Assessing the Potential for EU Investment in Venture Capital and Other Risk Capital Fund of Funds
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**A. INTERVIEW LIST – COMPLETED INTERVIEWS**

Below the full list of interviews that have been completed during the course of the research between January and September 2015 is provided:

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td><strong>Commission officials - quota 5 – realised: 7</strong></td>
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<tr>
<td>Ulla Hudina</td>
<td>DG GROW, EC</td>
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<td>Astrid Bartels</td>
<td>DG GROW, EC</td>
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<td>Armando Melone</td>
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<td>Jeremy Heath</td>
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<td>Viorel Peca</td>
<td>DG CONNECT, EC</td>
<td>EU</td>
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<tr>
<td>Pierre Marro</td>
<td>DG CONNECT, EC</td>
<td>EU</td>
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<tr>
<td>Piero Cesarini</td>
<td>DG COMP, EC</td>
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<tr>
<td><strong>EU level stakeholders - quota 15 – realised: 10</strong></td>
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<tr>
<td>Michael Collins</td>
<td>Public Affairs Director, INVEST EUROPE</td>
<td>EU</td>
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<tr>
<td>Anne Glover</td>
<td>Chairwoman, INVEST EUROPE</td>
<td>EU</td>
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<tr>
<td>Emma Fau</td>
<td>Ex INVEST EUROPE</td>
<td>BE</td>
</tr>
<tr>
<td>Stephen Morais</td>
<td>EVFIN</td>
<td>PT</td>
</tr>
<tr>
<td>Philippe Gluntz</td>
<td>President, Business Angels Europe (BAE)</td>
<td>FR</td>
</tr>
<tr>
<td>Uli Grabenwarter</td>
<td>Head Strategic Development – Equity, EIF</td>
<td>EU</td>
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<tr>
<td>Antigoni Lymperopoulou</td>
<td>2020 working group</td>
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<tr>
<td>Troy Weeks</td>
<td>EBRD</td>
<td>EU</td>
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<td>Michael Parry</td>
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<tr>
<td>Patric Gresko</td>
<td>EIF</td>
<td>EU</td>
</tr>
<tr>
<td><strong>National / regional authorities /public agencies - quota 10 – realised: 10</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Matthew Wicks</td>
<td>BIS, UK Ministry</td>
<td>UK</td>
</tr>
<tr>
<td>Marie-Laure Wyss</td>
<td>Ministère de l’Economie, de l’industrie et du numérique, FR Ministry</td>
<td>FR</td>
</tr>
<tr>
<td>Laurent Guérin</td>
<td>French Treasury</td>
<td>FR</td>
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<tr>
<td>Thomas Bengtsson</td>
<td>Senior Advisor at the Swedish Ministry of Enterprise</td>
<td>FI</td>
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### Appendix A - Interview list

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Ken Cooper</td>
<td>Business Bank</td>
<td>SE</td>
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<tr>
<td>Will Vizard</td>
<td>EIF, counterpart for the UK FTF FoF</td>
<td>UK</td>
</tr>
<tr>
<td>Pat Mchugh</td>
<td>Scottish Investment Bank</td>
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<tr>
<td>Jan Bengtsson</td>
<td>Almi Invest (national)</td>
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<tr>
<td>Göran Lättman</td>
<td>Swedish Agency for Economic and Regional Growth</td>
<td>SE</td>
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<tr>
<td>Jan Dexel</td>
<td>Dutch Ministry of Economic Affairs</td>
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<tr>
<td>Tim Creed</td>
<td>ADVEQ</td>
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<tr>
<td>Philippe Laquet</td>
<td>Arkimedes</td>
<td>BE</td>
</tr>
<tr>
<td>Dirk de Boever</td>
<td>Findus</td>
<td>BE</td>
</tr>
<tr>
<td>Preferred to remain anonymous</td>
<td>Artemis FoF</td>
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<tr>
<td>Leo Houtsonen</td>
<td>Finnvera</td>
<td>FI</td>
</tr>
<tr>
<td>Jouni Hakala</td>
<td>Finnish Industry Investment</td>
<td>FI</td>
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<tr>
<td>Pertti Valtonen</td>
<td>Fund of Funds in Finnish Investment Industry (FII)</td>
<td>FI</td>
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<tr>
<td>Jan Bengtsson</td>
<td>Almi Invest (national)</td>
<td>SE</td>
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<tr>
<td>Håkan Krook</td>
<td>Fundmanager CISF and managing director CIAF</td>
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<tr>
<td>Anthony Clarke</td>
<td>Angel Capital Group</td>
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<tr>
<td>Kit Hunter Gordon</td>
<td>Seraphim Capital</td>
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<tr>
<td>Christian Motzfeldt</td>
<td>Danish Growth Fund</td>
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<tr>
<td>Jimmy Fussing Nielsen</td>
<td>Sunstone</td>
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<tr>
<td>Sten Verland</td>
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<tr>
<td>Pär Hedberg</td>
<td>Fund Manager STING – Stockholm Innovation and Growth</td>
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<tr>
<td>Marius Prins</td>
<td>DVI</td>
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<tr>
<td>Daniel Latisse</td>
<td>BPI France</td>
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<tr>
<td>Daniel Balmisse</td>
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<tr>
<td>Kathryn Mayne</td>
<td>Horsley Partners (VC FoF)</td>
<td>UK</td>
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**National FoF and Venture Capital funds - quota 20 – realised: 43**
## Appendix A - Interview list

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<td>Jean Bourcereau</td>
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<tr>
<td>Giannis Papadopoulos</td>
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<td>Inga Beiliūnienė</td>
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<tr>
<td>Daniel Kawon</td>
<td>Krajowy Fundusz Kapitalowy S.A. (KFK)</td>
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<td>Krajowy Fundusz Kapitalowy S.A. (KFK)</td>
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<td>Elias Korosis</td>
<td>Hermes Environmental Investment Fund</td>
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<td>Fondo Italiano d’Investimento SGR S.p.A:</td>
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<td>Stanislav Sirakov</td>
<td>LaunchHub</td>
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<td>Teresa Bretón</td>
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<td>Diogo Chalbert Santos</td>
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<td>José Epifanio da France et Teresa Fernandez</td>
<td>Portugal Venture</td>
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<td>Leonor Soto Mayor</td>
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<td>Ron Maurer</td>
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<td>Joe Schorge</td>
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<tr>
<td>Gabriel Matuschka</td>
<td>Prospective VC manager</td>
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<tr>
<td>Rodrigo Martinez</td>
<td>Pointninecap, VC fund</td>
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**International FoF - quota 10 – realised: 8**

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<td>David York</td>
<td>Top Tier Capital Partners</td>
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## Appendix A - Interview list

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<td>Randy Mitchell</td>
<td>EMPEA</td>
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<td>Sebastian Miralles</td>
<td>Venture Capital y Mezzanine, Mexican public fund of funds</td>
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<td>Alison Nankivell</td>
<td>Business Development Bank of Canada</td>
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<td>Karl Reckziegel</td>
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<td>Ian Carew</td>
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<td>Jacques Bernier</td>
<td>Teralys Capital (VCAP Canada)</td>
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<td><strong>Investors - quota 10 – realised: 13</strong></td>
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<tr>
<td>Anne Glover</td>
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<td>Pascale Lagarde</td>
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<td>Frank Reize</td>
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<tr>
<td>Francis Carpenter</td>
<td>Ayers Rock (formerly CEO EIF)</td>
<td>EU</td>
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<td>Charly Zwemstra</td>
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<td>Luisa Ribeiro</td>
<td>Pathena</td>
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<td>Mariusz Grab</td>
<td>BGK</td>
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<td>Agnès Nahum</td>
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<tr>
<td>Nicolas Schellenberg</td>
<td>Cambridge Associates</td>
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<td><strong>National / international VC associations - quota 8 – realised: 7</strong></td>
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<tr>
<td>Marika Af Enéhjelm</td>
<td>Finnish Venture Capital Association (FVCA)</td>
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<td>Gregers Kronborg</td>
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<td>Gorm Boe Petersen</td>
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<td>Isabella de Feudis</td>
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<tr>
<td>Alessandra Bechi</td>
<td>AIFI (Associazione Italiana del Private Equity e Venture Capital)</td>
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### Appendix A - Interview list

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<tr>
<td>Javier Ulecia</td>
<td>ASCRI (Asociación Española de Entidades de Capital Riesgo)</td>
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<tr>
<td>Sten Törnbro</td>
<td>SVCA</td>
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<td><strong>Others - not in quota – realised: 6</strong></td>
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<tr>
<td>Markku Maula</td>
<td>Aalto</td>
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<tr>
<td>Anna Söderblom</td>
<td>Stockholm School of Economics.</td>
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<td>David Sonnek</td>
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<td>Fredrik Bentlinger</td>
<td>DE Capital Growth</td>
<td>SE</td>
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<tr>
<td>Ted Elvhage</td>
<td>Stockholm Business Angels (Stoaf AB)</td>
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<tr>
<td>Alex Gibb</td>
<td>SEB Bank Lithuania</td>
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Appendix B - Case studies

B. CASE STUDIES

The full length case studies are presented in this Annex. It should be noted that the case study research has been used in two ways in the report. First, extracts from the case studies have been integrated into the main report (Section 4) in order to demonstrate practical examples of the set-up and operation of funds and the lessons learned.

An overview of the case studies is provided below:

<table>
<thead>
<tr>
<th>Case study titles</th>
<th>Purpose of case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case study 1 – the Canadian Federal venture capital action plan (VCAP) and fund of funds programme.</td>
<td>To demonstrate the viability of a privately-led FoF programme using asymmetric returns. The federal-level Venture Capital Action Plan (VCAP) FoF Programme in Canada was set-up in 2013. Its primary objective was to attract the private sector back to the Canadian VC asset class. The approach has been to support several private sector managed FoF using an asymmetric returns structure. The private sector has been tasked not only with fund management but also with fund-raising. There are parallels with some of the structural challenges in the European VC market.</td>
</tr>
<tr>
<td>Case study 2 – the Baltic Innovation Fund (BIF);</td>
<td>To examine the role of an EIF-backed, cross-border FoF in overcoming structural barriers to investing in the European VC market. In the Baltic States, over-fragmentation due to the prevalence of small national markets was a clear barrier to attracting investors. Stakeholders came together from 3 different countries (LT, LV and EE) to implement the EIF’s only cross-border FoF. The EIF is the fund manager. Although the EBRD has not invested in the BIF, it has been supportive of capacity-building efforts to strengthen the technical capacity of fund managers and to provide training support to help build the underlying VC infrastructure.</td>
</tr>
<tr>
<td>Case study 3 – the Danish Growth Fund (DGF) and Danish Growth Capital</td>
<td>To examine how a government supported FoF – the Danish Growth Fund - can accelerate the development of a sustainable VC market and at the same time have a strong focus on RoI in all investments. Also, to examine how a FoFs - Danish Growth Capital - can be structured to make it attractive to private institutional investors. The case provides an example of a state-run investment FoF instrument. The Danish Growth Fund invests equity in small as well as medium-sized enterprises in collaboration with private partners and Danish financial institutions. The goal is to generate a greater socio-economic return, in other words, the fund is not purely market-driven. The governing mandate is flexible and allows the fund to target specific needs of the market as they develop. Measures are taken to ensure the fund does not crowd out private investment but rather leverages its equity to generate additional investment whenever possible. The evergreen fund’s direct investments typically range from USD 1–5 million while fund investments typically range from USD 25–50 million. Fund-of-fund investments in small and mid-cap venture and mezzanine</td>
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### Appendix B - Case studies

<table>
<thead>
<tr>
<th>Case study titles</th>
<th>Purpose of case</th>
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<tr>
<td><strong>Case study 4 – the Dutch Venture Initiative (DVI)</strong></td>
<td>To examine the performance of a major EIF-back FoF model and its. The DVI is an EIF-backed FoF initiative worth €150 million managed by private institutions under supervision of the Dutch government. It focuses on development stage fast growing innovative or high-tech business which are considered fundamental to the growth of the Dutch economy, in particular in sectors such as ICT, clean-tech, med-tech, renewable energy and life sciences.</td>
</tr>
<tr>
<td><strong>Case study 5 – the Polish Growth Fund of Funds (PGFF)</strong></td>
<td>To examine the operation and investment stage focus of an EIF-backed FoF focused on a single, large domestic market (Poland). A further aim is to demonstrate that in developing the VC ecosystem, it is necessary for public funders to accept a lower rate of IRR than would otherwise be the case to help nurture the market infrastructure. The PGGF is a EUR 90 million FoF initiative launched in April 2013 by the EIF in close co-operation with Bank Gospodarstwa Krajowego (BGK). The purpose was to stimulate equity investments into growth-focused enterprises in Poland through investments in two types of underlying VC funds, generalist GPs focused on later stage expansions and sectorally-focused GPs (ICTs, clean-tech, health) specialising in growth stage.</td>
</tr>
<tr>
<td><strong>Case study 6 - the EBRD’s venture capital programme</strong></td>
<td>The case study is divided into two parts. Part 1 – describes the EBRD’s VC programmes through business accelerators, early-stage and later-stage VC. Part 2 - illustrates how an integrated approach going beyond financing and including technical capacity-building as well as fostering cross-border cooperation can help develop new markets such as in Eastern Europe. The EBRD consciously capitalises on its experience and track record across Eastern Europe and Central Asia to provide benefitting funds and companies with investments alongside expertise and contacts for their products and services.</td>
</tr>
<tr>
<td><strong>Case study 7 - the Bulgarian LauncHUB</strong></td>
<td>To demonstrate the important role played by business accelerators at national and regional funding in stimulating awareness and visibility of business angels and the VC sector. The focus is on the role of the JEREMIE Holding Fund in facilitating direct investment into seed and early stage investments in enterprises. Barriers to the development of the VC eco-system in South-Eastern Europe, such as the lack of follow-on financing, are also considered.</td>
</tr>
<tr>
<td><strong>Case study 8 - Arkimedes</strong></td>
<td>The aim is to demonstrate the role of the public sector in encouraging the private sector to deploy a higher asset allocation to European Venture Capital through their participation in FoF. Whereas most national FoF were established by the public sector, Arkimedes is an interesting example because the public sector was the initial driver and facilitator with the private sector then taking over and establishing and</td>
</tr>
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</table>
### Case study titles

<table>
<thead>
<tr>
<th>Case study titles</th>
<th>Purpose of case</th>
</tr>
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<tbody>
<tr>
<td>operating the FoF.</td>
<td>Examines whether regional fund (or FoF) structures could be an option when regional development objectives has priority over RoI and long-term sustainability. In the ALMI case the funds have to invest regionally and might not able to invest in the “gazelle”-companies (lack of a substantial portfolio and that gazelles often are born global companies). The management teams consist of ALMI employees and they always co-invest with business angels. The set-up has succeeded in mobilising capital from private investors at the regional level and a majority of the portfolio companies assess that they reach market much faster thanks to the set-up.</td>
</tr>
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### Case study 1 - the Venture Capital Action Plan (VCAP) FoF Programme

The first case study examines the set-up and initial progress in achieving target fund and fund of funds size of the federal-level Venture Capital Action Plan (VCAP) FoF Programme in Canada. The main objective is to attract the private sector back to the Canadian VC asset class. The approach has been to support several private sector managed FoF using an asymmetric returns structure through the development of a fund of funds programme. The private sector has been tasked not only with fund management but also with fund-raising. There are parallels with some of the structural challenges in the European VC market. Option 4.1 is similar to the VCAP programme, although VCAP already has an asymmetric returns approach whereas it has not yet been determined whether a possible pan-European FoF programme would be on an asymmetric or pari passu basis.

### Case study 1 - the Venture Capital Action Plan (VCAP) FoF Programme, Canada

**Background** – the Venture Capital Action Plan (VCAP) was launched in January 2013 by the Canadian federal government. VCAP is a comprehensive strategy for deploying CAD 400 million in new capital over the next 7 to 10 years. The plan is expected to attract close to CAD 1 billion in new private sector investments in FoF. The plan is based on extensive consultations with key stakeholders to determine how best to contribute to the creation of a sustainable, private sector-led VC sector in Canada.

Through the VCAP programme, CAD 350 million is being made available to establish or recapitalize up to four large-scale private sector-led FoF in partnership with institutional and corporate strategic investors and interested provinces. The remaining CAD 50 million is reserved for existing high-performing venture capital funds in Canada. A key difference of VCAP compared with FoF previously set up at the state level in Canada is that VCAP is a federal programme without the same geographic investment constraints that impeded the performance of earlier initiatives.

The first FoF was launched in January 2014 and in April 2015, the Government announced the fourth and final FoF. The size of the fund-of-funds at first closing varied from CAD 160 to 279 million. All funds have been seeking additional investors to reach their target size. The Government of Canada has agreed to make a capital commitment of CAD 1 for every CAD 2 committed by private sector investors to the FoF.

**Objectives** – VCAP aims at revitalising Canada’s venture capital sector and increasing private sector investments in order to improve access to VC by high-growth companies so that they have the capital they need to create jobs and growth and to internationalise.

**Types of investment and stage of SME growth** – in order to give the FoF the proper tools to achieve competitive return on investments, there are few restrictions on the investments that FoF can make. Thus, in addition to investing in VC funds, FoF can also make direct co-investments in SMEs and can make secondary investments. The direct and secondary investments were incorporated as part of a hybrid structure in the FoF so as to mitigate the J-curve effect and to give private investors return on their
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investment early on in order to make it more attractive for them to invest in the FoF.

One of the few restrictions on the FoF is that a third of the investments – equivalent to the amount of public money invested - must be invested in Canadian companies and the FoF as well as the underlying VC funds must have a substantial presence in Canada. At the same time the set-up does not force the FoF to impose restrictions on underlying funds but can make it possible to fulfil the criteria by selecting funds that focus mainly on Canada. Some of the FoF have received funding from regional governments but there are no requirements to invest a certain portion of the capital in the region where the FoF is based.

Legal / operating structure – the Business Development Bank of Canada (BDC) is responsible for the implementation of the VCAP on behalf of the Government of Canada by providing independent expertise, undertaking due diligence, managing the process of calls for expressions of interest from potential private sector FoF managers and supporting negotiations with funds and other investors, and managing VCAP investments. The FoF general partners (GPs) were selected following a call for expression of interests led by the Venture Capital Expert Panel appointed by the Canadian Government. The members of the panel have extensive experience in the venture capital asset class, business and finance.

The FoF are structured as traditional dedicated investment vehicles managed by private managers who charge a management fee combined with a performance incentive (carry). Investment decisions will be made by FoF GPs on market-based principles in order to maximize returns.

Selection criteria – as mentioned the FoF managers have been found following a call for expression of interest. The selection criteria was based on the following requirements:

- having, or being prepared to establish, a substantial presence in Canada
- experienced investment team with a proven track record of success in: 1. managing FoF, VC funds or other investment entities; 2. identifying investment opportunities, investing in and creating value in venture capital funds and/or in the successful operation of venture capital funds, including a successful track record of direct investments
- In-depth knowledge and/or direct investment experience in the Canadian market
- ability to support and develop existing Canadian venture capital fund managers
- ability to attract long-term capital to be invested in the venture capital market in Canada

Investment period, implementation to date, outcomes and investment performance (where available)

The FoF duration is about 15 years. The investment period is about 3 years, the duration of the underlying VC funds will mostly be 10 years and the FoF will then have a further period of one or two years of divestment.

The Canadian government offered an asymmetric return model to attract investors. The returns policy is structured in a way that allows the private sector to capture the upside should the fund perform well and also allows for early exit. The public sector first put in capital to the FoF with the BDC serving as the cornerstone investor. Once fund-raising was launched, the appointed private sector fund manager then seeks to raise capital from private investors. Effectively, private capital goes in last but out first up to a certain level of IRR for private investors. Once this has been achieved, public LPs then get their investment returned. Next, the private LPs again get additional return on their investment up to a certain level after which the public LPs get their RoI. The exact model and the performance thresholds to trigger distributions are confidential. There is some variance between individual FoF depending on the outcome of negotiations.

Examples of fund of funds managers selected – the four FoF selected are:

Teralys Capital Innovation Fund - has an emphasis on investment opportunities in the life sciences sector, and will invest primarily in Canada-focused early-stage and mid-stage venture capital funds, and directly in companies across Canada.

Northleaf Venture Catalyst Fund - will invest primarily in Canada-focused early-stage and mid-stage venture capital funds, and directly in companies across Canada

Kensington Venture Fund - will place an emphasis on investment opportunities in clean technology and energy technology as well as information and communications technologies, and will invest primarily in early-stage and mid-stage venture capital funds and directly in companies across Canada.

Harbour Vest Canada Growth Fund - will place an emphasis on investment opportunities in information and
Case study 1 - the Venture Capital Action Plan (VCAP) FoF Programme, Canada

communications technologies, and will invest primarily in early-stage and mid-stage venture capital funds and directly in companies across Canada.

Barriers to investment in early and growth stage seed and VC – as mentioned the VCAP is based on thorough consultation with stakeholders. The stakeholders emphasised that most venture funds in the Canadian VC market have had public involvement and many had regional restrictions or regional development goals, which hampered the achievement of a commercial RoI. Stakeholders also emphasized the need to implement private sector-led initiatives that demonstrate the return potential of the Canadian VC market to investors.

Additionally it was pointed out that there was not enough private sector engagement by large private LPs to get sufficient scale in VC funds. Therefore, as in Europe, many Canadian funds were too small to provide SMEs with later-stage investments and US funds specialised in later-stage investment often invested in the best Canadian companies at the later stage and captured the latent growth and wealth creation potential.

Success factors, evidence of innovation in fund set-up and/or operation and good practices – based on the input from stakeholders, BDC concluded that it was important to reassure private sector LPs that the new FoF programme will operate on the same commercially-oriented investment principles as the private sector would be and that there would not be any restriction on their investments, such as imposing regional development goals in decision making processes on investment selection. BDC has set up the FoF initiative in a way that ensures that private sector FoF have the freedom to invest in the best companies and under a favourable returns policy with asymmetric, competitive RoI for LPs.

The stakeholders also emphasised the importance of a using a procurement process and putting in place selection criteria that would ensure that only experienced private sector management teams can be selected to become FoF managers of funds set up under the VCAP.

Performance to date

- It is too early to evaluate performance since the programme was only recently launched. However, progress in launching the FoF and in achieving target FoF size can be assessed.
- Whilst interest in the programme was initially slow, interest from corporates, family offices and high net worth investors has gained momentum as the VCAP FoF managers have built portfolios. Some additional financial groups and smaller pension funds have also now invested.
- One VCAP FoF had achieved its targeted size by October 2015 and the other three FoF expect to reach their full targeted fund size soon. Overall, the programme appears likely to achieve its objectives.

Lessons learned (replicability and transferability potential) – the structure for the FoF programme was only set-up in 2014-2015 so it is early days in terms of evaluating the performance of the funds but a number of lessons learned relating to the process of setting up the FoF can be identified:

- Secure a good funding base with public sector commitments secured through a cornerstone investor before the initiative is launched. Otherwise, it will be difficult to achieve the funding target for the FoF overall. A significant proportion of the capital committed by private LPs was committed before the FoF managers were appointed. The four FoF have subsequently raised additional funding but in spite of asymmetric returns, it was initially difficult to achieve the ambitious leverage ratio of 2:1.
- Raise a significant proportion of the capital up-front to help the FoF to get off the ground. Private LPs have been willing to commit capital up front as long as they knew that the managers would be selected following an open call for interest led by the independent Venture Capital Expert Panel.
- Allow a sufficient time period for private sector fund-raising to progress towards FoF target size. The fundraising timeframes in the private sector are much longer than for publicly backed FoF. This is especially the case in a situation where FoF managers try to persuade private investors to come back to an asset class they had previously largely exited. The programme has succeeded in stimulating growing interest by smaller private sector investors in the VC asset class and their desire to invest in the market under VCAP has increased following initial scepticism.
- Downside protection and asymmetric returns are important factors but political pressure was also
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- Effective in raising capital from private LPs. A significant portion of the capital was raised during negotiations led by the government with potential private LPs. The government applied political pressure to encourage them to participate.
- Downside protection broadly secures the private LPs a positive return on their investment but the minimum de facto guaranteed return is nowhere near the magnitude of 15-25% which is the target private LPs often aim for in the private sector. If however the FoF performs well, then the level of return will increase significantly. Even with downside protection in place, fundraising has not been easy for FoF managers.
- It is important to have someone within the team responsible for setting up a FoF that has credibility in the private sector to lead the initiative, including promotional aspects. It is also important to have someone on the government side to champion the initiative, e.g. a minister who can ensure that progress is made on the political side to get the initiative underway.
- A long-term commitment is important but can be difficult to secure in a changing political environment.
- The sustainability of the FoF programme without continued public support was however questioned. When the FoF managers will be fundraising for the next FoF the results from the first FoF will most likely be limited since the SMEs in the underlying funds will be at an early point in the J-curve.
- Further public investment as a cornerstone investor and potentially also a provider of downside protection could be needed. Otherwise the underlying funds level and financing for innovative SMEs on a more sustainable basis could be jeopardised.
- It is important to standardise documentation in so far as possible but at the same time it is important to launch FoF as soon as they are established. There is a risk in delaying the FoF launch given that this triggers capital raising activity by the selected fund manager for 6-12 months. Otherwise, there is a risk that the FoF programme would have lost momentum and legitimacy in the market.

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The purpose of the case study on the Baltic Innovation Fund (BIF) is to examine the set-up phase of a FoF and to focus in on the particular challenges relating to set up a cross-border FoF. The role of the EIF in strengthening the capacity among VC fund managers, where previously there was no industry and therefore a lack of experience and technical capacity by supporting new and emerging fund managers is also considered.

Case study 2 - Baltic Innovation Fund (BIF), Baltic States

Background - the BIF was formally launched on January 1st 2013 by the EIF and national authorities in Lithuania, Latvia and Estonia. It is one of the only examples in the EU of a cross-border public fund of funds. In common with other FoF, it invests in underlying private equity and venture capital funds across the Baltic States. In addition, there is the possibility of co-investments with business angels, family offices and institutional investors into early to growth phase SMEs. Of the total FoF value (€100m), the EIF has invested 40% (EUR 40 million) with investments of EUR 20 million each from the three national agencies that specialise in financial instruments - INVEGA in Lithuania, the Latvian Guarantee Agency (LGA) in Latvia and KredEx in Estonia). These are typically agencies under government ministries (e.g. Lithuania, the Ministry of Economy).

Objectives - the aim was to create a FoF with sufficient critical mass in fund size (£100m) to attract additional private finance. Broader national policy objectives are to strengthen the capacity and to enhance the experience of the underlying fund managers so as to increase the supply of venture capital in the short term and to encourage the emergence of private sector-led VC provision over the longer term. Wider objectives are to stimulate employment and competitiveness across the Baltic region through promoting
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Case study 2 - Baltic Innovation Fund (BIF), Baltic States

the development of high-growth firms.

Types of investment and stage of SME growth – the FoF focuses on making investments in underlying venture capital and private equity funds (including mezzanine funds) with proven experience and insight into the Baltic market. BIF has invested in 5 underlying funds which are managed by private fund managers following a call for proposals. In addition, the BIF co-invests with selected investors.

These are either domiciled in the Baltic States, or have a relationship with / experience in investing in the Baltic States. Given the small size of the market, at the FoF level, there is no sectoral focus.

Legal / operating structure - The EIF is the fund manager and there is a jointly managed account between the three Member States which collectively provided 60% of the funding. The EIF is the fund manager. There is no specific legal structure for the FoF. The BIF will operate for 16 years and investors have confidence in the EIF as the overall fund manager. Since the fund managers selected from underlying funds will have a relationship with BIF for a minimum of 12 years, it is equally important that there is significant trust in the reputation and VC / early stage growth management experience of the funds selected.

Selection criteria – the selection criteria for the FoF when selecting individual funds to invest in are the same as those for many other FoF. These include: an investment strategy focused on the Baltic States, an experienced and well-balanced team, a strong track record and team investment capabilities, commercial viability in fund size, clear legal and tax structure of the fund and all stakeholders in the underlying funds must have their interests aligned.

Investment period, implementation to date, outcomes and investment performance (where available)

BIF’s investment period is 2013-2017. Five fund managers were selected following a selection process organised by the EIF, with input from the three national organisations on the BIF Board. The BIF has increased the accessibility of private equity and venture capital for SMEs with high growth potential and operating in the Baltic region. The expected leverage effect to be achieved is more than 3:1 (compared with initial expectations of 2:1).

Examples of funds selected: five fund managers have been selected following a competitive call for proposals. These include, for instance, BPM Capital Mezzanine Fund and BaltCap Private Equity Fund II. The funds concerned have an investment period of 2 years. Two of the funds selected have already completed their investment.

Barriers to investment in early and growth stage seed and VC. The small market size of individual Baltic countries was regarded as a barrier to securing investor interest. There is evidence that pension funds, private equity funds and institutional investors are only willing to invest in larger-scale funds that offer sufficient diversification of risk. BIF has overcome these problems since a €100m publicly backed fund is considered significant in the Baltic States. By comparison, the Jeremie holding fund for instance in Lithuania is €63m (including the private co-financing dimension). A disadvantage of Jeremie is that the fund has to invest in underlying funds in the Member State concerned, which makes it more difficult to attract bigger investors, who see the domestic market as being too small to develop a balanced, diversified portfolio.

Success factors, evidence of innovation in fund set-up and / or operation and good practices - among the success factors were the importance of well-established and close co-operation between the national financing institutions in each of the three Member States in the Baltic region on risk financing instruments. A similar initiative in Scandinavia between the EIF and a number of different countries didn’t succeed in getting off the ground because no consensus could be achieved as to how the FoF would operate.

Another factor emphasised was that at the FoF level, it is easier to secure consensus when all the stakeholders are from the public sector. The reason is that they have similar policy objectives (e.g. to increase the supply of seed and VC, to support innovative, high-growth SMEs). Invoking the private sector at the FoF level in addition to the underlying funds could have resulted in conflicting interests (e.g. policy objectives vs. profit maximising considerations alone). The participation of private sector fund managers in competing for investment from the FoF was considered a success, given the high level of competition and
Case study 2 - Baltic Innovation Fund (BIF), Baltic States

The cross-border dimension of the fund was regarded as being innovative and a first in Europe. Although the 2013 Regulation allowing for the possibility of cross-border FoF\textsuperscript{1} was considered useful, the EuVECA branding has not been used by the FoF. It has however been used by one of the underlying funds.

Lessons learned (replicability and transferability potential) – the BIF started operations on January 1\textsuperscript{st} 2013, so it is too early to draw a complete set of lessons learned. However, the following lessons were identified.

- **Public sector participation in a FoF** – it was stressed that in order to attract investors, it is important to secure public sector funding from recognised institutions. However, it is equally important that once the FoF is fully operating, the public sector adopts an arms-length approach to the investments made by the underlying VC and private equity funds. In countries where VC has historically been under-developed, it is also important that the FoF manager – in this case the EIF – has a solid and trustworthy reputation in order to attract private investment in the underlying funds. Although the EIF is the best known, this could however be any international organisation, such as the EBRD, the Northern Investment Bank (NIB).

- **Appointing underlying fund managers with a solid reputation.** Similar issues apply as at the FoF level above. The trustworthiness and reputation, reliability, level of experience of fund managers selected is crucial, especially since as noted earlier, the relationship between the fund of fund and the underlying fund will last for a minimum of 12 years, and in the case of the BIF, up to 16 years.

- **Regulatory and tax issues** - the need to consider tax issues prior to setting up a cross-border FoF. Different taxation rules may impact on where the underlying funds choose to establish themselves. For example, one fund had the option as to whether to establish in Lithuania or Latvia and chose Latvia because of more favourable taxation conditions. The legal framework in different Member States for operating VC funds also needs close consideration during the set up stage of a FoF.

- **Pre-conditions for the success of a cross-border model** – replicating this model elsewhere is subject to there being sufficiently close co-operation between the participant national / regional state institutions. However, the vital importance of trust in both the FoF manager and in the underlying funds was stressed.

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The purpose of the third case study, on Almi Invest in Sweden, is to demonstrate some of the drawbacks with a regionalised FoF approach, such as the disadvantages for FoF managers and investors in having political and geographic constraints as to where they can invest and the proportion of the total fund size they have to invest in the region.

Case study 3 – The Danish Growth Fund (DGF) (Denmark)

**Background** - the Danish Growth Fund (DGF) is the Danish state’s investment fund. DGF contribute to the creation of new companies by providing capital and expertise. The Danish Growth Fund invests equity and provides loans and guarantees for small as well as medium-sized enterprises in collaboration with private partners and Danish financial institutions. This case study focuses on the equity investments.

**Objectives** – the act concerning the Danish Growth Fund stipulates that the fund must promote growth and renewal for small and medium-sized enterprises in order to achieve a greater socio-economic return.

The governing mandate is flexibly and allows the fund to target specific needs of the market as they develop. The mission of DGF is based on the following three principles:

\textsuperscript{1} The European Venture Capital Fund (“EuVECA”) regulation and the European Social Entrepreneurship Fund (“EuSEF”) regulation (collectively, the “Regulations”) were published in the Official Journal of the European Union (“EU”) on 25 April 2013, and came into effect on 22 July 2013.
Case study 3 – The Danish Growth Fund (DGF) (Denmark)

- Socioeconomic return: Focus on innovation, entrepreneurship, and business development for growth
- Additionality: Act where private players in the risk capital market hesitate and hence support additional activity without crowding out private players
- Leverage: Cooperate with and leverage private investors when possible

DGF has supported the development of an ecosystem for early-stage venture capital through analysis, information sharing, competence building, leveraging private venture capital through co-investment schemes, business angel syndication and by spinning off management teams. The aim of the interventions is to promote the development of a self-sustainable venture capital market in the long run.

All direct investments and investments in venture capital funds are made with private investors and are market based (same terms as the private investors).

**Types of investment and stage of SME growth** – DGF has four types of instruments: direct investments, fund investments, fund-of-fund investments, and syndication loans. The fund-of-funds investments are made through Danish Growth Capital (see further description below).

DGF has a specific focus on early stage since this is where the market failures are often seen as most prominent but is also co-investing in later stages. The direct investments and the funds DGF has invested in covers a variety of sectors.

**Legal / operating structure** – DGF is an independent fund governed by a legal act and an independent board of directors. DGF is structured with a capital base of DKK 2 billion under management (US$ 300 million). Its mandate is outlined in the Law of the Danish Growth Fund as follows: To promote innovation and development of the business sector in order to achieve a higher socioeconomic return. The fund’s investment strategy is led a board of professionals and the investments are made by a staff with relevant private-sector skills supported by an advisory board.

**Selection criteria** – the selection criteria for investing in Venture Capital Funds are the same as applied by many other FoF and include:

- **Team** - the team in question has relevant experience, and together the team members possess the necessary strategic and operational knowledge to successfully manage the fund.
- **Investment strategy** - there is a clearly defined investment strategy, which in detail describes the value creation in the companies until their exit.
- **Track record** - the management team at Danish Growth Capital is among the best investors in its field and has demonstrated its ability to create returns on invested capital from earlier or current investments
- **Processes** - That structured work procedures have been implemented, ensuring a consistent and efficient execution of the investment strategy
- **Structure and key terms** - The fund has a clear legal and fiscal structure with transparent terms that conform to market practice and balances returns and risks for all parties involved.

**Investment period, implementation to date, outcomes and investment performance (where available)**

DGF is an evergreen fund and thus does have an open ended investment period. The funds they invest in typically have a standard duration of 10-12 years.

The direct investments typically range from USD 1–5 million while fund investments typically range from USD 25–50 million. Fund-of-fund investments in small and mid-cap venture and mezzanine funds typically range from USD 25–70 million.

Since its inception in 1992, DGF has – in cooperation with private investors - co-financed growth in more than 5,400 Danish companies with a total commitment of more than DKK 12 billion of which more than DKK 4 billion are invested as venture capital.

An independent evaluation has estimated that the equity investments have led to short-term direct effects of a DKK 2 billion increase in GDP and creation of 3,000 jobs. In addition, the increased activity has led to short-term indirect effects of an additional DKK 900 million increase in GDP and the creation of 1,800 jobs.
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Case study 3 – The Danish Growth Fund (DGF) (Denmark)

In April 2015 DGF presented its accounts for 2014 showing a surplus of its activities of DKK 814 million of which the vast majority is generated by equity investments. The accumulated result over the last 10 years for DGF shows a surplus of DKK 313 million.

**Danish Growth Capital** - Fund-of-fund investments are made by Danish Growth Capital (DGC), a private fund-of-funds managed by Danish Growth Fund which makes commercial investments in small and mid-cap venture and mezzanine capital funds.

DGC was established in 2011 with a capital base of DKK 4.8 billion. The capital has been sourced entirely from Danish pension funds. One-quarter is invested directly in DGC by the pension funds, and three-quarters is provided as a loan to DGF, which has invested it as equity in DGC. This essentially creates two asset classes and alleviates the risk-based funding requirements of the pension funds. The interest rate of the loan from the pension funds to DGF is the government bond rate plus a premium. Accordingly, DGF bears the risk of three-quarters of the fund’s investments.

DGC invests in a wide range of funds, which in turn invest across all industries. The aim is to provide funding for growth companies, as well as to deliver competitive, double-digit returns to the investors. Therefore, DGC only makes investments they deem to be commercially viable. Furthermore, investments in funds can only be made if the capital supplied by DGC can be supplemented by private capital.

Danish Growth Capital was established on the basis of the following investment principles:

- Builds on the market economy investor principle (all investments are made on commercial terms)
- Ensures pension savers will receive appropriate returns
- Ensures cost-effective management of investments
- Acts as a catalyst for greater private engagement rather than replacing private investors
- Makes fixed-term investments only and in accordance with the European Union’s (EU’s) rules on state aid

As mentioned DGC is managed by DGF, who undertake due diligence on new investments in underlying funds. However, the final investment decisions are made by an independent board of directors (which differs from DGF’s board of directors). An investor committee comprised of representatives from the pension funds is addressed regarding potential conflict of interest, receives a biannual review of the DGC portfolio, pipeline, and any other business.

According to the accounts of DGF the management fee for managing DGC was roughly DKK 13 million in 2012, 2013 and 2014 which equals less than 0.3 percent of the capital under management.

**Barriers to investment in early and growth stage seed and VC** – the rationale behind DGF is the existence of a number of market failures in Denmark leading to underinvestment – especially from a socioeconomic point of view - in innovative entrepreneurs and SMEs with high-growth potential. The market failures related to the venture capital market cited creating a need for public intervention to build a mature Danish venture capital market includes: 1) asymmetric information and credit rationing, 2) experience and capacity building, and 3) knowledge externalities and socioeconomic returns.

The above market failures have been the driver for DGF’s intervention in the equity market. Thus, DGF has born the first learning cost and ensured knowledge spill over to existing and new market players while enhancing the supply of venture capital and achieving significant leverage in the market of private venture capital.

**Success factors, evidence of innovation in fund set-up and / or operation and good practices** – the Danish venture capital market has undergone significant development the last couple of years and according to the
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Case study 3 – The Danish Growth Fund (DGF) (Denmark)

latest data from INVEST EUROPE the Danish venture capital firms invested the most in Europe, when measured as a percent of GDP. Especially for early stage Denmark has high investment levels. Further, Denmark is placed third in Europe measured by the amount of VC under management relative to GDP (measured as capital raised the past 10 years).

Lessons learned (replicability and transferability potential) – The following lessons were identified:

- **Heavily public involvement** in maturing the venture capital market but all investments made on private terms with private investors. DGF has not only supplied venture capital directly and indirectly to Danish SMEs and entrepreneurs but has also played an active role in developing a mature venture market by developing competencies on the investor side and among entrepreneurs. Further, DGF has been active in building a strong ecosystem around the entrepreneurs and investors. DGF has played this role since 2001 when a new strategy and investment approach for the fund was adopted.

