in the feedback on Option 2, that if the FoF initiative to be implemented by the EIF, this could lead to the risk of crowding out effects and market distortion and would raise issues as to whether this duplicates what the EIF is already doing, given that through investments in FoF and co-investment, it already accounts for a significant share of the VC market and the total number of funds. If however the EIF were only administering the distribution of funding to national FoF operators in order for them to overcome structural deficiencies relating to fund size, then this would be more acceptable to stakeholders from a competition point of view. However, it was also recognised since the EIF is an effective fund of funds manager, it would be well-placed to take part in a Call to bid to operate one of the individual FoF.

A number of respondents highlighted the point that if a new pan-European FoF were to be established to promote the establishment of cross-border FoF comprised of existing national FoF operators, this would need to be managed effectively by an existing player in order to ensure good governance. The EIF was viewed as being well-placed to fulfil such a monitoring function, given its knowledge, experience and ability to monitor investments on a pan-European basis.

Less positively, among the interview feedback was that even if cross-border FoF were established by national FoF operators / national promotional banks, there was a question mark as to how genuinely cross-border such a scheme would be at the implementation level, given that national FoF operators currently mainly have experience in investing in a domestic context. Investing in other EU countries through a cross-border scheme would require in-depth knowledge of the VC markets in other countries, monitoring capabilities (including linguistic) in those countries etc. It was suggested that the EIF and the EBRD are the only public sector operators that can operate on a genuinely cross-border basis across the EU.

An obvious drawback of the approach proposed by EVFIN however is the risk that in strengthening the cross-border capabilities of national FoF, this could lead to the continued domination of the public sector, especially at the seed and early-stages. It could however help to attract private capital back to the sector through greater critical mass by attracting investors to the FoF level. Some interviewees questioned whether if new FoF were established by the public sector using a new pot of funding whether the objectives of public and private sector stakeholders could be aligned. A counterargument here advanced by a major national FoF operator in France was that the best FoF operators already operate along private sector lines and only invest on a commercial basis.

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Sub-option 3.2 – EU to invest in setting up regional, cross-border VC FoF building on existing regional VC funds.

Among the findings in favour of this approach were those:

- Supporting regional FoF could encourage cross-border VC investment and help to address underserved markets.
- Many regional FoF are too small in scale to attract private investment. A multi-country regional FoF structure could help to overcome this.

However, there are also disadvantages, such as:

- The risk of duplicating emerging initiatives, such as the Vanguard Initiative.
- Regional FoF are often heavily constrained by geographic and sectoral restrictions in what they can invest in which would be unlikely to attract private investors, even if there were a cross-border elements to the FoF.

Many regional VC funds have been established, some of which are EU funded through the European Structural and Investment Funds (ESIF). However, they do not currently operate cross-border. There are however initiatives such as the Vanguard Initiative that are considering closer cooperation and possible joint cross-border FoF structures to operate regionally-focused, multi-country FoF.

The second sub-option under Option 3 would be to establish a multi-country FoF initiative that encourages cooperation between existing regional VCs through a FoF structure. The objective would be to promote economic development, growth and jobs in less developed regions and the accelerated development of high-growth SMEs. According to some stakeholders, such an initiative would allow for the development of a targeted, regionally coherent portfolio which could have advantages compared with a pan-European FoF approach covering all 28 Member States. However, this option was not generally mentioned by stakeholders as the frontrunner option, mainly because of concerns that existing regional FoF have suffered from very poor performance and are too politically constrained with corresponding limitations as to where and in what they can invest (e.g. geographic / sectoral constraints).

There was a strong perception that regional FoF are neither as commercially viable as alternatives nor attractive to investors (especially international pools of capital) because they face onerous constraints on their investment decisions in terms of sectors and geographies and this would lead to overly restrictive investment criteria being imposed. Thus, it would be crucial to prove that management of such a new fund is truly independent even if the EU acts as an anchor investor (mentioned by a German representative from a public bank). Moreover, setting up such a new fund would be more time-consuming than investing in existing schemes as suggested under option 2. Finally, if the EIF were to be involved in such a scheme, it would again risk duplication with existing EIF-backed FoF (e.g. the Baltic Innovation Fund already operates on a multi-country, regional basis).

Through the interviews, an example of a specific initiative to set up a regionally-based FoF mechanism was identified, the **Vanguard Initiative for New Growth through Smart Specialisation**¹²¹. The aim is to better position and embed the smart specialisation agenda within regional development frameworks through cooperation between a series of European regions. A tentative proposal has been discussed for a possible future regional FoF initiative through cooperation between regional authorities participating in Vanguard. Stakeholders that were interested in the regional dimension acknowledged that such an initiative would need to tap into different funding sources other than H2020, for example through the ERDF.

¹²¹ <http://www.s3vanguardinitiative.eu/>

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There is some evidence of rationalisation within regional fund of funds. For instance, an interviewee in France pointed to the forthcoming merger of a number of different French regional VC funds to strengthen critical mass and overcome over-fragmentation.

In conclusion, whilst serious consideration needs to be given to the first sub-option within Option 3, the second sub-option does not appear to have sufficient stakeholder support to be considered further within the scope of this study for DG RTD. However, the concept of setting up a regional, multi-country FoF mechanism to ensure critical mass of regional FoF which typically suffer from a reputation for poor performance could perhaps be considered further by DG REGIO.

4.3.5 Option 4 – Set up a pan-European public-private seed and venture capital Fund of Funds.

Option 4 is the most ambitious of the different options, and a number of distinct sub-options have been considered through the analysis, namely:

- Sub-option 4.1 - set up a FoF programme to support 4-5 individual FoF in the first generation. This would consist of multiple public-private FoF to be operated by private or public sector managers
- Sub-option 4.2 - set up a single pan-European public-private FoF
- Sub-option 4.3 - set up a pilot FoF to test the feasibility of going ahead with a public-private pan-European FoF programme.
- Sub-option 4.4 – set up an EU funding scheme through a FoF mechanism to support VC funds that are still at the investor-search stage (gap funding approach).

Under all of these sub-options, the fund of fund managers (or in the case of Option 4.4, the underlying fund managers) would be selected following a Call for Expressions of interest.

The feedback on these sub-options is provided below.

Option 4.1 - set up a programme, consisting of multiple public-private FoF to be operated by private or public sector managers selected following a Call for Expressions of interest.

The key points made in favour of Option 4.1 can be summarised as:

- Supported by a majority of stakeholders, given the need to diversify investor landscape and pool resources.
- It would be easier to attract private investment if there were private management of a FoF which is not the case with existing EU-backed instruments
- Would have to be clearly differentiated from existing EU-backed instruments to add value.
- Key would be to maintain right balance between resources allocated and the pool of underlying SMEs in order to maximise return and be able to compete with private FoF operating in the European VC market.
- Individual FoF could focus on different sectors, geographies, stages of investment (e.g. early vs. later stage VC), combination of start-ups and mature firms.

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The key points made against this option are:

- Risk of duplication with existing EIF-backed schemes, especially since the level of funding is already significant
- Additional layer of fees would have to be compensated for, e.g. through asymmetric returns

Option 4.1 was supported by Invest Europe and a number of private sector FoF operators and underlying fund managers. Invest Europe has set out its views¹²² on the general design principles for a VC FoF programme supported by the EC. These include using incentives to attract private-sector investors (asymmetric returns), investing across all industry sectors (rather than imposing any restrictions), and investing in VC funds with a high target allocation of EU firms (but with flexibility for the underlying funds to invest a certain proportion of funding outside the EU, as is already the case with EIF FoF).

Compared with the other options, Option 4.1 was recognised as having the advantage that it would deliver something clearly differentiated from existing public provision in that the private sector would be tasked with managing the FoF under the programme and securing match funding at a ratio of at least 1:1. A clear advantage of this option is that it is in line with the principles outlined in the proposal for a Regulation on the European Fund for Strategic Investments (EFSI) since double leverage would be achieved at both the FoF level (by bringing in private capital) and through the underlying funds level, where private capital will typically account for 60-70% of the individual VC funds that a FoF invests into.

Under the EIF's existing FoF programme, the main investors at the fund of funds level are other public sector institutions. Leverage is primarily achieved through selecting VC fund managers that are required to raise further funding from private sources (usually a minimum of match funding is required) or through direct co-investments. There are however already 4 EIF FoF especially in Southern Europe (for instance in Spain and Portugal), where a number of pension funds have invested alongside the EIF at the FoF level.

The EIF stressed that caution is needed in interpreting leverage ratios. Among the challenges are those:

- It may be difficult to ascertain whether match funding is genuinely new, "additional" money sourced from new pools of capital, or simply displaced capital that would already have been destined for the European VC asset class (risk of crowding out private capital).
- The leverage effect of money invested in seed and early-stage venture capital will typically be lower in geographies within the EU where public intervention is needed in order to help to develop the market infrastructure. Conversely, investment in mature VC markets will require a lower public rate of intervention than in markets where the state of maturation is lower.

Private LPs and GPs interviewed, as well as Invest Europe, stressed that there should be scope under a FoF programme to access new sources of capital, because if there were to be say 4-5 FoF established and private FoF managers appointed, each GP would then have access to different investors and different international pools of capital, and the larger ticket size would allow institutional investors to become involved.

¹²² <http://www.evca.eu/policy/key-topics/promoting-the-industry/pan-eu-funds-of-funds/> and November 2014 position statement.

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It was also widely accepted that Option 4 was the option most likely to help tackle the structural problems analysed in-depth in Section 2.1.2 on supply-side issues i.e. that in order to be competitive, Europe needs to significantly increase the average size of VC funds and consequently also of FoF to attract international investors not currently represented in the European VC marketplace.

The research from Scandinavia, the UK, Poland, the Netherlands and Germany highlighted that most interviewees saw Option 4 as a viable option. Most respondents agreed that there is a need to increase total supply of VC in Europe and that an EU initiative to increase VC, especially private sector participation, would be welcome.

However, not everyone agreed. An alternative viewpoint expressed by at least 10 stakeholders was that the EU should instead simply increase its funding for the EIF so that the EIF can increase the scale of its activities, since the EIF is “already fulfilling this function in the European VC market”. Some stakeholders (e.g. German public bank and European public investor) stated that it would be hard to ascertain the added value of a pan-EU FoF given existing EIF and other instruments. Again, it was stressed that private management of the FoF programme would be crucial in demonstrating its added value and differentiating it from existing schemes.

Although many stakeholders expressed broad support for Option 4.1, opinions were divided on the question of whether the returns should be on a *pari passu* versus an asymmetric returns basis. This issue is explored in depth in Section 5.2.10 (risk sharing – set up stage) and Section 5.4.2 (*pari passu* versus asymmetric model). A criticism made of Option 4.1 was that one or more private FoF would invest in the best underlying funds but would not take an active role in maturing the EU VC market (which especially some of the public actors still thinks is key – it took 40 years to mature the US market so the EU most likely still has some way to go). Thus, they would invest in the ones that are most likely to be able to raise capital themselves anyways rather than supporting newly emerging managers. On the other hand, in absence of asymmetric returns, it may very hard to justify an additional layer of management fees that comes with a FoF.

In addition, a public investor raised the point that when investing in a FoF as opposed to direct investments in VC funds it is harder for the investor to be visible with benefitting SMEs. In addition, the performance of the FoF would have to match that of existing private FoF in order to attract private investment which may not be easy to achieve, especially if the FoF would invest in the EU28, including underperforming regions (according to a Dutch investor, German public bank representative). Another practical point was raised by a British investor regarding whether the EU under this initiative would in fact become a *de facto* LP by co-investing alongside other institutional investors at the FoF level. This is however similar to the position that the EIF is in on its own FoF programme, where it also plays the FoF manager role, not only serves as a cornerstone investor.

Although some stakeholders (e.g. national FoF operators, public authorities and the EIF) appeared to favour a *pari passu* approach on the basis that a FoF ought to be able to attract private investment if it invests on a purely commercial basis. However, although this has often the model in the past, it can be noted that most FoF only involve public money. It may be easier to attract private capital at the underlying funds level on a *pari passu* basis, given that investors can potentially benefit from high returns.

Experiences from Canada’s VCAP suggest that it can be difficult to attract the private sector even when offering asymmetric returns. Most interviewees from private equity and VC fund managers argued that if the EU is serious about encouraging the private sector back to European VC, it should allow the private sector to capture the upside in return for investing in higher-risk investment stages. Asymmetric returns were regarded as potentially helping to overcome barriers to attracting private investors at the FoF level, namely double layers of fees.

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Option 4.2 - set up a single pan-European public-private, EU-wide FoF covering the whole EU managed by public or private sector FoF managers following a call for expressions of interest.

- Many stakeholders were either generally in favour or against the EU setting up a FoF programme, without expressing a strong preference as to whether this should consist of multiple, somehow differentiated, FoF or a single pan-EU FoF
- While some stakeholders saw the pan-EU coverage of a single FoF as an advantage since it would provide the GP with flexibility, others cautioned that this would not be manageable due to a lack of proximity to markets and the difficulty in identifying the top-performing VC funds in all Member States

The points made in favour and against setting up a single pan-European FoF were broadly similar to the points made under Option 4.1. A key distinction is that some stakeholders cautioned that under a single pan-European FoF a management team would struggle to do justice to all geographies and sectors given that proximity to market and existence of networks are key to the success of any FoF. In addition, the massive scale required for a pan-European FoF to be effective would once again risk emulating what the EIF is already doing.

On the other hand, some stakeholders maintained that a pan-European focus would provide the flexibility to the GP to pick the most profitable investments across Europe rather than being constrained in their choices. The pros and cons of a single pan-EU FoF vs a programme of multiple FoF also very much depends on how these multiple FoF would be differentiated, as discussed above.

A point was made by a European public bank interviewed who stated that there might be a first mover advantage for a publicly backed FoF in the European VC market and this could lend the asset class credibility which would then encourage private investors to follow suit – the initiative would thus have a signalling function. Conversely, some stakeholders believed that a single pan-European FoF would find it harder than multiple FoF to raise funds and to achieve a diverse investor composition. Moreover, by covering all 28 Member States, a single FoF might raise concerns amongst potential investors about whether it would be able to pick the best VC funds in Europe.

Option 4.3 - set up a pilot FoF to test the feasibility of going ahead with a public-private pan-European FoF programme.

This was not viewed as a realistic option by several stakeholders interviewed. The main argument made was that it would take too long – at least 7-10 years – to be able to assess the performance of a pilot. Which is too long for a tentative scheme. If, however, this sub-option would be limited to a 1-2 year test phase to allow the European Commission and the GP teams appointed to run individual FoF to gain experience and develop a better understanding of the potential level of interest amongst different types of investors, this could be a useful means of proceeding. In effect, a fully-fledged first generation programme could still be launched, but this would be staggered to help minimise implementation risks (and also to avoid creating over-supply in the market). The Canadian VCAP FoF programme experience suggests that launching individual FoF at different times (three were launched together).

Option 4.4 – set up an EU funding scheme to support privately-backed VC funds that are still at the investor-search stage in order to encourage the private sector back into the European VC market (a “gap funding” approach).

This sub-option would not necessitate the setting up of a FoF actively investing in VC funds with a pre-set strategy but rather represent a pot of funding available to new VC funds searching for investors. It would kick-start these fund managers’ activities. Effectively, this would make the European Commission an LP co-investing in new VC funds. Potentially, this funding scheme could also be made available to new private FoF managers.

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- Making money available to aspiring VC managers may be particularly opportune in less developed European markets
- This option could be combined with sub-option 4.1 whereas one or several of the FoF to be set up would actively support new VC funds

A small number of stakeholders interviewed were in the process of first-time fund-raising themselves. Some feedback was obtained from aspiring and from existing VC managers with regard to whether the EU should provide support to encourage new market entrants and first-time FoF managers. Here, a clear distinction can be made between first-time VC managers lacking track record and first time FoF managers, where they may well already have a well-established track record in managing underlying VC funds. Both are important aspects of the overall VC eco-system.

In relation to the encouraging first-time VC managers, this was identified as an especially important issue in less developed VC markets. The interviews identified examples of organisations such as the EBRD, which actively support new managers in order to help develop the VC infrastructure in under-served markets. The EIF has also supported new VC fund managers in less developed markets, for instance in the Baltic States. However, a number of VC managers pointed out that whilst the EIF has many strengths, it was viewed as being less adept at spotting new and emerging managers sufficiently early compared with national FoF and private operators.

It could be argued that possibly one or more of the FoF within an overall FoF programme should actively promote the entrance to the market of new VC managers by supporting new VC FoF. However, a disadvantage pointed out by other interviewees of supporting new VC managers is the higher level of associated risk for the FoF in backing new or emerging managers. In relation to the concept of encouraging existing VC managers into the fund of funds marketplace, there are clearly less challenges since the VC managers in question are already likely to have extensive fund management expertise at the underlying VC fund level.

4.4 Assessment of risks and the feasibility of the different options

4.4.1 Introduction – identification of risks and mitigation measures

The European Commission already has extensive experience of risk assessment in relation to setting up financial instruments schemes, for instance DG Grow and DG RTD have gained experience during the process of setting up the Single EU Equity Financial Instrument funded through Horizon 2020. However, the European Commission does not presently have any in-house expertise in setting up and operating European venture capital fund of funds. It is therefore important to identify and assess the principle risks associated with going ahead with a pan-European VC FoF and to identify possible mitigation measures. A distinction can be made between different types of risks, such as the:

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- **Financial** – general risks associated with investing in the European VC asset class, lower than expected performance returns, difficulties in securing successful exits.
- **Political / feasibility**– the risks associated with the political feasibility of each option/ sub-option;
- **Technical execution** - risks linked to the implementation of the different options/ sub-options, whether the extent of progress towards the policy objectives identified in setting up a pan-European FoF meets stakeholder expectations;
- **Timing** – the performance of VC funds and FoF is strongly linked to the stage in the economic cycle when the funds are set up and the length of investment period.
- **Governance and effective monitoring** - risks linked to the need for ongoing managerial input and monitoring activities throughout the lifetime of a fund of funds.
- **Reputational** - a cross-cutting consideration in respect of all the above types of risks.

4.4.2 Overall assessment of risks

The poor performance of the European VC sector is examined in Section 2, and Annex E performance returns in detail. The IRR data analysed in Annex E shows how the lack of return in seed and early-stage investment results in a lack of supply of investment into this stage. However, the data also shows that top quartile seed and early-stage funds can provide acceptable performance. Moreover, the VC asset class actually performed similar to the buy-out class up until the dotcom bubble, demonstrating the potential of the asset class.

The analysis, supported by data, shows that although there have been improvements in the performance of the European VC asset class, the Commission (and investors in a FoF programme) should be aware of the risks associated with the asset class that:

- The historical performance of European VC is poor, although it has significantly improved in the previous 2-3 years. Future performance will oscillate depending on the economic cycle and the spread of investments made during the investment period by vintage year(s).
- Many private investors consequently remain unconvinced whether the double layer of charges inherent in a FoF model can be justified.
- Many publicly funded FoF are reluctant to reveal their actual IRR. The limited target IRR data that was available suggests an IRR of between -0.5% and 5%. On a parri passu basis, this is significantly below the commercial level at which a FoF would be likely to attract private investors without an asymmetric incentives structure.
- VC investments are alternative investments that are still generally at the cash-burning stage and may be several years away from profitability. Therefore, the timing of any returns generated during the operation of the FoF cannot be predicted in advance.
- The level of return may fall short of expectations or be negative. It will also take considerable time to determine the level of performance return, given the J curve effect¹²³ characteristic of the European VC asset class.
- Although private FoF operate over a shorter period of 10-12 years), since publicly-backed FoF typically operate over a long timeframe of 16 – 20 years, it will be difficult for the EC and investors to gauge the likely level of return until the latter stages of the FoF's operations, given the J-curve performance lifecycle of investments in VC.