- **Limited public participation in direct venture investments compared to many other European countries.** The public engagement in Denmark accounts for less than 10 pct. of the total direct venture investments. By far most public support of the VC market is carried out through investments in VC funds. Either directly by DGF or through DGC.

- **Innovative funding of DGC.** For many years there has been a discussion in Denmark of whether the pension funds should be more active in the venture capital asset class. An asset class the pension funds did not think generated a competitive return. The model behind DGC has attracted DKK 4.8 billion from private pension funds to the fund-of-funds and has reduced the risk for the pension funds by providing 75 percent of the capital as a loan to DGF which DGF has invested in DGC. This way the pension funds will get interest on their loan and the investment will not have to be matched by risk free investments under Solvency II. Further, by opening up DGC to invest in later stages – both small and mid-cap venture and mezzanine funds – the risk is further lowered since these invest in established companies and have traditionally generated a higher return and investments. Since DGF has invested 75 percent of the capital in DGC they have assumed the majority of the risk but they will also get the majority of a potential upside.

- **DGF and DGC seem to be a strong combination.** DGC has secured a large inflow of private capital to the Danish venture capital market. By funding venture capital managers they will help build competencies on the investor side but they do not have a specific focus on building a sustainable venture capital market. They focus on generating private economic return. But DGF has a strong focus on strengthening the entrepreneurial ecosystem and building a sustainable venture capital market. According to DGF setting up a FoF structure like DGC would have limited effect without also having an actor with a wider focus on market development.

- **Strong public involvement at the overall level but everything is market based at the funds level.** DGF is the state’s venture fund but operates independently of the state and is governed by independent board of directors. It operates a number of funding schemes on behalf of the state and – as mentioned - plays an active role in developing the Danish market but everything at the fund level is conducted on market basis and on the same conditions as the private investors.

- **Strong cornerstone investors like DGF and DGC help underlying funds raise capital.** The latest evaluation of DGF illustrates how DGF and DGC act as important cornerstone investors when management teams are fundraising and help bring private investors on board. At the same time, actors from the Danish venture capital industry would prefer multiple potential cornerstone investors and not only three (EIF being the third).

- **Opening FoF up to other asset classes can help attract private institutional investors.** In general, private institutional investors are reluctant to invest in European venture capital funds because the returns historically have not been competitive with other asset classes. However, opening up the funds to other assets classes, which historically have had higher returns, can help persuade institutional investors to get engaged in venture capital.

- **The results are starting to show.** As mentioned DGF achieved its best result in 2014 generating a profit of more than DKK 800 million. The result reflects a strong positive performance in a range of companies and funds and not only one or two big exits. The development so far indicates that 2015 will be at least as good as 2014. Thus, the Danish VC market is starting to generate some interesting results born by high valuations of portfolio companies and profitable exits, which again has produced increasing returns for venture funds and rising returns for LPs.
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Case study 3 – The Danish Growth Fund (DGF) (Denmark)

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Case study 4 - Dutch Venture Initiative (DVI), the Netherlands

Background
The Dutch Venture Initiative (DVI) is a Funds of Funds in the Netherlands. The Fund is formally launched on 20 December 2012. The DVI invests in funds investing in development stage fast growing innovative or high-tech businesses, which are fundamental to the growth of the Dutch economy. At the start two third of the fund is financed by the Dutch government and the remaining part is committed by EIF. Supporting access to finance of these enterprises is an important aspect of the Dutch government, as part of their Top sector policy. In 2010, the Dutch government introduced a new policy framework regarding the business sector. Besides generic measures to strengthen the business environment for all companies, there is a specific policy track to improve the performance of a number of important business sectors by building excellent eco-systems of government, knowledge institutes and businesses. Products and technologies produced by these sectors are furthermore important because they can provide solutions for societal problems.

The DVI started with a fund size of EUR 150m, of which EUR 50m was committed by the EIF and EUR 100m by the Ministry of Economic Affairs. The investment of the Ministry of Economic Affairs is managed by Participatiemaatschappij Oost Nederland NV (PPM Oost).

Objective
The objective of the DVI is to improve access to venture capital of fast growing innovative or high-tech businesses in the Netherlands. With the first in EUR 150m around 10 to 15 investments were planned to be made for a period of 5 years, and that the Fund after the start-up period was extended to EUR 300m, of which one thirds would be provided by the EIF at a cap of EUR 100m. The other investments were to come from private investors.

Types of investment and stage of SME growth
The objective of DVI is to stimulate fast growing innovative or high-tech businesses, in particular in sectors such as ICT, cleantech, medtech, renewable energy and life sciences. The overall objective is to establish a sustainable model that attracts additional private investors to financing innovation and entrepreneurship in the Netherlands.

Legal/operating structure
DVI is managed by EIF and registered in Luxembourg as a Société d’investissement en capital à risque (SICAR). In this way EIF utilises its experience and expertise in managing similar initiatives in close collaboration with national and regional partners across Europe. The investment of the Ministry of Economic Affairs is managed by Participatiemaatschappij Oost Nederland NV (PPM Oost). PPM-Oost is a regional venture capital company that is part of East Netherlands Development Agency (Oost NV). PPM Oost administers government funds and manages revolving regional venture capital funds for specific sectors in the provinces Gelderland and Overijssel.

Selection criteria
To apply for investment by DVI, the funds must have an investment strategy that focuses on the target group of DVI the Netherlands and have to have an experienced and skilled team. The fund should also

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Case study 4 - Dutch Venture Initiative (DVI), the Netherlands

demonstrate that it is able to attract more private finance from other investors. Furthermore the fund size should be commercially viable to ensure the stability of the team.

**Investment period, implementation to date, outcomes and investment performance**

The start of DVI went rather smoothly and in May 2015, the first EUR 150m was already invested in 8 Funds. The extension (DVI2) is approved by Dutch parliament meaning that the additional EUR 150m is available and will be launched in the second half of 2015. The investment period is 5 years, and most funds will return after 5 years. So overall DVI is considered a success.

Due to financial crisis, many funds were in difficulties in 2012, and they could be supported through DVI investment in 2012 and 2013. In the longer term the market will approve and private investors (such as pension funds) will take over the investment. At this moment there is still a market failure, so government intervention through DVI is needed.

The assessment of the impact of DVI and its performance are not public yet. More information is planned to be published in the second half of 2015.

**Example of funds selected**

This information is not publicly available, expected second half 2015.

**Barriers to investment in early and growth stage seed and VC**

There is a negative rate of return on these investments of -1%, which is partly caused by the small deals. This discourages investors to invest in these companies. The Netherlands also does not have a National Promotional Bank, such as the British Business Bank in the UK. Another aspect is the availability of good fund managers. Fund manager must not only know the language but should also have knowledge of the Dutch business sector.

In the case of the DVI they succeeded with EIF, but this can be hard. It is also difficult to gain enough knowledge about a market on your own. This knowledge is needed to select the proper funds. At DVI they did this by having very experienced people into the organization. But they acknowledge that it is difficult when someone from another country has to assess a Dutch application.

**Success factors, evidence of innovation in fund set-up and / or operation and good practices**

One of the success factors is, as described above, that the contribution of the government is managed by a private institution, PPM Oost. This allows for more flexibility, which makes the Fund more attractive for private investors.

A second factor is that the DVI is managed by EIF. Due to the experience the funds could be set up very quickly and first investments could already be made in 2014. Also the employees are very experienced and a Dutch speaking team is available to assess the applications.

**Lessons learned (replicability and transferability potential)**

Data should be collected to assess and monitor the impact of the scheme from the start.

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Case study 5 - the Polish Growth Fund of Funds (PGFF)

**Background on fund of fund and objectives**

The Polish Growth Fund of Funds (PGFF) was launched in April 2013 by the EIF in close co-operation with Bank Gospodarstwa Krajowego (BGK). The aim was to stimulate equity investments in growth-focussed enterprises in Poland. A further aim is to build and strengthen the private equity and VC fund infrastructure and fund manager capabilities.

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5 Polski Fundusz-funduszy Wzrostu (PFFW)
Case study 5 - the Polish Growth Fund of Funds (PGFF)

Description
The PGFF is in the process of building a balanced portfolio of investments consisting of a combination of Venture Capital, Private Equity and in Mezzanine Funds with an investment focus on Poland over a 5 year period. The PGFF has two main branches of activity by investment stage. Firstly, it supports the Growth Equity Programme, which makes investments in underlying VC funds that specialise in supporting later stage enterprises to expand through equity and quasi-equity financing. Secondly, the PGFF supports investments in emerging and established technology VC Funds focused on the early and growth stages.

Fund size
Initial size of the FoF overall - EUR 90 million (of which EUR 20m to early stage and growth and EUR 70m to late stage).

PGFF has a EUR 30 million commitment from EIF with EUR 60 million from BGK. If successful, the size of the FoF will be expanded in future, probably up to EUR 180m.

Types of investment and stage of SME growth
Later stage
The Growth Equity Programme makes investments in GPs (VC fund managers) providing later stage financing of €2.5m – €10m.
- The majority of investments are >EUR 5m.
- The typical size of the underlying technology funds is between EUR 50-300m. The typical commitment by the FoF in each fund is EUR 10-30m.
- The types of underlying funds benefiting from PGFF support are those specialised in later stage investments in SMEs and the lower mid-market.
- The intention is to achieve risk diversification by supporting between 3-5 funds.

Early and growth stage investments in enterprises.
The second type of investments made through the PGFF is in underlying funds that target growth-stage investments of at least EUR 2.5m. The focus is on supporting VC funds that invest predominantly in enterprises based in Poland.
- Typical size of investments made in the selected VC funds - from EUR 2.5-10m.
- Typical Fund size: c. EUR 25-50m
- Typical commitment to each fund: EUR 10-20m
- Target diversification of the program: circa 2 funds
- Support of Poland expansion stage tech SMEs

Sectoral focus
Later stage growth: generalist
Early and growth stage: generalist SMEs, also some investments are sectorally targeted with a focus on SMEs in the ICT, healthcare and cleantech sectors.

Geographical focus
At least 2X the PGFF’s commitment to the funds must be invested into Polish companies.

Legal / operating structure
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Case study 5 - the Polish Growth Fund of Funds (PGFF)

**FoF managed by the EIF with the participation of BGK on the board.**

**Investment period**

5 years (in the case of both sub-FoF).

**Selection criteria for selecting FoF manager and underlying funds**

The two core criteria identified are:

*Investment strategy* focused on Poland (but could include other Central and Eastern European Countries).

*A well-balanced management team*, with team members complementing each other in terms of skills and experience, with a proven ability to work together. Emerging and/or first time teams would be also considered.

In addition, a number of further criteria have been developed:

- The fund should be capable of attracting further private finance from other investors, e.g. pension funds, which will at least double the amount of investment capital required;
- The fund size should be commercially viable to ensure the team’s stability and the fund’s investment capacity;
- The legal and tax structure of the fund should be clear and include market standard terms and conditions;
- All stakeholders in a fund should have their interests aligned

For the early and growth stage, sectoral knowledge of the ICT, Healthcare and Cleantech sectors would be an advantage.

**Implementation to date, outcomes and investment performance**

- Expected IRR for later stage growth FoF - 4% to 6%.
- Expected IRR for early and growth stage investments in SMEs - -2% to 0.5%.

The FoF is not solely concerned with achieving commercial profitability. As noted above, it is also seeking to strengthen the private equity and VC fund infrastructure and fund manager capabilities.

**Examples of funds selected:**

Four agreements have been signed: Avallon MBO Fund II, Concordia 21, and two further VC funds which are as yet undisclosed.

**Success factors, evidence of innovation in fund set-up and / or operation and good practices.**

- The willingness of the EIF and the Polish bank BGK to invest further resources to expand the scale of the FoF should there be sufficient demand from underlying VCs.
- The ability to offer follow-on funding over several investment stages.

**Lessons learned (replicability and transferability potential):**

Too early to determine the lessons given that the PGFF FoF only got going in 2013 and the scheme is not fully operational yet.

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Case study 5 - the Polish Growth Fund of Funds (PGFF)

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Source: CSES interpretation of publicly available information - EIF - http://www.eif.org/what_we_do/resources/pgff/

A summary of the EBRD's equity activities is provided in the table on the following page:
### Case study 6 Part 1– The EBRD’s equity schemes

<table>
<thead>
<tr>
<th>Programme type</th>
<th>VC investment type</th>
<th>Description of programme, size of investments.</th>
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<tbody>
<tr>
<td>Selective stand-alone engagement</td>
<td>Later stage VC</td>
<td><strong>Investments in larger, typically balanced or later stage venture capital and/or technology focused funds.</strong> These funds are also a source of direct co-investment activity for EBRD through its ICT sector team. These funds have greater capital depth and generally wider geographic coverage that enable the fund managers to bring to bear greater depth of dedicated technical and other resources to the entrepreneurs but with the ability also to mitigate follow-on financing risks that are significant in EBRD’s nascent markets.</td>
</tr>
<tr>
<td>Venture Capital Investment Programme (VCIP)</td>
<td>Early and growth-stage ventures</td>
<td><strong>€100 million for direct VC investment set up in 2012.</strong> The VCIP enables established fund managers to propose co-investment opportunities to the EBRD and has been successful in bridging the financing gap and a useful source of additional capital for VC funds. Co-investment by VCIP enables small VC funds with limited financial resources to syndicate risk and reserve additional fund capital for follow-on investment into these companies, thereby mitigating follow-on financing risks for the entrepreneurs and the fund. In turn this assists to mitigate overall performance risk for those small early-stage VC funds and for the investors in those funds (potentially including EBRD). Given EBRD’s knowledge of its markets and physical presence in most of its countries of operation, risk syndication with EBRD also provides comfort for VC investors who may be new EBRD’s markets to consider supporting innovative companies in these markets. VCIP is administered by a team of three dedicated investment professionals, and an Advisory Committee which includes three outside venture capital partners. To date, six investments have been completed.</td>
</tr>
<tr>
<td>Early-Stage Innovation Facility (ESIF)</td>
<td>Early-stage VC funds and business accelerators</td>
<td><strong>€100 million for investment into early-stage VC funds set up in 2014 as part of a wider Knowledge Economy Initiative.</strong> It also supports “best-in-class” business accelerators in which it is the sole investor with no third party capital. The EBRD has taken a number of steps to mitigate the risks associated with managing its business accelerator programme by adopting a hands-on approach to supporting the fund managers in which it has invested. It has ensured that knowledge and know-how is shared across regions by ensuring that teams across different regions are fully integrated and networked as part of the ESIF platform. The EBRD is restricted to up to €10 million per investment per underlying fund. During the investment period, it is looking to support 8-12 commercially focused VC funds and accelerators which in turn will invest in a portfolio of more than 150 companies. The focus is on investing in VC funds that finance the growth and development of small innovative tech companies. In terms of investment approach, the scheme has similarities with a FoF in that it invests in underlying VC funds although it relies solely on EBRD funding. ESIF is intended to foster cooperation, increase intra-region knowledge sharing and learning, and foster the development of</td>
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Case study 6 Part 1 – The EBRD’s equity schemes

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<td></td>
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<td>ecosystems in sub-regions within target countries.</td>
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<td></td>
<td>The fund terms follow market practices with strong financial commitment of management teams in underlying VC funds will be required to ensure alignment of interest. The EBRD also provides access to advisory support for additional pre and post-investment advisory support, in recognition of the fact that both early-stage entrepreneurs and VC funds are lightly capitalized and often do not have internal human resources in all relevant technical or functional areas.</td>
</tr>
</tbody>
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Case study 6 Part 2 – The EBRD - Technical Capacity building support to enhance the Venture Capital and Private Equity Ecosystem

This case study focuses on the EBRD’s Integrated Approach for the further Development of the Venture Capital and Private Equity Ecosystem in the Baltic States.

**Rationale and objectives:**

The Baltics Integrated Approach (IA) aims to address the key transitional challenges of the Baltics venture capital ("VC") and private equity ("PE") ecosystem through a two-pronged methodology driven by two key elements: (i) policy dialogue and targeted outcome-driven engagements, and (ii) correlated investments into a number of identified VC/PE funds across the financing lifecycle with a focus on funds investing in small and medium sized enterprises (SMEs).

**Description:** The EBRD was supportive of initiatives to help build the VC eco-system in the Baltic States, namely the establishment of the Baltic Innovation Fund (BIF) jointly by the EIF and national financing agencies from across all three Baltic States. Whilst it was not in a position to invest directly in the newly established FoF in 2013, it instead decided to support technical capacity building and to make several direct investments in underlying VC funds through the development of an "integrated approach".

**Activity type 1 - policy dialogue and targeted outcome-driven engagements**

A number of significant challenges were identified which continue to prevent the VC/PE sector in each of the three countries and at a regional level from realising their full potential. These challenges – and proposed measures to tackle them - include:

- **Limited availability of information on VC/ PE funds** and a need for training and capacity-building among stakeholders at various levels in order to enhance the supply and demand attributes of the asset class across the region.

- **Regulatory and legislative challenges** – the EBRD has sought to work together with Member State governments in the Baltics to affect positive regulatory changes to overcome challenges currently affecting the sector, inhibiting the effective absorption of structural funds, the attraction of private capital and the development of new VC funds.

- **Insufficiently developed networks** - the Bank will work to facilitate further cooperation among the three national venture capital associations (VCAs) and fund managers in the Baltic States. This will be achieved through the pan-Baltic training and networking events and regular meetings that will support an integrated structural approach to solving common challenges among the three countries.

- **Limited early stage development** - the EBRD will work with Connect Latvia, the Stockholm School of Economics (SSE) in Riga and potentially with other universities, angel investors and VC fund
### Case study 6 Part 2 – The EBRD - Technical Capacity building support to enhance the Venture Capital and Private Equity Ecosystem

Managers to facilitate further technology transfer and commercialisation of ideas, which will assist in increasing VC activity in the Baltic States and will support the growth of SMEs.

The EBRD has already organised 3 capacity-building events for existing and aspiring Baltic fund managers, the first of which took place on 28 February 2014 in Estonia. The event was well attended by around 100 limited partners (“LPs”) and general partners (“GPs”) in the Baltic VC/PE community. Positive feedback was received by the EBRD on the event. A second fund manager pitching workshop was then organised in Lithuania in January 2015. 8 prospective fund managers attended this capacity building event which took place in Vilnius over 2 days. Again very positive feedback was received from the workshop participants and it was clear that demand exists for such events.

#### Activity type 2 - correlated investments into a number of identified VC/PE funds

As part of (ii) correlated investments into a number of identified VC/PE funds, a EUR 20m commitment was made by the EBRD to Baltcap Private Equity Fund II in November 2013 and a €10m commitment was made to BPM Mezzanine Fund in December 2014. Livonia Partners Fund I (OpID 46613) is the third private equity fund investment EBRD board approved under the Baltics IA on 8 April 2015. Other Funds, the Bank is also actively exploring a number of potential fund proposals in the Baltic region, in line with the Baltics IA, including two venture capital funds.

#### Lessons learned and good practices:

- There is latent demand among both LPs and GPs for capacity-building support to strengthen knowledge and experience among both existing and future aspiring fund managers.
- Organisations such as the EBRD and the EIF are well-placed to deliver training and capacity-building because they can draw on extensive experience in supporting the development of the VC infrastructure in countries that have hitherto lacked a fully-fledged venture capital community. This includes experience in setting up fund of funds and in making direct co-investments in VC funds.
- The leverage target on public funds when investing in VC in under-developed markets should be lower than when investing in more mature markets.
- When investing in underlying VC funds, and particularly in new fund managers, the EBRD emphasised that the public sector should accept a lower rate of leverage. It should invest as much as 60-70% as cornerstone investors in the underlying VC fund in order to achieve fund closure within a reasonable timeframe.

*Source: June 2015, EBRD, Integrated Approach for the further Development of the Venture Capital and Private Equity Ecosystem in the Baltic States. Further editing and assessment of lessons learned and good practices by CSES.*
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Case study 7 – Arkamedes

The aim is to demonstrate the role of the public sector in encouraging the private sector to deploy a higher asset allocation to European Venture Capital through their participation in FoF. Whereas most national FoF were established by the public sector, Arkimedes is an interesting example because the public sector was the initial driver and facilitator with the private sector then taking over and establishing and operating the FoF.

Background on fund of fund and objectives

The ARKimedes-Fonds nv was established in June 8th 2005 by the ARKimedes Management nv (a 100% subsidiary of Participatiemaatschappij Vlaanderen nv).

The objective to provide venture capital to young and innovative growth oriented young companies, which tend to be confronted with a lack of venture capital, in order to promote job creation, economic growth and quality of life in Flanders.

Description

The FoF raised its funds through a combined issue of shares and bonds. These products were subject to a regional guarantee of the 90% of the invested capital for the shares and 100% for the bonds.

Shares: The taxpayer in the Flemish Region, liable for personal income tax and who bought shares in ARKimedes Fund at the time of issue were entitled to a reduction in their income tax to the tune of 35% on a maximum subscription of EUR 2,500. This reduction was spread evenly over a period of four years (8.75% per annum). For as long as the taxpayer could prove that he/she still held the shares in the income year in question.

Bonds: Investors who bought bonds did not receive any tax credit, but benefit from a regional guarantee of 100% of their capital contribution.

The ARKimedes funds I and II have mobilized together 222.5 million of Venture Capital between 2005 and 2013. 189million EUR were invested in 164 target companies. This investment representing an annual average of 0.005% of the Flemish GDP. The ARKIVs funded 13% of all Belgian companies that received venture capital between 2005 and 2013.

Fund size

Initial size of the FoF for the ARKimedes I - EUR 111.1 million

For the ARKimedes II the fund size is of EUR 100 million

Types of investment and stage of SME growth

Seed stage, Start-ups and SMEs

The ARKimedes fund of funds invests up to 50% less one share to the capital of any accredited ARKIV. In other words each ARKIV receives one euro extra for each euro of private capital at its disposal

This FoF invest under the same conditions as other parties having a stake in the capital of any ARKIV, with the restricted condition that the ARKIV must wound up before the end of the life of the corresponding ARKimedes fund of 13 years

For each fund ARKimedes have launch an accreditation procedure with a public call for candidate ARKIVs published in the Belgian Official Gazette and De Tijd
Appendix B - Case studies

Case study 7 – Arkimedes – The role of the Regional Public sector in encouraging the private sector to invest locally.

**Sectoral focus**
In general the sectors are determined by the ARKIVs sector of interest. Each ARKIV applies different investment criteria, depending on the investment focus, the composition of the investment portfolio and other factors. However in general the target companies were active in the high-tech sectors such as IT/electronics, life science, biotechnology and telecommunications.

**Geographical focus**
ARKimedes funds are only invested in Flemish start-ups and SMEs.

**Legal / operating structure**
The ARKIMedes fund legal framework is composed of the ARK Decree and the ARK Order.
The FoF is managed by the ARKimedes Management nv, a 100% subsidiary of ParticipatieMaatschappij Vlaanderen nv.

**Investment period.**
For the ARKimedes I fund the investment period was originally of 5 years however in practice it has been of 7 years.
For the ARKimedes II fund the investment period would be of 5 years.

**Selection criteria for selecting FoF manager and underlying funds**
The ARKimedes funds invest in accredited risk capital providers called ARKIVs.
The ARKIVs to be accredited must demonstrate to have:
- a professional management team
- proven successful services in venture capital sector

**Implementation to date, outcomes and investment performance**
Every Euro that Flanders invested in the ARKimedes fund had created 7 euros that were invested in Flemish companies.

One company invested out of four aims for further investment, a further one in three target companies was up to three years in the first ARKIV investment.

Half of all investments have already exited, which means that there is an upside to the non-yet exited investment, but also a downside is potential. In 35% of all investments already exited at least the initial investment has been recovered. In 22% of the exits earned less than the invested and 43% of the exits led to a total financial loss.

**Examples of funds selected:**
n/a

**Success factors, evidence of innovation in fund set-up and / or operation and good practices.**
The Net losses of their warranty scheme: Accumulated investment of over a billion and losses of 60K.

The study carried by the University of Gent confirmed that many ARKIV venture capital funds would not exist without ARKimedes, especially those active in the segment of small and young companies. ARKIMedes funds have ensured that venture capital funds continue to focus on the difficult investment segment of small and young companies. The ARKimedes funds have provided a positive leverage and allowed ambitious entrepreneurs to expand their business.

The study showed that although the weight of the government in the venture capital industry was not too large compared to the neighbouring countries. The ARKimedes funds have not supplanted the Flemish and Belgium venture capital industry on the contrary it has ensured that this industry was active during the financial and economic crisis. This has in turn ensured that the target companies remained ambitious and
### Case study 7 – Arkimedes – The role of the Regional Public sector in encouraging the private sector to invest locally.

Innovative.

The patent application rate of the target companies is high with a 43% of financed enterprises with at least one patent application. On average, 39% of all employees are engaged in R&D, and about 46 target companies (29%) have been spin-off from universities or research institutions.

The target companies obtained more external financing from other private parties, both equity and debt financing. Thus one euro of ARKimedes I fund of funds (totalling EUR 112.5 million) led to the end of 2013 to:

- 7.3 € total external financing retrieved by a target company (total €821 million)
- of which 5.9€ were financed by non-ARKIVs (€656 million)
- of which 5.6€ were financed by private parties (€626 million)
- of which 4.4€ were invested as capital (€500 million) and the rest as debt.

Job creation has also been one positive achievement with 455 new jobs created and still existing today in Flanders and giving work to another 558 self-employed people. The target companies have in average achieved to employ 3.9 people in two years and 15.7 people in 5 years, while the stats show that the average Flemish entrepreneur only employees 5 people over 5 years.

On the industry, the ARKIVs have been positive about the cooperation with ARKimedes management, as it has led to a professionalization of the Flemish venture capital industry, especially with relation to the management of venture capital funds such as reporting to investors and legal management, particularly for young teams and independent ARKIVs. However, the added value is quite limited to experienced teams and team working within a “captive” structure.

**Lessons learned (replicability and transferability potential):**

The FoF can be a mechanism for achieving higher leverage.

The replicability and transferability to other European regions is possible as ARKimedes public fund of funds had managed, together with other shareholders, to boost Flanders’ economic strength and investing in the future of the Flanders’ region contributing towards economic growth, creation of employment and enhancing the quality of life in Flanders.

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Case study 8 – the role of EU financial instruments in laying the basis for the development of a regional venture capital industry

Overview and objectives
LAUNCHub (http://launchub.com/) is a EUR 9M VC fund and business accelerator based in Sofia, Bulgaria. Its objectives are to:

- Provide seed-stage investments to start-up companies.
- Support entrepreneurship through the provision of start-up capital for the best entrepreneurs in South-Eastern Europe.
- Build the next generation of high-growth gazelles with internationalisation potential in the EU.
- Achieve a high level of commercial return on investment.

Description
LAUNCHub was set up in 2012 and is funded through the JEREMIE Holding Fund. Fund selection and due diligence were carried out by the EIF to select the fund manager. The rationale for the establishment of the accelerator was that SE Europe lacked sufficient seed and early stage equity capital and follow-on financing.

Since its inauguration, the business accelerator initiative has invested EUR 6.7 million Euro in 58 start-ups. Although under the JEREMIE instrument financed through the ERDF, there are constraints in terms of the geographic focus of investments, LAUNCHub has succeeded in attracting entrepreneurs wishing to set up new companies in Bulgaria by becoming a regional business incubator hub. It has attracted start-ups from 10 countries in the South-Eastern Europe (SEE) region, including Bulgaria, Romania, Macedonia, Croatia, Greece, Slovenia, Ukraine, Austria and Switzerland.

The business accelerator makes seed-stage investments in start-ups and recently established firms with the potential to scale up globally. The typical size of investment made is between €50,000 and €200,000. The initial funding for the pre-seed concept stage in Bulgaria often comes from angel investors, of which there is a growing base, who may invest between €20,000 and €50,000.

LauncHub works with start-up teams and provides them with access to a network consisting of experts, successful entrepreneurs that can provide mentoring support and investors. The management team participates in the advisory boards and help start-ups supported to develop their business and product development strategies.

Although the LauncHub is of insufficient size to provide follow-on funding itself, many of the firms it has provided seed funding to have been successful in raising follow-on funding from other sources.

Types of investment and stage of SME growth
Seed and early stage - first and second round investments.

Legal / operating structure
Following an extensive due diligence process by the EIF of 12 months, the pre-seed and seed fund was approved. A single fund manager was appointed to operate the fund.

Investment period, investment duration and divestment
- Investment period – 3 years
- Monitoring the selected investments in SMEs and divestment – 7 years

Exits and returns
In total, EUR 8.5M has been raised through Tier 1 VCs in Europe and the US and other sources. This should enable capital to be recycled back into supporting innovative start-ups and entrepreneurship in future.

With regard to returns, the portfolio has achieved an IRR of in excess of 20%. It has also promoted Bulgaria as a start-up and entrepreneurial hub in the wider region. A number of highly successful exits has helped to raise the profile of the VC asset class in Bulgaria and across the wider SEE region.

More broadly across the VC ecosystem in Bulgaria, an example was provided of a successful €300m ICT exit, Telerik - https://en.wikipedia.org/wiki/Telerik. This demonstrates how a small number of successful high-
# Appendix B - Case studies

## Case study 8 – the role of EU financial instruments in laying the basis for the development of a regional venture capital industry

Profile exits can help to raise the VC industry’s profile.

Although in many cases successful exits have led to the firm having to relocate their head office outside Bulgaria (for instance, to the US, but also elsewhere within the EU such as to the UK or Germany), this was viewed positively, given the need for proximity to customers. There have also been acquisitions of early-stage growth firms in Bulgaria by foreign buyers of under €10m where the firm has remained in Bulgaria. This was viewed as being beneficial for the eco-system since it allows entrepreneurial know-how to be retained.

### Barriers to investment in early and growth stage seed and VC.

A general lack of sufficient early stage risk capital in South-Eastern Europe (SEE) was identified, especially in respect of follow-on financing beyond the seed phase. It was noted that whilst SEE has more seed deals of up to US$100,000 than in Central & Eastern Europe, it has significantly lower dealflow for equity-based deals worth between US$ 200,000 - US 1m. This reflects the more advanced state of maturation of the VC market in Central & Eastern Europe. However, SEE is catching up quickly, with evidence of increased angel activity and the positive impacts of the LaunchHub accelerator having played a positive role in this regard.

The lack of access to follow-on financing within Bulgaria was emphasised. Although there are benefits from firms receiving follow-on financing from other countries (e.g. from the UK, US and Germany), it would be preferable to be able to provide multi-investment stage support to firms nurtured within the accelerator.

### Success factors, evidence of innovation and / or good practices.

- The crucial role of the fund manager in mentoring entrepreneurs in seed-stage start-ups and in providing access to expertise and to investors that can provide follow-on financing. This has facilitated their accelerated development.
- The importance of building relationships across the VC ecosystem was stressed e.g. the fund manager has established relationships with investors able to provide follow-on financing. The supported firms themselves often have links with angel investors.
- The demonstration effect of successful exits in improving the reputation of the VC sector.

### Lessons learned (replicability and transferability potential):

- A regional seed and VC fund (or future fund of funds) acting without geographic constraint would be preferable to a country-specific approach, which deters investors.
- It is important to develop fund managers’ technical capacity so that after several rounds of public financing, they are able to raise funding from the private sector and demonstrate a commercial track record.

### Contacts:

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Case study 9 – Technical Capacity building support to enhance the Venture Capital and Private Equity Ecosystem

This case study focuses on the EBRD’s Integrated Approach for the Further Development of the Venture Capital and Private Equity Ecosystem in the Baltic States.

Rationale and objectives:

The Baltics Integrated Approach (IA) aims to address the key transitional challenges of the Baltics venture capital (“VC”) and private equity (“PE”) ecosystem through a two-pronged methodology driven by two key elements: (i) policy dialogue and targeted, outcome-driven, sector engagements (e.g. fund manager and local investor training), and (ii) correlated investments into a number of identified VC/PE funds across the financing lifecycle with a focus on funds investing in small and medium sized enterprises (SMEs).

Description: The EBRD was supportive of initiatives to help build the VC eco-system in the Baltic States, namely the establishment of the Baltic Innovation Fund (BIF) jointly by the EIF and national financing agencies from across all three Baltic States. Whilst it was not in a position to invest directly in the newly established FoF in 2013, it instead decided to support a holistic approach through technical capacity building, policy support and to make several direct investments in underlying VC funds through the development of an “integrated approach”.

Activity type 1 - policy dialogue and targeted outcome-driven engagements

A number of significant challenges were identified which continue to prevent the VC/PE sector in each of the three countries and at a regional level from realising their full potential. These challenges – and proposed measures to tackle them – include among other things:

- **Limited availability of information on VC/PE funds and a need for training and capacity-building** among stakeholders at various levels in order to enhance the supply and demand attributes of the asset class across the region, for example through the training of local pension funds on how to develop asset allocations to private equity and for aspiring fund manager on how to develop “market-ready” investment and fund raising strategies.

- **Regulatory and legislative challenges** – working together with Member State authorities in the Baltics to affect positive regulatory changes to overcome challenges currently affecting the sector, inhibiting the effective absorption of structural funds, the attraction of private capital and the development of new VC funds.

- **Insufficiently developed networks** - facilitating further cooperation among the three national venture capital associations (VCAs) and fund managers in the Baltic States. This will be achieved through the pan-Baltic training and networking events and regular meetings that will support an integrated structural approach to solving common challenges among the three countries.

- **Limited early stage development** - working with universities, angel investors and VC fund managers to facilitate further technology transfer and commercialisation of ideas, which will assist in increasing VC activity in the Baltic States and will support the growth of SMEs.

The EBRD has already organised 4 capacity-building events for existing and aspiring Baltic fund managers, the first of which took place on 28 February 2014 in Estonia. The event was well attended by around 100 limited partners (“LPs”), general partners (“GPs”) and regulators in the Baltic VC/PE community with a second event being held subsequently also in Estonia. Positive feedback was received by the ERBD on the event. A third fund manager pitching workshop was then organised in Lithuania in January 2015. Eight prospective fund managers attended this capacity building event which took place in Vilnius over 2 days. Again very positive feedback was received from the workshop participants and it was clear that demand exists for such events. Currently, a third workshop is scheduled to be held in Latvia during August 2015.

Activity type 2 - correlated investments into a number of identified VC/PE funds

As part of (ii) correlated investments into a number of identified VC/PE funds, a EUR 20m commitment was made by the EBRD to Baltcap Private Equity Fund II in November 2013 and a €10m commitment was made to BPM Mezzanine Fund in December 2014 and a EUR 17m commitment was made to Livonia Partners Fund I in June 2015. The Bank is also actively exploring a number of potential fund proposals in the Baltic region,
Case study 9 – Technical Capacity building support to enhance the Venture Capital and Private Equity Ecosystem

in line with the Baltics IA and ESIF initiatives, including several venture capital funds.

**Lessons learned and good practices:**

- There is significant latent demand among LPs, GPs and relevant Government authorities for capacity-building support to strengthen knowledge and experience among both existing and future aspiring VC/PE investors, fund managers and regulators.
- Organisations such as the EBRD and the EIF are well-placed to deliver training and capacity-building because they can draw on extensive experience in supporting the development of the VC infrastructure in countries that have hitherto lacked a fully-fledged venture capital community. This includes experience in setting up fund of funds and in making direct co-investments in VC funds.
- There are notable structural factors in many of the very nascent VC markets in which EBRD operates that are less present in more developed western European markets and that will on occasion necessitate a differentiated approach to addressing those challenges. Fewer VC funds, smaller fund sizes, less developed follow-on financing markets with less ability to syndicate investment risk, reluctance of larger more established funds to step into less developed markets with resulting know-how transfer, less “full cycle” experience within fund management teams and a less well developed early-stage ecosystem, all mean that product design and implementation require specific tailoring to these markets.
- The leverage target on public funds when investing in VC in under-developed markets should be lower than when investing in more mature markets.
- When investing in underlying VC funds (particularly depending upon what investment stage), and particularly in new fund managers, there is a strong case that the public sector should selectively accept a lower rate of leverage (particularly at very early stages) in order to facilitate closure of such funds.

*Source: June 2015, EBRD, Integrated Approach for the further Development of the Venture Capital and Private Equity Ecosystem in the Baltic States. Further editing and assessment of lessons learned and good practices by CSES.*
Appendix B - Case studies

Case study 9 – Almi Invest, Sweden.

**Background** – Almi Invest, formed in 2008, is a subsidiary of the publicly owned Almi Group. Operations are divided into regional funds with expansion capital and more recently also a national fund with seed capital (formerly Innovationsbron AB) that was incorporated into Almi Invest in 2013. While Almi Invest is not a traditional fund-of-funds, it acts as a national coordinator for the regional venture capital funds.

The regional funds that Almi is involved in are co-financed by the European Regional Development Fund (ERDF), and are run as projects under eight regional structural fund programmes. Half of the capital comes from the ERDF and half from national co-financiers, including Almi. Almi’s regional structure is shown in the following diagram.

![Figure 1. Structure of Almi's regional funds](image)

Source: Almi Invest. Southern Sweden is the eight fund, not included in the diagram.

**Objectives** – Almi Invest’s goal is to create growth and renewal by investing in companies early on in their development. Its activities are intended to complement the private segment i.e. it shall not crowd out private investment, and its role is to invest where the risk is high and access to capital is limited.

Almi’s funds should be revolving; the capital base shall not decrease in the long run. Internally, Almi has a required rate of return of two percent for expansion capital. There is no required rate of return on the seed fund other than the aforementioned requirement that the fund should be revolving. Moreover, for the national seed fund, investments in portfolio companies shall be made under market conditions, preferably with a private partner. For the regional funds, investments shall be made on commercial grounds, and investments are co-financed with at least an equal amount and on equal terms with private investors (pari passu). Overall, Almi expects to make no money back on 50% of investments; 1.5 times the money back on 25% of investments; 2 times the money back on 10% of investments and 4 times the money back on 10% of investments. This gives a 7% return on the portfolio overall.

**Types of investment and stage of SME growth** – Almi has no restrictions on the industries that it must invest in. The target group for the financing is micro, small and medium-sized enterprises in the seed, start-up and expansion phases. The very early stage target was added when Innovationsbron AB was incorporated into Almi in 2013. Investment takes place on market terms in the relevant regions. Moreover, it is prescribed that the regional funds take into account the so-called horizontal criteria when investing, namely equality between women and men; integration and diversity; and sustainable development. There are also geographical restrictions defined by the EU NUTS 2 classification for the regional funds. These restrictions imply that any excess liquidity in one fund cannot be used in other funds, even if these are short of capital.

Almi Invest has a portfolio consisting of around 350 to 400 companies and invests in three to four companies per week. The total invested capital is around SEK 1 billion (€109 million). During 2014, the funds made 193 investments totalling SEK 211 million (€23 million, excluding Upper Norrland), of which 34% were in ICT. In addition, private investors added SEK 533 million (€57 million), meaning private investors added 2.5 crowns for every public crown in 2014.

**Legal / operating structure** – Almi Invest is a subsidiary of the Almi Group and undertakes the group’s venture capital business. The Almi Group is owned by the Swedish state through the Ministry of Enterprise and Innovation. The Almi Group is government-financed and provides loans, venture capital and advisory services to companies in the early stages of development. As mentioned above, Almi Invest acts as a national
Case study 9 – Almi Invest, Sweden.

coordinator between eight regional venture capital funds. It has over 40 investment managers located across Sweden.

Selection criteria – the selection criteria for portfolio companies, as listed on Almi Invest’s website, is that Almi Invest “invests in companies with scalable business concepts and prospects for long-term capital growth. The companies must have the ability to compete nationally and internationally, and there must be a clear customer need. Management should consist of dedicated entrepreneurs or a team with the ability to build a successful company.”