¹²³ Euromoney book, "Exposed to the J-curve - Understanding and Managing Private Equity Fund Investments", Uli Grabenwarter.

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However, the above risks are broadly similar to those associated with other EU risk capital financing instruments that have already been set up. Moreover, the public sector may be willing to accept the higher risks associated with investment in seed and early-stage VC because this is an area of identified market failure and is crucial to promoting the development of innovative and high-growth SMEs.

Publishing IRR targets and other data on performance multiples.

The European Commission should decide upfront whether a FoF should make the target and actual IRR publicly available. Setting a target may be useful at the investor roadshow stage since it would give an indication as to how commercial an approach the Commission envisages.

However, there may be reputational risks, for instance, if the performance of one or more FoF supported by the European Commission within a FoF programme falls short of expectations. The EIB and the EIF do not publish returns data which is confidential. However, it is widely accepted that investing in early-stage VC (seed and start-up stages) is a high-risk asset class.

A consideration in relation to whether data should be made available is that performance data may be misleading given the J curve effect in VC, since the returns are disproportionately concentrated in the later stages of FoF implementation.

4.4.3 Assessment of risks specific to policy options

It is important that the risks associated with the different options/ sub-options are assessed. Among the different considerations in this regard are: (i) the political feasibility of each option/ sub-option; (ii) ensuring good governance and clear lines of accountability and (iii) technical execution risks and (iv) reputational risks. Overseeing the set-up and operation of a pan-European FoF has a number of implications for the European Commission. The main risks, the issues involved and how these might be managed through mitigation measures is summarised in the table below:

Options analysis

Assessment of risks and possible mitigation measures				
Definition of options	Overall risk profile	Operational risks	Risks – impact on progress towards achievement of policy objectives	Mitigation measures
Option 2 – Increase EU funding for existing equity-based financial instruments for innovative SMEs	Low	<p><u>Operational</u></p> <ul style="list-style-type: none"> Determining which equity instruments should be allocated funding. Should this be on the basis of demand based on current programme statistics or other criteria? 	<ul style="list-style-type: none"> Continued lack of participation by some market participants (pension funds and institutional investors). Inability to tackle structural problems in VC (lack of critical mass, insufficiently large funds to attract international investors, inability to fund multi-investment stages and loss of economic output) issues. Risk that some existing instruments are relatively new (e.g. pilot schemes under INNOVfin / H2020) and that there is an insufficient evidence base to go ahead without an evaluation of their efficiency /effectiveness. 	<ul style="list-style-type: none"> This option could be implemented in combination with Option 4.1 and / or Option 3.1. If additional funding is allocated to existing instruments, ensure that this is on the basis of evidence gained through evaluation.
Option 3 – The EU could invest in existing publicly-backed national and / or regional FoF	Low-medium	<p><u>Set-up phase</u></p> <ul style="list-style-type: none"> Willingness of the EIF (or another entrusted entity) to manage the call for expression of interest <p><u>Operational phase</u></p> <ul style="list-style-type: none"> Selection of GPs/ underlying funds and monitoring will require human resource. The EC has limited human resources and a lack of previous experience in FoF management and monitoring. 	<ul style="list-style-type: none"> Continued lack of participation by some market participants (e.g. pension funds, institutional investors) Minor risk that some private investors may not be willing to invest alongside the public sector if national FoF operators are FoF managers. Conversely, other investors may be reassured by the EC being a cornerstone investor given access to EU financial resources and possible access to the EIF’s technical expertise in FoF management. 	<ul style="list-style-type: none"> Consider an outsourcing solution i.e. the delegated management of a new fund of funds that national operators can apply to, to an entrusted entity such as the EIF: Ensure that the procurement procedure is open, transparent and non-discriminatory through organising a Call for expressions of interest from prospective FoF managers The selection of underlying fund managers. Monitoring the underlying VC investments.
Option 4 – Set up a pan-European seed and VC FoF.	Medium	<p><u>Set-up phase</u></p> <ul style="list-style-type: none"> Willingness of the EIF (or another entrusted entity) to manage the call for expression of interest <p><u>Operational phase</u></p>	<p><u>Asymmetric returns</u></p> <ul style="list-style-type: none"> If a privately managed FoF model is adopted, an asymmetric returns could pose some reputational risks to the EC e.g. citizens could perceive the scheme as overly generous to the private sector. <p><u>Financial sustainability</u></p>	<p><u>Managing reputational risks</u></p> <ul style="list-style-type: none"> Make baseline situation and supply-side market failures clear in key literature. If under a pari passu model, ensure that the FoF is free from too many constraints so as to maximise IRR / operate commercially.

Options analysis

Assessment of risks and possible mitigation measures				
Definition of options	Overall risk profile	Operational risks	Risks – impact on progress towards achievement of policy objectives	Mitigation measures
		<ul style="list-style-type: none"> • Selection of GPs/ underlying funds and monitoring will require human resource. • The EC has limited human resources and a lack of previous experience in FoF management and monitoring. • Exit • Achieving poor investment performance / RoI linked to the timing in the economic cycle when FoF launched. 	<ul style="list-style-type: none"> • Is the EC able to ensure a long-term funding commitment of 12 years+? • Is the EC in a position to make an ongoing financial commitment beyond the lifetime of a particular programming period (e.g. H2020 and COSME)? • If a FoF programme is supported, there may be a need for ongoing financial commitments e.g. following fund closure of first generation of FoF, after 3-5 years, to maintain momentum, there may be a need for a 2nd generation of FoF with further EU money. 	<ul style="list-style-type: none"> • If under an asymmetric model, ensure that the private sector is given sufficiently attractive terms to secure investment (including from international investors) but not so generous that EU could be accused of giving the private sector most of the upside. <p><u>Meeting additional funding commitments in an EU FoF context</u></p> <ul style="list-style-type: none"> • If the EC (or an entrusted entity) selects only top-performing, highly experienced FoF managers, then it should generate sufficient returns over the medium-long term to generate a self-sustaining FoF programme. <p><u>Poor investment performance/ overcoming cyclical factors.</u></p> <p>Ensure that the investment period for each individual FoF supported is up to 5 years (and subsequent disbursements in underlying funds at different investment stages is spread out over time. Avoid over-dependence on a single, vintage year.</p> <p><u>Differentiate with existing EIF provision</u></p> <p>Ensure that in finalising the design of the FoF programme that there is a strong emphasis on commercial returns and on attracting international capital.</p> <p>Ensure that the new FoF mechanism has strong branding to ensure clear differentiation from existing EIF FoF provision and from other EU equity instruments (also applies to Option 2).</p>

Options analysis

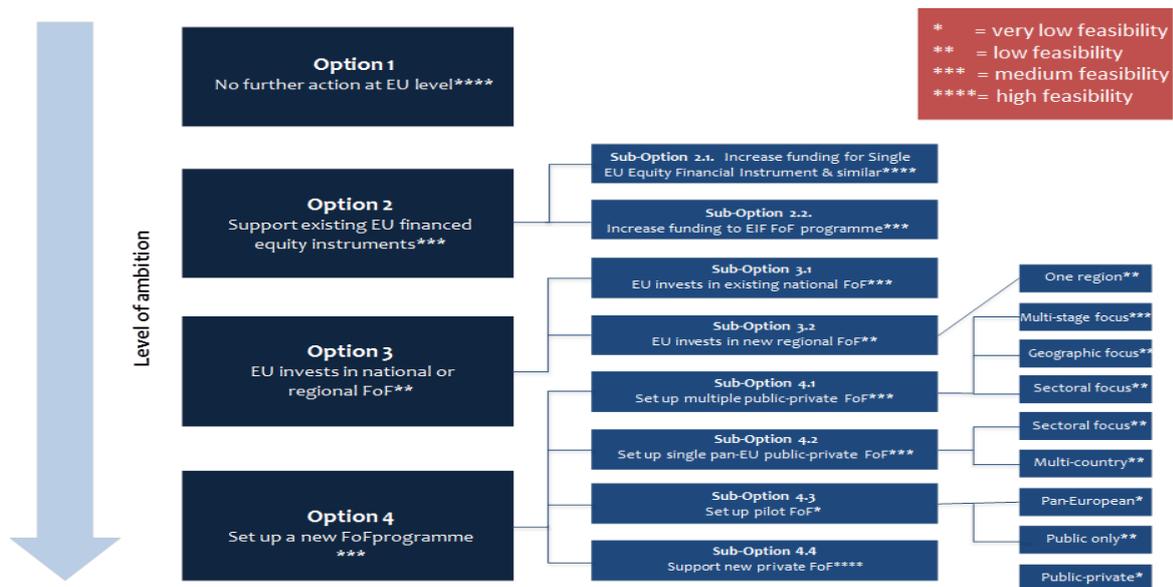
4.4.4 Overview of the feasibility of the different options

4.4.4.1 Feasibility of options

An assessment of the feasibility of the different options was carried out taking into account technical difficulties, as well as potential execution and reputation risks described in the previous section. The extent to which particular options/ sub-options have a high level of feasibility or conversely a low chance of being viable was assessed. This required forming an evaluative judgment based on extensive interview feedback and desk research.

In the following Figure, the options are summarised diagrammatically, in order to show the different alternatives from a policy maker perspective and to assess their relative feasibility:

Figure 16 - The options and sub-options ranked by feasibility



Option 1 is feasible since it would not require any further action at EU level. Options 2 and 3 (and their respective sub-options) are generally feasible since these would not require setting up new instruments or funding programmes. However, they could risk reinforcing the dominant role the public sector already plays in European seed and VC. Moreover, increasing funding to existing EU financial instruments would be difficult to justify in some cases because the instruments themselves are relatively new, such as the pilot project for technology transfer within Horizon 2020. However, increasing funding for the EIF’s FoF programme (Option 2.1) could be highly feasible, since it has been underway for a number of years and would help to continue to address supply-side challenges in some under-served markets for VC. This would however have to be subject to a thorough demand-side analysis to test absorption capacity.

Option 4.1 had more stakeholder support than the other options, on the basis that although Options 2 and 3 are credible approaches, they would not address the underlying structural problems facing the European VC ecosystem, namely the absence of sufficient private sector participation to ensure its longer term sustainability.

4.5 Synthesis of findings on policy options and identification of preferred option

Having examined the stakeholder feedback and the feasibility of the options, the overall findings were that:

1. Most stakeholders were not in favour of Option 1, the “no policy action” scenario, on the basis that structural problems remain in European VC. However, approximately 20% of stakeholders and

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questioned the value of additional public intervention on the basis that the EIF already provides sufficient investment into seed and early stage VC, especially in market geographies where VC was non-existent or under-developed.

2. Option 2.1, to increase funding for the Single EU Equity Financial Instrument (funded by COSME and Horizon 2020's Access to Risk Finance Programme) was viewed as being feasible. If additional funding is potentially available, this could be used to expand the financial firepower of existing equity schemes. However, since these have only just got underway, it is too early to evaluate their effectiveness.
3. Some stakeholders maintained that Option 3.1 could help to generate additional critical mass and ensure that underlying VC funds were less dependent on EIF funding. However, working through existing national FoF and encouraging a cross-border approach may help to increase critical mass, but there are no guarantees that the private sector would be attracted, given that existing schemes do not operate on a purely commercial basis, at least according to published IRR/ target multiples data available. This could risk continued public sector dominance.
4. Option 3.2 did not receive much stakeholder support, mainly because concerns that existing regional FoF have suffered from particularly poor performance and are not considered commercially viable investment targets for private investors.
5. An advantage of Options 3.1, 4.1 and 4.2 is that private sector leverage would be achieved at two levels, the FoF level, rather than only through underlying VC funds. This 'double leverage' effect would be in accordance with the aims of the European Fund for Strategic Investment (EFSI), where a multiplier effect of 1:15 is anticipated.
6. Under Option 4.1, the EC could differentiate itself from existing EIF FoF provision through a FoF structure/programme through a requirement for FoF managers (either public or private) selected to manage the FoF to raise the additional private capital needed to achieve first and subsequent fund closures.
7. Option 4.2 was viewed positively by many stakeholders but some cautioned that it would be difficult to manage a FoF with such a wide scope and that it would be easier to diversify risk under a programme of multiple FoF (Option 4.1).
8. Option 4.3 was not viewed as a realistic option based on the assumption that the results of a FoF structure could only be assessed after several years. However, the EC could pilot the call for expression of interest and have preliminary discussions with investors in order to further gauge the potential interest in and success of such a programme.
9. There was support among some VC stakeholders for Option 4.4 on the basis that the EU should support new market entrants¹²⁴ to ensure that there is an adequate flow of talented new VC managers. It takes 10 -15 years to develop a new generation of high-performing and experienced VC fund managers.
10. A combination of options could be implemented in parallel. The EU should set up a pan-European FoF programme but also, subject to EU funding availability, could channel more funding into existing financial instruments schemes such as the Single EU Equity Instrument under the Horizon 2020 and COSME programmes).

¹²⁴ Although the EBRD and the EIF already play an important role in supporting new managers, the research identified some new managers that still could not secure funding.

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11. **Option 4.1, to set up a pan-European public-private seed and VC Fund of Funds, was identified as the policy option preferred by a majority of stakeholders.** It was supported by influential industry representatives, notably Invest Europe¹²⁵. The rationale is set out in the next sub-section “preferred policy option”.

4.6 Preferred policy option

4.6.1 The preferred policy option - Option 4.1 – setting up a pan-European fund of funds

This was the sub-option preferred by a majority of stakeholders and the option which, if executed correctly, is most likely to tackle some of the supply-side market failures and structural problems identified in this report described in the problem definition. The rationale is now explained in further detail, drawing on stakeholder feedback and desk research:

- Option 4.1 has the greatest likelihood of contributing towards the achievement of the key EU policy objectives defined by DG RTD (e.g. low average size of European VC funds, over-fragmentation of the European market, lack of private sector participation in European VC, inability to attract larger international investors to the asset class etc.).
- This sub-option has the potential to encourage private capital back into the European VC asset class and to attract as yet untapped international capital. A FoF investing in the European VC asset class could perform a signalling function for private investors and encourage them to follow suit.
- An EU-funded pan-European FoF programme set up by the EC would help to promote competition and promote new market entrants into the European VC eco-system. Over time, greater competition and diversity of supply would reduce the European VC market’s over-dependency on the EIF.
- Although such a scheme could be open to both private and public fund managers, the emphasis should be on generating commercial returns in the private sector as the guiding principle in the set-up and operation of the FoF in order to attract private investors back to the European VC asset class in general but more specifically to fund of funds structures.
- One or several pan-EU FoF would considerably increase the ticket size allowing larger institutional investors to invest in European VC through a diversified portfolio.
- The benchmarking assessment showed that scaling up the European VC industry to ensure greater critical mass is crucial. Larger VC funds tend to perform better than smaller ones in terms of IRR, and FoF can increase the size of VC funds considerably.
- This sub-option also has strong potential feasibility, since there is already legal provision under Horizon 2020's InnovFin SME VC product to support fund of funds.
- Option 4.1 could also be supported in conjunction with implementing other Options. For instance, legally speaking, Option 2.1 could also be considered (to boost EU funding for the EIF’s existing FoF programme), since Horizon 2020's InnovFin SME VC product also includes the possible scope to support FoF.

¹²⁵ Invest Europe position paper, November 2014, Accelerating Innovation & Delivering Growth: Using the Jobs, Growth and Investment Package to Attract Private Sector Investors to the European Venture Capital Industry.

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4.6.2 Risks associated with the preferred Option 4.1

Before briefly setting out the proposed configuration of a FoF programme, it is important to give due consideration to some of the specific risks associated with going ahead with Option 4.1:

Table 26 - Description of risks, key issues and mitigation measures

Type of risk	Summary description of risk and key issues	Mitigation measures
Political feasibility	<ul style="list-style-type: none"> The decision to set up a pan-European FoF should be demand-driven, and supported by clear evidence of market failures on the supply side. Without a thorough assessment of the baseline providing evidence of market failures, barriers to attracting private investors and larger international investors, question mark on public/political acceptability. Some stakeholders may be against the private sector being given asymmetric returns. 	<ul style="list-style-type: none"> Ensure that this technical feasibility study is widely disseminated since the assessment of key trends and developments in the baseline (see Appendix C) establishes that private sector investors will not invest in FoF unless these are commercially focused. The analysis of performance data in Appendix E shows that returns are low such that many private investors at the FoF level would be unwilling to invest without incentives/asymmetries due to two main factors (historically low performance returns and double fees).
Technical execution	<ul style="list-style-type: none"> The EC has a lack of in-house technical capacity to implement a FoF programme itself. 	<ul style="list-style-type: none"> The EC will need to put in place measures to ensure a long-term staffing commitment over a period of 12 years+. In the short-medium term, secondees with experience in the set-up and operation of FoF could be drafted in on a 2-3 year basis to assist the EC during the initial crucial stages. Alternatively, additional staff could be recruited. An alternative approach would be to appoint an entrusted entity to manage the FoF programme on the Commission's behalf (e.g. the EIF) to ensure adequate resourcing, expertise and technical knowledge and experience. Delegating management to an entrusted entity could also help to ensure continuity beyond programming periods.
Governance and effective monitoring	<ul style="list-style-type: none"> The EC should avoid imposing constraints in setting up the FoF programme (e.g. avoid overly prescriptive criteria for the selection of FoF managers and geographic or sectoral targeting strategies). However, some minimum requirements will need to be defined (e.g. checking that two-thirds of investments are made within the EU) 	<ul style="list-style-type: none"> Put in place appropriate governance arrangements to ensure that the Commission participates in monitoring activities relating to the FoF programme overall. The governance structure could be based on that adopted for existing financial instruments implemented through EU programmatic mandates to the EIB and the EIF (e.g. H2020, COSME). The EC's role should be to monitor the

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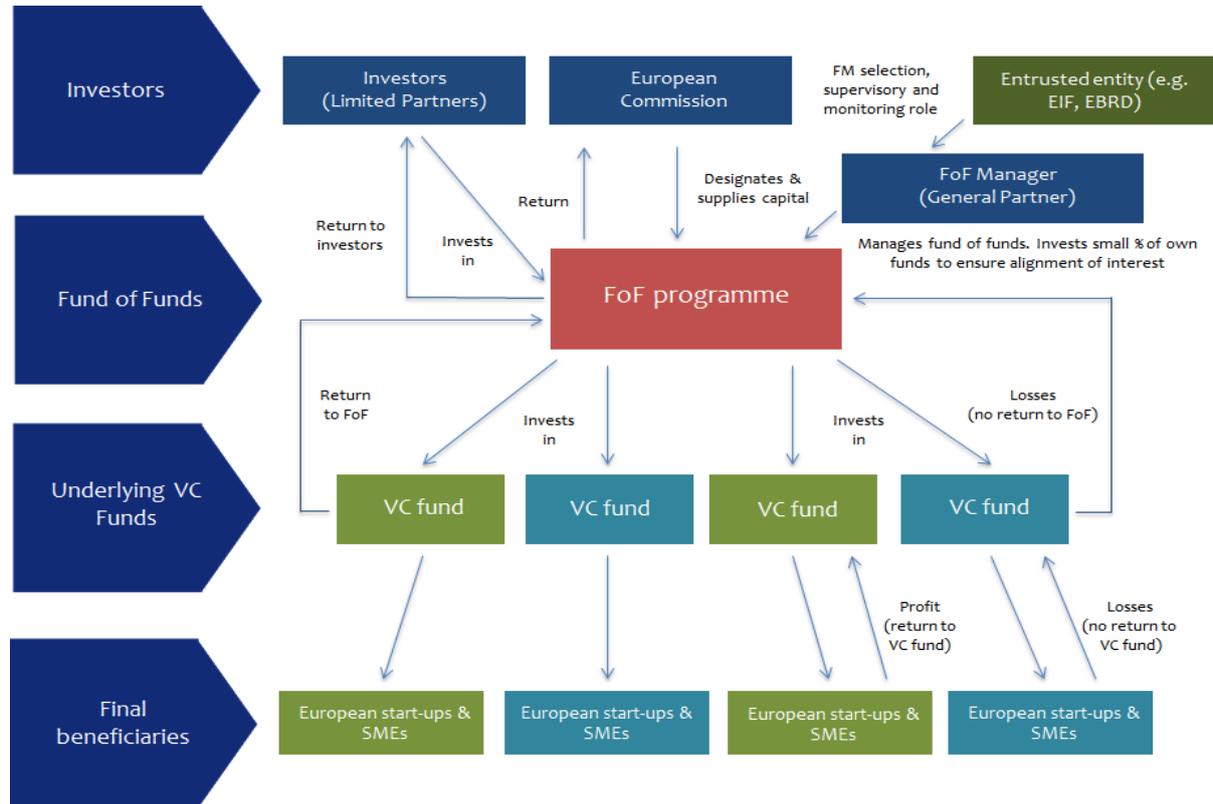
Type of risk	Summary description of risk and key issues	Mitigation measures
	<ul style="list-style-type: none"> Appropriate governance and monitoring arrangements will be needed to ensure accountability. 	<p>performance of the entrusted entity in fulfilling its delegated mandate and in monitoring progress in implementing the FoF programme overall.</p>
Reputational	<ul style="list-style-type: none"> Whereas the EIF has 15 years' experience in setting up risk capital financing schemes (including FoFs) and knowledge of different VC markets across the EU, the EC does not have sufficient VC expertise / human resource capacity in-house. Reputational risks may include: poor performance of FoFs. 	<ul style="list-style-type: none"> Appoint an entrusted entity to manage the FoF programme on the Commission's behalf (e.g. the EIF, EBRD). Ensure that reputation management is part of the framework agreement / delegated mandate with the entrusted entity.
Timing	<ul style="list-style-type: none"> A FoF programme could be launched at the wrong stage in the economic cycle A FoF programme could produce poor returns if over-dependent on a particular vintage year. 	<ul style="list-style-type: none"> Funding from a future FoF programme to VC funds should be spread out over a 5 year investment period to avoid over-dependence on particular vintage years.