Investment period, implementation to date, outcomes and investment performance (where available) –

Almi Invest was set up off the back of advice by the European Commission to shift public funds from direct contributions to other forms of financing, such as venture capital, as well as discussions surrounding the shortage of entrepreneurial capital in Sweden. For the regional funds, a pilot intervention involved three regional venture capital funds investing in companies between 2005 and 2008. Subsequently, a regional model was devised under the eight structural fund regions in Sweden. The regional funds have since 2009 been run as projects under the eight regional structural fund programmes, resulting in twelve (later reduced to eleven) funds. Almi Invest part-financed and administered eight out of the eleven funds and is the largest national financier. The funds are financed to 50% by ERDF, 25% by Almi and 25% by the regions themselves. In total there is around SEK 1.2 billion (€128.6 million) in investment capital to be invested by the end of September 2015. There is strong support in Sweden for the continuation of the venture capital funds beyond 2015.

Barriers to investment in early and growth stage seed and VC.

One aim of Almi’s venture capital business is to increase access to equity capital for micro, small and medium-sized enterprises in Sweden in the early stages of development. As is often recognised, these enterprises are important for economic growth and job creation but also lack capital and returns to reinvest in their businesses. They therefore require external financing. However, for a number of reasons such as short history to rely on and asymmetric information, they are also risky to invest in. This makes external financing expensive. Almi Invest’s aim is to fill this gap in financing that may otherwise arise. A report by economist Roger Svensson (2014) concludes that Almi Invest’s focus is right, namely on investment in innovative companies in their early phases.

Success factors, evidence of innovation in fund set-up and / or operation and good practices –

Almi Invest has, to a large extent, been set up from the “bottom up”. It has succeeded in mobilising capital from private investors at the regional level, a feature that has been received well (see also the section below).

Almi’s regional funds have been subject to an on-going evaluation by Ramböll Management Consultancy between 2009 and 2014. In Ramböll’s report that evaluates the funds up to 2013Q3, they among others conclude that there is demand for the funds, which are showing good results. The funds are also managing well in attracting private capital, with SEK 1.7 of private capital for every SEK 1 of public capital. Moreover, according to a study answered by 141 portfolio companies that have received Almi funds, 72% state that their product or service reached the market faster thanks to the investment, and 63% feel that the investment was crucial for the existence of their company. There is therefore evidence to support that Almi Invest has come some way in overcoming the barrier to investment that young companies face.

Lessons learned (replicability and transferability potential)

Almi Invest’s seed fund is a recent addition to Almi’s business; lessons regarding Almi’s seed financing are therefore still limited. Regarding the regional funds, these have been evaluated during their existence, and are still being evaluated. Some of the key lessons learned to date are:

- Private investors: Almi Invest has succeeded in attracting private investors. In early stage and geographically concentrated investments, investors like business angels are particularly important. According to Ramböll’s on-going evaluation for the year 2012, private investors say that “they are attracted by the fact that the risk associated with private capital is shared, the venture capital funds’ established investment procedures and the contribution of competence and professionalism to the portfolio companies that the co-investment approach entails.” Nevertheless, it should be noted that the intention of the scheme, namely to provide early phase capital, may not always be in line with the risk-
Appendix B - Case studies

Case study 9 – Almi Invest, Sweden.

- **Regional dimension**: that the investments have occurred within the eight regional structural fund programmes have given them a strong regional dimension. It is deemed that this has been successful in terms of attracting private investors. It does, however, raise the question as to whether this is more a regional investment scheme than a pure scheme that focuses on solving the financing gap for young SMEs with growth potential. Growth Analysis (report 2011:05) writes that, “A number of studies have shown that regional seed funds struggle to succeed commercially. When a regional model has been chosen, it is important that the program is flexible and can be tailored to the regional context.” In this context it should be pointed out that while Almi has a regional venture capital funds, it equally as a common back-office with common routines and processes. This has been considered a success factor.

- **Importance of being an active investor**: Almi Invest is an active fund manager that not only contributes with (passive) capital but also with (active) advice and ownership. That Almi has provided competence in addition to capital has been appreciated by the portfolio companies.

**Long-term perspectives**: It has been concluded that a long-term perspective is important when setting up venture capital funds. According to Growth Analysis (summary of report 2011:05), “Lack of stability can make private actors terminate their investments, behave more risk-averse, or reduce their planned investment activity.” In their on-going evaluation, Ramböll also point out that regional fund initiative is built on sustainability and ownership, which is in contrast to that the initiative is set up as eleven independent projects with a clear end date. Having a long-term perspective is important for the success of the scheme.

**For more information**: This case study was written using information from Almi’s website, Almi’s 2014 Annual Report, a report by the Swedish National Audit Office, reports by Growth Analysis, research by Roger Svensson, information from the Swedish Agency for Economic and Regional Growth’s fund programme pages and an interview with Jan Bengtsson, CEO of Almi Invest until March 2015.

To access this information, please visit:


The Swedish Agency for Economic and Regional Growth, “Fondprojekt” [“Fund projects”], available (in Swedish) at [http://www.tillvaxtverket.se/euprogram/huvudmeny/programperiod20072013/programomraden/fondprojekt_4.3c4088c81204cca906180006072.html](http://www.tillvaxtverket.se/euprogram/huvudmeny/programperiod20072013/programomraden/fondprojekt_4.3c4088c81204cca906180006072.html) (also for Ramböll on-going evaluation reports, in particular the mid-term evaluation report number 0108 and the 2012 evaluation report number 0149)

The Swedish National Audit Office, “Statens insatser för riskkapitalförsökning” [“The State’s Actions for Venture Capital Investments”, available (in Swedish) at [http://www.riksrevisionen.se/PageFiles/18786/RiR_14_1_Riskkapitalf%C3%B6rs%C3%B6jning_Anpassad.pdf](http://www.riksrevisionen.se/PageFiles/18786/RiR_14_1_Riskkapitalf%C3%B6rs%C3%B6jning_Anpassad.pdf)
C. LITERATURE REVIEW

During the course of the research, more than 65 documents and data sources have been consulted from a range of information and data sources including the OECD, INVEST EUROPE, national VC associations, academics, individual FoF, market researchers, and others. Below some documents and key issues are discussed.

Assessment of the economic impacts of VC

A 2013 report by Frontier Economics “Exploring the impact of private equity on economic growth in Europe” explores the channels through which private equity investment can trigger economic growth. It finds that private equity supports innovative firms, innovation support improvements in productivity, which in turn improves competitiveness. All of these are key drivers of economic growth in Europe. The study estimates that the economic value of patents granted to private-equity-backed companies in Europe over five years up to 2011 is up to EUR 350 billion. It also states that such companies account for 12% of all industrial innovation even if they only account for 6% of total private sector employment in Europe. Private equity also enables capital investments which can support firms during periods of economic or financial distress. Some evidence points to private-equity-backed companies being less likely to fail than companies on average and a higher productivity of 6.9%.

“Venture capital, entrepreneurship and economic growth” is a study by Sampsa Samila, Faculty of Business Brock University and Olav Sorenson School of Management, Yale University. It reports on empirical research on the effect of supply of venture capital on entrepreneurship and economic growth. Using a panel of US metropolitan areas from 1993 to 2002, they observe that an increase in the local supply of VC positively affects the number of firm starts, employment, and (aggregate income. They also conclude that VC stimulates the creation of more firms than it directly funds.

INVEST EUROPE in its position statement⁶ argues that venture capital in addition to financing also provides know-how and networks to the firms it supports. They describe the sequence of raising capital from institutional investors, investing that capital via long-term, closed-ended funds (typically for ten years or more) into companies and then providing returns to investor as a ‘virtuous financing cycle’.

Review of position papers on a possible European Venture Capital Fund of Funds.

In November 2014, the European Venture Capital Association (INVEST EUROPE) published a position statement titled “Accelerating Innovation & Delivering Growth: Using the Jobs, Growth and Investment Package to Attract Private Sector Investors to the European Venture Capital Industry, European Private Equity & Venture Capital Association” in which it called for leveraging parts of the EU Jobs, Growth and Investment package to set-up a private sector-managed pan-European fund-of-funds with a high commitment to venture capital. INVEST EUROPE argues that additional private sector investment in SMEs would drive innovation and boost economic growth and that the fragmented European venture capital market needs to be connected with international potent investors in order to stimulate demand for venture funds. The report spells out the factors that are currently preventing the private sector from engaging fully in the European venture capital market which extend to fragmentation, small fund size, small market size, and expectation of low performance. Inserting a privately managed FoF as a trusted intermediary would leverage EU budget investments by matching them with private investment and would in turn increase the size of venture capital funds thus allowing them to increase their portfolio and investment duration.

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⁶ P. 3
French authorities published a memorandum titled “The Case for a European Venture Capital Fund for Innovative Companies – French non-paper on VC Fund of Funds” which calls for and outlines details of a European Fund to Finance Innovative Companies. The document describes the critical state of the contracting European VC industry and the associated risk of a dearth of funding available for innovative firms. The paper then outlines the terms of a proposal for joint action in this area. Recognising the central role played by the EIF as an investor in VC funds, the paper proposes to create new financial instruments within the EIF’s framework. Such a fund should have a size of around € 4 billion initially and could act as a FoF supporting pan-European private VC funds as well as in conjunction with national operators supporting new or smaller VC funds. The proposal also foresees a sectorial focus on bio, nano, aerospace, transport and information technology.

A former scientist and major VC investor – Herman Hauser – at a European Parliament-organised event in 2013 argued the EU should back one or several FoF as this would be more useful than channelling debt financing via Horizon 2020. In his opinion, the US venture community owes its vibrancy to the existence of FoF and half a billion EUR of EU money could leverage 3-4 times this amount from the private sector.

Informal discussions between the European Commission and FoF managers at the INVEST EUROPE Venture Capital Forum in 2012 on the structure of one or more FoF supported through Horizon 2020 and COSME were summarised. The Mission Report argued that restricting a FoF to early-stage VC as opposed to all investment stages would lower its attractiveness and require the EU to invest additional funds upfront. There would be greater likelihood of needing to put in place an asymmetric returns model if the fund were focused on seed and early-stage VC where investment returns have tended to be poor. A concern about a privately managed FoF expressed was that there might be unfair competition issues for private sector FoF managers that were not selected during a procurement exercise. The EIF was regarded as a trustworthy actor for selecting a FoF manager.

A memo by a Danish FoF Manager and chairman of a reflection group Christian Motzfeldt titled “Financial Instruments fit for Europe’s future” Proposes that the EIB sponsor 3-5 transnational FoF each with EUR 2-3 billion per year over the next 5-10 years. He urges that such a considerable investment on top of the current level of government VC investment in Europe of 3-5 billion annually is needed to prevent the VC market from collapsing, given the withdrawal of private sector investors. While the author welcomes EIF involvement (proposed ownership between 70 and 80 %), he also maintains that regional and national cooperation is needed to ensure intimate knowledge of local VC communities. Such a FoF should be an evergreen, with a – presumably initial – investment period of 10 years. The main objective would be to build a commercially viable VC market in Europe.

Assessment of documents on framework conditions

A range of documents has been identified that provide information on the framework conditions in which the venture capital industry operates – including provisions on internal market and cross-border VC investments, tax obstacles or incentives, and trends on supply and demand.

The European Commission in 2011 published an action plan that details how it aims to improve access to finance for SMEs through regulatory measures (e.g. removing tax barriers, bank capital requirements), and EU financial measures for SMEs. Specifically, it proposes a new European venture capital regime that will enable EU venture capital funds to market their funds and raise capital on a pan-European basis across the Single Market and will require them to only register in one home Member State. It also aims to remove tax obstacles such as double taxation in different Member States and considers being more generous regarding state aid for SMEs. In terms of access to finance, the proposal mentions equity financing under Horizon 2020 and COSME focusing on early-

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8. [EC Communication An action plan to improve access to finance for SMEs. COM(2011) 870 final](http://www.sciencebusiness.net/news/76334/Money,-money,-money-Europe-has-the-science-but-lacks-venture-financing-to-create-technology-champions)
stage ventures. The establishment of FoF investing in transnational VC funds is explicitly mentioned in this regard.

In this regard, INVEST EUROPE published a White Paper in 2010\(^9\) in which it recognises overreliance on public investment as weakness of European VC sector and calls for completion of single venture capital market. The paper proposes to extend tax reliefs for SMEs, remove obstacles to cross-border investments, review accounting standards and reduce red tape for young innovative companies. The authors also call for a multi-annual programme for private equity asset managers as a dedicated scheme for stimulating demand for high-quality venture funds. This would demonstrate that a properly managed portfolio of European ventures can provide appropriate financial returns.

In 2012, the European Commission’s Expert Group on the Cross-border Matching of Innovative Firms with Suitable Investors issued a report which suggests supporting successful VC funds and fund of funds as well as business angels operating in several Member States. This would help these funds realise economies of scale and thus improve their returns and would attract private investors back to the asset class. The supporting measures should be targeted at funds operating cross-border and supporting all stages of SMEs. The funds and FoF thus supported should be managed by experienced fund managers and be of a size that enables them to support a company to an exit. The expert group also recommends that the European Commission starts supporting Business Angel investments through a new European Business Angel facility that has an order of magnitude of at least EUR 250 million.

In 2015, the Commission further specified its plans for facilitating cross-border investment in a Green Paper on Capital Markets Union\(^10\). It focuses on improving access to financing, increasing and diversifying sources of funding, linking investors with those who need funding at lower cost and ultimately creating a single market for capital by removing barriers to cross-border investment and fostering connections with global capital markets. The paper raises questions for regarding the specific policies to achieve these goals.

**Evaluations of FoF**

The British FoF UKIIF was evaluated at an early stage\(^11\). The findings suggest that “the UKIIF has had a positive influence on encouraging greater private investment, particularly in specialist technology funds. This has helped to overcome historic tainting from poor financial returns in the UK early investment market Private funding leverage has been achieved through the use of professional fund of funds managers with access to funding and strategic performance oversight. This has attracted a wide range of investors, including financial institutions, corporate investors, banks, other government funds, HNW individuals and family offices. This assessment estimates that current overall leverage at fund level of the UKIIF public to private investment is around 20 times, which is significant in the current fund raising climate. A key challenge of the fund of funds model including the UKIIF is the double layer of fee costs (underlying fund and fund of funds manager fees) and also less direct investor influence at the underlying fund level.”

The Danish Growth Fund represents another innovative FoF that has been evaluated\(^12\). The key lessons learned from its experience and performance are those: public investment in the sector is welcome and the Fund is formally state-run but all investments should be made according to market considerations. The Fund was successful in attracting pension funds to the VC asset class that they would previously not have considered. It is important to have strong and stable cornerstone

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\(^9\) INVEST EUROPE Venture Capital White Paper. Closing gaps and moving up a gear: The next stage of venture capital’s evolution in Europe


Appendix C - Literature review

investors that help raise funds for underlying VC funds. • Opening FoF up to other asset classes can help attract private institutional investors. The fund is also performing better each year.

In Ireland, a study has been carried out which tried to assess the role and performance of public VC in the country.\(^ {13}\) According to the author, public VC did not create sufficient shareholder value. This is mainly explained by the argument that limited endowments of managerial resources rather than an equity gap was the primary factor in limiting firm growth.

The EIF funding of VC funds has been evaluated in 2006\(^ {14}\) and again in 2007\(^ {15}\). The first evaluation concluded that the EIF was achieving its original objectives of actively supporting high-technology SMEs but it did not become profitable over that period. The second evaluation examines the rationale for EIF intervention in respect of EIF Venture Capital Operations. It provides an assessment of the European Investment Bank (EIB) mandates to the EIF Evolution of the EIF Mandates and illustrations of the trade-off between policy and financial objectives. While in the first period of the EIF policy goals were dominant, in the later period the fund was also expected to generate positive returns. While this had not been fully achieved at the time, financial performance had indeed improved as a result of the changed management strategy.

A study commissioned by the HMRC\(^ {16}\) in the UK tried to assess the impact of the publically-funded schemes Enterprise Investment Scheme and Venture Capital Trusts on productivity and profitability of benefitting firms. It also analyses the performance of investments made under the EIS and VCT which was generally positive, albeit especially with regards to larger and more mature companies. Impacts on profitability and productivity of beneficiaries were hard to discern. If anything, the relatively poor performance of many of the companies backed by these schemes suggest that they primarily invested in those that would not have reasonably received funding from private markets.

\(^ {13}\) Evaluating the Role and Contribution of Public Venture Capital, Anthony Buckley, College of Business, Dublin Institute of Technology, Ireland. 2014
\(^ {14}\) Evaluation of EIF funding of Venture Capital Funds – EIB/ETF Mandate
\(^ {15}\) Second Evaluation performed by the Operations Evaluation (EV) for the European Investment Fund (EIF). EIF Venture Capital Operations. ETF and RCM Mandates.
\(^ {16}\) Study of the impact of the Enterprise Investment Scheme (EIS) and Venture Capital Trusts (VCTs) on company performance. HMRC. 2008.
Country fiches were produced in 15 EU countries in order to shed light on demand and supply side issues relating to access to risk capital finance. The extent to which there are publicly-backed fund of funds operating in different EU countries was also examined. The country fiches are bound separately in a standalone document.
E. PERFORMANCE BENCHMARKING AND MAPPING OF FUND OF FUNDS

This section contains two different sub-sections, both of which support the core research carried out into the possible configuration of a future pan-European FoF, namely:

- Historical performance of private equity, VC and fund of funds.
- Mapping and benchmarking fund of funds in the EU.

E.1 Historical performance of private equity, VC and fund of funds

The analysis of historical benchmarking data on the performance of publicly-backed FoF presents a mixed picture (with higher returns by private equity in other asset classes). There are also additional fees associated with the FoF mechanism, especially the double layers of charges relating to fund administration and management. However, investors also see value added in using an intermediary (see Section 4.2.8 on fees).

E.1.1 Performance data

This section of our report considers performance data in respect of venture capital funds. We have looked at the information available on performance by the number of categories as follows:

- Stage of investment (i.e. early or late stage investment)
- Vintage year by time and by geography (e.g. EU and US)
- Investment focus of fund
- The type of fund (i.e. FoF or direct fund)
- The factors that influence the performance of FoF and underlying VC funds overall.

There are a large number of sources of information on fund performance. We have given particular attention to the data produced by INVEST EUROPE and by some national venture capital associations, in particular BVCA. It is important to ensure that the data on investment returns it covers compatible asset classes and we will look at this in particular when comparing FoF with direct investment.

E.1.2 Returns by stage of investment

Using INVEST EUROPE data\(^\text{17}\), the comparative terms by each stage of investment can be considered. INVEST EUROPE report on the performance of investments from early stage venture capital, through to buyout, mezzanine and generalist funds. The table below summarises IRR data on these funds for different time periods, ranging from 3 to 20 years. Particularly for seed and early stage returns, the 10 and 20 year data is more meaningful, but of course reflects performance from funds started a long time ago.

\(^{17}\) Pan European Private Equity benchmarks study, 2013, published June 2014, INVEST EUROPE
Appendix E - Benchmarking performance

Table 1 - Horizon IRRs to 31.12.2013 for funds formed 1980 to 2013

<table>
<thead>
<tr>
<th>Fund stage</th>
<th>Seed/Early-stage</th>
<th>Later-stage</th>
<th>Balanced</th>
<th>All venture</th>
<th>Buyout</th>
<th>Mezzanine</th>
<th>Generalist</th>
<th>All private equity 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-year IRR</td>
<td>0.94</td>
<td>0.58</td>
<td>5.13</td>
<td>2.31</td>
<td>7.59</td>
<td>2.93</td>
<td>0.27</td>
<td>6.12</td>
</tr>
<tr>
<td>5-year IRR</td>
<td>0.25</td>
<td>0.97</td>
<td>3.21</td>
<td>1.32</td>
<td>9.63</td>
<td>5.44</td>
<td>3.81</td>
<td>7.88</td>
</tr>
<tr>
<td>10-year IRR</td>
<td>-0.12</td>
<td>0.36</td>
<td>2.73</td>
<td>0.84</td>
<td>10.46</td>
<td>5.6</td>
<td>7.61</td>
<td>8.44</td>
</tr>
<tr>
<td>20-year IRR</td>
<td>-0.3</td>
<td>2.03</td>
<td>4.7</td>
<td>1.44</td>
<td>11.65</td>
<td>5.88</td>
<td>12.72</td>
<td>9.91</td>
</tr>
</tbody>
</table>

Source: INVEST EUROPE using data from Thomson Reuters

What is clear from this table is that the returns from all venture capital investments are materially worse than those funds which specialise in buyouts or later stages. In particular, seed and early stage returns are worse than later stage venture capital returns. The difference is even more pronounced for 10 and 20-year IRRs which are negative for early and seed stage and can exceed 10% for buyouts. The lack of return in seed and early stage investment is a common perception and one that of course contributes to the lack of supply of investment into this stage of the market.

Other INVEST EUROPE data suggests that top quartile seed or early stage funds can provide acceptable performance. The 10 year horizon IRR for seed or early stage funds is 9.49%, compared to all seed or early stage funds which had a negative IRR. Thus, there is evidence that the best seed or early stage funds perform well but that there are many which do not.

An EIF report also compares the performance of VC and buyout funds over time. It shows how these performed similarly up until the dotcom bubble, since when buyout funds have consistently outperformed their VC peers.18

![Figure 2 – Five-year net IRRs for European VC and buyout funds over time](image)

Source: EIF, based on Thomson Reuters data

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Appendix E - Benchmarking performance

The EIF itself has actually reported improving returns in recent years. The returns on their VC fund portfolio increased by 7% between October 2011 and April 2014.\(^\text{19}\)

A very recent academic article\(^\text{20}\) i.a. assesses the performance of FoF investing in venture capital compared to direct investments and public funding. Starting from the premise that PE investment in direct funds is less liquid, less easily scaled and incurs higher research and monitoring costs compared to investment in hedge funds or public stock, the article argues that FoF can offset these factors by pooling capital across investors and providing specialized investment skills, diversification and lower cost services. The study is based on data from Burgiss covering 294 funds, 222 focussing on North America with the rest largely focussing on Europe, and an investment period from 2007 and before until 2012. Public markets were measures based on the S&P 500 index. The data are compared to Preqin data. The authors find that FoF provide returns equal or above public market indices and direct venture fund investing for venture capital, even if accounting for the additional layer of fees.

\subsection*{E.1.3 Returns by vintage year}

We can also consider the returns achieved by funds depending on the year in which the funds were started. INVEST EUROPE provided data on the IRR of funds depending on the year in which the funds were set up. This data provides evidence of a contra cyclical effect, possibly caused by the fact that the supply of private equity varies depending on the stage of the economic cycle. Of funds started since the mid-1990s, the highest returns have been achieved by funds started in the years 2001 and 2002 (at the time of the downturn after the so called “dot.com” bubble, and, in 2009, at the height of the economic crisis. Lower returns were achieved by funds started in the period 2005 to 2008 when there were plentiful supplies of investment money. It should be noted that the data covers all funds and at this stage we do not have sufficient information to separate out early stage funds.

\subsection*{E.1.4 Returns over time}

Particularly for venture capital funds, and especially for early stage investments, a longer time horizon is needed to maximise the final returns in line with the J-curve effect. A report by DG ECFIN at the European Commission based on an analysis of European venture capital and private equity funds demonstrated the’ J-curve effect’ which is to be expected as funds mature\(^\text{21}\). The analysis showed the increasing IRR as funds matured and realised investments. For the first few years, IRRs are negative.

\begin{table}
\begin{center}
\begin{tabular}{ |c|c|c|c|c|c|}
\hline
Age of fund & 1year & 2 years & 5 years & 10 years & 20 years \\
\hline
Years covered & 2003 & 2001-03 & 1999-03 & 1994-03 & 1984-03 \\
\hline
Early stage & -13.1 & -11.1 & -1.8 & 1.3 & 1.9 \\
\hline
Development & -7.2 & -4.8 & 4.6 & 10.7 & 9.1 \\
\hline
Balanced funds & -5.4 & -10.2 & 4.2 & 12.3 & 9.0 \\
\hline
\end{tabular}
\end{center}
\end{table}

\textit{Source: European Commission, DG Ecfin}

\footnote{\textsuperscript{19} BCG & IESE. 2015. A Rise in Good Deals, but an Investor Drought. P. 3}
\footnote{\textsuperscript{20} Harris, Robert S., Tim Jenkinson, Steven N. Kaplan and Ruediger Stucke. 2015. “Financial Intermediation in Private Equity: How Well Do Funds of Funds Perform?”}
\footnote{\textsuperscript{21} Profitability of venture capital investment in Europe and the United States, DC Ecfin, March 2006}
Appendix E - Benchmarking performance

Although the report is not recent, it provides a good illustration of the J-curve effect. Initially, some investments lose money, and those losses may well be recognized quickly. The more successful investments take time to produce positive returns and in the long-term will contribute to the overall success of the fund. Accordingly, a typical fund may have negative returns for some years before moving into positive territory. Such investments must be seen as a long term investment.

This was confirmed through the interview feedback. One highly successful venture capitalist running a VC fund stated that out of 15 investments into high-growth SMEs, 4 or 5 might fail, and 1 or 2 investments alone may repay the entire value of the fund plus generate a high IRR, but the key to unlocking value is not having to crystallise value through divestment of the investment too early. This in turn is dependent on being able to fund different investment stages consecutively.

More recently, performance of private equity investments in general on a global level seems to be picking up. A report by Coller Capital finds 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. Interestingly, the more positive outlook is driven mainly by buyout expectations in North America and Europe – before Asia.²² In France, according to the Association of Investors for Growth (AFIC)²³, 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 venture capital performance has stabilised in 2013, albeit at a low level. The EIF mapped the evolution of 3, 5 and 10 year IRR in the European VC market over the last 15 years²⁴:

**Figure 3 – IRR in European VC over time (in %)**

![Image of Figure 3](image_url)

*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 reported to be in the positive territory at the same time.

Some data from PE managers supports the impression of an upward trend in the European VC industry. According to Preqin²⁵, the proportion of investors that find European investment

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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.

E.1.5 Returns by geographical base

INVEST EUROPE also provides data on the comparable performance of EU and US venture capital funds. As found by other studies, overall, US venture capital funds have provided superior returns to EU funds.

Horizon IRRs for venture funds in Europe and the US show different levels of performance returns as follows:

Table 3 – Horizon IRRs of European and US venture funds

<table>
<thead>
<tr>
<th>Region</th>
<th>Europe</th>
<th>US</th>
</tr>
</thead>
<tbody>
<tr>
<td>3-year IRR</td>
<td>2.31</td>
<td>4.35</td>
</tr>
<tr>
<td>5-year IRR</td>
<td>1.32</td>
<td>5.86</td>
</tr>
<tr>
<td>10-year IRR</td>
<td>0.84</td>
<td>5.03</td>
</tr>
</tbody>
</table>

*Source: INVEST EUROPE*

Overall, US returns in the VC sphere have been higher than comparators in the EU. However, the interviews with private equity investors (both in fund of funds and those managing VC funds) demonstrate that superior returns are being generated by about 25-30 VC funds in the EU, since the exit from the market of weaker performing GPs has meant that the remaining market participants have access to the best investment propositions. High quality deal flow has translated into strong investment performance.

Within the EU, there are also disparities with regards to returns. In Eastern Europe in particular, markets are volatile and EBRD experts have confirmed that one has to accept a lower IRR there. The Polish Growth FoF, for example, expects the following IRR:

- Expected IRR for later stage growth FoF - 4% to 6%.
- Expected IRR for early and growth stage investments in SMEs - 2% to 0.5%

However, as is the case with many (partly) publicly backed FoF, commercial profitability is not the sole concern of this FoF. Rather, it also seeks to strengthen the private equity and VC fund infrastructure and fund manager capabilities in the country. This can be regarded as a vital precondition of higher IRR in the long term in markets which are currently considered underdeveloped (see also case study 6 in Appendix B).

E.1.6 The type of fund (ie FoF or direct fund)

We also need to consider how returns by FoF compare to other forms of funds. In making such comparison it is important to ensure that the funds are investing in the same asset classes. It is also important to seek to obtain data for venture capital investments and in particular early stage venture capital investments.

Evidence from INVEST EUROPE on the performance of funds by size is mixed. But on a 10 year IRR, larger venture capital funds appeared to perform better than smaller funds. The data below includes all venture capital funds.

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[https://www.preqin.com/docs/newsletters/pe/Preqin_Private_Equity_Spotlight_April_2014.pdf](https://www.preqin.com/docs/newsletters/pe/Preqin_Private_Equity_Spotlight_April_2014.pdf)
Table 4 - Performance of venture capital funds by size

<table>
<thead>
<tr>
<th>Fund Size*</th>
<th>EUR 0-50m</th>
<th>EUR 50m-100m</th>
<th>EUR 100m-250m</th>
<th>EUR 250m+</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of Funds</td>
<td>530</td>
<td>113</td>
<td>86</td>
<td>23</td>
</tr>
<tr>
<td>Pooled IRR</td>
<td>3.02</td>
<td>0.92</td>
<td>1.48</td>
<td>0.99</td>
</tr>
<tr>
<td>3-year IRR</td>
<td>-0.22</td>
<td>1.85</td>
<td>-1.02</td>
<td>7.44</td>
</tr>
<tr>
<td>5-year IRR</td>
<td>0.37</td>
<td>2.01</td>
<td>-0.38</td>
<td>3.05</td>
</tr>
<tr>
<td>10-year IRR</td>
<td>0.66</td>
<td>0.31</td>
<td>-0.44</td>
<td>2.00</td>
</tr>
</tbody>
</table>

Source: INVEST EUROPE

There have been studies which have compared the performance of actively managed funds and funds of funds with the alternative investments that adopt a more passive management approach. Generally these studies have concluded that the additional costs of a more active approach may not be worthwhile and increasingly tracker funds have become much more popular. Most of the studies have been in the area of quoted equity and it can be argued that the lessons from the studies may not be directly relevant to the early stage venture capital asset class. The early stage VC market, by its nature, is difficult to invest in and requires a more active approach through direct co-investment in order to enhance performance returns.

An example of the poor performance of a fund of funds was identified in the UK: According to a 2009 report in the UK by the National Audit Office on the performance of the UK High Technology Funds, “the pooled interim rate of return across the nine underlying funds in June 2008 was minus 9.7 per cent (net of fund management costs), with only one fund showing a positive rate of return. Comparable private technology funds show a pooled average return of minus 5.2 per cent at that date”.

E.1.7 Factors influencing the performance of European FoF and VC Funds

Some literature points to poor investment performance by FoF managers and GPs investing in the European VC asset class. For example, a memo produced by a FoF manager identified a number of possible explanatory factors why the asset class has been viewed negatively by investors, such as:

- Lack of experience among some GPs, hence managers performing investment screening, due diligence, selection, follow-up and monitoring, exit etc. are not always experienced and competent enough.
- Lack of a sufficiently qualified entrepreneurial base in a very fragmented capital market and regulatory conditions (e.g. only a small number of Member States have a regulatory framework in place to support the development of VC and tax breaks.
- The average size of VC funds is insufficient to accelerate the growth of companies in their investment portfolios, thus start-ups and SMEs either do not develop their full potential and/or at the point when they begin to be transformed into successful businesses, US venture capitalists take over and reap the benefits (and returns) of European start-ups.
- Consequently, European GPs have been pursuing a “technology-sale” model rather than a “company-build” model, which leads to the growth and jobs benefits being captured outside the EU.

Appendix E - Benchmarking performance

However, as noted above, whilst there are a number of structural weaknesses in the European VC market, paradoxically, poor investment performance has arguably strengthened the functioning of the market with evidence of exit from the market of weaker performers and significant improvements in the level of investment returns for the top-performing 25-30 VC funds in Europe (e.g. Index, Wellington Partners, etc.). The same principles apply in respect of the performance of the few private FoF that remain in the market (e.g. Arcadian, Pantheon, Adveq, Hermes). Although VC remains a small percentage of their overall investment portfolio, the greater scale of funds managed by leading FoF managers, who tend to be larger players, has tended to lead to higher investment returns.

E.1.8 Conclusions - the performance of European VC Funds

The main conclusions of this section can be summarised as follows:

- The returns on early stage venture capital are low overall, but the best private equity funds can perform well, especially given that many private equity players have exited the market, those that remain have access to quality deal flow and are capable of generating IRR of 20%+ over the lifetime of a FoF.

- Returns vary by vintage year, with the best returns being made when the supply of investment funds is low. There is a clear link with the economic cycle.

- Because some investments will make losses soon, initial returns are usually negative, with the best performing investments making positive returns later, providing a J curve effect.

- Comparative performance data between FoF and other funds from quoted investments may not be relevant to private equity. There is evidence that large private equity funds can perform well.

- Lastly, it should be recalled that there are time delays in reporting performance data. The interview feedback suggested that investment returns in the European VC asset class have improved markedly in the past 2-3 years. However, this has yet to be demonstrated in the limited statistics available on performance. VC performance is strongly dependent on the stage in the investment cycle when the FoF is set up and the investment period over which the funds are disbursed to high-growth entrepreneurs.
Appendix E - Benchmarking performance

E.2 Mapping and benchmarking fund of funds in the EU.

Introduction

A mapping exercise of VC FoF was undertaken during the course of the research. The purpose of identifying existing public and private sector fund of funds was to facilitate a benchmarking exercise to analyse key characteristics of the set-up and operation of FoF. The assessment of key trends and different alternative configurations for FoF in terms of their size, duration, management, legal and operating structure, investment period, etc. will then be used to inform the assessment of different alternative configurations for a FoF.

E.2.1 Key overall findings – a summary

Introduction – mapping and benchmarking fund of funds in the EU

A mapping exercise of fund of funds focused on venture capital was undertaken during the course of the research. This identified more than 35 fund of funds. The purpose of identifying existing public and private sector fund of funds was to facilitate a benchmarking exercise to analyse key characteristics of the set-up and operations of FoF. The assessment of key trends and different alternative configurations for FoF in terms of their size, duration, management, legal and operating structure, investment period, etc. will then be used to inform the assessment of different alternative possible configurations for one or several pan-EU FoF.

Key overall findings – a summary

Some of the main findings from the assessment of benchmarking performance are that:

1. The EIF already invests in VC FoF in a number of EU countries including the three Baltic States, France, Germany, Greece, the Netherlands, Poland, Portugal, Spain and the UK.

2. The typical size of FoF is in the order of €100m to €300m, although some, for example in Sweden and in Spain, can be significantly larger with a total fund size of over €1 bln.

3. The duration of a FoF is commonly between 10 and 20 years, with a typical investment period in the underlying funds of 5-12 years. A duration of 6 years is also fairly common amongst some publicly-backed FoF, while the Danish and Swedish public/public-private FoF are evergreens.

4. Out of the sample of FoF assessed for this benchmarking exercise, the number of underlying funds supported ranges from 2-20 while the number of underlying firms supported can range from 17 to 765.

5. In terms of management fees, not all FoF are willing to share their fees levels, but many confirmed the main industry standard trends with regard to charges. These are circa 1% fees for a fund of fund manager per annum and 10% carry upon certain performance thresholds being reached and 2% management fees for the underlying VC fund with 20% carry. The Austrian aws ‘Venture Capital Initiative’ levies no fees for its services as it is fully funded by the state.

6. Although the double layer of fees is often posited as a drawback of the VC FoF structure, this was justified by interviewees on the basis that GPs do not then have to set up their own equity research team or undertake investment monitoring. This can be especially attractive to international investors that either don’t know the European market overall or who are unfamiliar with the European VC asset class and lack the capacity or time to build up their own EU presence.
Appendix E - Benchmarking performance

7. Evaluations of existing public-private and public FoF reviewed for this report highlight the role they played in encouraging private investment in venture capital (see also Appendix D). An evaluation of the UKIF concludes that it had a positive influence on encouraging greater private investment, particularly in specialist technology funds. This has helped to overcome historic tainting from poor financial returns in the UK early investment market. According to an evaluation of the Danish Growth Fund (DGF) showed similar results but stressed that success depended on decisions being taken according to market conditions. Evaluations of EIF activities found that they reached their objective of stimulating demand for VC but failed to operate with a profit, at least in the early stages of the Fund. Similar conclusions were drawn in an evaluation of the UK schemes Enterprise Investment Scheme and Venture Capital Trusts. Equally, a study on public VC in Ireland found that they did not create sufficient shareholder value. In sum, public FoF are able to stimulate private demand for VC and support SMEs but this may come at the cost of low profitability if compared to a private FoF operating purely according to maximising returns on investment.

8. Unlike the private FoF assessed for this benchmarking exercise, many – but not all – public and public-private FoF operate under restrictions when it comes to their investment strategy. These may refer to underlying company size (e.g. SMEs only, measured by turnover or number of employees), public funding share (not exceeding 50%), geographic restrictions, fund manager characteristics, One Finnish public FoF (Sitra Ventures) only invests in funds that operate according to principles of sustainable development deemed beneficial to Finnish society.

9. Out of 54 FoF assessed, 17 have a sectorial focus, often on areas such as ICT, life sciences, clean energy, technology, consumer products, advanced manufacturing. Some stakeholders from the VC industry consulted for this assignment have cautioned that any sectorial focus, even on sectors perceived as carrying a high potential for innovation, such as life sciences, may be detrimental to the performance of FoF and may deter private investors. Both private, public and hybrid FoF tend to cap the investment size per underlying fund and some also define a minimum size. The minimum size levels identified range from € 300,000 to $ 10 million while the maximum size levels lie between € 1 million and € 150 million with a typical size limit of € 20 million.

10. With regards to geographic scope, 33 out of the 51 FoF examined focus on a national market, while 4 have an international outlook and another 4 have a regional focus. This shows that a pan-EU FoF would not crowd out existing schemes but rather complement national ones.

11. Out of the 51 FoF examined, 44 focus on early-stage ventures, which demonstrates the vital role that FoF can play in addressing a funding gap for start-up enterprises. Three FoF also explicitly focus on the seed investment phase.

12. While all public-private FoF try to at least match public investment with equal private investment, the UK High Technology Fund was particularly successful in that it achieved public-to-private investment ratio of 1:5.

The more detailed findings from the assessment relating to the different characteristics of FoF are summarised in the following table.

<table>
<thead>
<tr>
<th>Issues</th>
<th>Data and stakeholder feedback from benchmarking assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Achieving critical mass was viewed as being crucial. Stakeholder feedback suggested that most European VC funds are too small. Between 2007 and 2012, the average size of a VC fund was €61 million. The industry is highly fragmented. The resulting small ticket size of potential investments in VC is thus often too small for large institutional investors such as banks, pension funds, sovereign wealth fund and insurance companies to realise economies of scale. Data from INVEST EUROPE suggests that the</td>
</tr>
</tbody>
</table>
## Issues

<table>
<thead>
<tr>
<th>Data and stakeholder feedback from benchmarking assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>European VC market accounts for €3.7 billion on an annual basis in terms of investments which is tiny compared to other asset classes.</td>
</tr>
</tbody>
</table>

### Fund duration & investment period

A typical investment period in underlying funds is between 10 and 12 years. The so-called “10+2 years” is the most common model for the duration of the underlying investment funds. Most fund of funds operate for a minimum of 15 years (private sector) 16 years (EIF managed FoF). Occasionally, the duration of a FoF can be shorter. A number of examples of evergreen funds were identified (e.g. the DGF and the Swedish Almi Group), but funds of fixed duration are more common.

### Legal structure

The legal structure adopted for a FoF is typically a dedicated investment vehicle. There are variations in the approach however, depending on whether the cornerstone investor in the FoF is from the public or private sector. For instance, in the case of the Baltic Innovation Fund (BIF), there is no formal legal structure but a written agreement stipulating the share of funding invested from each stakeholder. This helped to avoid the problem as to where a cross-border FoF should legally reside.

### Management

Funds are usually managed by a General Partner (GP) who makes direct investments, monitors these and at an appropriate time juncture exits investments to secure a return for the LP investors. The GP gets compensated with a fee and carried interest. Eight public and public-private FoF in Germany, Poland, Spain, the UK, and the Baltics are managed by the EIF who is considered by stakeholders as the most experienced FoF manager in the European market.

### Operating structure

While there are quite a few FoF solely funded from public sources, the more common form is a hybrid model of public-private funding. Indeed, the very goal of many publically backed FoF is to attract additional private funding. In some cases, the fund is financed publically but managed privately. However, even those public FoF with a private mandate often are restricted in their investment decisions.

### Size

Achieving critical mass was viewed as being crucial. Stakeholder feedback suggested that most VC funds in Europe are too small. Between 2007 and 2012, the average size of a VC fund was €61 mln. The industry is highly fragmented. The resulting small ticket size of potential investments in VC is thus often too small for large institutional investors such as banks, pension funds, sovereign wealth fund and insurance companies to realise economies of scale. Data from INVEST EUROPE suggests that the European VC market accounts for €3.7 billion on an annual basis (INVEST EUROPE position paper, p. 6) in terms of investments which is tiny compared to other asset classes.

### Fees

Management fees at the fund of funds level are typically 1% but can be as high as 1.2% and as low as 0.8%. At the level of the underlying VC funds, the fees are typically 2% but there is increased competition and evidence of downward pressure on fees. Given less hands-on active managing and monitoring, the management fees for larger funds may be lower, circa 1.65% - 1.8%.

### Returns

Variable – duration, typical size, fees levels, performance – 20% RoI for their investors, whereas more realistic have a target of 15%. Performance – what are the metrics? IRR – performance compared with bank base rates – original investment + 4 or 5% above bank base rates.
Appendix E - Benchmarking performance

An overview of FoF schemes that the EIF has set up and provided major financial support to is provided in the following table. ²⁷

²⁷ data as of 2013, based on EIF Annual Report (p. 28) and CSES benchmarking table as well as EIF website
## Appendix E - Benchmarking performance

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Total resource 28</th>
<th>Total committed</th>
<th>Committed (in %)</th>
<th>Total disbursed</th>
<th>Disbursed (in %)</th>
<th>EIF investment</th>
<th>Managed by EIF?</th>
<th>Year signed</th>
<th>End of commitment period</th>
<th>Sector / target group</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE, LT, LV</td>
<td>Baltic Innovation Fund</td>
<td>€ 100 m</td>
<td>€ 55 m</td>
<td>55%</td>
<td>-</td>
<td>-</td>
<td>€ 40 m</td>
<td>Yes</td>
<td>2012</td>
<td>2016</td>
<td>Co-investments alongside business angels, family offices and institutional investors into early to growth phase SMEs.</td>
</tr>
<tr>
<td>DE</td>
<td>European Recovery Programme (ERP)</td>
<td>€ 1 bn</td>
<td>€ 824 m</td>
<td>82%</td>
<td>€ 455 m</td>
<td>46%</td>
<td>Yes</td>
<td>2004</td>
<td>2015</td>
<td>High-tech early and growth-stage enterprises</td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>LfA-EIF Facility</td>
<td>€ 150 m 29 € 100 m</td>
<td>€ 68 m</td>
<td>€ 27 m</td>
<td>Yes</td>
<td>2009</td>
<td>2019</td>
<td>Start-ups and high-tech early and growth-stage enterprises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>Mezzanine 'Fund of Fund' for Germany (MDD)</td>
<td>€ 100 m € 200 m 30</td>
<td>€ 45 m</td>
<td>45%</td>
<td>€ 6 m</td>
<td>6%</td>
<td>Yes</td>
<td>2012</td>
<td>2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ES</td>
<td>NEOTEC resources</td>
<td>€ 183 m</td>
<td>€ 174 m</td>
<td>95%</td>
<td>€ 105 m</td>
<td>58%</td>
<td>€ 50 m</td>
<td>Yes</td>
<td>2006</td>
<td>2012</td>
<td>Start-ups and high-tech early stage enterprises</td>
</tr>
<tr>
<td>NL</td>
<td>Dutch Venture Initiative</td>
<td>€ 150 m</td>
<td>€ 53 m</td>
<td>35%</td>
<td>€ 6 m</td>
<td>4%</td>
<td>€ 50 m</td>
<td>2012</td>
<td>2017</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT</td>
<td>EIF - Fondo Italiano d’Investimento (FII) Collaboration</td>
<td>€ 500-600 m</td>
<td></td>
<td></td>
<td>€ 300 m</td>
<td>2015</td>
<td>2020</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LU</td>
<td>Luxembourg Future Fund</td>
<td>€ 150 m</td>
<td></td>
<td></td>
<td>€ 30 m</td>
<td>2012</td>
<td>2017</td>
<td>early to later stage innovative European businesses,</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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28 Data from EIF Annual Report 2013 p. 26, unless specified otherwise
29 According to EIF website
30 According to EIF presentation. 20.5.2015
## Appendix E - Benchmarking performance

<table>
<thead>
<tr>
<th>Country</th>
<th>Name</th>
<th>Total resource</th>
<th>Total committed</th>
<th>Committed (in %)</th>
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<th>EIF investment</th>
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<th>Year signed</th>
<th>End of commitment period</th>
<th>Sector / target group</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL</td>
<td>Polish Growth Fund of Funds (PGFF)</td>
<td>€ 90 m</td>
<td>€ 20 m</td>
<td>22%</td>
<td></td>
<td></td>
<td></td>
<td>Yes</td>
<td>2013</td>
<td>2018</td>
<td>Growth-focussed enterprises in Poland, Central and Eastern Europe through portfolio of investments into Venture Capital, Private Equity and Mezzanine funds.</td>
</tr>
<tr>
<td>PT</td>
<td>Portugal Venture Capital initiative (PVCi)</td>
<td>€ 111 m</td>
<td>€ 95 m</td>
<td>85%</td>
<td>€ 31 m</td>
<td>28%</td>
<td></td>
<td></td>
<td>2007</td>
<td>2013</td>
<td>Now closed</td>
</tr>
<tr>
<td>TR</td>
<td>Istanbul Venture Capital Initiative</td>
<td>€ 160 m</td>
<td>€ 153 m</td>
<td>96%</td>
<td>€ 66 m</td>
<td>42%</td>
<td></td>
<td>Yes</td>
<td>2007</td>
<td>2012</td>
<td>Early and growth-stage enterprises</td>
</tr>
<tr>
<td>UK</td>
<td>UK FTF - UK Future Technologies Fund</td>
<td>£ 200 m$^{31}$</td>
<td>€ 208 m</td>
<td></td>
<td>€ 47 m</td>
<td></td>
<td></td>
<td>Yes</td>
<td>2010</td>
<td>2014</td>
<td>Early and growth-stage technology enterprises in the ICT, life sciences and advanced manufacturing sectors</td>
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<tr>
<td>Pan-EU</td>
<td>Social Impact Accelerator</td>
<td>€ 52 m</td>
<td>€ 10 m</td>
<td>19%</td>
<td>-</td>
<td>-</td>
<td></td>
<td>Yes</td>
<td>2013</td>
<td>2018</td>
<td></td>
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<tr>
<td>Pan-EU</td>
<td>European Angel Fund</td>
<td>€ 70 m</td>
<td>€ 25 m</td>
<td>36%</td>
<td>€ 4 m</td>
<td>6%</td>
<td></td>
<td>Yes</td>
<td>2012</td>
<td>2017</td>
<td></td>
</tr>
</tbody>
</table>

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$^{31}$ UK FTF website
E.2.2 International benchmarking

Comparisons of EU and US venture capital funds and funds of funds

The much larger size of the US VC market is in part owed to the much longer history, which has given the market time to develop and mature.

The figure below shows how both US fundraising and investment levels in VC are considerably higher than in Europe, and have remained so even after the financial crisis. Indeed, the level of US VC investments in 2011 is approximately equal to the accumulated VC investments in Europe in the four year period 2008-11. In 2014, the aggregate private equity capital raised in Europe amounted to USD 131 billion compared to USD 290 billion in North America.\(^{32}\) The US venture capital market has also become more dynamic recently, as overall capital invested rose from USD 39.4 billion in 2013 to USD 59 billion a year later.\(^{33}\)

Figure 4 – US, EU VC fundraising and investments

As a results of higher fundraising and investment levels, North America in 2014 accounted for 57% of private equity & venture capital assets under management compared to 24% in Europe.\(^{34}\)

When looking at returns on VC investments, the US outperformed the EU prior to the financial crisis but since then returns have become more equal, as shown in the figure below. Given the investment period of around 10 years of many VC funds, US-based funds can often still benefit from profitable years prior to 2009 while EU funds do not necessarily have the same advantage.

\(^{32}\) PREQIN Global Private Equity & Venture Capital Report 2015. Sample pages p. 20

\(^{33}\) PITCHBOOK 2015 ANNUAL U.S. VENTURE INDUSTRY REPORT. P. 4

\(^{34}\) PREQIN Global Private Equity & Venture Capital Report 2015. Sample pages p. 13
Appendix E - Benchmarking performance

Figure 5 – average VC return in the EU and US

SOURCE: THOMSONONE

Crucially, when comparing the volume of exits in the VC market, the US dwarfs Europe with $ 78.4 bln in 2014\textsuperscript{35} (€ 66.4 bln at current exchange rates) vs € 1.9 bln in Europe\textsuperscript{36}. While these data may not be directly comparable, they show that in the US there are viable exit mechanisms for VC investments, which in turn makes this a much more attractive asset class than in Europe.

This may explain why, as Preqin global data shows, venture capital outperforms its buyout counterparts and the whole private equity asset class with a return of 19.7% in one year to December 2013, based on the rolling one-year horizon IRRs, as shown in the figure below. The increase from previous quarters is linked in the Preqin report to the improved exit opportunities and high valuations in recent times.

Figure 6 – IRR Private Equity vs Venture Capital

\textsuperscript{35} PitchBook. 2015. Venture Industry Report. P. 16
\textsuperscript{36} INVEST EUROPE Annual Yearbook 2015 data, market statistics.
Feedback from international interviews (with stakeholders in the US, Canada and Australia).

In order to get a better understanding of and compare the European FoFs with non-European FoFs we have collected data on non-European FoFs and interviewed managers from FoFs in the US, Canada, Israel and Australia. The FoFs included in the analysis only constitute a fraction of the FoFs in these countries so the data obtained should be regarded as a small sample of funds which have been selected for further analysis because they are public-private FoFs, are high performing FoFs or similar. It should be kept in mind though that the features of the FoFs described below cannot necessarily be seen as representing FoFs in general in these countries.

It is also worth mentioning that the World Bank runs several “Financial Intermediary Funds / FIFs” which seem to work rather similar to a FoF as they “typically leverage a variety of public and private resources in support of international initiatives, enabling the international community to provide a direct and coordinated response to global priorities. [...] FIFs often involve innovative financing and governance arrangements as well as flexible designs which enable funds to be raised from multiple sources, both sovereign and private. Funds can be channelled in a coordinated manner to a range of recipients in the public and private sectors through a variety of arrangements.”37

In general, data on duration, sector focus and size of FoF can be obtained but data on fees, historical performance and target rate of return are confidential. However, some FoF managers have provided ballpark estimates for the industry or confidential data that cannot be quoted in the report.

Overall, the FoF model used in non-EU countries does not seem to be substantially different from the models found in the EU FoF benchmarking. Key characteristics of the non-EU FoFs include:

- The FoFs we have interviewed are in general relatively large and the dedicated investment vehicles the GPs manage range from roughly USD 150 to 300 million. This is slightly larger than in Europe where the FoFs ranged from 100-150 million euros.

- Non-EU FoF typically invest in between 10-20 underlying funds and have a duration of approximately 15 years divided on a 3 year investment period, a ten year duration of the underlying funds and a possible 1 or 2 year extension for divestment and wrapping up underlying funds that are extended. This is similar to the FoFs benchmarked for Europe.

- The legal structure applied is typically a dedicated investment vehicle as it is in Europe. Some GPs also manage capital from individual investors in separate accounts were they work on a specific programme.

- The management structure is similar to the FoFs structure in Europe with a general partner leading the FoFs. Under the Canadian VCAP FoFs programme the private FoFs managers have been selected after a call for expression of interest.

- If the general managers financially are capable of co-investing in the FoFs themselves they often co-invest 1-2 percent of the capital with the limited partners.

- The non-EU FoFs include both purely private and public-private FoFs. Even if the FoFs have a public cornerstone investor they have few restrictions on their investments in order to optimise the potential return on investment and to attract private LPs. Most of the large FoFs in the US are purely private which is different from the EU. At the same time the public sector in the US is also heavily involved in the venture capital market outside the big hubs such as Silicon Valley, Boston, New York etc.

Appendix E - Benchmarking performance

- None of the FoFs in the sample are focused solely on one sector but might have one or two sectors they predominantly focus on. Over time they adjust the focus according to which sectors they regard as most promising but there is often a large degree of continuity over time.

- The management fees and carry are confidential but estimates provided indicate that the management fee is slightly lower than the 0.8-1.2% range indicated for EU FoFs. This might be due to the large size of the funds in the sample and the economies of scale involved in running a FoFs. In some cases the lower management fee is compensated by relatively high carried interest of 10 or 15% which is slightly higher than what we have found on average in Europe.

- Some of the FoFs raised recently were oversubscribed and could have been even larger. From a management fee point of view this would have been advantages but GPs and LPs were concerned that this would reduce return on investment since larger FoFs would have to invest in more underlying funds and not only the select few they consider to be the best performing venture capital funds. The alternative would be to invest more in the underlying funds but this is not always possible and the GPs do not like to be overexposed in certain funds since the FoFs performance will then be too dependent on the performance of a few of the underlying funds. Also, if you invest in a large number of underlying funds the return will be closer to index returns and often the GPs aim to generate higher returns.

- Data for some of the best performing FoFs in the US have confirmed that they are able to generate high returns on a continual basis to their LPs which are competitive with other asset classes. Funds targeting a multiple of 1.5-2 X and a track record of generating a multiple of 2-3 X on average to their LPs generally receive significant attention from private institutional investors which indicates that this is regarded as competitive with other asset classes. Multiples of this magnitude is mainly generated by the best performing American FoFs.

- The best performing non-EU FoFs have succeeded in attracting capital from large institutional investors indicating that FoFs are relevant for the institutional investors if the target rate of return is realistic and competitive. Thus, FoFs can be an effective tool for attracting private capital to the venture capital market.

- A couple of the private FoFs in the US mainly raise capital from large European institutional investors and some invest in one or two underlying venture capital funds in Europe.

- One of the reasons for institutional investors to invest in top tier FoFs in the US is that they have access to some of the best performing venture capital funds which the institutional investors cannot get into themselves. Since there are only very few European venture funds that are difficult to get into for investors this argument is less relevant in Europe.

- As explained above the FoF-model applied in the EU and the US is similar. Thus, the better performance by the best US FoFs cannot be explained by difference in FoFs model or operating structure but is more likely due to the more mature VC market in the US and better performing underlying venture capital funds.

- The majority of general partners interview from large non-EU FoFs had connections to and knowledge of venture capital in Europe and regarded the EU venture capital market as being of increasing interest and as having undergone significant positive development the last couple of years. If a call for expression of interest is launched to select experienced private FoFs managers by the Commission to run one or more European FoFs they could well be interested.
Appendix F - Bibliography

F. Bibliography

In this section, a list of the studies that have been consulted during the course of this study is provided. This includes a number of different types of documents, information and data sources, notably:

- Reports on EU equity instruments, including Annual Reports by Fund of Funds on the performance of national / regional and EIF-backed FoF;
- EU programme-related information relating to innovative financial instruments;
- EU and national studies on framework conditions for VC, e.g. regulatory developments relating to establishing FoF, the state aid regime in relation to risk and innovation financing, etc.
- Evaluations of national fund of funds & VC programmes;
- Data on European and international VC and fund of funds and current industry trends;
- Performance data on private equity and public sector in the VC asset class; and
- Other types of documents.

In the first column, the documents are numbered. In the second column, the year of publication is cited, in the third column, document name and title are listed. In the fourth column, the relevance of the document to this feasibility study is outlined.
## Appendix F - Bibliography

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Title and authors</th>
<th>Relevance to this assignment</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2014</td>
<td>INVEST EUROPE Accelerating Innovation &amp; Delivering Growth: Using the Jobs, Growth and Investment Package to Attract Private Sector Investors to the European Venture Capital Industry, European Private Equity &amp; Venture Capital Association</td>
<td>Spells out factors which need to be in place in order to attract the private sector to the European VC asset class</td>
</tr>
<tr>
<td>2</td>
<td>2011</td>
<td>INVEST EUROPE - Accelerating Innovation: Using Public Sector Capital to Attract Private Sector Investors to the European Venture Capital Industry,</td>
<td>Spells out factors which need to be in place in order to attract the private sector to the European VC asset class</td>
</tr>
<tr>
<td>3</td>
<td>2012</td>
<td>European Commission DG ENTR Mission report — INVEST EUROPE Venture Capital Forum, Amsterdam, 11-12 October</td>
<td>Presents views from VC fund of funds managers on how to structure one or several FoF supported by H2020 and COSME. Useful for fleshing out policy options and set-up modalities</td>
</tr>
<tr>
<td>4</td>
<td>2014</td>
<td>The Case for a European Venture Capital Fund for Innovative Companies - French non-paper on VC Fund of Funds</td>
<td>Calls for and outlines details of a European Fund to Finance Innovative Companies managing €4 bln</td>
</tr>
<tr>
<td>5</td>
<td>2005</td>
<td>Exposed to the J-curve - Understanding and Managing Private Equity Fund Investments, Euromoney book, by Ulrich Grabenwarter (EIF) and Tom Weidig (QuantExperts)</td>
<td>Explains the way in which private equity and FoF investments work and the fact that the J-curve means that performance only improves towards the end of investments.</td>
</tr>
<tr>
<td>6</td>
<td>2006</td>
<td>Evaluation of EIF funding of Venture Capital Funds – EIB/ETF Mandate.</td>
<td>First EIF evaluation by the Operations Evaluation by the EIB Group</td>
</tr>
<tr>
<td>8</td>
<td>2014, 2013, 2012</td>
<td>BPI France – annual report – sections on fund of funds</td>
<td>Information and data about investment by BPIFrance in fund of funds and through co-investments</td>
</tr>
<tr>
<td>9</td>
<td>2007-</td>
<td>Enterprise Ireland, Seed and Venture Capital</td>
<td>Reports by public organisations responsible for</td>
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## Appendix F - Bibliography

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<thead>
<tr>
<th>No.</th>
<th>Year</th>
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<tbody>
<tr>
<td>2012</td>
<td>2012</td>
<td>Programme 2007-2012 – Annual Reports</td>
<td>overseeing the implementation of FoF schemes contain valuable information about the set-up, operation and performance of FoF</td>
</tr>
</tbody>
</table>

### EU programming information relating to innovative financial instruments

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Title and authors</th>
<th>Relevance to this assignment</th>
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</thead>
<tbody>
<tr>
<td>10</td>
<td>2007-2013</td>
<td>European Commission. CIP Financial Instruments. Entrepreneurship and Innovation Programme.</td>
<td>Describes and provides data on the part of the Competitiveness &amp; Innovation Framework Programme which supports SME’s access to finance</td>
</tr>
<tr>
<td>11</td>
<td>2013</td>
<td>Eif Corporate Operational Plan 2014-2016</td>
<td>Outlines the business plan, market environment, and regional investments of the EIF over the period 2014-2016. The EIF will potentially play a role in setting up a pan-EU FoF</td>
</tr>
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</table>

### EC official documents relating to innovative financial instruments

The legal framework for the provision of cross-border capital, including state aids, investment disclosures and the passports regime.

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Title and authors</th>
<th>Relevance to this assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>2010</td>
<td>EC Communication Europe 2020 Flagship Initiative Innovation Union COM(2010) 546 final</td>
<td>Seeks to address low R&amp;D investment and unsatisfactory framework conditions including limited access to finance.</td>
</tr>
<tr>
<td>13</td>
<td>2014</td>
<td>Ex-ante evaluation report - Financial instrument facilities supporting access to risk finance for R&amp;D in Horizon 2020.</td>
<td>Acknowledging the need for Member States supporting the VC sector, these guidelines set out the conditions under which such state aid is permissive.</td>
</tr>
<tr>
<td>14</td>
<td>2007</td>
<td>European Commission. Expert group report on removing obstacles to cross-border investments by venture capital funds</td>
<td>Calls for mutual recognition of existing national frameworks on venture capital funds to facilitate cross-border investment.</td>
</tr>
<tr>
<td>No.</td>
<td>Year</td>
<td>Title and authors</td>
<td>Relevance to this assignment</td>
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<tr>
<td>15</td>
<td>2011</td>
<td>the AIFMD, the Alternative Investment Fund Managers Directive (Directive 2011/61/EU)</td>
<td>The AIFMD applies to most VC fund managers which have AUM of &gt;€500m.</td>
</tr>
<tr>
<td>16</td>
<td>2011</td>
<td>EC Communication An action plan to improve access to finance for SMEs. COM(2011) 870 final</td>
<td>Details how the Commission aims to improve access to finance for SMEs through regulatory measures (e.g. tax benefits, bank capital requirements), and EU financial measures for SMEs.</td>
</tr>
<tr>
<td>17</td>
<td>2013</td>
<td>EC Regulation 345/2013 of 17 April 2013 on European venture capital funds.</td>
<td>Outcome of above-listed public consultation. Provides a mechanism for newly labelled VC funds to operate on a cross-border basis when established in a particular Member State without hindrance (provided 70% of the capital raised is invested in young &amp; innovative companies and not subject to the Alternative Investment Fund Managers Directive (AIFMD))</td>
</tr>
<tr>
<td>18</td>
<td>2012</td>
<td>Turkish Regulation on a Fund of Funds - DECREE OF THE COUNCIL OF MINISTERS ON TRANSFERRING RESOURCES TO THE FUNDS OF FUNDS</td>
<td>Sets out the purpose, scope, legal basis and definitions of a FoF, the proposed selection criteria, etc.</td>
</tr>
<tr>
<td>19</td>
<td>2012</td>
<td>Travers Smith. Investment Funds. The European Venture Capital Fund Regulation</td>
<td>Comments on the proposed EC Regulation 345/2013, useful for context</td>
</tr>
<tr>
<td>20</td>
<td>2012</td>
<td>Single Market Act Twelve levers to boost growth and strengthen confidence COM/2011/0206 and the Single Market Act II</td>
<td>A commitment was made to establishing common rules for European Venture Capital Funds</td>
</tr>
<tr>
<td>21</td>
<td>2013</td>
<td>Regulation No 345/2013 on European Venture Capital Funds (EuVECA)</td>
<td>Established common rules for European Venture Capital Funds (REGULATION (EU) No 345/2013)</td>
</tr>
<tr>
<td>22</td>
<td>2014</td>
<td>UCITS Directive 2009/65/EC and UCITS V, the 2014 update following the economic and financial crisis</td>
<td>Key Investor Information Disclosures are relevant.</td>
</tr>
<tr>
<td>23</td>
<td>2014</td>
<td>State aids - Guidelines on state aid to promote risk finance investments - SWD(2014) 6</td>
<td>The updated state aid rules provide a framework for ensuring that EU equity-based instruments are compatible with the state aid rules.</td>
</tr>
<tr>
<td>No.</td>
<td>Year</td>
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<td>24</td>
<td>2014</td>
<td>The Rules of Procedure of the Innovfin Debt Steering Committee (EC, EIB, EIF) The Rules of Procedure of the Equity Steering Committee</td>
<td>The two rules of procedure relate to existing innovative financial instruments supported through Horizon 2020 (access to risk financing programme)</td>
</tr>
<tr>
<td>27</td>
<td>2012</td>
<td>European Commission. Report of the Chairman of the Expert Group on the Cross-border Matching of Innovative Firms with Suitable Investors</td>
<td>Policy document calling for support of successful VC funds and fund of funds operating in several Member States as well as business angels</td>
</tr>
<tr>
<td>29</td>
<td>2014</td>
<td>EC Decision on the participation of the European Union in the capital increase of the European Investment Fund</td>
<td>Regulates EC capital provision to EIF, provides information on management and monitoring of EIF</td>
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</table>

Framework conditions – general functioning of the Venture Capital market, demand and supply and internal market issues (e.g. tax obstacles, cross-border VC)

<table>
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<tr>
<th>No.</th>
<th>Year</th>
<th>Title and authors</th>
<th>Framework conditions for European VC asset class – cross-border VC</th>
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<tr>
<td>31</td>
<td>2010</td>
<td>EC Report by high-level group on removing tax obstacles to cross-border venture capital investment.</td>
<td>Framework conditions for European VC asset class - removing tax obstacles to cross-border venture capital investment.</td>
</tr>
<tr>
<td>32</td>
<td>2012</td>
<td>Government co-financed 'hybrid' venture capital programmes: generalizing developed economy</td>
<td>Transfer of developed economy experiences of</td>
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# Appendix F - Bibliography

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<tr>
<td></td>
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<td>experience and its relevance to emerging nations, Murray, G., Cowling, M., Weixi, L., &amp; Kalinowska-Beszczynska, O., presented at Kauffman International Research and Policy Roundtable, Liverpool, UK, 11-12 March 2012</td>
<td>Government co-financed 'hybrid' VC programmes:</td>
</tr>
<tr>
<td>33</td>
<td>2011</td>
<td>Venture capital support to small businesses. Report by the National Audit Office for the Department for Business, Innovation and Skills</td>
<td>Sets out conditions, including tax benefits, which INVEST EUROPE considers crucial to facilitate SME access to VC</td>
</tr>
<tr>
<td>34</td>
<td>2010</td>
<td>INVEST EUROPE Venture Capital White Paper. Closing gaps and moving up a gear: The next stage of venture capital’s evolution in Europe</td>
<td>Recognises overreliance on public investment as weakness of European VC sector and calls for completion of single venture capital market and a multi-annual programme for private equity asset managers</td>
</tr>
<tr>
<td>35</td>
<td>2008</td>
<td>The Supply and Demand for Venture Capital Funds: Information and Entry Chris Yung, Assistant Professor of Finance, Leeds School of Business, University of Colorado</td>
<td>Supply-demand side issues</td>
</tr>
<tr>
<td>36</td>
<td>2010</td>
<td>INVEST EUROPE Response to the European Commission public consultation document on a new European regime for Venture Capital</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>2011</td>
<td>The Role of UK Government Equity Funds in Addressing the Finance Gap facing SMEs with Growth Potential, Robert Baldock, Principal Researcher, CEEDR, Middlesex University Business School</td>
<td>Role of equity funds in addressing the SME financing gap</td>
</tr>
<tr>
<td>38</td>
<td>2011</td>
<td>Gazelles -High-Growth Companies- Final report Task 4, Horizontal Report 5, Europa Innova, K. Mitsusch and A. Schimke (University of Karlsruhe (TH))</td>
<td>Definition of gazelles and explanation of how high-growth firms can with the right support morph into gazelles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Evaluations of fund of funds programmes</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>2012</td>
<td>Early Assessment of the UK Innovation Investment Fund, Centre for Enterprise and Economic Development Research (CEEDR), Middlesex University Business School, May 2012</td>
<td>Survey UKIIF fund managers and recipient businesses, provides information on the investment strategy and, funding leverage and impact</td>
</tr>
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</table>
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<tr>
<td>41</td>
<td>2011</td>
<td>BIS EQUITY Finance Programmes Qualitative Reviews of: A) UK High Technology Fund (UKHTF) and B) the Bridges Fund, July 2013, Report completed by Sundeep Aulakh and Laura Thorpe</td>
<td>Reports on the activities and performance of the UK High-Tech Fund, a publicly backed FoF</td>
</tr>
<tr>
<td>43</td>
<td>2014</td>
<td>Evaluating the Role and Contribution of Public Venture Capital, Anthony Buckley, College of Business, Dublin Institute of Technology, Ireland</td>
<td>Analyses the impact of public venture capital in Ireland – claims that did not create sufficient shareholder value</td>
</tr>
<tr>
<td>44</td>
<td>2013</td>
<td>BIS EQUITY Finance Programmes Qualitative Reviews of: A) UK High Technology Fund (UKHTF) and B) the Bridges Fund, July 2013, Report completed by Sundeep Aulakh and Laura Thorpe</td>
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### Data on European and international VC (private equity and public fund of funds and current industry trends)

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<tr>
<td>46</td>
<td>2015</td>
<td>INVEST EUROPE. 2014 European Private Equity Activity - Statistics on Fundraising, Investments &amp; Divestments</td>
<td>Provides data on European private equity fundraising, investments and divestments by country and distinguishing between industry &amp; market statistics.</td>
</tr>
<tr>
<td>48</td>
<td>2013</td>
<td>BVCA European Venture Capital: Myths and Facts</td>
<td></td>
</tr>
<tr>
<td>49</td>
<td>2013</td>
<td>BVCA - An analysis of UK private equity fund performance against the public markets</td>
<td>Private equity fund performance against the public markets</td>
</tr>
<tr>
<td>51</td>
<td>2012</td>
<td>UK Department for Business Innovation &amp; Skills. Early assessment of the UK innovation investment fund</td>
<td>Explores customer satisfaction and the market in which this publicly-funded FoF operates.</td>
</tr>
<tr>
<td>52</td>
<td>2014</td>
<td>The US Private Equity Universe, A Snapshot from SEC Filings. Francesca Cornelli and Florin Vasvari,</td>
<td>Data on private equity performance in the US</td>
</tr>
</tbody>
</table>
### Appendix F - Bibliography

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<thead>
<tr>
<th>No.</th>
<th>Year</th>
<th>Title and authors</th>
<th>Relevance to this assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>53</td>
<td>2015</td>
<td>2015 Preqin Global Private Equity &amp; Venture Capital Report. Sample Pages.</td>
<td>Provides an overview of and key statistics on the US private equity &amp; venture capital industries, including on assets under management, fundraising, general partners active, performance, investors, deals and exits. Contains a separate section on funds of funds – their evolution, portraits of key managers, and a fundraising review (not included in the free sample version).</td>
</tr>
<tr>
<td>56</td>
<td>2014</td>
<td>EIF. European Small Business Finance Outlook.</td>
<td>Performance and IRR data for European VC market</td>
</tr>
<tr>
<td>57</td>
<td>2013</td>
<td>The 2013 Preqin Private Equity Fund of Funds Review</td>
<td>Provides information on FoF active in the US and globally</td>
</tr>
<tr>
<td>58</td>
<td>2013</td>
<td>EPIC BPI-Groupe Annual Report 2013.</td>
<td>Reports on management and performance of the EPI BPI-Groupe which seeks to support SMEs, i.e. by supporting the creation of a public investment bank.</td>
</tr>
<tr>
<td>59</td>
<td>2011</td>
<td>Consortium Europe INNOVA Sectoral Innovation Watch. Gazelles -High-Growth Companies-</td>
<td>Provides information &amp; identifies high-growth companies in Europe meriting VC investment. Could provide metrics on how to identify such companies useful for VC funds.</td>
</tr>
<tr>
<td>60</td>
<td>2012</td>
<td>Gordon Murray, Marc Cowling, Weixi Liu and Olga Kalinowska-Beszczynska. Government co-financed ‘Hybrid’ Venture Capital programmes: generalising developed economy experience and its relevance to emerging nations</td>
<td>Presents international lessons learned from hybrid VC programmes, including publicly-backed FoF.</td>
</tr>
<tr>
<td>61</td>
<td>2012</td>
<td>Erik P.M. Vermeulen and Diogo Pereira Dias Nunes. The Evolution and Regulation of Venture Capital Funds</td>
<td>Presents different strategies / institutional arrangements for VC funds, argues that FoF will become less attractive in the future</td>
</tr>
</tbody>
</table>
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</tr>
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<tbody>
<tr>
<td>62</td>
<td>2010</td>
<td>Yannis Pierrakis. Venture Capital Now and After the Dotcom Crash</td>
<td>Overview of the UK – Europe’s biggest – venture capital market in the 2000s</td>
</tr>
</tbody>
</table>

**Performance data on VC**

<table>
<thead>
<tr>
<th>No.</th>
<th>Year</th>
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<th>Relevance to this assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>2015</td>
<td>Private Equity Performance Measurement, BVCA Perspectives Series, Authored by the BVCA’s Limited Partner Committee and Investor Relations Advisory Group</td>
<td>Examines private equity as an asset class and its potential to generate sustained, long-term Outperformance.</td>
</tr>
<tr>
<td>67</td>
<td>2012</td>
<td>Lessons from Twenty Years of the Kauffman Foundation’s Investments in Venture Capital Funds and The Triumph of Hope over Experience, Authors Ewing Marion Kauffman Foundation et al.</td>
<td>The performance of over 20 years – historical performance data</td>
</tr>
<tr>
<td>70</td>
<td>2003</td>
<td>Determinants of Venture Capital Performance: Europe and the United States by Ulrich Hege HEC School of Management and CEPR Frédéric Palomino HEC School of Management and CEPR Armin Schwienbacher, University of Amsterdam, November 2003</td>
<td>Comparing performance in the EU and the US</td>
</tr>
</tbody>
</table>

The economic effects of venture capital and private equity
# Appendix F - Bibliography

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<th>Year</th>
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</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>2013</td>
<td>Exploring the impact of private equity on economic growth in Europe, May 2013</td>
<td>Summarises and estimates the positive impacts of private equity on innovation, productivity and competitiveness.</td>
</tr>
<tr>
<td>72</td>
<td>2007</td>
<td>Venture capital, entrepreneurship and economic growth, Sampsamila, Faculty of Business Brock University Olav Sorenson School of Management, Yale University. <a href="http://www.martinprosperity.org/media/agrawal/3SorensonSamila.pdf">http://www.martinprosperity.org/media/agrawal/3SorensonSamila.pdf</a></td>
<td>Empirical research on Venture capital, entrepreneurship and economic growth.</td>
</tr>
<tr>
<td>74</td>
<td>2013</td>
<td>Financial Instruments fit for Europe’s future Reflection Group – Spring 2013. Memo by Christian Motzfeldt, CEO, Vaekstfonden</td>
<td>Proposes that the EIB sponsor 3-5 transnational FoF each with EUR 2-3 billion.</td>
</tr>
<tr>
<td>75</td>
<td>2008</td>
<td>Study of the impact of the Enterprise Investment Scheme (EIS) and Venture Capital Trusts (VCTs) on company performance. HMRC.</td>
<td>Analyses the performance of investments made under the EIS and VCT which was generally positive, albeit especially with regards to larger and more mature companies. Impacts on profitability and productivity of beneficiaries were hard to discern.</td>
</tr>
<tr>
<td>76</td>
<td>2015</td>
<td>BCG &amp; IESE. A Rise in Good Deals, but an Investor Drought. The State of European Venture Capital.</td>
<td>Describes the state of the European Venture Capital and concludes that the main problem is a decline in fundraising which could be addressed by a FoF structure.</td>
</tr>
</tbody>
</table>
1. INTRODUCTION – IMPLEMENTATION ISSUES

This section contains the implementation issues in respect of the study "Assessing the Potential for EU Investment in Venture Capital and Other Risk Capital Funds-of-Funds". 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.

This section sets out the findings from the detailed research to investigate key research issues relating to setting up a pan-European Fund of Funds Programme. As such, it provides a technical assessment of implementation issues under the following headings: (1) Strategic issues (2) Set-up phase (3) Operation of a fund of funds (or FoF programme) and (4) Exit mechanisms.

The issues specified in the Tender Specifications and the way in which the analysis has been structured is summarised in the following table:

Table 5 - Issues relating to the set-up and operation of public-private, pan-European FoF

<table>
<thead>
<tr>
<th>Issues</th>
<th>High-level heading</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Opportunity costs for the EU to reach its policy objectives by investing in FoF</td>
<td>Strategic</td>
</tr>
<tr>
<td>2. Possible methods of implementation</td>
<td>Strategic</td>
</tr>
<tr>
<td>3. Investors</td>
<td>Set-up</td>
</tr>
<tr>
<td>4. Focus, investment strategy and fund-raising</td>
<td>Set-up</td>
</tr>
<tr>
<td>5. Coverage (FoF at pan-European level or regional FoF)</td>
<td>Set-up</td>
</tr>
<tr>
<td>6. Risk-sharing (pari passu)</td>
<td>Set-up</td>
</tr>
<tr>
<td>7. Governance</td>
<td>Exit</td>
</tr>
<tr>
<td>8. Withdrawal</td>
<td>Exit</td>
</tr>
<tr>
<td>9. Selection procedure for experienced FoF manager through an open Call for Expression of Interest</td>
<td>Operational</td>
</tr>
<tr>
<td>10. Selection criteria for FoF manager</td>
<td>Operational</td>
</tr>
<tr>
<td>11. Budget and sequencing</td>
<td>Operational</td>
</tr>
<tr>
<td>12. Lifespan</td>
<td>Operational and exit</td>
</tr>
<tr>
<td>13. Alignment of interest</td>
<td>Operational</td>
</tr>
<tr>
<td>14. Returns (distributions, pari passu vs. asymmetric)</td>
<td>Exit</td>
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<tr>
<td>15. Fees</td>
<td>Set-up and operational</td>
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<tr>
<td>16. Geographic scope</td>
<td>Strategic</td>
</tr>
</tbody>
</table>

The types of issues that have been examined in relation to each of the four main headings are now summarised:

- **Strategic** – how can difficulties be overcome in attracting investors to the European VC asset class in general and to FoF in particular when other asset classes offer more attractive returns? What choices will need to be made with regard to possible implementation methods, e.g. setting up a new, privately led FoF, or investing in existing national FoF? What are the Commission’s policy objectives in supporting a FoF and to what extent does this risk duplicating existing provision (e.g. through the EIF, national FoF operators)?

- **Set-up** – setting-up a new pan-European FoF raises a series of issues, such as fund size and the most appropriate legal, management and operating structure, coverage and geographic

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38 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).
Introduction – implementation issues

Scope, investment strategy and targeting focus (e.g. sectorally targeted or generalist) and selection criteria for selecting underlying funds to invest in e.g. GPs operating in the European seed and VC ecosystem. Issues are then considered relating to FoF fee structures, fund-raising and the scope for public sector leverage, fund size and critical mass. The returns model is also considered (pari passu vs. asymmetric). Other issues examined relating to finalising the design and configuration of a FoF include governance arrangements.

- **Operation of a pan-European fund of funds (or FoF programme)** - selection criteria for the appointment of an experienced FoF manager, selection procedure through an open competitive procedure, sequencing issues e.g. the investment period and the sequencing of funding rounds to SMEs by investment stage, the alignment of interest and fund duration. The need for (“operational freedom”) is also considered.

- **Exit mechanisms** – withdrawal mechanisms and returns policies. The different means for FoF to exit investments in underlying funds, and for GPs in turn to divest of their investments through trade sales, MBOs and IPOs, etc. is also considered. In relation to returns, different approaches to setting up a FoF, either on a pari passu basis or using an asymmetric returns model are considered.

It should also be noted that:

- Section 2 addresses issues relating to the set-up phase and to finalising the design and configuration of a fund of funds structure;
- Section 3 addresses issues relating to operating a pan-European FoF or FoF programme;
- Section 4 addresses issues relating to exit and returns; and
- Section 5 examines State Aid and Competition Considerations.

There is some degree of overlap between some issues, since there are important considerations at more than one stage e.g. whether to adopt a pari passu or asymmetric returns model is a key issue in the set-up phase but the details as to how this works are an essential aspect in examining how exit mechanisms work in practice e.g. returns once divestments have been made and the FoF of fixed duration is closed down and the money returned to public/private investors.
2. SET-UP ISSUES

This section considers issues relating to the setting up of a FoF on the basis of the different options outlined in the ToR. Among the set-up issues examined are fund size and the most appropriate legal, management and operating structure, coverage and geographic scope, investment strategy and targeting focus.

2.1 Setting up a Funds of Funds

The wide range of options available for setting up a FoF can be narrowed down from the long-list of options to a shortlist by identifying the EC’s policy objectives and the relative priority attached to different objectives.