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4.6.3 The outline of a pan-European FoF programme.

The way in which a privately managed FoF would operate is summarised in the following diagram:

Figure 17 – Design of a pan-European FoF Programme



Option 4.1 would involve setting up a pan-European FoF programme in which 4-5 individual FoF were established. Although the focus would be on early-stage (seed and venture capital), there may be strong arguments in favour of having a multiple investment stage approach. The rationale for this would be several-fold:

- Focusing on multiple investment stages (e.g. early-stage, late-stage, expansion phase) would allow Europe to capitalise on the full entrepreneurial and innovative potential of high-growth gazelles and be able to provide follow-on financing.
- This could over time help contribute to ensuring the EU captures the benefits for jobs, wealth creation and competitiveness through innovation, rather than the upstream benefits from later stage VC investments and buy-outs being captured in the US.
- Not limiting the investment focus to early-stage VC could help avoid the perception among the private sector investors that publicly backed fund of funds are more concerned with addressing structural market failures in a high-risk, low returns asset class.
- Blended returns across different investment stages would not only help to diversity risk but also improve performance overall.

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The detailed issues behind the different elements of the design and configuration (set-up and operation) of a FoF are outlined in a separate standalone report (**supporting document “Assessment of Implementation Issues – Setting up a pan-European FoF Programme”**).

The table below provides a high-level summary as to how a Pan-European FoF programme might be configured. The actual configuration will need to be determined by the European Commission’s DG RTD in liaison with other interested DGs and in close liaison with the EIF, EBRD and industry stakeholders.

Table 27 Preferred policy option - Configuration of the set-up and operation of a Fund of Funds

Pan-European Fund of funds programme – key parameters	Configuration of the set-up and operation of a Fund of Funds
<u>Set-up</u>	
Target size of each FoF	The size of individual FoF should be in the order of €250-€300m at first financial closure. Subject to investor interest following initial roadshows, this could be increased to up to €500m.
Number of fund of funds (1st generation)	<p>4 to 5 individual fund of funds (managed <i>either</i> by public or private sector fund managers, depending on which respondents to the call provide the most compelling value proposition).</p> <ul style="list-style-type: none"> • 3 or 4 FoF - non-prescriptive i.e. leave it up to the prospective FoF managers responding to the call to propose the most appropriate sectoral mix, the balance between different investment stages • 1 FoF could be geographically focused on less well developed VC markets, with an appropriate incentives structure for both the FoF manager and investors to ensure that the additional level of risk is attractive from a reward perspective).
Funding sources:	<p>Possible funding sources include: –</p> <ul style="list-style-type: none"> • EU Horizon 2020 Access to Risk Finance Programme • The SME Window within European Fund for Strategic Investments (EFSI) <p>In terms of the funding mix of each individual fund of funds:</p> <ul style="list-style-type: none"> • EU funding – up to 50% • FoF manager – 5% • Investor capital - minimum requirement for FoF manager to raise capital from other investors of 1:1 of investor funding to EU funding <p>Expectation that the focus will be on raising investment through investor networks from the private sector, but nothing to prevent public sector investors also participating.</p>
Minimum and maximum ticket size:	<p><u>Individual fund of funds</u></p> <p><u>Size of individual FoF - €250m - €300m+:</u></p> <ul style="list-style-type: none"> • Maximum ticket size – €25- 100m • Minimum ticket size –€5m (or to be determined by each FoF manager in their response to the call). <p><u>Fund of funds programme - assumption - size of fund of funds programme in the first generation could be between €800m and €2 billion, depending on the target size of individual FoF):</u></p> <ul style="list-style-type: none"> • Maximum ticket size – €50m (note – as the FoF programme expands over successive generations, or the size of FoF is increased in subsequent fund-

Options analysis

Pan-European Fund of funds programme – key parameters	Configuration of the set-up and operation of a Fund of Funds
	<p>raising rounds, this could be increased to €100m.</p> <ul style="list-style-type: none"> In order to overcome the problem that some larger investors, such as SWFs and institutional investors may only wish to invest if there is a significantly higher maximum ticket size, then a legal structure could be established at the level of the FoF programme overall in which larger investors seeking a higher ticket size bracket could invest.
Procurement mechanism:	Call for Expression of Interests
Management of procurement process and FoF manager selection:	<p>The European Commission, assisted by an external expert advisory group. There are specialist consultancies such as Cambridge Associates that have the requisite knowledge.</p> <p>Alternatively, an entrusted entity such as the EIF or EBRD could be appointed to manage the selection process, but would then face a conflict of interest and would be unable to respond to the call for FoF managers.</p>
Duration of fund-raising to achieve target:	<ul style="list-style-type: none"> Minimum of 6-12 months for initial fund closure (given the need for investor roadshows, fundraising activities) A further 12 months+ for achieving target fund size. 12 months+ for any subsequent fund closures.
Investment stage	<p>Multiple investment stages.</p> <p>Applicants responding to the Call should specify an appropriate balance in their FoF portfolio investment strategy between:</p> <ul style="list-style-type: none"> Seed capital Early-stage VC Later stage VC Expansion and growth VC
Geographic focus	<p>3-4 of the FoF would be pan-European (but focus on selecting the best VC investments without geographic restrictions).</p> <p>One of the FoF could be distinguished either through a geographic focus on Central and Eastern Europe or could focus on “emerging VC markets”.</p>
Sectoral focus	<p>The FoF should not be prescriptive about which sectors to invest in but should mention a long-list of those sectors that appear to offer greatest potential for growth of start-ups and SMEs and invite the fund manager to set out whether the FoF will be generalist, sectorally focused or a combination of the two by investment stage.</p>
Investment period	<p>Up to 5 years for each individual FoF to make investments in underlying VC funds.</p> <p>This will avoid an over-concentration of investments in VC funds (and portfolio companies) during a particular vintage year, thereby minimising the risk of returns being overly cyclical.</p>
<u>Operational</u>	
Fund duration	<p>12 years.</p> <p><i>This takes into account the 10+2 years benchmark common in the private sector. The research found that the duration of private FoF is typically shorter than for private FoF. In determining the fund duration, due account is needed of the fact that a period of up to 4 years is needed for divestments by the underlying funds and then in turn by the FoF prior to fund closure.</i></p>

Options analysis

Pan-European Fund of funds programme – key parameters	Configuration of the set-up and operation of a Fund of Funds
Management fees and carry	<p>Asymmetric returns policy for FoF manager, subject to defined performance thresholds being met.</p> <p>In the Call for Expressions of interest, a range for the level of fees and carry could be determined. The precise level of fees and carry could be negotiated following the selection process between the EC and each individual FoF manager. The specific characteristics of each FoF (including the promised and actual level of private capital raised by the FoF manager, the % contribution by the FoF manager to ensure alignment of interest etc. could be taken into account in determining fees).</p>

In the following table, the suggested approach to incentives and the returns policy is summarised.

<u>Exit and returns</u>	
Returns model	Asymmetric structure for investors (mainly private sector but could also be public sector)
Target IRR	Target of 15-20%. Although the very best private equity managers may achieve 25%+ IRR, it would be better to set a more realistic objective within the context of a commercially managed FoF approach.
Investment multiples	Since the research suggested an investment multiple approach in addition to a time-based IRR approach is appropriate, a target investment multiple of three times the principle could be set.
Upside	Investors to capture the upside beyond a pre-defined return of original capital and profit for the EC, so that EU funding can then be recycled into subsequent generations of FoF programmes.
Downside protection	No – not widely supported among stakeholders.
Distributions policy	<p>The distributions policy will need to be set out in the fund documents. The fund manager should assume overall responsibility for monitoring the position on possible distributions, although the timing of these and whether any will take place cannot be guaranteed (as is industry standard).</p> <p>Provision for early distributions could be made (for instance, following successful early exits) upon the advice of the fund of fund manager. An alternative would be to require the agreement of a majority of the members of the LP (since there may be a case for retaining and reinvesting the proceeds in new investments or to meet higher than expected follow-on capital needs).</p>
Divestment period	For the underlying funds, 2 years. For the FoF up to 4 years, but leave up to individual FoF managers to make sensible suggestions on timeframes.

4.6.4 Steps involved in setting up a pan-European FoF programme

There are a number of steps involved in the process of setting up a pan-European FoF, such as:

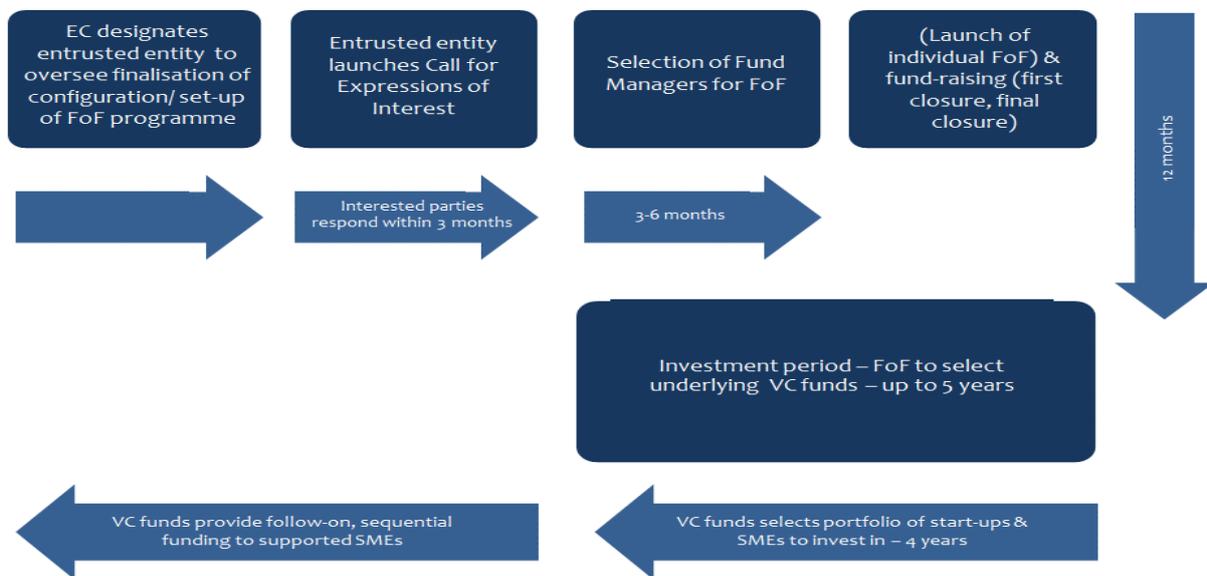
1. Carry out ex ante evaluation, including possible reuse of additional resources

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2. The appointment of an entrusted entity to select the fund managers (or the European Commission could carry out this tasks itself, with support from an external contractor).
3. The launch of a call for expressions of interest - targeted at experienced fund of funds managers (*either public, private or both public and private*).
4. Selection process and selection criteria for appointing FoF managers.
5. Monitoring the selected FoF managers and governance issues.

The practical steps that would need to be taken by the European Commission's DG RTD and the timings associated with these processes are summarised in the following diagram:

Figure 18 - Process for setting up a European Commission-backed FoF programme



The way in which these steps should be managed is set out in detail in the supporting document “Assessment of Implementation Issues – Setting Up a Pan-European FoF Programme”. This provides detailed guidance on different alternative management and operating models, and practical guidance on the selection procedure for selecting experienced FoF managers through an open and transparent Call for Expressions of Interest.

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4.7 State aids considerations, intervention rates and competition issues

In examining the different options, especially those relating to setting up a new financial instruments scheme, it was important to take into account state aids considerations, intervention rates and competition issues. Relevant EU regulations were reviewed, in particular:

- **Title VIII of the EU Financial Regulation¹²⁶** – sets out the EU’s rules on financial instruments schemes. It addresses state aid and competition issues.
- **Art. 21 of the revised General Block Exemption Regulation (GBER), 2014¹²⁷**, which addresses aid for access to finance for SMEs - Risk finance aid.
- **The 2014 Guidelines on State Aid to promote Risk Finance Investments¹²⁸** - these set out guidelines on aid to investors, including when a pari passu approach is appropriate and when asymmetric returns may be justified when there is a demonstrable market failure.

Overall, the findings from the review of the legal framework for EU financial instruments and state aids did not find any major obstacles to going ahead with a pan-EU FoF programme. State aids (e.g. to final beneficiaries, to financial intermediaries, to investors), may be eligible provided that the aid fulfils the eligibility requirements provided for risk finance aid under the revised **General Block Exemption Regulation (GBER)**. If any elements of the FoF programme fell outside these requirements, then they would have to be notified (they may still be eligible).

The **maximum public intervention rates by category of undertaking are set out in Art. 21** of the GBER. These put in place a sliding scale for the maximum public intervention rate, and the corresponding minimum private leverage requirements depending on whether the underlying undertakings supported are start-ups, established firms of up to 7 years or firms set up >7 years ago.

If the anticipated cumulative level of private sector leverage is achieved, then the requirements under the GBER (calculated based on a weighted average) should be met relatively easily. Only in the eventuality that there were difficulties for FoF managers in attracting private finance would difficulties arise.

The **investment strategy for selecting firms and the size of investment in eligible undertakings** would need to be specified upfront in order to check that it complies with the GBER on Risk finance aid. **Remuneration arrangements** would have to be along commercial lines, but there is a strong emphasis in both the GBER and in the Guidelines on State Aid to promote risk financing on avoiding overly generous management fees and putting the stress on performance-related incentives packages for financial intermediaries.

The extent to which the EC could provide **private investors with upside or downside protection under the state aid rules** was also examined. Provided that the asymmetric incentives structure is proportionate to the level of market failure, there do not appear to be particular challenges from a state aids perspective in allowing investors to capture the upside. However, the proposed structure will need to be checked by DG COMP to ensure that it is compatible with the state aid rules on risk finance for SMEs laid out in Art. 21 of the GBER.

Although downside protection was not widely favoured, this would nevertheless be compatible with the GBER under Art. 21 (13c), which states that “in the case of asymmetric loss-sharing between public and private investors, the first loss assumed by the public investor shall be capped at 25% of

¹²⁶ http://ec.europa.eu/budget/biblio/documents/regulations/regulations_en.cfm

¹²⁷ Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Art. 107 and Art. 108 of the Treaty.

¹²⁸ http://ec.europa.eu/competition/state_aid/modernisation/risk_finance_guidelines_en.pdf

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the total investment”. In relation to **performance**, Art. 21 (14c) states that financial intermediaries shall receive “remuneration linked to performance, or shall share part of the investment risks by co-investing own resources so as to ensure that their interests are permanently aligned with the interests of the public investor”.

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5. CONCLUSIONS AND RECOMMENDATIONS

The conclusions section focuses on the rationale for setting up a pan-European Fund of Funds programme and the overall potential benefits of going ahead with the preferred option (or subject to EU funding availability, a combination of FoF options). It should be noted that conclusions relating to the set-up and operation and the configuration of the FoF are incorporated within the subsequent recommendations and implementation roadmap section.

5.1 Conclusions - rationale for setting up a pan-European FoF programme

The rationale for setting up a pan-European FoF programme to support individual commercially-focused, public-private fund of funds is centred on a number of arguments.

Firstly, if EU funds are invested as a cornerstone investment in a pan-European FoF programme of sufficient scale, then this should have **important signalling effects** and help to **attract large private investors**, such as institutional investors and Sovereign Wealth Funds. Attracting international “flagship investors” could have a strong catalytic effect in attracting new investors to European VC.

Larger investors do not typically invest directly in small VC funds in Europe, since their minimum ticket size is too large (in the order of €25 million - €100 million) to invest directly. Moreover, a general rule of thumb is that for risk management reasons and legal considerations, they cannot usually invest more than 10% in any one FoF (or underlying VC fund). Attracting larger investors back to European VC through a FoF mechanism should therefore help to **tackle structural inefficiencies in the European market for FoF and help to boost the average size of European VC funds**.

Secondly, a new FoF scheme backed by the EC should focus on **achieving optimal return on capital to attract the private sector back to the European VC asset class**. Many existing publicly-backed FoF pursue at least some public policy objectives and lead to a combination of economic and social returns. Whilst these objectives may be commendable, sub-optimal returns from publicly driven FoF and the historical under-performance of the asset class have been insufficient to attract private sector investors.

Thirdly, there is a need to ensure that innovative, start-ups and SMEs with high-growth and internationalisation potential have **continued access to external equity capital through staged fund-raising rounds** in order to accelerate their growth at key development stages. The research identified funding gaps within the European VC ecosystem that extend beyond the seed and early-stages, where public intervention has been focused in the previous 15 years to the growth phase (especially between €5m to €15m). It was mentioned by at least 20 of the 105 stakeholders interviewed that this has led to many promising gazelles with strong potential relocating to the US¹²⁹.

Fourthly, a FoF should provide a useful **counter-cyclical tool at the ecosystem level** to overcome VC supply fluctuations during economic downturns. Although reduced supply of VC does not necessarily mean under-supply of capital, given that it could equally reflect a lack of high-quality projects (e.g. demand-side weaknesses), nevertheless, there was a major reduction in VC activity during the economic and financial crisis.

Fifthly, FoF could be an effective mechanism to **achieve a significant leverage effect on EU funds**

¹²⁹ Whilst recognising that the reasons that high-growth European firms move to the US extends beyond access to finance issues and relates equally to framework conditions (e.g. tax and incentives, regulatory environment), strengthening the European VC ecosystem through more commercially-oriented FoF able to provide support at all stages of their growth and expansion would represent a major step forward.

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through multipliers at both the fund of funds level and the underlying fund level. The leverage ratio is the ratio between total investment in VC and EU investment as a cornerstone investor (excluding fees). Previous EU equity instruments schemes such as the GIF within the Enterprise and Innovation Programme achieved significant leverage of ca. 4 EUR for every 1 EUR of EU funding. Attracting new sources of (largely) private capital to the fund of funds level is a clear differentiator of a pan-European FoF initiative backed by the EU compared with existing FoF provision through the EIF's FoF programme, and similar schemes run by national FoF operators, where leverage is typically achieved at the underlying funds level.