A key requirement for a future FoF is the ability to attract large pools of international and European private sector funding which would not otherwise go into this asset class. Small tranches of private sector money can be invested directly in local funds. However, larger-scale investments will only be able to invest in a larger fund. This approach of seeking to leverage private sector investment at the FoF level is quite different from the EIF’s Risk Capital Mandate (RCM). The EIF focuses on addressing market failures in particular geographies and investing in existing publicly backed FoF and through co-investment, in successful underlying funds. With the exception of a single EIF-backed FoF in Portugal, the private sector is absent from EIF FoF at the FoF level.

The feasibility of setting up several FoF has recently been demonstrated in Canada, the Venture Capital Action Plan (VCAP), which commenced in 2013. To date, four private VC FoF have been set up through VCAP, each managed by a different private sector manager which has engaged in fund-raising. Further details are provided in a case study in Appendix B. An important issue is whether the Commission has sufficient funding to support a FoF programme with multiple FoF managed by different private fund managers (Option 4.1). An alternative would be to set up a single pan-European FoF as an additional funding pot perhaps administered by the EIF to which national FoF operators could apply (Option 3.1) in order to increase the scale and scope of their activities and to promote the creation of cross-border FoF capable of attracting new pools of international capital.

2.2 Comparison of fund of funds and alternative mechanisms for attracting private sector investment to VC

There is a need to consider the role of FoF in comparison with alternative mechanisms for attracting private sector investment to VC, such as direct co-investment vehicles for leveraging public sector funds. The relative advantages and disadvantages of a fund of funds model, as opposed to direct co-investment in VC funds, are considered in this sub-section from the perspective of:

- **Strengthening investment in VC through FoF and direct co-investment – review of existing models**

- **Public funders and the achievement of public policy objectives – which is the most efficient mechanism for ensuring that venture capital reaches the market? Is a combination of different investment vehicles (e.g. FoF in combination with direct co-investments) more effective than a single mechanism?**

**Strengthening investment in VC through FoF and direct co-investment – review of existing models**

A number of different models to invest in public sector VC are currently operating, such as direct

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39 For example, Financial Instruments: A Stock-taking Exercise in Preparation for the 2014-2020 Programming Period
co-investment and fund of funds. The EIF and the EBRD, as well as some national FoF operators, such as BPI France invest in both fund of funds and direct co-investment vehicles.

Through the benchmarking and mapping of FoF undertaken for this study, a number of different models have been analysed. The findings from the benchmarking and feedback received through the research on the relative strengths and weaknesses of different alternative models for ensuring the supply of VC are now considered.

One model is a **directly invested public sector venture capital fund**. Typically, such a fund will obtain leverage by providing a portion of the VC requirements of a company and relying on other sources to provide the rest. This is most likely to occur in practice via the public VC syndicating with other private VC funds. The public VC’s ability to be invited into other private syndications is a measure of its standing and value within a VC community.

A further model which needs to be compared with fund of funds is the **co-investment fund model**. An equity co-investment is a minority investment made directly into a VC fund alongside other private equity investors. The **EIF and the EBRD** also invest directly in both co-investment funds and in fund of funds. The fact that both models are used as a delivery mechanism demonstrates that the two investment models are not mutually exclusive. A key aspect of this type of fund is that the transactions costs including deal flow, due diligence etc. are conducted by the private investors/entrepreneurs. The co-investment fund is essentially passive/reactive and thus has low management costs.

One of the earlier co-investment funds is the **Scottish Co-Investment fund**, where public money cannot account for more than 50% of the total risk capital funding in a deal. The administrative costs to the public sector are minimised by requiring the private sector partner to negotiate the deal, and then allowing the co-investment fund to invest pari passu with the private sector. Although an evaluation of this fund was published by the Scottish Government, there is little public information on the performance of this fund, although it is cited as a reason for own-initiatives in several other countries, such as Sweden and New Zealand.

There are also further alternative variant structures such as **hybrid public/private VC funds** such as the UK Enterprise Capital Funds (ECFs). The 16 ECFs (run by 14 fund managers) have already backed 169 ventures over the past few years and invested close to €1.4 billion in European VC. The Australian government has co-invested with private LPs to create a series of VC funds through the **Australian Innovation Investment Fund Fund (IIF)** which commenced in 1998. Since then, 16 licensed funds have raised over $640 million to accelerate commercialisation in Australia.

The reason that Australia did not set up a publicly backed FoF was that supply of VC was maintained during the economic and financial crisis and has a well-functioning banking system as well as a large private pension funding system providing additional funding. A further factor was that the Australian market with a small population of 20 million people was viewed as being too small to make a FoF scheme investing in underlying VC funds feasible. That being said, other evidence contradicts the suggestion that smaller countries are more suited for co-investment, since this risks compounding the problem of over-fragmented markets. In the **Baltic States**, a clear advantage of the **Baltic Innovation Fund** (an EIF-backed FoF) compared with the Jeremie Holding Fund is that it supports cross-border investments and helps to achieve scale which is more difficult for co-investment funds that are often domestically focused.

A number of publicly backed **funds of funds** have been set up at national and regional levels, such as the **UK Innovation Investment Fund (UKIIF)**, **Enterprise Ireland’s Seed and Venture Capital Scheme 2007–2012** (and a successor programme for 2013–2013), the **Danish Growth Fund**, the **Finnish**

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40 [http://www.scotland.gov.uk/Publications/2008/01/14152823/0](http://www.scotland.gov.uk/Publications/2008/01/14152823/0)
Set-up issues

Innovation Initiative led by Finnvera and overseen by TEKES, the KfW–led fund in Germany, and fund of funds led by BPIfrance, among others.

However, it is still too early to say how well many of these schemes have performed and in particular, whether have delivered acceptable returns, either for their public sector initiators or for private sector investors. The lack of adequate performance data to review the performance of publicly backed fund of funds is made clear in the Evaluation of the Danish Growth Fund 2010-201241 (Murray, Cowling) undertaken in 2013/2014. This applies equally to the EIF’s fund of funds programme, where data on performance returns is not made publicly available. Moreover, there are examples of negative returns from fund of funds such as the UK High Technology Fund 42, which commenced in 2000 and raised £126.1 million (€152 million) in funds. Its performance was negatively affected by the tech crash of the early 2000s.

A good example of the advantages of a FoF structure is the UK Innovation Investment Fund (UKIIF). Within UKIIF, two funds of funds are in operation and invest public sector funds pari passu with other private investors into selected underlying specialist VC funds in the UK and Europe. An early stage evaluation suggested that the “current overall leverage at fund level of the UKIIF public to private investment is around 20 times, which is significant in the current fundraising climate”.

It has been argued that an alternative approach to the FoF set-up would involve boosting the activities of existing national FoF operators (e.g. BBB, BPIFrance) by using EU funding to increase the average size of FoF and to promote a cross-border dimension. This would help to generate greater critical mass in the average size of funds to help attract international investors and also create further competition for the EIF, which could be healthy for the market.

In theory, a FoF could invest directly in VC funds and carry out co-investment, as is already the case in the VCAP scheme in Canada where there is a hybrid arrangement whereby up to 10% of the total value of each of the four FoF set up within its FoF programme can be co-invested. However, this may raise difficulties about conflicting goals, and may confuse industry and potential private sector investors as to the purpose of the FoF structure.

In summary, a clear message is that whilst FoF are an important and effective mechanism for disseminating VC funding into the European VC asset class, their performance is both uncertain and variable. There is a risk that lack of strategic orientation of money channelled into VC may ultimately drastically curb the added value of state intervention in the VC market. One means of overcoming this risk would be to ensure that only top-performing VC and FoF managers with an extensive track record are considered to operate the individual FoF supported through a FoF programme.

2.3 Different models for structuring a Fund of Funds

There are a number of alternative approaches in setting up and operating a pan-European FoF. Among the issues examined in this sub-section are:

Table 6 – Structuring a Fund of Funds - key questions

- What are the pros and cons of direct implementation of a fund of funds?
- What are the pros and cons of indirect implementation through an entrusted entity such as the EIF?
- What are the pros and cons of implementation by a dedicated investment vehicle?

A number of strategic choices will be necessary, such as whether a FoF should be implemented directly or should be contracted out to a trusted third party.

41 http://www.vf.dk/~/media/files/analyser/evalueringer%20og%20effektanalyser/evaluering%202014.pdf
42 erawatch.jrc.ec.europa.eu/erawatch/opencms/information/country_pages/gb/supportmeasure/support_mig_0042
Set-up issues

The mapping exercise already undertaken in the development of this report (see Appendix E) has identified a number of examples of FoF that are managed directly by dedicated public institutions. Equally, even where a public institution has overall oversight responsibility for a particular FoF, they often outsource responsibility for selecting enterprises and other day to day investment management tasks to private fund managers who operate on an arms-length basis.

Different FoF in EU Member States have adopted different approaches to structuring a FoF model. In most cases, the implementation of a fund of funds is delegated to an external fund manager. However, in some instances, a dedicated agency has been set up expressly for the purpose of operating the FoF through direct implementation e.g. BPIFrance and the Danish Growth Fund (DGF) has adopted a hands-on approach whereby the majority of DGF activity is conducted through private sector GP agents. Direct investments only represent about 4-6% per year of total investment. This is also the case for the UK Innovation Investment Fund (UKIIF)’s Future Technology Fund (FTF) and the Baltic Innovation Fund (BIC), where the EIF is the FoF manager. The underlying fund managers make investment decisions about which SMEs to invest in. Only broad guidelines and rules on investment selection criteria (e.g. a maximum of one-third of total funding in VC funds supported by the EIF can be invested outside the EU).

Some FoF have constraints that directly reflect the policy objective of the publicly supported fund, e.g. the maximum size of investment and the preferred sectoral focus. However, interview feedback suggested that the success of a future possible FoF programme is dependent on allowing maximum flexibility to allow the FoF manager and underlying VC funds (GPs) in which it invests to make investment decisions without major geographic or sectoral constraints. It does however depend how these are defined i.e. there could still be major flexibility if a criteria were set that two-thirds of investments were required to be in Europe (as is already the case with EIF FoF).

An alternative approach to setting up and operating a FoF is through the use of an “entrusted entity” such as the EIF for the set-up stage (e.g. selection of fund managers) and to monitor the performance of fund managers during the FoF’s operations. An entrusted entity under the EU Financial Regulation (966/2012) is a third party given designated responsibility to implement particular financial instruments. The EU Financial Regulation (Title 8) allows the Commission to implement financial instruments either under direct management, or by entrusting tasks to specific entities. These entities may further entrust part of that implementation to financial intermediaries provided those intermediaries satisfy certain criteria. The selection of entrusted entities needs to be based on open, transparent, proportionate and non-discriminatory procedures, avoiding conflicts of interests. The Commission needs to ensure that the implementation complies with the principle of sound financial management and support defined and timed policy objectives, measurable in terms of outputs and results.

As noted in Section 2.4 on funding, entrusted entities have been used previously by the European Commission to implement programmes such as the GIF within the CIP in 2007-2013 and the Single EU Equity Financial Instrument within COSME and Horizon 2020. The advantages and disadvantages of outsourcing responsibility to an entrusted entity are summarised in the following table:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
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<tbody>
<tr>
<td>It takes years of experience to set up an effective VC fund or FoF operation. The EIF has a reputation for professionalism, is capable of carrying out extensive due diligence and monitoring across the EU. The EIF also has links with key groups including investors and policy makers. It also has a data set of the operation of a large number of VC funds with</td>
<td>Using a third party means that everyday management and monitoring of the FoF programme would be one-step removed from the EC. If the EIF were to be nominated as an entrusted entity, this may pose a conflict of interest which would then prevent the EIF from taking part in the Call and preclude it from being an interested</td>
</tr>
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</table>
Set-up issues

<table>
<thead>
<tr>
<th>which it has been associated. An entrusted entity such as the EIF has greater human resource capacity and monitoring capacity on the ground – and more specialist expertise than the European Commission (EC).</th>
<th>participant and bidding to operate as one of the individual FoF (this assumes that a FoF programme were open to both private and public sector operators).</th>
</tr>
</thead>
<tbody>
<tr>
<td>The EC already entrusts delivery of its financial instruments programmes to the EIB and EIF. Using a third party to select professional, experienced FoF managers would accord with existing practices.</td>
<td>DG RTD would still have to ensure an effective governance structure to monitor the entrusted entity and to ensure adequate accountability.</td>
</tr>
<tr>
<td>The EIF already has considerable experience in setting up and in operating FoF. It has acquired the technical capacity and knowhow to implement such a scheme efficiently and effectively and can apply lessons learnt directly.</td>
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</table>

With regard to managing the FoF itself, an advantage of appointing an experienced private sector fund manager to manage a possible new FoF established with EU investment is that such fund managers typically have extensive contacts among the investor community and can help to attract investors to the fund, which will be crucial during the fund-raising stage. However, if as mentioned in the table above, there are difficulties in appointing an entrusted entity because they are also interested parties, then gatekeepers perform the same role e.g. Cambridge Associates among the investment community in allocating institutions to funds.

Irrespective as to whether the FoF is managed directly or indirectly, consideration will need to be given as to whether a Dedicated Investment Vehicle (DIV) needs to be put in place as a core part of the legal structure of individual FoF. An advantage of setting up a DIV is that it would allow international investors looking to invest a large minimum ticket size to invest directly into a dedicated legal structure at the FoF programme rather than in individual FoF, which would allow more capital to be deployed.

The EIF appears to have created a DIV for each of the FoF it is supporting. In the case of the Baltic Innovation Fund (BIF), there is no formal legal structure but a written agreement stipulating the share of funding invested from each stakeholder. This helped to avoid the problem as to where a cross-border FoF should legally reside. The EC has previously made use of DIVs when implementing new financial instrument schemes, such as in the Programme for Employment and Social Innovation (EaSI) 2014-2020. The EC appointed the EIF as an entrusted entity to oversee the implementation of the guarantee scheme. However, the choice of manager of the EaSI instrument itself to be implemented through a DIV is still open. The role of the manager will be to make investments through microfinance intermediaries.

A further example where a DIV has been used is the European Progress Microfinance Facility under the 2007-2013 Multiannual Financial Framework which pools resources from the European Commission and the European Investment Bank. The scheme operates under a so-called ‘Fonds d’Investissement Specialisé (FIS)’ whereby it is managed by a Management Company – the EIF – responsible for carrying out management tasks and decision-making within the defined contractual

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43 The DIV under the EaSI programme will operate on the basis of a delegation agreement between the Commission and the DIV manager laying down the detailed terms and conditions applicable for the implementation and the management of the financial instrument, the tasks and obligations of the manager, the rules for the selection of intermediaries, governance aspects, remuneration etc. The fund manager will be required to provide a semi-annual reporting to the Commission, including on the financial implementation and the allocation and accessibility of funding and investment by sector, geographical area and type of beneficiary.
Set-up issues

framework. The EIF evaluates and selects the financial intermediaries under the scheme and submits project proposals to the European Commission who can then approve them.\footnote{European Commission presentation. Raymond Maes Roger Havenith European Commission Employment, Social Affairs & Equal Opportunities Economic and financial affairs. The European Progress Microfinance Facility.}

The following sub-section further considers issues relating to the legal structure of a FoF, such as the optimal procurement mechanism for setting up a FoF programme and selecting fund managers to operate individual FoF within a FoF programme).

2.4 Drivers and inhibitors

The EU regulatory framework and legal issues relating to FoF

In assessing the different options for a possible pan-European FoF or FoF programme, it is important that legal issues relating to the set-up of a FoF are considered. These are important enablers. Among the questions that need to be addressed are:

- To what extent overall is the existing EU legal framework already fit for purpose in facilitating the establishment of a new pan-European FoF (or FoF programme)?
- To what extent is there scope within the EU Financial Regulation for the European Commission to invest in FoF directly or through a dedicated investment vehicle (DIV)?
- Which is the most appropriate procurement mechanism if a future FoF (or programme) were to be established to select a FoF manager or managers?
- Are there any other regulatory developments that could be relevant if the setting up of a FoF initiative were to be given the go-ahead?

The EU Financial Regulation

In assessing the possibilities for EU investment in FoF, the starting point is to check the existing legal framework for investing in risk capital financing instruments under the EU Financial Regulation and under the programming framework for H2020. The new EU Financial Regulation\footnote{See Article 139, point 4. of http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:298:0001:0096:EN:PDF} has applied since 1st January 2013, which is accompanied by new Rules of Application (RAP)\footnote{Commission Delegated Regulation (EU) No 1268/2012 of 29 October 2012 on the rules of application of Regulation (EU, Euratom) No 966/2012 of the European Parliament and of the Council on the financial rules applicable to the general budget of the Union. http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=OJ:L:2012:362:FULL&from=EN}. These replace the former Implementing Rules (IR) and contain more detailed and technical rules. The EU Financial Regulation states that the Commission may implement financial instruments either directly — i.e., EU budget provided to a DIV or directly to financial intermediaries — or indirectly — i.e., EU budget provided to an \textit{entrusted entity} that, on behalf of the Commission, provides financing to DIVs or to financial intermediaries or final beneficiaries.

Pending certain exclusion criteria laid down in Articles 106-109 of the Financial Regulation (e.g. bankruptcy, misconduct, misrepresented information, previous financial penalties, etc.) private managers can be supported as financial intermediaries or as managers of DIVs (Art. 221 RAP). Further criteria that should be fulfilled by entrusted entities should fulfill criteria laid down in Art. 60(2) of the Financial Regulation pertaining to internal control systems, appropriate accounting & auditing systems, protection of personal data, etc.

From a legal point of view, if the EC were to go ahead with entrusting management of a FoF to another entity, it would have to follow a sequence of steps, as laid down in Art. 139 of the Financial Regulation:
Set-up issues

1. Publish a call to potential entrusted entities including selection and award criteria and asking entrusted entities interested to propose measures on alignment of interest
2. Open dialogue with interested entrusted entity/entities
3. Ensure that entrusted entities fulfil requirements of Art. 60(2) of Financial Regulation related to internal management, accounting, and a control systems
4. (Under some circumstances, enter into direct negotiations with potential entrusted entities)
5. Sign delegation agreements with the entity or entities that have submitted best value for money proposals, agreement to cover allocation of their own financial resources or risk-sharing

Public procurement legislation

Were a FoF structure to be approved, an important practical issue is which would be the most appropriate procurement mechanism to manage the selection process to appoint a FoF manager. Through the research, previous experiences have been examined relating to the set-up of FoF. The most common procurement mechanism for setting up a FoF structure - in the EU and internationally - was issuing a Call for Expressions of Interest. This approach has been used for instance by the EIF to appoint fund managers responsible for administering the JEREMIE holding fund and to appoint FoF managers where the EIF is a cornerstone investor. It has also been used by national FoF operators, for instance, by the British Business Bank when setting up the UK Innovation Investment Fund (UKIIF), where a private sector FoF manager was appointed to manage the Environmental Investment Fund. A call for expressions of interest was also utilised in Canada by the federal VCAP programme to appoint four FoF managers. Examples of relevant call for expressions of interest are provided in the following table:

Table 8 - Call for expressions of interest – usage in setting up of FoF, co-investment funds and other fund types

<table>
<thead>
<tr>
<th>Organisation name and country</th>
<th>Detail</th>
<th>Fund type</th>
<th>Weblink to sources of further info</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIF, EU</td>
<td>JEREMIE holding fund instrument. Calls for expression of interest have been used in relation to all countries that have used JEREMIE.</td>
<td>Co-investment fund</td>
<td><a href="http://www.eif.org/calls_for_expression_of_interest/">http://www.eif.org/calls_for_expression_of_interest/</a></td>
</tr>
<tr>
<td>VCAP, Canada</td>
<td>Call for expressions of interest in Canada</td>
<td>FoF</td>
<td><a href="http://www.fin.gc.ca/vcap-pac/eng.asp">http://www.fin.gc.ca/vcap-pac/eng.asp</a></td>
</tr>
</tbody>
</table>
Set-up issues

With regard to the timeframe between the publication of the call and the deadline for interested parties to express their interest was found to vary, but is typically between 2 and 3 months from call publication.

Other relevant national and EU legislation

There are a number of other relevant regulatory developments that are relevant. For instance, in some countries, such as Turkey, a dedicated regulatory framework has been established specifically to facilitate the setting up of a FoF programme.

The Decree of the Turkish Council of Ministers on Transferring Resources to Funds Of Funds.

The decree sets out the legal basis for a FoF. It also provides detailed information about the set-up phase, in relation to setting out the purpose, scope, legal basis and definitions of a FoF, and to regulate the selection criteria, areas of investment focus, and auditing procedures. In addition, the upper limits in respect of management fees and expenses that can be levied by fund managers are outlined. The purpose of the FoF programme in Turkey is to support VC funds and individual companies in Turkey through equity injections as well as to support co-investment funds, which provide co-financing to target companies along with angel investors, sub-funds formed under these funds of funds and co-investment funds.

This and other examples outlining the total funding size, investment strategy and selection criteria used in the EIF’s fund of fund programme provide useful benchmark information highly relevant to setting up a pan-European FoF. The example from Turkey of a dedicated regulatory framework at national level being in place is the exception rather than the rule.

In summary, since there is already provision within the Programme Regulations of COSME and H2020 respectively to invest in FoF, additional legislation does not appear to be necessary.

Other relevant EU legislation - the Prospectus Directive and UCITS

Other pieces of EU legislation are potentially relevant to the FoF model. If a VC fund is to be quoted on a recognised stock exchange, the Prospectus Directive facilitates the sale of shares in the fund throughout the EU. The Prospectus Directive is a framework directive made under the Financial Services Action Plan. It provides for a single regime throughout the EU governing the requirement for a prospectus and its content, format, approval and publication. Thus a prospectus approved in one member state can be “passported” with minimum formality to another member state. The UCITS Directive is also relevant potentially in that it addresses governance arrangements and disclosures i.e. through the introduction of a Key Investor Information Document or KIID for prospective investors in collective investments in undertakings.

Other possible barriers to the establishment of a FoF

- Besides the availability and sourcing of funds, are there other inhibitors that may hinder the establishment of a FoF?
- To what extent could improved knowledge and support services to players in the FoF ecosystem foster the establishment and operation of a FoF?

Framework conditions - the need for an entrepreneurial regime, favourable tax breaks for seed and VC (including angel investors)

Set-up issues

There was a lack of an appropriate pan-European regulatory regime to facilitate the development of the venture capital industry. This arguably hindered the provision of cross-border VC and meant that there was legal uncertainty for public institutions or private market operators wishing to set-up FoF. As detailed in Section 2.3, which outlines the EU regulatory framework, this problem has now been addressed through the adoption of a Regulation on European Venture Capital Funds (Regulation 345/2013). The introduction of common rules for VC funds and the EuVECA designation should help to facilitate the set-up and operation of a European-wide FoF programme.

At national level, most Member States do not have an appropriate supporting regulatory framework in place either. The lack of legal environments that are supportive of VC and BA as in the UK and USA means that for several GPs and indeed institutional investors, a number of countries are not of any interest. This problem has been highlighted by EVCA but despite the EuVECA designation still exists after 20 years of attention. It is also affecting crowdfunding as an international facility.

There remain a number of legal, regulatory and taxation obstacles to the provision of cross-border venture capital, which hindered the efficient and effective functioning of a pan-European fund of funds. For instance, a study for the Commission's DG Enterprise found that fragmentation of the EU’s VC markets along national lines limited the supply of early-stage capital for innovative SMEs. There are currently 28 different operating environments, the stage of development and maturity of VC markets varies and different framework conditions along with divergent national approaches. This adversely affects cross-border fundraising and investing in innovative SMEs.

A 2010 report on removing tax obstacles to cross-border Venture Capital Investments was carried out by an expert working group. The group was set-up by the Commission in 2007, as one of a series of measures aimed at facilitating cross-border venture capital investment in the EU. Among the findings were that there is a risk of double taxation if the local presence of a venture capital fund manager in the Member State into which an investment is made may be treated as a taxable presence ("permanent establishment") of the fund or of the investors in that State. This could lead to double taxation if the return on investment is also taxed in the country or countries where the fund or investors are located. Secondly, it was found that venture capital funds may currently be treated in very different ways for tax purposes by the different Member States. The report recommended the mutual recognition of the tax classification of venture capital funds.

As noted earlier in the report, the prevailing framework conditions at European and national level for VC is another factor that determines the extent of success or failure of the European VC market. Previous research such as two VC evaluation reports for the Australian and Danish governments by Professors Cowling and Murray have found that “the enabling entrepreneurial environment is equally important as having access to equity funding to the success or otherwise of national venture capital fund of funds schemes“. Many national governments have tried to set-up VC funds but without paying sufficient attention to creating an environment conducive to supporting entrepreneurship and innovation. Here, it can be observed that dynamic system failures may hinder the development of VC markets to create possibilities for gazelles.

o To what extent could knowledge and support services for players in the FoF ecosystem to foster the establishment and operation of a FoF be improved?

EU Member States’ FoF managers have knowledge and experience that could be put to use also at a European level. Interview feedback suggests that National FoF managers would be willing to get involved practically and share their experiences and good practice within the EU. It is equally critical that government sponsors insist on proper evaluation of new programmes by independent agencies/researchers and that these evaluations are built into the data collection at the start of the

50 Venture Capital Tax Expert Group on Removing Tax Obstacles to Cross-border Venture Capital Investments.
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Programme and are then published. The lack of publicly available performance data makes it very difficult to assess the performance of publicly backed fund of funds and therefore to assess the efficiency and effectiveness of a FoF mechanism versus alternatives and to benchmark.

This could be done through workshops, seminars or other knowledge-sharing events. The Exeter Policy Research Entrepreneurship Seminar Series (EXPRESS) which was specifically set-up to compare VC policies among 16 advanced developed economies. The EC (DG Enterprise supported these seminars as did the national governments. National FoF managers could also support the formation of an EU-wide network, which could facilitate discussion, good practice discussions and wider coordination.

2.5 Investment strategy, targeting and selection criteria for underlying funds

Issues relating to the investment strategy, targeting and selection criteria have mainly been examined at the FoF level. Many of the issues raised also apply at the underlying fund level.

A key challenge for a future public-private FoF is the need to determine appropriate selection criteria for selecting underlying VC funds in which to invest. In order to develop such criteria, it was necessary to carry out an assessment of how existing national FoF schemes have approached their targeting and investment strategy.

Among the factors that will influence the development of a targeting and investment strategy for individual FoF set-up within a possible future pan-European FoF programme are:

- What are the objectives of the major funders that the FoF are trying to achieve? Are there purely commercial or there are also some public policy considerations?
- Should there be a sectoral focus on several sectors or should the FoF remain generalist? What implications does this have in terms of the equity research and monitoring staff needed at the FoF?

Experiences gained through national and regional FoF will clearly be relevant in defining a targeting and investment strategy for a potential European FoF. Among the different considerations are:

- **Sector and sectoral growth potential;**
- **Investment fund type by stage of firm** – e.g. start-up, early growth, expansion or a balanced fund;
- **The potential contribution to smart specialisation and cluster development;**
- **The potential contribution to key EU policy priorities relating to smart and sustainable growth** e.g. the Europe 2020 priorities; and
- **Minimum investment size threshold.**

The benchmarking assessment found that existing public-private FoF often develop an investment strategy on public policy considerations, such as the need to promote the accelerated development of high-growth, high-tech firms in priority sectors best able to contribute to smart growth.

Some FoF are **sectorally targeted** and target investments through VC funds in growth sectors such as ICT, life sciences and cleantech, whilst others remain **generalist**. In other cases, there are elements of sectoral targeting but still scope to invest in all types of firms, especially in later stage VC and the expansion phase.

The benchmarking assessment of the sectoral focus of existing FoF (see Appendix E) shows that in sectorally-focused FoF, the focus is on targeting several sectors as part of a balanced portfolio approach. Among the sectors most commonly priorities are consumer-related and non-industrial services, together with communications, healthcare (including medical) energy and clean-tech (e.g.
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renewables) and ICT and communications. Although Private Equity is much less active in the provision of VC compared with 5-10 years ago, EVCA and PREQUIN data shows that private equity funds invest in broadly similar sectors.

In the UK, two FoF have been set-up through the UKIIF. Whilst the Hermes Environmental Innovation Fund (£150m) invests in funds which target clean technologies and low carbon, the UK Future Technology Fund (£200m) invests in funds targeting life sciences, digital and advanced manufacturing. However, although the two FoF do have a sectoral focus, there are no thematic or sectoral restrictions on UKIIF investments. The fund managers are expected to invest across the range of stages (from seed to later stages of company development) and across a wide range of technologies. There is only a minimum investment limit foreseen for the low carbon and life sciences sectors, which are considered to be high growth sectors and are thus expected to receive at least a £25million investment each.

However, some FoF may prefer not to target particular sectors are for risk diversification purposes, since in theory investing across a number of sectors and countries reduces risk. Some FoF have moreover avoided a sectoral focus, since the aim is to increase the supply of venture capital to SMEs with high-growth potential irrespective of the specific sectoral background.

Appendix C also provides some examples of FoF investing in developing economies markets – illustrating a different strategy and approach. These types of FoF, tends to take a more long-term perspective. In Sweden, Swedbank’s Access Emerging Markets FoF normally pays no dividends and profits are reinvested in the fund.

Having identified an appropriate targeting and investment strategy for the fund overall, a **list of selection criteria for VC funds** that a FoF will invest must be developed. It is recommended to contractually require these funds to commit to a financial plan which should contain annual projections of the following elements:

- The capital calls and their timings.
- The investments
- The costs
- The exit potential (which should be in line with their track record and the market)
- The distribution of (exit) proceeds.

The underlying VC funds managers will need to develop **appropriate criteria for the selection of start-ups and SMEs** to benefit from equity investment, such as:

- The track record of the entrepreneur;
- The growth prospects of the sector;
- The scope for internationalisation and scaling up the business; and
- The scope to achieve a successful exit from the investment in the firm.

One way of fostering transparency in the market, alleviating potential investor concerns, is to make funding of VC funds dependent on them complying with EVCA’s Code of Conduct and reporting standards. This may induce more VC funds to apply these standards which would in turn increase transparency of the market overall.

The FoF manager should have a thorough understanding of how these funds select ‘investee’ firms, should hold them accountable to a defined set of criteria and regularly monitor their application. Generally, a satisfactory return on investment can only be achieved if the FoF manager is able to identify a certain number of outperformers, i.e. funds that deliver more 3-5 times higher returns than the average VC funds. Research by Venture Economics shows that in the US market over 20
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years, the returns in the upper quartile stood at 46% compared to only 4% in the median and a meagre 0.35% in the 2-4 quartiles.\textsuperscript{51}

In relation to internationalisation potential, work by Murray and Burgel in the UK and Germany respectively mirrors the findings from US studies that show that most high growth young firms tend to internationalise very quickly. It will be a likely selection criterion for most GPs (VC managers).

Investor views on a pan-European fund of funds

Through the study, we have sought to gauge potential interest among different types of investors both within the EU and internationally. Through the interview programme, the extent to which different types of investors might be interested in investing in a pan-European FoF was explored. A number of discussions have taken place with different types of investors, such as pension funds, institutional investors, business angels and angel syndicates and sovereign wealth funds.

Investors with a longer-term investment horizon, private equity offers the opportunity to access optimised returns and achieve a more risk efficient portfolio. However, as detailed earlier in the report, since performance returns in European VC are historically low and not as attractive as other asset classes, consideration is needed as to how to attract investors to the European VC asset class in general and to invest in a pan-European FoF in particular.

In this sub-section, the following are considered:

- Possible sources of funding for a pan-European FoF programme by type of investor;
- Investor views on a pan-European fund of funds; and
- Possible barriers to investment.

Table 9 – Potential sources of private funding for a pan-European FoF by type of investor

<table>
<thead>
<tr>
<th>Type of investor</th>
<th>Likelihood of investing in a pan-European FoF</th>
<th>Obstacles to investing in a pan-European FoF</th>
</tr>
</thead>
</table>
| Private sector fund managers and asset managers | Medium | • Could be willing to invest in a privately managed FoF, but only if asymmetric returns for private investors are put in place.  
• Large US fund managers are generally less concerned about double layers of fees outside the EU because investing through a FoF investment vehicle as an intermediary saves them having to invest in equity research teams and monitoring.  
• Very large fund managers outside the EU do not generally want to set-up their own teams given the small ticket size. FoF are therefore a mechanism for them to invest a small % of their total global assets in European VC.  
• Private fund managers may also be willing to invest in a FoF to which they are appointed in order to ensure alignment of interest. For example, major fund managers such as Harbourvest\textsuperscript{52} have participated in the VCAP FoF Programme in Canada. |

\textsuperscript{51} Venture Economics; as of March 31, 2012

\textsuperscript{52} \url{http://www.harbourvest.com/investment-focus#US-venture}
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| Family Offices        | Medium | • FOs only account for about 7% of cumulative investment in European VC.  
|                      |        | • However, of total investment in VC to date, EVCA data (2007) shows that about one-third of investment by FOs is through FoF vehicles.  
|                      |        | • Although family offices are a potentially important source of finance, there are many more such offices in the US than in Europe.  |
| University endowments | Low    | • Lack of sufficient scale of university endowments in EU compared with the US (see detailed comparisons in the size of endowments in previous sub-section International sources of early-stage venture capital). Stanford University’s endowment management aims for an IRR of 23% for private equity in their investment strategy.  
|                      |        | 53 Yale realised an IRR of 33% for its private equity investments in 2014.  
| Angel investors / individuals (U)HNWIs | Low    | • Angel investors / UHNWIs are highly relevant sources of funding in seed and early stage but invest directly in firms.  
|                      |        | • Tax breaks in some MS e.g. France and the UK to encourage investment by individuals in start-ups and early stage VC.  
|                      |        | • Do not invest through intermediaries and generally invest smaller amounts than the minimum size of investment a FoF would be aiming for.  
|                      |        | • Unlikely to do so in future since part of the return is the direct involvement in investee firms for retired business persons.  |
| Sovereign Wealth Funds (SWFs) | Low-Medium | • Likelihood of investing strongly dependent on whether asymmetric returns for investors put in place.  
|                      |        | • IRR achieved by publicly backed FoF is often insufficient to attract SWFs to the European VC asset class (example – SWFs have not invested in EIF FoF due to inadequate performance returns).  
|                      |        | • Concerns about double layers of fees.  |
| Institutional investors (e.g. banks, pension funds) | Low-Medium | • Large, international institutional investors and global pension funds could be persuaded to invest a small % of their total AUM to the European VC asset class, provided some asymmetries were built into FoF structure.  
|                      |        | • Concerns about double layers of fees.  
|                      |        | • Public and corporate pension funds may have different investment strategies. Public pension funds may be attracted by the lower level of risk associated with a pan-European FoF vehicle, which would invest in a balanced portfolio of underlying VC funds, in different investment stages and MS.  
|                      |        | • There are some regulatory barriers to investment in the European VC asset class. The Basel III rules on capital  

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<table>
<thead>
<tr>
<th>Corporate investors</th>
<th>Low-Medium</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Some corporates have in-house corporate VC programmes. However, they are more likely to invest in VC through their in-house venturing arm.</td>
</tr>
<tr>
<td></td>
<td>• Corporates are unlikely to invest in FoF programmes unless a particular FoF is targeting a strategic sector for a given corporation.</td>
</tr>
</tbody>
</table>

adequacy may deter investment in alternative asset classes by banks.

- However, within the EU, most pension schemes fall within the scope of the IORP Directive regime, which does not currently impose any horizontal capital adequacy requirements.

Scale – high, medium, low. Source: CSES analysis based on stakeholder feedback and assessment of EVCA data on current sources of VC funding.

As shown in the table above, a range of different types of investors could be among the possible targets for marketing a pan-European, FoF programme. Some investors are open to including within their overall asset allocation a small proportion of their total assets under management (AUM) to “alternative assets”.

The issue as to which types of investor should be targeted as prospective investors in a FoF is complex, since it depends partly on the configuration of a FoF programme (e.g. whether the returns structure is pari passu or asymmetric, whether particular constraints are placed on the FoF manager such as geographic restrictions, sectoral focus or generalist, etc.).

We now consider what type of investors might be attracted by a fund of funds and summarise stakeholder feedback and respond to the following questions:

- To what extent would private investors be interested if the European Commission were to establish a new FoF or back a number of existing FoF?
- Would private investors only be interested in participating in fund-raising if the FoF were managed by experienced, private-sector managers?

Through the interview programme with FoF managers, VC funds and investors, views were sought as to the views of different types of investors on a possible future pan-European FoF programme. The findings are set out below:

Feedback from different types of investors

- An advantage of appointing an experienced private sector fund manager to manage a possible new FoF established with EU investment is that such fund managers typically have extensive contacts among the investor community and can help to attract investors to the fund, which will be crucial during the fund-raising stage.

- Most types of investors are concerned about the potential impact on returns of double layers of fees associated with FoF mechanisms. This was less the case among larger private fund managers not currently active in the European VC market, who recognised that the additional fees could be justified since there are cost savings in not having to set-up an equity research team in Europe and investment monitoring division.

- The downward pressures on FoF fees also potentially make using a FoF investment vehicle more attractive, given the attractions of additional diversification.

- Larger private venture capital groups currently investing in the US may be prepared to invest in pan-European FoF. There is some evidence of over-supply in the US VC market,
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with longer term implications for quality of deal flow and returns, and increasing quality of deal flow and return on investment in Europe.

- A recent report by the European Institutional Investor Institute\textsuperscript{55} found that in order to get adequate returns, senior investors are taking more credit risk (48%) and are willing to invest in illiquid investments (46%). There have also been improvements in dynamic asset allocation (big moves, long-term time horizon) versus tactical asset allocation (market timing, short-term focus).

- Given recent volatility due to the global economic and financial crisis, and uncertain returns in the short-term, the time scale has clearly increased in favour of a longer-term time horizon particularly for institutional investors and pension funds rather than a short-term investment focus. Normally the subscription to a FoF in the past was for a minimum of 10 years. Today, the 10-year barrier could be extended, provided that certain pre-conditions are met.

- Given differences between the public and private sectors in respect of returns expectations, an asymmetric returns model appears to be required to attract private sector investors, given the material differences in IRR acceptability.

- SWFs may be prepared to invest in a pan-European FoF, but only if the FoF operates on a primarily commercial basis, and sets an acceptable IRR. This issue is considered further under Section 5.4.1 (returns).

- An analysis by EVCA of the role of family offices in investing in private equity in 2007 found that about one-third of their investments in VC were through a FoF vehicle, with some evidence of a preference for risk diversification through the use of an intermediary vehicle.

- Provided sufficient critical mass is achieved in the size of each FoF, it would be advantageous to set-up a number of different fund of funds (3-5), with differing investment objectives so as to attract different types of investors. For instance, one or two of the FoF could be sectorally-focused so as to attract corporate investors, whereas others could be either generalist or a combination of the two.

- Lastly, some public sector organisations and funding bodies might be interested in supporting a pan-European FoF vehicle at EU level (see explanation later in this subsection).

Feedback from investors on returns

- There was strong interest among investors (LPs) and GPs interviewed in the possibility of asymmetric returns. Since investors have many different alternative choices of asset class, which provide better returns, there was a perception that incentives, such as capturing the upside, will be important in attracting investors to European VC and to a FoF structure.

- Capturing the upside was viewed as being much more important than being offered downside protection by investors. Indeed, this would be less problematic for the Commission and possibly other public funders given the risk of moral hazard.

- Investors interviewed generally accepted the principle of shared risk-taking and accepting any attendant losses (in return for a disproportionate share of the upside to reflect the additional risks associated with seed and early stage).

\textsuperscript{55} From the European Institutional Investor Institute, What Senior Investors are thinking now 2014 - European CIO Survey 2014
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- Experience from Canada’s VCAP programme shows that most private capital was raised initially when the programme was created – benefiting from strong political pressure on potential private investors – and that it was difficult for the selected FoF managers subsequently to raise additional private capital to close the funds.