Last but not least, many stakeholders noted **the opportunity costs for Europe of high-growth European SMEs ("gazelles") moving to the US** and the benefits forgone for the European economy in terms of the non-contribution of firms relocating outside the EU to the jobs and growth agenda. Convincing European start-ups to remain in Europe will however remain an upwards struggle. The research found that at every investment stage, **European start-ups can raise between two and five times¹³⁰ the amount of capital at the equivalent investment stage in the US.**

There is therefore an argument for EU support through a FoF mechanism at multiple investment stages throughout the equity financing lifecycle, not only focusing on identified market failures (e.g. seed, early-stage VC), but covering the expansion stage, where many smaller individual VC funds are unable to fund Series C and Series D expansions.

5.2 Potential benefits of the establishment of a pan-European FoF programme.

It is important to emphasise the **potential benefits** of the establishment of a pan-European FoF programme. These include, *inter alia*:

1. Attracting international capital that could not otherwise be accessed, due to structural barriers associated with the lack of critical mass in VC fund size and over-fragmentation.
2. Increasing the supply of capital available within the European VC ecosystem generally.
3. Increasing the average size of European VC funds in order to help them compete globally to attract investment.
4. Strengthening competition among the VC sector by encouraging greater diversity in financing supply for underlying VC funds. Lessening dependency on the EIF should help to strengthen the longer-term sustainability of the European VC industry.
5. Delivering significant *cumulative* leverage effects on public funds by attracting private investors at both the fund of funds and the underlying VC funds levels.

The combined leverage effect on EU funds is difficult to quantify¹³¹ since it will be dependent on factors such as the stage in the economic cycle when the funds are launched, the prevailing market conditions and crucially, the returns structure for investors, which will be determined by the EC at a later date, should a FoF programme be established.

6. Generating significant leverage through the effective use of EU funds is a policy goal of the European Fund for Strategic Investments (EFSI)¹³² Capitalising on the economic and growth potential of high-growth 'gazelles', which have major potential to create high value added employment, promote innovation and greater efficiency in key sectors of the economy and should generate high tax receipts.

¹³⁰ This is confirmed in recent literature e.g. BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought.

¹³¹ The leverage achieved will depend on a multiplicity of factors. Previous experience suggests that the leverage achieved could be in the order of 4:1 to 5:1 (combined leverage) and between 2:1 and 1:1 at the FoF level.

¹³² EFSI Regulation (EU) 2015/1017

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The above benefits are only likely to materialise in full if there is a strong focus on the commercial orientation of the individual FoF supported whose primary objective should be securing optimal return on capital and on professional management. Although this implies that the private sector should play a leading role in the FoF programme, there is no particular reason why public or quasi-public FoF managers should be excluded, provided they can attract private investment, demonstrate a strong fund management track record and are able to deliver commercial returns.

5.3 Recommendations - setting up and operating a pan-European FoF programme

5.3.1 Structure and set-up of a pan-European FoF programme

1. A pan-European FoF programme should be set up with the European Commission (“EC”) serving as a cornerstone investor in order to kick-start the first generation of FoF.
2. The EC should ensure that in finalising the design of the overall FoF programme, one of the following alternative sub-options for Option 4.1 is adopted so as to ensure that large ticket investors can invest in the pan-European FoF programme:
 - 2.1 Alternative 1 - a dedicated investment vehicle (DIV) could be established at the level of the FoF programme overall to enable large investors¹³³ to invest alongside the EC as a cornerstone investor.
 - 2.2 Alternative 2 – instead of targeting individual FoF of €250m-€300m in size, large investors could be attracted directly by increasing the size of the FoF to €400m - 500m+¹³⁴. Under this scenario, a DIV at the level of the FoF programme overall would not be necessary.
3. Between four and five individual FoF should be selected as part of the first generation of fund of funds. The target size of each FoF (including private sector funding) should be circa €150m in the case of seed and €250m-€300m¹³⁵ in the case of a balanced venture fund (investing in a combination of early-stage, later stage and expansion stage).
4. Consideration should be given to a staged approach during the first generation of the FoF programme. For instance, two individual FoF could be launched in Year 1, and a further two or three in Year 2, to allow time for monitoring (in line with a piloting approach).

¹³³ Among the potential benefits are that large investors would gain exposure to an entire asset class but through a number of individual FoF which in turn would invest in a diversified portfolio of VC funds. This would achieve risk diversification, but a problem could be that it may create an additional layer of fees.

¹³⁴ However, the feasibility of this approach will need to be checked through consultation with leading private FoF managers to ensure that the target fund size set is realistic – see VCAP case study.

¹³⁵ The size of individual FoF may vary. There is nothing to prevent a prospective FoF manager from creating a larger FoF of for instance €500m+ if they are able to attract significant scale additional private investment from large ticket investors.

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Although this would imply running two Calls for Expressions of Interest, this could help to mitigate some of the initial set-up and design risks.

5. The FoF programme should cover multiple investment stages (seed, early and later stage), to help support high-growth, innovative European SMEs ('gazelles') with world-class potential throughout the equity lifecycle and reduce the number of such firms relocating to the US.

However, it should not cover the European buy-out stage, where the private sector is already very active (both European buy-out funds and through US buy-out funds already operating in the EU).

5.3.2 EU funding sources

6. The FoF programme could be financed using a combination of EU funding sources, namely Horizon 2020 funding (seed and early stage), and the SME Window within the European Fund for Strategic Investments (EFSI) for later-stage investments (late stage, expansion).
7. Funding commitments made should be spread over a 5 year investment period, with funding disbursements made over the course of the multi-annual programming period. This would spread risk by avoiding over-dependence of individual FoF performance and the FoF programme overall on a particular vintage year.
8. In order to ensure the success of a FoF programme, the EC will need to make a long-term commitment to a European VC FoF (at the minimum 12 years, under the 10+2 level to reflect private sector FoF typical duration)¹³⁶.

5.3.3 Selecting individual fund of funds

9. In setting up a new financial instruments scheme, the rules laid down in Title VIII of the EU Financial Regulation must be respected. These relate to the implementation of financial instruments schemes by financial intermediaries (i.e. FoF managers) selected "on the basis of open, transparent, proportionate and non-discriminatory procedures, avoiding conflicts of interests".
10. The most appropriate instrument for selecting fund of fund managers, who would subsequently set up individual FoF, is a Call for Expression of Interests.
11. There is scope in the EU Financial Regulation to delegate the management of a FoF programme to an entrusted entity. The EC (or its entrusted entity acting on behalf of and under instruction from the EC), should manage the design and initial set-up directly, supported by expert external technical input¹³⁷.
12. However, if the EC's choice of financial support mechanism makes this approach difficult or impossible, a key requirement should be that the investment strategy, as far as the use of the EU budget is concerned, should be prepared by the EC. The same applies to the validation / sign-off of the content of the call for expression of interest for fund managers.
13. FoF managers appointed to manage individual FoF within the FoF programme overall should be required to raise capital from private investors. The capital raising requirements will need to be determined through a negotiation process between the EC and the selected FoF managers. This

¹³⁶ However, reference should also be made to the risks and mitigation measures Section 4.6 given the EC cannot make cast-iron financial commitments into the future).

¹³⁷ An external advisory panel could be used by the EC to advise on finalising the design of the FoF programme and to provide impartial advice during the selection process.

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should be at least a 1:1 ratio¹³⁸.

Private sector leverage achieved could potentially be much higher, but this will depend on the asymmetric returns structure put in place for investors by the Commission. It should also be noted that FoF achieve additional leverage through the underlying funds level.

14. Subject to being able to combine different EU funding sources, FoF should be allowed to propose a balanced investment approach across several investment stages. However, there should be a requirement that this should include a minimum of 40% in seed and early stage VC.

Allowing too much flexibility for selected fund managers of individual FoF could otherwise risk them investing only in more profitable, later-stage investments where although there is some evidence that further financing supply is needed, there is less evidence of clear market failure. In addition, this would avoid the risk of the EU “crowding out” existing market participants.

15. FoF managers appointed to manage each individual FoF programme should be required to raise capital from investors.

15.1 This should be in the order of at least a 1:1 ratio (at the FoF level).

15.2 The precise level will need to be determined through negotiations with prospective FoF managers.

16. *The level of private leverage that is achieved at the FoF level could potentially be higher, depending on the asymmetric returns structure devised by the Commission for investors. Typically, FoF achieve significant leverage through private investment at the underlying funds level.*

17. Although the focus should be on attracting private capital into VC, subject to interest, public sector investors could also be targeted in marketing the initiative as part of investor roadshows, since some public pension funds manage significant assets and could be interested in investing¹³⁹.

18. The drafting of the Call for Expression of Interests by the EC should be non-prescriptive in setting investment criteria to ensure that prospective FoF managers have the flexibility to determine how best to achieve optimal risk-reward and to demonstrate their track record and experience.

As with EIF equity funding, some limited geographical restrictions could be required, for instance requiring that two-thirds of total investment in underlying VC funds should be within the EU. However, extending limits on the size of investment, industry sector or imposing limitations on investments by geography within the EU would be counter-productive.

19. In responding to a Call for Expression of Interests, prospective FoF managers should be asked to provide a clear enunciation of their investment strategy.

FoF managers should be asked to propose for instance whether they will adopt a sectorally-focused approach or remain generalist, the proposed balance between different investment stages, etc.

20. In raising capital mainly from private investors at the FoF level, due attention should be given to ensuring that funding attracted is genuinely additional. Any new financial instruments scheme does not displace capital that would already have been invested in European VC (e.g. directly in underlying funds). It should also not detract from existing EU equity-based programmes.

¹³⁸ It should be noted that the minimum 1:1 ratio refers only to the FoF level. The 4:1 ratio mentioned earlier relates to the cumulative leverage effects.

¹³⁹ For instance, public pension funds have invested alongside the EIF at the fund of funds level in a number of southern European countries.

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21. Investing in the FoF programme should be open to all types of investors, although the relative weight of individual institutional investors, especially those from third countries, should be monitored.
22. In order to maintain the momentum of the first generation of a new FoF programme
 - 22.1 A second generation FoF programme should be considered, subject to an external evaluation being carried out of the first generation FoF programme (see monitoring and evaluation).
 - 22.2 The EC should give consideration as to how subsequent generations of FoF programmes will be funded through subsequent multiannual programmes to ensure continuity.

5.3.4 Management and operation of the FoF programme

23. The EC should either manage the FoF programme itself, or delegate the management to an entrusted entity (or to a group of entities) through an EC mandate. Currently, however, the EIF is the only formally legally-nominated entrusted entity.
24. However, the EC should consider this aspect very carefully in order to avoid a situation in which the EIF faces a perception of conflict of interest¹⁴⁰.
25. The EC should set up an expert advisory panel to guide the EC's DG RTD during the finalisation of the design and set-up process¹⁴¹. They could advise on the selection of individual FoF within the first generation of FoF.

The panel could be comprised of independent experts (such as ex-EIF personnel working in the private sector, ex-fund or FoF managers, consultants with the requisite technical expertise).

26. FoF managers of individual FoF programmes should be recruited from top-performing fund managers via an open Call for Expressions of Interest.
27. Although the initiative should have an emphasis on attracting professional fund managers from the private sector, public sector fund managers should not be precluded from participating (since they may also have the requisite skills to operate a commercially focused FoF if they are not hamstrung by political constraints).
28. The FoF manager should commit capital of their own (circa 5%) in order to ensure alignment of interest but should be incentivised through a combination of fees and carry.

5.3.5 Exit and returns

29. The EC should give consideration to the need to strike a balance between offering attractive potential returns to private investors (to attract the private sector back to European VC and to generate high leverage on EU funds) and the need to ensure public acceptance on the other hand.
30. If an asymmetric returns structure is agreed, the precise returns arrangements could be varied based on the characteristics of individual FoF e.g. a FoF proposing to invest in less mature markets in under-served geographies could be given a higher level of upside.

¹⁴⁰ The EIF could potentially be asked to serve as an entrusted entity. However, it could equally potentially apply to manage one of the individual FoFs (by competing alongside other public and private sector participants).

¹⁴¹ In Canada, the Canadian government has had the support of a Venture Capital Expert Panel. The VCAP scheme has been implemented by BDA Development in Canada which has brought in people with a fund management background to advise in the design and set-up phases in the selection of High-Performing VC funds.

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31. Incorporating downside protection was not regarded as realistic, due to concerns regarding the risk of moral hazard.
32. Early exit mechanisms should be incorporated into a FoF structure to allow the European Commission and possibly other public sector investors to withdraw their capital early, either once specific performance hurdles have been met, or at particular time junctures in the FoF's duration (e.g. after a minimum of 5 years).
33. In defining an appropriate returns structure for investors, the state aid rules laid down in the GBER Regulation on risk finance aid (Art. 21) will need to be fully respected.

5.3.6 Attracting investors and achieving a successful fundraising

34. In order to attract private sector investors back to the European VC asset class and to attract new, large-scale international investors, the FoF programme should:
 - 34.1 Ensure that the FoF programme is commercially-oriented and not subject to political constraints.
 - 34.2 Adopt as non-prescriptive an approach as possible in determining the requirements in the Call for FoF managers, especially with regard to the investment strategy (sectors, geographies). Only basic minimum requirements should be set e.g. setting a ceiling on investment outside the EU of up to one-third¹⁴².
35. The EC should launch a series of investor roadshows both within the EU and internationally in order to promote participation in the FoF programme.

Experience from the Canada VCAP scheme suggests that it takes time to build the momentum of a FoF programme and to prompt interest and to secure funding from private investors. This requires patience and political commitment on the part of the cornerstone investor.

36. The EC should set a realistic timeframe to achieve first fund closure and to complete the subsequent fundraising rounds. This might be in the order of 6-12 months for first fund closure, but 12-24 months to achieve target fund size.

Fundraising timetables are markedly different in the private sector. Whereas an EIF-backed FoF seeking funding contributions from other public sector co-investors may succeed in raising the target FoF size within 3-6 months, this could take 12 months to first fund closure and up to 24 months to achieve target FoF size. There is a need to allow FoF managers selected to operate individual FoF sufficient time to carry out investor roadshows, to tap investor networks and to conclude negotiations on fees.

The research shows the timeframes for fundraising are very different from publicly backed FoF¹⁴³.

37. If one of the FoF were to be geographically focused, then additional performance incentives could be provided to FoF managers. In addition, more generous asymmetric returns could possibly be provided to private investors to generate interest in under-developed VC markets within the EU, although arguably the EIF's FoF programme and the EBRD's funding schemes are already addressing geographic market failures.

5.3.7 Governance and transparency

38. The FoF programme should be set up and its operations supported by an appropriate

¹⁴² This criterion appeared to be broadly accepted by stakeholders and would be consistent with EIF practice.

¹⁴³ For instance, the Baltic Innovation Fund, backed by the EIF as a cornerstone investor and three national financing agencies achieved fund closure within 3 months. However, the funding was all public sector.

Conclusions and Recommendations

governance framework to ensure good governance and transparency. The existing governance arrangements for the Single EU Equity Financial Instrument in 2014-2020 represent a potential model.

39. At the design phase in setting up a FoF programme, it will be necessary to set out requirements that ensure alignment of interests between the FoF manager, public and private investors.
40. The EC or its entrusted entities (or alternatively a group of entrusted entities) should assume lead responsibility for managing the first generation of a FoF programme and should then provide regular feedback and monitoring data on implementation to a Monitoring Committee (comprised of representatives from the EC and selected invited experts).
41. Individual FoF managers appointed to operate each individual FoF should be made contractually responsible for providing regular monitoring and reporting data to the EC Monitoring Committee. This should include basic information about investee companies¹⁴⁴.
42. In line with Art 21 (15e) of the GBER, investors should be allowed to be represented in the governance bodies of the investment fund, such as a supervisory board or advisory committee. Large investors could make a valuable input to ensuring effective monitoring of the investment strategy, FoF performance, etc.

5.3.8 Monitoring and evaluation

43. Ongoing monitoring should also be carried out of the FoF programme's implementation and the performance of FoF managers.
44. The EC as the overall manager of the FoF programme should collect monitoring data regularly on implementation, such as basic information on the number of VC funds invested in by year.
45. An overall evaluation and monitoring framework and robust methodology should be put in place for the future FoF programme. Providing appropriate monitoring and performance data should be a condition agreed upon by all recipients (i.e. underlying VC funds) for receiving public funds.
46. Performance data should be collected from FoF, but is it unlikely that this will present a clear picture for the first five (and possibly 10) years, given the J-Curve effect¹⁴⁵ whereby returns occur during the latter stages of a FoF's existence, reflecting the long-term investment nature of VC as an alternative asset class.
47. Monitoring data should be made publicly available at periodic junctures. However, due caveats should be added to avoid misinterpretation of the FoF programme's performance, given the J-Curve and long-term investment and divestment strategy needed to achieve success in FoFs.
48. The EC should periodically commission external evaluations of the performance of the FoF programme overall to inform strategic policy developments. An initial evaluation should be carried out of the performance (and extent of contribution towards EU policy objectives) of the first generation FoF programme. This should ensure that lessons learned¹⁴⁶ are fed into the development of subsequent generations of FoF.

¹⁴⁴ A model is provided as to the type of information required in the Canadian VCAP scheme - Appendix C – Profiles of Investee Companies

¹⁴⁵ Exposed to the J-Curve: Understanding and Managing Private Equity Fund Investments, Uli Grabenwarter, European Investment Fund; IESE University of Navarra, February 2005

¹⁴⁶ Even though they are at an early stage in their implementation, evaluations have been conducted of some existing FoFs, such as the UKIIF in the UK and of the Danish Growth Fund.

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5.3.9 A broader support package to promote a sustainable European Venture Capital industry and ecosystem.

49. Any future possible European Commission initiated scheme to set up a pan-European VC FoF programme should not be presented as an isolated initiative, but be incorporated into a new holistic policy Communication setting out a package of measures to support the development of a more globally competitive and sustainable European VC industry.
50. The future EU policy Communication should include any new measures envisaged, such as:
 - 50.1 Setting up a first generation, pan-European VC FoF programme to attract globally-leading, high-performing fund managers to manage each of the individual FoF and to attract the private sector back to the European VC asset class.
 - 50.2 Technical capacity-building measures should be put in place in less mature markets for VC managers (GPs), and if appropriate also for FoF managers (LPs) to help develop a new generation of quality fund managers in emerging VC markets.
 - 50.3 Awareness-raising seminars about VC as an asset class for prospective investors (LPs) could also be organised in less mature markets, since there appears to be demand for such events. The participation of representatives from the EIF and the EBRD in such events will be crucial to their success.
 - 50.4 Giving further consideration to a possible new small dedicated funding scheme (see Option 4.4) to encourage new VC fund managers by providing gap funding.
51. The future EU policy Communication should then summarise existing EU support to help foster the European VC ecosystem and the important role played by the EIF, the EBRD and national financing of fund of funds.

There is already a wide range of existing EU financial instruments that help to ensure the supply of VC within the European Union, especially in less developed market geographies. It is important that existing initiatives, including the size and scope of the EIF's FoF programme and direct co-investment activity are summarised so as to delineate the scope (and possible limitations) for further EU intervention.

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This study examines the potential for EU investment into venture capital (VC) funds-of-funds operating at EU level. It makes a strong case for supporting several such multi-country funds in order to help address Europe's equity gap, remedy the fragmentation of the VC market, and improve the performance of European VC funds in raising finance from major institutional and other private investors. The study advocates that such a programme of pan-European VC funds-of-funds should not be an isolated initiative, but one accompanied by a package of measures such as a capacity-building scheme for VC fund managers in less mature markets, and an awareness-raising initiative promoting VC as an asset-class to prospective investors.

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