- With regard to feedback on investor views on acceptable management fees, whereas at the underlying VC fund level, 2% is standard, given low performance returns, there is low tolerance of high management fees at the FoF manager level. Typical fees are 1.1% but can be as low as 0.8%. However, if the very best fund managers were selected to operate pan-European FoF, with the prospect of very commercial returns, higher fee tolerance among investors may be possible. This would need to be negotiated (see case study on Canada VCAP in Appendix B).

A competitive advantage that a FoF could offer is the ability to access a range of fund managers which could not be accessed individually by large investors without spending a disproportionate amount of time. For example, if a large pension fund or sovereign investor seeks to invest amounts of (say) €50 million in an asset class, they currently will need to spread this over a number of smaller funds, or make direct investments. A FoF will undertake this task for them. The issue is whether this task can be undertaken more effectively than a large investor doing the work themselves.

There were also less positive messages from investors in terms of the main barriers to attracting LPs to invest in pan-European FoF. An industry standard report on “Private Equity as an Asset Class”56 sheds light on investor expectations in terms of IRR. It shows that if the target for LPs is to get 2 to 3 times their money back (which is a pretty standard expectation in the industry) then if we assume a holding period for an investment into a portfolio company of 5 years (which is reasonably typical, especially in a venture context), then a fund would need to be looking at roughly a 25% IRR. If funds investing public money with public policy (rather than purely commercial) objectives are only able (or are only targeting) to achieve lower IRRs, it is easy to see how private investors might not be encouraged to come into that fund.

These are now summarised:

- The low performance returns compared with other asset classes and the higher level of risk has meant that the public sector has had to step in to intervene in seed and early-stage VC, given the different market structure in the EU compared with the US.

- Therefore, strengthening access to information and data on the latest performance of VC is very important.

- Large investors, such as institutional investors, pension funds and sovereign wealth funds are not presently major players in the market. This reflects a number of factors, such as:

  - The perceived poor returns offered by the sector, although there is evidence that these are improving a few good years have not yet won over many potential investors due to many years of low returns.

  - The difficulty in attracting institutional investors to the early stage VC asset space partly because investment in this asset space is viewed as pre-institutional.

  - The small average size of European VC funds – large investors (especially international) manage billions of Euros in assets and need a minimum critical mass in FoF and individual VC fund to be able to invest.

- Many large international investors and sovereign wealth funds need a minimum ticket size of €50m. Small VC funds are irrelevant to large institutional investors.

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- The lack of a level playing field for institutional investors and pension funds compared with private individuals (UNHWIs/ HNWIs), who benefit from tax breaks for investing in VC in some EU countries (e.g. France, the UK).
- The issue of double layers of fees was mentioned by many investors as discouraging them from investing in FoF vehicles. If they choose to invest a small percentage of their total AUM globally to European VC, many investors would prefer to invest directly in VC funds.

What type of road show and marketing approach would be the best way to attract institutional and private investors and over what timescale?

Clearly the road show and marketing approach would have to be tailored to match the expectations and investment time horizons that private equity and investors are looking for, as the evolution in risk taking is generating alternative investments, with an “opportunity” portfolio with heavy reliance on value added through active management.

In relation to the possible constraints that may deter investors from the European VC asset class, reference should also be made to the problem definition in Section 3.2.

Role of public sector organisations in funding the first generation of a FoF programme?

Although the research has focused on the policy challenge of how to attract private sector funding back to the European VC asset class, the potential role of the public sector (e.g. EIF, national finance agencies/ funding bodies, other FoF operators) as a source of funding to supplement funding available from the European Commission through the Horizon 2020 programme could also be explored. The public sector in general - and the EIF in particular - already plays a crucial role as a cornerstone investor in FoF and plays an important advisory role in setting up FoF.

Box 1 - Attracting investors to the European VC sector – the role of public cornerstone investors.

The presence of a public sector cornerstone investor such as the EIF (or in future also the European Commission) from the outset can be a crucial factor in attracting private investors to invest in FoF and / or underlying VC funds. Making public sector money available in the early stages of fund-raising can also help to generate significant leverage on EU funds. Examples are the UK Future Technologies Fund, a €100m EIF-backed FoF and Germany’s European Recovery Programme (ERP)-EIF Dachfonds, where funding was recently doubled from €500m to €1bn using EIF support.

In addition, FoF with strong backing from national financing organisations to promote innovation and entrepreneurship and / or national institutions to promote risk capital financing have also been successful in generating significant leverage on FoF. An example is the UK’s High Technology Fund (UKHTF), which achieved a leverage effect on public funding of 5:1 on an initial investment of £20m. However, despite its success in raising funding, the UKHTF achieved a negative return, since the initial years of the operation were very difficult as the 2000 technology bubble burst after this fund was raised. Performance only stabilised after the full period of the ten year horizon. A further example where significant leverage was achieved is Ireland’s Seed and Venture Capital Scheme 2007–2012, which leveraged €1 billion in investment in start-up, early stage and development stage businesses based on an initial upfront investment of €175 million by Enterprise Ireland.

Even in less developed VC markets, strong leverage can be achieved through a FoF mechanism when the leverage achieved at both the FoF and the underlying funds level is combined. For instance, the EIF has served as a cornerstone investor in respect of the Baltic Innovation Fund. At the FoF level, €60m was raised from national public financing agencies based on an EIF cornerstone investment of €40m, a ratio of 1.5:1. Further leverage will be achieved through the
Set-up issues

underlying funds level.

It should however be stressed that the target for equity fund-raising from the private sector at first fund closure may fall short of expectations, at least initially. For instance, the UK Innovation Investment Fund was launched during the crisis as a £200m fund but was initially expected to raise significant private sector funding to increase total fund size upon the closure of the two funds supported of £1 billion. However, in practice, only £5m of additional private sector capital was raised other than the match funding put in by the private fund manager Hermes. Conversely, despite these fund-raising difficulties, the performance returns of the EIF-managed UKFTF have already been strong and should improve with time according to the J-curve trajectory of a typical FoF performance. This reiterates the importance to FoF performance of the timing of FoF launch and the underlying investments made in VC funds.

Lessons learned

- It is important to note the influence of cycles both in terms of the ability to raise private sector capital and the level of performance returns. This is strongly influenced by the vintage year(s) when investments were made.
- An investment period of 4-5 years for a FoF, and flexibility of 2-3 years investment period for the underlying VC fund to make investment decisions is crucial.
- Strengthening information and data about the performance of VC is important to improve knowledge and understanding as to what is an acceptable level of return through a public-private FoF structure and as to how important the stage in the economic cycle that investments are made.

Before they will invest, investors want better products (e.g. stable low returns and lower fees rather than private equity structures), and government or local counterparty bearing more of the risk with less risk parity. Private investors would be interested in the EC providing collateral to help alleviate the risk. This may imply support for a non pari-passu approach, but the associated risks here would need to be carefully considered (e.g. risk of market distortion and private sector displacement, moral hazard).

Existing national FoF operators, national and regional authorities might be interested in investing, at least in the first generation of fund of funds. It should be recalled here that several FoF operators, such as BPIFrance and KfW are already shareholders in the EIF in order to support the growth and development of European equity capital. Moreover, there is already strong recognition of the structural problems facing the European VC industry, such as small average size of VC funds. Pooling resources between different (public) market participants and public authorities more generally would help to ensure larger average fund size so as to strengthen the competitiveness and performance of European VC funds, whose lack of scale disadvantages them compared with their US counterparts.

Summary

Overall the European early stage investment market appears to attract funds of about €5.5 billion annually. The largest sources of funds are individuals, with the public sector contributing about a quarter of the market. There are difficulties in attracting private sector investors, although large investors still account for about one-fifth of the market.

The main constraint in attracting large investors appears to be the low level of returns available. However, it should be recalled that there is a skew and returns are not normally distributed. Thus some investors will have done well in the early stage market. The demand side should also be
**Set-up issues**

mentioned as a driver of performance returns i.e. the quality of European firms in which VCs invest. A wider strategic issue is whether VC can accommodate a much larger flow of funds seeking returns.

Another factor is that it is also difficult for larger funds to access the market due to the small average size of European VC funds. Improving access to the asset class by creating a mechanism that would allow big ticket investors to invest is an area where a pan-European FoF might be able to help.

**Alternative approaches to fund-raising**

It is important to consider the process through which fund-raising relating to operating a pan-European FoF (or a FoF programme) would operate.

The initial funding for a FoF would come from the European Commission (and possibly also other public investors, such as the EIF, national financing agencies and sponsors of risk capital financing schemes). There are then two alternative choices as to how further funding would be raised so as to get the first generation of fund of funds underway.

**Table 10 - Different approaches to fund-raising and their advantages / disadvantages**

<table>
<thead>
<tr>
<th>Approaches to fund-raising</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Approach 1</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Step 1 - EC, supported by the EIF or EBRD as an entrusted entity provides initial funding impetus at point of establishment of FoF (€100m - figure illustrative).</td>
<td>• Allows time for the GP to approach investors, which better reflects industry practices with regard to fund-raising activities through investor networks</td>
<td>• Uncertainty</td>
</tr>
<tr>
<td>• Step 2 – the selected fund of funds manager is then given 6-12 months to achieve the target total FoF size prior to fund closure.</td>
<td></td>
<td>• Will target total FoF size be achieved?</td>
</tr>
<tr>
<td>• Approach 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The EC, supported by an entrusted entity, establishes a FoF with an initial €100m.</td>
<td>• Certainty – the FoF will not be able to commence operations until private FoF manager has raised their financial contribution under the conditions set out in their mandate.</td>
<td>• Existing private equity FoF managers may not be attracted by the mandate to run this EU programme under these conditions since it wouldn’t allow them sufficient time to achieve fund closure.</td>
</tr>
<tr>
<td>• This is conditional upon the private sector being able to provide funding of a minimum ratio of 1:1 of €100m to achieve fund closure immediately/within a few weeks.</td>
<td></td>
<td>• Investors may also be deterred under this approach because it would not allow them sufficient time to engage in the negotiation process (e.g. on fees, carry) and for internal decision-making processes prior to fund closure.</td>
</tr>
</tbody>
</table>
**Set-up issues**

It will be important to take into consideration feedback from stakeholders with regard to optimal means of carrying out fund-raising. It was pointed out that the process of moving towards closure of fund of funds and VC funds is different in private equity compared with the public sector. An example was cited of problems that this can lead to.

When the UK Innovation Investment Fund (UKIIF) was launched as a counter-cyclical measure during the economic and financial crisis, the original intention was for both of the two FoF within UKIIF to be private sector managed. However, following the publication of a Call for Expression of Interests, only one private FoF operator (Hermes) had the resources immediately available to meet the private funding requirements to secure EIF and British Business Bank funding. In the apparent absence of sufficient private sector interest in response to the call, the EIF therefore stepped in and is the fund manager of the Future Technology Fund (FTF).

However, some stakeholders stressed that there was in fact potential interest among private equity. However, the reason that they did not participate in response to the Call was that the timescales for achieving fund closure were not realistic because they did not reflect the way in which private equity fund-raising works.

Private equity GPs have access to different investor networks of LPs. It was pointed out that it typically takes a minimum of 6 months (and more commonly 12-18 months) to secure the necessary investment from a number of LPs to achieve fund closure for a FoF. This is the case for various reasons, such as the need to:

- **Launch an investor roadshow and marketing events to promote awareness of the new fund of funds among European and international investors.**
- **Allow time for a negotiation process with different possible investors with regard to the incentives structure and fees for the FoF.**
- **Approach different investor networks and for these investors to reach a final investment decision (FID).**

It is also the case that it takes time for underlying VC funds to achieve fund closure since private investors do not typically invest more than 10% in the total value of a given fund for risk reasons—although there are exceptions where large-scale investors may invest a larger share. This means that the GP seeking funding would have to engage in discussions with at least 10 investors (less if there is a major public cornerstone investor). In a note on Private Equity Fund Formation\(^\text{57}\), it is noted that “a fund’s governing documents generally permit the fund to raise capital commitments only during a limited fundraising period (typically 12 to 18 months), after which the fund may not accept additional investor commitments. During the capital raising period, the sponsor seeks investors to subscribe for capital commitments to the fund. In most cases, the commitment is not funded all at once, but in separate capital contributions called on an as-needed basis to make investments during the investment period and to pay fees and expenses over the life of the fund”.

The timing of fund-raising and fund closure in relation to individual fund of funds supported through the first generation of a pan-European FoF programme is set out in the following diagram:

\(^{57}\) Private Equity Fund Formation, Scott W. Naidech, Chadbourne & Parke LLP, November 2011
Set-up issues

Figure 7 - Timing of fund-raising and fund closure

Source: CSES interpretation of industry-standard practices

The long duration for private VC funds (GPs) in obtaining capital commitments from investors (LPs) was confirmed through the research, for instance, the VCAP FoF programme in Canada (see case study in Appendix B) experienced difficulties in reaching target FoF size. Individual FoF therefore had to be launched before they had obtained sufficient commitments of private capital to achieve their target size. This did not prevent the FoF from launching and making initial investments in underlying funds during the investment period. Fund-raising is still ongoing. Despite an asymmetric returns structure, final fund closure has only been achieved in the case of one FoF. The important role of the public sector in putting in money upfront and then proactively engaging in fundraising with private investors to promote FoF initiatives was emphasized in Canada, and the need for strong political support.

Sources of investors for a FoF (European, international) and investment restrictions

Key questions in the terms of reference relating to sources of capital and their provenance (e.g. inside, outside the EU) are:

- How realistic is it to only approach European institutional investors? Would institutional investors from other parts of the world be interested in investing in a FoF?
- Should any restrictions be imposed on the source of private funding?
- If so, which guidelines should be used (existing industry guidelines or other standards, or should these be developed on an ad hoc basis)?

How realistic is it to only approach European institutional investors? Would institutional investors from other parts of the world be interested in investing in a FoF?

As demonstrated earlier, there are potentially a number of different sources of investment for investing in a pan-European FoF, such as pension funds, institutional investors, sovereign wealth funds, national FoF and national and regional financing agencies. In terms of the geographic source of funding, a key message from the interviews with investors (LPs), FoF managers and VC managers (GPs) is that the VC industry is truly global. It would therefore be appropriate to open up the Limited Partnership establishing a FoF to all types of investors without geographic restriction.

There is considerable untapped potential. For instance, if the total size of a global investment fund is €2 billion, they may be willing to invest up to 5% of their global assets in European VC (€100 million).
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Geographic restrictions on investments in underlying VCs and on their investments in a portfolio of start-ups and SMEs.

Since the fund of funds would operate on a pan-European basis and the European Commission would be supporting the initiative, there would need to geographic restrictions as to the maximum percentage of firms in which underlying VCs can invest in start-ups and SMEs outside the EU (the EIF benchmark is one-third). It would not be appropriate to exceed this limit, given that a clear policy objective is to strengthen the supply of VC to innovative SMEs.

However, within the EU, a clear message through the interviews was that investors could be put off by a Commission-backed FoF that had too many geographic restrictions as to where each individual FoF can invest. For instance, the ARKmedes FoF in Belgium and FOND-ICI GLOBAL in Spain have a restriction that any underlying VC fund needs to invest in these funds at a local level. Conversely, other FoF, such as the UKIIF, allow greater flexibility. They require up to half of all investments to be made in UK firms, but the rest can be outside the EU.

The initial funding for a FoF would come from the European Commission (and possibly other public investors). Once FoF managers have been appointed, they would then be tasked as part of their mandate with carrying out a fund-raising exercise taking place over a period of up to 12 months. At the minimum, each FoF manager should be required to achieve match funding (i.e. a ratio of 1:1) from private sector investors.

Restrictions on where the funding comes from to invest in a FoF

A further key issue is whether any restrictions should be placed on the geographic provenance of funding. European investors should be the first to approach, but large institutional investors are not interested in regions per se but in the opportunities, risks and the ability to allocate appropriate tranches of funds. It will therefore also be appropriate to target international investors as part of the overall marketing strategy for the FoF programme.

On one level, if the objective is to attract as much private sector funding to the asset class as possible to boost the supply of VC to innovative firms, it would not be appropriate to place geographic restrictions / targets on where the FoF manager raises private money from.

However, clearly, if a disproportionate percentage of the funds raised come from outside the EU, and an asymmetric returns model were to be put in place, then there could be concerns among stakeholders about European money subsidizing ‘non-European’ investors’ returns if the structure is asymmetric. Nonetheless, throughout the interview programme, it has been stressed that the more flexible and non-prescriptive the structure, investment strategy, source of investors, etc. the better since an overly politically constrained fund of funds approach would put off returning investors from the European VC asset class.

One possibility is that a flexible target could be adopted of raising one-third of new private investment from outside the EU and two-thirds from within the EU (since this would also reflect the maximum percentage that a FoF or underlying VC fund benefiting from EU funding can invest outside the EU (at least this is the current threshold used by the EIF, which seems to be accepted by the VC community as providing sufficient flexibility to invest globally for diversification and returns purposes, whilst ensuring that a core focus remains the EU.

With regard to the second question as to whether any restrictions should be imposed on the sources of private funding, the feedback suggests that:

- There should not be any pre-determined restrictions in respect of the provenance of sources of funding. If restrictions are applied, a more aggressive asymmetrical return model will most likely have to be offered to compensate.
- This might attract investors focused on regional development but will be seen as less attractive to investors focused solely on return on investment.
Set-up issues

- There should not be any pre-determined restrictions in terms of the geographic provenance of investors (although as noted above, a flexible target of two-thirds fund-raising from within the EU and one-third from outside could be set.

- A number of common sense ethical principles could be built in to the selection of a fund of fund manager, who would then need to adhere to these principles in raising funding from the private sector and in selecting underlying VC funds to invest in. This would be appropriate since a FoF programme would be marketed as a European flagship and have strong visibility in the market.

- The overall suggested approach is summarised below:

Table 11 - Issues and key principles – funding sources and restrictions

<table>
<thead>
<tr>
<th>Issues and key principles</th>
<th>Funding sources and any restrictions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of investors</td>
<td>No constraints should be put on the sources of investment and type of investor <em>per se</em> i.e. investment should be welcomed from pension funds, institutional investors, sovereign wealth funds, Family Offices/ UHNWIs and university endowments.</td>
</tr>
<tr>
<td>Geographic provenance of investors</td>
<td>A pan-European FoF should not specify any geographic restrictions as to whether investors at the FoF level originate within or outside the EU. This will help to attract international investment.</td>
</tr>
<tr>
<td>Ethical principles</td>
<td>Basic industry-standard principles and practices should be adhered to so as to ensure that investment sources are ethical. The FoF manager should ensure that in raising risk capital, the types of investors from which funding sources are raised are not likely to risk reputational damage to the European Commission. For instance, investment from sovereign wealth funds that have a poor human rights record might be avoided. These criteria should be determined by the FoF monitoring committee set-up as part of the overall governance structure (the composition of the monitoring committee would consist of representatives form EC’s DG RTD and the EIB, with a minimum of 3 independent equity financing experts).</td>
</tr>
</tbody>
</table>

Optimal size of fund of funds and investment ticket size in underlying funds

Among the key issues considered in this sub-section are:

- The optimal size of a fund of funds programme
- The minimum and maximum size of investments in underlying VC funds and
- Estimates of the number of investments in actual start-ups and SMEs that a VC fund should make as part of an individual VC fund portfolio.

Optimal size of a fund of funds programme

Setting up a pan-European FoF programme could contribute to overcoming the problem of the small average size of European VC funds since such a vehicle should in principle be able to attract significant investments from larger investors, such as private fund managers and asset managers managing funds on behalf of third parties, institutional investors and sovereign wealth funds. This would be subject to a sufficiently commercial approach without too many constraints on the investment strategy being imposed, supported by marketing and investor roadshows prior to the launch of the FoF programme and individual FoF.

Among the feedback on the optimal size of a pan-European fund of funds is that:
**Set-up issues**

- In order to help boost the average size of underlying VC funds, FoF will need to be of a sufficient size to attract larger private sector investors e.g. US VC funds and asset managers, sovereign wealth funds.
- Interviewees have differing views on the size of a fund of funds programme and of individual FoF supported within it.
  - The overarching FoF programme - €500m – €2 billion
  - Individual FoF – the typical range of estimated optimal size of individual FoF was from €200 million to €500 million.
- Whilst a dedicated pan-European seed capital fund could be of circa €100-150 million in size (€50-75m may be viable if regional FoF were also operating).
- The minimum viable size of an early-stage VC fund operating on a multi-country or pan-European basis was €200 million and €250 million.
- At the top of the range, there were outliers, such an estimate that up to €2 billion per FoF was needed.
- Even if half the funds are raised from the private sector, and the rest from the European Commission’s Horizon 2020, it would not be possible to operate more than a small number of FoF, given the need to gain experience from the implementation of the first generation of FoF before considering whether to support a wider number of FoF.
- Large investors and fund managers expressed the view that critical mass is needed at the FoF level. Setting up larger individual FoF should help to achieved economies of scale and to reduce the management and administration fees of operating a FoF. This could help to reduce the impact of the double fees structure, which is one of the main concerns of large investors.
- The minimum ticket size of a very large asset manager or a sovereign wealth fund manager can be as high as €50 million or €100 million. Therefore, the greater the scale of the FoF programme established and of individual FoF (given that different fund managers have access to different investor networks), the greater the likelihood of attracting investors that would not otherwise look at the European VC asset class.
- Another variable to be determined is the number of underlying funds an individual FoF should invest in. This could be left open in the Call for Expression of interest. As a general rule, our research indicates that a typical number of VC funds a FoF may invest in would be around 25. However, the earlier the stage and the more uncertain the investment environments or sectors targeted are, the greater will be the requirement to reduce the number of VC funds under management and/or increase the number of investment executives within the GP management team.

Having taken into consideration the feedback, the suggested size and structure of the FoF programme is summarised below:
Set-up issues

Table 12 - Total size of FoF programme

<table>
<thead>
<tr>
<th>Pan-European Fund of funds programme – key parameters</th>
<th>Configuration of the set-up and operation of a Fund of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Target size of each FoF</strong></td>
<td>€100m+ at first closure and €250m - €300m at final closure. Could be enlarged through subsequent fund-raising rounds subject to performance expectations being met.</td>
</tr>
<tr>
<td><strong>Number of fund of funds</strong></td>
<td>4 or 5 within the FoF programme (1st generation).</td>
</tr>
<tr>
<td><strong>Funding sources:</strong></td>
<td><strong>At the FoF level</strong></td>
</tr>
<tr>
<td></td>
<td>• Up to 50% of funds raised from the public sector, including dominant role of EU as cornerstone investor.</td>
</tr>
<tr>
<td></td>
<td>• Minimum requirement for private sector capital fund raise (e.g. ratio of 1:1).</td>
</tr>
</tbody>
</table>

Although the size of individual FoF is relatively modest, there was a consensus among many stakeholders that several FoF of a minimum critical mass of €250 million - €300 million would be viable. However, this is the minimum size. There are two main alternatives in ensuring that FoF are sufficiently large in order to attract individual large investors (including international investors):

- **Alternative 1** - for large ticket investors, create a DIV in which they could invest at the level of the FoF programme overall. Among the benefits would be that SWFs or other large institutional 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 give them risk diversification, but one problem could be that it may create an additional layer of fees. It was pointed out that at the FoF programme level, if the funding from the DIV were simply divided up among the individual FoF then the level of fee at the DIV level would be negligible.

- **Alternative 2** – instead of advocating individual FoF of €250m-€300m, increase the size of the FoF and consult with leading private FoF managers to check whether a target fund size of €400m-€500m might be feasible.

Ensuring that individual FoF supported through a FoF programme are of sufficient scale to be able to make a difference to the average size of underlying VC funds will require significant long-term commitment from the EC as a cornerstone investor (and any other public backers of the FoF programme). Moreover, it may not be possible to achieve this aim through the first generation of FoF, but only through the success of a FoF programme over successive generations of FoF, given the potential catalytic effect in attracting the private sector back to the asset class.

Indeed, experience from the VCAP FoF scheme in Canada shows that a long-term approach is needed to generate the momentum necessary to secure fundraising against a target for both a FoF programme overall and for individual FoF. In the interviews with managers of the VCAP FoF programme overall, it was emphasised that there is a need to allow a sufficiently long time period for private sector fund-raising to progress towards FoF target size. There was also feedback that public sector actors involved in setting up FoF in Europe have often under-estimated how long it takes for private FoF managers to build interest and to generate momentum among their investor networks. Organising investor roadshows and securing investment commitments following negotiations with investors takes time.
Optimal investment ticket size in underlying funds

Some of the same issues raised in relation to fund of funds apply to attracting investors to underlying funds, which in turn has implications for the design and structure of the FoF.

As discussed above, many early stage VC funds in the EU tend to be too small to attract international or larger-scale private investors. This undermines the development and longer-term sustainability of a vibrant commercial sector active in European VC that could gradually supplant public sector intervention. At the underlying fund level, it will therefore be necessary to ensure that the ticket size is of sufficient size to be able to facilitate investment by large-scale institutional investors.

Large international investors will only invest in FoF (or in underlying VC funds) if they have a minimum critical mass. Investing small amounts in different VC funds would not be an efficient use of capital since there are disproportionate administrative costs involved, such as carrying out due diligence and subsequent monitoring. Large investors are also reluctant to make small investments in under-capitalised VC funds due to lower returns when investing in sub-optimal sized VC funds. Such funds moreover cannot attract the best performing fund managers.

In the table below, an assessment is provided on the typical size of underlying funds and on the minimum critical mass necessary to diversify risk. This is based on feedback from EVCA and other stakeholders.

Table 13 - Optimal size of underlying VC funds by investment stage, funding found and number of investments in portfolio of start-ups / SMEs

<table>
<thead>
<tr>
<th>Investment stage</th>
<th>Size of fund (€)*</th>
<th>Min/Maximium ticket size / investor (€)</th>
<th>Funding range (€)</th>
<th>No. of investments in portfolio of start-ups / SMEs</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seed and early stage capital VC</td>
<td>50m-75m</td>
<td>10-22.5m</td>
<td>Seed – 50,000 - 1m Early stage capital 500,000 – 5m</td>
<td>15-25</td>
<td>VC funds typically provide both seed and early stage (Series A). Many funds are too small to then provide follow-on funding for subsequent Series (B, C and D).</td>
</tr>
<tr>
<td>Growth stage VC</td>
<td>75m-150m</td>
<td>15-45m</td>
<td>3.5m –10m</td>
<td>15-25</td>
<td>Funding gap identified. Many VCs are unable to provide follow-on funding</td>
</tr>
<tr>
<td>Late stage VC</td>
<td>150-300m</td>
<td>30m-60m</td>
<td>5m – 25m</td>
<td>10-20</td>
<td>Considerable private funding has gone into expansion funds, less risk, higher profits. Few EU VCs here</td>
</tr>
<tr>
<td>PE Growth and Buy-outs</td>
<td>250m-1bn</td>
<td>30-60m</td>
<td>10m – 100m+</td>
<td>10-15</td>
<td>Since EVCA data shows evidence of significant private fund-raising, this market segment does not appear to need public support.</td>
</tr>
</tbody>
</table>

* Size of fund needed to achieve the minimum requisite critical mass to overcome problems of funding scale

**Maximum ticket size / investor – private investors will normally only invest up to 10% of their total fund in a single fund.

Another variable is the **minimum and maximum investment size thresholds**. Examples from a benchmarking assessment carried out to examine current thresholds of existing national and regional FoF found that there are considerable variations as regards the different levels of VC investment for FoF. For instance:
Set-up issues

- The typical VC fund investment size of the Danish Growth Fund (DGF) is US$ 1m-10m.
- In Sweden, under the Almi VC scheme, the minimum investment threshold in each company is lower at SEK 5 million (€ 556,000) but can be up to SEK 100 million (€ 11.2 million).

Different funds target VC investment in different ways. For instance, the DGF targets VC investment at Danish start-ups and early growth firms with internationalisation potential. Likewise, in May 2013, a new €175m Seed and Venture Capital Programme 2013-2018 was launched by Enterprise Ireland to provide additional funding for high-growth Irish companies with the potential to generate significant additional exports and to promote job creation. Conversely, in other countries, national FoF, such as the UKIIF, investment is targeted at priority growth sectors. In Spain, Altamar Private Equity is planning to launch a new FoF targeting national distressed real estate, reflecting private equity firms’ increasing attraction to one of Europe’s most distressed real estate markets.

Minimum and maximum levels of EU investment

A further issue raised in the Tender Specifications was: what should the minimum and maximum levels of EU investment be in a Fund of Funds or FoF programme?

The minimum and maximum levels of EU investment appropriate at the FoF level were analysed. The experiences of the EIF and national level FoF were taken into account to determine appropriate benchmarks. A further consideration was whether limits should also be set for FoF managers appointed when making investments in underlying VC funds. Among the findings were those:

Fund of funds level

- The EIB and EIF adhere to a rule that in order to remain within the scope of their mandates, the maximum percentage of their investment should not exceed 50%. This is in accordance with the principle that the percentage of financing provided by EU sources should not exceed 50%. This applies equally to fund of funds and to the underlying VC funds.
- In practice, the EIF/ EIF often strive to provide an intervention rate of less than 50% in order to generate leverage to make funds go further and to avoid market distortion. For example, the EIF put in €40m of the total €100m to establish the Baltic Innovation Fund (BIF).
- Whilst there is a clear maximum limit for EU intervention, neither the EIF nor the EBRD currently applies a minimum level of EU intervention. This would equally be inappropriate for a pan-European FoF programme.
- Strictly speaking, however, EIF funding does not count as EU public funding, given that the EIB Group has a different status from the Commission and EIF funding can be counted as private sector match.
- Below 50%, flexibility should be retained as to the percentage of EU investment that is needed to establish a fund of funds.
  - If some geographically targeted FoF are supported across particular regions that have a less well developed VC infrastructure, then there is an argument for a higher EU intervention rate.
  - Conversely, if a FoF is set-up focusing on more mature VC markets, the EU intervention rate could be lowered in order to maximise the overall impact of public funding.
  - This approach was used for instance in the first Australian government investments in VC through the Industry Innovation Funds, as well as the first public VC investments in the UK made through Enterprise Capital Funds.
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Underlying VC funds

Broadly, the same principles should apply to investments in underlying VC funds. There is less of a risk that EU investment exceeds 50% since the FoF manager would require that the underlying VC fund raise finance from a number of sources and would be unlikely to invest more than 30%-40% in underlying funds in less mature markets and 5%-15% in more mature markets. However, there are a number of further considerations:

- Experience suggests that the leverage effect on EU funding will vary significantly. VC funds (GPs) in less developed markets may find it more difficult to achieve fund closure than those focusing on mature markets. The EU intervention rate will need to be adjusted accordingly.
- The EIF takes a lower percentage of the total target fund-raise in successful VC funds operating in mature markets and has a long-established track record. This helps to avoid market distortion.
- Feedback was obtained on the optimal number of underlying VC funds that an individual FoF should invest in in order to strike an appropriate balance between risk diversification and optimising returns. It was stated that a FoF should invest in between 20-30 underlying funds.

The above principles could be applied by the European Commission in setting up and in providing financial support to a pan-European FoF programme. There is also a need to model the impacts of government funding in VC (see Jääskeläinen Maula and Murray 2007), the Performance of Incentive Structures in Publicly and Privately Funded ‘Hybrid Venture Capital Funds in Research Policy’.

2.6 Coverage and geographic scope

Coverage and geographic scope

Would it be more realistic to set-up one or more regional FoF, rather than a FoF or FoF at Pan-European level?

There are a number of potentially conflicting issues concerning the coverage and geographical scope of any proposed fund. Amongst the issues to be considered are the following:

- The need to keep any fund at a sufficiently large scale to attract larger amounts of private investment
- The effect of geographical or other constrains on the willingness of private investors to invest in a fund
- The extent of any constraints on the asset classes that a fund can invest in
- The importance of any policy objectives that public sector investors may have

In the following paragraphs we consider these issues further:

Geographical constraints

Here, there is a potential conflict between public sector policy objectives and the objectives of investors. The public sector may wish to direct funding towards particular geographical locations. An example is the ‘Vanguard Initiative for New Growth through Smart Specialisation’ an initiative of the political leaders of 15 European industrial regions on the future of industry in Europe that has at its core this idea of ownership and commitment. Not surprisingly, the regions concerned will wish to advance their own objectives.

The benchmarking exercise carried out for this assignment revealed that 33 out of the 51 FoF examined focus on a national market, while four have an international outlook and another 4 have a regional focus (see appendix E). At international level, publicly backed FoF schemes usually also include geographic limitations. In Canada, the VCAP scheme provides that a third of investments must be invested in Canadian companies and the FoF as well as the underlying venture capital funds must have a substantial presence in Canada. At the same time the set-up does not force the FoF to
Set-up issues

impose restrictions on underlying funds but can make it possible to fulfil the criteria by selecting funds that focus mainly on Canada. The Turkish Istanbul Venture Capital Initiative maintains that final beneficiaries must be Turkish entities. The Israeli Yozma scheme has a national focus, too. So do the US-based FoF assessed - Small Business Administration and SVB Strategic Investors fund family.

A significant advantage of a regional approach would be that it would allow the EU to offer a series of alternative FoF that could cater for differing investor interests and investment preferences and sectors generating an appealing added value to targeted investors (LPs). Similarly, it would allow the EU to realize explicit policy objectives, for example creating a FoF focused on the Mediterranean region could for example allow the EU to contribute to a policy of increasing venture capital availability in countries such as Spain and Portugal where there has generally been significantly less venture capital available than in the Nordic region or middle Europe.

On the other hand, the motivation on private sector investors is likely to be different. They will wish to invest in potentially profitable situations, wherever they are found. Geographical constraints are likely to make funds less attractive to investors. Investors have told us that some broad geographical constraints may not be unacceptable because they will wish to use this information to allocate assets. But locally based funds are unlikely to attract large amounts of investment.

Constraints on asset classes

The issue here is whether a fund can invest in a smaller number of asset classes or whether a wider investment remit is appropriate. Policy objectives may suggest that the funds invest in those asset classes where the supply of investment is perceived to be low – for example early stage risk capital. Investors' objectives will be to invest in profitable situations.

A fund that is limited to early stage investment may not be able to participate in further rounds of fund raising for successful companies. The classic model is that companies may need a number of fund raising rounds as they grow and develop. Funds which are unable to participate in later rounds may see their investments and profits diluted as other investors come in. This scenario would seem to suggest a mechanism under which funds are able to invest in later rounds as well as earlier rounds. However, it would be possible for private sector investors to take a greater participation in the later rounds and we return to this point in the section on risk sharing.

Historical information suggests that early stage investment can be less profitable that late stage investment. What might not be appropriate would be to mix asset classes with the objective of balancing early stage losses with later stage profits

Policy objectives

Determining the coverage of a European Fund of Funds is a complex and multi-faceted issue. At one level, a pan-European approach could offer a number of potential advantages, such as providing a structured regulatory framework, strengthening EU policy objectives with regard to promoting access to equity capital for innovative, high-growth start-ups and SMEs with world-class potential.

There are likely to be further EU objectives such as investing in SMEs, promoting a low-carbon and clean economy, and the development of environmentally-friendlier technologies and industry, innovation and efficiency. Although many stakeholders interviewed stressed the importance of avoiding prescriptive investment criteria or a sectoral focus, out of 54 FoF assessed for the benchmarking exercise (see Appendix E), 17 have a sectorial focus, often in areas such as ICT, life sciences, clean energy, technology, consumer products, advanced manufacturing.

In addition, as explained in detail in various parts of the report (e.g. see assessment of demand-side and supply-side risks in Section 2.1.2), a pan–European FoF programme could also help to achieve policy objectives relating to tackling supply-side market failures. However, as detailed in the intervention logic section (Section 3.1), it is crucial that the European Commission clarifies its objectives and the level of priority it gives to different perhaps conflicting policy objectives since this
Set-up issues

will affect the identification of a preferred policy option and the configuration of a FoF model and legal, set-up and operating structure, as well as the returns policy.

It is also important to reiterate a key issue raised earlier in the report in the assessment of stakeholder feedback on the different options, that there is a trade-off between achieving EU policy objectives relating to SMEs, growth and economic development, particular key sectors of relevance to societal challenges etc. and the imperative of attracting the private sector back to European VC and overcoming other structural problems in the market (small average fund size, difficulty in attracting international investors), which may demand a more commercial approach.

Overall, the greater the public sector policy constraints on a fund, the less likelihood of attracting private sector investment. Indeed, some stakeholders from the VC industry consulted for this assignment have cautioned that any sectorial focus, even on sectors perceived as carrying a high potential for innovation, such as life sciences, may be detrimental to the performance of FoF and may deter private investors.

o Are FoF tailored to the newer or less developed EU Members States possible? If so, how?

Many new EU Member States – but also longstanding EU members with less developed VC markets often have limited or no tradition of venture capital investment. In some cases, national legislation may need further development to fully cover the different gaps in taxation and regulation.

Interviewees provided feedback on this issue. Many stakeholders pointed out that the EIF already plays a very effective role in tackling market failures in markets and geographies within the EU where seed and VC is under-developed. The EIF’s role in developing capacity at the GP level through working together in partnership with new and emerging fund managers was highlighted in Section 2.2.3 - recent developments in fund of funds58. On the other hand, such FoF could offer the added value of investing in growing markets.

2.7 Fees and carry for fund of funds

Table 5 Fees: Key questions summarised

| • What fees are appropriate at the FoF level? |
| • What level of revenue should a FoF achieve to compensate for the additional layer of management fees? |
| • How best to ensure that public investment is sufficiently leveraged? |
| • What is the optimal level of carried interest (market average ca. 5%) and fees (market average ca. 0.5% to 1.5%) to be considered in the FoF design? |

Most investment funds contain a fee structure that comprises two elements, the management fee and a share of profits payable to fund (or fund of fund) managers, sometimes called carried interest or just carry.

On the cost side, venture capital funds tend to have higher expense ratios than funds which are invested in more liquid assets, such as loans and securities. The higher expense ratios of venture capital funds come from the fact that a more thorough due diligence is needed, investments tend to be more complex to negotiate, and often relatively smaller in size.

58 “Box 1 - Spotlight on the role of the EIF in FoF” refers to the EIF’s capacity-building role in less mature markets.
**Set-up issues**

**Management fees of VC Funds**

A broad benchmark in literature and through the interviews is that the managers of commercial venture capital funds are typically able to negotiate a management fee of 2% of the committed capital and a profit share of 20% after a certain hurdle rate has been achieved. A hurdle rate is a provision that requires that the partners recover their capital contributions and, often, a specified rate of return, before the general partner (GP) receives its allocation and distribution of profits through carried interest. The justification for the hurdle provision is that the general partner should not earn its carried interest until the partners who provided the capital to the partnership are repaid their investment and earn a return on their investment.\(^{59}\)

If the GP has made a capital contribution to the fund, they may or may not participate in distributions prior to meeting the hurdle rate. Thus, once LPs have achieved a return of for example 8% - which is fairly common - additional profit is distributed 80% to LPs and 20% to GPs.\(^{60}\)

The hurdle rate for VC funds the EIF has invested in is typically in the order of 6-10%. Managers of VC funds supported by the EIF receive three types of fees: (1) a set-up charge, (2) annual management fees, and (3) profit sharing. Set-up fees for the Funds in question were typically in the range EUR 0.25 to 0.5 Million. Alternatively, the figure would be based on a percentage of the value of the fund, e.g. 2.0% for one fund. There is in addition an annual management fee of underlying VC funds of between 2.0 and 2.5% of the capital committed by fund investors.

The fees for venture capital funds are relatively high compared to a typical management fee of 0.5% charged by an index tracking fund, with no profit share. It is clear that the underlying assets in a VC fund will have to perform materially better to provide the same level of return to investors. If there are two levels of fees in a fund of funds, then the required performance of assets will be greater.

The illustration below shows the substantial effect of fees on the net return to investors. The illustration is a simple analysis of three fee levels – ranging from 2% management fees with 20% performance fees, to 0.5% fees as used in index tracking funds. It assumes a 10 year fund life and steady growth (of course, most VC funds have a J shaped growth curve). But using these simple assumptions, we can see that on the higher fee assumptions, some 50% of gross investor return goes in fees. For a low fee tracker, only 7.5% goes in fees. In practice the calculations will be more complex but the general principles still apply.

**Table 65 - Illustration of effect of different fee levels on investor return**

<table>
<thead>
<tr>
<th>Management fee %</th>
<th>2</th>
<th>1.5</th>
<th>0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance fee %</td>
<td>20</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Fund life (years)</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial value</th>
<th>100</th>
<th>100</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final value</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Gross return</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management fees</th>
<th>30</th>
<th>22.5</th>
<th>7.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance fee</td>
<td>20</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Total fee</td>
<td>50</td>
<td>32.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Fee as % of gross return</td>
<td>50</td>
<td>32.5</td>
<td>7.5</td>
</tr>
</tbody>
</table>

Source: CSES

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59 https://vcexperts.com/

60 How the details of the management fee and carried interest are drafted can vary from fund to fund. See for example https://vcexperts.com/buzz_articles/189

61 For example, Vanguard ETFs charge 0.5%
Set-up issues

The interviews have pointed to two developments in fees for venture capital funds:

- The best performing funds are able to negotiate higher management fees, higher carried interest and a lower hurdle rate. They are able to do this because they have a track record showing that they historically have been able to generate a competitive return to the LPs even with such fees and carried interest. These managers in general do not have difficulties raising new funds. However, it is difficult to become an LP in one of these funds and requires the right contacts. These high performing funds are mainly the best performing American venture funds and only a couple of European managers are able to negotiate a management fee above 2% and carried interest above 20%.

- In general there is a downward trend in fees and carry. This is mainly caused by the relatively poor performance of many venture capital funds in recent years leading some people to conclude that the only ones making money on a consistent basis from venture capital in Europe are the managers. The trend is further accelerated by the EIF who as an essential cornerstone investor in many funds have substantial bargaining power and have been pushing for lower fees and carry. Interviewees have highlighted that EIF often will not accept fee and carry levels which private LPs are willing to accept.

There is also a tendency or large venture funds to charge smaller fees, 1.6-1.9%, reflecting economies of scale in running a venture capital fund.

There has been a considerable increase in the disclosure of fee information. In particular, the introduction of Key Investor Information Documents (KIIDs) by the European Commission has resulted in the summaries of the information being readily available to all investors in a consistent format. The KIIDs provide a good source of information on current charges. KIIDs are available both for directly invested funds, and for funds of funds. At the same time many of the general managers of both FoF and underlying funds we have interviewed have only disclosed information under the condition that specific details for specific funds were not disclosed in the report.

Management fees of FoF

Data on the management fees levied by FoF managers has been gathered through the benchmarking and mapping exercise focusing on existing FoF as well as interviews with FoF managers.

The fees and carry for FoF is typically smaller than for venture funds since the committed capital is much larger without the due diligence and monitoring tasks being proportionally bigger. The typical fee structure is a 1% annual management fee and 6-10% carried interest on profits. This compares with a typical fee structure of a 2% annual management fee and 20% carried interest on profits common among VC funds as mentioned above.

Many FoF managers were unwilling to provide data on their fees although a number were able to do so on a confidential basis. This confirmed the benchmarks mentioned above as the industry-standard trends in fees and carry, although there is some variation and evidence of downward pressure on fees.

According to interviewees, fees are often phased in over the first couple of years, to reflect the fact that actual capital invested is low during the early stage of a FoF’s existence. Likewise, the fees may be phased out towards the end of the FoF’s existence since fewer resources are needed to actively monitor investments in underlying funds. The management fee received by the Danish Growth Fund (DGF) for managing the FoF Danish Growth Capital illustrates this point. According to the accounts of DGF, a management fee of DKK 7.2 million was received in 2011, the first year of operation for DGC, increasing to DKK 12.8 million in 2012 and to DKK 13.2 million in 2013 and 2014.

The FoF benchmarking exercise and interviews with FoF managers identified significant variations in the management fee, which can be as high as 1.2% and as low as 0.6% annually. Sometimes, FoF with lower management fees have a higher carry rate of up to 15 percent. The economies of scale
involved in running a FoF means that the fees in % of committed capital will often be lower for the largest-scale FoF but the actual amount for management of the FoF higher.

In France, BPIFrance, one of the biggest publicly funded FoF managers in the EU, pointed to a trend towards lower tolerance among investors for the double layer of fees in a FoF structure. This has meant that management fees which have tended to be around the 1.1% level historically are lower for FoF launched more recently.

The Canadian government have introduced a public-private FoF model similar to the one advocated by EVCA and have raised four funds managed by experienced private managers. The fees vary slightly from fund to fund and are confidential but management fee is significantly lower than 1% but carry higher than the 6-10 % mentioned above as the industry standard. Despite the small variations the Business Development Bank of Canada (BDC), who are responsible for the programme, estimate the combined fee and carry to be about the same for the four FoF. BDC also estimate that international FoF managers in general probably have more favourable fees but that they then have less favourable terms regarding other aspects, e.g. carry. Data obtained from some of the most prestigious and best performing American FoF indicate fees and carry in the same ballpark as the Canadian with a tendency to being slightly higher.

In the experience of BDC it is important to drive a hard bargain with GP FoF managers on fees and carry in order to attract private sector investors. If the performance fees and carry are deemed too generous for the FoF manager, investors may insist on changes being made to the performance and incentives structures as an investment pre-condition.

There are examples of FoF that have a lower fees structure, such as the Danish Growth Fund for managing Danish Growth Capital. The capital committed to Danish Growth Capital is DKK 4.8 billion and according to the accounts of the Danish Growth Capital, the management fee in 2013 and 2014 was DKK 13.2 million per year. This equates to a management fee of less than 0.3 % of the committed capital. However, the Danish Growth Capital is a special case because DGF is both an LP and a GP. The Danish Growth Fund has invested 75 % of the capital in Danish Growth Capital so it could be argued that imposing a high management fee would take funding out of Danish Growth Funds own investment (see case study on the Danish Growth Fund for further details).

What level of revenue should a FoF achieve to compensate for the additional layer of fees?

An important issue relating to costs is the double layer of fee costs (underlying fund and fund of funds manager fees). A study to carry out an Early Assessment of the UK Innovation Investment Fund\(^{62}\), found that the issue of a double layer of fees is a real challenge for the FoF model, as well as the fact that there is often less direct investor influence at underlying fund level. Although this may deter some investors, whilst a commonly cited drawback of FoF is the double fees structure, the interview feedback suggested that elite FoF managers – whether public or private - can justify the additional fees because:

- Investors benefit from their experience in selecting top-performing VC fund managers.
- Investing through an intermediary can be especially attractive to international investors that either don’t know the European market, or are unfamiliar with the European VC asset class.
- International investors investing through a FoF structure do not have to set-up their own equity research team from scratch. Understanding the start-up and SME seed and VC ecosystem requires significant resource and expertise, and active, highly time consuming monitoring of investments.

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\(^{62}\) Early Assessment of the UK Innovation Investment Fund, Centre for Enterprise and Economic Development Research (CEEDR), Middlesex University Business School
Set-up issues

In other words, the double layer of fees was justified by many interviewees on the basis that the alternative costs are equally high. Literature has estimated that a team of two experienced investment professionals will cost on average approximately $400,000 annually. Therefore, an investor committing USD 40 million or below to a venture capital fund-of-funds would be paying the same or less in annual management fees as if they had hired them internally (under the assumption that the management fee will be 1% or less).

Moreover, investors would also benefit from outsourcing to a specialised firm with an established track record and greater professional depth. If a FoF manager charges a 1% annual management fee and 5% carried interest on profits the experienced venture capital fund-of-funds manager must be able to achieve an annual return 1% greater than what the investor could have achieved had it invested directly in order to cover its fees and carry. This can be illustrated by a simple calculation. If an LP is aiming for a net IRR of 20% and net investment multiple of 2.0x after all fees the FoF would have to achieve a 20.71% gross IRR and 2.16x gross investment multiple on its portfolio of funds in order to provide investors the desired return. Consequently, if a fund-of-funds can provide more than a 1% annualized Net IRR gain to that which an LP can expect of itself, then the investment in that fund-of-funds is worthwhile.63 The effect of the fee and carry on the net IRR and net multiple is illustrated in the table below.

Table 7 - The effect of the fee and carry on the net IRR and net multiple

<table>
<thead>
<tr>
<th>Direct Net IRR</th>
<th>Required FoF Gross IRR to Offset Fees and Carry</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00%</td>
<td>0.01%</td>
<td>0.01%</td>
</tr>
<tr>
<td>10.00%</td>
<td>10.78%</td>
<td>0.78%</td>
</tr>
<tr>
<td>20.00%</td>
<td>20.72%</td>
<td>0.72%</td>
</tr>
<tr>
<td>30.00%</td>
<td>30.72%</td>
<td>0.72%</td>
</tr>
<tr>
<td>40.00%</td>
<td>40.74%</td>
<td>0.74%</td>
</tr>
<tr>
<td>50.00%</td>
<td>50.78%</td>
<td>0.78%</td>
</tr>
<tr>
<td>60.00%</td>
<td>60.83%</td>
<td>0.83%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct Net Multiple</th>
<th>Required FoF Gross Multiple to Offset Fees and Carry</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.00x</td>
<td>1.11x</td>
<td>0.11x</td>
</tr>
<tr>
<td>1.50x</td>
<td>1.63x</td>
<td>0.13x</td>
</tr>
<tr>
<td>2.00x</td>
<td>2.16x</td>
<td>0.16x</td>
</tr>
<tr>
<td>2.50x</td>
<td>2.68x</td>
<td>0.18x</td>
</tr>
<tr>
<td>3.00x</td>
<td>3.21x</td>
<td>0.21x</td>
</tr>
<tr>
<td>3.50x</td>
<td>3.74x</td>
<td>0.24x</td>
</tr>
<tr>
<td>4.00x</td>
<td>4.26x</td>
<td>0.26x</td>
</tr>
</tbody>
</table>

Source: Square 1 Ventures

To offset the fees one FoF also mentioned that they overinvest the committed capital by 10%. Thus, if the fund has 100 million euros to invest they invest €110 million. If they achieve a net multiple of 2 the FoF get 220 million from the underlying funds. The €20 million stemming from the overinvestment equals a profit of €10 million. The €10 million represents 10% of the committed capital which is enough to cover an annual management fee of 0.7-0.8% for a FoF with a time span of perhaps 15 years. Returns are discussed further in the section on exit.

How best to ensure that public investment is sufficiently leveraged

The question of private leverage is also addressed in other sections of the report, including Sections 4.2.1, 4.2.2.1 and 5.1.1. As mentioned elsewhere, the FoF model has the advantage compared to most other models of being able to attract private leverage both at the FoF level and the underlying funds level, which would achieve double leverage.

63 https://www.square1financial.com/when-fund-of-funds-for-venture-work
**Set-up issues**

At the same time, experience from Denmark shows that some capital committed at the FoF level might displace capital that would otherwise have been committed at the underlying funds level thus reducing the net effect... However, it new large institutional investors can be brought in at the FoF level, for instance, international investors that had not previously invested in the European VC asset class, this would generate a significant additional leverage effect.

Through the interviews, the following factors were highlighted as key factors that influence how much private leverage can be attracted at the FoF level:

- **The extent of focus on maximising returns on investment.** If EU regional development or other socioeconomic restrictions exercise too much influence on the investment strategy, this would jeopardise the commercial viability of the FoF and reduce its ability to attract private European and international capital to the European VC asset class.

- **Flexible investment strategy** – many stakeholders emphasised that there should be no or very limited sectoral or geographic restrictions on investments.

- **Open and transparent criteria** for the selection of experienced private FoF managers.

- **Asymmetric returns** – especially favoured by FoF and VC managers. There was however only limited support for downside protection. Private equity is willing to share risks provided it can capitalise on the upside.

- **Balanced focus by investment stage** - there should be the option of investing a portion of the capital at later stages of investment which have historically generated higher returns than venture capital and where the risk is perceived to be lower. This would help to improve performance returns through a blended IRR combining multiple investment stages. The options of doing secondary and direct co-investments were also mentioned as features that would make the FoF more attractive to private investors.

** Carry and other types of incentives for FoF managers.**

As noted earlier, the business model for top-performing FoF managers and underlying VC fund managers is to derive income and profits from charging an annual management fee and secondly through performance-based carried interest (known commonly as “carry”). As noted in the introduction to this sub-section, carry is not guaranteed but is dependent on a pre-determined hurdle rate (or performance threshold) being achieved which is a requirement before any profits can be distributed between the GP and the LPs.

Having a share in the carried interest is clearly an important mechanism for incentivising FoF managers, although this should not be so generous that it might deter other investors from investing at the FoF level (to ensure alignment of interest). The overall income and profits generated by fund managers are heavily dependent on whether “carry” is achieved. Whilst FoF managers can operate successfully based on management fees alone, carried interest is often a primary motivator and potentially the profits generated through carry significantly exceed the fees.

As mentioned, the level of carry for the fund manager of a typical FoF is in the order of 10%. However, performance incentives structures will vary depending on who is managing the FoF, the objectives of those establishing the FoF, whether set-up by the public sector, etc.

The British Business Bank emphasised the importance of not setting the hurdle too high so as to attract the best FoF managers from the private sector.

In the EIF Fund of Funds programme, the EIF is often not only the cornerstone investor but also the FoF manager. Whilst it may set a commercial IRR target, there is no carried interest in the incentives structure at the FoF level.
**Set-up issues**

However, the EIF recognises the importance of carry for the underlying funds. "Every Manager benefits from 20% of the Fund’s profit, “carried interest”, and this is the key incentive which aligns the interest of the Manager and the investor. Furthermore, it is normal for the Manager to make investments in the Fund itself. However, this investment is usually only 1% of the fund, and the return on that is insignificant compared the effect of a 20% carry in a successful fund. This carried interest becomes payable after the original capital has been returned, plus a minimum return, referred to as the hurdle rate."

A FoF manager with experience in investing in less developed VC markets pointed out that it might be more attractive for FoF managers to have a bonus system based in broader market development goals in place instead of carry because the first FoF might not achieve high returns in immature markets.

**Optimal level of fees and carried interest**

As mentioned few managers have been willing to disclose their fee and carried interest but have confirmed industry standards as described above. At the same time most of the FoF managers who have disclosed actual figures have provided figures below the industry standard of 1 % fee and 5-10 % carry. Based on the analysis of inputs from desk research, interviews and benchmarking the conclusions regarding optimal fees and carried interest can be summed up to:

- There are some economies of scale involved in running a FoF so optimal fee and/or carry could well be varied according to the size of the fund.
- The fee tends to be smaller for other types of FoF than venture funds so the optimal fee and/or carry could also depend on whether the FoF is solely dedicated to venture capital or also open to for example small cap or mid cap.
- FoF managers often manage several dedicated investment vehicles and that it might not be advantageous to have significantly lower fees and carry for one vehicle since the manager than will have less time to dedicate to this vehicle and have a weaker performance incentive for this vehicle compared to other vehicles.
- The (limited) data we have been able to obtain indicates that an optimal fee which would be attractive to both experienced managers and acceptable to institutional investors seems to lie below what is quoted as the industry standards - around 0.6-1.0 % of committed capital and a carry of 5-10 percent.

2.8 Risk sharing and Pari passu

Issues relating to risk sharing and the appropriate model for a FoF scheme are now considered.

Among the factors for consideration in setting up a possible pan-European venture capital scheme is whether the optimal investment structure for individual FoF set-up within a FoF programme is on a pari passu basis, in which all investors have equal rights, or whether an asymmetric return model, where, for instance, the private sector captures the potential upside beyond a certain level of profitability is appropriate.

The interests of public sector and private sector investors may not be identical and there is therefore scope to structure the design of financial instruments so that the risks to each party relate to their objectives. For example, the public sector may seek greater certainty of return in exchange for giving up the possibility of high returns. However, there are state aid rules that in theory prevent the private sector from being given overly generous terms, and many schemes operate on a pari passu basis.

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64 Evaluation of EIF funding of Venture Capital Funds – EIB/ETF Mandate, December 2006
65 Pari passu is a Latin phrase that means “on an equal footing”. It is translated as “ranking equally”.
**Set-up issues**

Detailed information is also provided in Section 4.4.2 - 4.4 pari passu vs. asymmetric distribution since the question of incentives (for fund managers and to attract investors) is relevant both at the set-up stage in respect of FoF legal structure and to the heading “exit mechanisms and returns”.

**Examples of pari passu models**

Pari passu has the advantage that it is fair to all parties, since no single party has incentives different from any other investor. The typical pari passu model adopted in a co-investment structure (hybrid fund) in which the government co-invests in a VC fund operated by private investors is shown in the following diagram:

**Figure 8 - Pari passu model**

![Pari passu model diagram](source: Gordon Murray and DAMVAD)

Pari passu is currently the preferred model for most FoF that have been set-up in the past 10 years by the public sector in the EU. For instance, in the UK, UKIIF has invested £150m of public funds on a pari-passu basis on an equal footing with matched £180m of private funds. In Denmark, a 2014 *Evaluation of the DGF* noted that the DGF uses a pari passu arrangement for the distribution of any net capital gains made on its funds’ investments between all limited partners (LPs). However, the evaluation noted that this can make it more difficult to attract private investors to seed, start-up or other early-stage venture capital opportunities. There may be a need to consider additional incentives for the private sector, given poor historic VC returns, particularly for technology-based VC funds in the past decade. It may be difficult to attract VC funds without additional incentives.

Indeed, developments such as the implosion of the ‘dot com’ bubble in the early 2000s and the severe global and economic financial crisis from 2008 have further knocked confidence among potential VC investors. The limited exit opportunities during the crisis have highlighted the higher level of risk in VC investment, which some commentators argue is inadequately reflected in pari passu rules.

**Asymmetric models - introduction**

If the aim of a FoF is to attract the private sector back to the European VC asset class, then public sector investors may accept an asymmetric model that could take into account the different objectives and performance expectation returns of the public and private sectors.

An asymmetric model is one in which performance returns may be structured in such a way that the private sector is allowed to capture a lot of the performance upside, in return for allocating capital...
Set-up issues

to the European VC asset class. Asymmetry relates not only to the structure but also to the timing of returns\(^6\) between the public and private sectors.

Among the arguments in favour of an asymmetric model for a possible future fund of funds are:

- **The need to provide an attractive returns structure** for private investors back to European VC through a favourable returns structure;
- **The difficulty in attracting high IRR set-up for the fund of funds** unless there is either a higher IRR set-up by, or with significant funding from the public sector without incentives.
- **Private sector investors may well look to participate in high returns at the expense of some risk**, whereas the public sector, and some pension funds, may look for more certainty.
- **The importance in order to attract international capital** of attracting globally-leading fund/FoF managers by ensuring that there is an appropriate returns structure (measured in terms of the level of carry and fees);

With regard to stakeholder feedback on this issue, a number of private fund managers were also in favour of asymmetric returns for investors on the basis that publicly backed FoF typically set a lower IRR than would be commercially acceptable. This would be insufficient to attract either private sector investors or leading fund managers.

EVCA has also argued that there should be some flexibility as to how the rules on pari passu are interpreted so that there is an incentive for the private sector to invest. Indeed, in its November 2014 position paper on setting up a European FoF, EVCA states that an asymmetric FoF structure would be preferable to pari passu, given the difficulty in attracting private investors in recent years to the European venture capital sector.

**Examples of asymmetric fund of funds**

The predominant model for fund of fund structures in Europe supported by public sector funding is pari passu. This also applies to the EIF’s fund of funds programme, and obviously to co-investment programmes. However, an asymmetric approach has been adopted in Denmark by the Danish Growth Fund and in Canada through the VCAP FoF programme (case study 1). The Yozma scheme in Israel also used asymmetric returns, although it was pointed out that the scheme was set-up in the 1990s in specific circumstances, where there was a need to kick start the VC sector and to take advantage of the commercialisation potential of defence spending where there were civil applications of innovation.

**Table 87 - Examples of asymmetric returns approaches:**

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Asymmetric returns approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danish Growth Fund, Denmark.</td>
<td>Pension funds invest into a VC fund. The nature of the pension fund investment is a loan, 75% guaranteed by public funds. The loan receives interest. Thus, the available public sector funds are leveraged although there is a contingent liability to the public sector in the case of major loss.</td>
</tr>
<tr>
<td>Venture Capital Action Programme (VCAP FoF programme, Canada).</td>
<td>In Canada, a system of asymmetric returns has also been adopted. Although some data is confidential, the broad approach in terms of the returns to different types of stakeholders has been analysed. The private LPs have first priority in returns up to a certain percentage (&lt;10%). Then the public sector</td>
</tr>
</tbody>
</table>

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\(^6\) See Jääskeläinen Maula and Murray 2007 Performance of Incentive Structures in Publicly and Privately Funded ‘Hybrid Venture Capital Funds Research Policy
**Set-up issues**

When the public sector has received their share, the private sector again has priority in any further returns. So the private sector has a small priority return and then a larger potential upside.

FoF managers who take part in a Call for Expression of interest could be invited to indicate how they would like to structure the division of profits and losses. In particular, fund managers could be asked to indicate:

- **Periodic fee rates and carry** (e.g. VCAP in Canada, these are negotiated with each FoF manager on a case by case basis).
- **Their proposed returns structure**, possibly divided by different tranches of the fund. It could be made clear that asymmetric returns were acceptable.
- **Early exit arrangements and any fixed return for part of the funds**
- **The set-up costs associated with establishing the FoF during the initial inception period, and the amount to be covered by the Commission.**

In the following Figure, the chart shows how capital flows between the European Commission, investors (the LP), and the FoF manager might work. This provides only an illustration and the hurdle rate and percentage split between the EC and private investors can be varied in the model.

**Figure 9 - Illustration of asymmetric model and level of returns if hurdle reached and carry achieved**

![Diagram of capital flows](chart.png)

*Source: ADVEQ management*

The model assumes Carried Interest (FoF) of 10% at the FoF level (compared with the common industry standard of 20% carry for the GP managers of underlying VC funds) and a hurdle rate of 4%. The chart also shows that under a “non pari passu” approach, if the FoF performs well then the returns mainly go to investors as an incentive for them to invest in European VC. A concern during discussions in the past on the possible setting up of a pan-European fund of funds is that the FoF manager would receive a disproportionate percentage of total returns. It remains the case that the level of carry will still need to be sufficiently high to provide a major performance incentive to attract the best-performing FoF managers.
**Set-up issues**

In the following Figure, an illustration is provided showing the participant returns split depending on the Investment Multiple achieved.

**Figure 10 - Illustration of participant returns split**

![](image)

*Source: ADVEQ management*

A number of scenarios have been identified through the research, as summarised in the table below. Some alternatives are based on existing examples of asymmetric return structures put in place to attract the private sector to invest in fund of funds. Other possibilities were suggested by interviewees, as summarised in the following table:

**Table 98 - Alternative approaches to structuring an asymmetric model for a FoF**

<table>
<thead>
<tr>
<th>Alternative approaches</th>
<th>Description of approach</th>
</tr>
</thead>
</table>
| Low, fixed return to the EC | • A low-fixed, preferred return to the European Commission.  
• After this return has been met, private sector investors would then capture the rest of the upside and boost the returns of the fund. |
| Allow early exit for the EC once certain performance hurdles met | • Allow private investors the option to buy-out the European Commission at a fixed attractive rate capturing all the upside of the fund.  
• This could be exercised at a certain point in the life of the fund allowing the EC (and any other public investors) the opportunity for early exit to recycle funds back into a new generation of fund of funds. |
| EC could cover the costs (set-up, management fees) of establishing each FoF | • Shortens the time span to establish a FoF structure.  
• Long-term FoF commitments promote the emergence of a viable privately funded venture capital industry with a focus on investment in companies that are in the early stage of their development. |

However, it will be important to ensure in considering this issue that appropriate state aids issues and the risk of creating moral hazard are examined. A further issue for consideration is the timeframe over which an asymmetric model is expected to be needed. Over time, assuming that the FoF is well managed and performs well, the level of asymmetries could be gradually adjusted downwards (assuming competition from private sector managers to participate in a Call for Expressions of Interest from fund managers).
Set-up issues

The proposed approach will need to achieve a balance between making any such EU investment scheme in venture capital sufficiently attractive to the private sector, whilst ensuring that value for tax payers’ money is achieved and relevant state aid rules are adhered to. Any form of asymmetric return will have to comply with the EU financial regulation and with other legislative requirements including state aid rules.

2.9 Selection procedure for experienced FoF manager: open call for expression of interest

In order to set-up and operate a fund of funds, good practice suggests that an experienced FoF manager that is used to attracting significant private sector investment to help achieve leverage on public sector funds need to be recruited. In order to identify a suitably qualified candidate and/or fund that would be willing to take on this responsibility, consideration will need to be given to the most appropriate recruitment and selection criteria and to a series of issues. These issues are addressed below.

○ How should the selection procedure to appoint a FoF manager be designed? How best to attract experienced, private-sector FoF managers with a track record?

There are two main alternatives as regards recruiting a suitable FoF manager. One option would simply be to launch an open recruitment exercise for a suitable candidate. A second option, and one which is currently being used by the EIF in relation to the implementation of the JEREMIE financial instrument67 would be to launch a “Call for Expression of Interest for the Selection of Financial Intermediaries”, (http://www.fei.europa.eu/calls_for_expression_of_interest/). A Call for Expression of Interest is targeted at financial intermediaries, whether public or private, and who are interested in managing a fund of funds on behalf of the European Commission. A similar approach is taken in Canada for the public FoF scheme “Venture Capital Action Plan”. Each applicant can only manage one fund68 (for further information, see Case Study 4 on VCAP).

Among the lessons learnt from setting up previous national / regional FoF is that rather than recruiting an individual or small team, given the technical and managerial complexity, and the need for specialist investment expertise, setting up and operating a large FoF is best managed through a delegated agreement between an EU institution and a private sector fund manager specifying arrangements for outsourcing fund management responsibilities, the frequency of reporting processes, etc. Contracting out of fund management is the most common, but not the only model for publicly financed, public-private national and regional FoF. An example of a draft model delegated agreement specifying the responsibilities of a fund manager has been developed for the EASI micro-credits scheme operated by the Commission (further details on the relevance of “analogous developments” is provided earlier in Section 3.1)69.

○ What selection criteria should be used, and with what weightings?

A range of selection criteria can be used in the procedure of selecting a general partner for a publicly backed FoF. Quite often (for example, in the case of the EIF), the very same criteria are used for the selection of underlying funds to invest in.

The selection criteria for investments in underlying funds are:

- Must invest exclusively in SMEs

67 The JEREMIE instrument to support Member States, especially in EU 12 countries, but also in some EU15 countries, involves the provision of specialist support to help manage co-investment funds funded through the European Structural and Investment Funds.
68 http://www.fin.gc.ca/vcap-pacr/gpc-eng.asp#s01
Set-up issues

- Independent and well-balanced fund management teams with complementary Venture Capital, technology and industry experience and grounded in the target region
- Coherent investment strategy taking into account the know-how of the team as well as fund size and the geographic, industrial and technological focus of the fund
- Commercially viable fund sizes for team stability and the fund’s shooting power concerning investments and follow-on financing needs
- Appropriate incentive for the whole team
- Pari-passu treatment of all investors
- Fund should follow commercial investment approach
- Clear legal, tax structure, market standard terms and conditions

Fund of funds managers need to fulfill these additional criteria (taken from Baltic Innovation Fund as an example):

- Track record in the targeted investment area
- The fund is capable of attracting further private finance from other investors, e.g. pension funds, which should at least match EIF allocation
- All stakeholders in a fund have their interests aligned

The importance of a previous track record is also stressed in a French non-paper\(^\text{70}\) which makes the point that investors who were previously entrepreneurs themselves have the credibility and characteristics pointing to likely success.

Outside the EU, similar conditions are applied. For example, in Turkey, FoF need to meet the following conditions in order to receive support from the Treasury\(^\text{71}\):

- Fund raiser must have at least 2 years of experience in the management of a venture capital fund or a fund of funds or serving at the upper level management or being represented in the board of directors of a company whose annual net sales are above TL 25 million,
- Portfolio manager must have a management team including at least one person all the time who has the qualifications stated below:
  - Having made decisions to invest in at least 5 different companies in the field of venture capital or venture capital funds,
  - Having made at least one successful exit within the last 5 years by making profit from the investment decisions made for companies or venture capital funds.

If these necessary conditions are met, applications are assessed according to the following figures:

- Return of the previous venture capital investments made by the fund raiser and/or portfolio manager
- Ratio of the previous technology focused investments to total investments made by the fund raiser and/or portfolio manager,
- Ratio of the previous investments made through venture capital funds or directly in target companies to total investments made by the fund raiser and/or portfolio manager,
- Management costs of fund of funds.

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\(^\text{70}\) The Case for a European Venture Capital Fund for Innovative Companies - French non-paper on VC Fund of Funds

\(^\text{71}\) Art. 4.

[Link to Turkish Treasury's guidelines](https://www.hazine.gov.tr/File/?path=ROOT%2F1%2FDocuments%2FGeneal+%C4%B0%C3%A7eri%2FUFKA%2FUFKA_BKK_Inglizce.pdf)
Set-up issues

In Canada, the publicly backed Venture Capital Plan (VCAP) maintains that general partners need to meet the following selection criteria which are comparable to the ones used by the EIF:

- substantial presence in Canada, which will include at a minimum, in Canada a principal office of the firm that is an active investment office and which is staffed with senior investment professionals
- experienced investment team with a proven track record of success in:
  - managing funds of funds, venture capital funds or other investment entities;
  - identifying investment opportunities, investing in and creating value in VC funds and/or in the successful operation of VC funds, including a successful track record of direct investments;
- in-depth knowledge and/or direct investment experience in the Canadian market,
- ability to support and develop existing Canadian VC fund managers; and
- ability to attract long-term capital to be invested in the venture capital market in Canada.

It thus emerges that geographic presence, knowledge of the target market, track record, well- composed team should rank high in the list of criteria used when setting up a pan-EU FoF. While these and other selection criteria appear to be used across different FoF, the question of their weighting is harder to answer. Stakeholder interviews carried out in Denmark suggest that all criteria need to be met which essentially makes a ranking superfluous.

- Would it be advisable to select more than one FoF manager for the same FoF in terms of achieving a wider outreach and greater diversity of investors targeted?

Through a Call for Expressions of Interest, more than one FoF manager should be selected since the aim will be to put in place a fund of funds programme. Following the launch of the first generation of a FoF programme, subject to additional EU funding being available, in subsequent programming periods, second generations of FoF could be launched.

Joint responses from private sector fund managers and/or from a combination of public and private sector fund managers should be accepted in response to the call for expressions of interest. This would have the advantage that FoF could achieve wider outreach and diversity in the investors targeted. A disadvantage however is that there need to be very clear and transparent lines of accountability within overall governance and chain of accountability structures and involving multiple fund managers for a single FoF risks confusing the picture. An alternative is that adopted in the UK through the UK Innovation Investment Fund (UKIIF), whereby there is an umbrella fund of funds - and then two FoF sub-funds have been set-up, each managed by a different fund manager (e.g. Hermes GPE manages the Environmental Innovation Fund while the EIF is the fund manager of the UK Future Technology Fund working in conjunction with the British Business Bank.

- Given the strictures of the Financial Regulation, would it be better to opt for a public-sector FoF manager?

Clearly, the model adopted in a number of Member States of contracting out management responsibility to private sector fund managers that are commercially focused does not sit easily with the requirements in the EU Financial Regulation. However, we understand that changes have recently been made to the EU Financial Regulation which may allow for greater flexibility. This issue will therefore need to be explored in greater depth. One way around this problem would be simply to delegate responsibility for implementing the FoF to the EIF, which already has extensive experience, and can reinvest any commercial gain back into FoF to help increase the supply of venture capital in Europe.
Set-up issues

- **How can conflicts of interest, for example with an entrusted entity, be best avoided?**
  
  Conflicts of interest will clearly need to be carefully managed, given the potential reputational risks. However, since the Commission will be drawing up the Call for Expression of Interests and then subsequently also defining the requirements for the delegated agreement with a fund manager or other trusted financial intermediary or organization such as the EIF, conflicts management can be built into the contract that outsources responsibility for the management of the fund.

- **How long should a call be open in order to allow potential FoF managers to develop a compelling investment strategy as part of their bid?**
  
  The timing of the duration of the call should be sufficiently long so that potentially interested FoF managers can develop a compelling investment strategy. However, there may be imperatives relating to the timing of a set-up of a new FoF so as to increase the supply of risk capital that also mean that the call should not last more than several months at most, given the stated intention to explore the scope for commencing a FoF from 2016, or at least undertake piloting.

- **Would it be sensible to involve external experts in the selection process, and if so, how could this be done while avoiding conflicts of interest (and the perception of such conflicts)?**
  
  There are likely to be practical challenges in organizing the call and the selection process, in particular the question as to whether external experts should be involved in the selection process. Clearly, there is a need to ensure that there is adequate technical capacity within the selection committee to ensure that all the technical complexities and different elements of the value proposition of the different bids are thoroughly considered. The EIF could evidently bring neutral expertise, but given the need to transfer knowledge and capacity to the Commission, external experts, such as those already operating national fund of funds could be brought in. All experts working on selection should be asked to sign a statement relating to the absence of conflicts of interest and should any conflict arise, the Commission should be informed immediately.

- **Would it be feasible and advisable to couple the launch of one or more FoF with a capacity-building measure for FoF managers and managers of underlying funds?**
  
  The research suggests that at the FoF level, it would not be necessary to provide capacity-building measures for FoF managers, since there are many experienced FoF managers and VC managers that could apply to operate individual FoF that have a long and extensive track record.

  However, there are arguments in favour of capacity-building measures for prospective VC managers – and possibly also for a dedicated FoF scheme to provide funding so that new managers can operate micro VC schemes. This issue is explored further in Section 4.3 (analysis of the different options) in particular through sub-option 4.4. Reference should also be made to the case study on the EBRD’s capacity-building programme in the Baltic States, which is the subject of a case study (see Appendix B).
3. OPERATIONAL ISSUES

Issues relating to operating fund of funds once these have been set up are now considered.

3.1 Management and operating model

As regards the most appropriate management and operating model, the ‘typical’ model of a fund of funds involves a combination of public and private sector funding (although there are also many examples of FoF that only use public or private funding sources). Responsibility for day to day management of the FoF and investment in individual SMEs is commonly delegated to experienced private sector fund managers with experience of making venture capital investments and expertise in assessing risks. This is the model that has been utilised for instance by the UK Innovation Investment Fund, where the two different FoF are managed by two different private sector managers.

However, the Danish Growth Fund (DGF) is an example of a nationally financed initiative to strengthen the long-term provision of VC which is managed directly. DGF is a public financial institution. A recent 2014 evaluation of the DGF found that capacity to manage VC funds directly has been strengthened over time, since the DGF has supported “capacity building among Danish fund managers and the development of a sustainable VC ecosystem. The FoF have attracted private investors to the funds and subsequently helped to develop expertise across the various management teams. However, the evaluation also notes that less positively, “DGF’s management needs to provide a convincing argument to explain why DGF should continue to engage in direct VC activity”.

The different operating models that have been adopted by different FoF across Europe already in existence at national level will provide a basis for comparing the relative advantages and disadvantages of the different funds. It will also be important to assess the question as to whether FoF that are set up by the public sector should be allowed to engage in ‘direct’ venture capital investment activity or should delegate FoF management activities to professional, private fund managers.

When setting up a FoF, the General Partner and Limited Partners should agree on a financial plan which should include projections for capital calls, investments planned, costs and fees, budgeted exits, and distribution of exit proceeds (more on the latter in section Error! Reference source not found.). In a typical FoF structure, during the lifetime of the FoF, the GP can propose a modification of the financial plan of the fund to the board of directors.

Box 10 – Ex-ante evaluation

The EU Financial Regulation provides that an ex ante evaluation must be carried out for all financial instruments set up by the European Commission. Financial instruments need to be comply with certain criteria, as specified in Article 140 of the Regulation:

1. Sound financial management, transparency, proportionality, non-discrimination, equal treatment and subsidiarity, and in accordance with their objectives and, where applicable, the duration established in the basic act for those financial instruments
2. Financial instruments need to address market failures or sub-optimal investment situations
3. Shall be additional rather than replacing Member State, private or other EU funding
4. Shall not distort competition in the internal market and be shall be consistent with State

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72 Evaluation of the DGF, Evaluation of activities, 2010–2012 in collaboration with Gordon Murray and Marc Cowling
Operational issues

5. Shall aim at mobilising a global investment exceeding the size of the Union contribution – the evaluation shall specify a target range of values for this leverage effect.

6. The Commission needs to ensure that there is a common interest with potential entrusted entities in achieving the policy objectives defined for a financial instrument, possibly fostered by provisions such as co-investment, risk-sharing requirements or financial incentives.

3.2 Fund Duration and Sequencing

There is a debate about the duration of a FoF, with two distinct approaches:

- A FoF of fixed term duration.
- An ‘evergreen’ fund with a significantly longer lifespan that finances itself based on performance after an initial injection of capital.

The majority of VC funds are of fixed term duration. The lifetime of a typical FoF varies. EIF FoF are typically set-up for a period of 16 years, which includes an investment period of 4 years to select the underlying funds and a 10 year period during which firms benefiting from equity investment receive funding by different investment stage to support their evolving growth and development needs. There is then a period of up to several years for divestment of investments. However, through the mapping of FoF carried out by our team, we have identified examples of national FoF with a much shorter 10 year lifecycle (e.g. TANEQ, EL). Some FoF schemes are as short as 6 years in duration (e.g. Ireland Seeds and Venture Capital Scheme).

Under a fund structure of fixed duration, which has been the traditional model in VC, the capital is invested once during the investment period (which ranges from two to five years). If early exits are made from particular investments during the operation of the fund, there may be profit distributions to investors, but these are irregular and difficult to predict, hence why VC investing does not appeal to all investors.

At the end of the lifetime of the underlying VC funds, all the proceeds are distributed, less the fund company’s performance fee (‘carry’) and the expenses back to their institutional limited partners. This is a fundamental characteristic of the limited partnership (LP) fund structure. An interesting effect of this mechanism is that venture fund managers could be reluctant to invest in low or medium risk opportunities that might deliver a modest return due to the need to ‘cover’ their fees, repay investors, and earn a sufficient performance goal.

The long duration of VC funds, and the difficulty in exiting prematurely is a subject of criticism - especially from private LPs who would ideally prefer to shorten the fund duration period to have access to the return on their investment. Public LPs are generally more likely to prefer certainty of returns over a shorter duration. Much of the upside value of VC investment in SMEs is generated through a relatively small percentage of investee companies during the later stages of investment. Some VC managers have therefore expressed concern that Europe may lose out in capturing the economic and employment upside if FoF are of too short duration. The approach to divestment is reasonably similar at the FoF level. Commonly, following the 10+2 years operation and divestment of
the underlying funds, the FoF has a 2-3 year period to divest of their investments in underlying funds. However, in early-stage VC where there is greater uncertainty around the development of underlying companies, the 10+2 model may at times conflict with investment cycles and thus a greater degree of flexibility may be required.

Having a short and defined investment cycle of a fund also has its drawbacks. Creating a profitable FoF takes time and requires the management team to gain knowledge of the different markets, sectors and stages they operate in. A newly established FoF without track record will likely take more than one cycle to yield return, which is why a limited duration fund structure, as preferred by some LPs, may prove problematic in the long run and might not be sustainable for institutional investors (especially if it is based on asymmetrical conditions). Ian Carew of Canadian FoF NCVA estimates that a FoF need at least three cycles, of approximately 10 years, to establish a track record and good return, otherwise fund managers need to fund raise without having results to show. He emphasis that continuity is vital for a FoF to be sustainable for all parties. National experts in Sweden, Denmark and Finland also suggest that individual fund cycles must be at least ten, but preferably over 15 years to generate enough return and to acquire sufficient stability to become sustainable.

**Timescale**

The diagram below shows the main steps – and a provisional timescale - for the set-up and operation of a fund:

**Figure 11 - Timeframe of a fund of funds and of the underlying VC funds**

In summary, the principal stages of setting up a fund of funds are:

- **The set-up stage** – including the design of the fund and the selection of the manager
Operational issues

- **The funding stage** – both public sector funding and seeking to attract private sector funding. The funding stages will run over a number of years for FoF and the objective will be to have sufficient funds available to be able to invest in attractive opportunities.

- **Investments** – likely to be over a long period, perhaps 10 years if a number of funding rounds are supported.

- **Divestments** – divestments may take place at any time when attractive terms might be available. The more profitable divestments are likely to be later in the fund life, and towards the end of the fund life it may be necessary to dispose of marginal investments so the fund can be finalised.

With regard to budgeting, within the above timescale, a period of up to 5 years could be allowed for the investment period, thus allowing funds to be accumulated over a longer period.

An **evergreen** fund is an alternative approach. The advantage of an evergreen fund is that funds can be directly reinvested back into the fund at any suitable point in time when optimal opportunities present themselves for the divestment of investments in individual businesses through trade sales, MBOs, etc. A further merit of evergreen schemes is that once the initial fund-raising has been completed, if money is reinvested and the FoF grows over time, there is no particular need for further fund-raising. Furthermore, SMEs can apply for funding at any time rather than at specified times during the early period of a FoF’s operation upon completion of funding. This can be helpful in ensuring that SMEs have access to sufficient VC on an ongoing basis rather than at particular points in time during a fund lifetime. Another advantage over limited funds is the stability provided by a long term structure and fund management organisation. Evergreen funds allows for the development of in-depth know how and expertise within the fund which can, in turn, create spillover effects for other FoF, as the skills of the management team are naturally diffused within the sector.

The evergreen model is pointed out as preferable by many respondents, especially respondents from the Scandinavian countries, because of its durability and sustainability in comparison to other fund set-ups. Closed end funds are perceived as inferior as they are more volatile and have higher risk. It is further believed that an eventual pan-European FoF that is large in scope and wide in focus needs to have a longer than usual duration to achieve significant return of investment.

An evergreen fund approach has been used as the preferred structure in some Member States, especially in Scandinavia (e.g. Danish Growth Fund, Almi regional FoF scheme). It is also growing in popularity in the United States’ VC industry. Experience from the US indicates that a generation of investors will need to pass through the market before sustainable VC infrastructure can be developed. Some stakeholders suggested that there could be a 25-30 year time horizon while others believe that up to 70 years of experience is required before national systems are able to support a sustainable VC industry without public sector intervention. This is based on experience from the US (for example, the early industrialists linked to the Wallenberg family investments in the 1930s) and to a lesser extent from selected EU Member States. At the minimum, a co-investment period of at least 10 years is needed to catalyse sufficient resources to create a strong, sustainable fund, in which the returns from initial investments are recycled back into the fund on a rolling basis so as to grow the pool of capital while gradually paying back the initial investment to investors.

Given the need to generate the long-term growth of the VC market through the structuring forces of a large and well established VC ecosystem, an evergreen approach would need to be driven by a strong institutional actor with a long-term approach to structuring the market, not only focused on making medium-term returns.\(^3\) The EIF would be a candidate for such a role potentially, but there are also examples of national FoF operators that have implemented an evergreen approach (e.g.

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\(^3\) Financial Instruments fit for Europe’s future - Thoughts on a new pan-European fund-of-funds scheme

Reflection Group – Spring 2013 Memo By Christian Motzfeldt, Ceo, Vaeksfonden, 18.03.013

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Operational issues

The role of evergreen funds in other EU financed schemes such as some ERDF-backed funds can also be noted. If return considerations are the prevailing interest, then an evergreen approach will not be realistic unless driven by public stakeholders concerned with the restructuring of the VC market.

3.3 Alignment of interest

The alignment of interests of all parties is obviously desirable but also poses potential issues. All parties have an interest in the ensuring the success of a FoF, but the means by which any profits are distributed, risk is borne, and sectors are targeted will need to be carefully considered. There will be a need to determine what the key interests of each party are throughout the lifecycle of the FoF. It is possible that some of the key objectives of each party could include:

- **Managers** – enhancement of reputation from running a successful fund, which is necessary for raising funds in future, combined with a good level of remuneration through structured incentives
- **Private investors** – a good return on capital invested, with opportunities for returns on investment that are more attractive than other investment opportunities
- **Public investors** – the encouragement of successful enterprises which assist the economy, and minimising costs and risks to public funds. A further objective could be to encourage private sector involvement without crowding out the market

Stakeholder feedback confirmed that whilst there is a consensus among investors, FoF managers, VC managers and public sector stakeholders that there needs to be alignment of interest, there are divergent views on what this should mean in practice. There are links to the issue of the returns policy of a public-private FoF and the merits and drawbacks of a paripassu approach as opposed to asymmetric returns (see Section 4.4.2).

Some stakeholders agreed that there was an acceptable trade-off between giving public investors a lower rate of return, in exchange for providing public sector investors with greater capital protection and avoiding downside protection (which would risk accusations of privatising the profits and socialising the costs). The division of profits between managers and private investors needs to be decided by agreeing an appropriate performance based fee for managers so their interests are aligned with investors. The guaranteed return to managers – the management fee – could be minimised.

Fund managers are incentivised financially through a combination management fees and carry. Fees are used as a means of attracting and supporting highly specialised investors, while the performance fee (‘the carry’) is often the strongest financial driver motivating strong performance. Incorrectly structured incentives can induce managers to take unnecessarily risks or to simply walk away from initial investments if there is a low chance of securing sufficient returns to meet performance fee targets. Long term performance is incentivised throughout the lifecycle of the fund by the fee structure, but equally important is the reputation of the fund managers that hope to raise capital for funds in the future. Without adequate returns, investors will punish managers by placing investments in the hands of other funds or in alternative investment classes.

Fund managers should also be required to commit own capital in order for their interests to be aligned with that of the EU as a cornerstone investor and other investors. Nevertheless, compared to the overall investment volume, their commitment will likely be small (circa 5%). Alignment of interest is important in order to be able to ensure that the FoF manager sticks tightly to the

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74 [http://www.northwestevergreenfund.co.uk/](http://www.northwestevergreenfund.co.uk/) - the North West Evergreen Fund exists to support the delivery of commercial property and infrastructure projects in Greater Manchester, Cumbria, Cheshire and Lancashire. The fund is supported by the ERDF and the JESSICA Programme.
Operational issues

committed investment strategy agreed with LPs. Hurdle rates may have to be imposed to ensure that manager’s rewards are aligned with LPs’ interests.

For public investors, generating jobs and regional economic growth is the underlying objective which is not necessarily met through the development of a venture capital market, and the rewards are often only visible in the medium to long term, outside the scope of the political cycle. When public investors issue other types of financing to industry, such as grants or direct financing, there is often a requirement for visibility and accountability, meaning that a clear link between public sources and policy outcomes need to be established. In a FoF model, the links – both in terms of reputational advantages and the need for accountability – are tenuous. A key issue will be to balance the interests of the various institutional types throughout the lifecycle of the FoF, with a balance in terms of risk and rewards that make the FoF favourable vis-à-vis the alternative uses of the significant amount of capital required for achieving the objectives of the fund.

Some stakeholders expressed concerns about the alignment of interest relating to the objectives of the fund and potential differences between the public and private sectors. A large pool of financing is potentially fraught with political obstacles that could prevent the proper structuring of the FoF, with political objectives eroding the structuring effects of the fund. Venture capital itself occupies a difficult place within the financing system, with a need for risk. Political considerations and the need for accountability tend to bias decisions toward a conservative position.
4. **EXIT MECHANISMS AND RETURNS**

An important issue in setting up and operating FoF is that due attention is given to putting in place adequate exit mechanisms from fund of funds investments, and attractive alternatives for both the public and private sectors. Options and measures enabling the Commission as a public investor to withdraw from a FoF and the circumstances – including returns – under which this would be appropriate are considered here. The priorities and concerns of the public and private sectors respectively as regards exit mechanisms and strategies may well differ, for example:

- **Public sector** – scope to exit investment in fund early, subject to performance targets having been met, prior to fund closure, to leave potential upside for private investors. This can free up funds to invest in new FoF so that more SMEs benefit and additional leverage is generated.

- **Private sector** – the private sector is usually willing to invest for a 10 year period in FoF. Key considerations include the level of penalty if investors withdraw their funds early before fund redemptions, to what extent are there mechanisms for early exit by the public sector once a certain level of RoI has been achieved, leaving private sector investors remaining in the FoF with the potential upside and what are the opportunities to exit via sale in the secondary market (which makes up roughly 20% of the entire market).

More general challenges might be faced by a potential FoF as regards exit mechanisms. Exiting early from a fund, and the fund closure process might be problematic or drawn out if the European economy slipped back into recession. While aggregate data on the divestment of European FoF from underlying funds could not be obtained, an analysis of disinvestment of private equity funds from portfolio companies illustrates the relative importance of different exit mechanisms. Such data are provided annually by EVCA and the table below shows the amount of disinvestment in the years 2012 and 2013, the latest for which data are available. The values are the costs of investments – not the proceeds.

**Table 119 - Fund disinvestment in 2013 and 2014 (market statistics)**

<table>
<thead>
<tr>
<th></th>
<th>€billion 2013</th>
<th>€billion 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Sale</td>
<td>1.145.110</td>
<td>844.561</td>
</tr>
<tr>
<td>Public offering</td>
<td>302.098</td>
<td>198.189</td>
</tr>
<tr>
<td>Write-off</td>
<td>353.014</td>
<td>334.926</td>
</tr>
<tr>
<td>Repayment of silent partners</td>
<td>40.452</td>
<td>31.441</td>
</tr>
<tr>
<td>Repayment of principal loans</td>
<td>52.408</td>
<td>62.118</td>
</tr>
<tr>
<td>Sale to another PE firm</td>
<td>144.170</td>
<td>209.444</td>
</tr>
<tr>
<td>Sale to financial institution</td>
<td>23.859</td>
<td>66.109</td>
</tr>
<tr>
<td>Sale to management</td>
<td>130.265</td>
<td>103.263</td>
</tr>
<tr>
<td>Other means</td>
<td>18.920</td>
<td>14.550</td>
</tr>
</tbody>
</table>

Out of the € 37.8 billion of private equity divestment overall in 2014, exiting 2,416 companies, € 1.8 billion were accounted for by venture capital, representing 1,003 companies. When looking only at the VC market, trade sales are by far the most important exit mechanism. Public offerings are slightly

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75 Estimate by a FoF manager
76 EVCA 2015 Yearbook. Table 38. By country of the portfolio company
Exit mechanisms and returns

less important, although often the proceeds are higher because it is the successful investments that are sold in this way. Write-offs also make up a considerable share, demonstrating the high risk involved in investing in this asset class.

The relative importance of various exit mechanisms in the private equity market has changed somewhat over recent years, with trade sales and public offerings increasing in importance while write-offs have more or less stagnated. This is illustrated in the figure on the following page.

Figure 12 – Private equity divestments at cost by exit route

Apart from private equity, business angels play a considerable role in seed and early-stage funding and it is thus useful to examine divestment patterns in that sector as well. Data from the European Business Angel Network (EBAN) is more difficult to obtain than data from EVCA. The EBAN statistics compendium states that: “Investors and networks of investors are more used to report investments than exits. In many occasions, especially in the context of business angel networks, these are difficult to track as investors hold no obligation to report back to the network. Nevertheless, according to the figures reported, exits represented 6% of the total deals of a network and in 53% of the situations they generated a positive return to the investors”.

Most commentators indicate the long-term nature of investments, with terms of 10 or more years being common for successful investments. Typically, some investments will fail at an early stage whilst the successful investments will take longer to mature. So a fund may lose value in its first years and then increase – which results in a J shaped value curve.

A report by DG ECFIN at the European Commission based on an analysis of European venture capital and private equity funds demonstrated the J-curve effect. The analysis showed the increasing IRR as funds matured and realised investments. For the first few years, IRRs are negative.

77 EVCA 2014 Statistics on Fundraising, Investments & Divestments
Exit mechanisms and returns

Table 20: Pooled IRRs of European venture capital and private equity funds

<table>
<thead>
<tr>
<th>Age of fund</th>
<th>1 year</th>
<th>2 years</th>
<th>5 years</th>
<th>10 years</th>
<th>20 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years covered</td>
<td>2003</td>
<td>2001-03</td>
<td>1999-03</td>
<td>1994-03</td>
<td>1984-03</td>
</tr>
<tr>
<td>Early stage</td>
<td>-13.1</td>
<td>-11.1</td>
<td>-1.8</td>
<td>1.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Development</td>
<td>-7.2</td>
<td>-4.8</td>
<td>4.6</td>
<td>10.7</td>
<td>9.1</td>
</tr>
</tbody>
</table>

Source: DG Ecfin

In this analysis, early stage funds are often only marginally profitable, and that it is the later stage funds which are the most profitable. In all cases, there is a pronounced J-curve effect making early exit unprofitable.

It will be important to draw upon previous studies in order to derive benchmarks as regards reasonable expectations as to the typical exit period for individual enterprises. For instance, among the 16 UKIIF supported firms that participated in an Early Assessment of the UK Innovation Investment Fund “recipient businesses’ fund exit timescale ranged from 1-7 years, averaging 4 years”. There may be broader considerations as regards exit mechanisms relating to specific businesses. For instance, the Early Assessment of the UK Innovation Investment Fund noted that there are some concerns as regards “keeping businesses within the UK after trade sales and next stage VC investments”.

This relates back to the concerns identified earlier that the best European SMEs benefiting from early stage equity capital are acquired by US investors who then reap the benefits.

Withdrawing from a FoF should be feasible for both public and private investors, given that secondary markets now make up roughly 10-20% of the market overall (up from 1% 10 years ago). Moreover, valuations are fair which should ensure that investors will be able to recoup their initial investments.

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79 Profitability of venture capital investment in Europe and the US, DG ECFIN, ECFIN/L6/REP/50386-EN, March 2006
81 Estimates by a FoF manager interviewed for this assignment
4.1 Returns

Among the issues for consideration relating to the level of investment return are:

- What is an appropriate performance measurement tool/parameter to assess the performance of a fund of funds?
- What rate of return should a FoF or several FoF target?
- Should returns be distributed (a) symmetrically or (b) asymmetrically?

**Introduction – measurement techniques for assessing VC performance**

Before considering what might be an appropriate level of target return for individual fund of funds within a European FoF programme, it is first necessary to assess what is the most appropriate tool to assess the performance of fund of funds, such as:

- **IRR (internal rate of return)** - calculating investment returns as an annualised effective compounded rate of return is the most common traditional method. However, a disadvantage is that IRRs are time-specific and may not be appropriate for high-risk investments where the timeframe for achieving exits and divesting is uncertain. Unlike with later-stage investments such as in buy-out, VC investments may still generate a high return multiple of the initial investment after several years, even though this means that the IRR is rather low. Conversely, a high IRR only measures performance at a certain point of time but does not guarantee a particular return at fund closure.

- **Investment multiples** – it may thus be more appropriate to calculate the target returns of FoF by focusing on the prospective multiple that a FoF is likely to achieve over its lifetime. This method is often used by venture capitalists since it provides a return which can be compared across investment projects. Under this approach, unlike under IRR, the time value of money is not considered.

In addition, there are many different ways in which fund managers may benchmark their performance compared with other asset classes, which is another way of assessing whether their performance is acceptable to investors. This has the advantage of accounting for general trends in the economic cycle as performance is measured in comparison with other investment opportunities.

- **Benchmarking FoF performance returns against other asset classes. Examples:**
  - Base interest rate – a typical level that may be expected from VC investments is 300-600 basis points (3%-6%) above the public market index
  - Stock market performance of index tracker plus – 4-6%

According to research by EVCA, there are a number of different methods of calculating the IRR, as summarised in the following table:

**Calculating IRR**

A summary of the methods used by EVCA to calculate IRR are as follows:

- **IRR – internal rate of return** - the interim net return earned by investors (limited partners) from the fund from inception to a stated date. The IRR is calculated as an annualised effective compounded rate of return using daily or monthly cash flows to and from investors, together with the quarter end valuation of the fund’s unliquidated holdings or residual value as a terminal cash flow to investors.

- **Pooled IRR** - this is an IRR obtained by taking cash flows since inception together with the residual
value for all funds and aggregating them into a pool as if they were a single fund. This is superior to either the average, which can be skewed by large returns on relatively small investments, or the capital-weighted IRR, which weights each IRR by the capital committed. This latter measure would be accurate only if all investments were made at once at the beginning of the funds’ life.

**Horizon IRR** - allows for an indication of performance trends in the industry. It uses the fund’s net asset value at the beginning of the period as an initial cash outflow, and the residual value at the end of the period as the terminal cash flow. The IRR is calculated using those values, plus any cash actually received into or paid by the fund from or to investors in the defined time period (i.e. horizon).

*Source: EVCA*

### Data considerations in relation to target returns

We now consider what might be an **appropriate target level of return for investors** that would be sufficient to attract European and international investors, whilst at the same time being realistic for top-performing and for FoF managers.

As illustrated in section 2.1 on the historical performance of venture capital funds, the returns from VC investments have been low over the last 10 -20 years and lower than those funds which specialise in buyouts or later stages. Further, seed and early stage returns have achieved a lower IRR than later stage VC returns. Generally only the top-quartile seed or early stage funds provide acceptable performance (the 10 year horizon IRR of 9.49%). EIF data from 2015 shows more encouraging results as 15 exits with valuations above $ 100 m generated approximately $ 10 bln in exit value.\(^8^2\) At the same time, the vintage years 2007-09 yielded IRRs from 19.1% up to 55.8%.

The low or negative rate of return in seed and early stage investment is a common perception that may deter private investors from investing in the European VC asset class. It is therefore important that the future fund of funds sets a target return that is appropriate.

Most VC fund and FoF managers are reluctant to disclose what rate of return or investment multiple they target. However, some were willing to provide more general targets for the industry or reveal figures on the condition that they were not quoted. Although the international benchmarking analysis identified some data on expected performance FoF, such as the actual internal rate of return (IRR) or even expected rates, this was only rarely available.

, It is important to distinguish between public and private funds when considering the level of expected return:

- **Private funds** - *set-up with the sole objective of generating private economic returns for LPs and which must generate competitive returns to be able to raise new investments funds and:*

- **Public FoF or national/ regional VC funds** - *which often have additional public policy objectives, such as building a strong ecosystem and maturing the market and which may not need to attract private investors to subsequent funds.*

Public equity funds may have politically motivated constraints with regard to the sectors and geographic areas that they can invest in. This is one of the reasons why fund performance for publicly-backed VC has typically been several percentage points lower than the comparable fund performance of entirely private sector funded and managed FoF.

Thus, when looking at the rate of return possible future FoF should target, it is key to determine which type of investors the FoF programme and individual FoF supported within it will be supporting and in particular, whether this will be predominantly public or private at the FoF level. If the

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\(^8^2\) European Venture Capital The Facts. Patric Gresko European Investment Fund. Presentation
Exit mechanisms and returns

Investors are public, then they are often ready to accept a lower return on investments if the intervention contributes to maturing the market and/or socioeconomic returns. This is not the case for private investors who will focus on the target return, risk and expected return from other asset classes etc.

Further consideration of key issues relating to different types of investors in a FoF is considered in Section 5.2.6 (Investors and sources of funding for European seed and Venture Capital).

Target rate of return for investors in FoF

In summary, the main findings from the data collection through benchmarking on the returns expectations from investors (including differences between expectations among public and private investors) are outlined in the table below:

Table 21- Feedback on return expectations of investors – public and private

<table>
<thead>
<tr>
<th>Performance measures</th>
<th>Public investors</th>
<th>Private investors</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRR (internal rate of return)</td>
<td>10-15%</td>
<td>15-25%</td>
</tr>
<tr>
<td>Investment multiples</td>
<td>2-2.5</td>
<td>3-5</td>
</tr>
<tr>
<td>Benchmarking against other asset classes</td>
<td></td>
<td>300-600 basis points above public market index</td>
</tr>
</tbody>
</table>

The return achieved by private and/or public investors in venture capital FoF is strongly linked to the return generated through investment in underlying VC funds. A number of interviewees highlighted that the target rate of return which private investors would find attractive has decreased in the last couple of years, partly reflecting lower returns expectations in a prolonged low-interest rate climate. At the same time, the performance of European VC funds has increased in the past 2-3 years. This has improved optimism when it comes to the prospects of raising new funds, at least among the best performing funds.

Several fund managers consulted for this study have mentioned that they had set target Internal Rates of Return of around 25% when they conducted their most recent fund-raising but accepted that a target IRR of 15-20% would be sufficient to generate interest from private investors when fundraising for their next fund. In general, the research found that LPs are satisfied if they can generate an annual return of 15%. The reasons for the decreasing acceptable target rate of return are among others the low returns provided by other assets classes such as bonds. The stock market was also perceived as being at a very high level, with doubts that the level of increase in share prices can be sustained. Over the lifetime of the fund this equals a net multiple of 2-2.5 X depending on when the committed capital are drawn into the fund, the life time of the fund, fee and carry etc.

Several investors interviewed stated that in the VC market, investors are more concerned about the multiple achievable on their original investment rather than on the IRR. One investor commented that a “multiple of three times the initial amount invested would be very acceptable to most investors, and four times would be outstanding.

If the expected rate of return is expressed as a benchmark to other assets classes, some stakeholders mentioned that a satisfactory return would be the bank base rate plus 4-6%-points or a return that can at least match the expected return from the most relevant stock market indexes such as the DAX and FTSE in Europe or the Russells 2000 in the US. Due to the high risk perceived to be associated with investments in European VC, the ratio between risk and the return on investment should in general be higher than for benchmarks where there is a lower level of risk.
Exit mechanisms and returns

It has also been highlighted that corporate investors can sometimes have lower demands for rate of return on their investment if they get access to an interesting portfolio of companies, insight into new technologies, or the latest market trends etc.

The level of rate of return that could attract private investors to invest in pan-European VC FoF is likely to be similar to the target rate for venture funds. In our interviews, we have come across experienced FoF managers that have been able to generate an annual return on investment of 15-20% and a net multiple of 2-2.5 (and sometimes as high as four times). Such returns have made it possible for them to raise additional investment vehicles which indicate the private investors have been satisfied. It should however be emphasised that the duration of investments in VC funds (six to ten years) and in private fund of funds (ten to twelve years) varies, which correlates with the investment multiple possible within the timeframe.

An example of a FoF was identified which provides downside protection for the public sector and is therefore able to practically guarantee a minimum, relatively modest return on investment. However, such examples are rare and may be controversial among public funders and / or EU tax payers. Even when asymmetric returns have been integrated into FoF models, attracting investment has turned out to be a “hard sell” to certain types of investors, especially institutional investors. The research identified only limited support for downside protection, with much greater support among investors and other stakeholders for allowing investors (public or private) to capture the potential upside.

There are some data limitations in the analysis since many private equity players and GPs were not willing to make data on IRR available, but instead provided ballpark estimates of industry norms. A few investors have also pointed out that expected IRR for both FoF and VC funds are of limited importance since the fund might not achieve the goal. When they do there due diligence on VC funds they therefore look much closer at experience of the management team and the investment and due diligence process than the target rate of return.

In summary, the limited data that we have been able to collect indicates that:

- Expectations regarding returns on investment and the underlying funds’ performance can differ quite considerably between public and private investors.
- An expected return on investment of 7% is at the bottom range of what can generate interest from private investors, compared with -2% to 5% for publicly backed FoF.
- Annual return on investments of 15% and a net multiple of 2-2.5 X and up over the lifetime (10-12 years for a private fund of funds) would generate considerable interest from private investors.

In addition, while for private investors the return on their investments will likely be their main if not the only consideration in their decision-making, for public actors other considerations such as regional distribution of funds, sectorial focus, and long-term policy goals play important roles, too. Given these differences, it may be opportune for the EU as the key public investor in a pan-EU FoF to withdraw at an earlier stage than private investors to allow them to reap the main benefit, provided the underlying funds are performing well on average. In case a pan-EU FoF is not performing well, FoF managers consulted in 2012 argued that the Commission should not hesitate to shut down such a fund.83

In conclusion:

- Top-quartile funds led by globally-leading fund managers may achieve 25%-35% returns but it would be more realistic to set a target IRR of circa 15-20%.

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83 European Commission DG ENTR Mission report — EVCA Venture Capital Forum, Amsterdam, 11-12 October
Exit mechanisms and returns

- Consideration should be given to focusing investment returns based on a multiple of the original investment rather than on IRR since this better reflects how VC works as an investment (since the timeframes over which the optimal returns are achieved and profits from exits disbursed are not easy to predict). This multiple should be in the order of 2.5-5 times the investment.

While IRR should also be used to monitor the performance of a FoF, private investors will mainly expect a multiple of their investment as a return. This should be taken into consideration when devising the strategy to attract investors. Symmetric vs. asymmetric distribution?

This raises a question as to how the private sector might be attracted to invest in FoF, given the higher level of risk unless there is some form of additional incentive or mechanism for investors to capture the potential upside. Reference should be made here to the issues examined earlier under the heading on risk-sharing and pari passu.

4.2 Pari passu vs Asymmetric distribution

A report on the Evaluation of the Danish Growth Fund\(^\text{84}\) sets out the debate with regard to the relative merits of a pari passu approach as opposed to asymmetric returns. Given that the combined social and economic returns of a successful investment programme to a government are likely to be greater than the financial returns gained by private investors, in order for public FoF to be successfully implemented in the longer-run, it is generally appropriate that schemes structure incentives that ensure continued interest and engagement from the private sector – i.e. that schemes provide some asymmetric rewards. However, there are no rules as to what the specific incentives should be – there are many options – but a well-designed and well-implemented programme should aim to attract all parties in early-stage VC activity. The table below summarises stakeholder views on the pros and cons of pari passu and asymmetric distribution.

Table 22 - Summary of stakeholder views on pari passu and asymmetric distribution

<table>
<thead>
<tr>
<th>Stakeholders views on advantages pari passu</th>
<th>Stakeholders views on advantages asymmetric distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymmetric investments bias investment decisions that should be made exclusively on the economic merits and business potential. Investors gaining asymmetric distribution benefits are likely to act in part because of the additional or bonus incentives offered regardless of the underlying quality of the firms in which they are asked to invest.</td>
<td>The difficulties of early-stage investing are legion and it may be entirely rational for private investors not to undertake any seed or early stage VC activity. E.g. VC firms may not do start-up investment or make initial investment under a certain size. The paucity of seed, start-up and early-stage VC activity across Europe supports their concerns.</td>
</tr>
<tr>
<td>Asymmetric rewards are in danger of producing unreliable investors as they allow investment managers not to have to strive as hard as when such incentives are not present. There is a risk that managers, like investors, become beguiled by unearned benefits.</td>
<td>The government has a legitimate role in improving incentives to private investors by adjusting the distribution of rewards from successful investments asymmetrically to reward private investors. This preference should be made as government gains additional spillovers and externalities and the social and economic returns to an enterprise investment that may be significantly larger than the private returns can</td>
</tr>
</tbody>
</table>

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Exit mechanisms and returns

<table>
<thead>
<tr>
<th>Stakeholders views on advantages pari passu</th>
<th>Stakeholders views on advantages asymmetric distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pari passu allow the public architects of a VC scheme to move more quickly as asymmetric schemes are much more likely to be held up in the approval process at EU level because of their potential conflict with equity and competition regulations.</td>
<td>capture.</td>
</tr>
</tbody>
</table>

In practice, pari passu and asymmetric models have been developed according to the circumstances in which the FoF is set-up, the specific aims and objectives of public sector funders and the cornerstone investor(s), and on perceptions as to how difficult it is likely to be to attract private sector investment.

There are several examples of fund of funds set-up at the national level that have adopted a pari passu approach. For instance, the High-Tech Gründerfonds in Germany is in favour of the pari passu model on the basis that it helps to reinforce the public-private partnership approach. They do not wish to be included on a different basis from the private VC investors who are their partners.

The British Business Bank’s predecessor, Capital for Enterprise Ltd (CfEL), which was sponsored and wholly owned by UK Department for Business, Innovation and Skills, favours the clarity of pari passu but simultaneously recognises that the state’s capping of its own returns has a significant leverage effect on the returns of private investors, so it also practised some asymmetry.

During the economic crisis, UKIIF was set-up in the UK (now managed by the British Business Bank). Two funds of funds – the UK Future Technology Fund and the Hermes Environmental Protection Fund - have been set-up on a pari passu basis with other private investors to invest into selected underlying specialist VC funds in the UK and Europe.

A number of examples were also identified of FoF that have adopted an asymmetric returns model.

The Finnish VIGO programme is in favour asymmetric benefits. The ability to provide attractive incentives to private investors was viewed as being central to facilitate private investment into the in the seed market and to high-risk innovative enterprises, especially those focused on new-technologies. The VIGO programme is however structured in such a way that asymmetric rewards are only realised by private sectors once particular performance thresholds have been exceeded and when a real profit is generated.

The seed and pre-seed VC schemes structure in the Netherlands (the Innovation Fund SME+ (Innovatiefonds MKB+)) is also based on an asymmetric benefits model. These schemes have been designed to reward private investors once a fixed level of return has been achieved by the national authorities funding the seed capital programme. As in the example from Finland, there are important conditions attached to paying out asymmetric returns to investors. Moreover, the private sector does not capture all of the upside. If the investment goes on to make sufficiently good returns, the third stage of the funding commitments will align more with a pari passu structure.

However, there was not much support among stakeholders for downside protection. Among public sector investors, there were concerns that this could be tantamount to “privatising the gains and socialising the losses” and among private sector VC funds and FoF, there was a preference for shared risks and no downside protection in exchange for allowing the private sector to capture more of the upside, given their reluctance without incentives to invest in seed and early stage VC. The interview programme feedback in Sweden found that stakeholders recognised the need for an asymmetrical structure for a possible future FoF to make investing in a fund of funds attractive enough to private capital. Many respondents highlighted that private capital would already invest in VC funds if the
Exit mechanisms and returns

investment were attractive enough, but VC investments have had too low a profit margin historically and the scale of underlying VC funds to invest in is currently too small. Therefore, it was viewed as imperative that a fund of funds was created based on a structure that increased the incentives for private investors to participate on a basis which would enable them to generate a higher profit margin than the public sector or if the public sector wished to exit early, allow them to capture the upside.

Examples of FoF where ‘downside protection’ is offered were identified, for instance in some German schemes where protection for the private sector kicks in when losses are greater than 50% of funds invested. This de-risking mechanism can be attractive to private investors and generate greater fund growth. However, downside protection in European FoF was the exception rather than the rule. Among the disadvantages of downside protection identified was:

Increased risk of poor investment decisions by FoF managers and lack of scrutiny if LPs know that their losses will be covered.

Following large-scale interventions by the public sector to bail out the financial sector, there may be unwillingness among public sector funders to offer downside protection due to concerns as to whether this would be deemed acceptable by national and / or European tax payers. Potential losses would be disproportionately under the responsibility of the public sector.

Most stakeholders interviewed recognised that it was more realistic for a FoF to offer potential upside to the private sector than downside protection. The importance of aligning interests between public and private sectors through shared risks and rewards was also highlighted.

Turning to international experience, in Canada, the VCAP scheme has put in place a relatively generous asymmetric returns structure (see the case study in Appendix B). Under this scheme, the private sector captures the upside of returns should the fund perform well and can also exit early. The public sector, in turn, invests first but exits last. These incentives are partially intended to offset geographic limitations (one third of investments need to be invested in Canadian companies and the underlying VC funds are required to have a presence in Canada). Public LPs only get their investment returned only once a certain IRR for private investors has been achieved. Private LPs again get additional return on their investment up to a certain level after which the public LPs then receive their return on investment. The precise details in terms of the returns structure are confidential.

Experience from the Innovation Investment Fund (IIF) in Australia of co-investment funds have raised over $640 million to accelerate commercialisation suggests that many institutional investors would prefer the government to lower its asymmetric rewards in return for a government-guarantee against private investment losses (“downside protection”). However, as noted above, in Europe, there was little stakeholder support for incorporating downside protection into a FoF model.
STATE AID AND COMPETITION CONSIDERATIONS

In examining the practical implementation of a pan-European FoF programme, it was important to take into account state aids considerations and related competition issues. In addition, it has been necessary to analyse EU guidance on state aids to support the regulations, for instance, relating to the remuneration of financial intermediaries (in this case, FoF managers).

Relevant EU regulations and guidance relating to the setting up of new financial instruments were reviewed, in particular:

- **Title VIII of the EU Financial Regulation** – sets out the EU’s rules on financial instruments schemes (applicable to the general budget of the Union and its rules of application). It addresses state aid and competition issues.

- **Article 21 of the revised General Block Exemption Regulation (GBER), 2014**[^85], which addresses aid for access to finance for SMEs - Risk finance aid.

- **The 2014 Guidelines on State Aid to promote Risk Finance Investments**[^86] - 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.

The above Regulations and guidelines were reviewed both in order to check the formal compliance requirements and how these might be applied in the context of a FoF programme in which a number of financial intermediaries were appointed as FoF managers. A number of relevant issues emerged from the research, in respect of:

- Whether state aids apply and if yes, these are eligible
- Minimum requirements for private leverage for state aids under eligible risk financing schemes (and maximum EU intervention rates) relating to risk financing schemes investing in different types of underlying undertakings e.g. start-ups, existing SMEs).
- Whether an asymmetric approach is possible under state aid and competition rules.
- Information on first principles in determining the remuneration and performance incentives structures of financial intermediaries (in this case, FoF managers).
- State aids (e.g. to final beneficiaries, to financial intermediaries, to investors), may be eligible provided that the aid fulfils all the eligibility requirements provided for risk finance aid under the **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).
- Pending certain exclusion criteria laid down in Articles 106-109 of the Financial Regulation (e.g. bankruptcy, misconduct, misrepresented information, previous financial penalties, etc.) private managers can be supported as financial intermediaries or as managers of Dedicated Investment Vehicles (Art. 221 RAP).
- **The maximum public intervention rates by category of undertaking are set out in Art. 21** of the revised GBER. These are based on the underlying undertakings (i.e. in the case of a FoF, the ultimate beneficiaries that VC funds rather than the fund of funds invest in). There is a sliding scale for the maximum intervention rate, depending on whether the firm is a start-up or an established firm of up to 7 years or >7 years.


The maximum EU intervention rates and minimum requirements for raising private sector co-financing have been divided into three levels to reflect the degree of risk take in the final investee (see Art. 21(10).

- Funds specialised in seed capital. Minimum leverage on private capital required is 10%
- Companies that have started training and were founded up to 7 years ago - 40% must be leveraged from private sources
- Companies established more than Investment that occurred after 7 years - 60% must be leveraged from private sources.

If a FoF were to be multiple investment-stage, then the above minimum private leverage ratios would be calculated as a weighted average in order to reflect the composition of the underlying portfolio. Given the anticipated cumulative leverage to be achieved through a FoF structure, it appears unlikely that there would be problems in raising the necessary capital to ensure that the private leverage ratios set out in the GBER are respected.

As laid down in Art. 21(9), this specifies that aid of up to EUR 15 million can be given per eligible undertaking. A pan-European FoF programme would still be compliant with the state aid rules set out in Art. 21, since state aid of up to €15m per eligible undertaking relates to the final individual businesses in which underlying VC funds invest rather than the size of investment in VC funds. For an individual firm, this represents significant, later stage expansion capital.

In order to check that it complies with the GBER on Risk finance aid, the investment strategy for selecting firms and the size of investment in eligible undertakings would need to be specified upfront.

The Guidelines on State Aid to promote risk financing suggest that a pari passu approach between public and “private” investors is the most common model for EU financial instruments schemes to date. However, under Point 31 (page 10), the EIB and the EIF are considered as private investors. Provided that market failures can be demonstrated in attracting other private sector investors to invest in at particular investment stages (e.g. seed, early stage), asymmetric returns could potentially be justified under Point 36. This states that under the heading “Aid to investors” that “where a measure allows private investors to carry out risk finance investments into a company or set of companies on terms more favourable than public investors investing in the same companies, then those private investors may receive an advantage (non pari passu investments). Such an advantage may take different forms, such as preferential returns (upside incentive) or reduced exposure to losses in the event of underperformance of the underlying transaction compared to the public investors (downside protection)”.

Asymmetric returns would need to be approved by DG COMP. A favourable assessment would depend on the level of asymmetry being proposed, and whether this was proportionate relative to the scale of market failure. The guidelines clarify that aid to investors can be considered when the scale of investment from the private sector is considered “economically significant”, defined as a minimum of 30% private investment.

Turning to the remuneration of financial intermediaries, remuneration arrangements would have to be along commercial lines, but there is a strong emphasis on avoiding overly generous management fees and putting the stress on performance-related incentives packages for financial intermediaries.

Guidance is provided in Art. 21 of the GBER. Art 21 (15b) states that: “their remuneration shall conform to market practices. This requirement is presumed to be met where the manager or the financial intermediary is selected through an open, transparent and non-discriminatory selection call, based on objective criteria linked to experience, expertise and operational and financial capacity;
State Aid and Competition Considerations

- There are also relevant points in the State Aid Guidelines on under “Aid to a financial intermediary and/or its manager”.
  - **Point 142** - the financial intermediary or the fund manager may co-invest alongside the Member State, as long as the terms and conditions of such a co-investment are such as to exclude any possible conflict of interests. Such co-investment could incentivise the manager to align its investment decisions with the set policy targets. The ability of the manager to provide investment from its own resources can be one of the selection criteria.
  - **Point 143** - the remuneration of the financial intermediaries or the fund managers, depending on the type of risk finance measure, must include an annual management fee, as well as performance-based incentives, such as carried interest.
  - **Point 145** - the level of performance-based remuneration should be justified based on the relevant market practice. The managers must be remunerated not only for the successful disbursement and the amount of private capital raised, but also for the successful returns on investments, such as income receipts and capital receipts above a certain minimum rate of return or hurdle rate.
  - **Point 147** - as financial intermediaries or their managers, as appropriate, must be selected through an open, transparent and non-discriminatory call, the overall fee structure can be evaluated as part of the scoring of that selection process and the maximum remuneration can be established as a result of such selection.

The new EU Financial Regulation[^1] has applied since 1st January 2013, which is accompanied by new Rules of Application (RAP) [^2]. The EU Financial Regulation states that the Commission may implement financial instruments either directly — i.e., EU budget provided to a DIV or directly to financial intermediaries — or indirectly — i.e., EU budget provided to an entrusted entity that, on behalf of the Commission, provides financing to DIVs or to financial intermediaries or final beneficiaries.

An alternative is that if the EC decided not to manage a FoF programme itself but to entrust management its management to another entity, then a series of steps would need to be followed, as laid down in Art. 139 of the Financial Regulation:

1. Publish a call to potential entrusted entities including selection and award criteria and asking entrusted entities interested to propose measures on alignment of interest
2. Open dialogue with interested entrusted entity/entities
3. Ensure that entrusted entities fulfil requirements of Art. 60(2) of Financial Regulation related to internal management, accounting, and a control systems
4. (Under some circumstances, enter into direct negotiations with potential entrusted entities)
5. Sign delegation agreements with the entity or entities that have submitted best value for money proposals, agreement to cover allocation of their own financial resources or risk-sharing.

Overall, the findings from the review of the legal framework for EU financial instruments and state aid did not find any major obstacles to going ahead with a pan-EU FoF programme.

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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.

Studies and reports